

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1860 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 BEING DONE.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993) AND AS MODIFIED BY GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE 1993)". A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREETLIGHT AND ANY TREE.
- THE TOPOGRAPHY SHOWN HEREON IS BASED ON AN AERIAL TOPOGRAPHIC SURVEY WITH TWO FOOT CONTOUR INTERVALS PREPARED BY POTOMAC AERIAL SURVEYS INC., DATED 2004.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 41C1 AND 0057 WERE USED FOR THIS PROJECT.
- ALL ASPECTS OF THE PROJECT ARE IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
- DEED REFERENCE: L 9351 F.200; PARCEL 179
- WATER AND SEWER SERVICE TO THESE LOTS WILL BE GRANTED UNDER THE PROVISIONS OF SECTION 18.122.B OF THE HOWARD COUNTY CODE WHICH WILL BE PROVIDED THROUGH CONTRACT NO. 34-4448-D. SEWER WILL BE PROVIDED THROUGH CONTRACT NO. 34-4448-D. PUBLIC WATER AND SEWER ALLOCATION WILL BE GRANTED AT THE TIME OF ISSUANCE OF THE BUILDING PERMIT IF CAPACITY IS AVAILABLE AT THAT TIME.

POINT	NORTH	EAST
201	548806.7284	1345349.28530
801	548639.2219	1345711.6831
903	548471.4212	1345566.2718
904	548300.8314	1345477.8384
206	548149.3218	1345388.9866
906	547996.7470	1345302.5326
208	547758.4475	1345283.2537
210	547580.1800	1345259.8399
209	547828.7891	1345189.1988
211	547182.7223	1344857.18439
212	547245.0078	1344724.14290
213	547242.5128	1344612.61268
214	547380.8206	1344496.84321
215	547423.1625	1344327.59598
216	547581.0044	1344143.68656
217	547759.9210	1344147.87678
218	547867.2921	1344019.66252
219	548783.5482	1345399.48912
902	548515.3522	1345596.15663
916	548693.5373	1345169.06969
925	548378.0397	1344742.5537

- STORM WATER MANAGEMENT TO BE PROVIDED FOR THIS DEVELOPMENT BY A POCKET POND AND WILL BE PRIVATELY OWNED AND MAINTAINED BY THE HOA. RANGARDENS WILL PROVIDE WATER QUANTITY FOR LOTS 29-32. REV IS PROVIDED BY GRAVEL TRENCH AND WQV IS PROVIDED WITHIN THE POCKET POND.
- FOREST STAND DELINEATION PLAN PREPARED BY ROBERT H. VOGEL ENGINEERING, INC., DATED NOVEMBER 2004.
- FOREST CONSERVATION PLAN PREPARED BY ROBERT H. VOGEL ENGINEERING, INC., DATED OCT. 2006.
- THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 18.200 OF THE HOWARD COUNTY CODE AND FOREST ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT; HOWEVER FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
- TOTAL FOREST CONSERVATION OBLIGATION IS 4.17 AC. TO BE FULFILLED BY RETENTION OF 2.04 AC (\$17,773). REFORESTATION OF 2.13 AC. (\$ 46,392.00) TOTAL FINANCIAL SURETY OBLIGATION IS \$64,165.00.
- STREET TREES ARE PROVIDED FOR THIS PROJECT IN ACCORDANCE WITH SECTION 18.124 (4) (i) OF THE SUBDIVISION REGULATIONS AND THE LANDSCAPE MANUAL. A FINANCIAL SURETY IN THE AMOUNT OF \$13,800.00 TO BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT FOR REQUIRED 46 PUBLIC STREET TREES.
- APFO TRAFFIC STUDY PREPARED BY THE TRAFFIC GROUP, DATED OCTOBER 3, 2008 AND APPROVED IN CONJUNCTION WITH SP-09-04.
- LANDSCAPING FOR LOTS 29-35 IS PROVIDED IN ACCORDANCE WITH A CERTIFIED LANDSCAPE PLAN INCLUDED WITH THIS ROAD CONSTRUCTION PER SET IN ACCORDANCE WITH THE SECTION 18.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
- ALL LANDSCAPING REQUIREMENTS AS SET FORTH IN SECTION 18.124 OF THE HOWARD COUNTY SUBDIVISION REGULATIONS AND THE LANDSCAPE MANUAL SHALL BE COMPLIED WITH.
- THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
- TO THE BEST OF THE OWNERS KNOWLEDGE, THERE ARE NO CEMETERIES, GRAVE SITES, OR HISTORIC STRUCTURES LOCATED ON THE SUBJECT PROPERTY.
- STREET TREES ARE REQUIRED FOR THIS SUBDIVISION IN ACCORDANCE WITH SECTION 18.124(e)(1) OF THE SUBDIVISION REGULATIONS AND THE LANDSCAPE MANUAL.
- A NOISE STUDY WAS PERFORMED BY ROBERT H. VOGEL ENGINEERING, INC., DATED OCTOBER 18, 2006. AND APPROVED BY HOWARD COUNTY. THE 65 DBA NOISE CONTOUR LINE DRAWN ON THIS SUBDIVISION PLAN IS ADVISORY AS REQUIRED BY THE HOWARD COUNTY DESIGN MANUAL CHAPTER 5, REVISED APRIL, 2005 AND CANNOT BE CONSIDERED TO EXACTLY LOCATE THE 65 DBA NOISE EXPOSURE. THE 65 DBA NOISE LINE WAS ESTABLISHED BY HOWARD COUNTY TO ALERT DEVELOPERS, BUILDERS AND FUTURE RESIDENTS THAT AREAS BEYOND THIS THRESHOLD MAY EXCEED GENERALLY ACCEPTED NOISE LEVELS ESTABLISHED BY THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT.
- NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE 100-YR FLOODPLAIN, WETLANDS, STREAMS, OR THEIR BUFFERS, EXCEPT AS SPECIFIED IN WP-05-87, AND WP-07-66. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENTS. NO DISTURBANCES ARE PROPOSED UNDER THIS REDESIGNED SUBDIVISION PLAN EXCEPT FOR ESSENTIAL PUBLIC SEWER LINE CONNECTIONS AND STORM DRAIN OUTFALL WEST OF LONG VIEW ROAD IN ACCORDANCE WITH SECTION 18.116(c) OF THE SUBDIVISION REGULATIONS.
- LOTS 13,14, LOTS 21-26, AND LOTS 29-32 WILL UTILIZE USE-IN-COMMON DRIVEWAYS. HOWARD COUNTY STANDARD DETAIL NO. R-6.03 WILL BE UTILIZED FOR THE ENTRANCE AT THE INTERSECTION OF THE PUBLIC ROAD AND EACH USE-IN-COMMON DRIVEWAY. R-6.03 FOR ALL DRIVEWAYS ACCESS PUBLIC ROAD EXCEPT LOT 18 R-6.05.
- REFUSE COLLECTION, SNOW REMOVAL, AND MAINTENANCE FOR LOTS 13,14, 21-26 AND 29-32 SHALL BE PROVIDED AT THE JUNCTION OF EACH PRIVATE USE-IN-COMMON ACCESS EASEMENT AND THE PROP. ROAD.
- TREE PROTECTION FENCING WILL BE PROVIDED AT THE LIMITS OF DISTURBANCE WHERE GRADING IS ADJACENT TO ENVIRONMENTAL AREAS AND RETENTION FOREST CONSERVATION AREAS.
- ALL SIGN POST USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE POST (1/4 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE - 3" LONG). A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON THE TOP OF EACH POST.
- THE SUBDIVISION PLAN IS SUBJECT TO THE FOLLOWING DPZ FILES, F-05-11, WP-07-66, WP-04-69 (VOID), BA-03-67C, BA-82-06, BA-89-10, BA-89-10, BA-79-16, SDP-09-33, & WP-05-06, WP-05-87 (VOID), BA-91-36E, AND WP-75-05, P-07-08, F-08-23, BA-08-02C, SDP-09-33, & WP-09-33, F-09-66, PB-384, WP-09-119, WP-09-122, F-10-12, SDP-10-03 AND WP-09-160, F-11-015.
- THE SUBJECT PROPERTY IS ZONED "R-20" IN ACCORDANCE WITH THE 2/2/04 COMPREHENSIVE ZONING PLAN AND THE COMP. LITE ZONING REGULATIONS EFFECTIVE 7/28/06, AND IS SUBJECT TO THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS EFFECTIVE 10/2/03 PER COUNCIL BILL 75-2003.
- THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. DEVELOPMENT OF ANY CONSTRUCTION OF THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION, OR BUILDING AND GRADING PERMITS.
- THERE ARE EXISTING DWELLINGS TO REMAIN LOCATED ON LOTS 4, 5, AND 6.
- EXISTING UTILITIES ARE BASED ON HOWARD COUNTY RECORDS AND FIELD SURVEY.
- THE WETLANDS DELINEATION STUDY FOR THIS PROJECT WAS PREPARED BY ECO-SCIENCE PROFESSIONALS, INC., DATED JANUARY 20, 2004.
- THE GEOTECHNICAL REPORT FOR THIS PROJECT WAS PREPARED BY HILLIS-CARNES DATED JUNE 26, 2006.
- WAIVER PETITION WP-07-66 WAS APPROVED ON 2/12/07. THIS WAIVER IS A DEPARTURE FROM SECTION 16.116(e)(2) TO ALLOW GRADING AND REMOVAL OF VEGETATION COVER AND PAVING DISTURBANCES WITHIN THE 50' INTERMITTENT STREAM BUFFER FOR THE CONSTRUCTION OF THE LONG VIEW ROAD EXTENSION INTO THE SITE WITH ASSOCIATED RETAINING WALL AND FOR THE CONSTRUCTION OF A USE-IN-COMMON DRIVEWAY TURN AROUND AND ASSOCIATED RETAINING WALLS WHICH PROVIDE ACCESS TO ACCOMMODATE RESIDENTIAL LOTS. THE WAIVER REMAINS APPLICABLE FOR THE STORM DRAIN OUTFALL AND THE SLOPES ADJACENT TO LONG VIEW ROAD.
- THE 100 YEAR FLOODPLAIN EASEMENT SHOWN ON THESE PLANS IS CONSISTENT WITH THE ELEVATIONS SHOWN ON PLAT NO. 17392 (F-05-11). THE DELINEATION OF THE FLOODPLAIN LIMITS HAS BEEN REVISED TO MATCH THE 100 YEAR WSEL AS PER THE HOWARD COUNTY SURVEY WITH THE FIELD RUN TOPOGRAPHY.
- LAND DEDICATED TO HOWARD COUNTY, MARYLAND, FOR THE PURPOSE OF A PUBLIC ROAD IS 0.97881 ACRES.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
A) WIDTH - 12 FEET (16 FEET IF SERVING MORE THAN ONE RESIDENCE)
B) SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING
C) GEOMETRY - MAXIMUM 14% GRADE, MAXIMUM 10% GRADE CHANGE, AND MINIMUM 45 FOOT TURNING RADIUS
D) STRUCTURES (CULVERTS/BRIDGES) - MUST SUPPORT 25 GROSS TON LOADING (H25 LOADING)
E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD EVENTS WITH NO MORE THAN A FOOT DEPTH OVER DRIVEWAY SURFACE
F) STRUCTURE CLEARANCES - MINIMUM 12 INCHES
G) MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE

40. DEVELOPER TO SUBMIT COPY OF ALL APPROVED DEMOLITION PERMITS, PHOTOGRAPHS OF BEFORE DEMOLITION AND AFTER CONDITION OF THE SITE, PRIOR TO THE SIGNATURE APPROVAL OF THE FINAL PLAT ORIGINALS.

41. A WETLANDS PERMIT IS NO LONGER REQUIRED SINCE DPW HAS APPROVED THE RETENTION OF THE EXISTING SEWER MAIN (CONVERSION FROM PRIVATE TO PUBLIC) WHICH ELIMINATES THE DISTURBANCE TO THE OUTFALL SEWER LOCATED ADJACENT TO THE RIVER. THE SEWER CONNECTION WHICH CONNECTS LOT 29 TO OPEN SPACE LOT 34 ACROSS THE STREAM WILL BE CONSTRUCTED BY JACK AND BORE AND WILL NOT REQUIRE A PERMIT. PVIOUS MDE PERMIT TRACKING NUMBER 2008-62340.

42. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING PROVIDED PER THE LANDSCAPE MANUAL TO BE POSTED WITH THE DEVELOPER'S AGREEMENT. THE TOTAL LANDSCAPE SURETY AMOUNT SHOULD BE \$26,040 (\$1 SHADE TREES X \$300.00-\$15,300.00 + 51 EVERGREEN TREES X \$150.00 = \$7,650.00 + 15 SHRUBS X \$30.00 = \$450.00 + 132 FEET OF WALL LENGTH X \$20.00 = \$2,640)

43. THIS PROJECT DOES NOT AFFECT BGE OVERHEAD ELECTRIC UTILITY LINES. ON-SITE UTILITY POLES ARE TO BE REMOVED, RELOCATED OR REMAIN AS NOTED.

44. THE SIGNATURE APPROVAL OF THE FINAL SUBDIVISION PLAT IS SUBJECT TO SUBMISSION OF DOCUMENTATION TO DPZ PRIOR TO OR CONCURRENT WITH THE SUBMISSION OF FINAL PLAT ORIGINALS CONCERNING THE REMOVAL OF ALL EXISTING STRUCTURES, PARKING LOTS, PRIVATE DRIVES AND OTHER SITE IMPROVEMENTS LOCATED ON THE SUBJECT PROPERTY.

45. THE PRIVATE 3" HIGH RETAINING WALL LOCATED ON OPEN SPACE LOT 35 TO BE PRIVATELY MAINTAINED BY THE HOA. GRAFFITI REMOVAL IS THE RESPONSIBILITY OF THE HOA.

46. THE PROJECT IS BEING DEVELOPED IN ACCORDANCE WITH SECTION 108.F OF THE ZONING REGULATIONS, DENSITY EXCHANGE FOR NEIGHBORHOOD PRESERVATION PARCELS. THE SITES IDENTIFIED AS RIVERSIDE ESTATES, LOT 10 (TAX MAP 41, GRID 12, PARCEL 253).

47. PRIVATE GRADE OF ADDRESS SIGNS AND PRIVATE ROAD STREET NAME SIGNS (SNS) SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DEVELOPERS/OWNERS EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-5752 FOR DETAILS AND COST ESTIMATES.

48. THIS PLAN IS SUBJECT TO BA-08-002C; APPROVED APRIL 21, 2008. FOR A CHARITABLE OR PHILANTHROPIC INSTITUTION; OFFICES AND EDUCATIONAL PROGRAMS CONATIONAL USES IN AN R-20 ZONING DISTRICT. APPROVAL SUBJECT TO THE FOLLOWING CONDITIONS:
1. THE AREA OF THE SITE SHALL BE REVISED AT THE SITE DEVELOPMENT PLAN STAGE TO COMPLY WITH THE 50-FOOT SETBACK REQUIRED BY SECTION 13.1.12.1.1 ALONG THE REVISED SITES LOT LINES. A LESSER REDUCTION IN THIS 50-FOOT SETBACK IS NOT PERMITTED.
2. THE SQUARE FOOTAGE OF THE BUILDING TO BE UTILIZED BY THE OFFICE/EDUCATION BUILDING SHALL BE ACCORDINGLY STATED IN THE SITE DEVELOPMENT PLAN AND THE NUMBER OF PARKING SPACES SHALL BE ADJUSTED.
3. THE HOURS AND OPERATION FOR THE EDUCATIONAL PROGRAMS ARE 5:30 PM TO 9:00 PM WEEKDAYS AND 9:00 TO 3:00 PM ON WEEKENDS.
4. A MAXIMUM NUMBER OF 20 PERSONS MAY ATTEND THE EDUCATIONAL PROGRAMS.

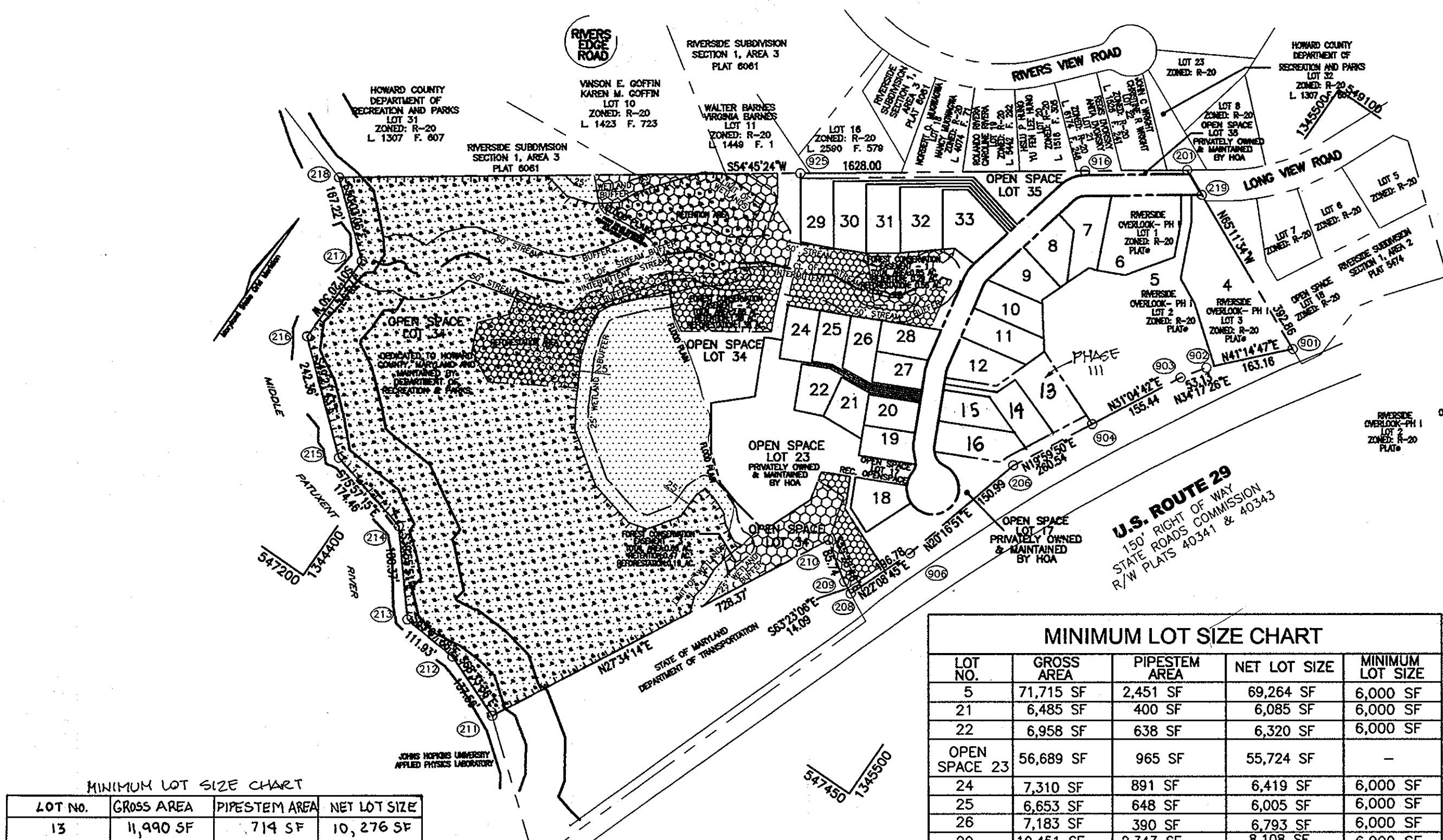
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Walter R. Marshall 11-9-09
CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Walter R. Marshall 11-9-09
CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Kent J. Sander 11-16-09
CHIEF, DIVISION OF LAND DEVELOPMENT

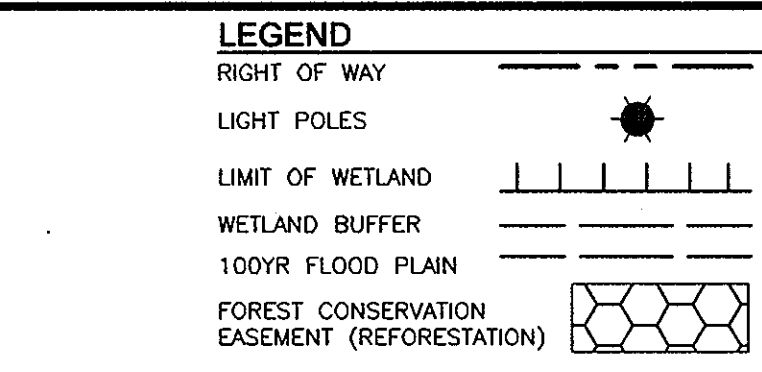
FINAL ROAD CONSTRUCTION PLAN RIVERSIDE OVERLOOK PHASE II

LOTS 4 TO 12, 18 TO 22, 24 TO 33
OPEN SPACE LOTS 17, 23, 34 & 35
AND PHASE III LOTS 13-16
HOWARD COUNTY, MARYLAND
A RESUBDIVISION OF RIVERSIDE OVERLOOK PHASE I
LOTS 1,2,3 AND BUILDABLE BULK PARCEL "A"



LOT NO.	GROSS AREA	PIPESTEM AREA	NET LOT SIZE	MINIMUM LOT SIZE
5	71,715 SF	2,451 SF	69,264 SF	6,000 SF
21	6,485 SF	400 SF	6,085 SF	6,000 SF
22	6,958 SF	638 SF	6,320 SF	6,000 SF
OPEN SPACE 23	56,689 SF	965 SF	55,724 SF	-
24	7,310 SF	891 SF	6,419 SF	6,000 SF
25	6,653 SF	648 SF	6,005 SF	6,000 SF
26	7,183 SF	390 SF	6,793 SF	6,000 SF
29	10,451 SF	2,343 SF	8,108 SF	6,000 SF
30	10,370 SF	1,933 SF	8,437 SF	6,000 SF
31	10,109 SF	1,512 SF	8,597 SF	6,000 SF
32	11,134 SF	988 SF	10,146 SF	6,000 SF

LOT NO.	GROSS AREA	PIPESTEM AREA	NET LOT SIZE
13	11,490 SF	714 SF	10,776 SF
14	8,457 SF	1,113 SF	7,344 SF



SITE DATA

TAX MAP 41, PARCEL 179
DEED REFERENCE: L9351, F. 200 AND L. 296, F. 327
5TH ELECTION DISTRICT
EXISTING ZONING: R-20, UTILIZING R-ED OPTION
PER SECTION 108.F.2 & 3 OF THE ZONING REGULATIONS.
LOCATION EAST SIDE OF ROUTE 29, SOUTH OF "RIVERS EDGE ROAD", ALONG "LONG VIEW ROAD" (OUTSIDE OF FLOODPLAIN)
DENSITY: 2 UNITS/NET ACRE @100% COVERAGE
BONUS DENSITY PER SECTION 108.F.2
GROSS AREA OF PARCEL: 28.71 AC.
TOTAL AREA OF ROAD RIGHT OF WAY: 0.9789 AC.
AREA OF 100 YR FLOODPLAIN: 13.61 AC.
AREA OF STEEP SLOPES: 1.41 AC.
(OUTSIDE OF FLOODPLAIN)
NET AREA OF PROJECT: 13.69 AC.
NUMBER OF RESIDENTIAL UNITS ALLOWED BY BASE DENSITY: 27
NUMBER OF ALLOWED RESIDENTIAL LOTS WITH 10% BONUS: 29
NUMBER OF PROPOSED RESIDENTIAL LOTS (SFD): 25(21 FOR PHASE 2 + 4 UNITS WITH FUTURE PHASE 3)
AREA OF PROPOSED RESIDENTIAL LOTS (SFD): 6.79 AC.
NUMBER OF PROPOSED OPEN SPACE LOTS: 4
TOTAL AREA OF NON BUILDABLE BULK PARCELS TO BE RECORDED: 0.8519 AC.
OPEN SPACE CALCULATION: 50% OF GROSS AREA (PER THE R-ED ZONING REGULATIONS)
OPEN SPACE REQUIRED: 14.36 AC.
TOTAL AREA OF OPEN SPACE PROPOSED: 20.08 AC. OR 69.9%.
RECOMMENDED SPECIES: ANNUAL REGRASS (LOLIUM MULTIFLORUM), LET (SETARIA ITALICA), BARLEY (HORDEUM SP.), OATS (UNIOLOA SP.), AND/OR RYE (SECALE CEREALE). THESE SPECIES WILL ALLOW FOR THE STABILIZATION OF THE SITE WHILE ALSO ALLOWING FOR THE VOLUNTARY REVEGETATION OF NATURAL WETLAND SPECIES. OTHER NON-PERSISTENT VEGETATION MAY BE ACCEPTABLE BUT MUST BE APPROVED BY THE DIVISION. KENTUCKY 33 FESCUE SHALL NOT BE UTILIZED IN THE WETLAND OR BUFFER AREAS SEEDED AND MULCHED TO REDUCE EROSION AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.

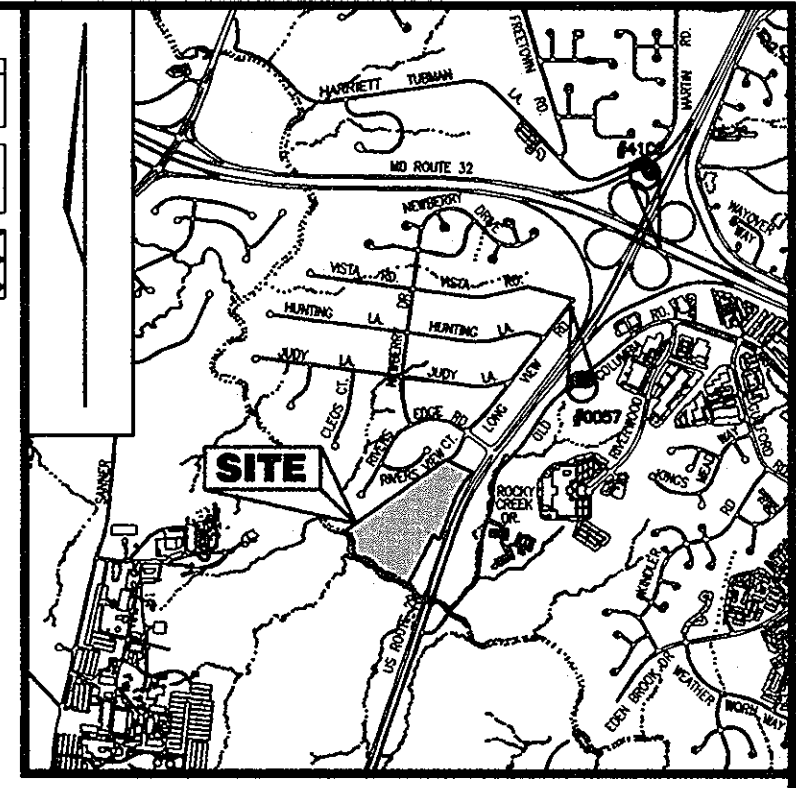
PASSIVE RECREATIONAL OPEN SPACE:
NO STRUCTURES ARE ALLOWED.
RECREATIONAL FACILITIES SUCH AS BASKETBALL OR TENNIS COURTS, FENCES, SWIMMING POOLS, PLAYGROUND EQUIPMENT OR TOT LOTS, ETC. THAT ARE PERMANENTLY ATTACHED TO THE GROUND ARE CONSIDERED TO BE STRUCTURES AND ARE NOT PERMITTED WITHIN THE PROPOSED RECREATIONAL AREA.

DPZ FILE REFERENCES: F-05-11, WP-07-66, WP-04-69 (VOID), BA-03-67C, BA-82-06, BA-89-10, BA-89-10, BA-79-16, SDP-09-33, & WP-05-06, WP-05-87, BA-91-36E AND WP-75-05, P-07-08, F-08-23, BA-08-02C, F-09-66, PB-384, WP-09-119, WP-09-122, WP-09-160, F-10-12, AND SDP-10-03.
EXISTING USE OF SITE: RESIDENTIAL & CONDITIONAL USE FOR THE CHURCH OF GOD RELIGIOUS FAMILY.
PROPOSED USE OF SITE: SINGLE FAMILY DETACHED AND CONDITIONAL USE FOR CHARITABLE OR PHILANTHROPIC INSTITUTION FOR OFFICES AND EDUCATIONAL PROGRAMS FOR THE CHURCH OF GOD.

PROPOSED WATER SYSTEM: PUBLIC
PROPOSED SEWER SYSTEM: PUBLIC
TOTAL DWELLING UNITS FOR THIS SUBMISSION: 28
NO. OF PROPOSED SINGLE FAMILY DETACHED: 25
NO. OF EXISTING SINGLE FAMILY DETACHED: 3
NO. OF PROPOSED OPEN SPACE LOTS: 4
NON-BUILDABLE BULK PARCELS: 1
OPEN SPACE LOT 35: OWNED AND MAINTAINED BY HOA
OPEN SPACE LOT 34: TO BE DEDICATED TO HOWARD COUNTY DEPARTMENT OF RECREATION
OPEN SPACE LOT-23: OWNED AND MAINTAINED BY HOA
OPEN SPACE LOT-17: OWNED AND MAINTAINED BY HOA

BEST MANAGEMENT PRACTICES FOR WORKING IN NONTIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS, AND 100-YEAR FLOODPLAIN

- NO EXCESS FILL, CONSTRUCTION MATERIAL, OR DEBRIS SHALL BE STOCKPILED OR STORED IN THE WETLANDS OR BUFFER.
- PLACE MATERIALS IN A LOCATION AND MANNER WHICH DOES NOT ADVERSELY IMPACT SURFACE OR SUBSURFACE WATER FLOW INTO OR OUT OF THE NONTIDAL WETLAND.
- DO NOT USE THE EXCAVATED MATERIAL AS BACKFILL IF IT CONTAINS WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL OR ANY OTHER DELETERIOUS SUBSTANCE. IF BACKFILL IS REQUIRED, USE CLEAN MATERIAL FREE OF WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL OR ANY OTHER DELETERIOUS SUBSTANCE.
- PLACE HEAVY EQUIPMENT ON MATS OR SUITABLY OPERATE THE EQUIPMENT TO PREVENT DAMAGE TO THE NONTIDAL WETLANDS OR BUFFER.
- REPAIR AND MAINTAIN ANY SERVICEABLE STRUCTURE OR FILL SO THERE IS NO PERMANENT LOSS OF NONTIDAL WETLANDS IN EXCESS OF NONTIDAL WETLANDS LOST UNDER THE ORIGINAL STRUCTURE OR FILL.
- RECTIFY ANY NONTIDAL WETLANDS TEMPORARILY IMPACTED BY ANY CONSTRUCTION.
- ALL STABILIZATION IN THE WETLAND AND BUFFER SHALL BE OF THE FOLLOWING RECOMMENDED SPECIES: ANNUAL REGRASS (LOLIUM MULTIFLORUM), LET (SETARIA ITALICA), BARLEY (HORDEUM SP.), OATS (UNIOLOA SP.), AND/OR RYE (SECALE CEREALE). THESE SPECIES WILL ALLOW FOR THE STABILIZATION OF THE SITE WHILE ALSO ALLOWING FOR THE VOLUNTARY REVEGETATION OF NATURAL WETLAND SPECIES. OTHER NON-PERSISTENT VEGETATION MAY BE ACCEPTABLE BUT MUST BE APPROVED BY THE DIVISION. KENTUCKY 33 FESCUE SHALL NOT BE UTILIZED IN THE WETLAND OR BUFFER AREAS SEEDED AND MULCHED TO REDUCE EROSION AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.
- AFTER INSTALLATION HAS BEEN COMPLETED, MAKE POST CONSTRUCTION GRADES AND ELEVATIONS OF NONTIDAL WETLANDS THE SAME AS THE ORIGINAL GRADES AND ELEVATIONS IN TEMPORARILY IMPACTED AREAS.
- TO PROTECT AQUATIC SPECIES, IN-STREAM WORK IS PROHIBITED AS DETERMINED BY THE CLASSIFICATION OF THE STREAM. USE I WATERS: IN-STREAM WORK SHALL NOT BE CONDUCTED DURING THE PERIOD MARCH 1 THROUGH JUNE 15, INCLUSIVE, DURING ANY YEAR.
- STORMWATER RUNOFF FROM IMPERVIOUS SURFACES SHALL BE CONTROLLED TO PREVENT THE WASHING OF DEBRIS INTO THE WATERWAY.
- CULVERTS SHALL BE CONSTRUCTED AND ANY RIPRAP PLACED SO AS NOT TO OBSTRUCT THE MOVEMENT OF AQUATIC SPECIES, UNLESS THE PURPOSE OF THE ACTIVITY IS TO IMPOUND WATER.



VICINITY MAP
SCALE: 1"=200'
ADC MAP COORDINATE: 15C:1

BENCHMARKS		
NO.	NORTHING	EASTING
41C1	550835.217	1347017.693
0057	551616.404	1348104.227

- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NUMBERS 0057 AND 41C2 WERE USED FOR THIS PROJECT.

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APFO PHASING SCHEDULE		
SUBDIVISION PHASES	NUMBER OF HOUSING UNITS/LOTS	ALLOCATION YEAR
PHASE 1	3 (EXISTING HOUSE LOTS)	N/A
PHASE 2	21 (20 GRANTED ALLOCATIONS + 1 CREDIT FOR EX. HOUSE)	2009
PHASE 3	4	2012
TOTAL	28 LOTS	

OWNERS
LOTS 1, 2, AND 3 RIVERSIDE OVERLOOK, PHASE I
TRUSTEES OF STATE BOARD OF CHURCH OF GOD
7240 LONG VIEW ROAD
COLUMBIA MD 21044

DEVELOPER
BenVee Property II, LLC
REUIER LONG TERM HOLDING LLC
5300 DORSEY HALL DRIVE
ELICOTT CITY, MARYLAND 21042
443-367-0422

NO.	REVISION	DATE
1	PLANS ARE REVISED PER SP-09-004 AND WP-09-122.	04-06-2009
2	REVISE PLANS TO REFLECT ADDITION OF LOTS 13-16	11/12/2009

**FINAL ROAD CONSTRUCTION PLAN
COVER SHEET
RIVERSIDE OVERLOOK PHASE II
LOTS 4 TO 12 18 TO 22, 24 TO 33,
OPEN SPACE LOTS 17, 23, 34 & 35
AND PHASE III LOTS 13-16
A RESUBDIVISION OF RIVERSIDE OVERLOOK PHASE I
LOTS 1,2,3 AND BUILDABLE BULK PARCEL "A"**

TAX MAP 41 GRID 12 PARCEL 179
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL
ENGINEERS, INC.**
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELICOTT CITY, MD 21043 TEL: 410-461-7666
FAX: 410-461-8961

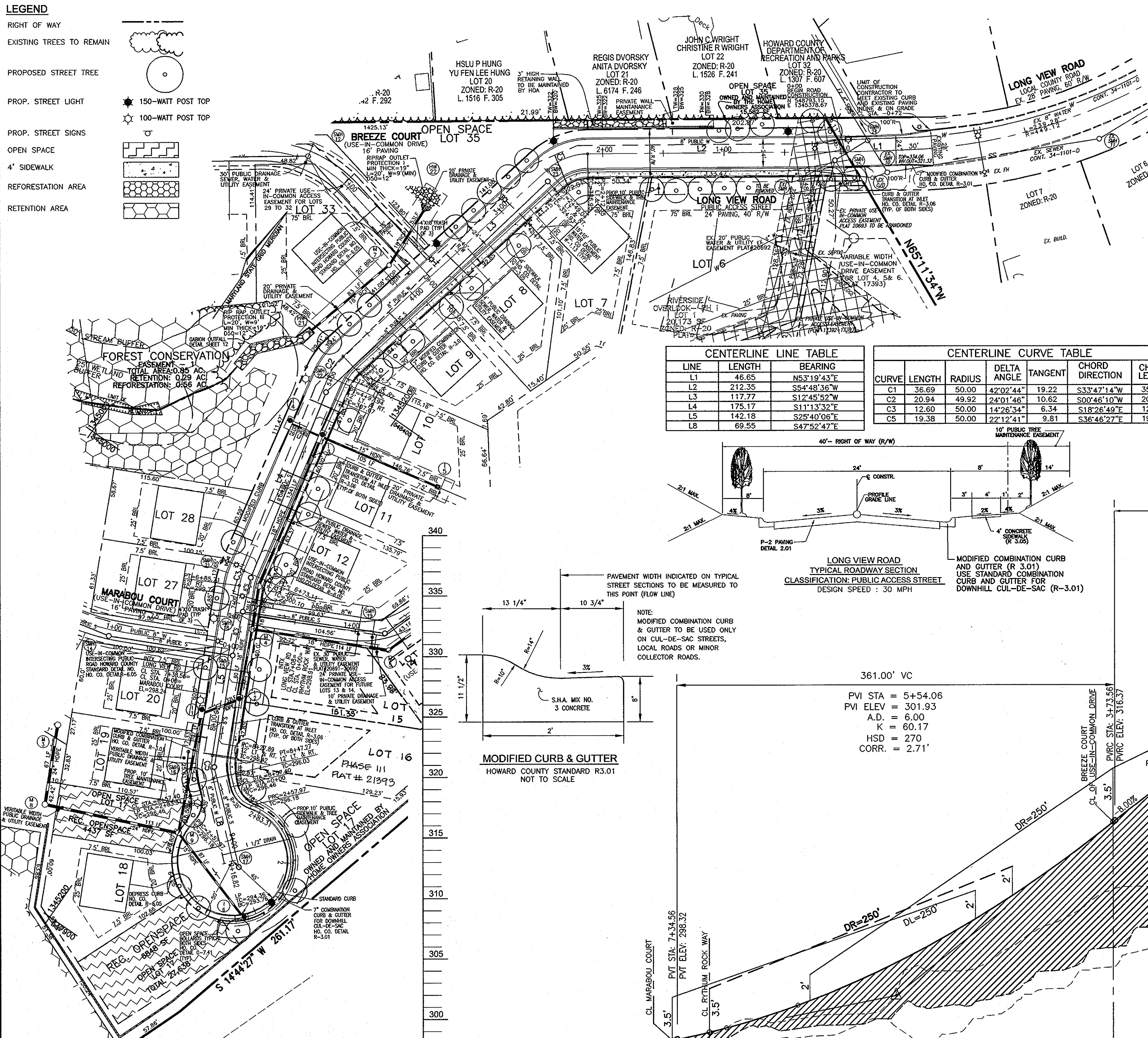
DESIGN BY: RJ
DRAWN BY: HED
CHECKED BY: RWV
DATE: OCTOBER 2009
SCALE: 1"=200'
W.O. NO.: 03-29

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A duly licensed PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16183 EXPIRATION DATE: 09-27-2010

1 SHEET OF 15

LEGEND

- RIGHT OF WAY
- EXISTING TREES TO REMAIN
- PROPOSED STREET TREE
- PROP. STREET LIGHT
 - 150-WATT POST TOP
 - 100-WATT POST TOP
- PROP. STREET SIGNS
- OPEN SPACE
- 4' SIDEWALK
- REFORESTATION AREA
- RETENTION AREA



STREET LIGHT LOCATION CHART				
NO.	STREET NAME	STATION	OFFSET	FIXTURE/POLE TYPE
1	LONG VIEW ROAD	0+47	17' RT	150 WATT HPS VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE
2	LONG VIEW ROAD	2+34	17' RT	150 WATT HPS VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE
4	LONG VIEW ROAD	3+57	17' RT	150 WATT HPS VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE
5	LONG VIEW ROAD	5+07	18' RT	100 WATT HPS VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE
6	LONG VIEW ROAD	7+16	22' LT	100 WATT HPS VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE
7	LONG VIEW ROAD	8+64	17' RT	100 WATT HPS VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE
8	LONG VIEW ROAD	1+65	3' PL	150 WATT HPS VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE

SIGN LOCATION CHART				
NO.	STREET NAME	STATION	OFFSET	TYPE
R1-1	RHYTHM ROCK ROAD	0+13	11' LT	STOP
R1-1	MARABOU COURT ROAD	0+15	11' LT	STOP
R1-1	BREEZE COURT	0+14	11' LT	STOP

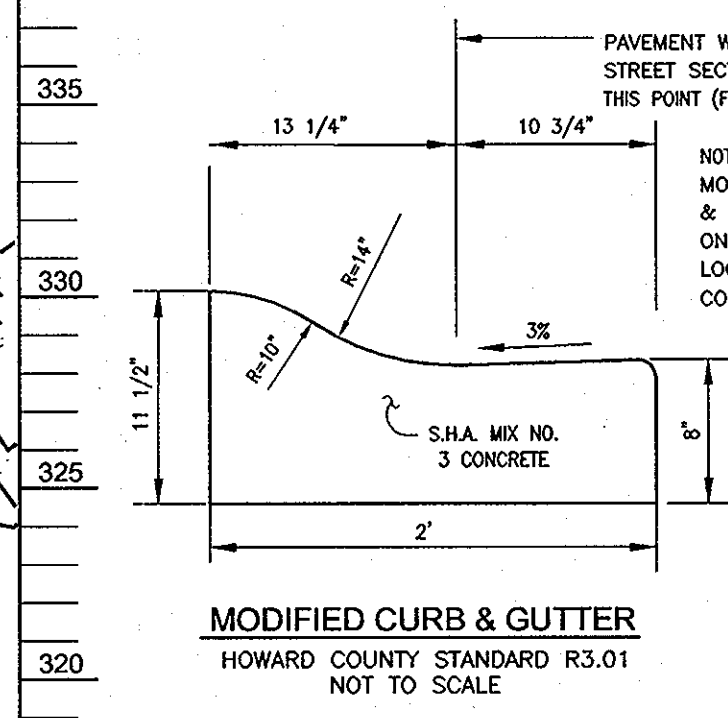
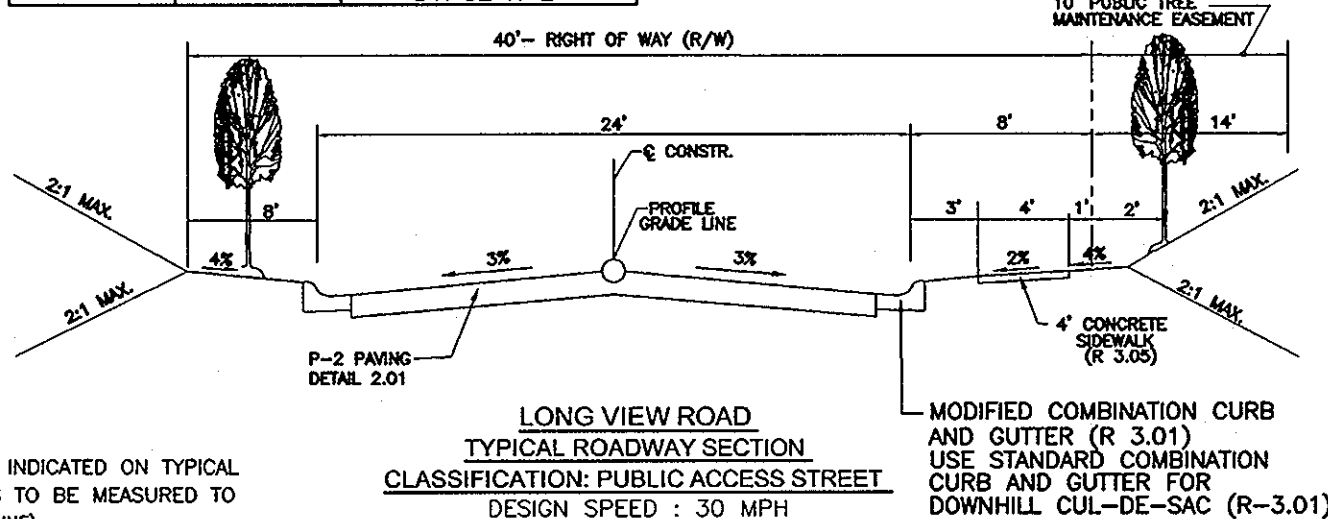
NOTE: A MINIMUM OF 20' IS REQUIRED BETWEEN ANY STREET LIGHT AND ANY TREE

CENTERLINE LINE TABLE		
LINE	LENGTH	BEARING
L1	46.65	N53°19'43"E
L2	212.35	S84°48'36"W
L3	117.77	S12°45'52"W
L4	175.17	S11°13'32"E
L5	142.18	S25°40'06"E
L8	69.55	S47°52'47"E

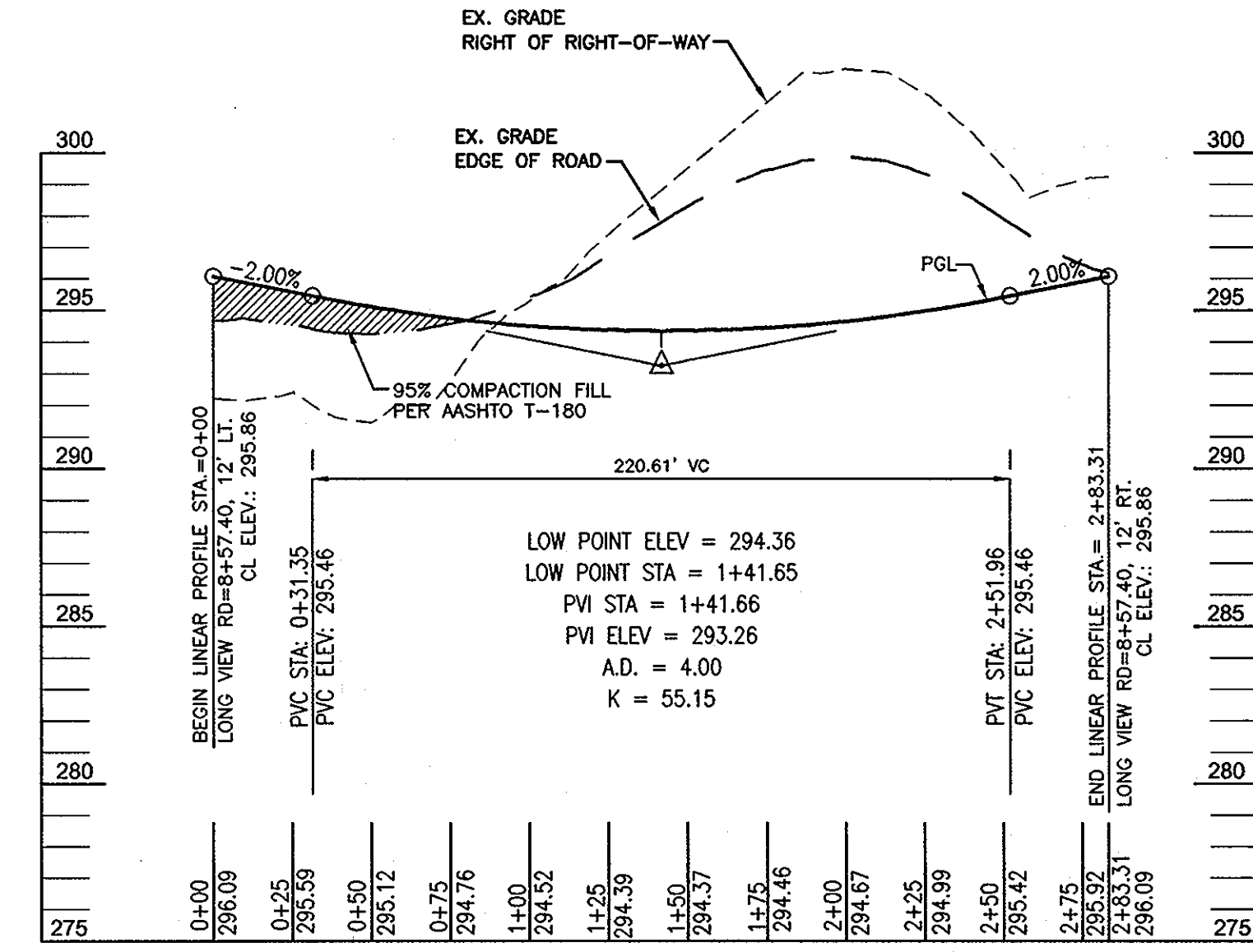
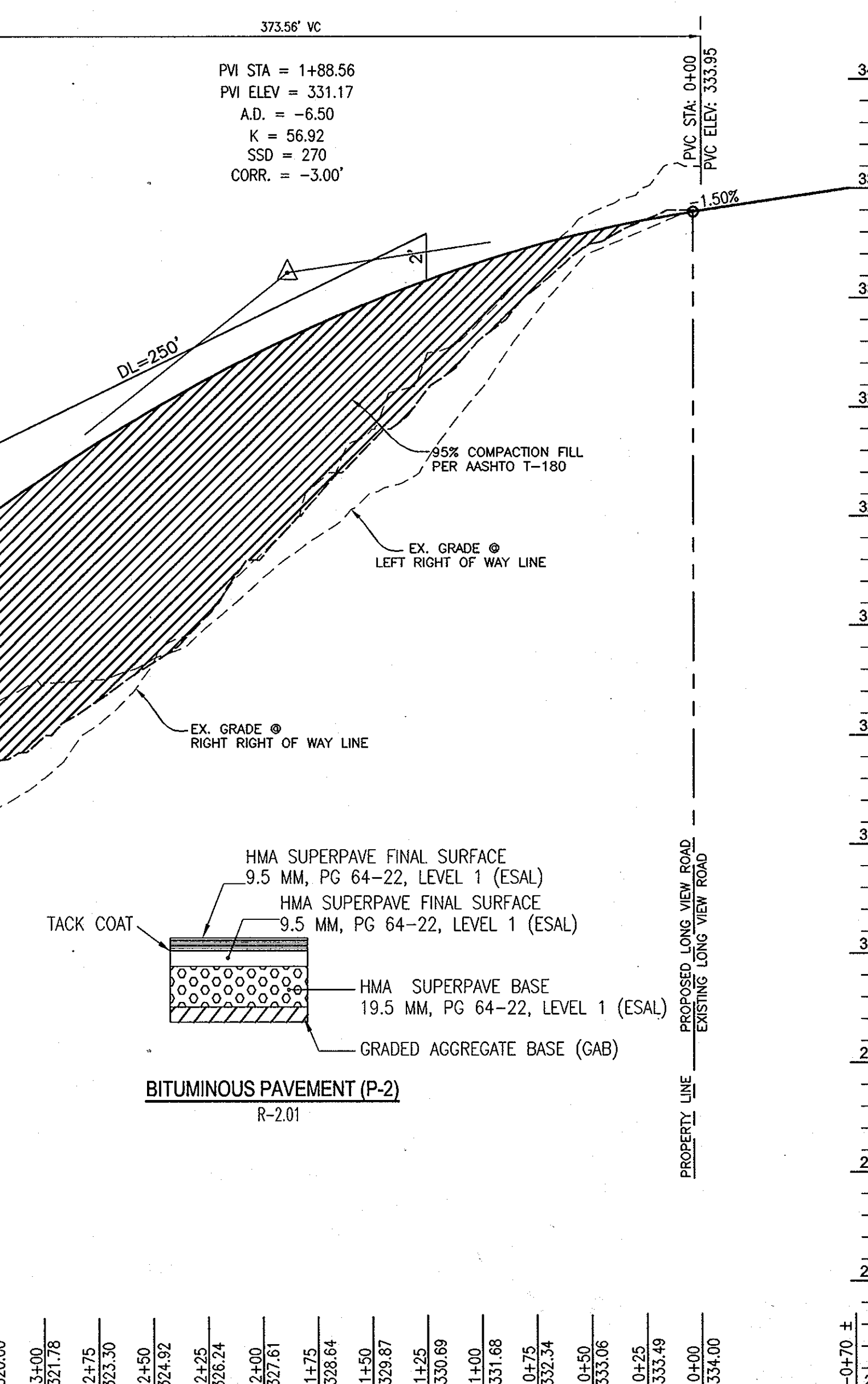
CENTERLINE CURVE TABLE						
CURVE	LENGTH	RADIUS	DELTA ANGLE	TANGENT	CHORD DIRECTION	CHORD LENGTH
C1	35.69	50.00	42°02'44"	19.22	S33°47'14"W	35.67
C2	20.94	49.92	24°01'46"	10.62	S07°45'10"W	20.78
C3	12.60	50.00	14°26'34"	6.34	S18°28'49"E	12.57
C5	19.38	50.00	22°12'41"	9.81	S36°46'27"E	19.26

STREET TREE CALCULATIONS			
STREET NAME	LINEAR FEET	NO. REQUIRED	NO. PROVIDED
LONG VIEW ROAD	1824/40	46	46

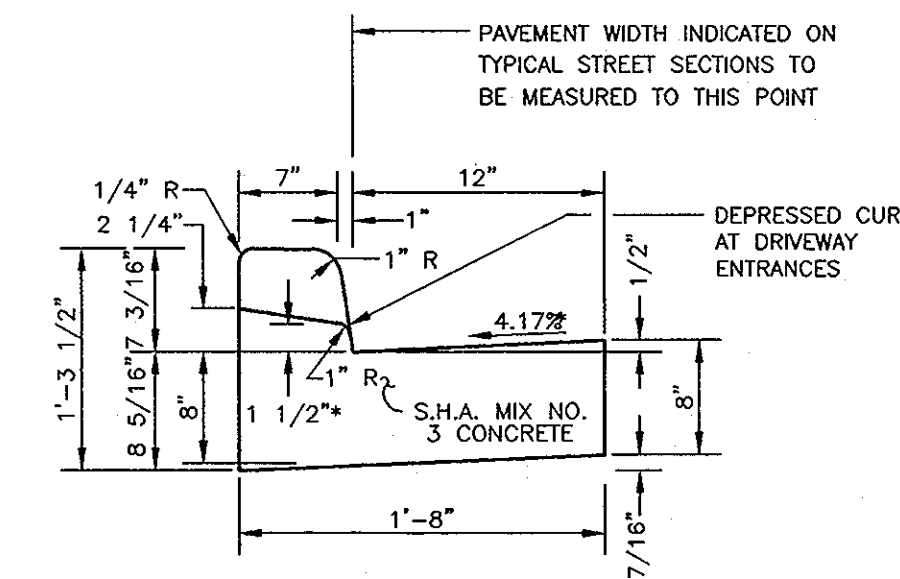
PUBLIC ROAD STREET TREE SCHEDULE				
KEY	QUAN.	BOTANICAL NAME	SIZE	REM.
○	46	ACER RUBRUM 'AUTUMN FLAME'	2 1/2"-3" CAL.	B & B



361.00' VC
 PVI STA = 5+54.06
 PVI ELEV = 301.93
 A.D. = 6.00
 K = 60.17
 HSD = 270
 CORR. = 2.71'



LINEAR PROFILE @ EDGE OF PAVING
 CUL-DE-SAC
 APPROVED UNDER F-08-23
 SCALE: HORIZ. 1"=50'
 VERT. 1"=5'



NOTE: DEPRESSED CURB IN HANDICAP ACCESSIBLE AREAS SHALL HAVE A 0.0417(1/24) RISE FROM PAVING TO TOP OF CURB.

STANDARD COMBINATION CURB AND GUTTER
 HOWARD COUNTY STANDARD R-3.01
 NOT TO SCALE

OWNERS
 LOTS 1, 2, AND 3 RIVERSIDE OVERLOOK, PHASE 1
 TRUSTEES OF STATE BOARD OF CHURCH OF GOD
 7240 LONG VIEW ROAD
 COLUMBIA MD 21044

DEVELOPER
 BENDER PROPERTY II, LLC
 5300 DORSEY HALL DRIVE
 ELLICOTT CITY, MARYLAND 21042
 443-367-0422

NO.	REVISION	DATE
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ROAD LAYOUT AND PROFILE
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TAX MAP 41 GRID 11 PARCEL 179
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET ELLICOTT CITY, MD 21043 TEL: 410-481-7866 FAX: 410-461-8961

PROFESSIONAL CERTIFICATE

DESIGN BY: RJ
 DRAWN BY: HED
 CHECKED BY: RNV
 DATE: OCTOBER 2009
 SCALE: 1"=50'
 W.O. NO.: 03-29

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2010

3 SHEET OF 15

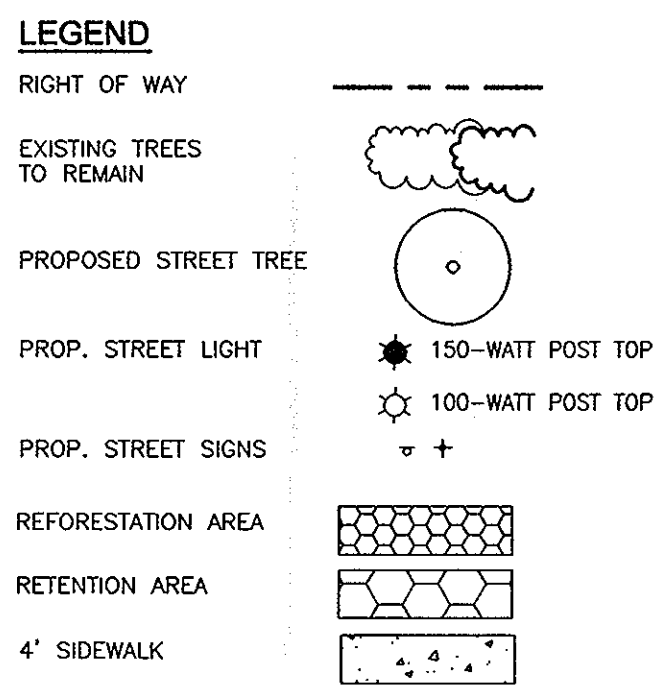
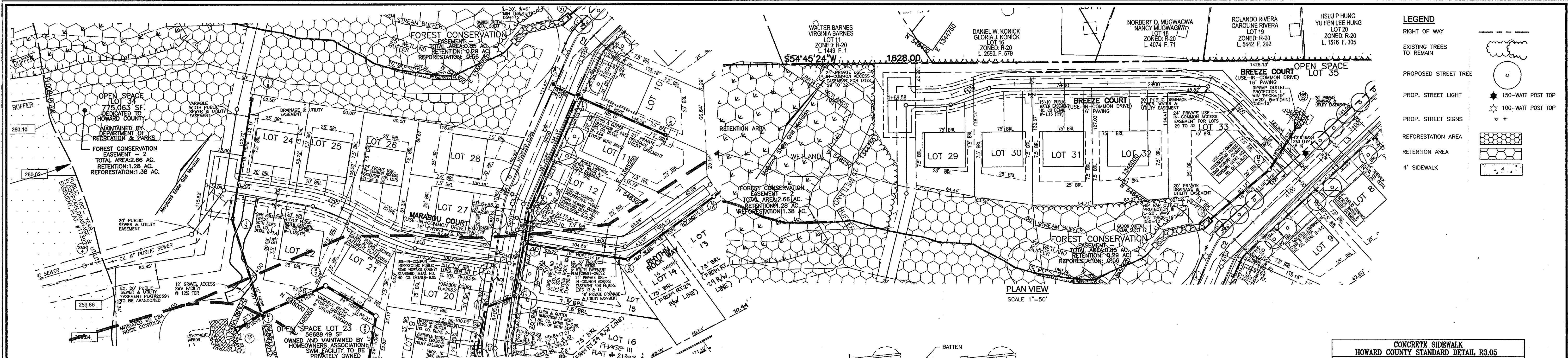
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature] 11-9-09
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] 4/13/09
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 11-16-09
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

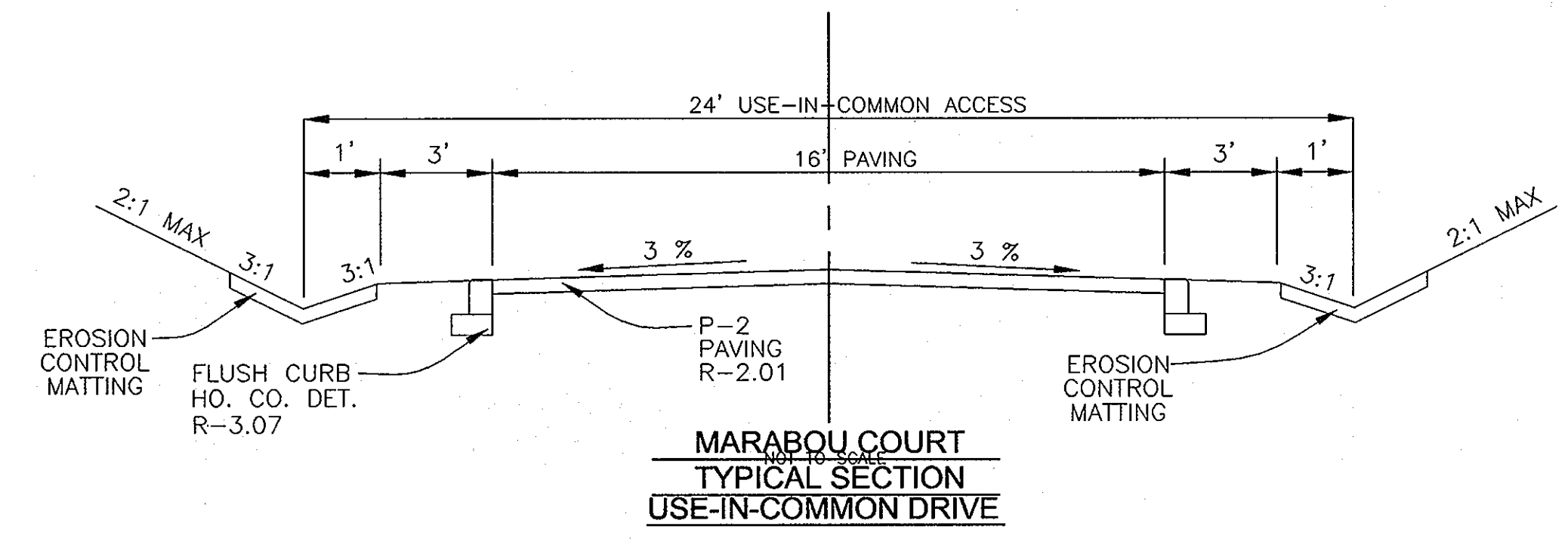
LONG VIEW ROAD
PUBLIC ACCESS STREET
 DESIGN SPEED=30 MPH
 APPROVED UNDER F-08-23
 SCALE: HORIZ. 1"=50'
 VERT. 1"=5'

K:\Projects\03-29\LongViewRoad\Road_Redline_P-ED\3-01_Road_Profile.dwg, 10/19/2009 9:55:57 AM

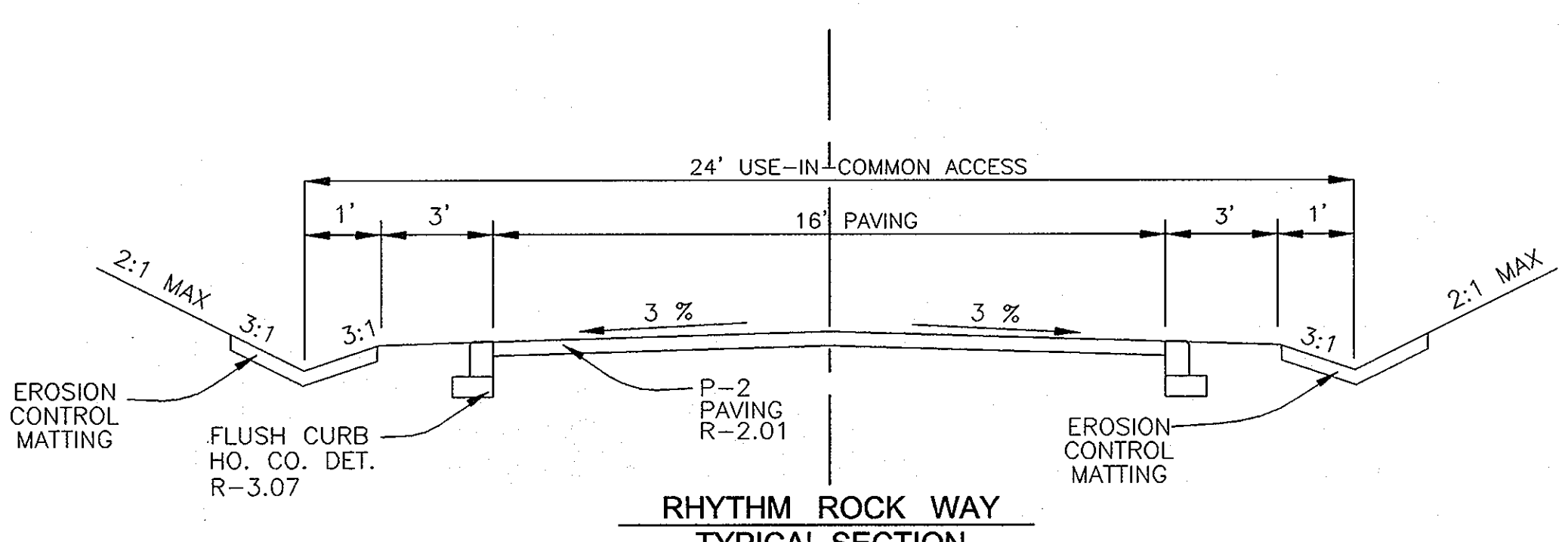


PLAN VIEW
SCALE 1"=50'

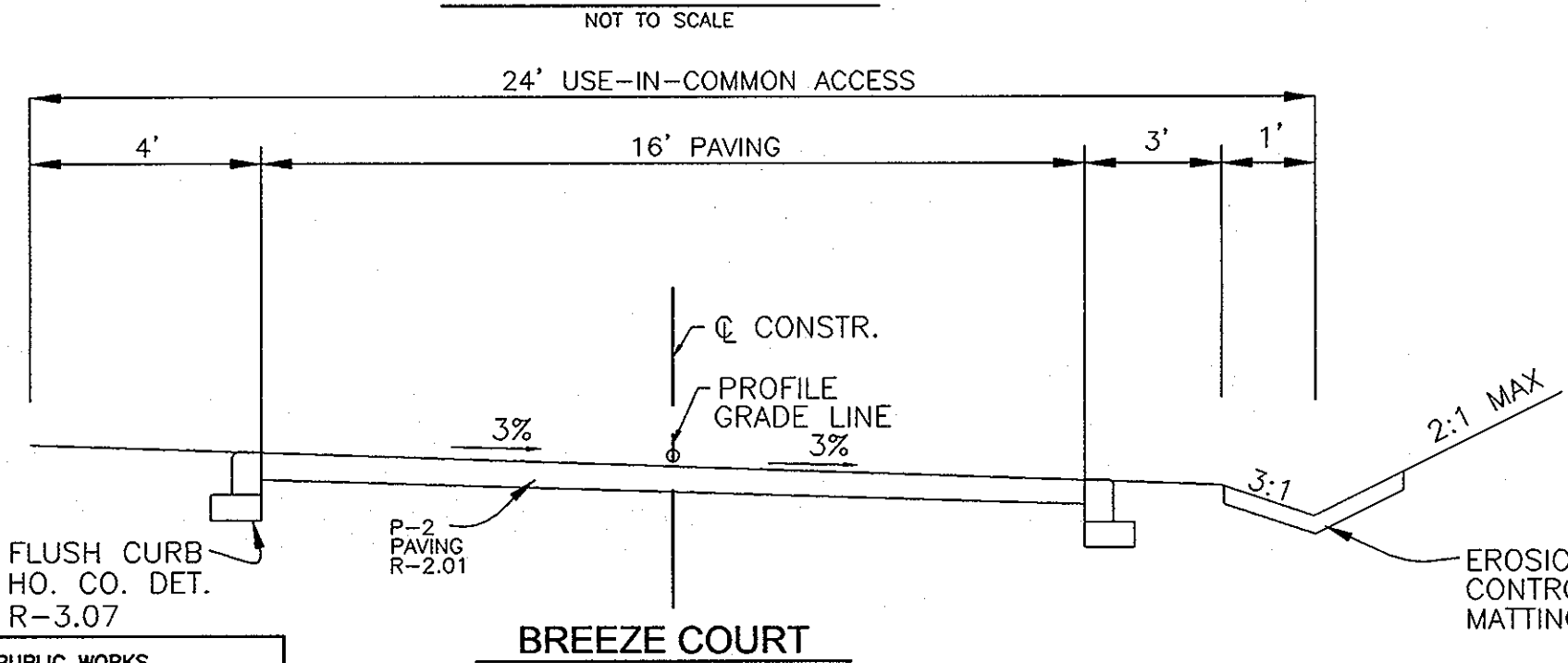
PLAN VIEW
SCALE 1"=50'



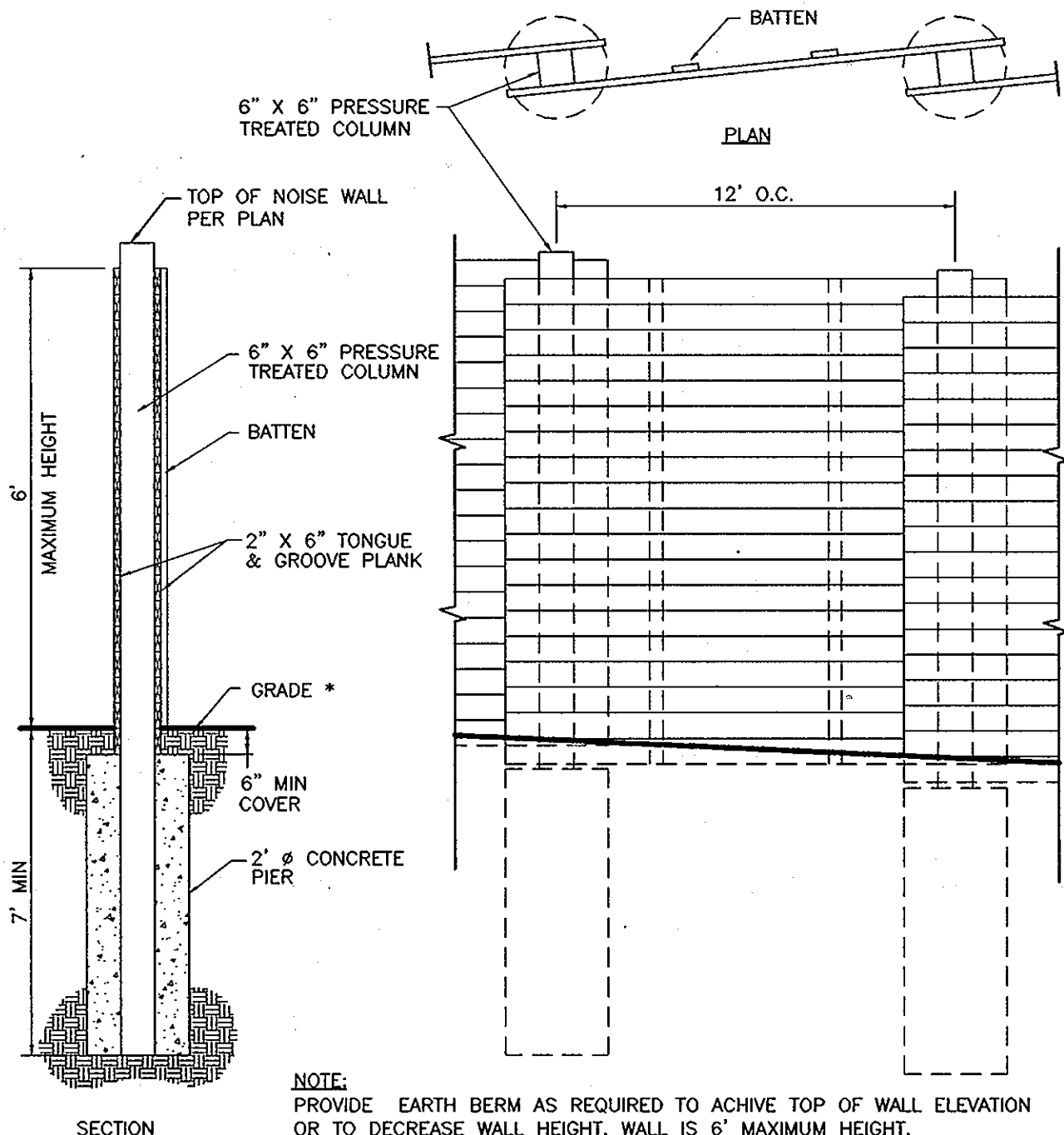
MARABOU COURT
TYPICAL SECTION
USE-IN-COMMON DRIVE



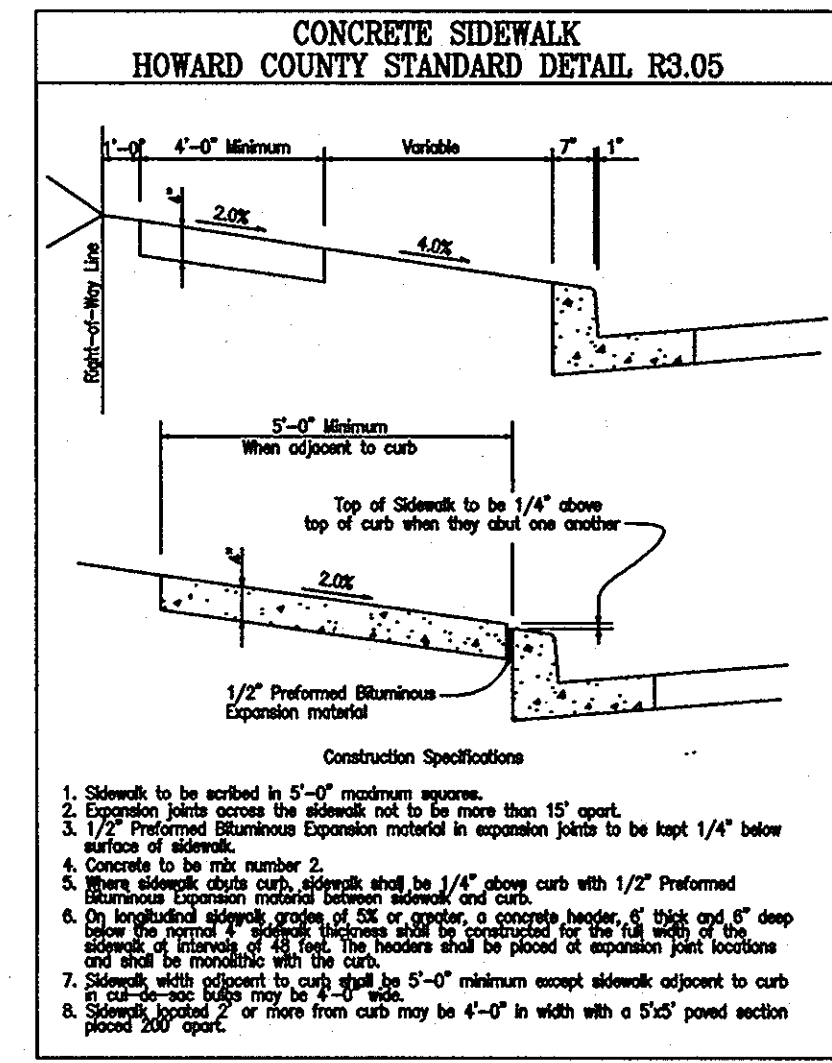
RHYTHM ROCK WAY
TYPICAL SECTION
USE-IN-COMMON DRIVE



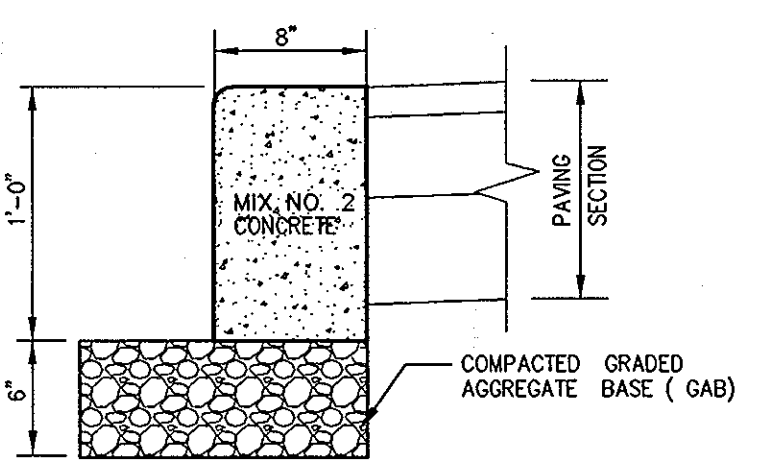
BREEZE COURT
TYPICAL SECTION
USE-IN-COMMON DRIVE



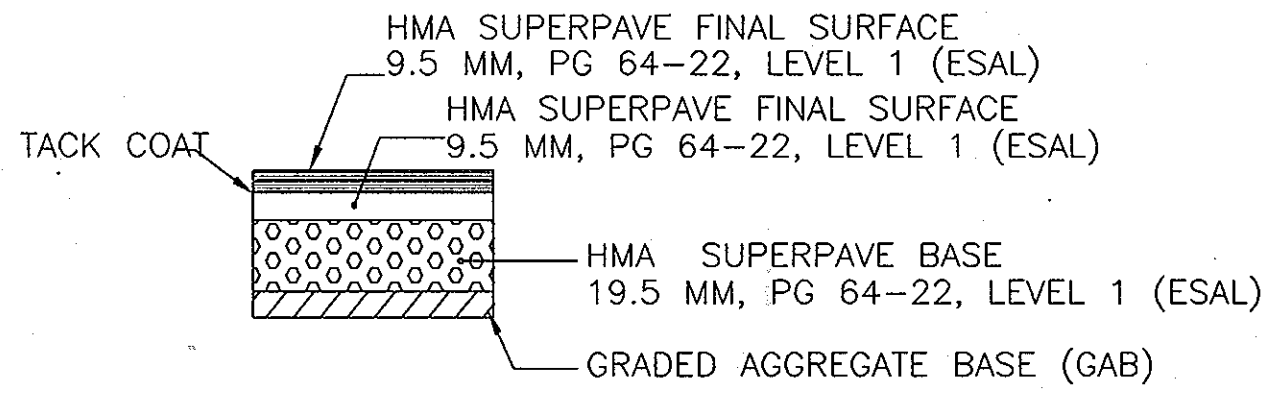
NOTE: PROVIDE EARTH BERM AS REQUIRED TO ACHIEVE TOP OF WALL ELEVATION OR TO DECREASE WALL HEIGHT. WALL IS 6' MAXIMUM HEIGHT.
NOISE WALL SECTION DETAIL
N.T.S.



CONCRETE SIDEWALK
HOWARD COUNTY STANDARD DETAIL R3.05



FLUSH CURB
STD DETAIL R-3.07



BITUMINOUS PAVEMENT (P-2)
R-2.01

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Walter Z. Walsh 11-9-09
CHIEF, BUREAU OF HIGHWAYS
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
William J. ... 11/12/09
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE

Walter Z. Walsh 11-16-09
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE

OWNERS
LOTS 1, 2, AND 3 RIVERSIDE OVERLOOK, PHASE I
TRUSTEES OF STATE BOARD OF
CHURCH OF GOD
7240 LONG VIEW ROAD
COLUMBIA MD 21044

DEVELOPER
BENDER PROPERTY II, LLC
40 CARED SPAHN
5304 DORSEY HALL DRIVE
ELlicOTT CITY, MARYLAND 21042
443-367-0422

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ROAD LAYOUT AND PROFILE
RIVERSIDE OVERLOOK PHASE II
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OPEN SPACE LOTS 17, 23, 34 & 35
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5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET TEL: 410-461-7666
ELlicOTT CITY, MD 21043 FAX: 410-461-8961

DESIGN BY: RJ
DRAWN BY: MED
CHECKED BY: RJV
DATE: OCTOBER 2009
SCALE: AS SHOWN
W.O. NO.: 03-29

PROFESSIONAL CERTIFICATE
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ENGINEER UNDER THE LAWS OF THE STATE
OF MARYLAND, LICENSE NO. 18193
EXPIRATION DATE: 09-27-2010

4 SHEET OF 15



LEGEND

- EXISTING CONTOUR ——— 280 ———
- PROPOSED CONTOUR ——— 015 ———
- SPOT ELEVATION +825
- DIRECTION OF FLOW ———>———
- SOILS SIB2 S5E
- SUPER SILT FENCE ——— SSF ———
- LIMIT OF DISTURBANCE ——— LOD ———
- EARTHDIKE ———>———
- PRIVATE DRAINAGE & UTILITY EASEMENT [Hatched pattern]
- EXISTING TREES TO REMAIN [Dotted pattern]
- AREA OF 25% OR GREATER SLOPES (STEEP SLOPES) [Cross-hatched pattern]
- AREA OF 15% TO 24.9% SLOPES (MODERATE SLOPES) [Diagonal hatched pattern]
- PROP. FOREST CONSERVATION AREA (RETENTION) [Hexagonal pattern]
- PROP. FOREST CONSERVATION AREA (REFORESTATION) [Square pattern]
- PUBLIC 100-YR FLOODPLAIN DRAINAGE & UTILITY EASEMENT [Dotted pattern]
- WETLANDS [Wavy line pattern]
- LIMIT OF WETLAND [Dashed line]
- WETLANDS BUFFER [Dotted line]
- STREAM CENTERLINE [Solid line]
- STREAM BUFFER [Dashed line]
- EX. PRIVATE USE - IN COMMON ACCESS EASEMENT PLAT#17392-17393 [Cross-hatched pattern]

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	GROUP
CgB2	CHESTER GRAVELLY SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	B
Cs	COMUS SILT LOAM	B
EK02	ELICOAK SILT LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED	C
GI02	GLENELG LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B
GI02	GLENELG LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED	B
Ha	HATBORO SILT LOAM	B
MgB2	MANOR GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	B
MgC2	MANOR GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B
MIE	MANOR LOAM, 25 TO 45 PERCENT SLOPES	B

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION ZONED R20 PARCEL 54 NO DEED LISTED

PAGE 16 OF THE HOWARD COUNTY SOIL SURVEY

OWNERS
 LOTS 1, 2, AND 3 RIVERSIDE OVERLOOK, PHASE 1
 TRUSTEES OF STATE BOARD OF CHURCH OF GOD
 7240 LONG VIEW ROAD
 COLUMBIA MD 21044

DEVELOPER
 NON BUILDABLE BULK PARCEL 'A'
 REUWER LONG TERM HOLDING LLC
 5300 DORSEY HALL DRIVE
 ELLICOTT CITY, MARYLAND 21042
 443-367-0422

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**FINAL ROAD CONSTRUCTION PLAN
 GRADING, SEDIMENT & EROSION
 CONTROL PLAN
 RIVERSIDE OVERLOOK PHASE II
 LOTS 4 TO 12, 18 TO 22, 24 TO 33,
 OPEN SPACE LOTS 17, 23, 34 & 35
 AND PHASE III LOTS 13-16
 A RESUBDIVISION OF RIVERSIDE OVERLOOK PHASE I
 LOTS 1, 2, 3 AND BUILDABLE BULK PARCEL 'A'**

TAX MAP 41 GRID 11 PARCEL 179
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL
 ENGINEERS • SURVEYORS • PLANNERS**
 8407 MAIN STREET TEL: 410-461-7666
 ELLICOTT CITY, MD 21043 FAX: 410-461-1591

PROFESSIONAL CERTIFICATE

DESIGN BY: R.J.
 DRAWN BY: HED.
 CHECKED BY: B.V.
 DATE: OCTOBER 2009
 SCALE: 1"=50'
 W.O. NO.: 03-29

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5 SHEET OF 15

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature] 11-9-09
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] 11/12/09
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] 11-16-09
 CHIEF, DIVISION OF LAND DEVELOPMENT

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

[Signature] 11/2/09
 HOWARD SCD

ENGINEERS CERTIFICATE

I HEREBY 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] 10/16/09
 ROBERT H. VOGEL, PE #16193

DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE IN ACCORDANCE TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

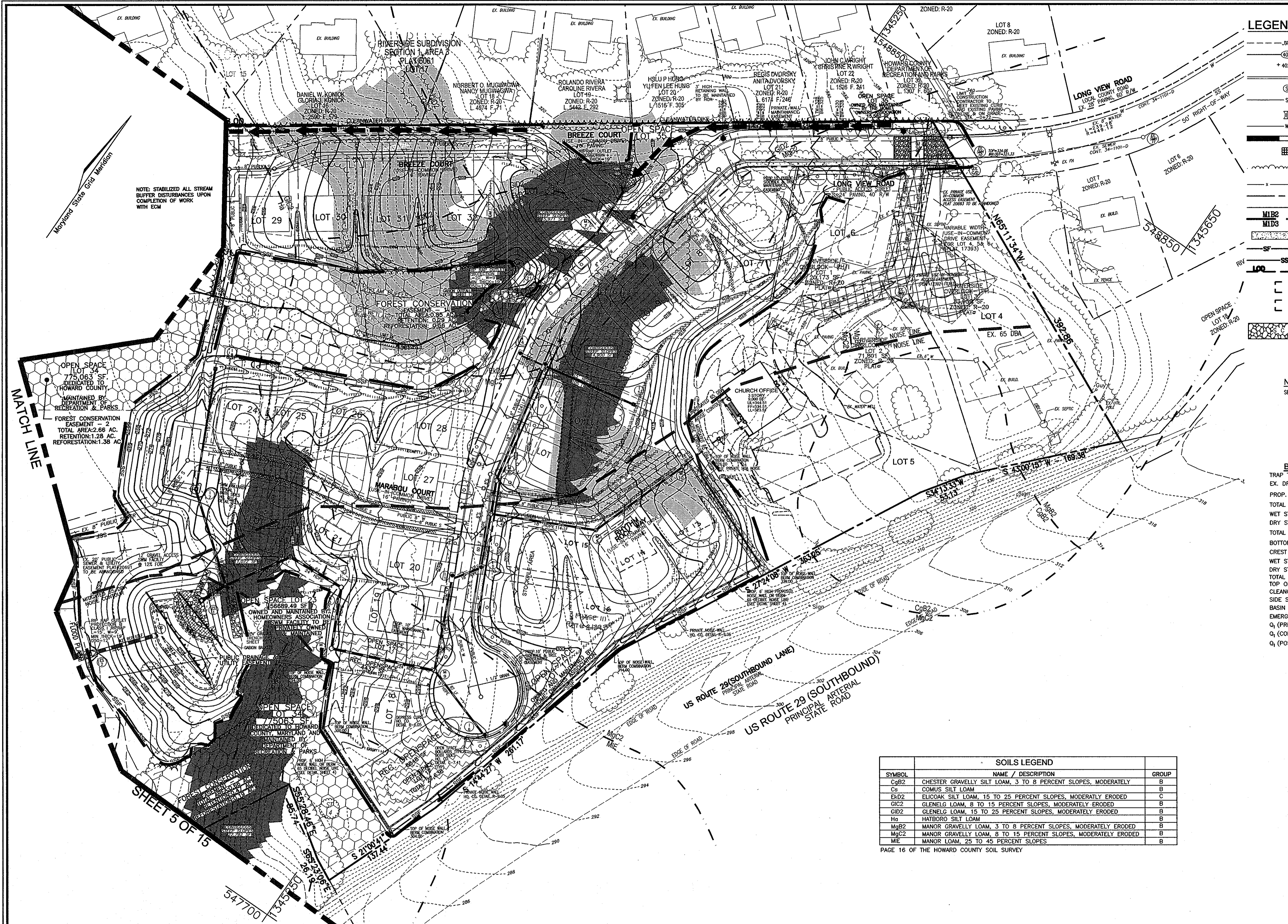
[Signature] 10/16/09

"AS-BUILT" CERTIFICATION

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE AS-BUILT PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

ROBERT H. VOGEL, P.E. #16193 DATE
 CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE SITE INSPECTION AND TESTS DEEMED SUFFICIENT AND APPROPRIATE BY COMMONLY ACCEPTED ENGINEERING STANDARDS CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES AN ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.

K:\Projects\01-25\ong\ong\ROAD REDLINE R-ED\3-05_creat.dwg, 10/9/2009 9:16:48 AM



LEGEND:

--- 300 ---	EXISTING CONTOUR	○	PROPOSED STREET TREE
--- 400 ---	PROPOSED CONTOUR	○	AREA OF 25% OR GREATER SLOPES (STEEP SLOPES)
+ 402.88	PROPOSED SPOT ELEVATION	○	AREA OF 15% TO 24.9% SLOPES (MODERATE SLOPES)
---	PROPOSED CURB AND GUTTER	○	PROP. FOREST CONSERVATION AREA (RETENTION)
○	EXISTING SANITARY MANHOLE	○	PROP. FOREST CONSERVATION AREA (REFORESTATION)
○	EXISTING SANITARY LINE	○	PUBLIC 100-YR FLOODPLAIN DRAINAGE & UTILITY EASEMENT
○	EXISTING FIRE HYDRANT	○	WETLANDS
---	EXISTING WATER LINE	○	LIMIT OF WETLAND
---	PROPOSED STORM DRAIN	○	WETLANDS BUFFER
---	PROPOSED STORM DRAIN INLET	○	STREAM CENTERLINE
---	EXISTING TREE LINE (FIELD LOCATED)	○	STREAM BUFFER
---	EXISTING FENCE	○	RECREATION OPEN SPACE
---	PROPERTY LINE	○	NO WOODY BUFFER
---	RIGHT-OF-WAY LINE	○	EX. PRIVATE USE - IN COMMON ACCESS EASEMENT PLAT#17392-17393
---	SOILS BOUNDARY	○	PROP. STREET LIGHT
---	4' SIDEWALK	○	PROP. STREET SIGNS
---	SILT FENCE	○	
---	SUPER SILT FENCE	○	
---	LIMIT OF DISTURBANCE	○	
---	CURB INLET PROTECTION	○	
---	AT GRADE INLET PROTECTION	○	
---	STABILIZED CONSTRUCTION ENTRANCE	○	
---	150-WATT POST TOP	○	
---	100-WATT POST TOP	○	
---		○	

NOTE
SEE SHEET 4 FOR NOISE WALL BERM COMBINATION DETAIL.

BASIN NO.1

TRAP TYPE:	SEDIMENT BASIN
EX. DRAINAGE AREA:	7.70 AC.
PROP. DRAINAGE AREA:	7.70 AC.
TOTAL STORAGE REQUIRED:	27,720 CF
WET STORAGE PROVIDED:	30,056 CF (INCLUDING 1YR. TSWM)
DRY STORAGE PROVIDED:	13,710 CF
TOTAL STORAGE PROVIDED:	46,943 CF
BOTTOM ELEV:	239.00
CREST ELEVATION:	266.00
WET STORAGE ELEVATION:	262.60-266.29
DRY STORAGE ELEVATION:	259.00-262.60
TOTAL STORAGE DEPTH:	7.29'
TOP OF EMBANKMENT:	270.55
CLEANOUT ELEVATION:	262.21
SIDE SLOPES:	3:1
BASIN BOTTOM DIMENSION:	80'X15'
EMERGENCY SPILLWAY:	N/A
Q ₁ (PRE-DEVELOPMENT) =	4.91 CFS
Q ₁ (CONSTRUCTION/NEWLY GRADED FOR TSWM) =	2.03 CFS
Q ₁ (POST-DEVELOPMENT) =	0.10 CFS

DETECTION POND

POCKET POND
HAZARD CLASS A
PRIVATELY OWNED & MAINTAINED
1 YR WSE = 265.08
10 YR WSE = 266.40
100 YR WSE = 266.93
W/O= GRASS CHANNEL & NATURAL AREA CONSERVATION CREDIT & RAINGARDENS & POCKET POND
CP= NA
Rev= STONE TRENCH

OWNERS
LOTS 1, 2, AND 3 RIVERSIDE OVERLOOK, PHASE 1
TRUSTEES OF STATE BOARD OF CHURCH OF GOD
7240 LONG VIEW ROAD
COLUMBIA MD 21044

DEVELOPER
BENZER PROPERTY II, LLC
C/O JARROLD SPRAWK
5308 DORSEY HALL DRIVE
ELlicOTT CITY, MARYLAND 21042
443-367-0422

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2	REVISE PLANS TO REFLECT ADDITION OF LOTS 13-16	11/12/2010
NO.	REVISION	DATE

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	GROUP
CgB2	CHESTER GRAVELLY SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY	B
Cs	COMUS SILT LOAM	B
ELD2	ELCLOAK SILT LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED	C
GIC2	GLENELG LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B
GID2	GLENELG LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED	B
Hs	HATBORO SILT LOAM	B
MgB2	MANOR GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	B
MgC2	MANOR GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B
ME	MANOR LOAM, 25 TO 45 PERCENT SLOPES	B

PAGE 16 OF THE HOWARD COUNTY SOIL SURVEY

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Michelle Z. Smith 11-9-09
CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Robert H. Vogel 11/12/09
CHIEF, DEVELOPMENT ENGINEERING DIVISION

Kate Schaefer 11-16-09
CHIEF, DIVISION OF LAND DEVELOPMENT

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

Robert H. Vogel 11/3/09
HOWARD S60

ENGINEERS CERTIFICATE
I HEREBY 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.

Robert H. Vogel 11/3/09
ROBERT H. VOGEL, PE #16193

DEVELOPER'S CERTIFICATE
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE IN ACCORDANCE TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

Robert H. Vogel 11/14/09

"AS-BUILT" CERTIFICATION
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE AS-BUILT PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

ROBERT H. VOGEL, P.E. #16193 DATE
CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE SITE INSPECTION AND TESTS DEEMED SUFFICIENT AND APPROPRIATE BY COMMONLY ACCEPTED ENGINEERING STANDARDS CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES AN ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.

**FINAL ROAD CONSTRUCTION PLAN
GRADING, SEDIMENT & EROSION
CONTROL PLAN
RIVERSIDE OVERLOOK PHASE II
LOTS 4 TO 12, 18 TO 22, 24 TO 33,
OPEN SPACE LOTS 17, 23, 34 & 35
AND PHASE III, LOTS 13-16.**
A RESUBDIVISION OF RIVERSIDE OVERLOOK PHASE I
LOTS 1, 2, 3 AND BUILDABLE BULK PARCEL "A"

TAX MAP 41 GRID 11 PARCEL 179
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

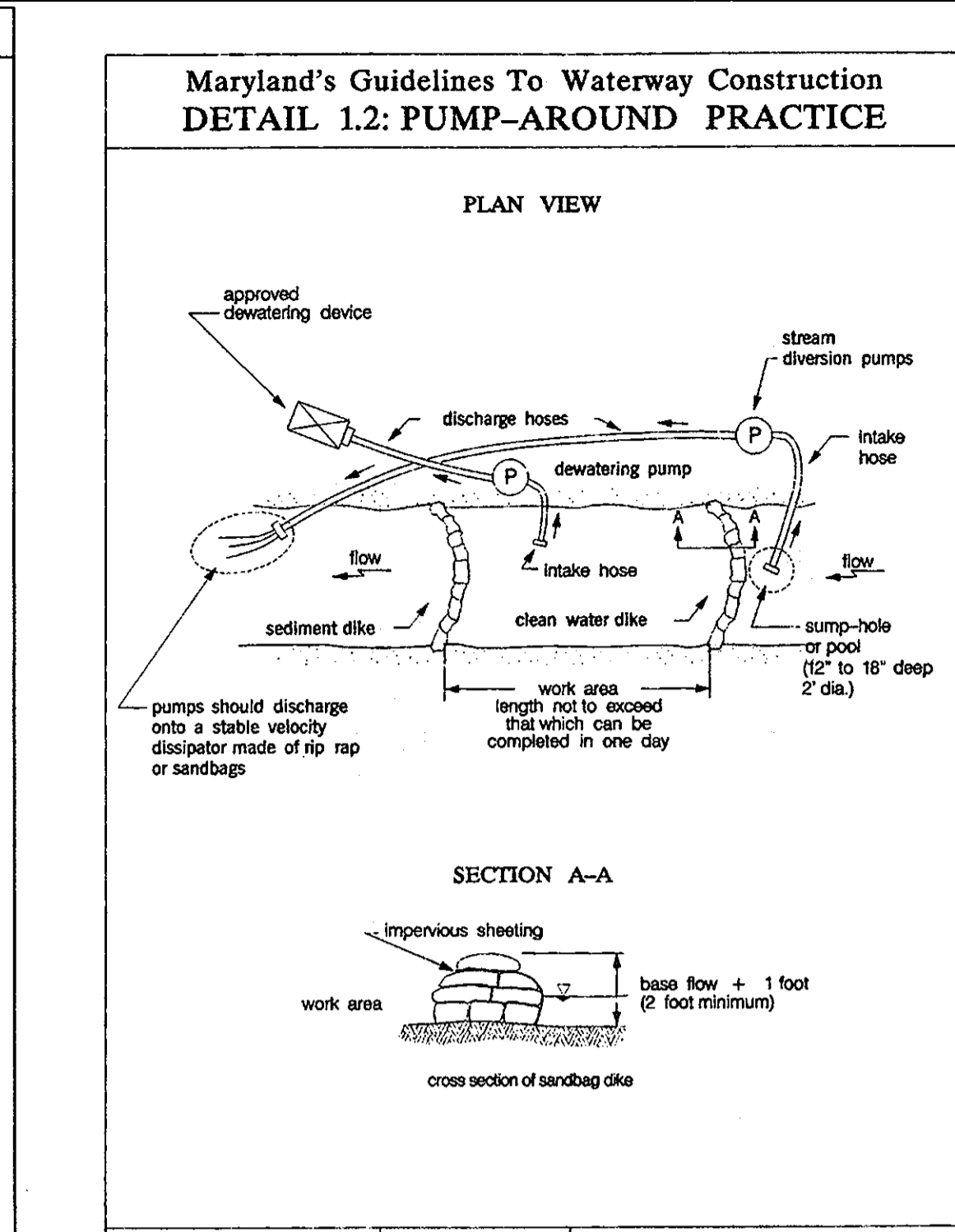
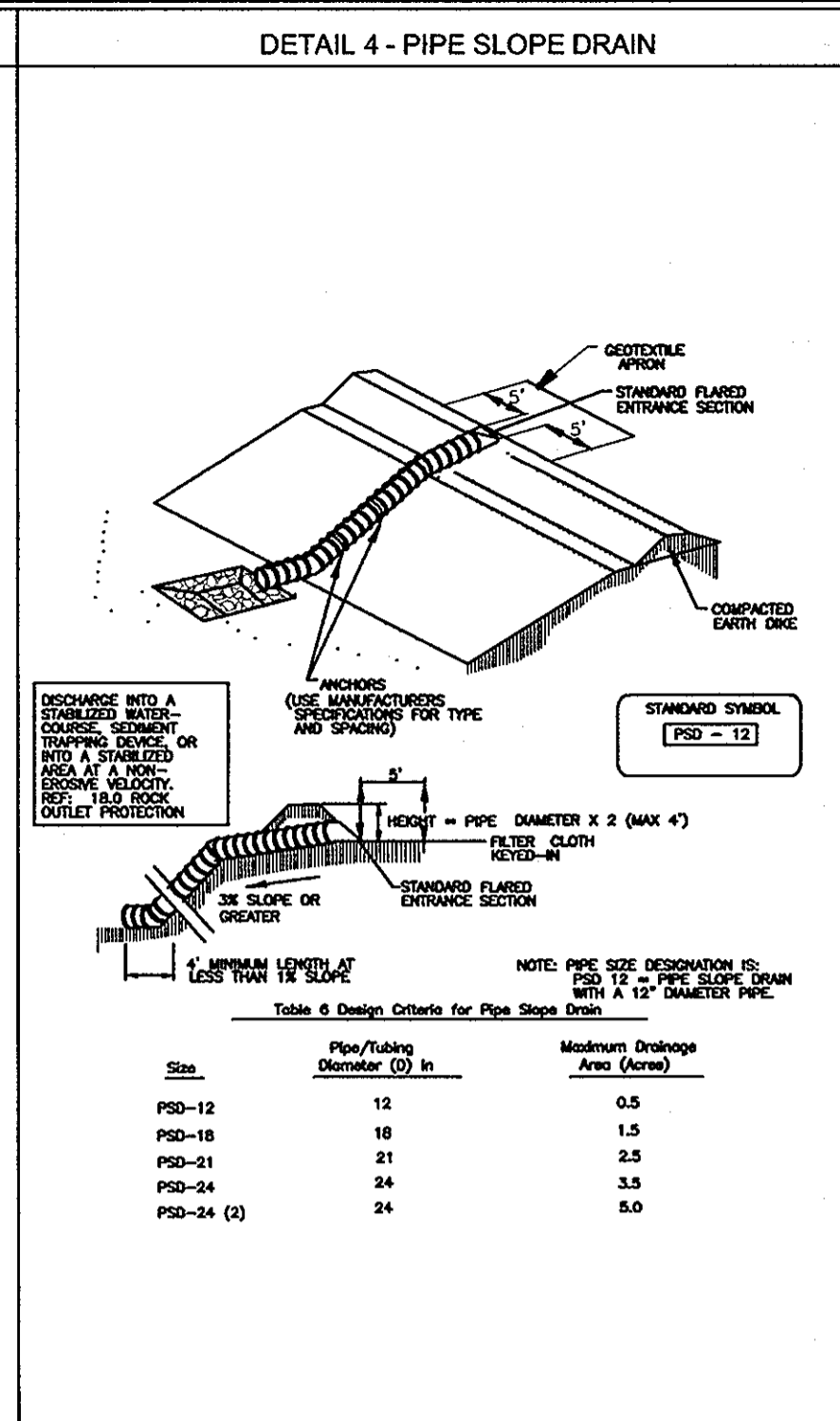
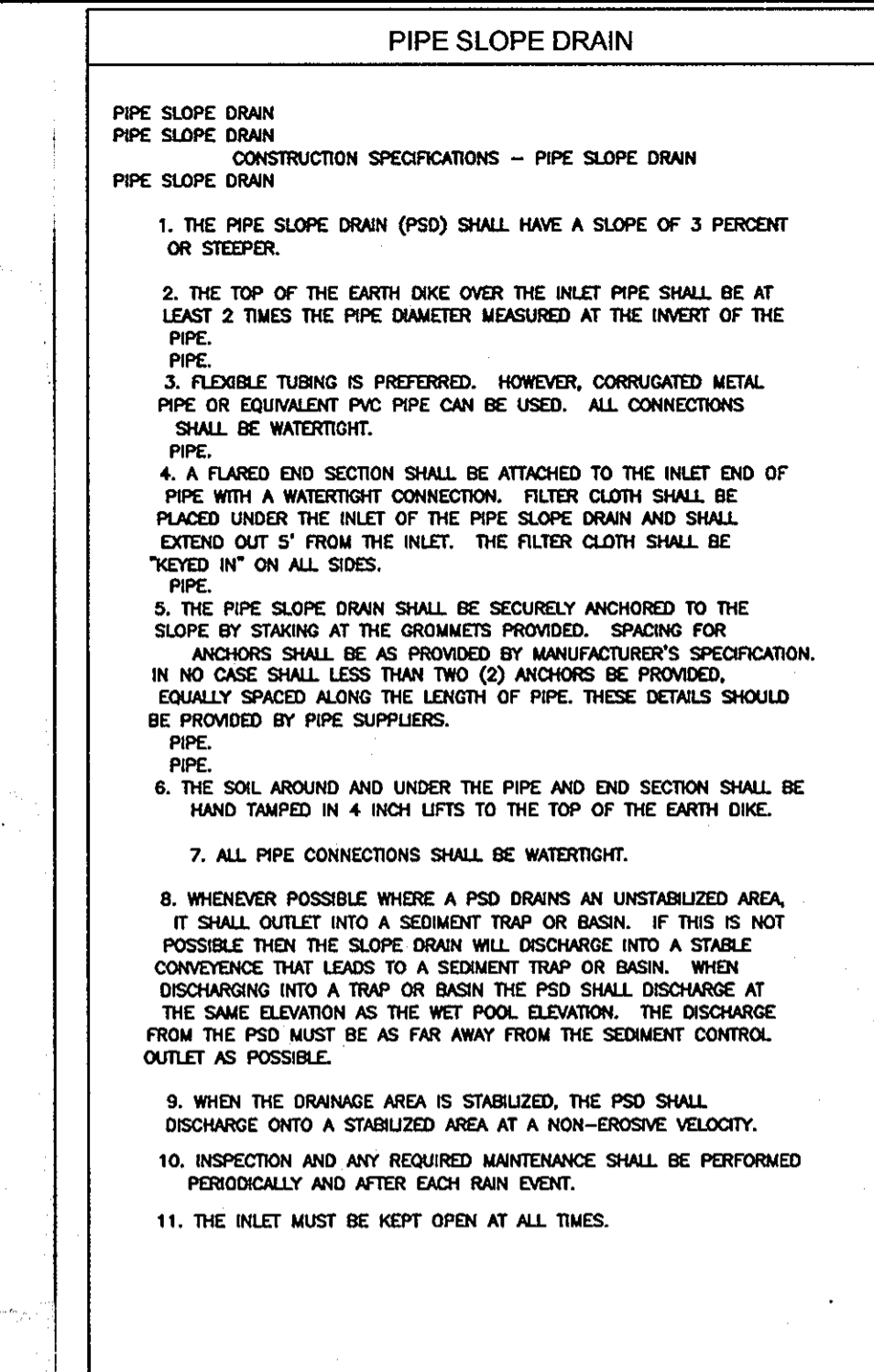
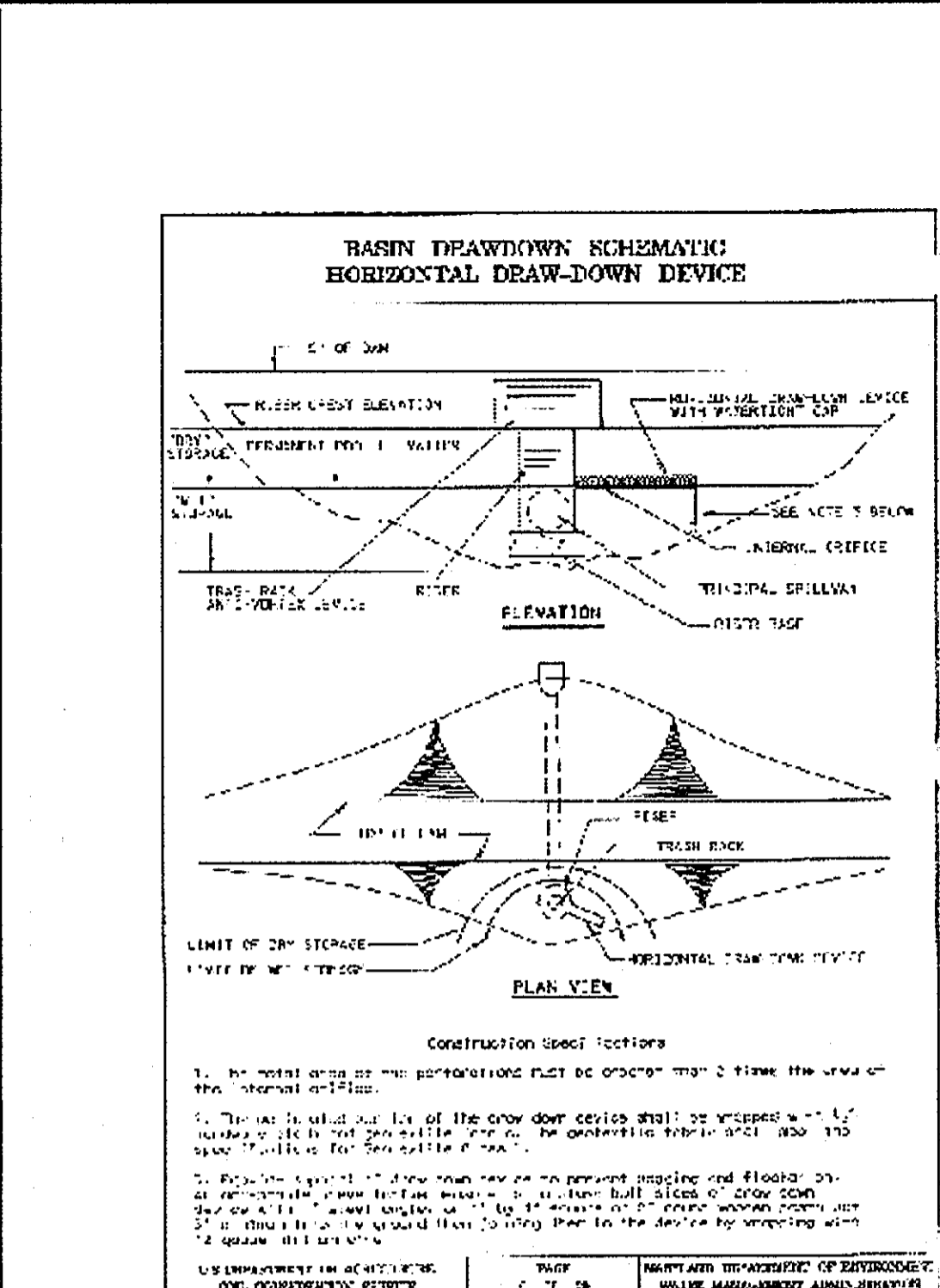
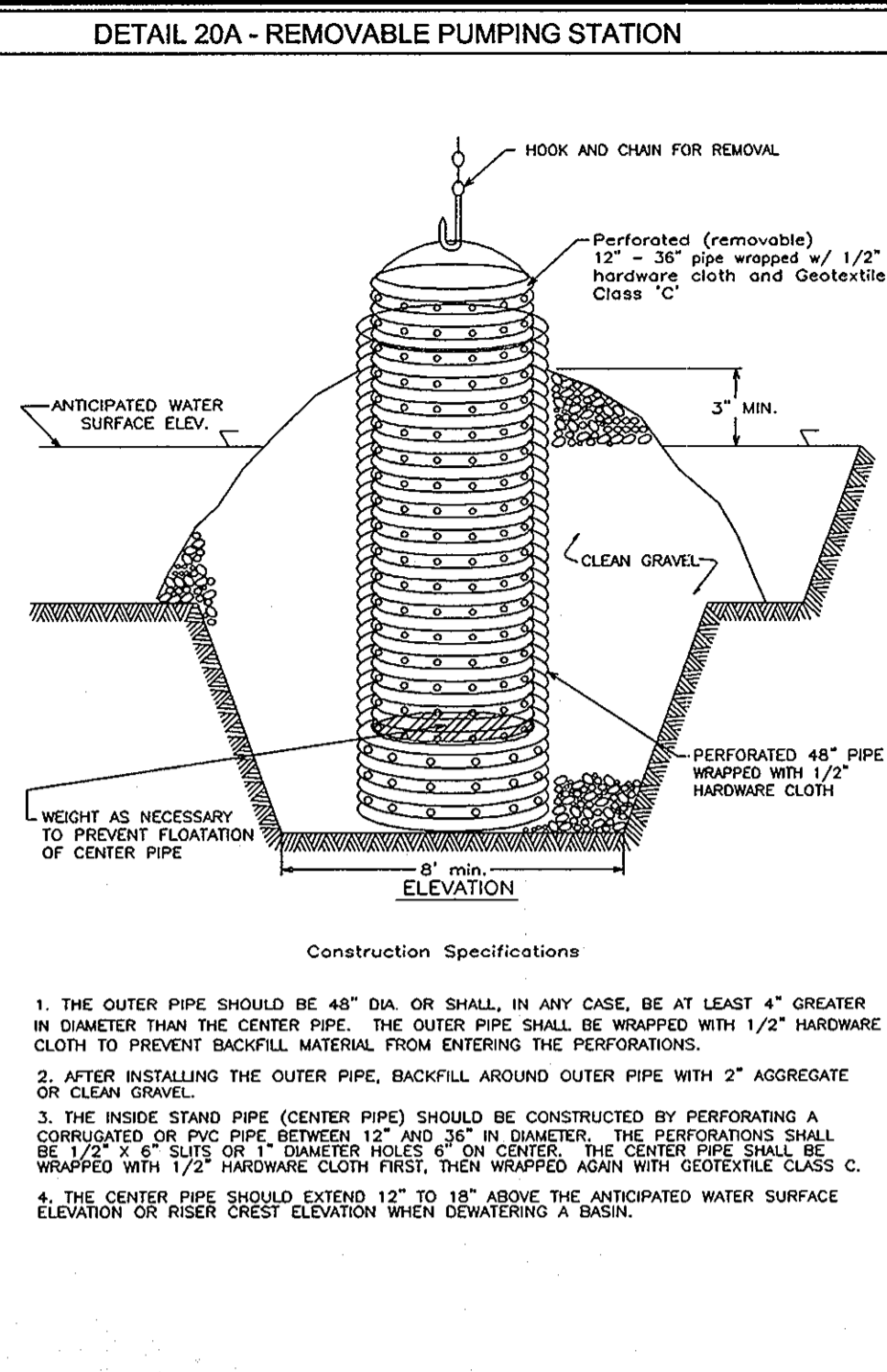
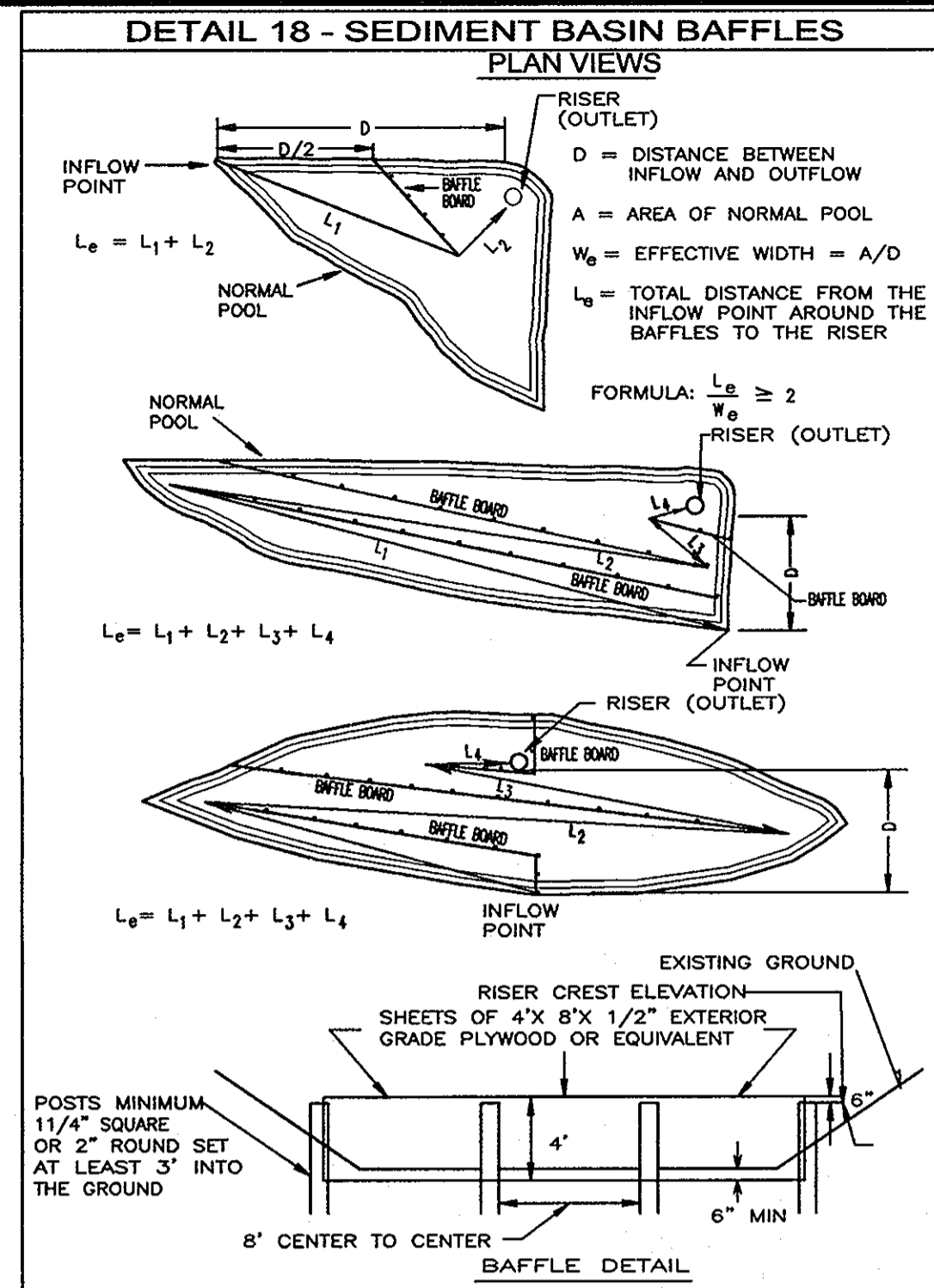
**ROBERT H. VOGEL
ENGINEERS • SURVEYORS • PLANNERS**
8407 MAIN STREET TEL: 410.461.7669
ELlicOTT CITY, MD 21043 FAX: 410.461.3969

DESIGN BY: R.H.V.
DRAWN BY: HED
CHECKED BY: R.H.V.
DATE: OCTOBER 2009
SCALE: 1"=50'
W.O. NO.: 03-29

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193 EXPIRATION DATE: 09-27-2010

6 SHEET OF 15

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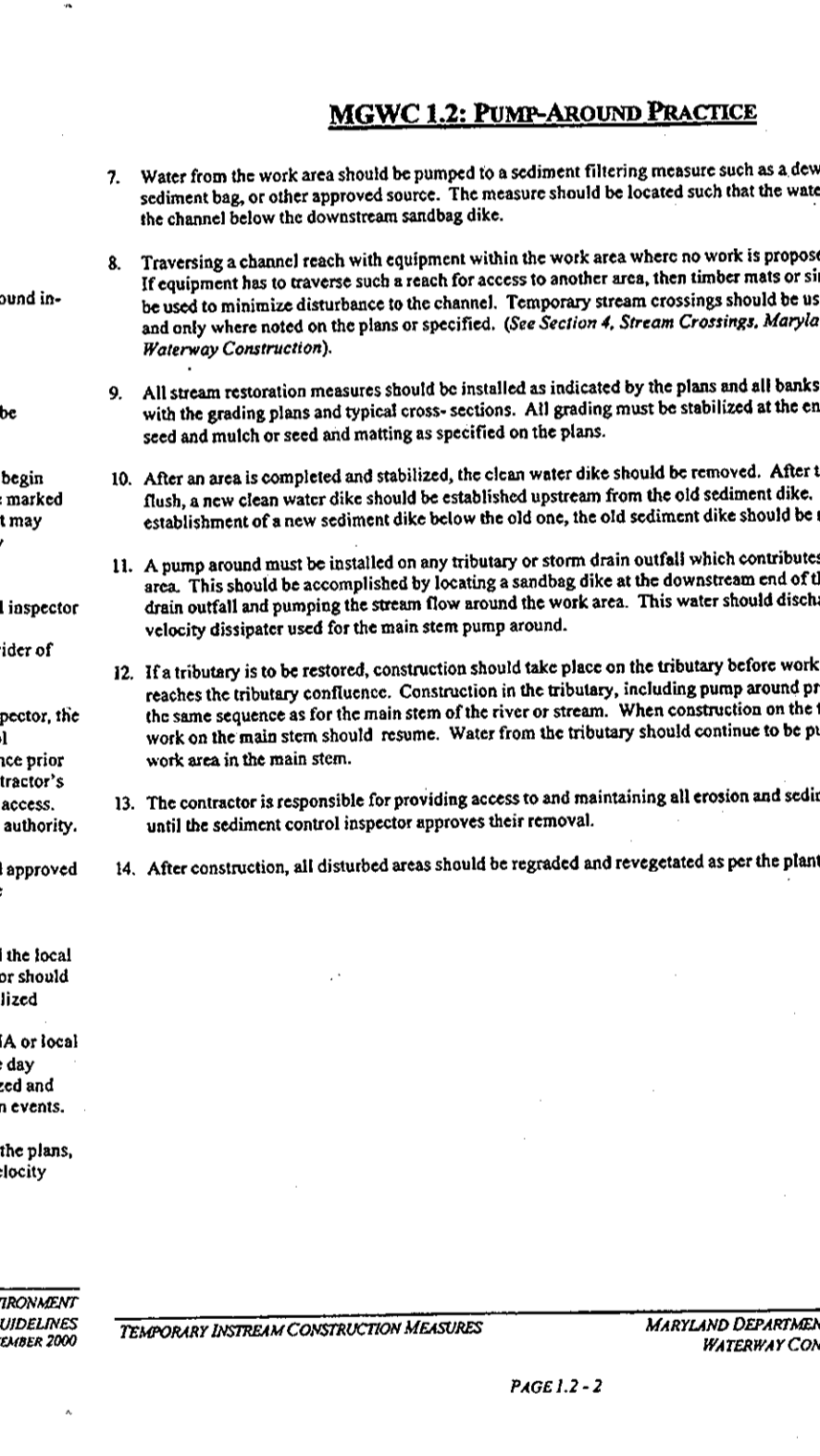
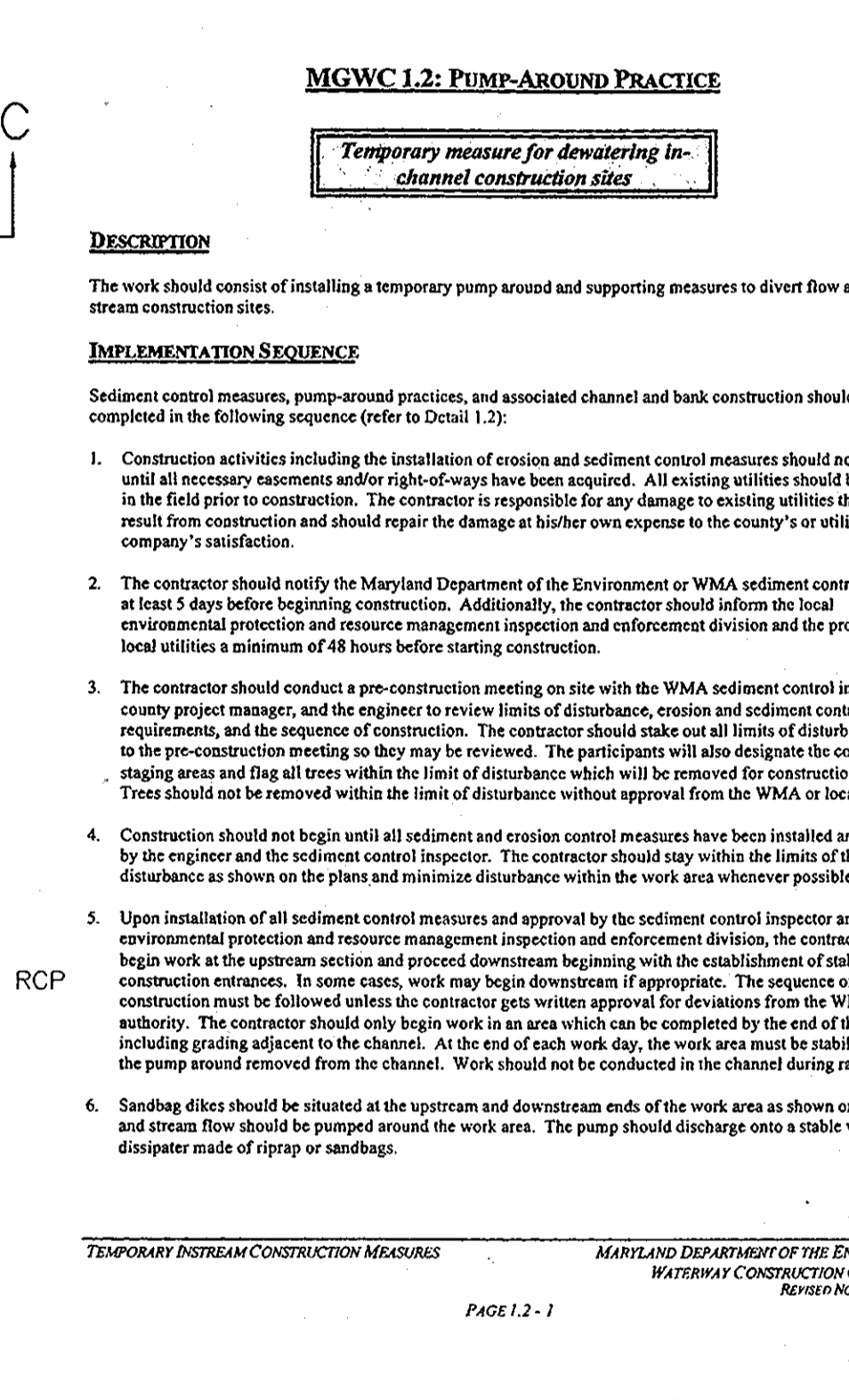
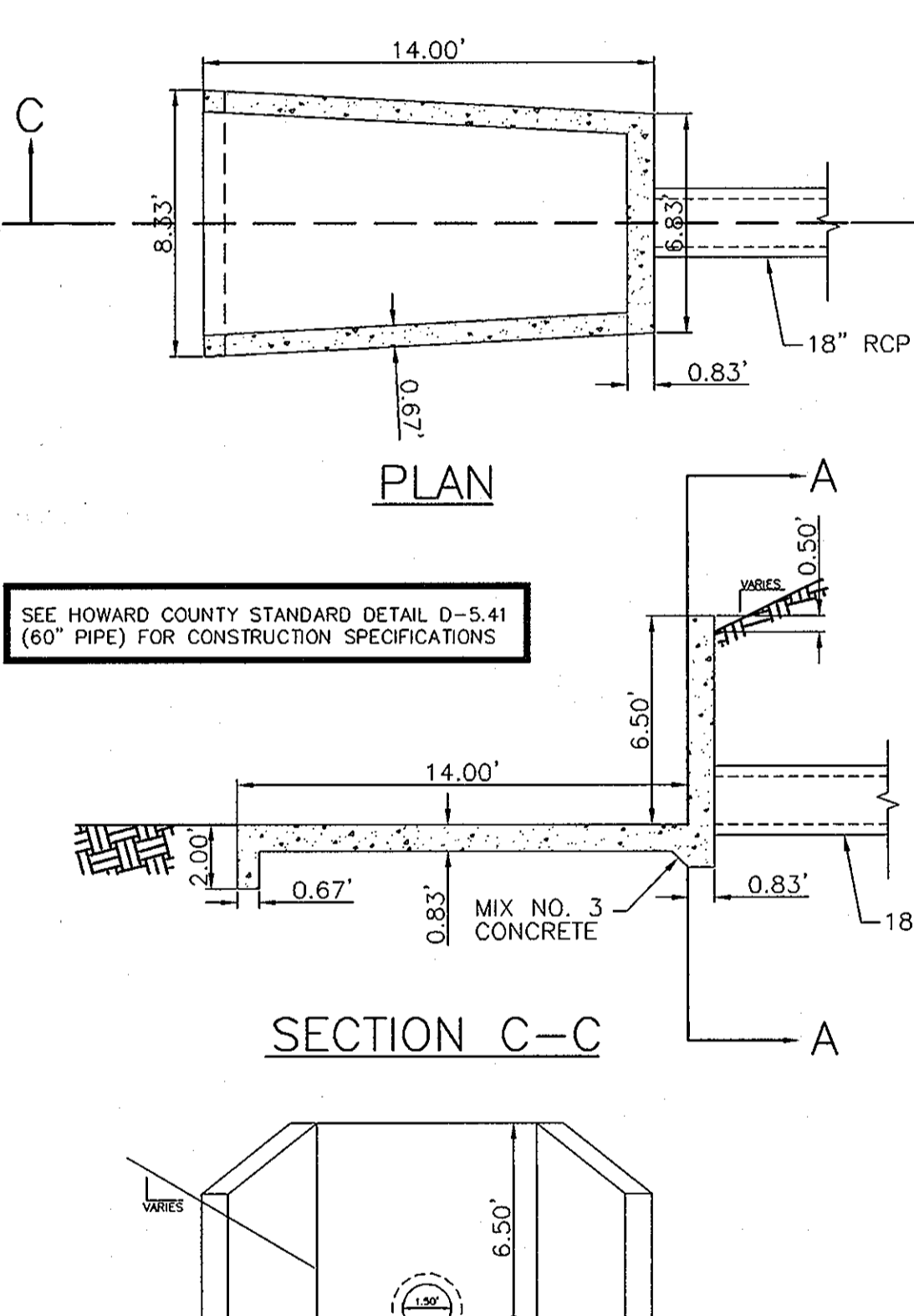
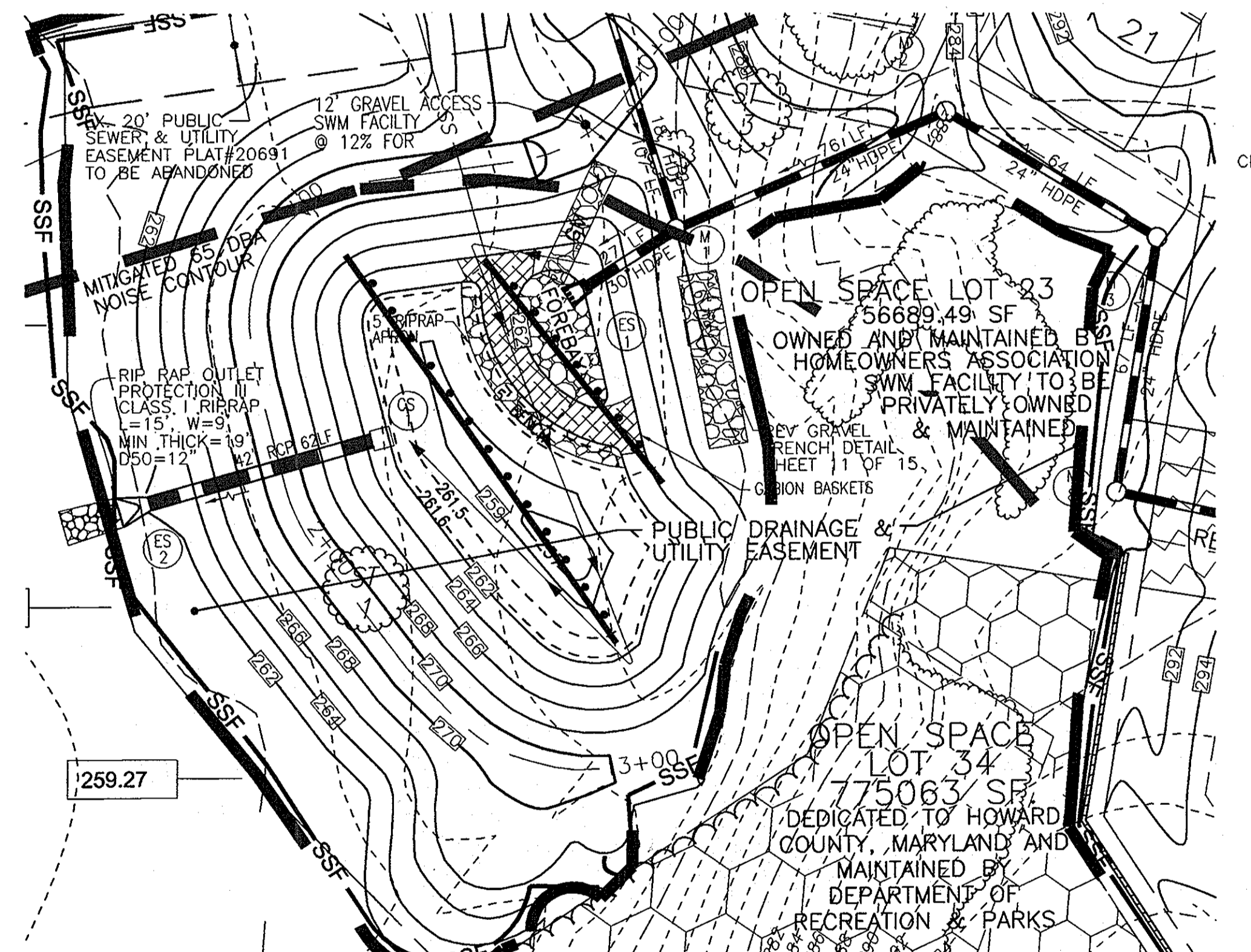
U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 10 - 28 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

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U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 10 - 28 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



OWNERS
 LOTS 1, 2, AND 3 RIVERSIDE OVERLOOK, PHASE 1
 TRUSTEES OF STATE BOARD OF CHURCH OF GOD
 7240 LONG VIEW ROAD
 COLUMBIA MD 21044

DEVELOPER
 NON BUILDABLE BULK PARCEL "A"
 REWELER LONG TERM HOLDING LLC
 5300 DORSEY HALL DRIVE
 ELLICOTT CITY, MARYLAND 21042
 443-367-0422

1	PLANS ARE REVISED PER SP-09-004 AND WP-09-122.	04-06-2009
2	REVISE PLANS TO REFLECT ADDITION OF LOTS 13-16	11/12/2010

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 11-9-09
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 11-23-09
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: HOWARD COUNTY DEPARTMENT OF LAND DEVELOPMENT
 11-16-09
 CHIEF, DIVISION OF LAND DEVELOPMENT

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

HOWARD S&D
 11/2/09

ENGINEERS CERTIFICATE

I HEREBY 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.

ROBERT H. VOGEL, PE #16193
 10/15/09

DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE IN ACCORDANCE TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

10/19/09

"AS-BUILT" CERTIFICATION

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE AS-BUILT PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

ROBERT H. VOGEL, P.E. #16193
 DATE 10/19/09
 CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED IN ACCORDANCE WITH THE ON-SITE INSPECTION AND TESTS DEEMED SUFFICIENT AND APPROPRIATE BY COMMONLY ACCEPTED ENGINEERING STANDARDS. CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES AN ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.

FINAL ROAD CONSTRUCTION PLAN

SEDIMENT AND EROSION CONTROL DETAILS

RIVERSIDE OVERLOOK PHASE II

LOTS 4 TO 12, 18 TO 22, 24 TO 33
 OPEN SPACE LOTS 17, 23, 34 & 35
 AND PHASE III LOTS 13-16
 A RESUBDIVISION OF RIVERSIDE OVERLOOK PHASE I
 LOTS 1, 2, 3 AND BUILDABLE BULK PARCEL "A"

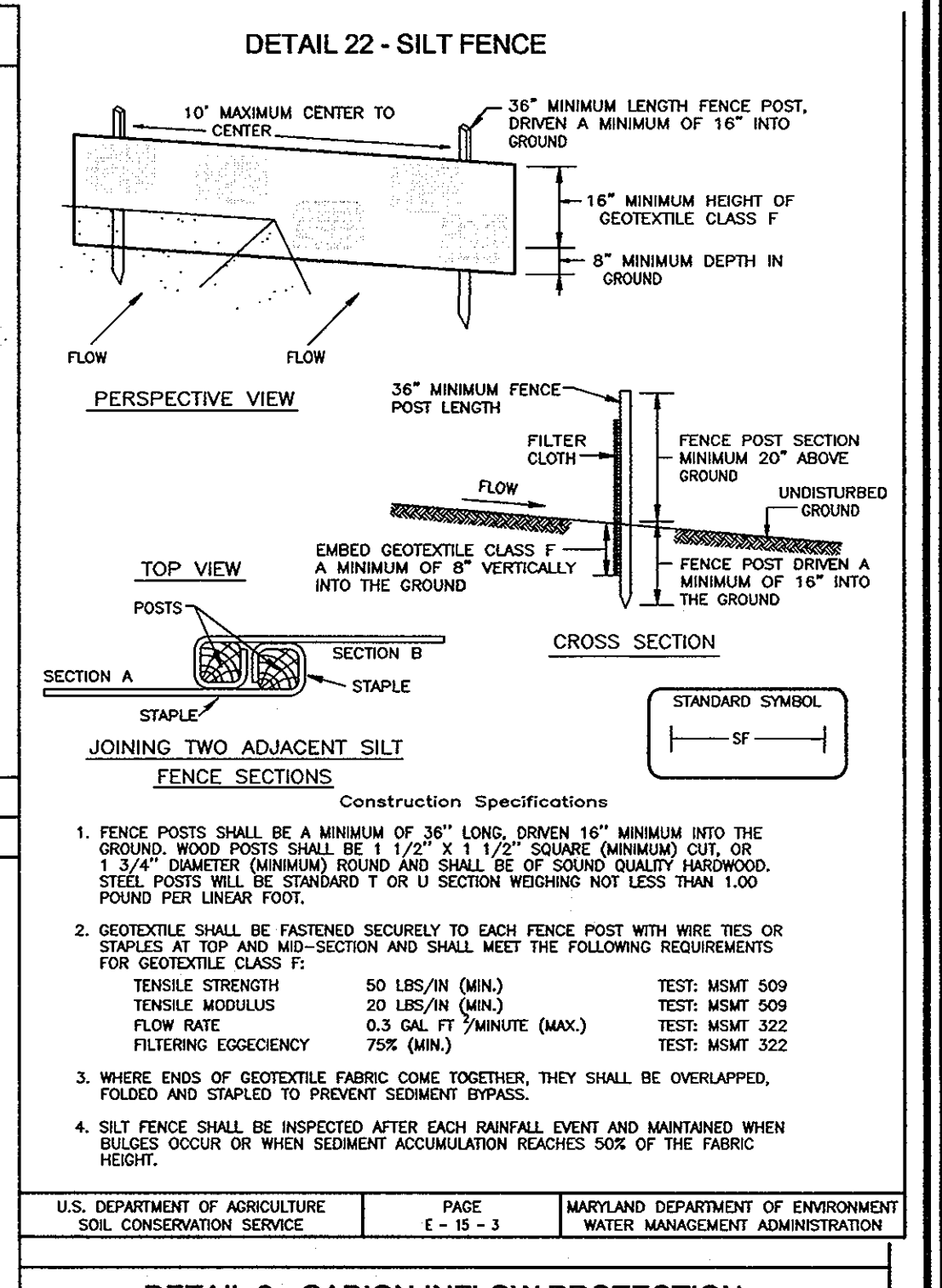
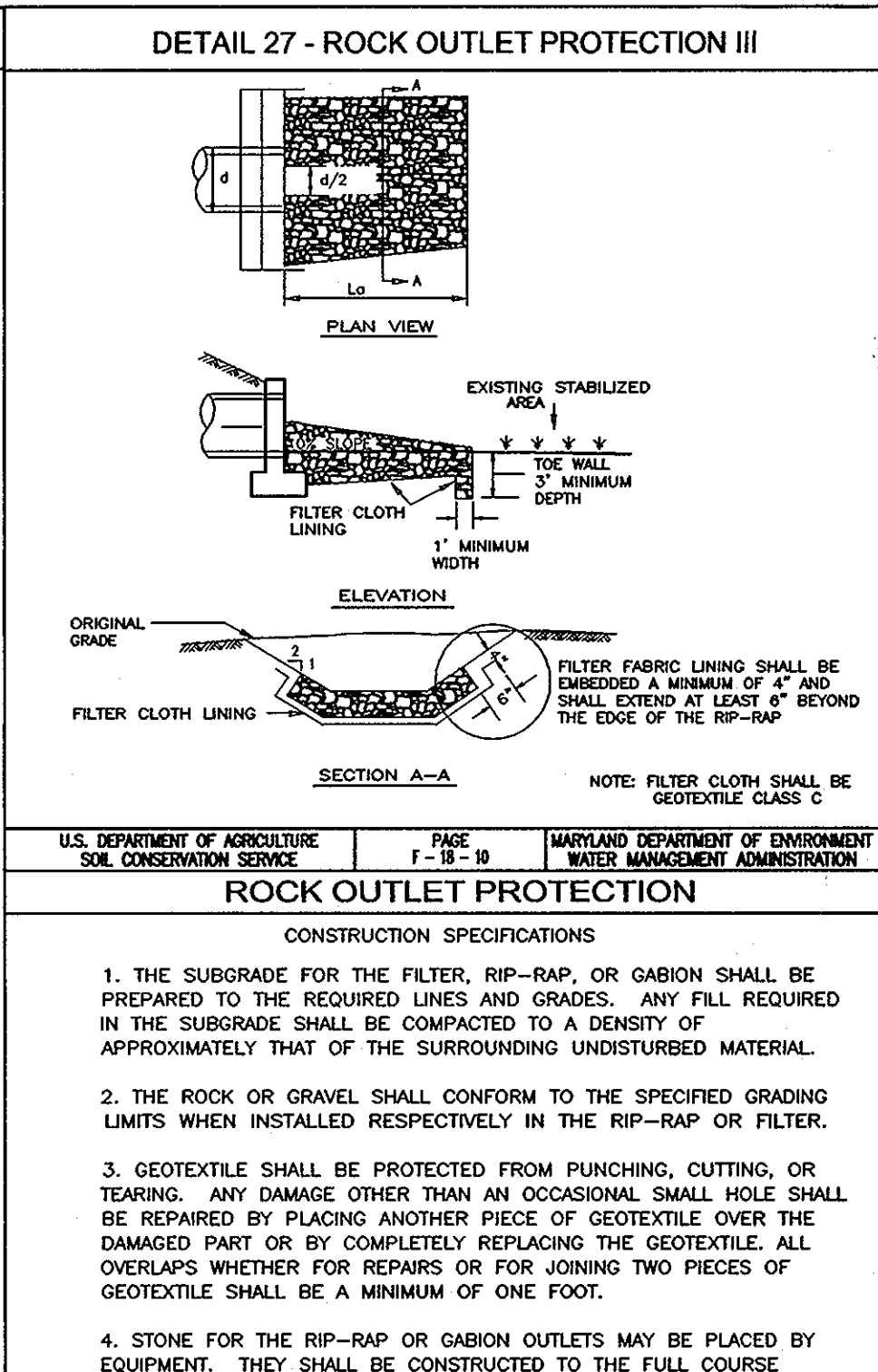
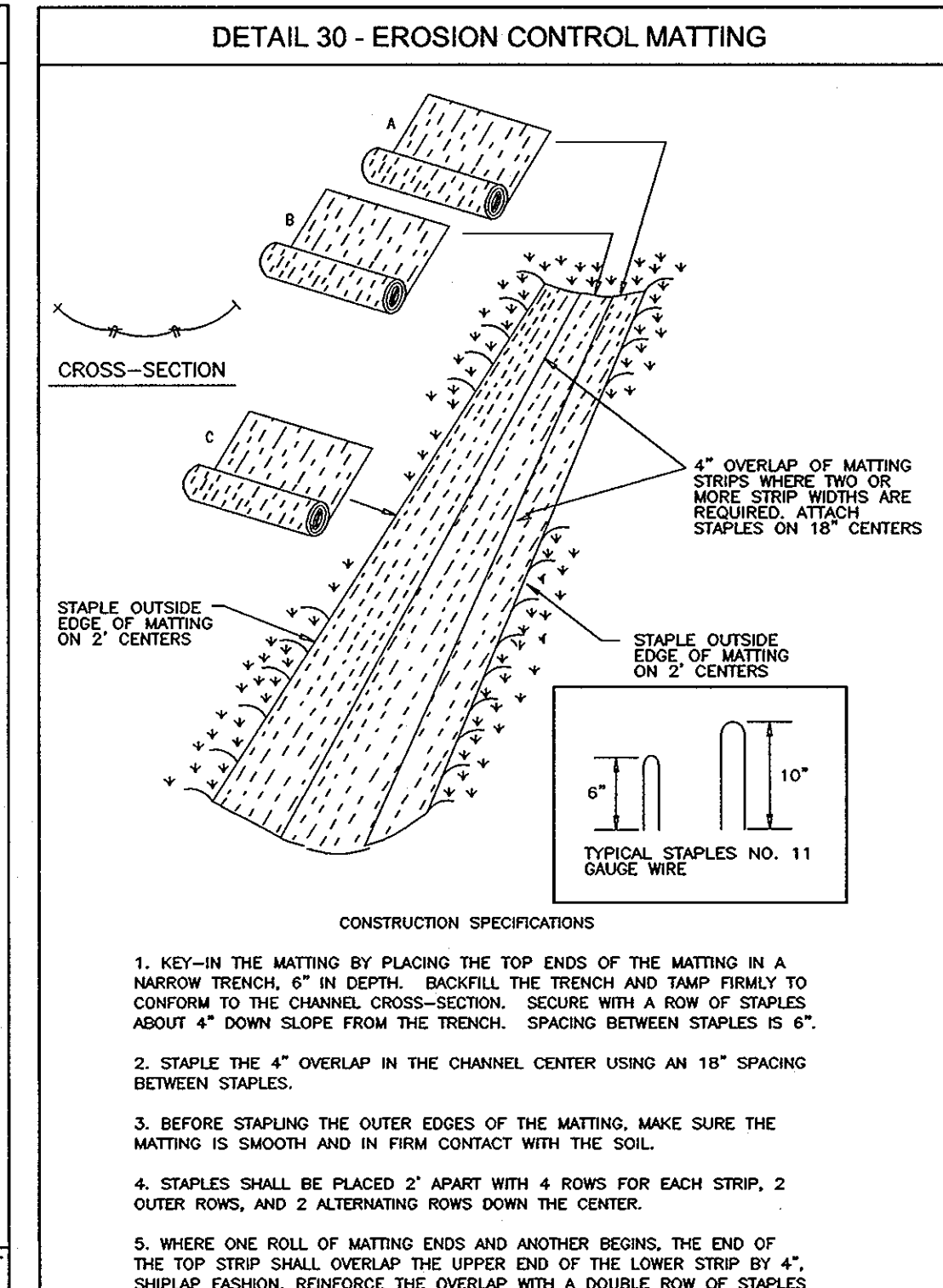
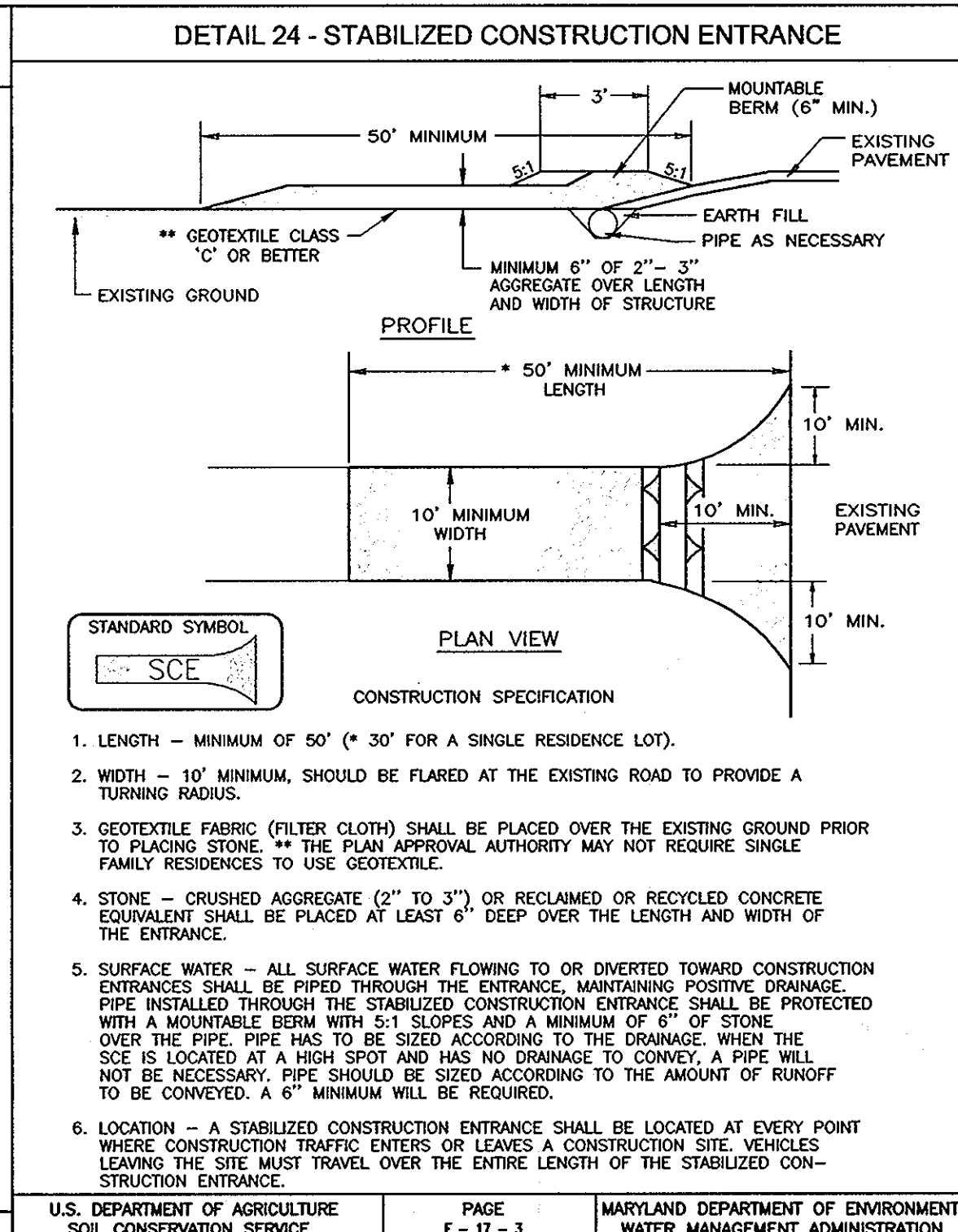
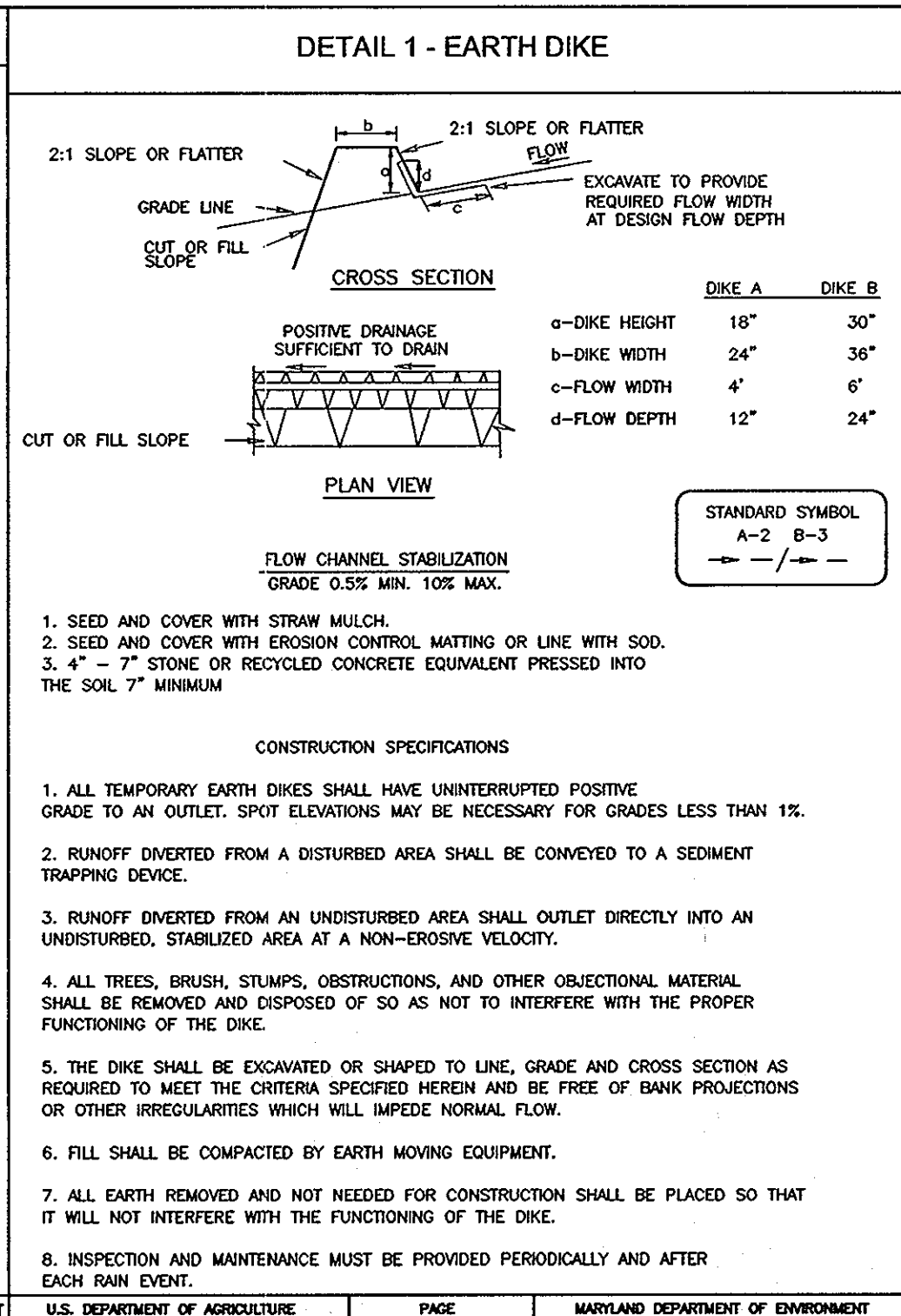
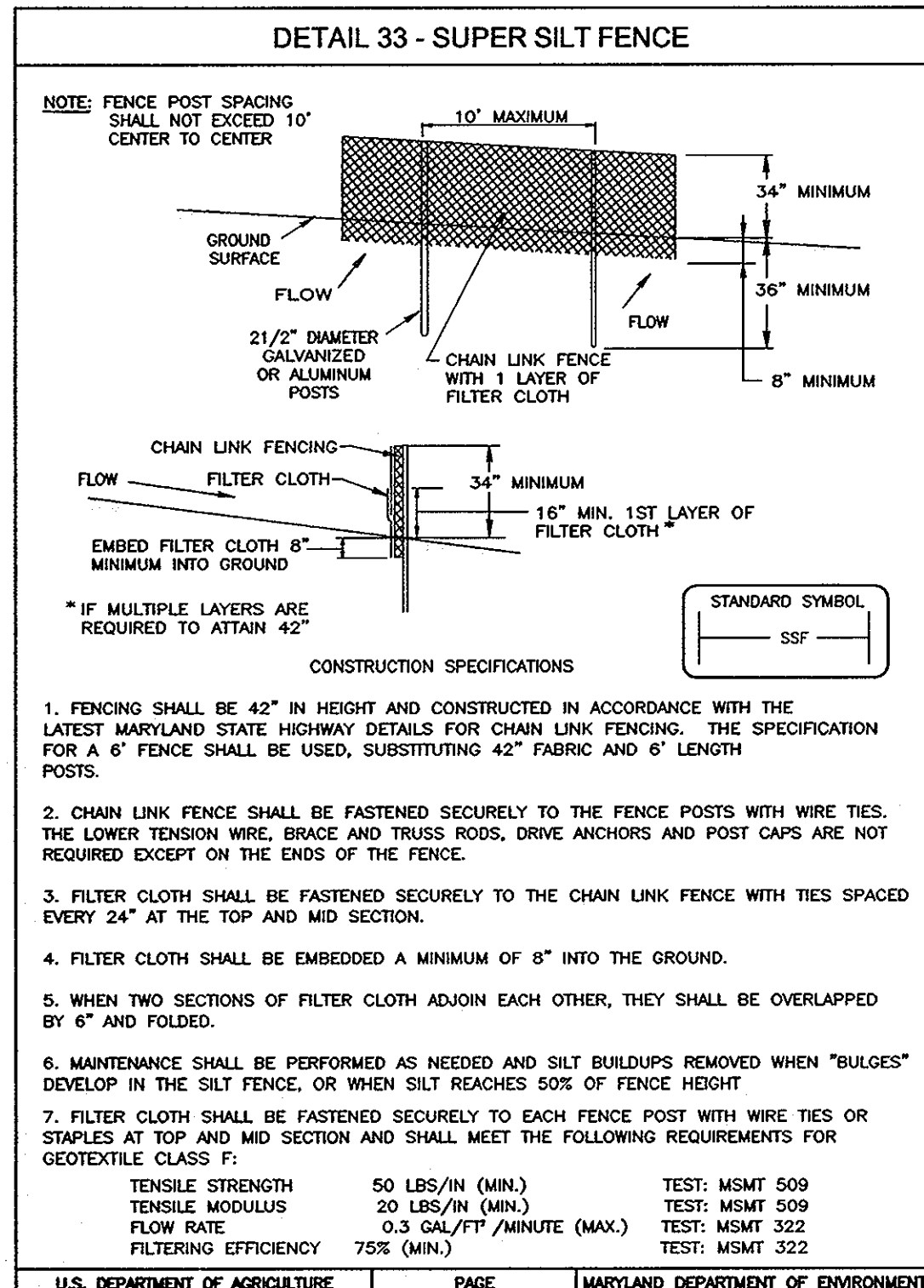
TAX MAP 41 GRID 1 5TH ELECTION DISTRICT
 PARCEL 179 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIL STREET ELLICOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.7667

DESIGN BY: RJ
 DRAWN BY: HED
 CHECKED BY: RIV
 DATE: OCTOBER 2009
 SCALE: AS SHOWN
 W.D. NO.: 03-29

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193 EXPIRATION DATE: 09-27-2010

7 SHEET OF 15



21.0 STANDARDS 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 VEGETABLE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADES.

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 ADOPTIVE TO PRODUCE VEGETATIVE GROWTH.
 - THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
 - THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
 - THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
- FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.

CONSTRUCTION AND MATERIAL SPECIFICATIONS

- TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.
- TOPSOIL EXPERIMENTAL STATION - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
 - TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR A SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CHINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 AND 1/2" IN DIAMETER.
 - TOPSOIL SHALL BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERBERIS 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. LINE 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.

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

- PREFERRED-APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ.FT.) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL AT THE TIME OF SEEDING. APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ.FT.)
- ACCEPTABLE-APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ.FT.) AND APPLY 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

SEEDING: FOR 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 80 LBS. PER ACRE (1.8 LBS/1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE PER ACRE (0.5 LBS/1000 SQ.FT.) OF WEEDING LOVEGRASS. DURING THE PERIOD OF OCTOBER 15 THRU FEBRUARY 28, PROTECT SITE BY OPTION (1) 2 TONS PER ACRE WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE 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 GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS ON SLOPES 8 FEET OR HIGHER. USE 348 GALLONS PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

MAINTENANCE: INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

TEMPORARY SEEDING NOTES

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT.)

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 2 1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ.FT.) FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEDING LOVEGRASS (0.7 LBS/1000 SQ.FT.). FOR THE PERIOD NOVEMBER 1 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ.FT.) OF UNROTTED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS ON SLOPES 8 FEET OR HIGHER. USE 348 GALLONS PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

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

SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPT. OF INSPECTION, LICENSE AND PERMITS SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).
- ALL VEGETATION 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 AND REVISIONS THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: (A) 7 CALENDAR DAYS FOR ALL PERMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERMETER SLOPES, AND ALL SLOPES GREATER THAN 5:1, (B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHALL BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, 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 SEEDING, SOD, TEMPORARY SEEDING, AND MULCHING (SC). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL 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:

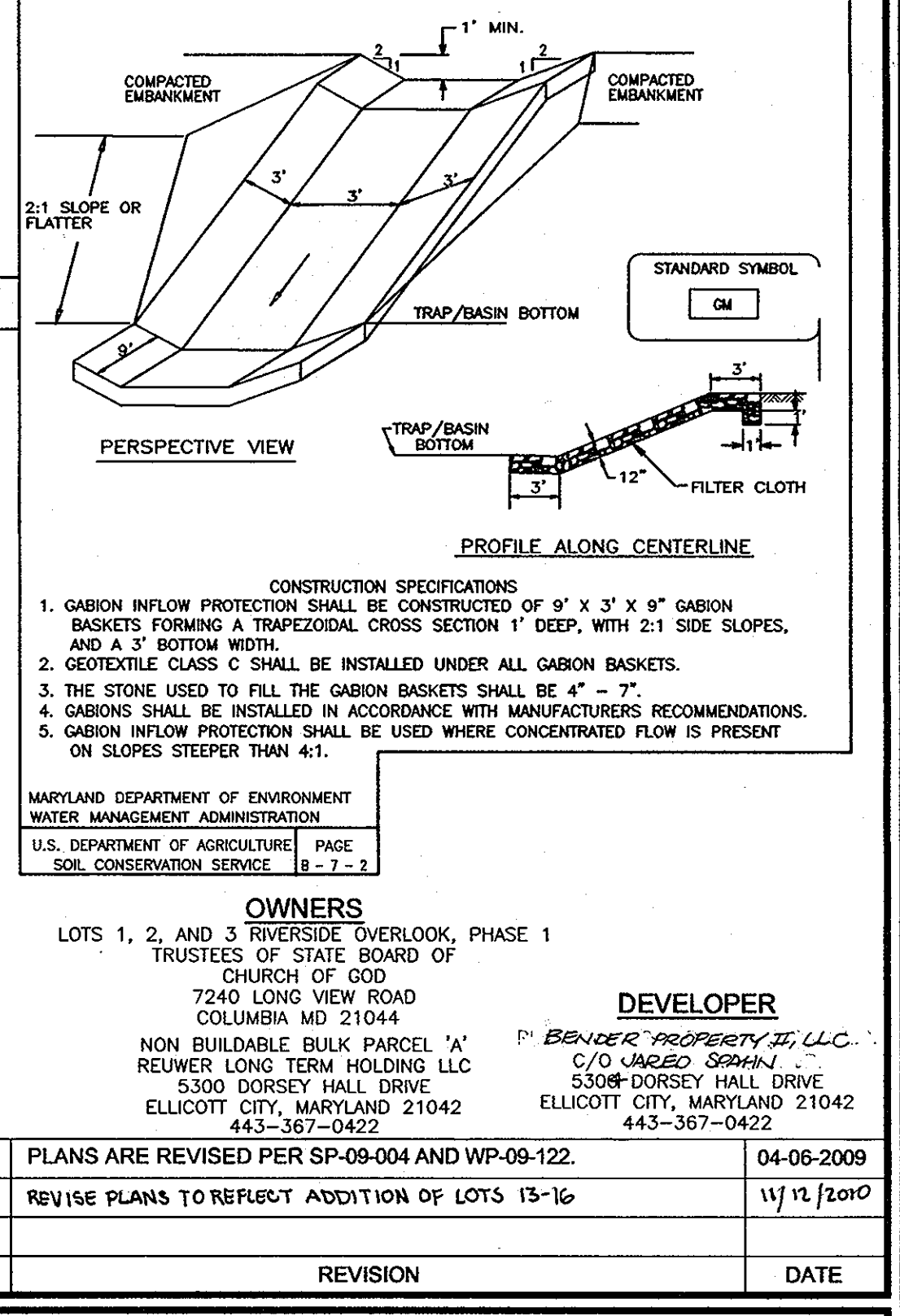
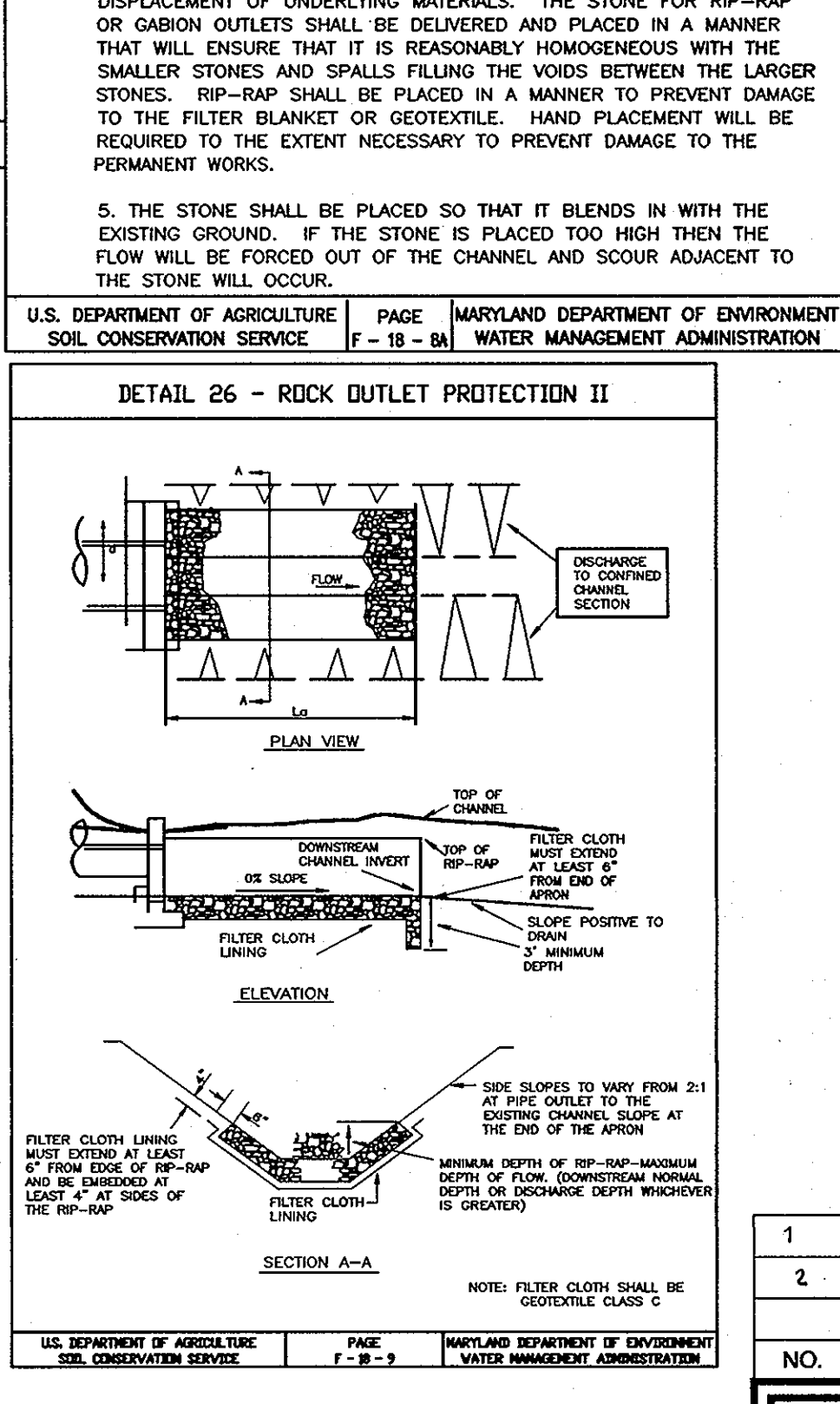
TOTAL AREA	28.71 AC.
AREA DISTURBED	8.78 AC.
AREA TO BE ROOFED OR PAVED	2.3 AC.
AREA TO BE VEGETATIVELY STABILIZED	9.91 AC.
TOTAL CUT	20,090 CY
TOTAL FILL	20,090 CY

OFFSITE 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 CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR OTHER WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.
- TO BE DETERMINED BY CONTRACTOR, WITH PRE-APPROVAL OF THE SEDIMENT CONTROL INSPECTOR WITH AN APPROVED AND ACTIVE GRADING PERMIT.

SEQUENCE OF CONSTRUCTION DURATION

- OBTAIN GRADING PERMIT, MDE PERMIT NO.(APPLICATION TRACKING NUMBER) STREAM CLOSURE CLASS A. IN STREAM CONSTRUCTION MAY NOT OCCUR BETWEEN 3/1 AND 6/15. 1 WEEK
- NOTIFY HOWARD COUNTY BUREAU OF INSPECTIONS AND PERMITS (313-1880) AT LEAST 24 HOURS BEFORE STARTING ANY WORK. 1 DAY
- CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE. 1 DAY
- PERMETER SEDIMENT CONTROL DEVICES INCLUDING: INSTALLING TREE PROTECTION DEVICES, SILT FENCE SUPER SILT FENCE, WHEN CONTRIBUTING AREAS FOR PHASE 1 ARE FULLY STABILIZED AND A 5-DAY CLEAR WEATHER (NO PRECIPITATION) FORECAST FROM THE NWS IS OBTAINED, WITH INSPECTOR'S APPROVAL, UPON INSTALLATION OF CONTROLS AS SHOWN ON THE PLAN, INSTALL CULVERTS, HW-21, HW22, STABILIZE DISTURBED AREA AND START CONSTRUCTION OF PHASE 2. 1 WEEK
- CONSTRUCT STORMWATER MANAGEMENT FACILITY (SEDIMENT BASIN) AND INSTALL EARTH DIKES. (ALL STRUCTURES AND SUPPLIES FOR PONDS MUST BE ON-SITE, AND PERMISSION FROM THE INSPECTOR IS GRANTED, BEFORE PROCEEDING). 3 WEEKS
- AFTER OBTAINING PERMISSION FROM SEDIMENT CONTROL INSPECTOR TO PROCEED ROUGH GRADE TO LOD. 2 WEEKS
- BEGIN CONSTRUCTION STORM DRAIN SYSTEM. 3 WEEK
- BEGIN CONSTRUCTION OF WATER & SEWER SYSTEM. 6 WEEK
- GRADE ROAD TO SUB-BASE 1 DAYS
- WITH ROAD GRADED TO SUB-BASE BEGIN ROAD PAVING. 2 DAYS
- FINE GRADE SITE IN CONFORMANCE WITH PLAN. 3 WEEKS
- WITH INSPECTOR APPROVAL AND FINAL ROAD PAVING COMPLETE STABILIZE ANY REMAINING DISTURBED AREAS 3 DAYS
- CONVERT SEDIMENT BASINS TO FINAL STORMWATER MANAGEMENT FACILITY AND REMOVE SEDIMENT CONTROL MEASURES. 2 WEEK
- REMOVE ALL NEW AND OLD JUNK, TRASH, DEBRIS AND OTHER MAN-MADE OBJECTS FROM THE ENTIRE FOREST CONSERVATION EASEMENT, FLOODPLAIN, WETLANDS, STREAMS AND THEIR BUFFERS. 1 WEEK
- INSTALL STREET TREES AND ALL LANDSCAPING 1 WEEK
- WITH APPROVAL OF SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL MEASURES. + PROVIDE COPY OF AS-BUILT APPROVAL FROM HOWARD SCD TO THE INSPECTOR. TOTAL 36 WEEKS



NOTES

- DURING GRADING AND AFTER EACH RAINFALL, THE CONTRACTOR SHALL INSPECT AND PROVIDE THE NECESSARY MAINTENANCE ON THE SEDIMENT AND EROSION CONTROL MEASURES SHOWN HEREON.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED:
 - 7 CALENDAR DAYS FOR ALL PERMETER SEDIMENT CONTROL STRUCTURES, DIKES, SWALES, DITCH PERMETER SLOPES SLOPES AND ALL SLOPES GREATER THAN 5:1.
 - 14 CALENDAR DAYS FOR ALL OTHER DISTURBED AREAS.
- ALL SEDIMENT BASIN IS TO REMAIN UNTIL CONSTRUCTION INCLUDING DWELLING UNITS ARE COMPLETED, AND ALL DISTURBED AREAS ARE STABILIZED.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Ullrich R. ... 11-9-09
CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

... 11/13/09
CHIEF, DEVELOPMENT ENGINEERING DIVISION

... 11-16-09
CHIEF, DIVISION OF LAND DEVELOPMENT

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

ENGINEERS CERTIFICATE

I HEREBY 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.

ROBERT H. VOGEL, P.E. #16193 10/25/09

DEVELOPER'S CERTIFICATE

I HEREBY CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE IN ACCORDANCE TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

ROBERT H. VOGEL, P.E. #16193 10/25/09

"AS-BUILT" CERTIFICATION

I HEREBY CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE IN ACCORDANCE TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

ROBERT H. VOGEL, P.E. #16193 DATE 10/25/09

PROFESSIONAL CERTIFICATE

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193 EXPIRES DATE 07-31-2010

DESIGN BY: R.H.V.
DRAWN BY: HED.
CHECKED BY: R.H.V.
DATE: OCTOBER 2009
SCALE: AS SHOWN
W.O. NO.: 03-29

ROBERT H. VOGEL, P.E. #16193

FINAL ROAD CONSTRUCTION PLAN

SEDIMENT AND EROSION CONTROL DETAILS

RIVERSIDE OVERLOOK PHASE II

LOTS 4 TO 12, 18 TO 22, 24 TO 33,
OPEN SPACE LOTS 17, 23, 34 & 35
AND PHASE III, LOTS 13-16.
A RESUBDIVISION OF RIVERSIDE OVERLOOK PHASE I
LOTS 1, 2, 3 AND BUILDABLE BULK PARCEL "A"

TAX MAP 41 GRID 5TH ELECTION DISTRICT PARCEL 179 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.

ENGINEERS • SURVEYORS • PLANNERS

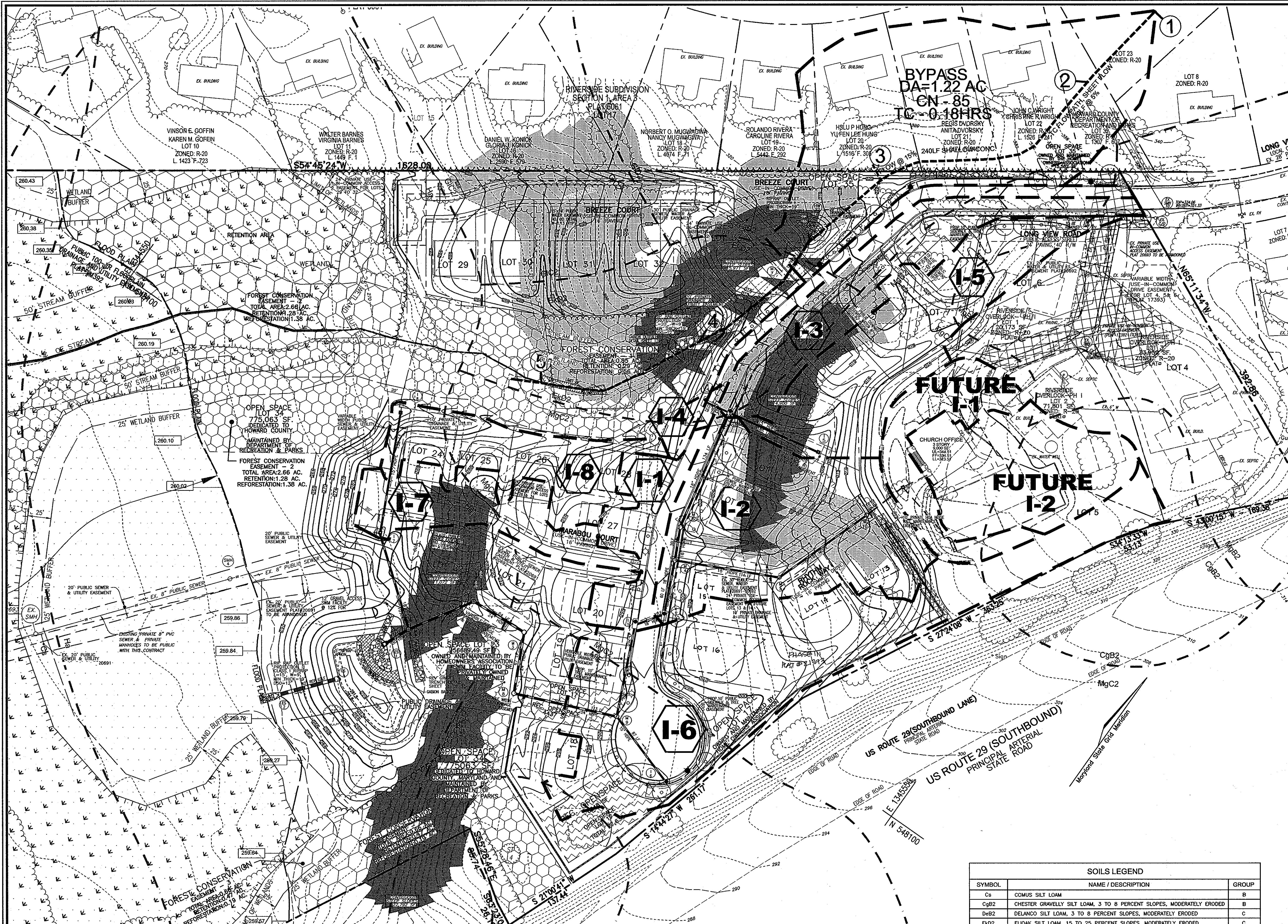
8407 MAIN STREET, ELLICOTT CITY, MD 21043 TEL: 410-461-7666 FAX: 410-461-8961

NO. REVISION DATE

1	PLANS ARE REVISED PER SP-09-004 AND WP-09-122.	04-06-2009
2	REVISE PLANS TO REFLECT ADDITION OF LOTS 13-16	11/12/2010

8 SHEET OF 15

F-08-23



LEGEND

- EXISTING CONTOUR
- PROPOSE CONTOUR
- EXISTING TREES TO REMAIN
- PROPOSED STREET TREE
- AREA OF 25% OR GREATER SLOPES (STEEP SLOPES)
- AREA OF 15% TO 24.9% SLOPES (MODERATE SLOPES)
- PROP. FOREST CONSERVATION AREA (RETENTION)
- PROP. FOREST CONSERVATION AREA (REFORESTATION)
- PUBLIC 100-YR FLOODPLAIN DRAINAGE & UTILITY EASEMENT
- WETLANDS
- WETLANDS BUFFER
- STREAM CENTERLINE
- STREAM BUFFER
- PROP. STREET LIGHT
- PROP. STREET SIGNS
- SOILS
- DRAINAGE DIVIDE

DRAINAGE AREA TABULATIONS

NO.	AREA	'C'	% IMP.	SOIL TYPE	ZONE
I-1	0.26 AC.	0.72	80%	B	R-ED
I-2	0.89 AC.	0.69	75%	B	R-ED
I-3	0.52 AC.	0.68	75%	B, C	R-ED
I-4	0.19 AC.	0.86	100%	B, C	R-ED
I-5	0.60 AC.	0.30	20%	B	R-ED
I-6	1.59 AC.	0.54	55%	B	R-ED
I-7	0.36 AC.	0.77	85%	B, D	R-ED
I-8	0.43 AC.	0.54	55%	B	R-ED
FUTURE I-1	0.41 AC.	0.28	0.17	B	-
FUTURE I-2	0.52 AC.	0.52	0.52	B	-

OWNERS
 LOTS 1, 2, AND 3 RIVERSIDE OVERLOOK, PHASE 1
 TRUSTEES OF STATE BOARD OF CHURCH OF GOD
 7240 LONG VIEW ROAD
 COLUMBIA MD 21044

DEVELOPER
 RIVERSIDE OVERLOOK II, LLC
 56 LARGED SPAN
 530 DORSEY HALL DRIVE
 ELLICOTT CITY, MARYLAND 21042
 443-367-0422

NO.	REVISION	DATE
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FINAL ROAD CONSTRUCTION PLAN
STORM DRAIN DRAINAGE AREA MAPS
RIVERSIDE OVERLOOK PHASE II
LOTS 4 TO 12, 18 TO 22, 24 TO 33,
OPEN SPACE LOTS 17, 23, 34 & 35
AND PHASE III, LOTS 13-16
 A RESUBDIVISION OF RIVERSIDE OVERLOOK PHASE I
 LOTS 1, 2, 3 AND BUILDABLE BULK PARCEL "A"

TAX MAP 41 GRID 11 PARCEL 179
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERS & SURVEYORS, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET TEL: 410-461-7666
 ELLICOTT CITY, MD 21043 FAX: 410-461-7591

PROFESSIONAL CERTIFICATE
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2010

DESIGN BY: RL
 DRAWN BY: HED
 CHECKED BY: RLW
 DATE: OCTOBER 2009
 SCALE: 1"=50'
 W.O. NO.: 03-29

9 SHEET OF 15

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	GROUP
Cs	COMUS SILT LOAM	B
CgB2	CHESTER GRAVELLY SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	B
DeB2	DELANCO SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	C
EkD2	ELJOAK SILT LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED	C
GIC2	GLENELG LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B
GID2	GLENELG LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED	B
Ho	HATBORO SILT LOAM	D
MgC2	MANOR GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B
ME	MANOR LOAM, 25 TO 45 PERCENT SLOPES	B

PAGE 24 OF THE HOWARD COUNTY SOIL SURVEY

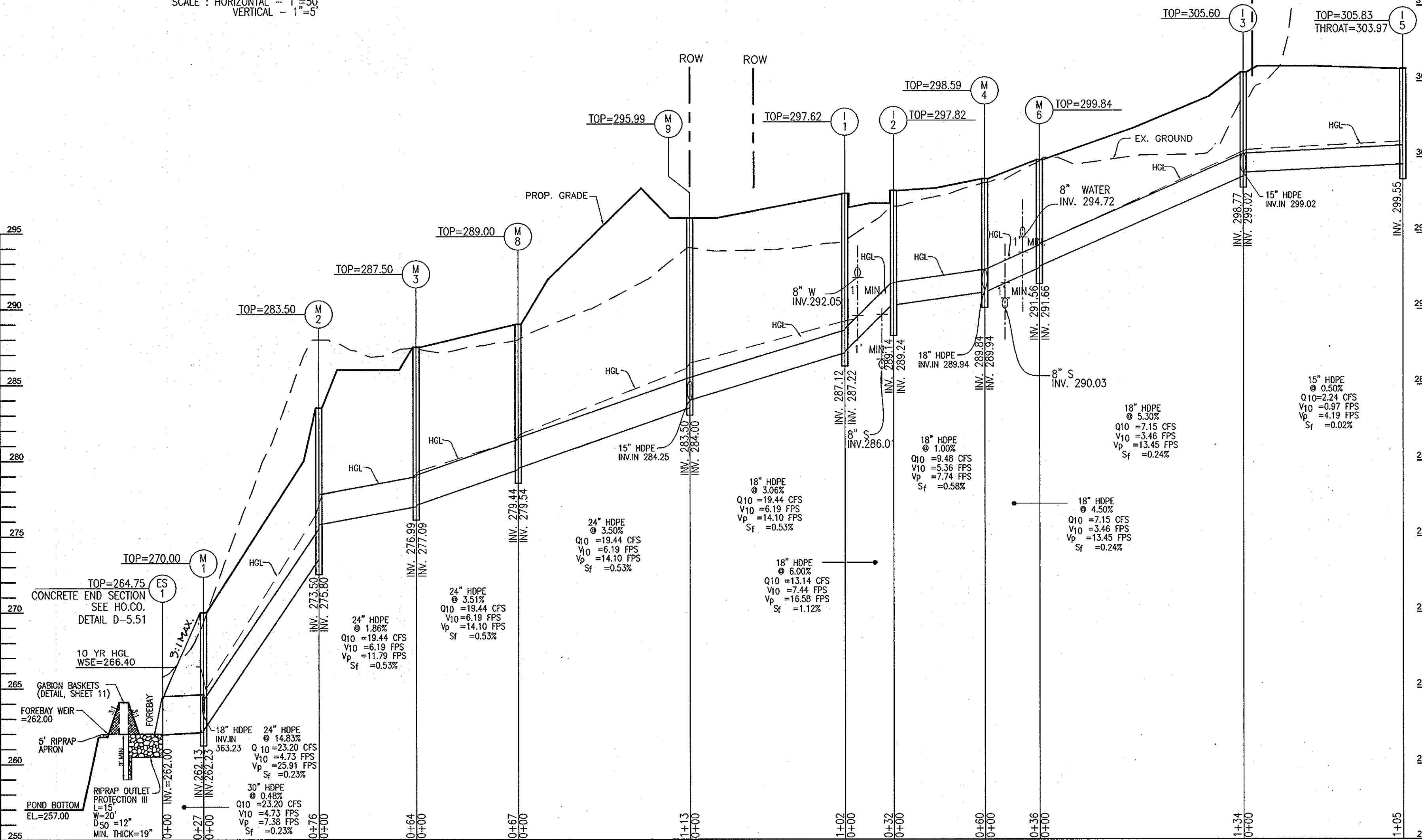
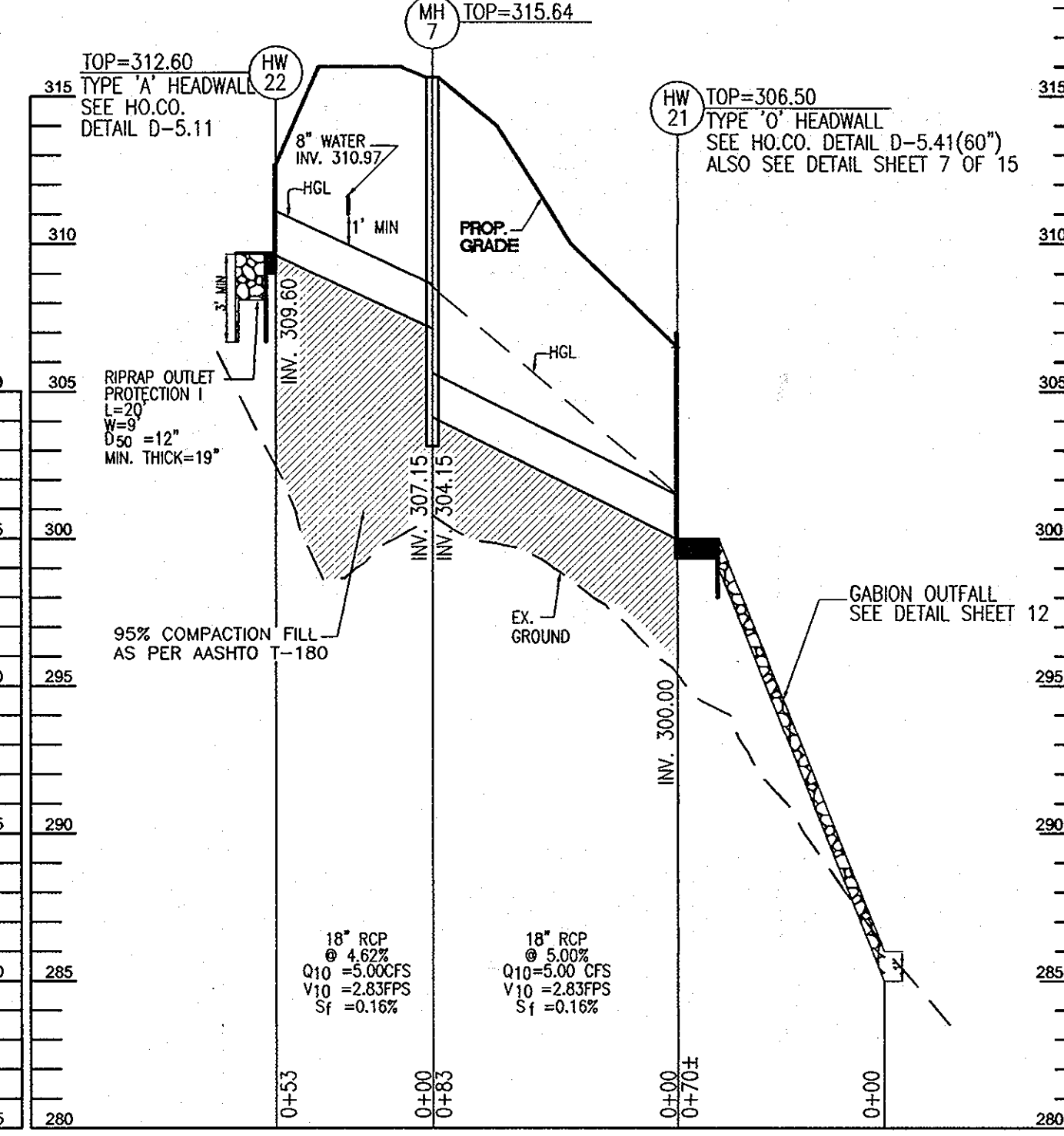
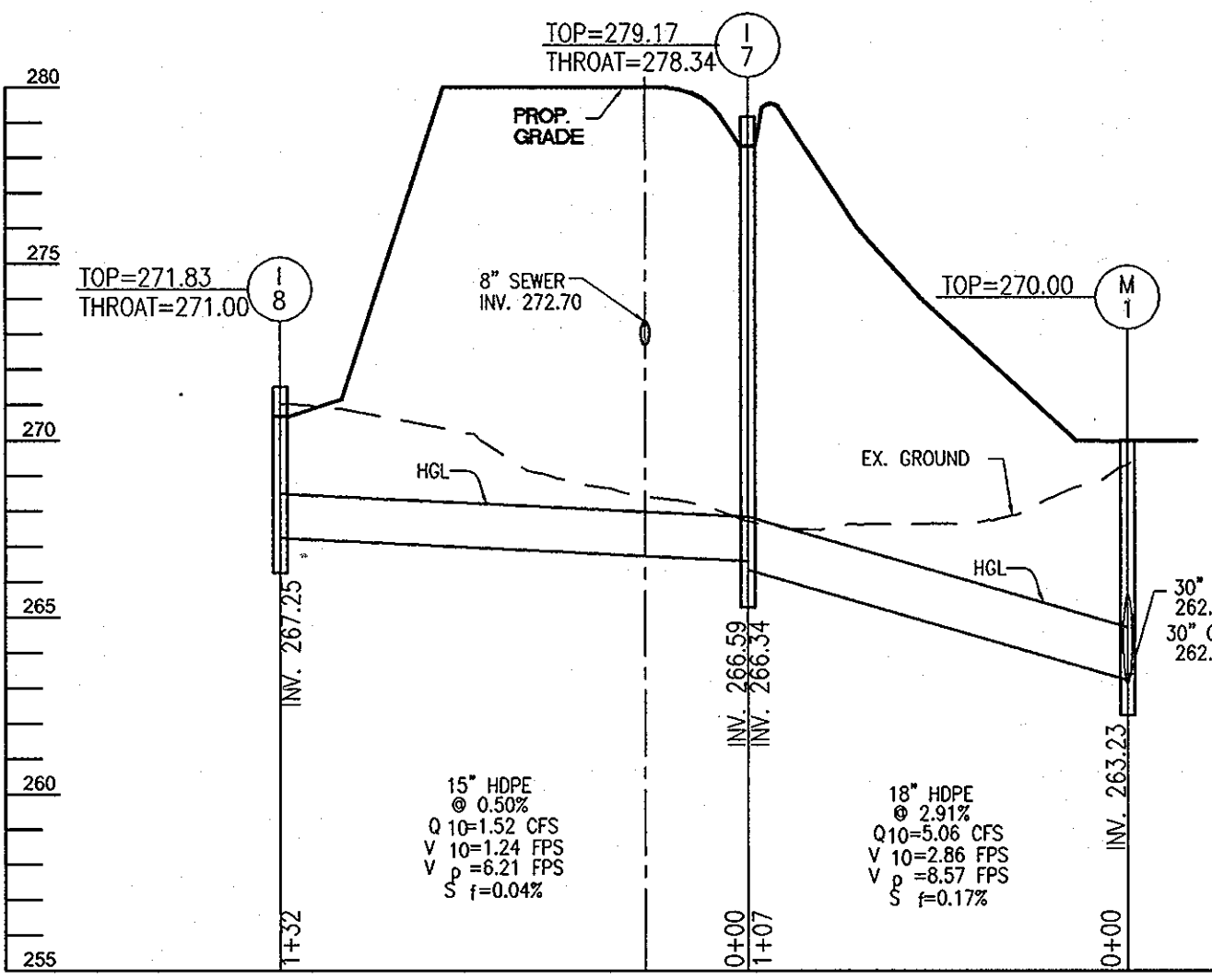
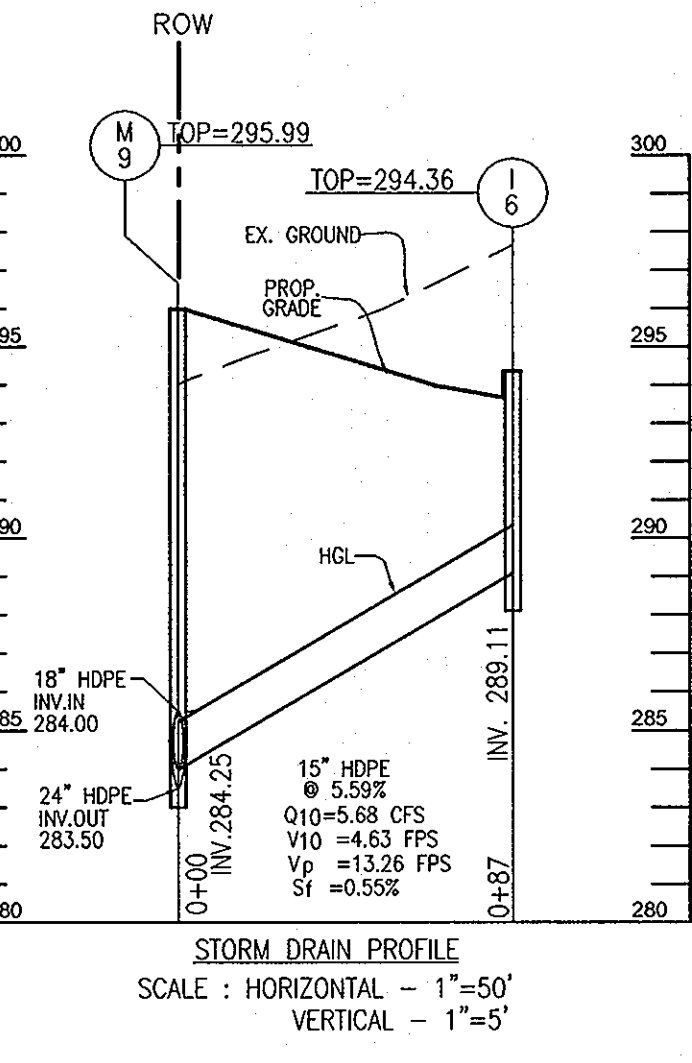
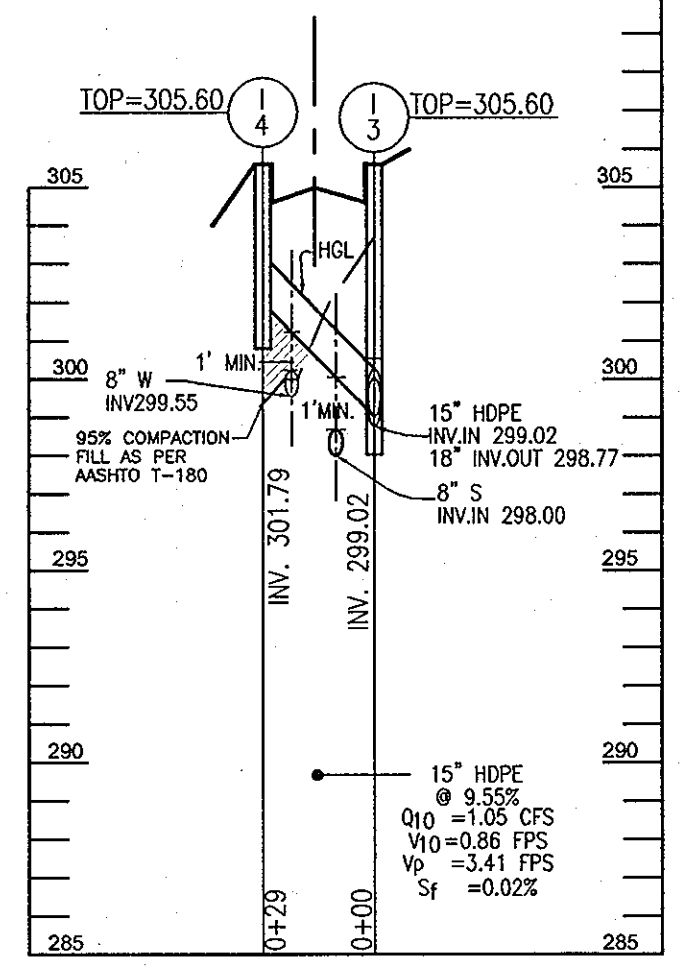
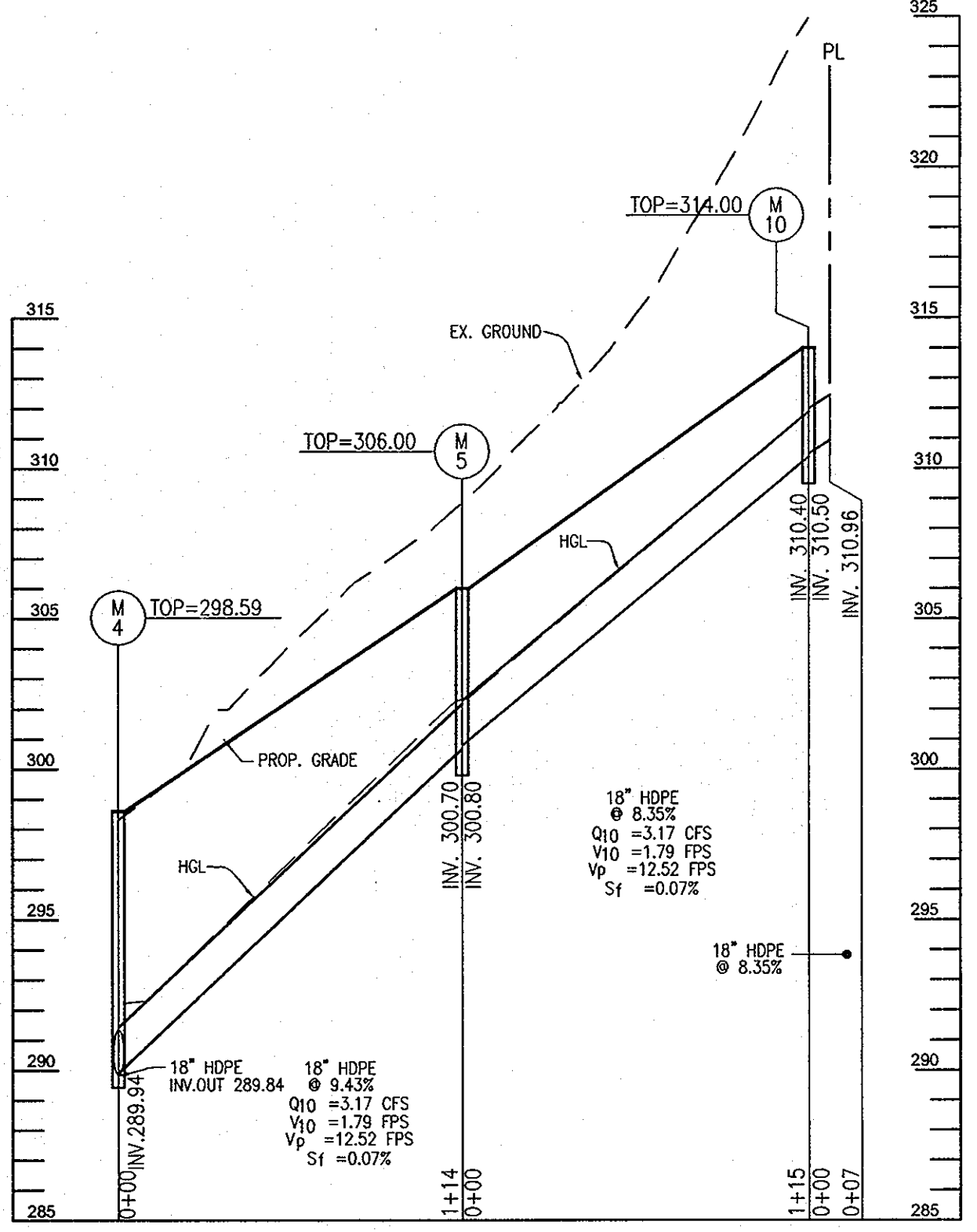
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature] 11-9-09
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] 11/3/09
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 11-16-09
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

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PIPE SIZE	TYPE	TOTAL LENGTH
6"	PVC	31 LF
15"	HDPE	353 LF
18"	RCP	136 LF
18"	HDPE	707 LF
24"	HDPE	320 LF
30"	HDPE	27 LF
42"	RCP	62 LF



STRUCTURE SCHEDULE

NO.	TYPE	LOCATION	TOP ELEV.	INV IN	INV OUT	REMARKS
ES-1	CONCRETE END SECTION	N 547940.32 E 1345001.32	264.75	262.00	-	H.O.CO. D-5.51
ES-2	CONCRETE END SECTION	N 547829.50 E 1344940.58	264.79	259.79	-	H.O.CO. D-5.51
HW-21	MODIFIED TYPE 'O' HEADWALL(60" PIPE)	N 548421.93 E 1345101.34	306.50	300.00	-	H.O.CO. D-5.41(60") SEE DETAIL SHEET 7
HW-22	TYPE 'A' HEADWALL	N 548555.96 E 1345120.51	312.60	-	309.60	H.O.CO. D-5.11
CS-1	CONTROL STRUCTURE H.O.CO. D-6.01	N 547829.26 E 1344940.88	268.00	-	260.54	SEE DETAIL SHEET 12
I-1	TYPE 'A-5' INLET	CL STA. 7+93.7 12' RT.	297.62	287.22	287.12	H.O.CO. D-4.01
I-2	TYPE 'A-5' INLET	CL STA. 7+80.04 12' LT.	297.82	289.24	289.14	H.O.CO. D-4.01
I-3	TYPE 'A-5' INLET	CL STA. 5+45.74 12' LT.	305.60	15" 299.02(2)	15" 298.77	H.O.CO. D-4.01
I-4	TYPE 'A-5' INLET	CL STA. 5+45.74 12' RT.	305.60	-	301.79	H.O.CO. D-4.01
I-5	TYPE 'D' INLET THROAT OPENING=303.97	N 548374.21 E 1345261.05	305.83	-	299.55	H.O.CO. D-4.10
I-6	TYPE 'A-5' INLET	LINEAR PROFILE STA.1+37.38 (I.C.)	294.36	-	289.11	H.O.CO. D-4.01
I-7	TYPE 'D' INLET THROAT OPENING=278.34	N 548031.66 E 1344927.45	279.17	266.59	266.34	H.O.CO. D-4.10
I-8	TYPE 'D' INLET THROAT OPENING=271.00	N 548150.99 E 1344870.10	271.83	-	267.25	H.O.CO. D-4.10
M-1	TYPE 'A' MANHOLE	N 547965.21 E 1345011.75	270.00	262.23	262.13	H.O.CO. G-5.13
M-2	TYPE 'A' MANHOLE	N 548029.92 E 1345051.51	283.50	275.80	273.50	H.O.CO. G-5.13
M-3	TYPE 'A' MANHOLE	N 548034.11 E 1345114.88	287.50	277.09	276.99	H.O.CO. G-5.13
M-4	TYPE 'A' MANHOLE	CL STA. 7+19.81 15.92' LT.	298.59	18" 289.94(2)	289.84	H.O.CO. G-5.13
M-5	TYPE 'A' MANHOLE	N 548240.15 E 1345303.85	306.00	300.80	300.70	H.O.CO. G-5.13
M-6	TYPE 'A' MANHOLE	CL STA. 6+73.20 15.74' LT.	299.84	291.66	291.56	H.O.CO. G-5.13
M-7	TYPE 'A' MANHOLE	N 548502.07 E 1345122.95	315.64	307.15	304.15	H.O.CO. G-5.13
M-8	TYPE 'A' MANHOLE	N 547974.09 E 1345143.72	289.00	279.54	279.44	H.O.CO. G-5.13
M-9	TYPE 'A' MANHOLE	CL STA. 8+84.31 37.99' RT.	295.99	18" 284.00 (15) 284.25	283.50	H.O.CO. G-5.13
M-10	SHALLOW MANHOLE	N 548348.93 E 1345341.60	314.00	310.50	310.40	H.O.CO. G-5.12

NOTES:
* TOP OF SLAB FOR 'D' INLET
** TOP/FACE OF CURB AT CENTERLINE OF INLET FOR TYPE 'A' INLETS.

OWNERS
LOTS 1, 2, AND 3 RIVERSIDE OVERLOOK, PHASE 1
TRUSTEES OF STATE BOARD OF CHURCH OF GOD
7240 LONG VIEW ROAD
COLUMBIA MD 21044

DEVELOPER
REWER PROPERTY IS, LLC
5304 DORSEY HALL DRIVE
ELLICOTT CITY, MARYLAND 21042
443-367-0422

NO.	REVISION	DATE
1	PLANS ARE REVISED PER SP-09-004 AND WP-09-122.	04-06-2009
2	REVISE PLANS TO REFLECT ADDITION OF LOTS 13-16	11/12/2010

FINAL ROAD CONSTRUCTION PLAN
STORM DRAIN PROFILES
RIVERSIDE OVERLOOK PHASE II
LOTS 4 TO 12, 18 TO 22, 24 TO 33,
OPEN SPACE LOTS 17, 23, 34 & 35
AND PHASE III LOTS 13-16
A RESUBDIVISION OF RIVERSIDE OVERLOOK PHASE I
LOTS 1, 2, 3 AND BUILDABLE BULK PARCEL "A"

TAX MAP 41 GRID 11 PARCEL 179
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERS, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET TEL: 410.461.7866
ELLICOTT CITY, MD 21043 FAX: 410.461.8951

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A duly LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 18193 EXPIRATION DATE: 09-27-2010

DESIGN BY: RJ
DRAWN BY: HED
CHECKED BY: RRV
DATE: OCTOBER 2009
SCALE: AS SHOWN
W.O. NO.: 03-29

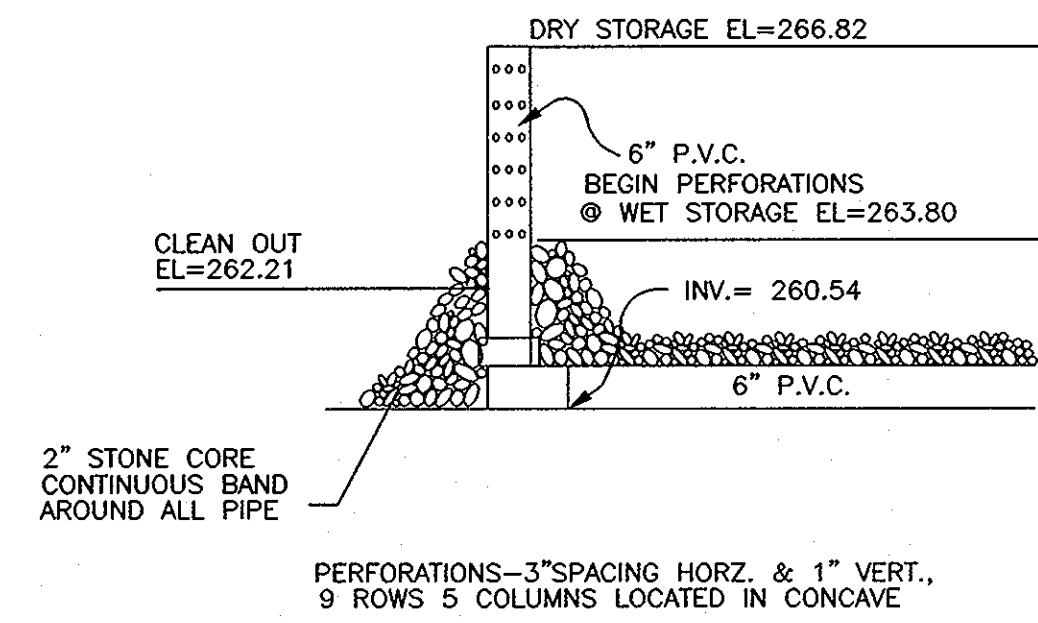
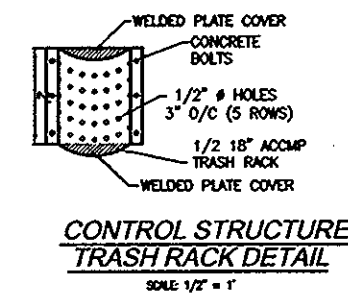
10 SHEET OF 15

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William R. ... 11-9-09
CHIEF, BUREAU OF HIGHWAYS DATE

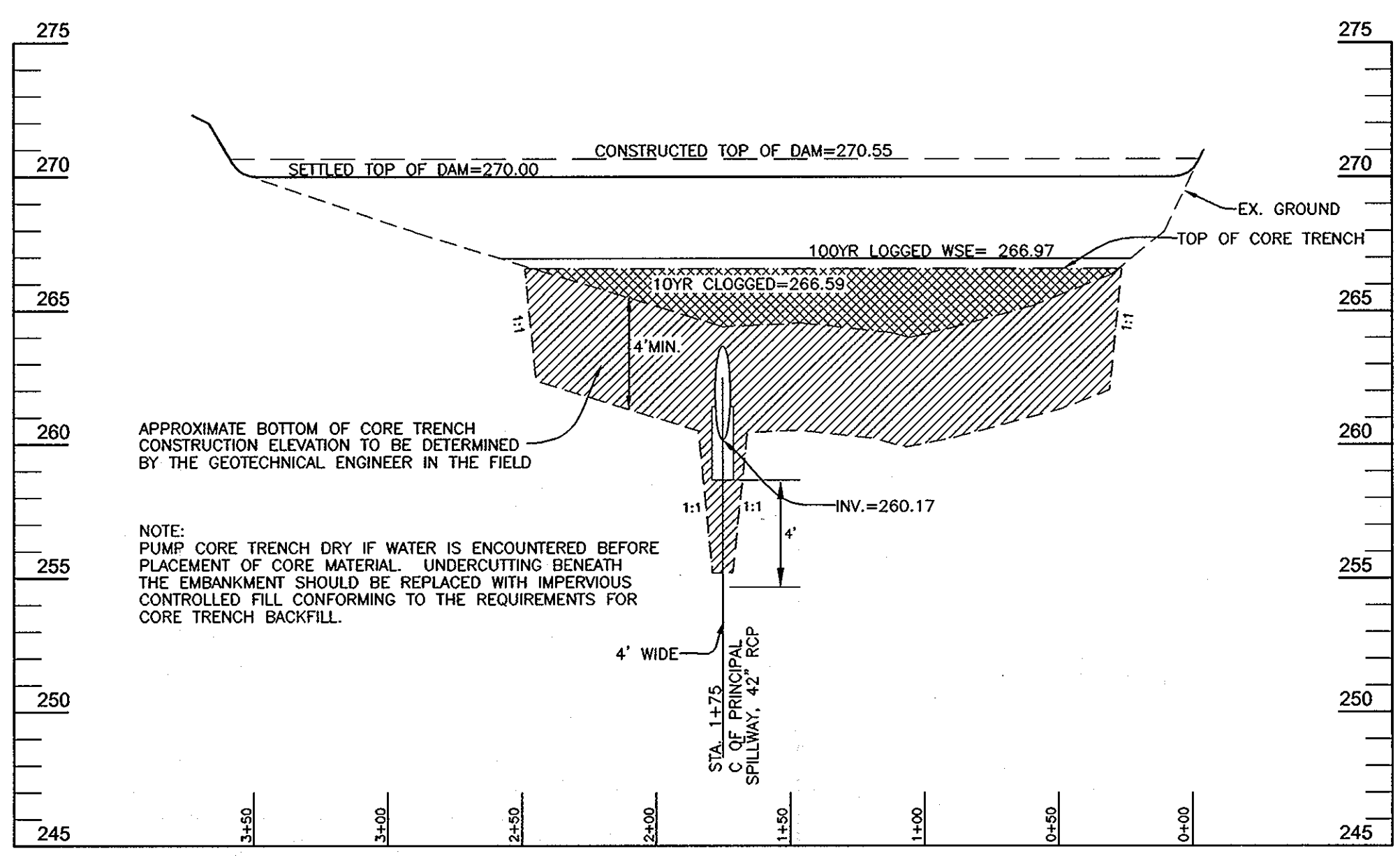
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
William ... 11/3/09
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Keith ... 11-16-09
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

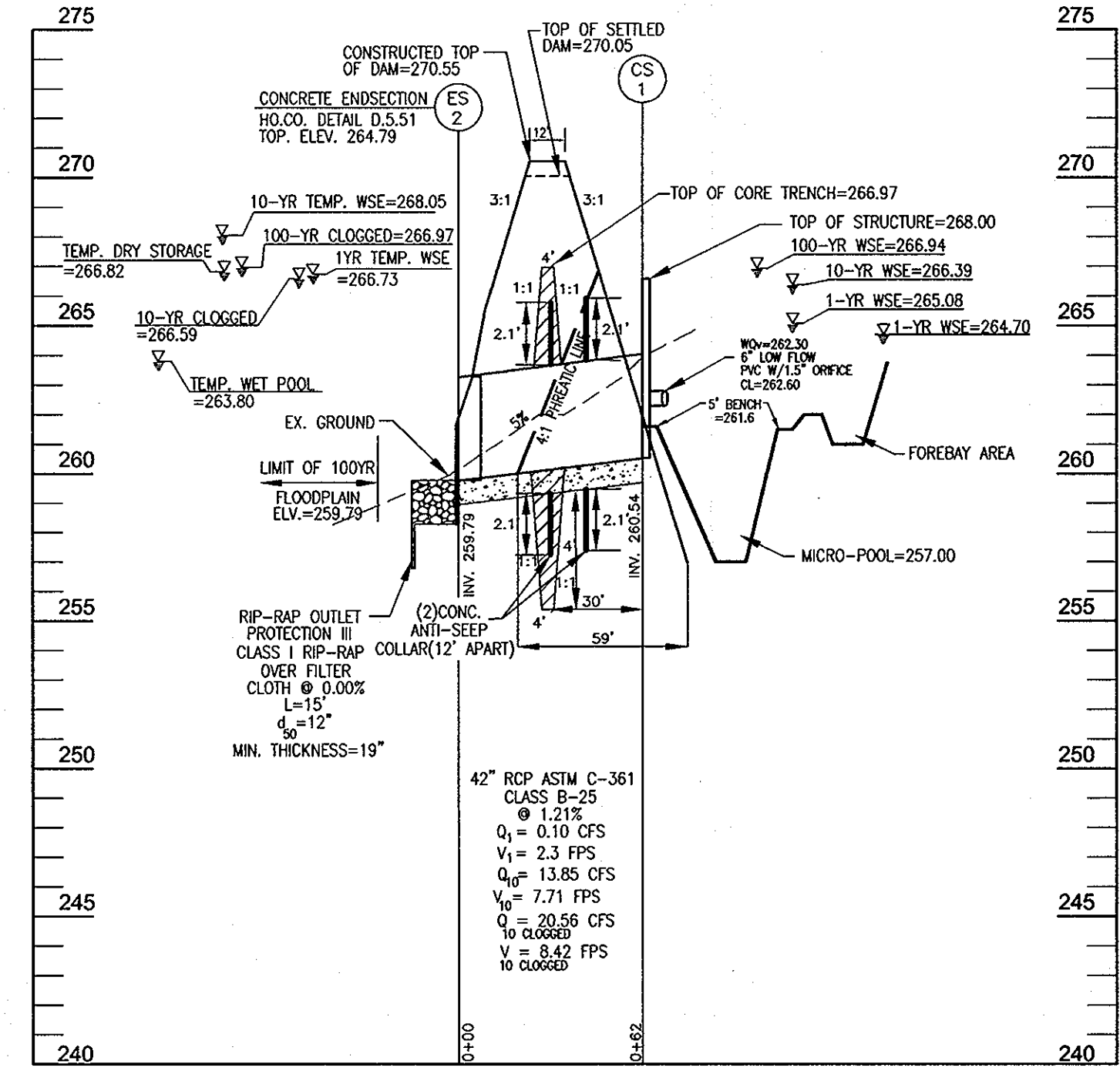
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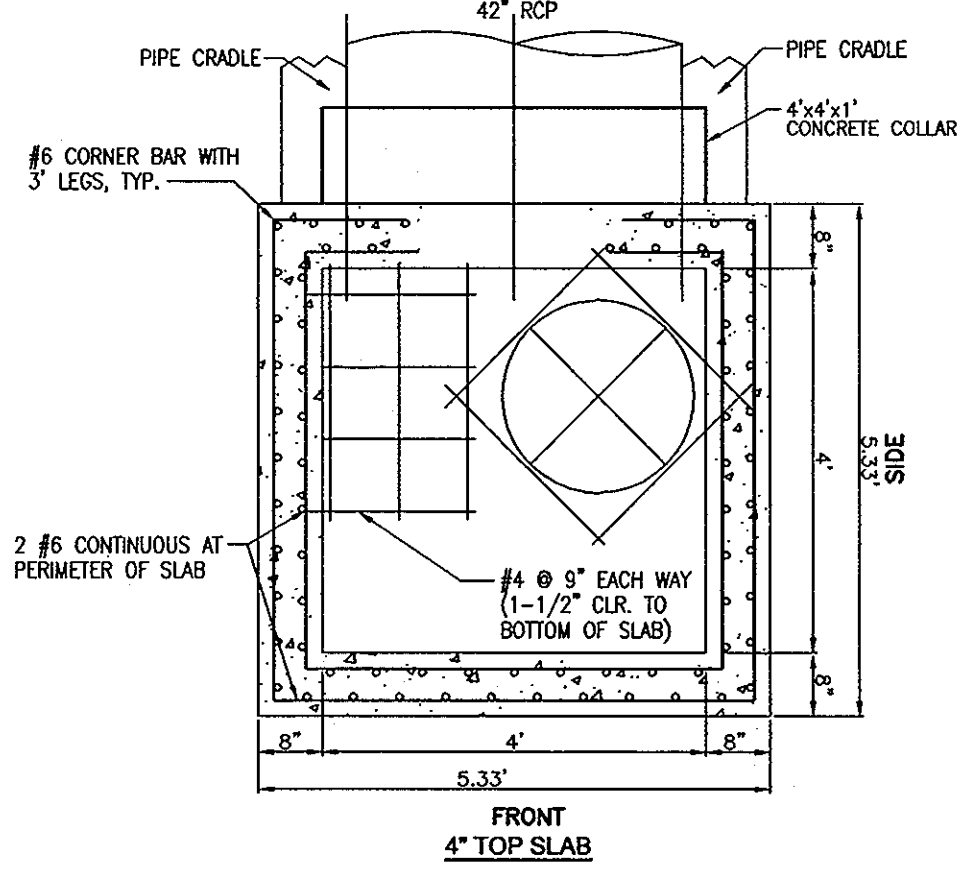
SEDIMENT BASIN DEWATERING DEVICE I WITH 6" PERFORATED RISER
NOT TO SCALE



PROFILE ALONG CENTERLINE OF DAM



PRINCIPAL SPILLWAY PROFILE



OPERATION AND MAINTENANCE SCHEDULE FOR STORMWATER MANAGEMENT EXTENDED DETENTION FACILITY

- STORMWATER MANAGEMENT FACILITY PRIVATELY OWNED & MAINTAINED BY H.O.A.
- ROUTINE MAINTENANCE**
1. FACILITY WILL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHOULD BE PERFORMED DURING WET WEATHER TO DETERMINE IF FUNCTIONING PROPERLY.
 2. TOP AND SIDE SLOPES OF THE EMBANKMENT SHALL BE MOWED A MINIMUM OF TWO (2) TIMES A YEAR, ONCE IN JUNE AND ONCE IN SEPTEMBER. OTHER SIDE SLOPES AND MAINTENANCE ACCESS SHOULD BE MOWED AS NEEDED.
 3. DEBRIS AND LITTER NEXT TO THE OUTLET STRUCTURE SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND AS NEEDED.
 4. VISIBLE SIGNS OF EROSION IN THE POND AS WELL AS RIPRAP OUTLET AREAS SHALL BE REPAIRED AS SOON AS IT IS NOTICED.
- NON-ROUTINE MAINTENANCE**
1. STRUCTURAL COMPONENTS OF THE POND SUCH AS THE DAM, THE RISER, AND THE PIPES SHALL BE REPAIRED UPON DETECTION OF ANY DAMAGE. THE COMPONENTS SHOULD BE INSPECTED DURING ROUTINE MAINTENANCE OPERATIONS.
 2. SEDIMENT SHOULD BE REMOVED WHEN ITS ACCUMULATION SIGNIFICANTLY REDUCES THE DESIGN STORAGE, INTERFERES WITH THE FUNCTION OF THE RISER, WHEN DEEMED NECESSARY FOR AESTHETIC REASONS, OR WHEN DEEMED NECESSARY BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

OPERATION, MAINTENANCE AND INSPECTION

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

POND No. 1 SUMMARY

	1 YEAR	10 YEAR	100 YEAR
FLOW INTO POND	6.09 CFS	22.75 CFS	38.36 CFS
FLOW OUT OF POND	0.10 CFS	13.85 CFS	32.95 CFS
W.S. ELEVATION	265.08	266.39	266.94
STORAGE VOLUME	0.34 AC FT	0.64 AC FT	0.78 AC FT

	WQv	Cpv	Rev
	0.17 Ac.Ft.	0.30 Ac.Ft.	0.067 Ac.Ft.

OWNERS

LOTS 1, 2, AND 3 RIVERSIDE OVERLOOK, PHASE 1
TRUSTEES OF STATE BOARD OF CHURCH OF GOD
7240 LONG VIEW ROAD
COLUMBIA MD 21044

DEVELOPER

NON BUILDABLE BULK PARCEL 'A'
REWEVER LONG TERM HOLDING LLC
5300 DORSEY HALL DRIVE
ELICOTT CITY, MARYLAND 21042
443-367-0422

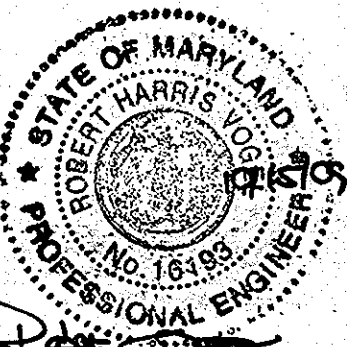
NO.	REVISION	DATE
1	PLANS ARE REVISED PER SP-09-004 AND WP-09-122.	04-06-2009
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FINAL ROAD CONSTRUCTION PLAN STORMWATER MANAGEMENT DETAILS

RIVERSIDE OVERLOOK PHASE II
LOTS 4 TO 12, 18 TO 22, 24 TO 33,
OPEN SPACE LOTS 17, 23, 34 & 35
AND PHASE III, LOTS 13-16
A RESUBDIVISION OF RIVERSIDE OVERLOOK PHASE I
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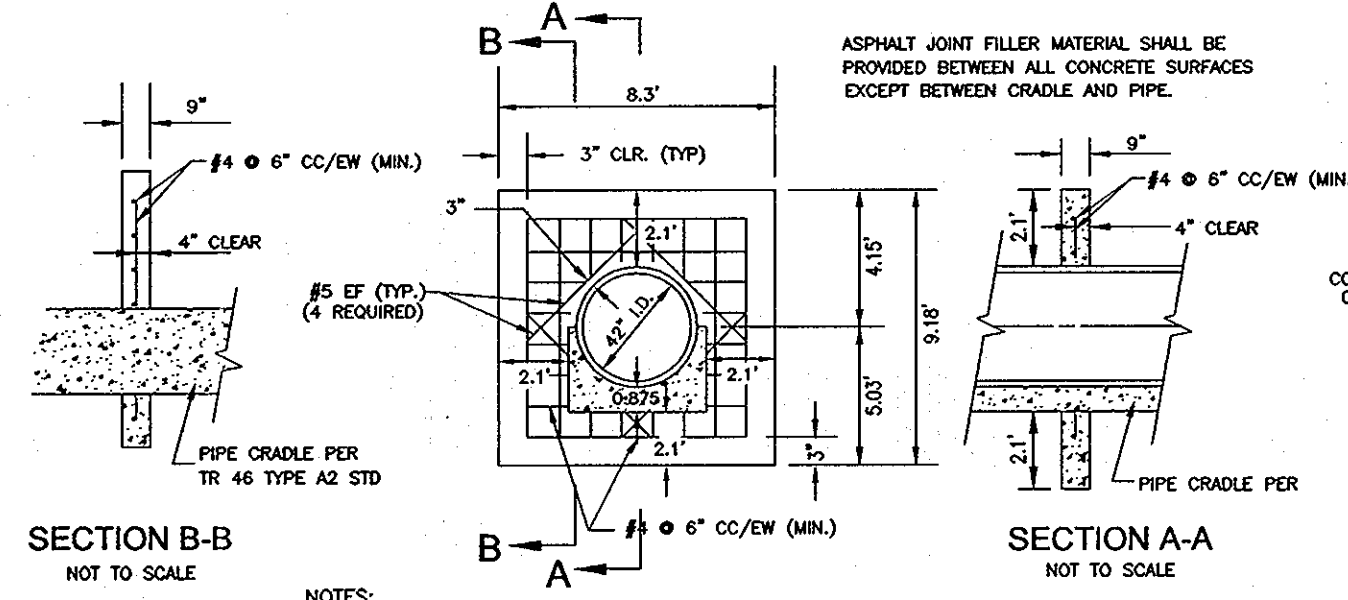
TAX MAP 41 GRID 15 PARCEL 179
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
2407 MAIN STREET ELICOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.8961

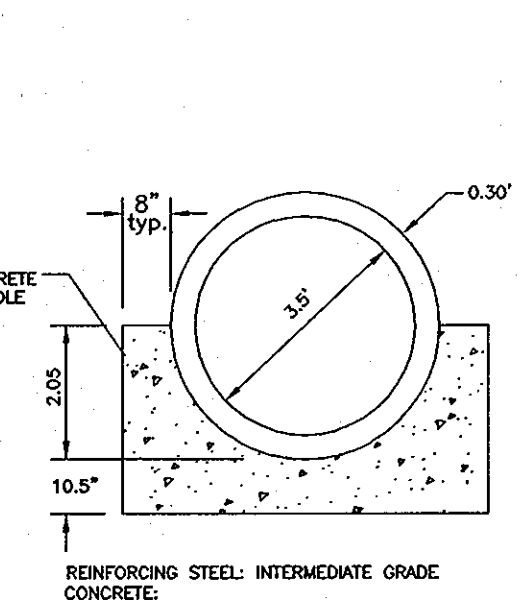


DESIGN BY: RL
DRAWN BY: HED
CHECKED BY: BIV
DATE: OCTOBER 2009
SCALE: AS SHOWN
W.O. NO.: 03-29

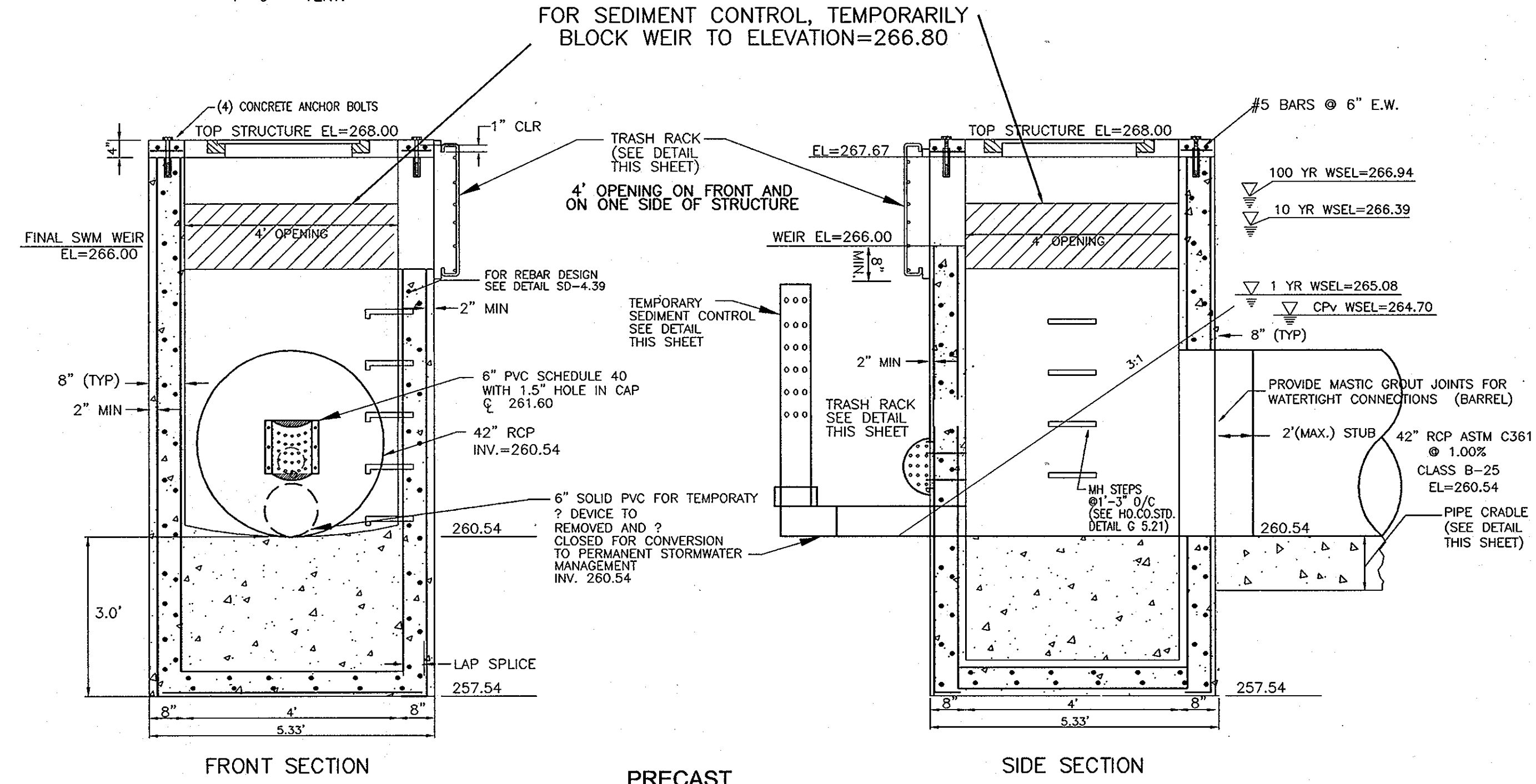
12 SHEET OF 15



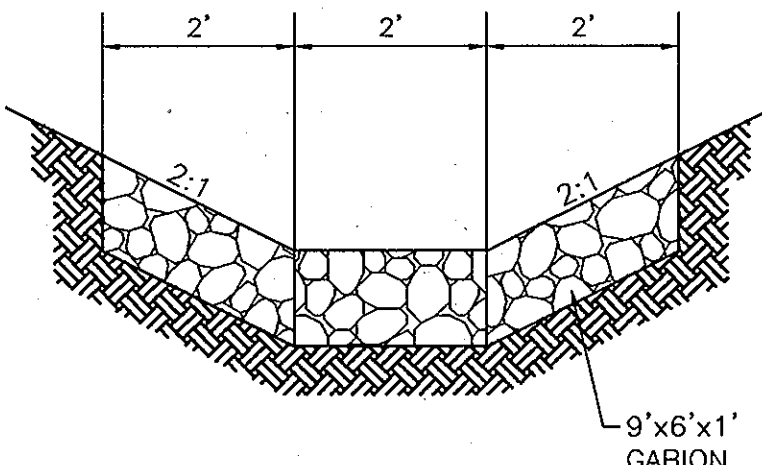
SECTION B-B NOT TO SCALE
SECTION A-A NOT TO SCALE
(2) CONCRETE ANTI-SEEP COLLAR DETAIL NOT TO SCALE



PIPE CRADLE DETAIL NOT TO SCALE



PRECAST STRUCTURE CS-1 DETAIL SCALE: 1"=2'



GABION OUTFALL DETAIL @ HW-21 SCALE: 1"=2'

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William R. M... 11-9-09
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
William R. M... 11/3/09
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

W. S. ... 11-16-09
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

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

APPROVED: *William R. M... 11/6/09*
HOWARD SCD DATE

ENGINEERS CERTIFICATE

I HEREBY 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.

Robert H. Vogel 10/15/09
ROBERT H. VOGEL, PE #16193 DATE

DEVELOPER'S CERTIFICATE

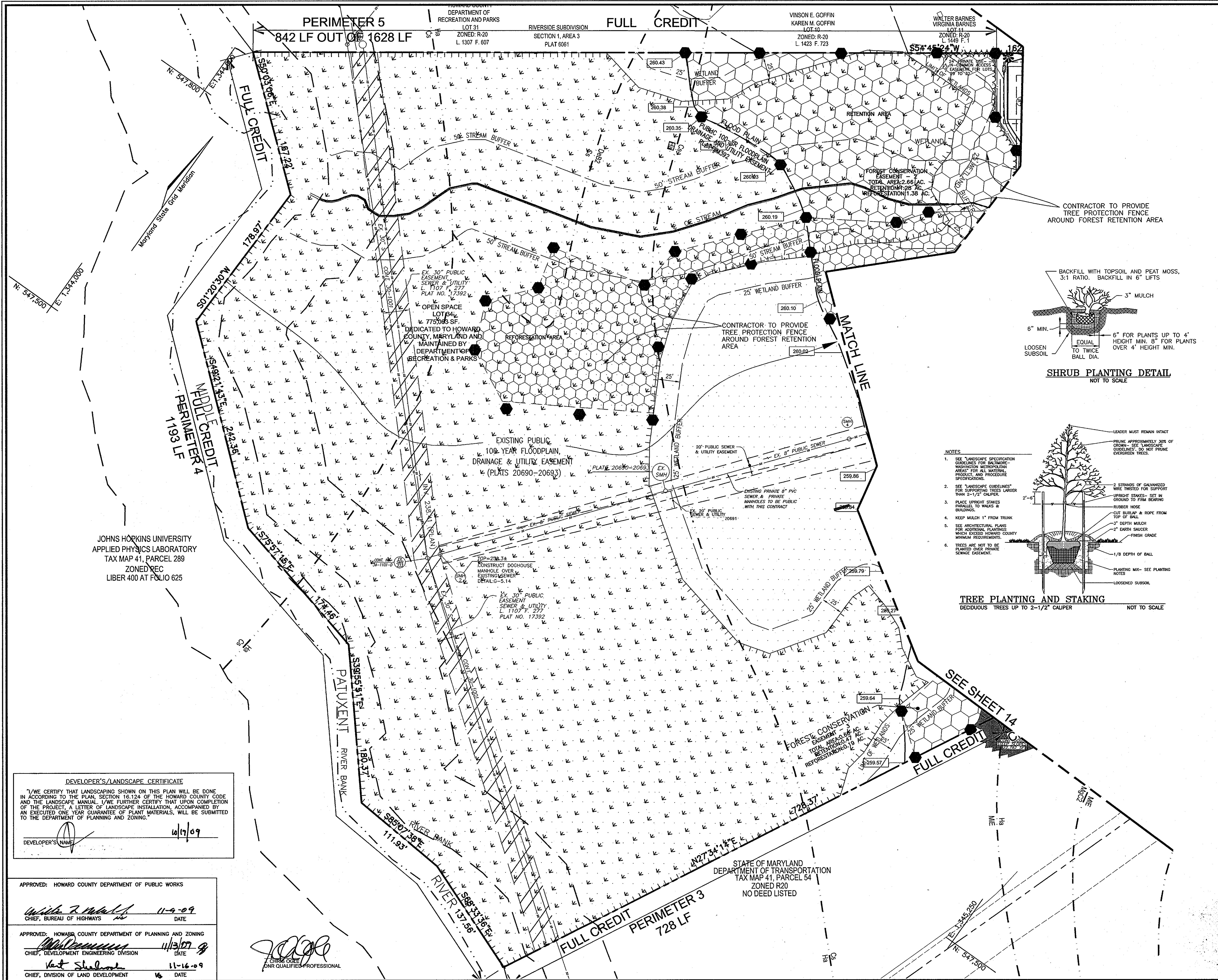
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE IN ACCORDANCE TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

11/19/09
DATE

"AS-BUILT" CERTIFICATION

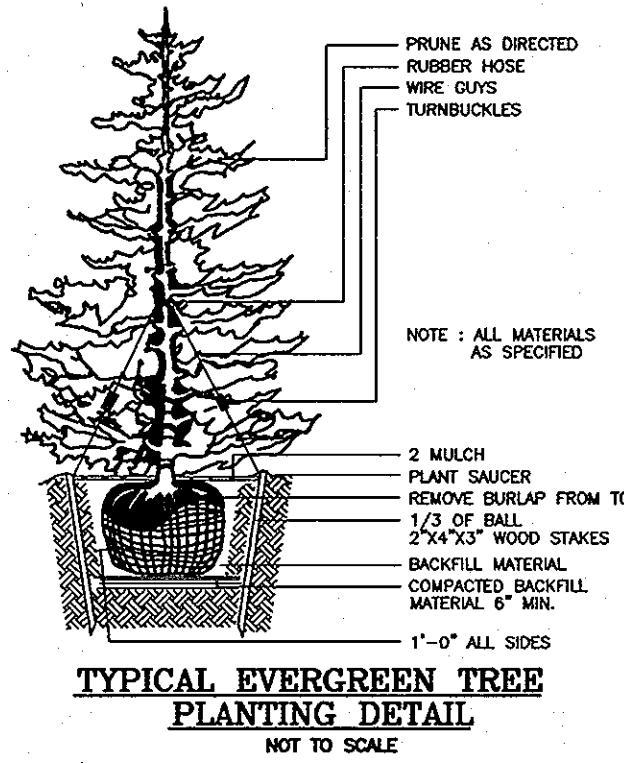
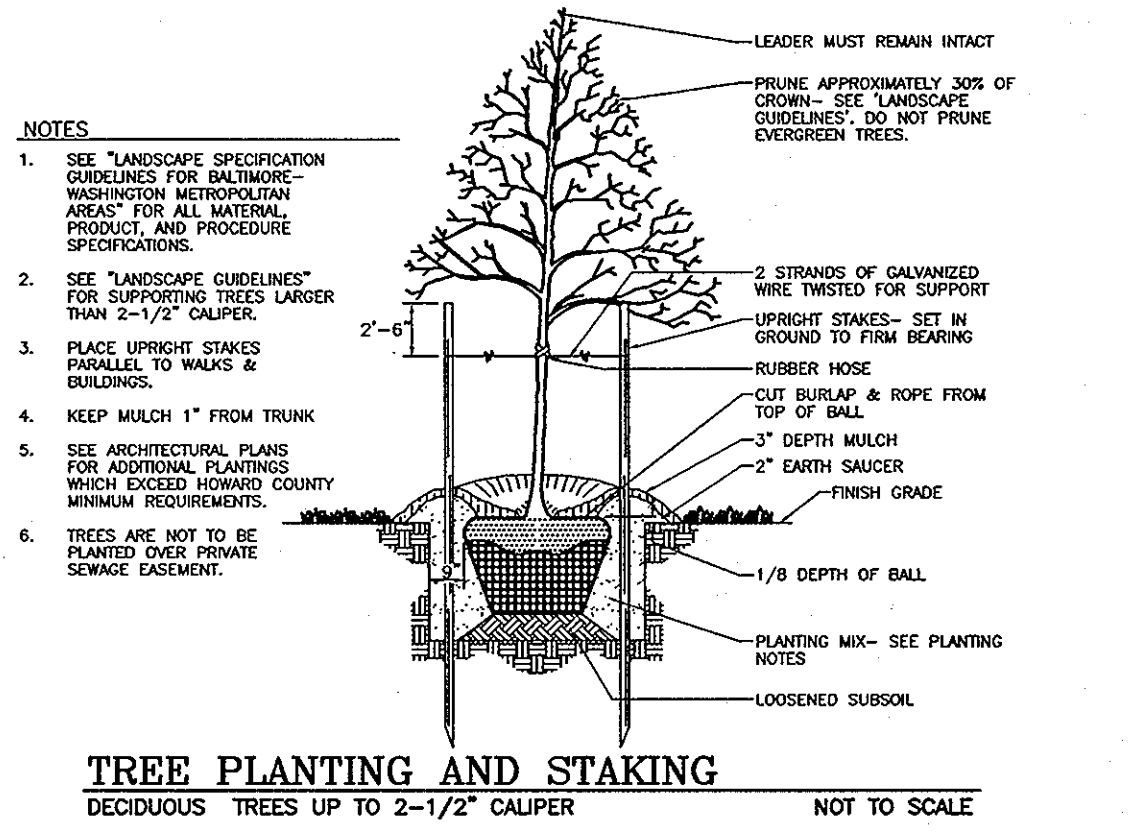
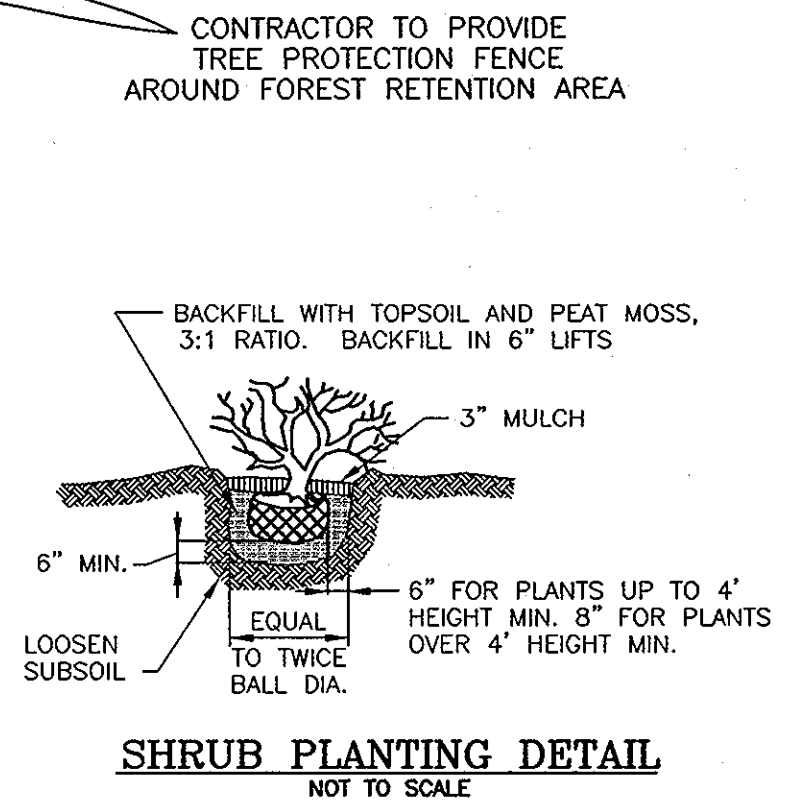
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

ROBERT H. VOGEL, P.E. #16193 DATE
CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE INSPECTION AND TESTS DEEMED SUFFICIENT AND APPROPRIATE BY COMMONLY ACCEPTED ENGINEERING STANDARDS CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES AN ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.



LEGEND

EXISTING CONTOUR	— 200 —
PROPOSED CONTOUR	— 205 —
SPOT ELEVATION	+205
DIRECTION OF FLOW	→
EXISTING TREES TO REMAIN	(Tree symbol)
SOILS	MgC2 CgB2
PRIVATE DRAINAGE & UTILITY EASEMENT	(Hatched pattern)
WETLANDS	(Stippled pattern)
PUBLIC 100 YEAR FLOODPLAIN DRAINAGE & UTILITY EASEMENT	(Dotted pattern)
AREA OF 25% OR GREATER SLOPES (STEEP SLOPES)	(Dark grey)
AREA OF 15% TO 24.9% SLOPES (MODERATE SLOPES)	(Medium grey)
FOREST CONSERVATION AREA (RETENTION)	(Hexagonal pattern)
FOREST CONSERVATION AREA (REFORESTATION)	(Square pattern)
PROP. STREET LIGHT	150-WATT POST TOP 100-WATT POST TOP
PROP. STREET SIGNS	+
TREE PROTECTION FENCE	(Dashed line)
FOREST CONSERVATION SIGN	(Hexagon)
LIMIT OF WETLAND	(Dashed line)
WETLANDS BUFFER	(Dotted line)
STREAM CENTERLINE	(Dashed line)
STREAM BUFFER	(Dotted line)



- NOTES**
- SEE "LANDSCAPE SPECIFICATION GUIDELINES FOR BANNING-WASHINGTON METROPOLITAN AREA" FOR ALL MATERIAL, PRODUCT, AND PROCEDURE SPECIFICATIONS.
 - SEE "LANDSCAPE GUIDELINES" FOR SUPPORTING TREES LARGER THAN 2-1/2" CALIPER.
 - PLACE UPRIGHT STAKES PARALLEL TO WALKS & BUILDINGS.
 - KEEP MULCH 1" FROM TRUNK
 - SEE ARCHITECTURAL PLANS FOR ADDITIONAL PLANTINGS WHICH EXCEED HOWARD COUNTY MINIMUM REQUIREMENTS.
 - TREES ARE NOT TO BE PLANTED OVER PRIVATE SERVICE EASEMENT.

JOHNS HOPKINS UNIVERSITY
APPLIED PHYSICS LABORATORY
TAX MAP 41, PARCEL 289
ZONED REC
LIBER 400 AT FOLIO 625

OWNERS
LOTS 1, 2, AND 3 RIVERSIDE OVERLOOK, PHASE 1
TRUSTEES OF STATE BOARD OF CHURCH OF GOD
7240 LONG VIEW ROAD
COLUMBIA MD 21044

DEVELOPER
BEAVER PROPERTY DEVELOPMENT, LLC
C/O JARED SMITH
5304 DORSEY HALL DRIVE
ELLICOTT CITY, MARYLAND 21042
443-367-0422

1	PLANS ARE REVISED PER SP-09-004 AND WP-09-122.	04-06-2009
2	REVISE PLANS TO REFLECT ADDITION OF LOTS 13-16	11/12/2010
NO.	REVISION	DATE

**FINAL ROAD CONSTRUCTION PLAN
LANDSCAPE & FOREST CONSERVATION
PLAN & DETAILS**
RIVERSIDE OVERLOOK PHASE II
LOTS 4 TO 12, 18 TO 22, 24 TO 33,
OPEN SPACE LOTS 17, 23, 34 & 35
AND PHASE III, LOTS 13-16
A RESUBDIVISION OF RIVERSIDE OVERLOOK PHASE I
LOTS 1, 2, 3 AND BUILDABLE BULK PARCEL "A"

TAX MAP 41 GRID 11 PARCEL 179
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL
ENGINEERS • SURVEYORS • PLANNERS**
8407 MAIN STREET TEL: 410.461.7666
ELLICOTT CITY, MD 21043 FAX: 410.461.1966

PROFESSIONAL CERTIFICATE

STATE OF MARYLAND
ROBERT H. VOGEL
PROFESSIONAL ENGINEER
No. 16193

DESIGN BY: RJL
DRAWN BY: HED
CHECKED BY: RBV
DATE: OCTOBER 2009
SCALE: 1"=50'
W.O. NO.: 03-29

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DEEPLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2010

13 SHEET OF 15

DEVELOPER'S/LANDSCAPE CERTIFICATE

"I/WE CERTIFY THAT LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE IN ACCORDANCE TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION OF THE PROJECT, A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING."

DEVELOPER'S NAME: 10/17/09

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

William R. McCall 11-9-09
CHIEF, BUREAU OF HIGHWAYS DATE

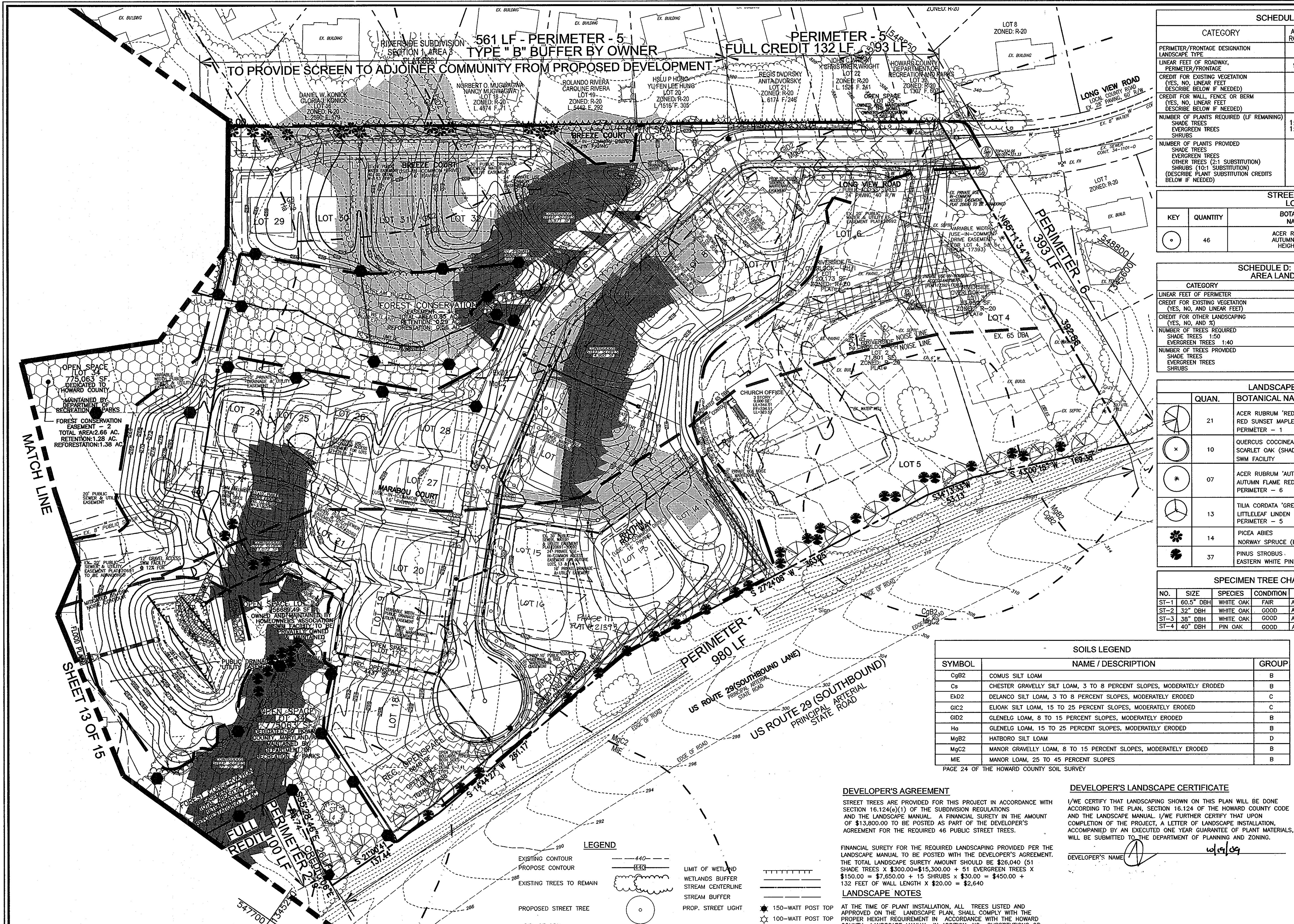
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

William R. McCall 11/13/09
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Walt Stalman 11-16-09
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature]
OWNER QUALIFIED PROFESSIONAL

K:\Projects\03-23 Longfellow Road Redline R-ED\03-13_Landscape_Full_Det.dwg 10/19/2009 10:53:24 AM



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature] 11-9-09
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] 11/3/09
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 11-16-09
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

LEGEND

EXISTING CONTOUR	--- 440 ---	LIMIT OF WETLAND	=====
PROPOSED CONTOUR	--- 430 ---	WETLANDS BUFFER	=====
EXISTING TREES TO REMAIN	(Tree Symbol)	STREAM CENTERLINE	=====
PROPOSED STREET TREE	(Tree Symbol)	STREAM BUFFER	=====
AREA OF 25% OR GREATER SLOPES (STEEP SLOPES)	(Hatched Area)	PROP. STREET LIGHT	150-WATT POST TOP 100-WATT POST TOP
AREA OF 15% TO 24.9% SLOPES (MODERATE SLOPES)	(Hatched Area)	PROP. STREET SIGNS	(Sign Symbol)
PROP. FOREST CONSERVATION AREA (RETENTION)	(Hatched Area)	FOREST CONSERVATION SIGN	(Sign Symbol)
PROP. FOREST CONSERVATION AREA (REFORESTATION)	(Hatched Area)	SOILS	MgC2 CgB2
RECREATIONAL OPEN SPACE EASEMENT TO BE OWNED & MAINTAINED BY THE HOMEOWNERS ASSOCIATION	(Hatched Area)	TREE PROTECTION FENCE	(Fence Symbol)
		LIMIT OF DISTURBANCE	--- LOD ---

DEVELOPER'S AGREEMENT

STREET TREES ARE PROVIDED FOR THIS PROJECT IN ACCORDANCE WITH SECTION 16.124(a)(1) OF THE SUBDIVISION REGULATIONS AND THE LANDSCAPE MANUAL. A FINANCIAL SURETY IN THE AMOUNT OF \$13,800.00 TO BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT FOR THE REQUIRED 46 PUBLIC STREET TREES.

FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING PROVIDED PER THE LANDSCAPE MANUAL TO BE POSTED WITH THE DEVELOPER'S AGREEMENT. THE TOTAL LANDSCAPE SURETY AMOUNT SHOULD BE \$26,040 (51 SHADE TREES X \$300.00=\$15,300.00 + 51 EVERGREEN TREES X \$150.00 = \$7,650.00 + 15 SHRUBS X \$30.00 = \$450.00 + 132 FEET OF WALL LENGTH X \$20.00 = \$2,640)

LANDSCAPE NOTES

AT THE TIME OF PLANT INSTALLATION, ALL TREES LISTED AND APPROVED ON THE LANDSCAPE PLAN, SHALL COMPLY WITH THE PROPER HEIGHT REQUIREMENT IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATIONS FROM THE APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO THE ROAD DRAWING PLANS.

THE OWNER, TENANTS AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED PERIMETER LANDSCAPING. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.

DEVELOPER'S LANDSCAPE CERTIFICATE

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

DEVELOPER'S NAME: [Signature]

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	GROUP
CgB2	COMUS SILT LOAM	B
Cs	CHESTER GRAVELLY SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	B
END2	DELANCO SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	C
GIC2	ELIOAK SILT LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED	C
GID2	GLENELG LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B
Ha	GLENELG LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED	B
MgB2	HATBORO SILT LOAM	D
MgC2	MANOR GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B
MIE	MANOR LOAM, 25 TO 45 PERCENT SLOPES	B

PAGE 24 OF THE HOWARD COUNTY SOIL SURVEY

SCHEDULE A: PERIMETER LANDSCAPE EDGE

CATEGORY	ADJ. TO ROADWAY						ADJACENT TO PERIMETER PROPERTIES						TOTAL
	1	2	3	4	5	6	1	2	3	4	5	6	
PERIMETER/FRONTAGE DESIGNATION	1	2	3	4	5	6	1	2	3	4	5	6	
LINEAR FEET OF ROADWAY, PERIMETER/FRONTAGE	980'	100'					1628'				1628'		393'
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET DESCRIBE BELOW IF NEEDED)	NO	YES 26'	FULL CREDIT 728'	FULL CREDIT 1193'	YES 974'	842'	YES 132'	WALL					NO
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET DESCRIBE BELOW IF NEEDED)													654'
NUMBER OF PLANTS REQUIRED (LF REMAINING)	980'	74'	0	0	654'	106'	1	548'					393'
SHADE TREES	1:40	25	1:60	1:60	1:60	11	2	1:40	14				25
EVERGREEN TREES													
SHRUBS													07
NUMBER OF PLANTS PROVIDED	20	1	0	0	11	02	11	14					39
EVERGREEN TREES													
OTHER TREES (2:1 SUBSTITUTION)													
SHRUBS (10:1 SUBSTITUTION)													
(DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)													

STREET TREES SCHEDULE LONG VIEW ROAD

KEY	QUANTITY	BOTANICAL NAME	SIZE	REM.	STREET LENGTH ALL AROUND
(Tree Symbol)	46	ACER RUBRUM AUTUMN FLAME HEIGHT=20'	2 1/2"-3" CAL	B&B	1824'

SCHEDULE D: STORMWATER MANAGEMENT AREA LANDSCAPING-TYPE 'B' BUFFER

CATEGORY	SWMF 1
LINEAR FEET OF PERIMETER	582'
CREDIT FOR EXISTING VEGETATION (YES, NO, AND LINEAR FEET)	YES 101'
CREDIT FOR OTHER LANDSCAPING (YES, NO, AND %)	
NUMBER OF TREES REQUIRED	481
SHADE TREES 1:50	10
EVERGREEN TREES 1:40	12
NUMBER OF TREES PROVIDED	10
SHADE TREES	12
EVERGREEN TREES	

LANDSCAPE SCHEDULE THIS SHEET

QUAN.	BOTANICAL NAME	SIZE	REM.
21	ACER RUBRUM 'RED SUNSET' RED SUNSET MAPLE (SHADE TREES) PERIMETER - 1	2 1/2"-3" CAL.	B & B
10	QUERCUS COCCINEA SCARLET OAK (SHADE TREES) SWM FACILITY	2 1/2"-3" CAL.	B & B
07	ACER RUBRUM 'AUTUMN FLAME' AUTUMN FLAME RED MAPLE (SHADE TREES) PERIMETER - 6	2 1/2"-3" CAL.	B & B
13	TILIA CORDATA 'GREENSPIRE'/GREENSPIRE LITTLELEAF LINDEN PERIMETER - 5	2 1/2"-3" CAL.	B & B
14	PICEA ABIES PERIMETER - 5 NORWAY SPRUCE (EVERGREEN TREES)	6"-8" HT.	B & B
37	PINUS STROBUS SWM + PERIMETER - 1 EASTERN WHITE PINE (EVERGREEN TREES)	6"-8" HT.	B & B

SPECIMEN TREE CHART

NO.	SIZE	SPECIES	CONDITION	LOCATION
ST-1	60.5" DBH	WHITE OAK	FAIR	AS SHOWN TO BE REMOVED
ST-2	32" DBH	WHITE OAK	GOOD	AS SHOWN TO BE REMOVED
ST-3	38" DBH	WHITE OAK	GOOD	AS SHOWN TO BE REMOVED
ST-4	40" DBH	PIN OAK	GOOD	AS SHOWN TO BE REMOVED

TRASH PAD LANDSCAPING

SYM.	QTY.	DESCRIPTION	SIZE	REM.
(Tree Symbol)	15	DWARF JAPANESE YEW	3'-4" HT	B & B

OWNERS
 LOTS 1, 2, AND 3 RIVERSIDE OVERLOOK, PHASE 1
 TRUSTEES OF STATE BOARD OF CHURCH OF GOD
 7240 LONG VIEW ROAD
 COLUMBIA MD 21044

DEVELOPER
 BENDER PROPERTY II, LLC
 NON BUILDABLE BULK PARCEL "A"
 REUMER LONG TERM HOLDING LLC
 5300 DORSEY HALL DRIVE
 ELLICOTT CITY, MARYLAND 21042
 443-367-0422

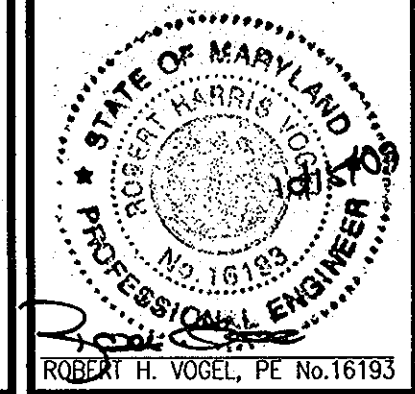
1 PLANS ARE REVISED PER SP-09-004 AND WP-09-122. 04-08-2009
 2 REVISE PLANS TO REFLECT ADDITION OF LOTS 13-16 11/12/2010

FINAL ROAD CONSTRUCTION PLAN LANDSCAPE & FOREST CONSERVATION PLAN & DETAILS RIVERSIDE OVERLOOK PHASE II LOTS 4 TO 12, 18 TO 22, 24 TO 33 OPEN SPACE LOTS 17, 23, 34 & 35 AND PHASE III, LOTS 13, 16

A RESUBDIVISION OF RIVERSIDE OVERLOOK PHASE I LOTS 1, 2, 3 AND BUILDABLE BULK PARCEL "A"

TAX MAP 41 GRID 11 5TH ELECTION DISTRICT PARCEL 179 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERS, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET ELLICOTT CITY, MD 21043 TEL: 410.481.7566 FAX: 410.481.1851



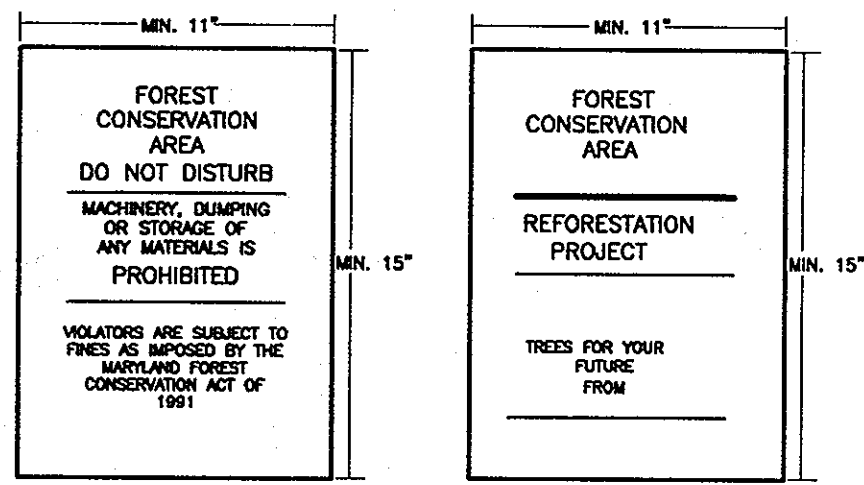
PROFESSIONAL CERTIFICATE

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193 EXPIRATION DATE: 09-27-2010

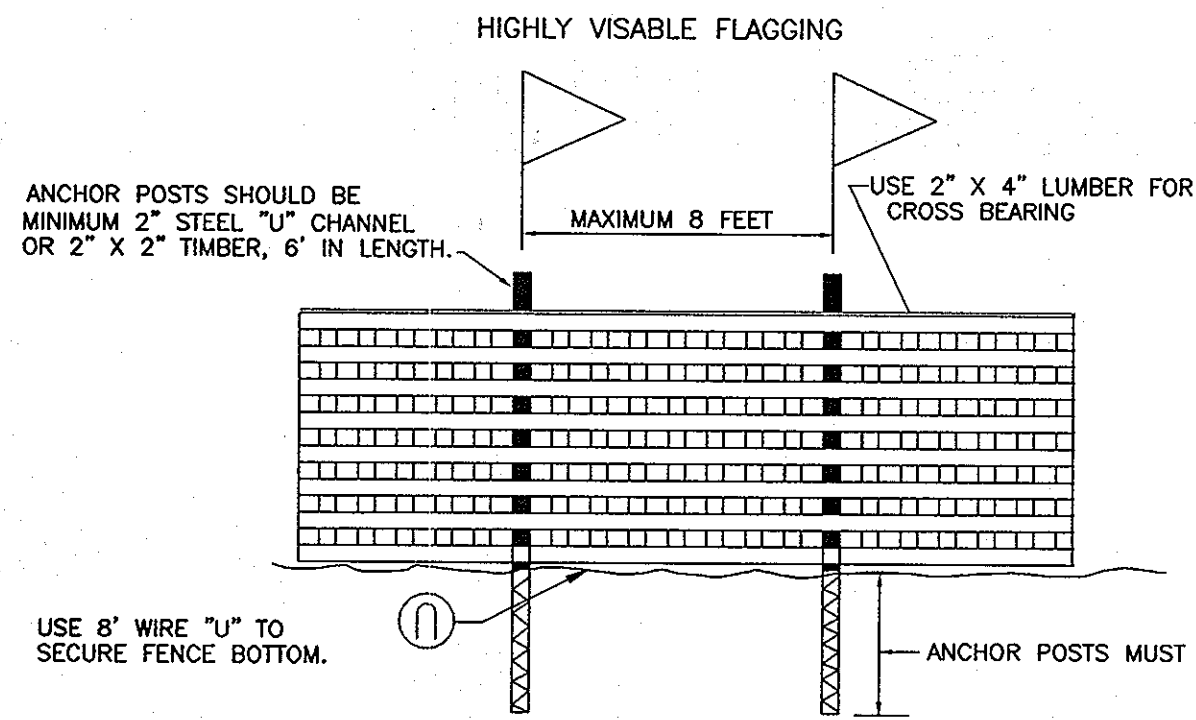
DESIGN BY: [Signature]
 DRAWN BY: [Signature]
 CHECKED BY: [Signature]
 DATE: OCTOBER 2009
 SCALE: 1"=50'
 W.D. NO.: 09-29

14 SHEET OF 15

HOWARD COUNTY
FOREST CONSERVATION WORKSHEET

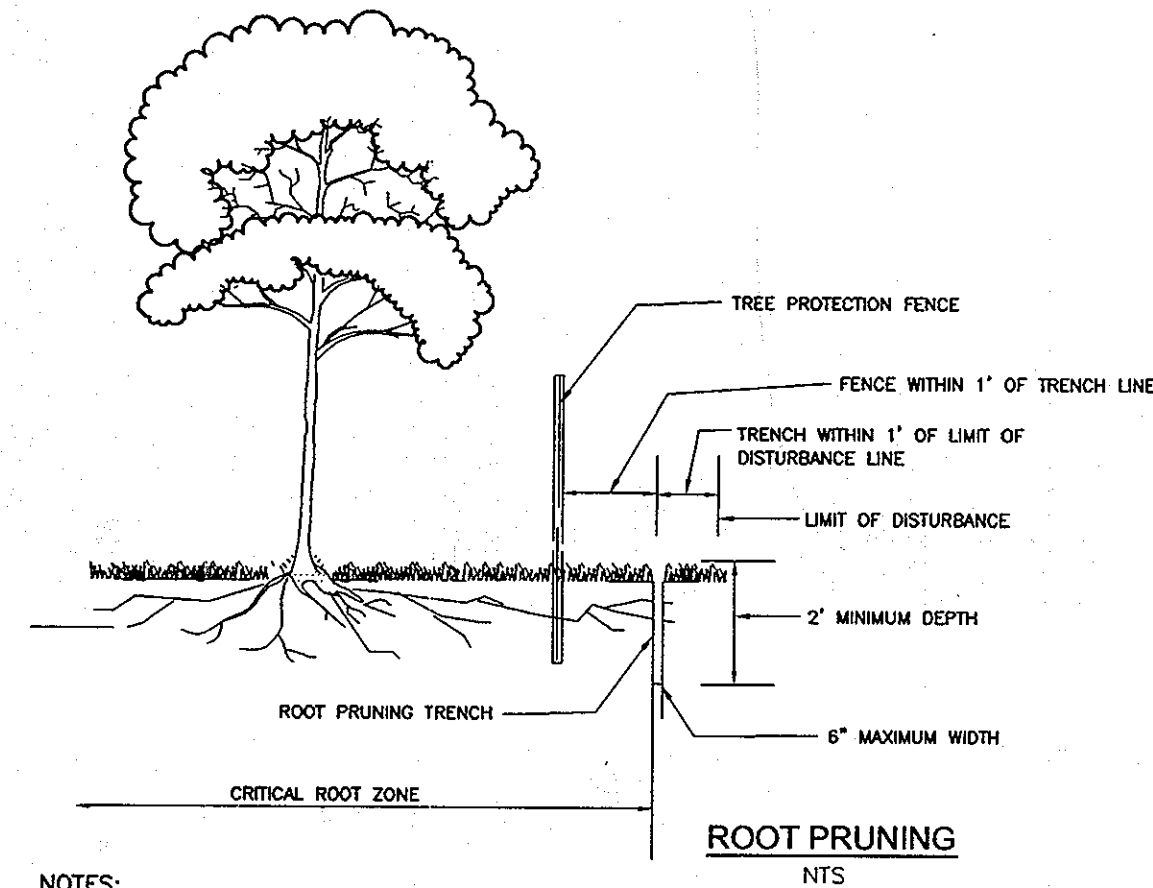


- NOTE:
1. BOTTOM OF SIGNS TO BE HIGHER THAN TOP OF TREE PROTECTION FENCE.
2. SIGNS TO BE PLACED AT A MAXIMUM SPACING OF 50-100 FEET.
CONDITIONS ON-SITE AFFECTING VISIBILITY MAY WARRANT PLACING SIGNS CLOSER OR FARTHER APART.
3. ATTACHMENT OF SIGNS TO TREES IS PROHIBITED.



- NOTES:
1. FOREST PROTECTION DEVICE ONLY.
2. RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
3. BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE.
4. ROOF DAMAGE SHOULD BE AVOIDED.

BLAZE ORANGE PLASTIC MESH
TYPICAL TREE PROTECTION FENCE DETAIL



- NOTES:
1. RETENTION AREAS TO BE ESTABLISHED AS PART OF THE FOREST CONSERVATION PLAN REVIEW PROCESS.
2. BOUNDARIES OF RETENTION AREAS TO BE STAKED, FLAGGED AND/OR FENCED PRIOR TRENCHING.
3. EXACT LOCATION OF TRENCH SHOULD BE IDENTIFIED.
4. TRENCH SHOULD BE IMMEDIATELY BACKFILLED WITH SOIL REMOVED OR ORGANIC SOIL.
5. ROOTS SHOULD BE CLEANLY CUT USING VIBRATORY KNIFE OR OTHER ACCEPTABLE EQUIPMENT.

ZONED R-ED
NET TRACT AREA:

A. TOTAL TRACT AREA	28.71 AC
B. DEDUCTIONS	13.61 AC
C. NET TRACT AREA	15.10 AC

LAND USE CATEGORY

INPUT THE NUMBER "1" UNDER THE APPROPRIATE LAND USE ZONING, AND LIMIT TO ONLY ONE ENTRY. ZONED R-ED.

ARA	MDR	IDA	HDR	MPD	CIA
0	0	1	0	0	0

D. AFFOREST THRESHOLD 15% X C = 2.27 AC
E. CONSERVATION THRESHOLD 20% X C = 3.02 AC

EXISTING FOREST COVER:

F. EXISTING FOREST COVER (EXCLUDING FLOODPLAIN)	3.61 AC
G. AREA OF FOREST ABOVE AFFORESTATION THRESHOLD	1.34 AC
H. AREA OF FOREST CONSERVATION THRESHOLD	0.59 AC

BREAK EVEN POINT:

J. BREAK EVEN POINT	3.14 AC
K. CLEARING PERMITTED WITHOUT MITIGATION	0.47 AC

PROPOSED FOREST CLEARING:

L. TOTAL AREA OF FOREST TO BE CLEARED	1.58 AC
M. TOTAL AREA OF FOREST TO BE RETAINED	2.04 AC

PLANTING REQUIREMENTS:

N. REFORESTATION FOR CLEARING ABOVE CONSERVATION THRESHOLD	0.15 AC
P. REFORESTATION FOR CLEARING BELOW CONSERVATION THRESHOLD	1.98 AC
Q. CREDIT FOR RETENTION ABOVE CONSERVATION THRESHOLD	0.00 AC
R. TOTAL REFORESTATION REQUIRED (N+P-Q)	2.13 AC
S. TOTAL AFFORESTATION REQUIRED	0.00 AC
T. TOTAL REFORESTATION AND AFFORESTATION REQUIRED	2.13 AC

OBLIGATION TO BE FULLFILLED BY RETENTION OF 2.04 AC (\$17,773),
REFORESTATION OF 2.13 AC. (\$46,392.00)
TOTAL FINANCIAL SURETY OBLIGATION IS \$64,165 AC.

REFORESTATION PLANTING NOTES

- REFORESTATION AREAS MAY BE PLANTED AS SOON AS REASONABLE TO DO SO. LATE WINTER-EARLY SPRING PLANTINGS ARE PREFERRED. EARLIEST PLANTING DATES WILL VARY FROM YEAR TO YEAR BUT PLANTING MAY GENERALLY BEGIN AS SOON AS THE GROUND IS NO LONGER FROZEN. ALTERNATE PLANTING DATES MAY BE CONSIDERED AS CONDITION WARRANTS.
- SOIL AMENDMENTS AND FERTILIZATION RECOMMENDATIONS WILL BE MADE BASED UPON THE RESULTS OF SOIL ANALYSIS FOR NITROGEN, PHOSPHORUS, POTASSIUM, ORGANIC MATTER CONTENT AND pH. IF REQUIRED, FERTILIZER WILL BE PROVIDED USING A SLOW RELEASE, SOLUBLE 16-8-16 ANALYSIS DESIGNED TO LAST 3-8 YEARS CONTAINED IN POLYETHYLENE PERFORATED BAGS SUCH AS MANUFACTURED BY ADCO WORKS, P.O. BOX 310 HOLLIS, N.Y. 11423 OR APPROVED EQUAL.
- PLANT MATERIALS WILL BE PLANTED IN ACCORDANCE WITH THE PLANTING DETAILS AND PLANT SCHEDULE.
- PLANT MATERIAL SHALL BE NURSERY GROWN AND INSPECTED PRIOR TO PLANTING. PLANTS NOT CONFORMING TO THE AMERICAN STANDARD FOR NURSERY STOCK SPECIFICATIONS FOR SIZE, FORM, VIGOR, OR ROOTS, OR DUE TO TRUNK WOUNDS, BREAKAGE, DESICCATION, INSECT OR DISEASE MUST BE REPLACED.
- PLANTING STOCK MUST BE PROTECTED FROM DESICCATION AT ALL TIMES PRIOR TO PLANTING. MATERIALS HELD FOR PLANTING SHALL BE MOISTENED AND PLACED IN COOL SHADED AREAS UNTIL READY FOR PLANTING.
- NEWLY PLANTED TREES MAY REQUIRE WATERING AS LEAST ONCE PER WEEK DURING THE FIRST GROWING SEASON DEPENDING ON RAINFALL IN ORDER TO GET ESTABLISHED. THE INITIAL PLANTING OPERATION SHOULD ALLOW FOR WATERING DURING INSTALLATION TO COMPLETELY SOAK BACKFILL MATERIAL.
- MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE DIAGRAM PROVIDED AND SHALL CONSIST OF COMPOSTED, SHREDDED HARDWOOD BARK MULCH, FREE OF WOOD ALCOHOL.
- ALL NURSERY STOCK TO BE SPRAYED WITH DEER REPELLENT CONTAINING BITREX, SUCH AS REPELLEX. ALL NURSERY STOCK TO BE GROWN WITH DEER REPELLENT TABLETS IN GROWING MEDIUM, SUCH AS REPELLEX TABLETS.

REFORESTATION AREA MONITORING NOTES

- MONTHLY VISITS DURING THE FIRST GROWING SEASON ARE TO ASSESS THE SUCCESS OF THE PLANTINGS AND TO DETERMINE IF SUPPLEMENTAL WATERING, PEST CONTROL OR OTHER ACTIONS ARE NECESSARY. EARLY SPRING VISITS WILL DOCUMENT WINTER KILL AND AUTUMN VISITS WILL DOCUMENT SUMMER KILL.
- THE MINIMUM SURVIVAL RATE SHALL BE 75% OF THE TOTAL NUMBER OF TREES PLANTED PER ACRE AT THE END OF THE TWO YEAR MAINTENANCE PERIOD. WILD TREE SEEDLINGS FROM NATURAL REGENERATION ON THE PLANTING SITE MAY BE COUNTED UP TO 50% TOWARD THE TOTAL SURVIVAL NUMBER IF THE ARE HEALTHY NATIVE SPECIES AT LEAST 12 INCHES TALL.
- SURVIVAL WILL BE DETERMINED BY A STRATIFIED RANDOM SAMPLING OF THE PLANTINGS. THE SPECIES COMPOSITION OF THE SAMPLE POPULATION SHOULD BE PROPORTIONATE TO THE AMOUNT OF EACH SPECIES IN THE ENTIRE PLANTING TO BE SAMPLED.
- EFFECTIVE MONITORING WILL ASSESS PLANT SURVIVABILITY DURING THE FIRST GROWING SEASON AND MAKE RECOMMENDATIONS FOR REINFORCEMENT PLANTINGS IF REQUIRED AT THAT TIME.

FOREST CONSERVATION EASEMENT TABLE
TOTAL RETENTION: 2.04 AC.
TOTAL REFORESTATION: 2.13 AC.

FOREST CONSERVATION EASEMENT 1	
RETENTION	0.29 AC.
REFORESTATION	0.58 AC.
TOTAL	0.85 AC.
FOREST CONSERVATION EASEMENT 2	
RETENTION	1.28 AC.
REFORESTATION	1.38 AC.
TOTAL	2.66 AC.
FOREST CONSERVATION EASEMENT 3	
RETENTION	0.47 AC.
REFORESTATION	0.19 AC.

REFORESTATION PLANT SCHEDULE
TOTAL REFORESTATION AREA=2.13 AC.
PLANTING DENSITY 2.13 AC. OF 1" CAL.
TREES @ 200 PER ACRE
2.13 AC.=426 TREES
TOTAL AREA 2.13 AC. = 426 TREES

QTY.	BOTANICAL NAME	SIZE	SPACING
85	ACER RUBRUM RED MAPLE	1" CAL	15'x15'
85	LIQUID AMBER STRACIFLUA AMERICAN SWEETGUM	1" CAL	15'x15'
85	PLATANUS OCCIDENTALIS Sycamore	1" CAL	15'x15'
85	PRUNUS SEROTINA BLACK CHERRY	1" CAL	15'x15'
86	QUERCUS PLUSTRIS PIN OAK	1" CAL	15'x15'

FOREST RETENTION AREAS AND NOTES

- FORESTED STREAM AND WETLAND BUFFERS ARE RETAINED IN OPEN SPACE LOTS.
- NO RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED ON THIS SITE.
- FORESTED AREAS ADJACENT TO FLOODPLAINS AND STREAM BUFFERS ARE SUBSTANTIALLY RETAINED IN OPEN SPACE LOTS.
- THERE ARE NO ISOLATED FOREST STANDS ON THIS SITE.
- CHANGES IN GRADING AND RUNOFF WITHIN CONSTRUCTION/INSTALLATION AREAS WILL NOT ADVERSELY AFFECT THE SOILS WITHIN THE FOREST RETENTION AREA. SEDIMENT CONTROL MEASURES WILL REDIRECT CONCENTRATED FLOW RUNOFF TO STORMWATER MANAGEMENT FACILITIES, RETAIN SEDIMENT WITHIN THE CONSTRUCTION SITE, AND/OR REDIRECT CLEAN WATER AWAY FROM CONSTRUCTION AREAS.
- FOREST CONSERVATION REQUIREMENTS PER SECTION 16.1200 OF THE HOWARD COUNTY CODE, DPZ AND THE FOREST CONSERVATION MANUAL FOR THIS SUBDIVISION WILL BE FULFILLED BY THE RETENTION OF EXISTING FOREST IN THE AMOUNT OF 2.04 AC, REFORESTATION OF 2.13 AC. THE TOTAL FOREST CONSERVATION OBLIGATION FOR THIS PROJECT IS 4.17 AC. AND IS PROVIDED ON-SITE.
- THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT. HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.

FOREST PROTECTION NOTES

PRE-CONSTRUCTION ACTIVITIES

- FOR RETENTION AREAS, INSTALL BLAZE ORANGE FENCE AND RETENTION SIGNS BEFORE CONSTRUCTION BEGINS.
- FENCING SHALL BE MAINTAINED IN GOOD CONDITION AND PROMPTLY REPAIRED OR RESTORED AS THE SITUATION WARRANTS.
- A QUALIFIED TREE CARE EXPERT SHALL DETERMINE IF ROOT PRUNING IS REQUIRED ALONG THE LIMIT OF DISTURBANCE. ROOT PRUNE TREES AS REQUIRED. WATER ANY ROOT-PRUNED TREES IMMEDIATELY AFTER ROOT-PRUNING AND MONITOR FOR SIGNS OF STRESS DURING CONSTRUCTION.

CONSTRUCTION PHASE

- NO DISTURBANCE OR DUMPING IS ALLOWED INSIDE THE TREE RETENTION AREA.
- NO EQUIPMENT SHALL BE OPERATED INSIDE THE TREE RETENTION AREA INCLUDING TREE CANOPIES.
- IN THE EVENT OF DROUGHT, THE PROTECTED TREES SHALL BE MONITORED FOR SIGNS OF STRESS AND WATERED AS NEEDED.

POST-CONSTRUCTION ACTIVITIES

- AT THE DIRECTION OF A QUALIFIED TREE CARE EXPERT, DAMAGES TO RETAINED TREES SHALL BE REPAIRED BY THE CONTRACTOR.
- FENCE REMOVAL AND STABILIZATION SHALL BE AS PER THE SEDIMENT AND EROSION CONTROL PLAN.
- DO NOT REMOVE SIGNS.

COST ESTIMATE: (For bonding purposes, only)

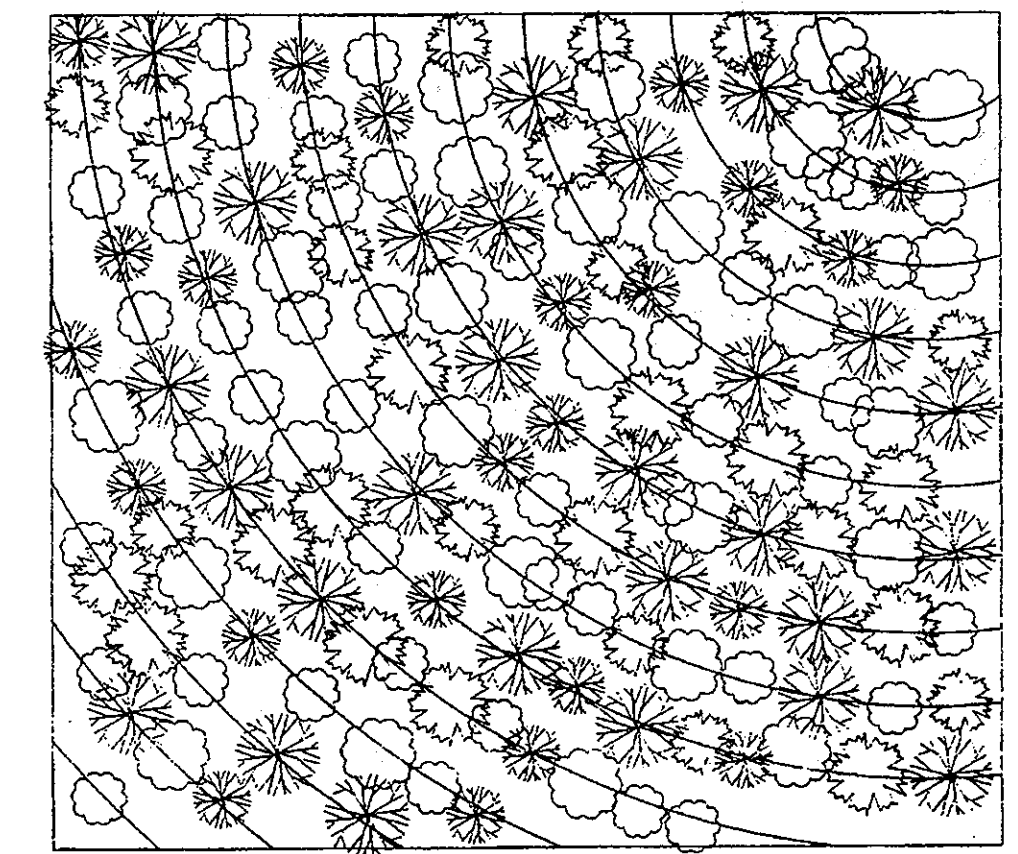
(RETENTION - 2.04 AC. 88,426.8 x 0.20 = \$ 17,773
(REFORESTATION - (2.13 AC.) 92782.80 SF x .50 = \$46,392.00)

SURETY NOTE

FINANCIAL SURETY IN THE AMOUNT OF \$64,165 WILL BE POSTED WITH THE FC MAINTENANCE AGREEMENT.

SEQUENCE OF CONSTRUCTION-FOREST CONSERVATION

- PRECONSTRUCTION MEETING / SITE WALK WITH CONTRACTORS AND OTHER RESPONSIBLE PARTIES TO DEFINE PROTECTION MEASURES TO BE UTILIZED AND TO POINT OUT PARTICULAR TREES TO BE SAVED.
- STAKE OUT LIMITS OF DISTURBANCE AND TREE PROTECTION FENCING LOCATIONS.
- INSTALL TREE PROTECTION FENCING: FENCING TO BE INSPECTED BY THE PROJECT ENGINEER OR THE PROJECT ECOLOGIST AND HOWARD COUNTY PLANNING AND ZONING.
- PROCEED WITH TREE REMOVAL AND SITE IMPROVEMENTS AS PER APPROVED SEDIMENT CONTROL PLAN - TO BE INSPECTED BY HOWARD COUNTY PLANNING AND ZONING.
- TEMPORARY TREE PROTECTION DEVICES SHALL BE REMOVED AFTER ALL FINISHED GRADING AND UTILITY CONSTRUCTION HAS OCCURRED AND WITH APPROVAL FROM THE HOWARD COUNTY OFFICE OF PLANNING AND ZONING.
- REMOVAL OF HAZARDOUS TREES (DEAD, DISEASED, OR THOSE SUBJECT TO WIND THROW) WILL BE ALLOWED ALONG THE EDGE OF THE FOREST RETENTION EASEMENT AREA AS WELL AS WITHIN OTHER TREE SAVE AREAS. ALL SUCH REMOVALS SHALL BE NOTED AS PART OF THE CONSTRUCTION SEQUENCE FOR THIS PROJECT.



- PLANT PLACEMENT DETAIL
NOT TO SCALE
- MIX TREE AND SHRUB SPECIES IN THE STAGING AREA.
 - THE PROJECT MANAGER WILL SET THE GUIDE CURVILINEAR LINE AS CLOSE TO CONTOUR AS POSSIBLE.

OWNERS
LOTS 1, 2, AND 3 RIVERSIDE OVERLOOK, PHASE 1
TRUSTEES OF STATE BOARD OF
CHURCH OF GOD

7240 LONG VIEW ROAD
COLUMBIA MD 21044
NON BUILDABLE BULK PARCEL 'A'
REUWER LONG TERM HOLDING LLC
5300 DORSEY HALL DRIVE
ELLCOTT CITY, MARYLAND 21042
443-367-0422

DEVELOPER
BENDEB PROPERTY II, LLC
C/O JARED SPAHN
5300 DORSEY HALL DRIVE
ELLCOTT CITY, MARYLAND 21042
443-367-0422

NO.	REVISION	DATE
1	PLANS ARE REVISED PER SP-09-004 AND WP-09-122.	04-06-2009
2	REVISE PLANS TO REFLECT ADDITION OF LOTS 13-16	11/12/09

FINAL ROAD CONSTRUCTION PLAN
LANDSCAPE AND FOREST CONSTRUCTION
DETAILS
RIVERSIDE OVERLOOK PHASE II
LOTS 4 TO 12, 18 TO 22, 24 TO 33,
OPEN SPACE LOTS 17, 23, 34 & 35
AND PHASE III, LOTS 13-16
A RESUBDIVISION OF RIVERSIDE OVERLOOK PHASE I
LOTS 1, 2, 3 AND BUILDABLE BULK PARCEL 'A'

TAX MAP 41 GRID 1 PARCEL 179
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET TEL: 410-461-7666
ELLCOTT CITY, MD 21043 FAX: 410-461-8961

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193 EXPIRATION DATE: 09-30-2010

DESIGN BY: RJ
DRAWN BY: HED
CHECKED BY: RHV
DATE: OCTOBER 2009
SCALE: AS SHOWN
W.O. NO.: 09-29

15 SHEET OF 15

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William R. Marshall 11-9-09
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
William R. Marshall 11/13/09
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

W. J. Steiner 11-16-09
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

J. Chris Ogilvie
J. CHRIS OGLE
DNR QUALIFIED PROFESSIONAL