

GENERAL NOTES

- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- THE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS:
 MISS UTILITY: 1-800-257-7777
 VERIZON TELEPHONE COMPANY: 410-394-6281
 HOWARD COUNTY DEPT. OF UTILITIES: 410-313-2366
 AT&T CABLE LOCATION DIVISION: 410-393-3533
 B.G.&E. CO. CONTRACTOR SERVICES: 410-850-4620
 B.G.&E. CO. UNDERGROUND DAMAGE CONTROL: 410-187-4620
 STATE HIGHWAY ADMINISTRATION: 410-531-5533
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF WORK.
- ANY DAMAGE TO PUBLIC RIGHTS-OF-WAY, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS, OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS. PORCHES OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT FRONT OR REAR YARD SETBACK.
- 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 1 FOOT DEPTH OVER DRIVEWAY SURFACE
 F) STRUCTURE CLEARANCES - MINIMUM 12 FEET
 G) MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE
- EXISTING UTILITIES LOCATED FROM ROAD CONSTRUCTION PLANS AND AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTORS INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE.
- DEED REFERENCE: L1353/F.606, L.3101/F.656, L.3101/F.660
- THE PROJECT BOUNDARY IS BASED ON A BOUNDARY SURVEY PREPARED BY FREDERICK WARD ASSOCIATES INC., DATED NOVEMBER 2002.
- THE TOPOGRAPHY SHOWN HEREON IS BASED ON A TOPOGRAPHIC SURVEY PREPARED BY FREDERICK WARD ASSOCIATES, DATED DECEMBER 2003.
- WATER AND SEWER FOR THIS PROJECT WILL BE PUBLIC CONTRACT 14-4621-D. WATER WILL PROVIDED THROUGH CONTRACT NO. 44-0906-W. SEWER WILL BE PROVIDED THROUGH CONTRACT NO. 649 S.
- STORM WATER MANAGEMENT IS PROVIDED BY
 a. A POCKET POND (P-5) TO PROVIDE CPV AND WQV.
 b. RAY PROVIDED BY GRASS SWALES.
 c. THE SWM POND WILL BE PRIVATELY OWNED AND JOINTLY MAINTAINED BY THE HOA AND HOWARD COUNTY.
- THIS SITE IS NOT LOCATED IN A HISTORIC DISTRICT.
- NO WETLANDS OR STREAMS ARE LOCATED ONSITE. NO FLOOD PLAIN IS LOCATED ONSITE.
- NO STEEP SLOPES ARE LOCATED ONSITE.
- FOREST STAND DELINEATION PLAN PREPARED BY ROBERT H. VOGEL ENGINEERING, INC., DATED MAY, 2003. FOREST CONSERVATION REQUIREMENTS PER SECTION 16.1202 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL HAVE BEEN MET BY FOREST RETENTION BANK. THE FOREST CONSERVATION OBLIGATIONS OF 2.10 ACRES OF REFORESTATION TO BE PROVIDED BY AN OFFSITE FOREST BANK, CYPRESS SPRINGS, LLC FOREST BANK SDP-09-061, TAX MAP 38, PARCELS 42, 44, 45 AND 46.
- APFO TRAFFIC STUDY WAS PREPARED BY THE TRAFFIC GROUP, DATED JUNE 11, 2004, AND WAS APPROVED BY HOWARD COUNTY DEVELOPMENT ENGINEERING DIVISION ON JULY 2005.
- PERMETER AND SWM LANDSCAPING SCREENING IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL SHALL BE PROVIDED AS SHOWN ON THE LANDSCAPE PLAN AND ROAD CONSTRUCTION DRAWINGS. THE SURETY SHALL BE PROVIDED WITH THE DEVELOPERS AGREEMENT FOR THIS FINAL PLAN, F-09-087 IN THE AMOUNT OF \$ 14,560 FOR 41 SHADE TREES & 15 EVERGREEN TREES
- THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
- TO THE BEST OF THE OWNERS KNOWLEDGE, THERE ARE NO BURIAL/CEMETERY LOCATIONS ON SITE.
- STREET TREES ARE REQUIRED FOR THIS SUBDIVISION IN ACCORDANCE WITH SECTION 16.124(e)(1) OF THE SUBDIVISION REGULATIONS AND THE LANDSCAPE MANUAL. THE SURETY SHALL BE PROVIDED WITH THE DEVELOPER'S AGREEMENT FOR THIS FINAL PLAN, F-09-087, IN THE AMOUNT OF \$ 10,500 FOR 35 STREET TREES. A MINIMUM OF 20' SHALL BE MAINTAINED BETWEEN STREET LIGHTS AND TREES.
- A NOISE STUDY IS NOT REQUIRED FOR THIS DEVELOPMENT.
- OPEN SPACE LOTS 4, 5 AND TO BE PRIVATELY OWNED AND MAINTAINED BY THE HOA.
- THE EXISTING STRUCTURES ONSITE ARE TO BE REMOVED. THE STRUCTURE LOCATED ON PARCEL 238 IS 75 YEARS OLD WITH NO HISTORICAL VALUE.
- THE SUBJECT PROPERTY IS ZONED "R-12" IN ACCORDANCE WITH THE 2/2/04 COMPREHENSIVE ZONING PLAN AND THE COMP. LITE ZONING REGULATIONS EFFECTIVE ON 7/28/06, AND IS SUBJECT TO THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS EFFECTIVE 10/2/03 PER COUNCIL BILL 75-2003.
- STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURES AND POLES SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (2006), SECTION 5.5.A. A MINIMUM OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
- 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 (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE RUBER SLEEVE (12 GAUGE-3" LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST).
- THIS PLAN IS SUBJECT TO WP-05-27 WAMER TO WAIVE SECTION 16.144 (c)(2), REQUIRING SUBMISSION OF A REVISED SKETCH PLAN BY OCTOBER 1, 2004. APPROVAL IS SUBJECT TO THE FOLLOWING CONDITION:
 1. SUBMIT THE PRELIMINARY EQUIVALENT SKETCH PLAN APPLICATION WITHIN 60 DAYS OF THE DATE OF THIS LETTER, ON OR BEFORE DECEMBER 21, 2004.
 2. PAY THE DIFFERENCE IN FEES BETWEEN THE SKETCH PLAN AND PRELIMINARY EQUIVALENT SKETCH PLANS AT THE TIME THAT THE SP IS SUBMITTED. THE CURRENT FILE S-05-01 WILL BE VOIDED ONCE THE SP HAS BEEN SUBMITTED.
- THE HOMEOWNERS ASSOCIATION DOCUMENTS HAVE BEEN RECORDED WITH THE MARYLAND STATE DEPARTMENT OF ASSESSMENTS AND TAXATION AS RECORDING REFERENCE NUMBER -- ON --.
- REF. DESIGN MANUAL VOLUME III TO UTILIZE THE 20' PAVING SECTION AND 40' RIGHT-OF-WAY WIDTH FOR A PUBLIC ACCESS PLACE AS APPROVED IN CONJUNCTION WITH SP-05-013.
- DPZ REFERENCE: S-05-01, SP-05-013, WP-05-27, F-03-179.
- THE OWNERS OF SUMMER HAVEN LOTS 10 AND 11 SHALL BE NOTIFIED IN WRITING OF ACTIVITIES IN THE OFF-SITE PUBLIC DRAINAGE AND UTILITY EASEMENT. COPIES OF THE CORRESPONDENCE SHALL BE PROVIDED TO THE DEPARTMENT OF PLANNING AND ZONING AND DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS PRIOR TO GRADING PERMIT APPLICATION.
- THE OFF-SITE STORM DRAIN LOCATED AT EXISTING INLET I-15 OF THE SUMMER HAVEN SUBDIVISION (F-06-008) WAS DESIGNED TO ACCOMMODATE THE 100-YEAR STORM FROM THE EAST POINT STORMWATER MANAGEMENT FACILITY.

FINAL ROAD CONSTRUCTION PLAN

EAST POINT

PHASE I

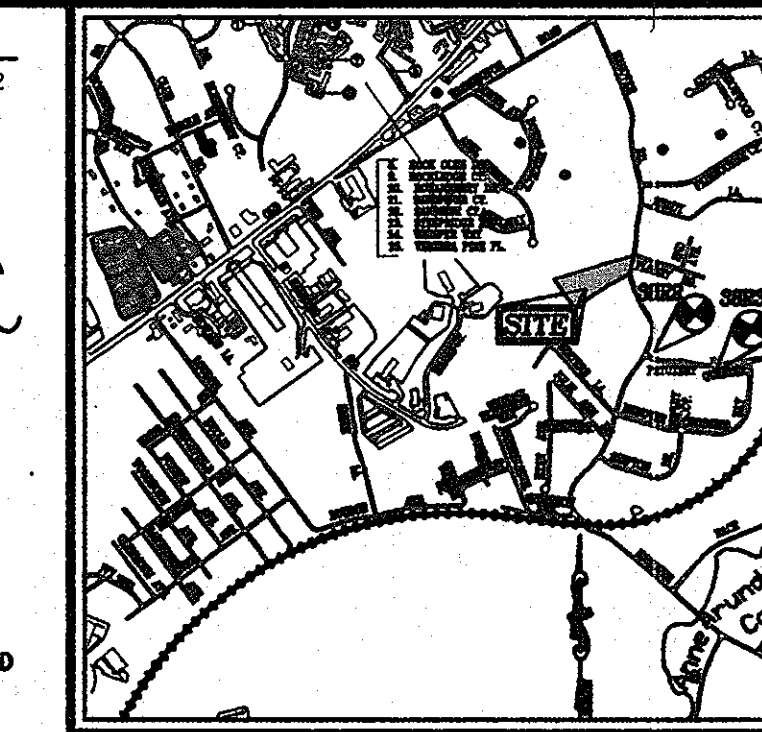
LOTS 1-3 AND OPEN SPACE LOTS 4 & 5

NON-BUILDABLE BULK PARCEL 'A' & 'B'

HOWARD COUNTY, MARYLAND

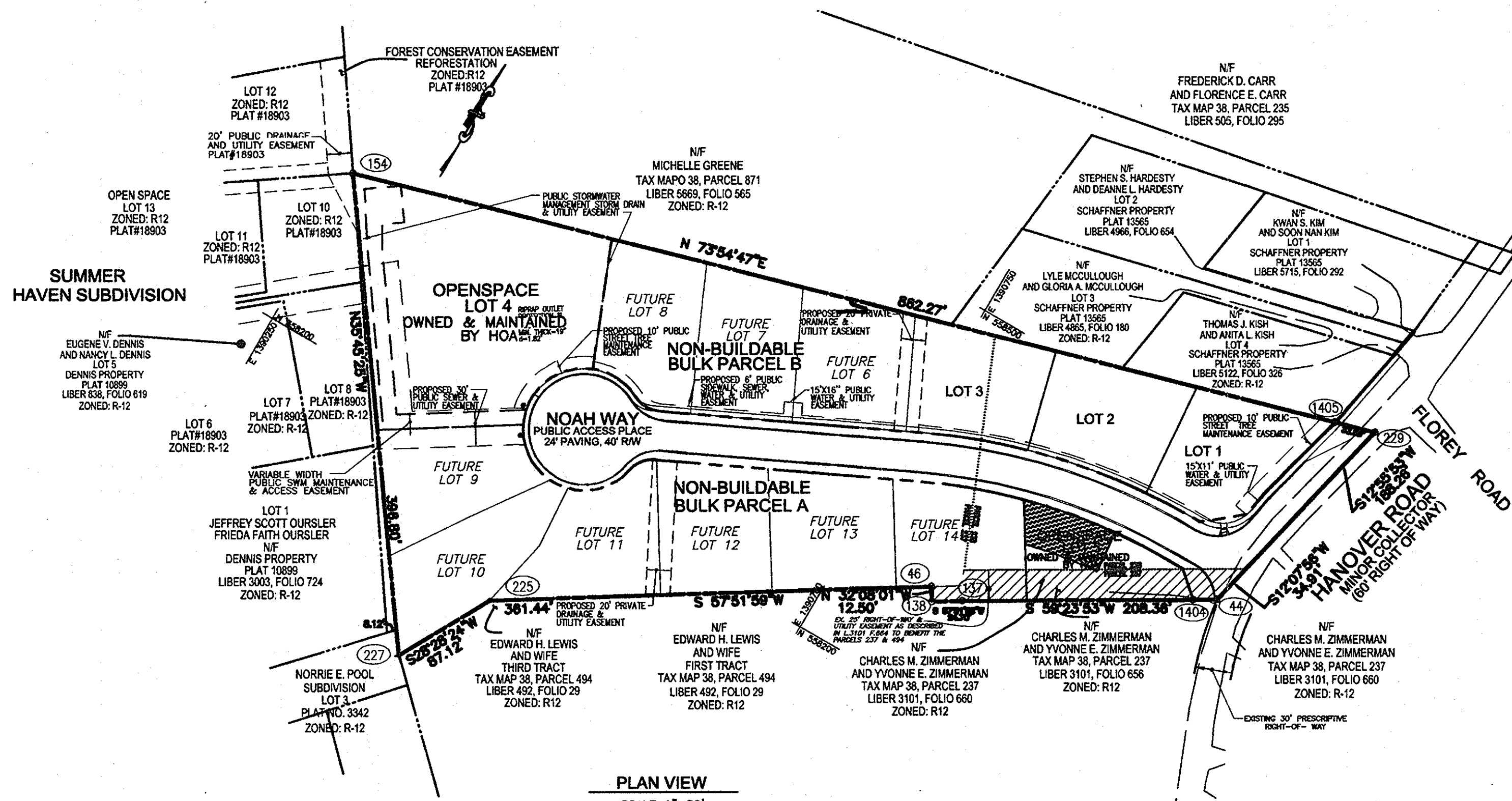
LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- DIRECTION OF FLOW
- EXISTING TREES TO REMAIN
- LIGHT POLES
- SIDEWALK
- FOREST CONSERVATION EASEMENT



THE BEARINGS SHOWN ON THIS PLAN ARE REFERRED TO THE SYSTEM OF COORDINATES ESTABLISHED IN THE MARYLAND COORDINATE SYSTEM (MAD 83) AS PROJECTED BY THE FOLLOWING HOWARD COUNTY GEODETIC CONTROL STATIONS:

38R2 (N) 557,500.683 (E) 1,391,227.052
 38R3 (N) 557,417.823 (E) 1,391,983.177



SHEET INDEX

DESCRIPTION	SHEET NO.
COVER SHEET	1 OF 11
FINAL ROAD CONSTRUCTION PLAN AND DETAILS	2 OF 11
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SEDIMENT AND EROSION CONTROL DETAILS	5 OF 11
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STORM DRAIN PROFILES	7 OF 11
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STORMWATER MANAGEMENT BORINGS AND NOTES	9 OF 11
LANDSCAPE, FOREST CONSERVATION PLAN AND DETAILS	10 OF 11
ASCD/MAA NOTES AND DETAILS	11 OF 11

COORDINATE LIST

POINT	NORTHING	EASTING
44	558351.5974	1391033.0730
45	558282.9781	1390826.1781
137	558285.5294	1390853.7409
138	558272.3930	1390832.8268
134	558336.1500	1390246.7008
225	558080.7300	1390520.1070
227	558014.1456	1390478.5710
229	558575.0807	1391075.2084
1404	558381.8467	1391015.2544
1405	558565.7725	1391042.9316
1413	558485.1666	1391022.4034
1414	558464.0377	1391018.5552
1415	558439.3933	1390988.8076
1417	558388.1697	1390756.7569
1418	558294.3431	1390561.4297
1420	558294.8972	1390539.0719
1422	558240.6134	1390565.0514
1424	558258.2872	1390578.7494
1425	558352.1138	1390774.0766
1426	558399.2124	1390996.7214

SITE DATA

TAX MAP 38, PARCEL 238 & 237
 DEED REFERENCE: L1353/F.606, L.887/F.161, L.3101/F.656, L.3101/F.660
 1ST ELECTION DISTRICT
 EXISTING ZONING: R-12
 GROSS AREA OF PARCEL: 188,152 SF. (4.3193 AC.)
 TOTAL AREA OF ROAD RIGHT OF WAY: 33,087 SF. (0.7595 AC.)
 AREA OF 100 YR FLOOD PLAIN: N/A
 AREA OF STEEP SLOPES: N/A
 (OUTSIDE OF FLOOD PLAIN)
 NET AREA OF PROJECT: 188,152 SF. (4.3193 AC.)
 NUMBER OF PROPOSED RESIDENTIAL LOTS (SFD): PHASE I: 3 LOTS, PHASE 2: 9 LOTS
 AREA OF PROPOSED RESIDENTIAL LOTS (SFD): 29,058 SF. (0.6670 AC.)
 NUMBER OF PROPOSED OPEN SPACE LOTS: 2
 OPEN SPACE CALCULATION: 20% OF GROSS AREA
 OPEN SPACE REQUIRED: 32,462 SF. (0.86 AC.)
 TOTAL AREA OF OPEN SPACE PROPOSED: 39,613 SF. (0.9093 AC.)
 REC. OPEN SPACE: 200 SF. X 12 (DWELLING UNITS)
 REC. OPEN SPACE REQUIRED: 2400 SF.
 REC. OPEN SPACE PROVIDED: 2,487 SF. (OPEN SPACE LOT 1)
 REC. OPEN SPACE/ACTIVE: 2487 SF.
 REC. OPEN SPACE/PASSIVE: 50847 SF.

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: SP-05-13, F-03-139, S-05-01, WP-05-27, AIRPORT ZONING PERMIT NO. 03-090.

EXISTING USE OF SITE: RESIDENTIAL
 PROPOSED USE OF SITE: SINGLE FAMILY DETACHED
 PROPOSED WATER SYSTEM: PUBLIC
 PROPOSED SEWER SYSTEM: PUBLIC

NO. OF PROPOSED OPEN SPACE LOTS: 02
 NO. OF NON-BUILDABLE BULK PARCELS: 02
 OPEN SPACE LOT 4: OWNED AND MAINTAINED BY HOA
 OPEN SPACE LOT 5: OWNED AND MAINTAINED BY HOA

AREA TABULATION

TOTAL AREA OF BUILDABLE LOTS/PARCELS	29,058 SF (0.6670 AC.)
TOTAL AREA OF OPEN SPACE LOTS	39,613 SF (0.9093 AC.)
TOTAL AREA OF NON-BUILDABLE BULK PARCELS	96,000 SF (2.2038 AC.)
TOTAL AREA OF RIGHT OF WAY	33,087 SF (0.7595 AC.)
TOTAL	197,758 SF (4.5398 AC.)

MILESTONE CHART

THE DEPARTMENT OF PLANNING AND ZONING'S SP-05-13 LETTER DATED 07/10/09 GRANTED TENTATIVE ALLOCATIONS FOR THIS SUBDIVISION IN ACCORDANCE WITH THE FOLLOWING ALLOCATION SCHEDULE AND MILESTONES:

PHASE	NO. TENTATIVE ALLOCATIONS	ALLOCATION YEAR
PHASE I	1	2012
PHASE II	9	2013

NO.	REVISION	DATE

FINAL ROAD CONSTRUCTION PLAN
COVER SHEET
EAST POINT
PHASE I
LOTS 1-3 AND OPEN SPACE LOTS 4 & 5
NON-BUILDABLE BULK PARCELS 'A' & 'B'
 TAX MAP 38 GRID 15 PARCEL 238, 237
 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET ELLICOTT CITY, MD 21043 TEL: 410.481.7666 FAX: 410.481.7666

PROFESSIONAL CERTIFICATE

DESIGN BY: RHV/RJ
 DRAWN BY: R/VJ
 CHECKED BY: R/VJ
 DATE: OCTOBER 2009
 SCALE: AS SHOWN
 W.O. NO.: 03-23

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: 08-27-2010

1 SHEET OF 11

APPROVED: DEPARTMENT OF PUBLIC WORKS
 [Signature] 12-22-09
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature] 2/02/10
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

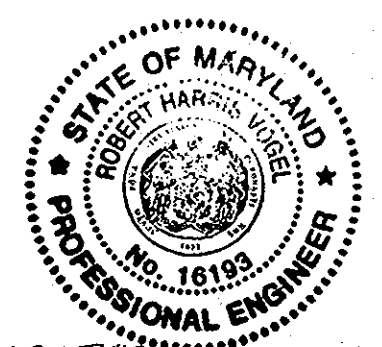
APPROVED: DEPARTMENT OF ENGINEERING
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 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

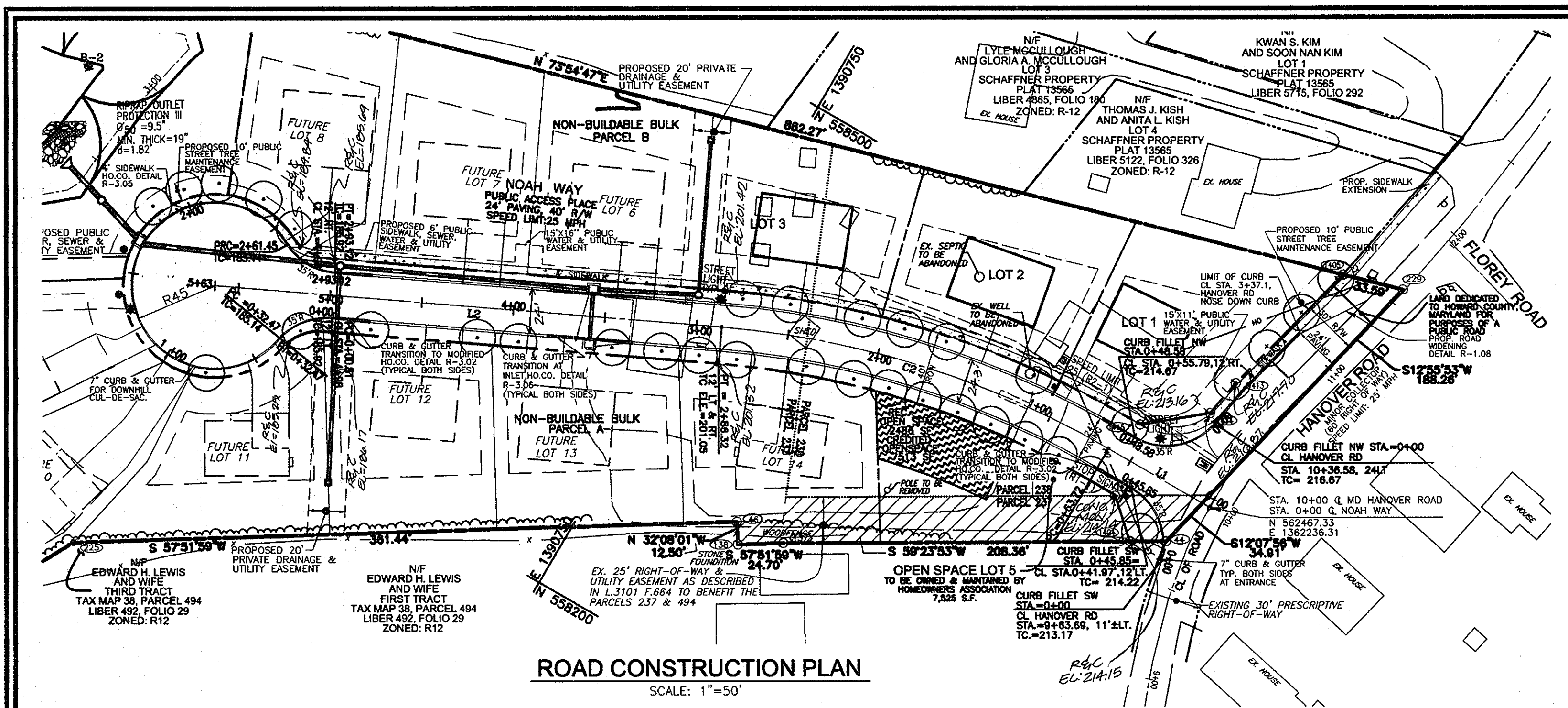
AS-BUILT CERTIFICATION

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.

[Signature] 10/93
 DATE

[Signature] 2/14/12
 DATE





ROAD CONSTRUCTION PLAN
SCALE: 1"=50'

SIGNAGE LOCATION CHART

STREET NAME	STATION	OFFSET	FIXTURE/POLE TYPE
NOAH WAY	0+44	18' LEFT	R1-1 STOP SIGN
NOAH WAY	1+05	18' RIGHT	R2-1 SPEED LIMIT 25

LIGHT LOCATIONS

STREET NAME	STATION	OFFSET	FIXTURE/POLE TYPE
NOAH WAY	0+42	19' RIGHT	100 WATT HPS VAPOR PREMIER
NOAH WAY	2+88	15' RIGHT	POST-TOP FIXTURE MOUNTED ON A 14"
NOAH WAY	1+29	CAL DE SAG	BLACK FIBERGLASS POLE

STREET TREE CALCULATIONS

STREET NAME	LINEAR FEET	REQUIRED TREES	PROVIDED TREES
NOAH WAY	1236/40	31	31
HANOVER RD	170/40	4	4

LINE TABLE

LINE	LENGTH	BEARING
L1	63.72	N89°51'04"E
L2	276.69	N64°20'34"E

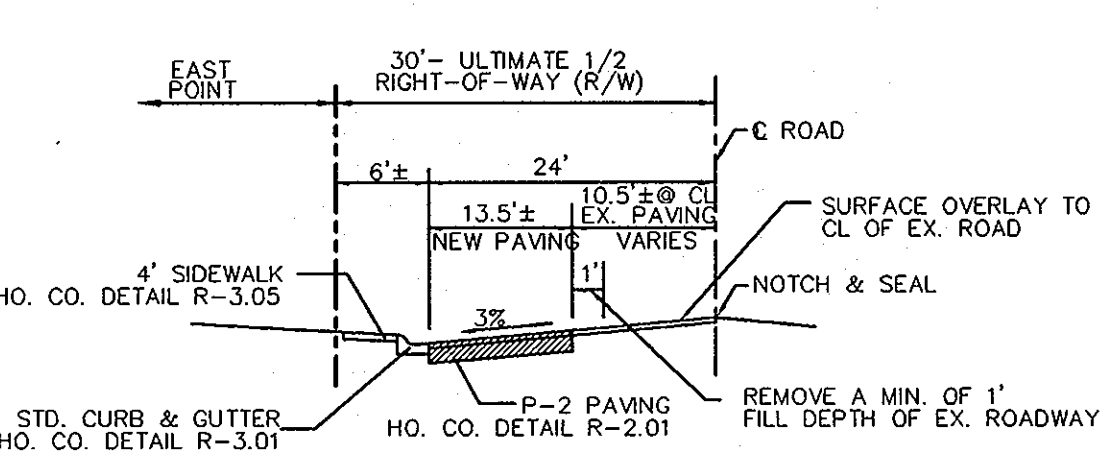
CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA ANGLE	TANGENT	CHORD DIRECTION	CHORD LENGTH
C2	222.60	500.00	25°30'30"	113.18	S77°05'49"W	220.77

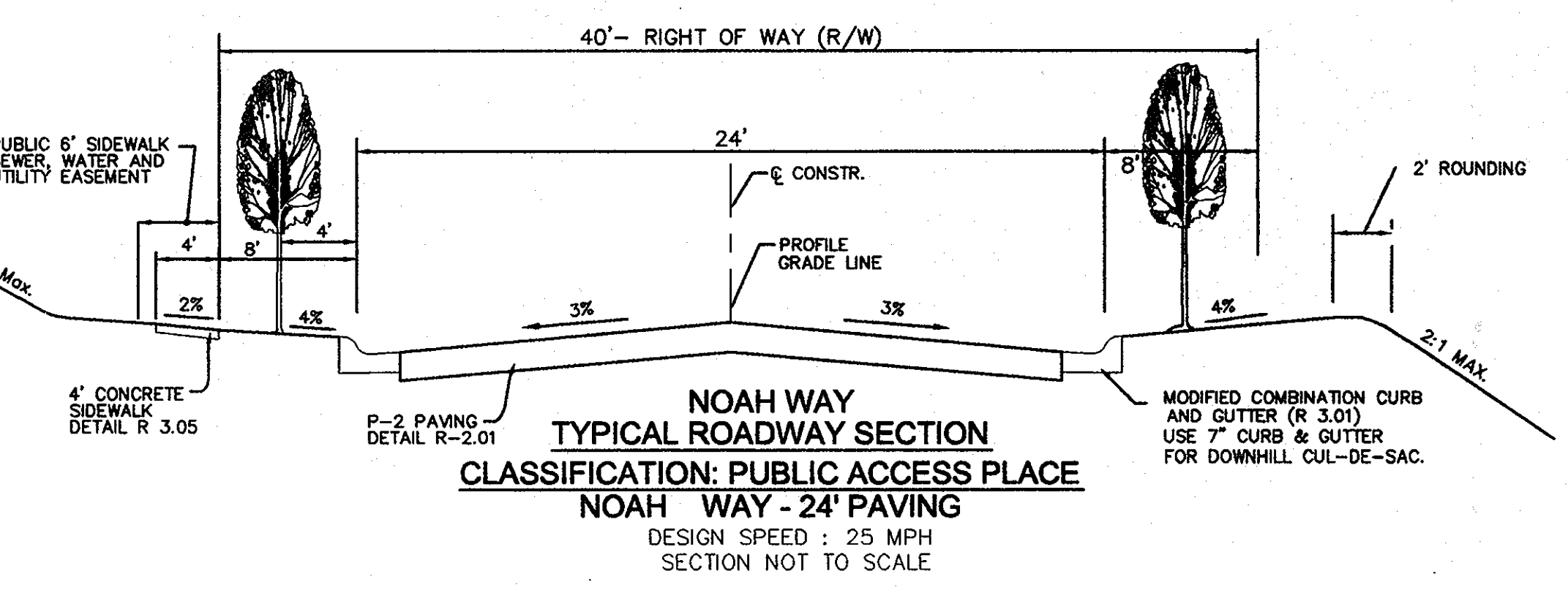
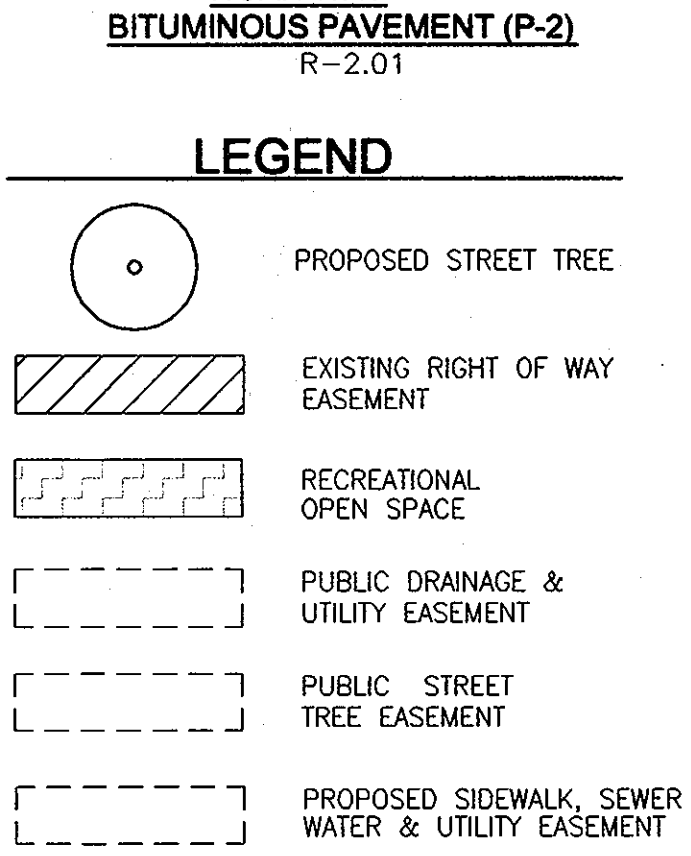
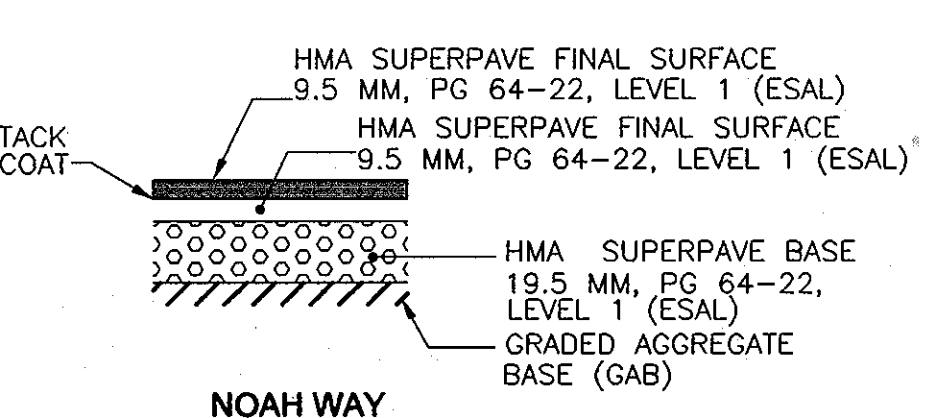
STREET TREE PLANT LIST

SYMBOL	QTL	BOTANICAL NAME	SIZE	REMARKS
○	31	ACER RUBRUM / RED MAPLE	2.5-3" CAL.	B & B
+	4	SERVICEBERRY AMELANCHIER CANADENSIS (GROWTH HEIGHT=15')	4'-6" CHT.	B & B

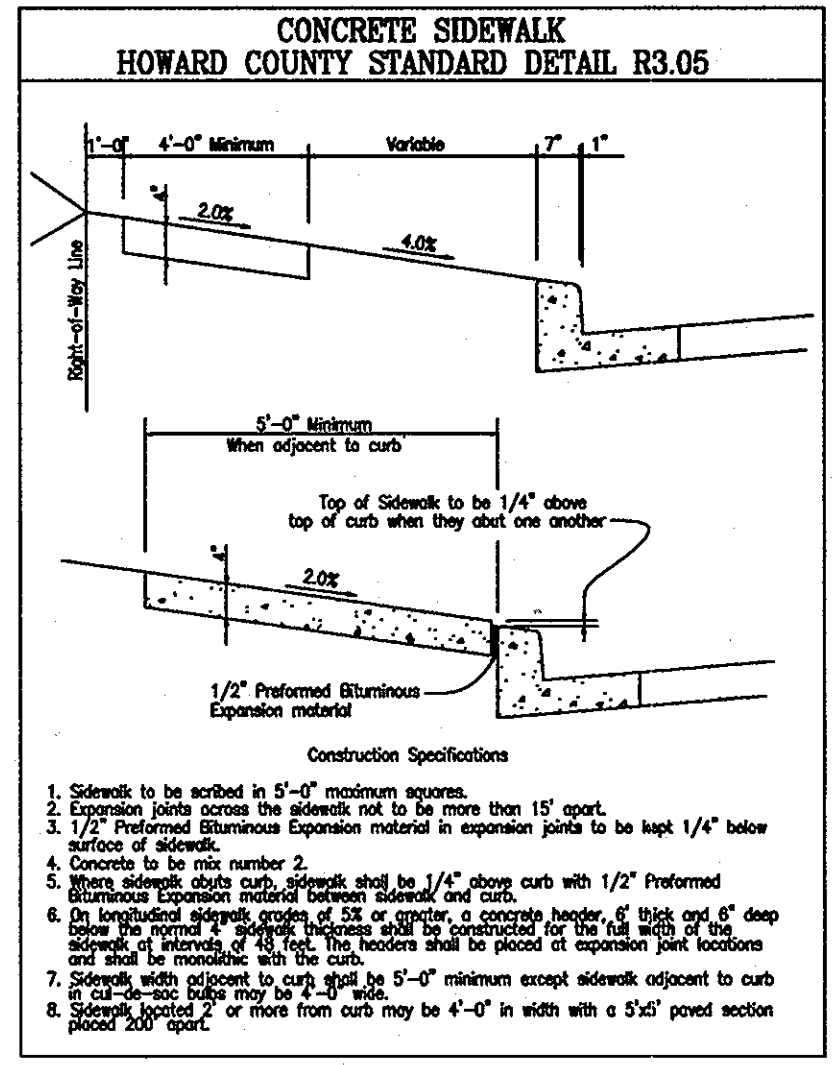
NOTE: A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.



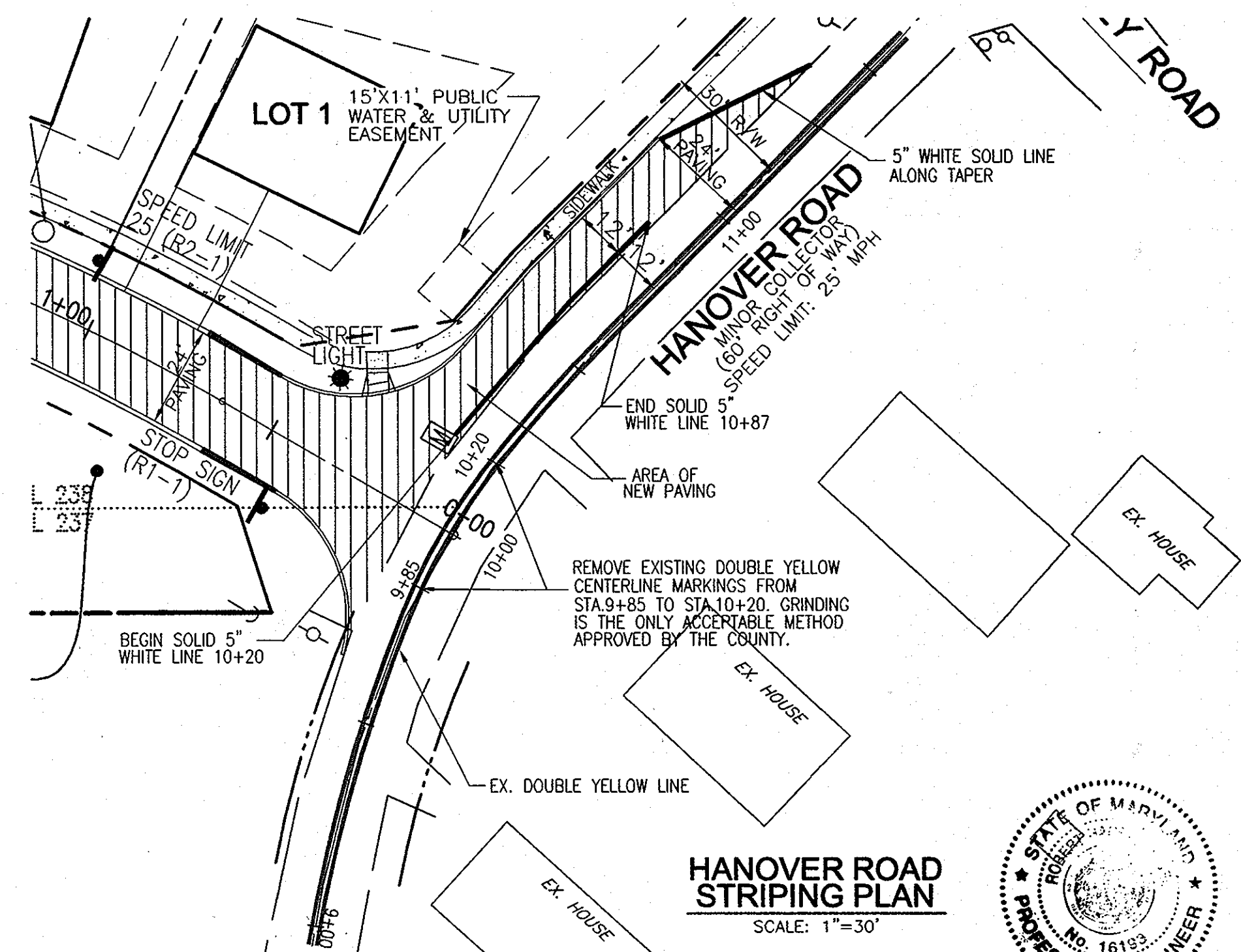
TYPICAL ROADWAY SECTION WIDENING DETAIL
DESIGN SPEED : 25 MPH
SECTION NOT TO SCALE



TYPICAL ROADWAY SECTION CLASSIFICATION: PUBLIC ACCESS PLACE NOAH WAY - 24' PAVING
DESIGN SPEED : 25 MPH
SECTION NOT TO SCALE

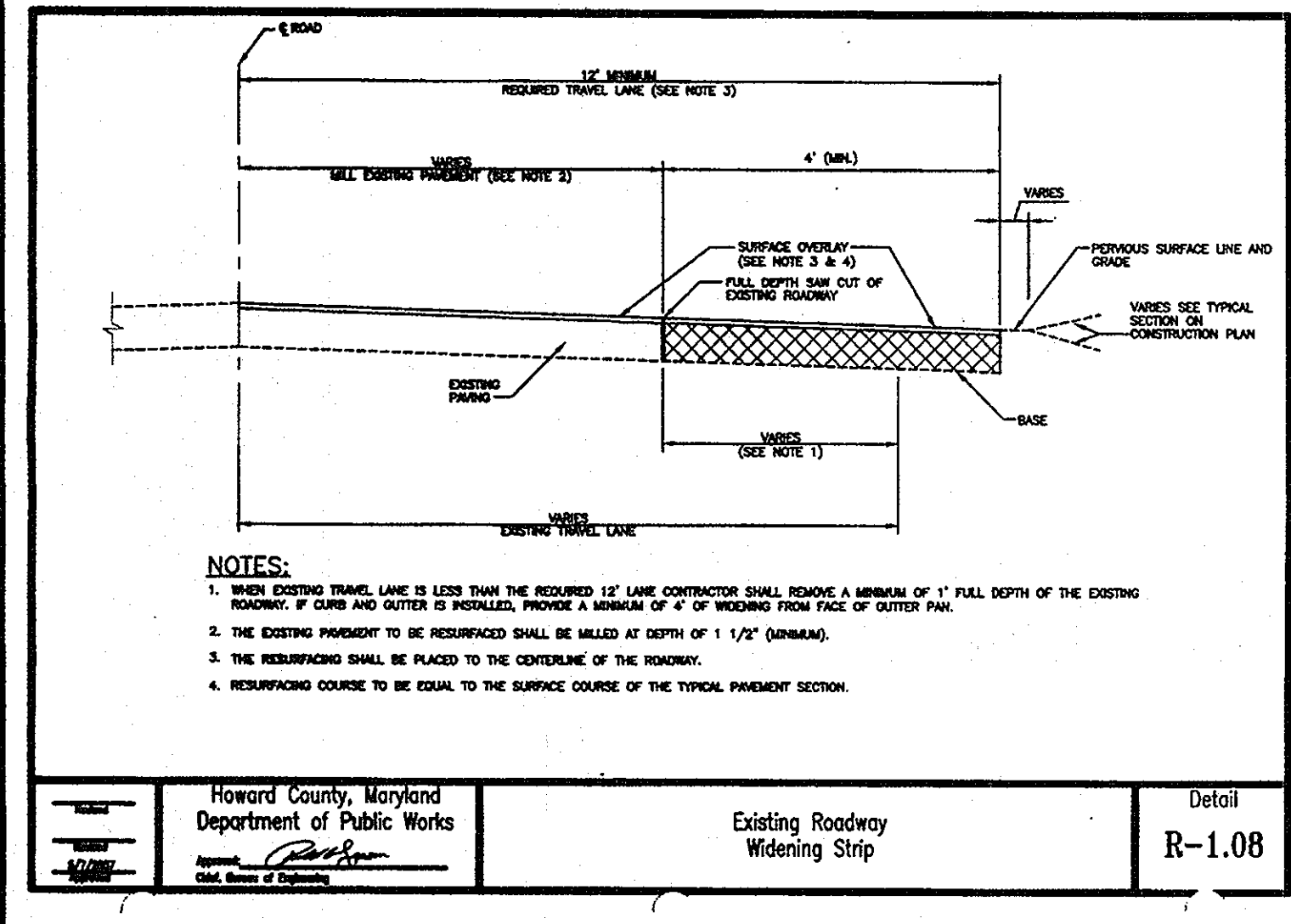
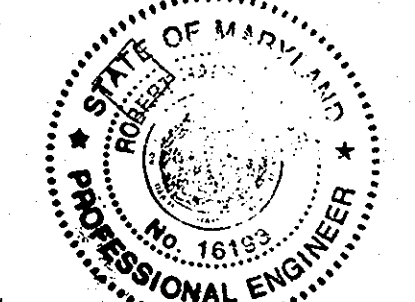


Construction Specifications:
1. Sidewalk to be formed in 5'-0" minimum squares.
2. Expansion joints across the sidewalk not to be more than 15' apart.
3. 1/2" Formed Bituminous Expansion material in expansion joints to be kept 1/4" below top of curb when they abut one another.
4. Concrete to be mix number 2.
5. When concrete sidewalk shall be 1/2" Formed Bituminous Expansion material between sidewalk and curb.
6. On longitudinal expansion joints, a 1/2" concrete header, 6" thick and 6" deep below the normal sidewalk surface shall be provided for the full width of the sidewalk. The concrete header shall be placed in expansion joint between sidewalk and curb.
7. Sidewalk width adjacent to curb shall be 5'-0" minimum except sidewalk adjacent to curb and sidewalk located 2' or more from curb may be 4'-0" in width with a 5'± paved section placed 30' apart.

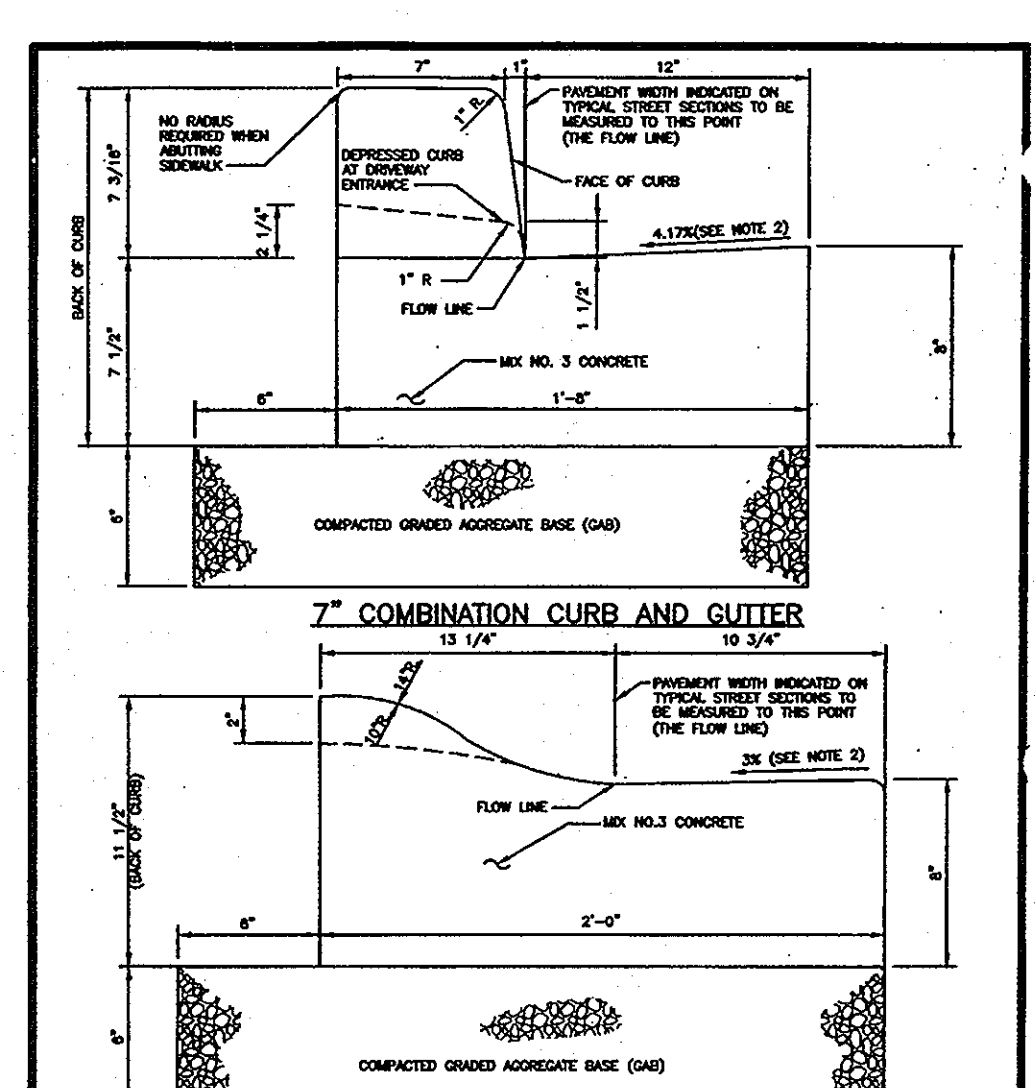


HANOVER ROAD STRIPING PLAN
SCALE: 1"=30'

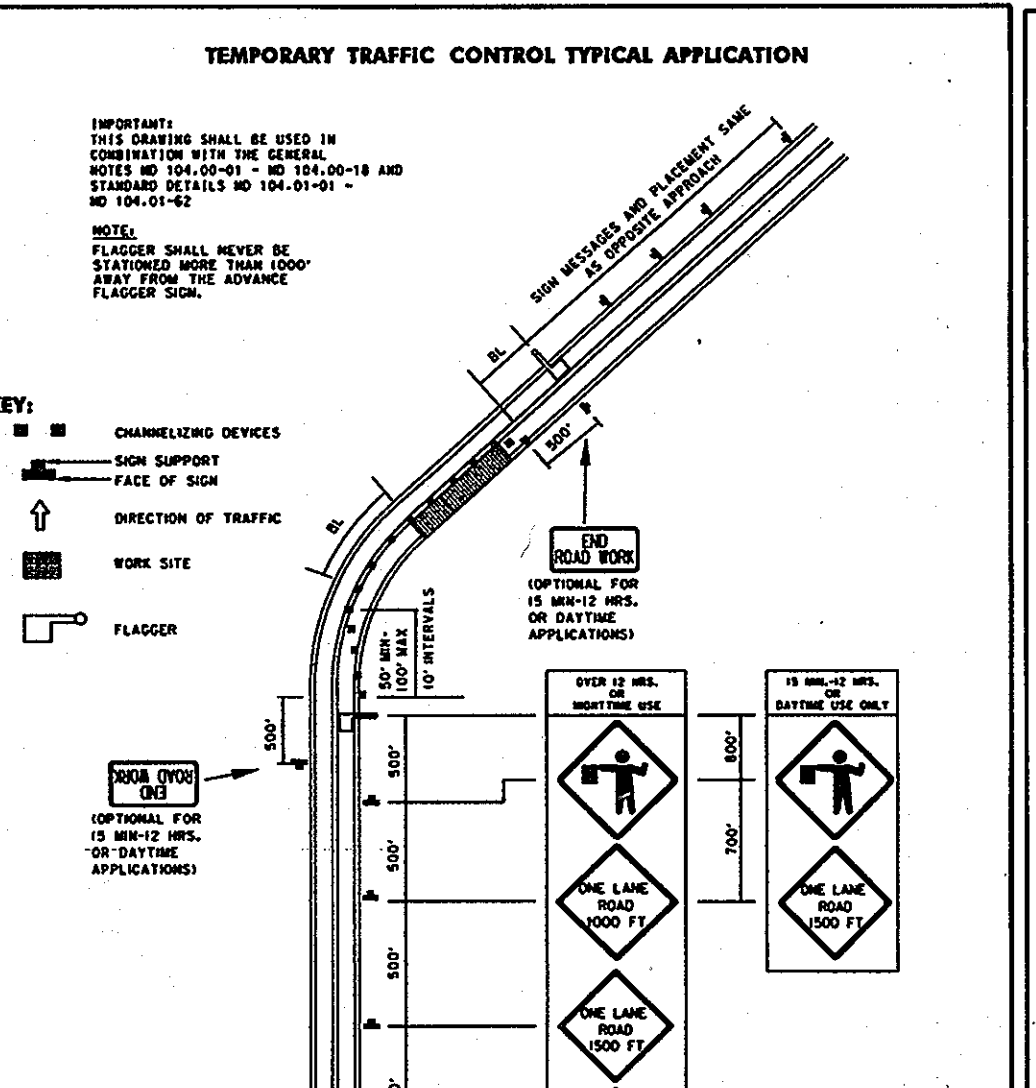
AS-BUILT CERTIFICATION
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.



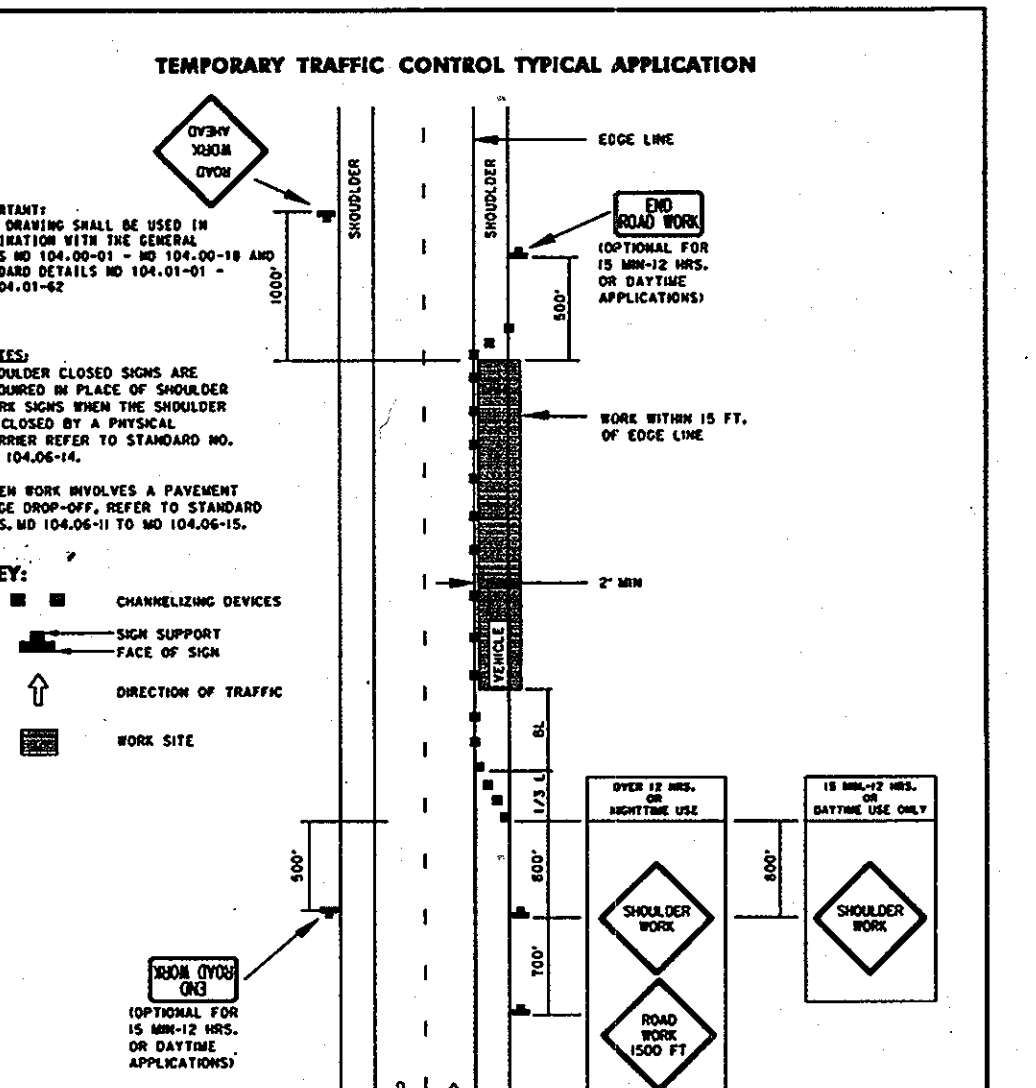
APPROVED: DEPARTMENT OF PUBLIC WORKS
APPROVED: DEPARTMENT OF PLANNING AND ZONING
DATE: 12-22-09
DATE: 2/20/10
DATE: 1/10/10



NOTE: MODIFIED COMBINATION CURB AND GUTTER
1. A SERVICE GUTTER SHALL HAVE A GUTTER SLOPE OF 1/16" FROM THE FLOW LINE, AND SHALL NOT BE USED IN THIS DRAINAGE CONDITION.
2. THE TOP OF THE GUTTER SHALL BE MEASURED TO THE HIGH SIDE OF THE GUTTER. THE GUTTER SHALL BE LOCATED ON THE LOW SIDE AND IN THE SAME DIRECTION AS THE FLOW LINE. THE GUTTER SHALL BE LOCATED ON THE LOW SIDE OF THE FLOW LINE.
3. A MINIMUM OF TWO (2) FEET OF COMPACTED GRANULAR SUBGRADE, OR EQUIVALENT, SHALL SUPPORT THE ENTIRE BACK OF CURB.
4. A POSITIVE DRAINAGE SHALL BE PROVIDED BOTH BEHIND THE CURB AND ALONG THE GUTTER AND FLOW LINE.



Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
FLAGGING OPERATION-2-LANE, 2-WAY
EQLSS THAN 40 MPH
STANDARD NO. MD 104.02-10



Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
SHOULDER WORK-2-LANE, 2-WAY
EQLSS THAN 40 MPH
STANDARD NO. MD 104.02-02

OWNER
MICHAEL L. PFAU
3675 PARK AVE., STE. 301
ELlicOTT CITY, MARYLAND 21043
(410) 480-0023

DEVELOPER
TRINITY QUALITY HOMES
3675 PARK AVE., STE. 301
ELlicOTT CITY, MARYLAND 21043
(410) 480-0023

NO.	REVISION	DATE

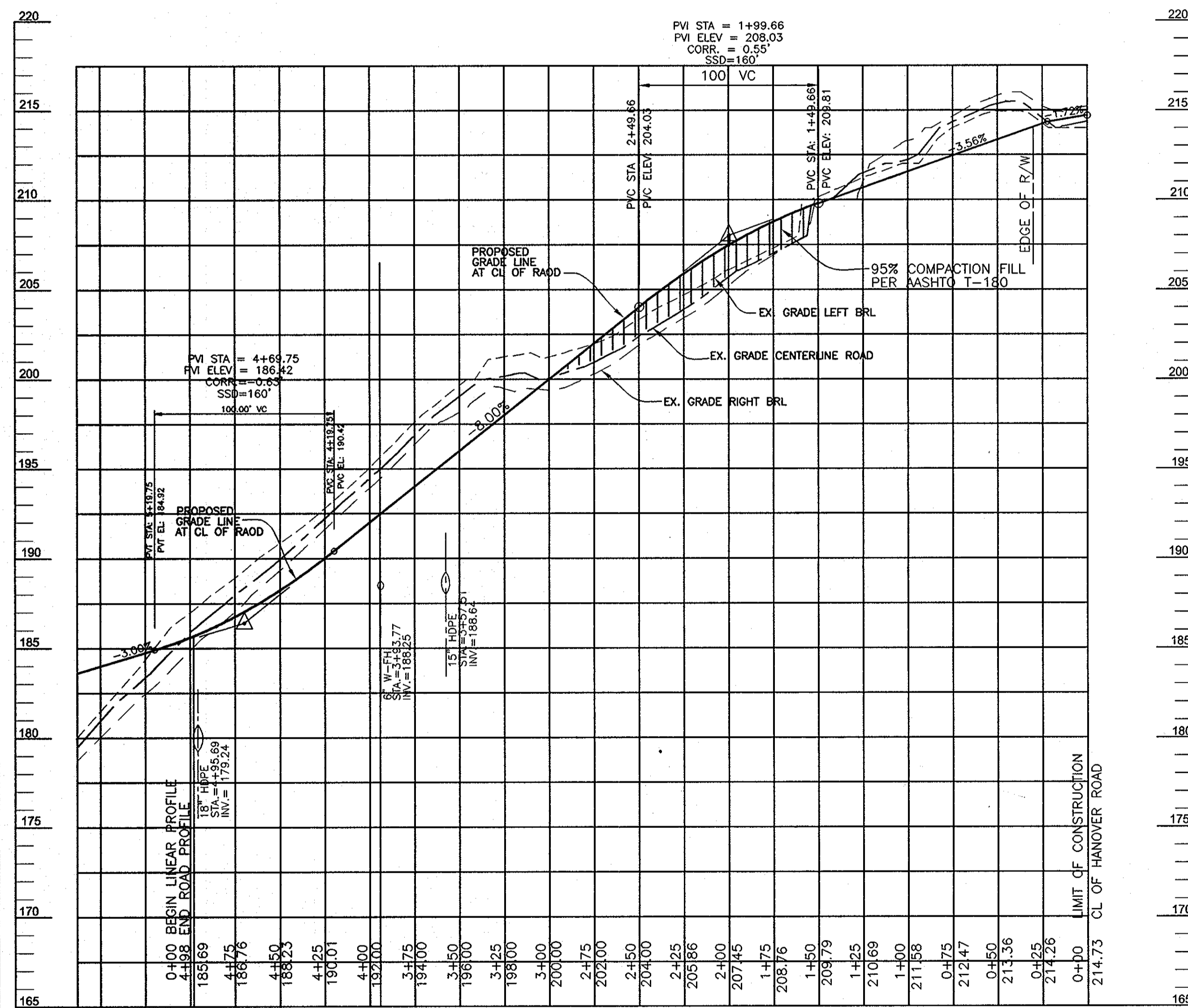
FINAL ROAD CONSTRUCTION PLAN
ROAD CONSTRUCTION PLAN AND DETAILS
EAST POINT
PHASE I
LOTS 1-3 AND OPEN SPACE LOTS 4 & 5
NON-BUILDABLE BULK PARCELS 'A' & 'B'

TAX MAP 38 GRID 15 PARCEL 238, 237
1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

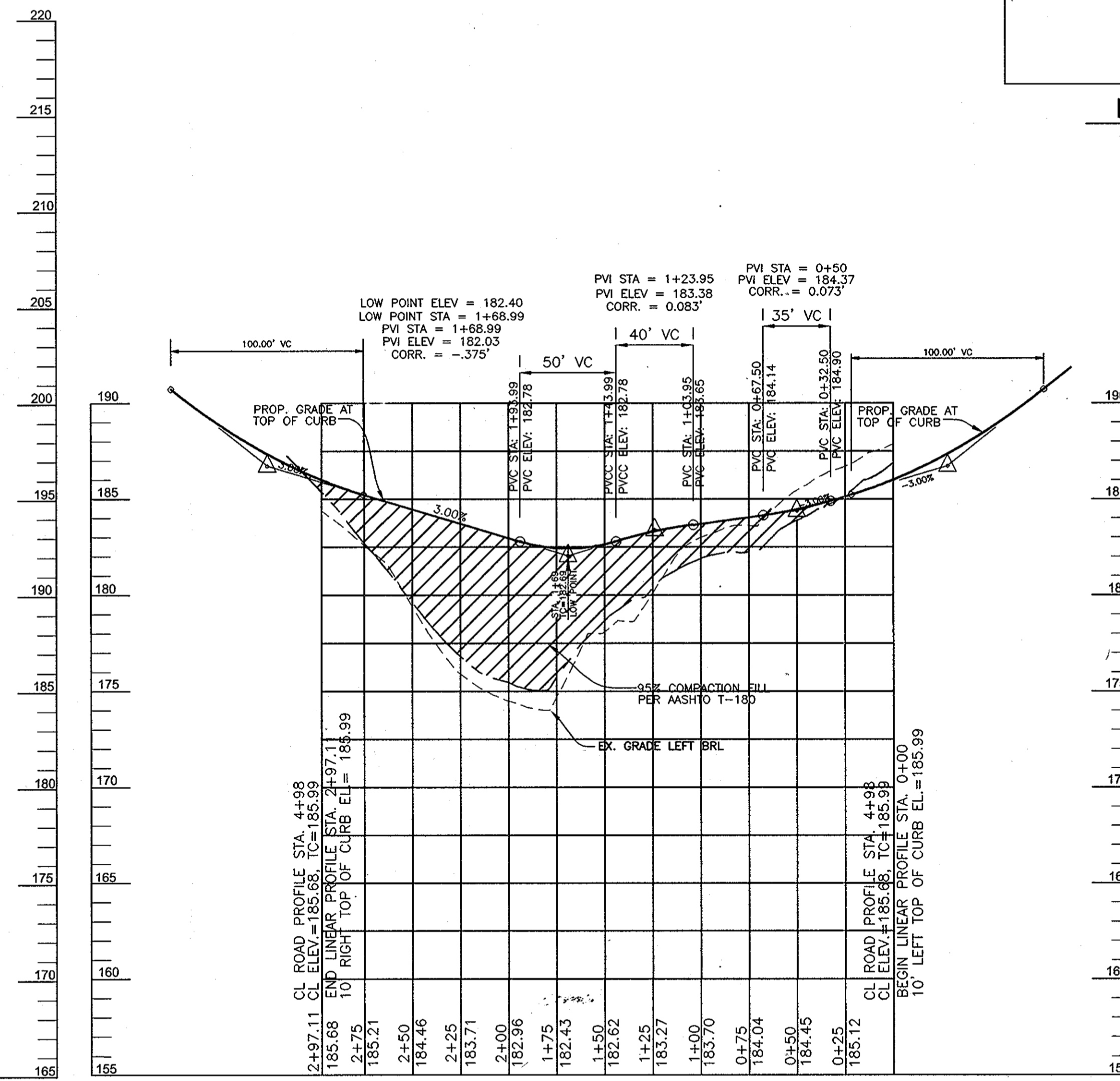
ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET TEL: 410.461.7666
ELlicOTT CITY, MD 21043 FAX: 410.461.8961

PROFESSIONAL CERTIFICATE
DESIGN BY: RHV/BJ
DRAWN BY: RJL
CHECKED BY: RLV
DATE: OCTOBER 2009
SCALE: AS SHOWN
W.O. NO.: 03-23

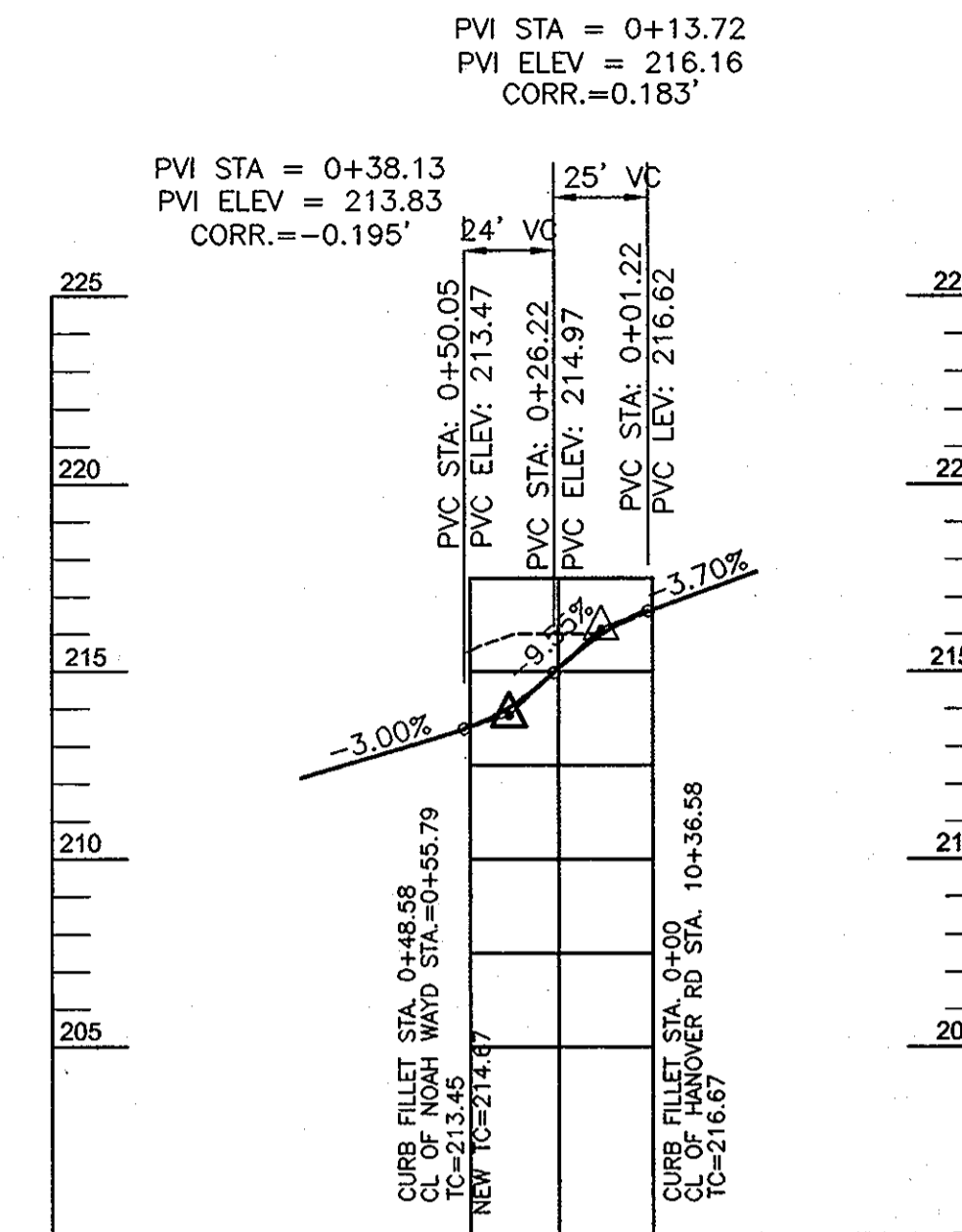
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 18193 EXPIRATION DATE: 08-27-2010



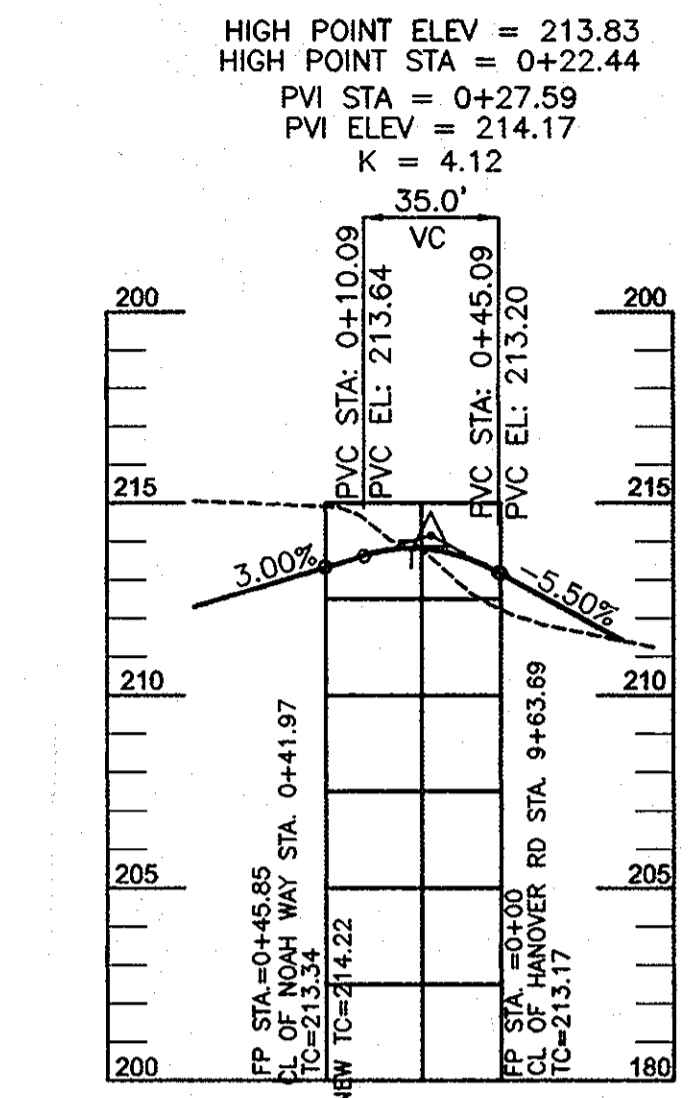
**PROFILE
NOAH WAY**
PUBLIC ACCESS STREET
DESIGN SPEED: 25 MPH
SCALE: 1"=50' HORZ.
1"=5' VERT.



**LINEAR PROFILE - CUL-DE-SAC
TOP OF CURB**
SCALE: 1"=50' HORZ.
1"=5' VERT.



FILLET PROFILE - NW
SCALE: 1"=50' HORZ.
1"=5' VERT.



FILLET PROFILE - SW
SCALE: 1"=50' HORZ.
1"=5' VERT.

APPROVED: DEPARTMENT OF PUBLIC WORKS
 [Signature] 12-22-09
 CHIEF, BUREAU OF HIGHWAYS
 APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature] 2/02/10
 CHIEF, DIVISION OF LAND DEVELOPMENT
 [Signature] 1/16/10
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

OWNER
 MICHAEL L. PFAU
 3675 PARK AVE., STE. 301
 ELLICOTT CITY, MARYLAND 21043
 (410) 480-0023

DEVELOPER
 TRINITY QUALITY HOMES
 3675 PARK AVE., STE. 301
 ELLICOTT CITY, MARYLAND 21043
 (410) 480-0023

NO.	REVISION	DATE

**FINAL ROAD CONSTRUCTION PLAN
ROAD PROFILES AND DETAILS**

EAST POINT
 PHASE
 LOTS 1-3 AND OPEN SPACE LOTS 4 & 5
 NON-BUILDABLE BULK PARCELS 'A' & 'B'

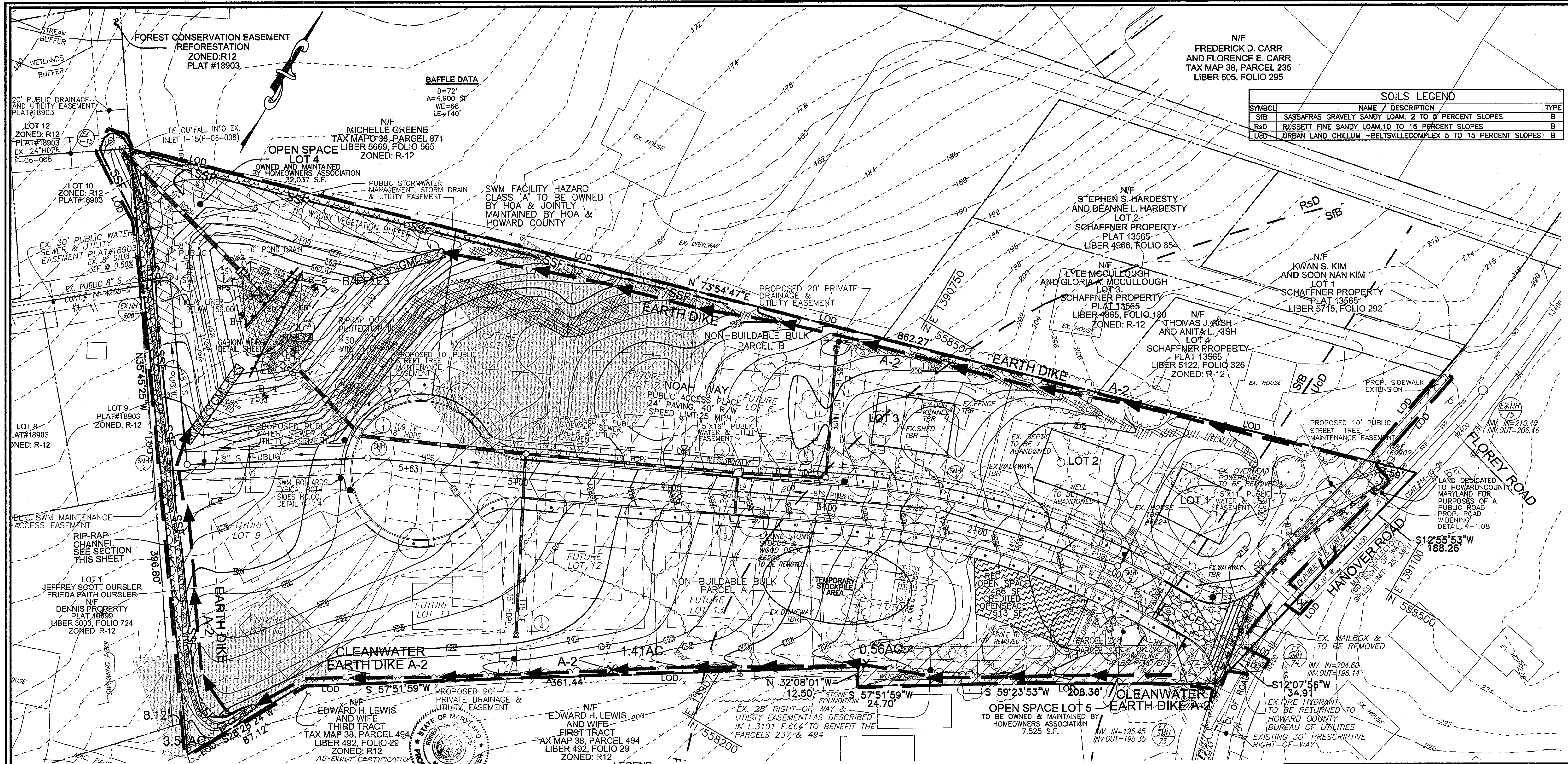
TAX MAP 38 GRID 15 PARCEL 238, 237
 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

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

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. 18183
 EXPIRATION DATE: 09-22-2010

DESIGN BY: RHW/RL
 DRAWN BY: RL
 CHECKED BY: RHW
 DATE: OCTOBER 2009
 SCALE: AS SHOWN
 W.O. NO.: 03-23

3 SHEET OF **11**



N/F
 FREDERICK D. CARR
 AND FLORENCE E. CARR
 TAX MAP 38, PARCEL 235
 LIBER 505, FOLIO 295

SOILS LEGEND		
SYMBOL	NAME / DESCRIPTION	TYPE
SfB	SASSAFRAS GRAVELY SANDY LOAM, 2 TO 5 PERCENT SLOPES	B
RSD	RUSSETT FINE SANDY LOAM, 10 TO 15 PERCENT SLOPES	B
UCD	URBAN LAND CHILLUM - BELTSVILLE COMPLEX 5 TO 15 PERCENT SLOPES	B

BAFFLE DATA
 D=72'
 A=4,900 SF
 WE=68
 LE=140'



POND NO. 1 (DRAINAGE AREA A)
 MICROPOL POCKET POND
 HAZARD CLASS A
 PRIVATELY OWNED & JOINTLY MAINTAINED

CPV WSEL = 160.99	10 YR WSEL = 161.33	100 YR WSEL = 161.33	WOV = 0.07 Ac. Ft.	CPV = 0.19 Ac. Ft.	Q1 EX. = 0.52 CFS	Q1 W/SWM = 0.07 CFS	Q10 EX. = 6.83 CFS	Q10 W/SWM = 11.21 CFS	Q100 EX. = 14.50 CFS	Q100 W/SWM = 20.38 CFS
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BASIN NO. 1 (DRAINAGE AREA A) HAZARD CLASS A

TRAP TYPE: EX. DRAINAGE AREA: 4.3 AC.	PROP. DRAINAGE AREA: 4.3 AC.	BASIN: 4.3 AC.
WET STORAGE REQUIRED: 7740 CF	DRY STORAGE REQUIRED: 7740 CF	WET STORAGE PROVIDED: 16,967 CF
TOTAL STORAGE REQUIRED: 15,480 CF	TOTAL STORAGE PROVIDED: 24,707 CF	BOTTOM ELEV.: 156.00
WEIR ELEVATION: 162.30	WET STORAGE ELEVATION: 156.00 - 160.10	DRY STORAGE ELEVATION: 160.10 - 162.30

LEGEND

PROPOSED SPOT ELEVATION	EXISTING SPOT ELEVATION	EXISTING CONTOUR	PROPOSED CONTOUR	EXISTING CURB AND GUTTER	PROPOSED CURB AND GUTTER	EXISTING UTILITY POLE	PROPOSED STREET TREE	EXISTING TREE (FIELD LOCATED)	EXISTING STREET TREES (7-94)	EXISTING FENCE	PROPERTY LINE	RIGHT-OF-WAY LINE	SOILS BOUNDARY	PROPOSED SIDEWALK	SILT FENCE	SUPER SILT FENCE
-------------------------	-------------------------	------------------	------------------	--------------------------	--------------------------	-----------------------	----------------------	-------------------------------	------------------------------	----------------	---------------	-------------------	----------------	-------------------	------------	------------------

RIP-RAP CHANNEL DETAIL
 NOT TO SCALE

CLASS I RIP-RAP
 Q10 = 2.7 CFS
 S = 12.0%
 n = 0.035
 d = 0.39'
 V10 = 5.9 FPS

DEVELOPER'S CERTIFICATE

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

16193
 2/14/12
 DATE

ENGINEER'S CERTIFICATE

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

1/23/09
 DATE

OWNER

MICHAEL L. PFAU
 3675 PARK AVE., STE. 301
 ELLICOTT CITY, MARYLAND 21043
 (410) 480-0023

DEVELOPER

TRINITY QUALITY HOMES
 3675 PARK AVE., STE. 301
 ELLICOTT CITY, MARYLAND 21043
 (410) 480-0023

FINAL ROAD CONSTRUCTION PLAN
 GRADING, SEDIMENT & EROSION CONTROL PLAN
 EAST POINT
 PHASE I
 LOTS 1-3 AND OPEN SPACE LOTS 4 & 5
 NON-BUILDABLE BULK PARCELS 'A' & 'B'

TAX MAP 38 GRID 15 PARCEL 238, 237
 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 2407 MAIN STREET ELLICOTT CITY, MD 21043 TEL: 410.461.2669

PROFESSIONAL CERTIFICATE

DESIGN BY: RHV/BJL
 DRAWN BY: RHV
 CHECKED BY: RHV
 DATE: OCTOBER 2009
 SCALE: 1"=30'
 W.Q. NO.: 03-23

4 SHEET OF 11

APPROVED: DEPARTMENT OF PUBLIC WORKS

12-22-09
 DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

2/07/10
 DATE

1/6/10
 DATE

SIGNATURE OF DEVELOPER
 TRINITY QUALITY HOMES, INC.

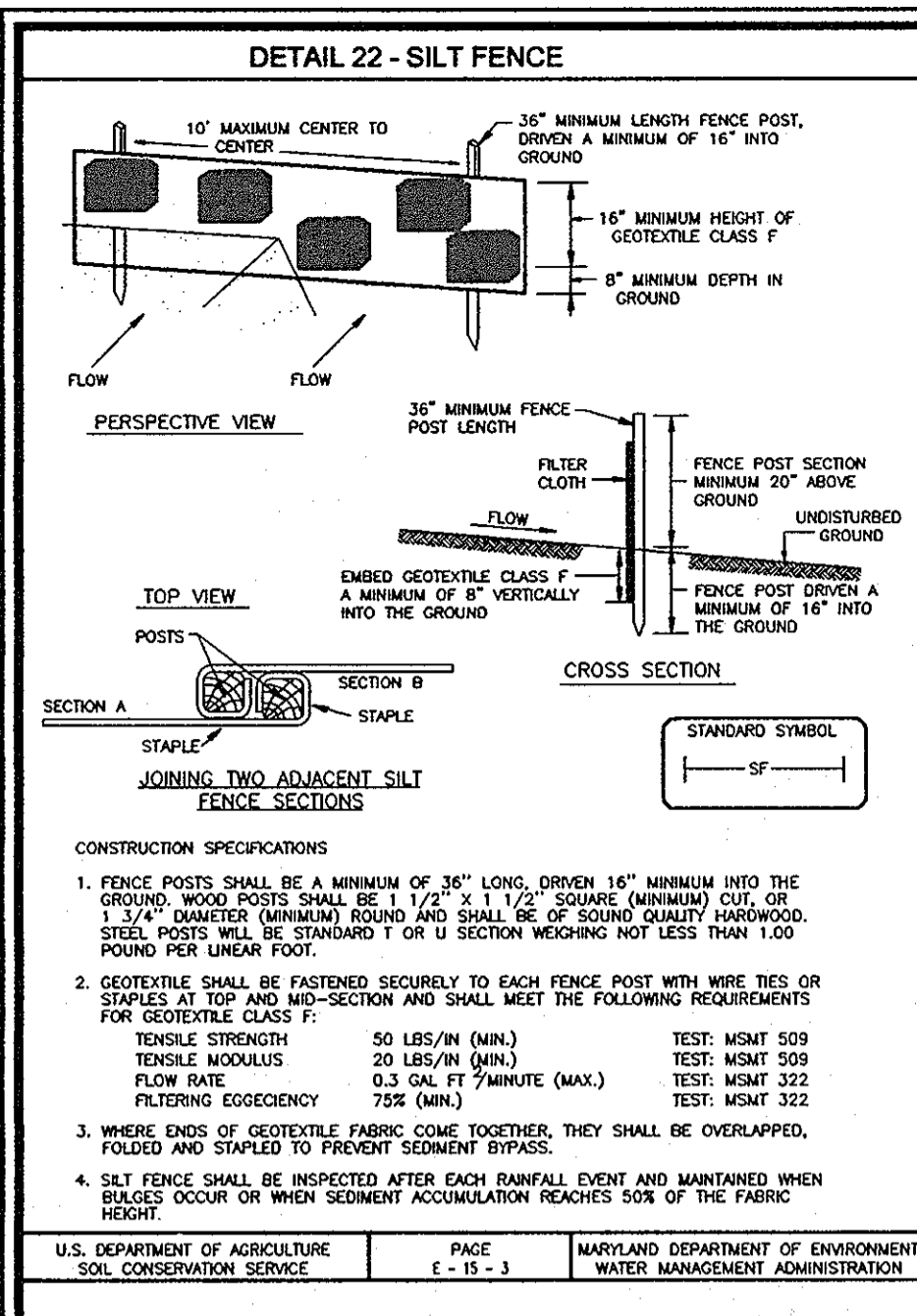
SIGNATURE OF ENGINEER
 ROBERT H. VOGEL

HOWARD SOIL CONSERVATION DISTRICT

12/1/09
 DATE

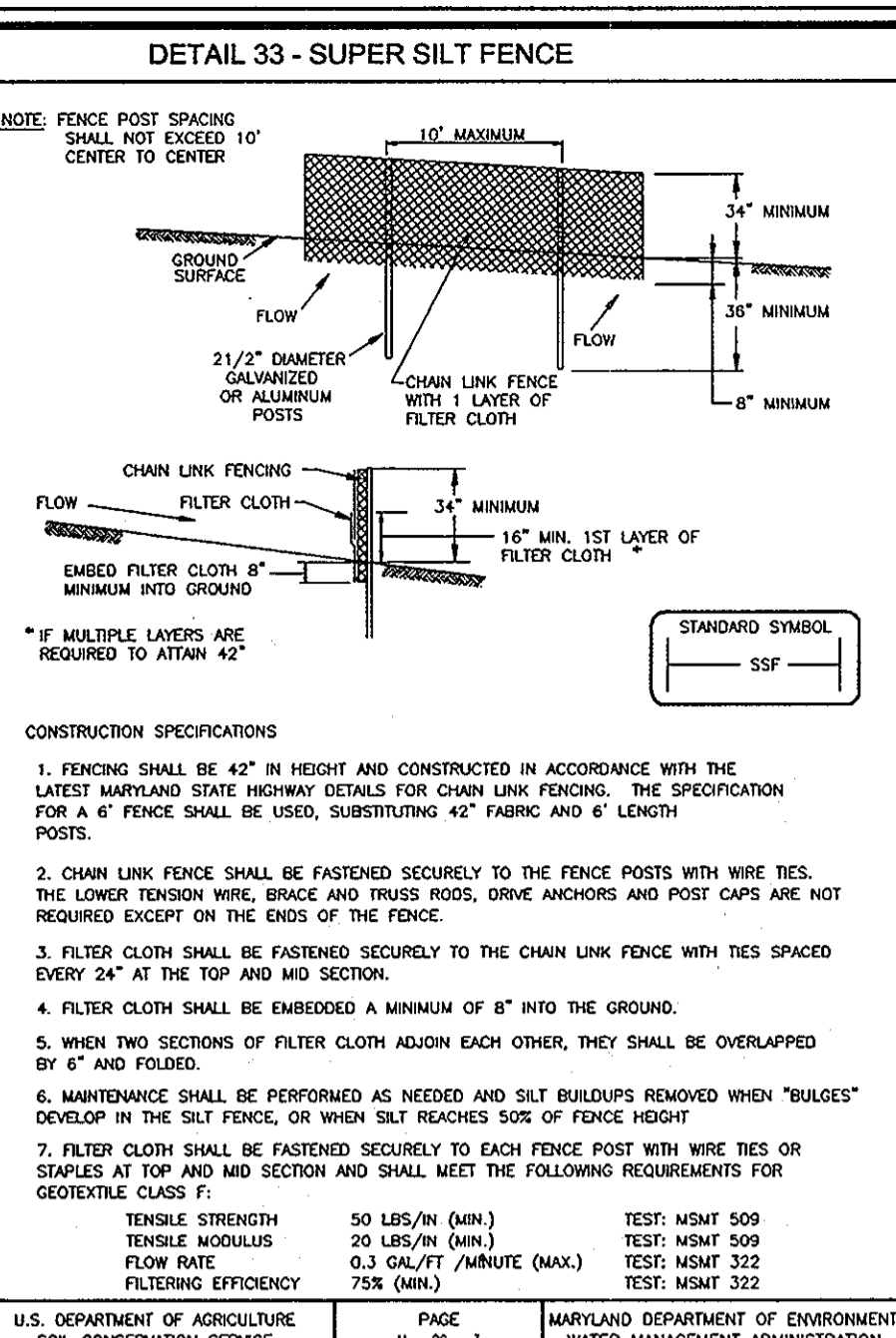
AS-BUILT 2/14/12

F-09-087



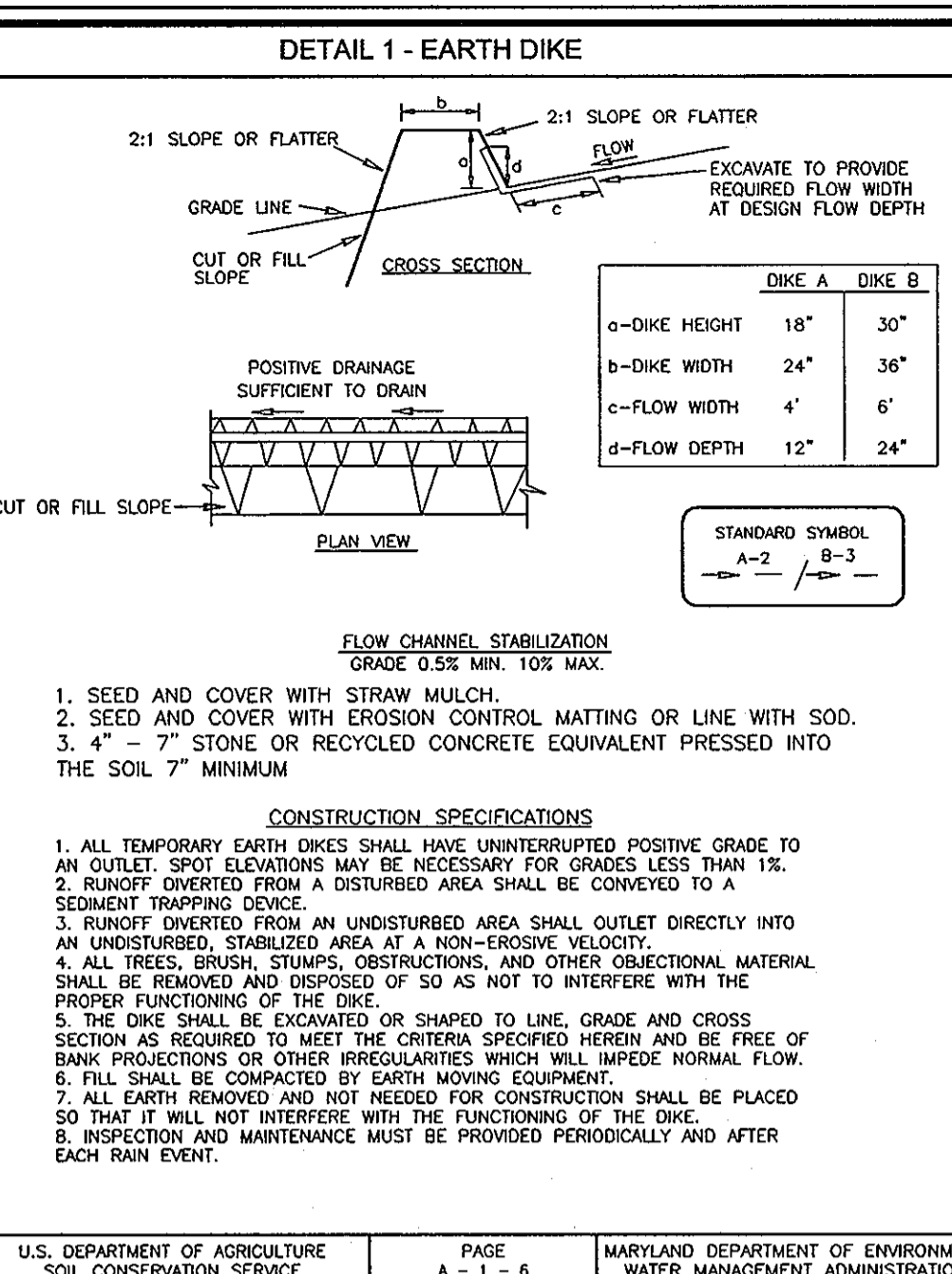
CONSTRUCTION SPECIFICATIONS
 1. FENCE POSTS SHALL BE A MINIMUM OF 36\"/>

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 1-1-1 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



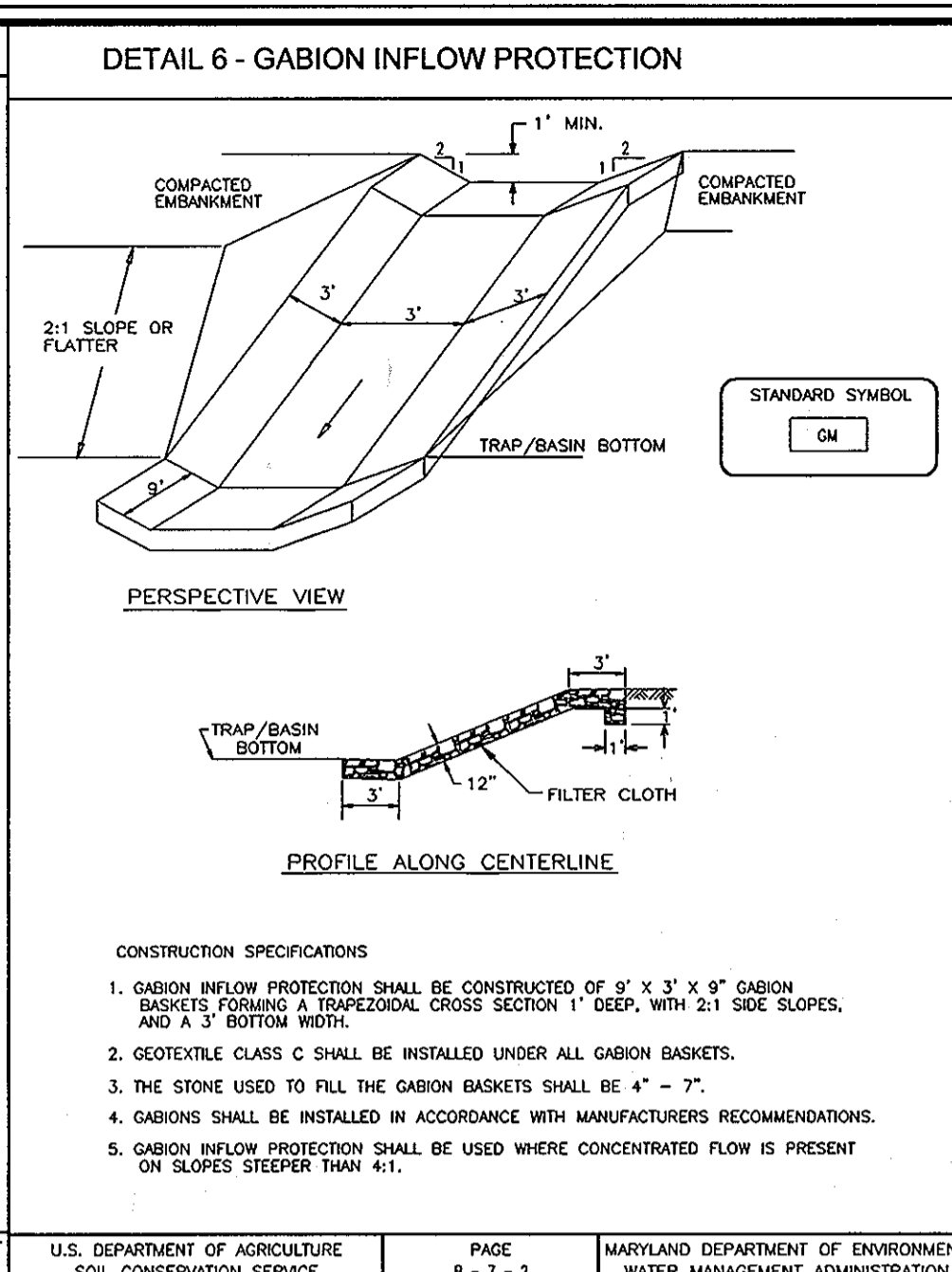
CONSTRUCTION SPECIFICATIONS
 1. FENCING SHALL BE 42\"/>

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 1-2-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



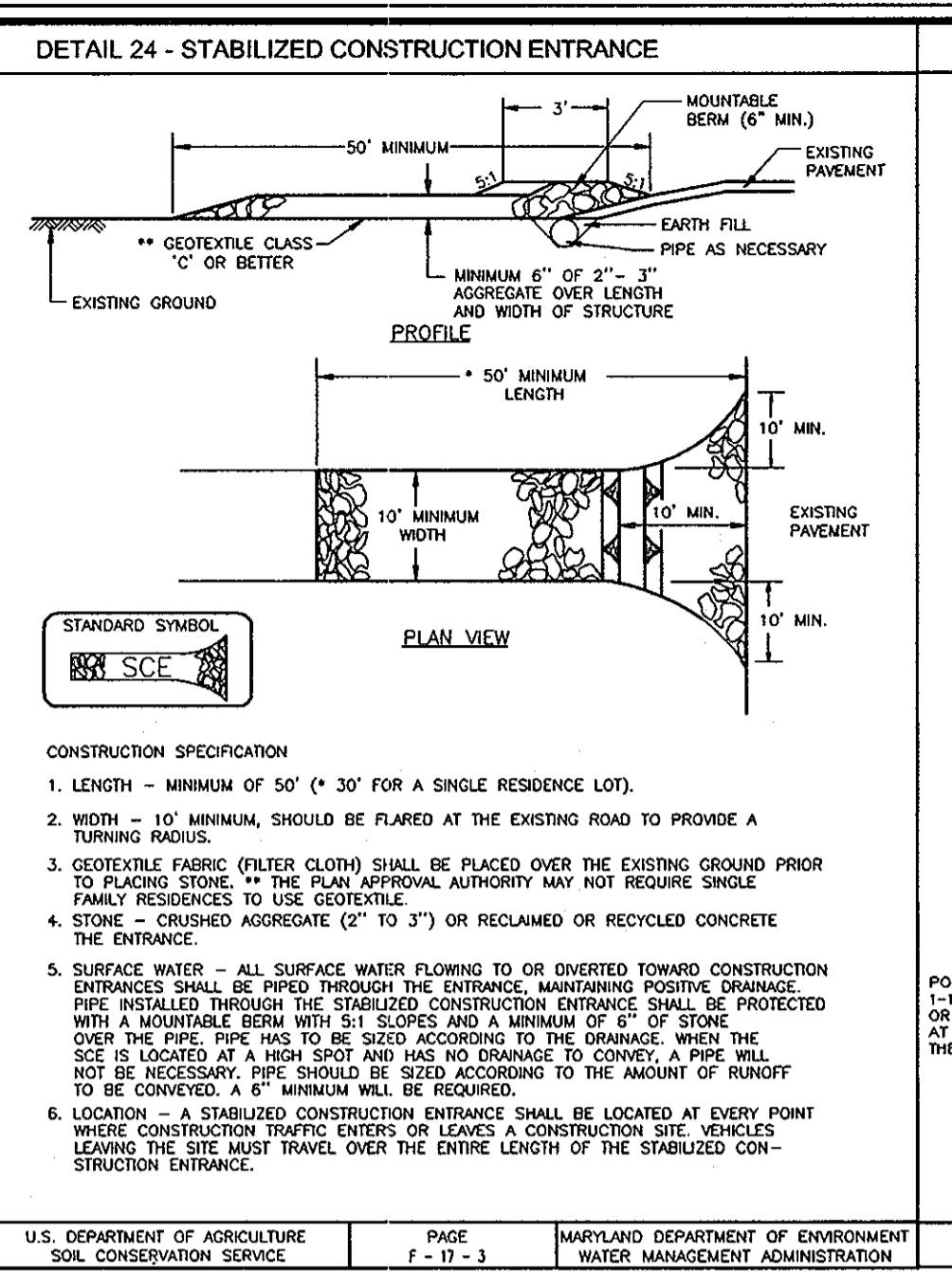
CONSTRUCTION SPECIFICATIONS
 1. ALL TEMPORARY EARTH DIKES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET. SPOD ELEVATIONS MAY BE NECESSARY FOR GRADES LESS THAN 1%.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE A-1-6 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



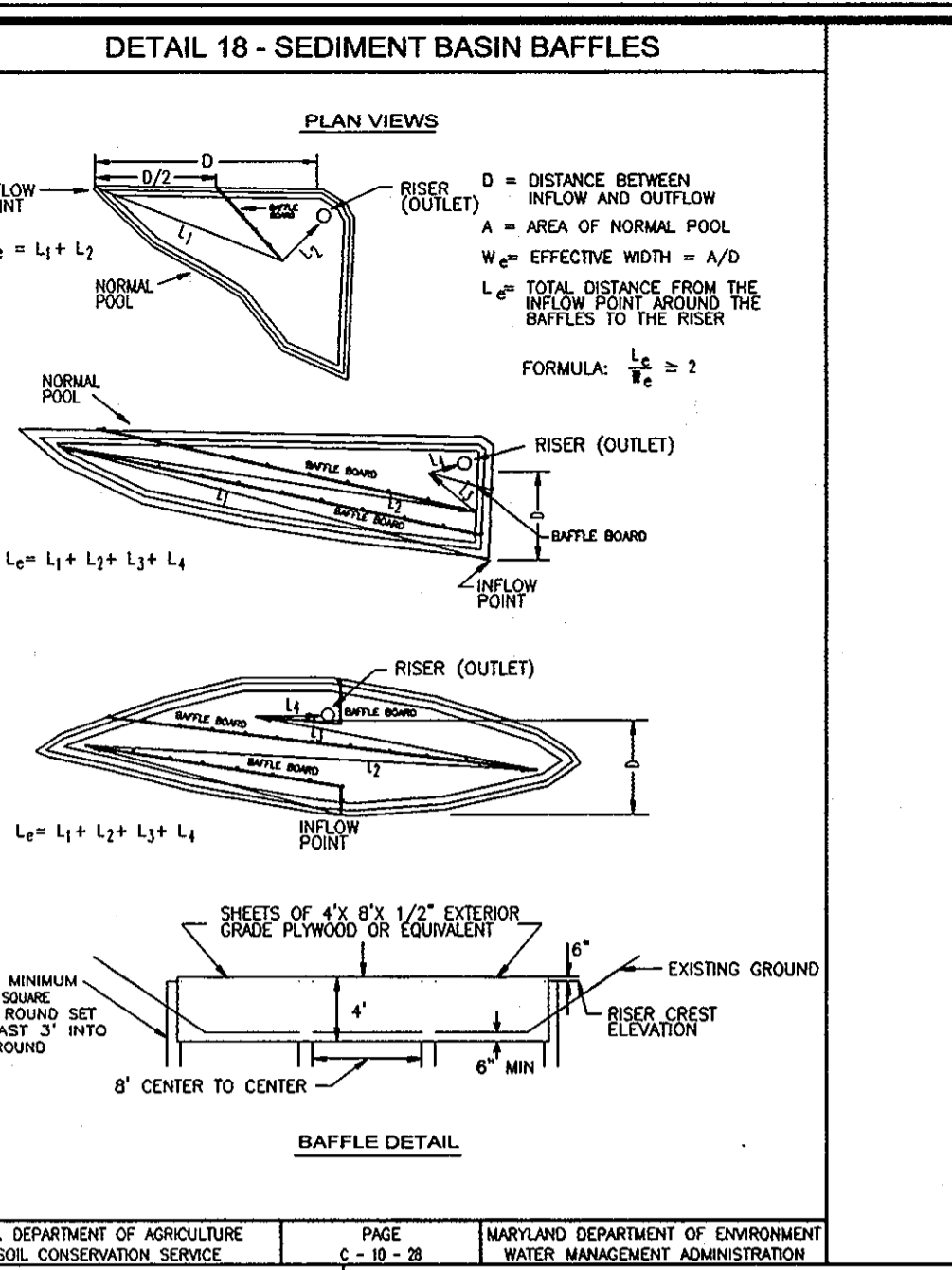
CONSTRUCTION SPECIFICATIONS
 1. GABION INFLOW PROTECTION SHALL BE CONSTRUCTED OF 9\"/>

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE B-7-2 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



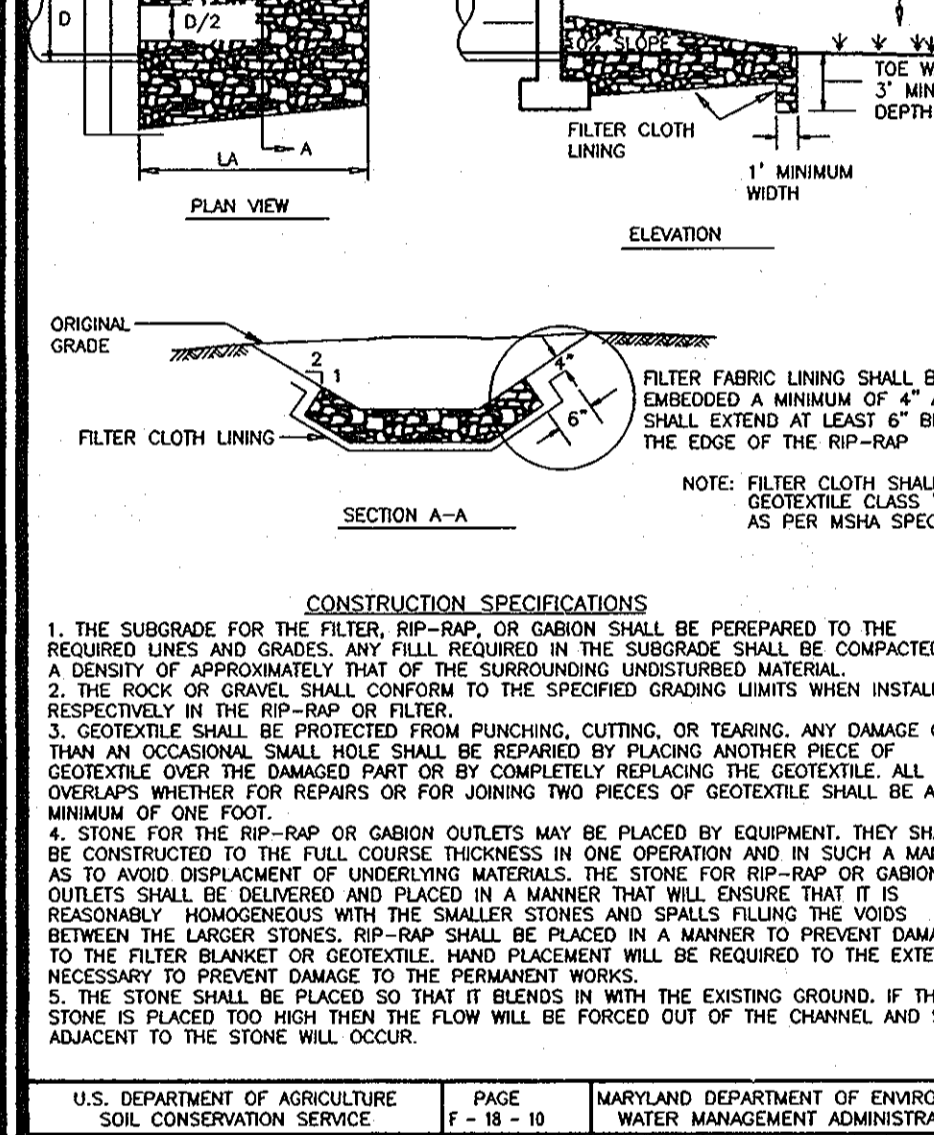
CONSTRUCTION SPECIFICATION
 1. LENGTH - MINIMUM OF 50' (30' FOR A SINGLE RESIDENCE LOT). WIDTH - 10' MINIMUM, SHOULD BE FLARED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE F-11-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



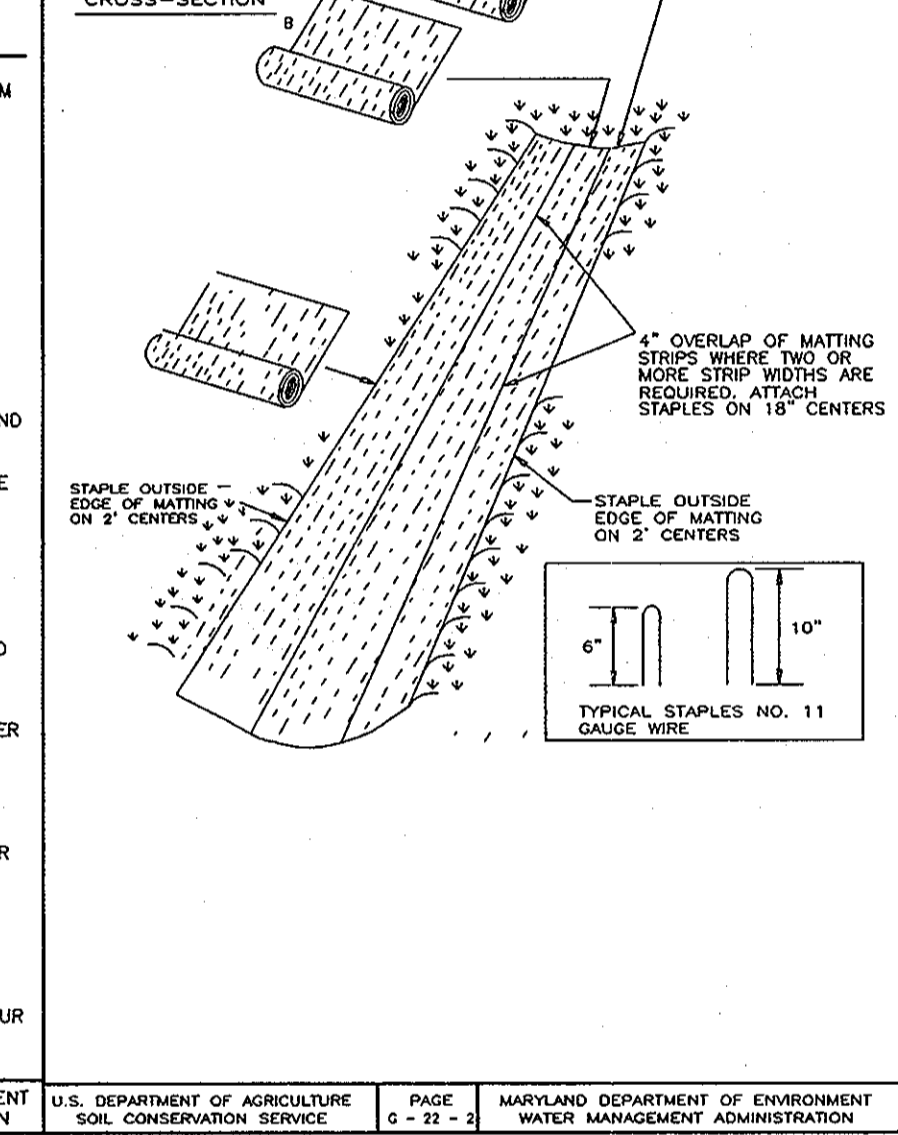
CONSTRUCTION SPECIFICATIONS
 1. LENGTH - MINIMUM OF 50' (30' FOR A SINGLE RESIDENCE LOT). WIDTH - 10' MINIMUM, SHOULD BE FLARED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE C-9-2 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



CONSTRUCTION SPECIFICATIONS
 1. THE SUBGRADE FOR THE FILTER, RIP-RAP, OR GABION SHALL BE PREPARED TO THE REQUIRED LINES AND GRADES. FILL IN THE SUBGRADE SHALL BE COMPACTED TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 1-18-10 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



CONSTRUCTION SPECIFICATIONS
 1. KEY-IN THE MATTING BY PLACING THE TOP ENDS OF THE MATTING IN A NARROW TRENCH, 6\"/>

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 6-21-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

SEDIMENT CONTROL NOTES
 1. 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 (313-1854).
 2. 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 THEREOF.
 3. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: (A) 7 CALENDAR DAYS FOR ALL PERMETER CONTROL STRUCTURES, DIKES, PERMETER SLOPES, AND ALL SLOPES GREATER THAN 3:1, (B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
 4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
 5. 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 (SEE Q). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
 6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATING CONDITION UNTIL PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
 7. SITE ANALYSIS:
 TOTAL AREA 4.33 AC.
 AREA DISTURBED 3.83 AC.
 AREA TO BE ROOFED OR PAVED 1.50 AC.
 AREA TO BE VEGETATIVELY STABILIZED 2.43 AC.
 TOTAL FILL 8,000 CY
 OFFSITE WATER/BORROW AREA LOCATION *
 8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
 9. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
 10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF 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.
 11. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT 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.

CONSTRUCTION AND MATERIAL SPECIFICATIONS
 I. 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.
 II. TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
 I. 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 CHDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 AND 1/2\"/>

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 6-21-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

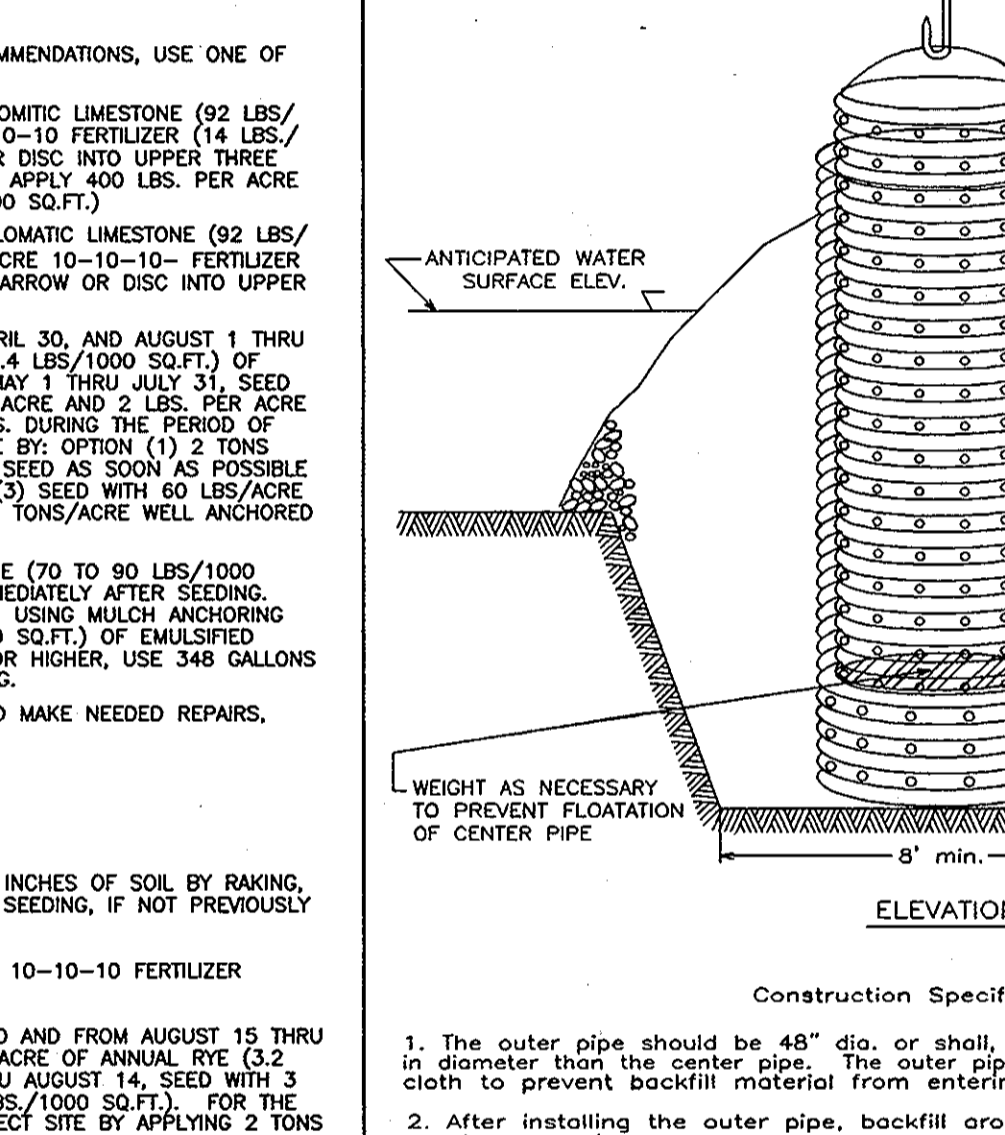
21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL
DEFINITION
 PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.
PURPOSE
 TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETABLE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRAIN SIZE.
CONDITIONS WHERE PRACTICE APPLIES
 I. THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
 A. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
 B. 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.
 C. THE ORIGINAL SOIL TO BE PLANTED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
 D. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
 II. 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.
SEQUENCE OF CONSTRUCTION
 1. OBTAIN GRADING PERMIT.
 2. NOTIFY HOWARD COUNTY BUREAU OF INSPECTIONS AND PERMITS (313-1880) AT LEAST 24 HOURS BEFORE STARTING ANY WORK.
 3. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE.
 4. INSTALL PERIMETER SUPER SILT FENCE, CLEANNATER DIKES AND RIP-RAP CHANNEL ALONG WESTERN PROPERTY BOUNDARY.
 5. CONSTRUCT STORMWATER MANAGEMENT FACILITY (SEDIMENT BASIN).
 6. INSTALL EARTH DIKES AND GABION INFLOW PROTECTION TO BASIN.
 7. AFTER OBTAINING PERMISSION FROM SEDIMENT CONTROL INSPECTOR TO PROCEED, ROUGH GRADE SITE TO LOD.
 8. INSTALL STORM DRAIN, WATER AND SEWER.
 9. GRADE ROAD TO SUB-BASE.
 10. WITH ROAD GRADED TO SUB-BASE BEGIN BEGIN INSTALLATION OF CURB AND MODIFIED CURB AS SHOWN ON THE PLAN. INSTALL BASE COURSE.
 11. FINALIZE SITE GRADING IN CONFORMANCE WITH THIS PLAN.
 12. WITH INSPECTOR APPROVAL AND FINAL ROAD PAVING COMPLETE STABILIZE ANY REMAINING DISTURBED AREAS.
 13. INSTALL STREET TREES AND ALL LANDSCAPING.
DURATION
 1 DAY
 1 WEEK
 2 DAYS
 1 WEEK
 3 DAYS
 2 WEEKS
 5 DAYS
 1 WEEK
 3 DAYS
 1 WEEK
 1 WEEK
 1 WEEK

SOIL PROTECTION ZONE NOTES
 I. THE SOIL PROTECTION ZONE INCLUDE ALL AREAS CONTAINED INSIDE THE LIMIT OF DISTURBANCE.
 2. WHERE POSSIBLE, THE SOIL PROTECTION ZONE SHALL EXTEND TO THE DRIP LINE OF SPECIMEN TREES, FOR OTHER GROUPS OF TREES, THE ZONE SHALL BE THE DRIP LINE OF 40% OF THE HEIGHT OF THE TREE, WHICHEVER IS GREATER.
 3. NO CONSTRUCTION ACTIVITY IS PERMITTED WITHIN THE SOIL PROTECTION ZONE.
 4. IF SOIL HAS BEEN COMPACTED OR GRADING HAS TAKEN PLACE IN THE VICINITY OF THE SOIL PROTECTION ZONE, ROOT PRUNING SHALL BE IMPLEMENTED PER ROOT PRUNING DETAIL, SHOWN ON THIS PLAN.
 5. ROOT PRUNING SHALL OCCUR PRIOR TO THE BEGINNING OF CONSTRUCTION.
 6. WHERE THE SOIL PROTECTION ZONE MUST ENCLOSE INSIDE THE CRITICAL ROOT ZONE OF A TREE, SOIL DISTURBANCE SHALL BE MITIGATED WITH VERTICAL MULCHING, OR RADIAL TRENCHING.
 7. PRIOR TO CONSTRUCTION, THE LIMITS OF DISTURBANCE SHALL BE MARKED AND THE DETERMINE WHICH TREES WILL NEED PREVENTATIVE TREATMENT OF REMOVAL.
 8. TREE MAINTENANCE AND REMOVAL SHALL BE UNDERTAKEN BY A QUALIFIED TREE EXPERT TO ENSURE DAMAGE TO SURROUNDING TREES IS MINIMAL.
 9. BRUSH AND LIMBS REMOVED FOR CONSTRUCTION SHALL BE CHIPPED AND SPREAD AT THE EDGE OF THE SOIL PROTECTION ZONE TO A DEPTH OF 6 INCHES. BRUSH SHALL BE PLACED OUTSIDE THE SOIL PROTECTION ZONE WHERE COMPACTION COULD IMPACT OTHERWISE UNPROTECTED CRITICAL ROOT ZONE.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 6-21-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

PERMANENT SEEDING NOTES
 APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.
 SEEDING PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.
 SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:
 1) 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.
 2) 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 (14 LBS/1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS PER ACRE (14 LBS/1000 SQ.FT.) OF WEeping LOVEGRASS. DURING THE PERIOD OCTOBER 16 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 WEL 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. COVER 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 SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDING.
TEMPORARY SEEDING NOTES
 SEEDING PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISING 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 1 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 WEeping LOVEGRASS (07 LBS/1000 SQ.FT.). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.
 MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ.FT.) OF UNROTTED SMALL 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

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 6-21-4 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



CONSTRUCTION SPECIFICATIONS
 1. The outer pipe should be 48\"/>

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 6-21-4 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

EROSION CONTROL MATTING
 CONSTRUCTION SPECIFICATIONS
 1. KEY-IN THE MATTING BY PLACING THE TOP ENDS OF THE MATTING IN A NARROW TRENCH, 6\"/>

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 6-21-2 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

APPROVED: DEPARTMENT OF PUBLIC WORKS
 12-22-09
 CHIEF, BUREAU OF HIGHWAYS
 APPROVED: DEPARTMENT OF PLANNING AND ZONING
 2/20/10
 CHIEF, DIVISION OF LAND DEVELOPMENT
 1/6/10
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

DEVELOPER'S CERTIFICATE
 I, WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
 Signature of Developer: Robert H. Vogel, Inc.

ENGINEER'S CERTIFICATE
 I HEREBY CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
 Signature of Engineer: Robert H. Vogel
 DATE: 11/23/09

OWNER
 MICHAEL L. PFU
 3675 PARK AVE., STE. 301
 ELLICOTT CITY, MARYLAND 21043
 (410) 480-0023
DEVELOPER
 TRINITY QUALITY HOMES
 3675 PARK AVE., STE. 301
 ELLICOTT CITY, MARYLAND 21043
 (410) 480-0023

FINAL ROAD CONSTRUCTION PLAN
SEDIMENT AND EROSION CONTROL DETAILS
EAST POINT
 PHASE I
 LOTS 1-3 AND OPEN SPACE LOTS 4 & 5
 NON-BUILDABLE BULK PARCELS 'A' & 'B'
 TAX MAP 38 GRID 15 PARCEL 238, 237
 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
ROBERT H. VOGEL, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET TEL: 410.461.7666
 ELLICOTT CITY, MD 21043 FAX: 410.461.8961
PROFESSIONAL CERTIFICATE
 DESIGN BY: RHV/BJL
 DRAWN BY: RJL
 CHECKED BY: RHV
 DATE: OCTOBER 2009
 SCALE: AS SHOWN
 W.O. NO.: 03-23
 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. 16163
 EXPIRATION DATE: 09-27-2010
 5 SHEET OF 11

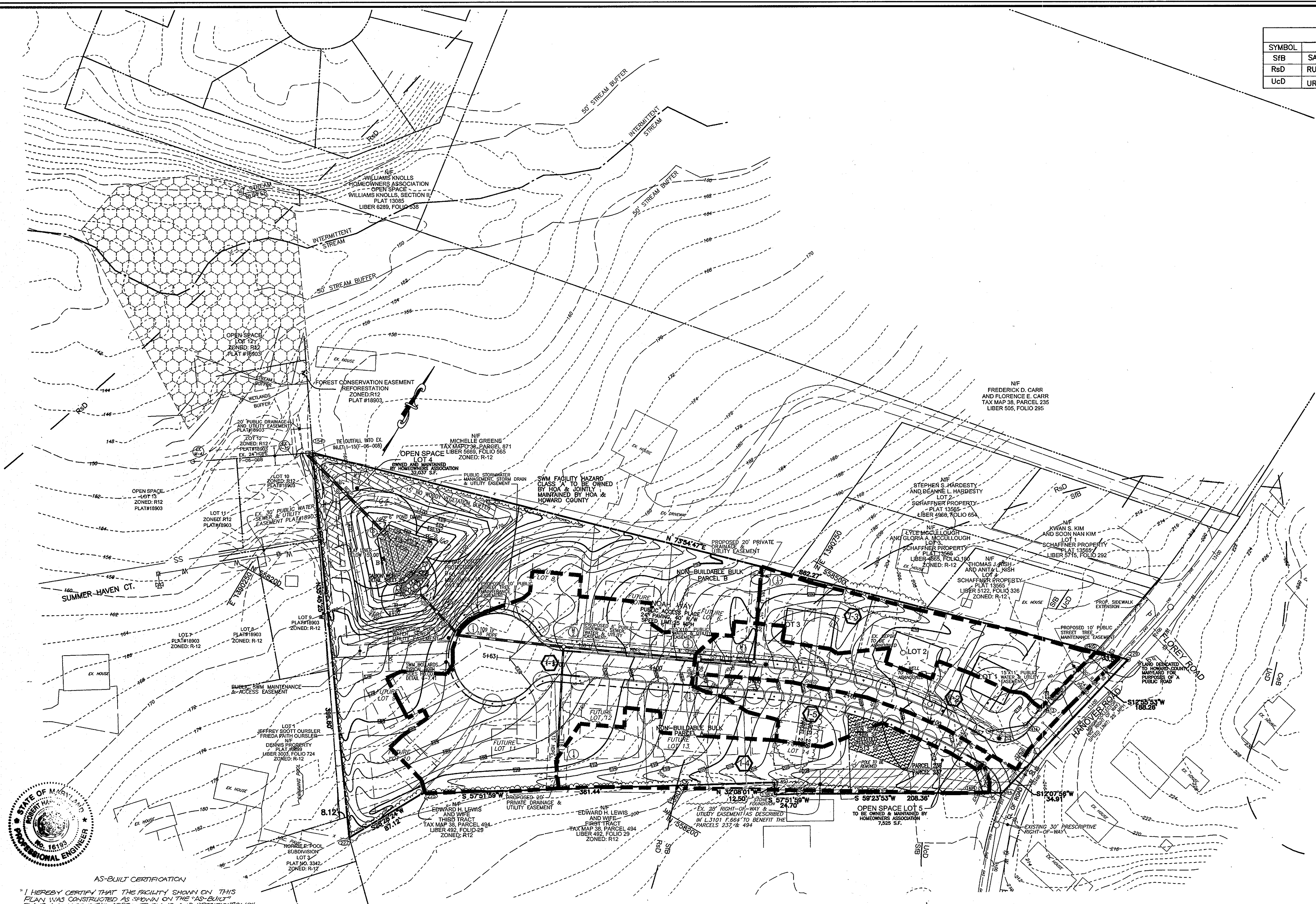
NO. REVISION DATE

SOILS LEGEND			
SYMBOL	NAME / DESCRIPTION	TYPE	
SfB	SASSAFRAS GRAVELY SANDY LOAM, 2 TO 5 PERCENT SLOPES	B	
Rsd	RUSSETT FINE SANDY LOAM, 10 TO 15 PERCENT SLOPES	B	
Ucd	URBAN LAND CHILLUM -BELTSVILLE COMPLEX 5 TO 15 PERCENT SLOPES	B	

DRAINAGE AREA TABULATION					
NO.	AREA	'C'	% IMP.	SOIL	ZONE
I-1	1.09 AC	0.42	52%	B	R-12
I-2	0.47 AC	0.49	56%	B	R-12
I-3	0.44 AC	0.29	38%	B	R-12
I-4	0.57 AC	0.29	38%	B	R-12
I-5	0.23 AC	0.57	62%	B	R-12

LEGEND:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- EXISTING TREES (FIELD LOCATED)
- EXISTING TREELINE (FIELD LOCATED)
- EXISTING STREET TREES (F-04)
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- SOILS BOUNDARY
- PROPOSED SIDEWALK
- MODERATE SLOPES (15% - 24.99%)
- NO WOODY VEGETATION BUFFER
- RECREATIONAL OPEN SPACE
- AREA OF 15 TO 24.9 PERCENT SLOPES
- EX-FOREST CONSERVATION EASEMENT (RETENTION)
- PROPOSED SEWER & UTILITY EASEMENT
- EXISTING RIGHT OF WAY EASEMENT
- DRAINAGE DIVIDE



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!
 16193 FEND 2/14/12 DATE

NOTE: PROPOSED CONTOURS SHOWN REPRESENT FINAL LOT AND HOUSE GRADING.

NO.	REVISION	DATE

FINAL ROAD CONSTRUCTION PLAN
STORM DRAIN DRAINAGE AREA MAP
EAST POINT
PHASE I
LOTS 1-3 AND OPEN SPACE LOTS 4 & 5
NON-BUILDABLE BULK PARCELS 'A' & 'B'
 TAX MAP 38 GRID 15 PARCEL 238, 237
 1ST ELECTION DISTRICT 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

PROFESSIONAL CERTIFICATE
 DESIGN BY: RHV/RL
 DRAWN BY: RJ
 CHECKED BY: RHV
 DATE: OCTOBER 2009
 SCALE: 1"=50'
 W.O. NO.: 03-23

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

APPROVED: DEPARTMENT OF PUBLIC WORKS
 12-22-09 DATE
 APPROVED: DEPARTMENT OF PLANNING AND ZONING
 2/10/12 DATE
 1/6/10 DATE

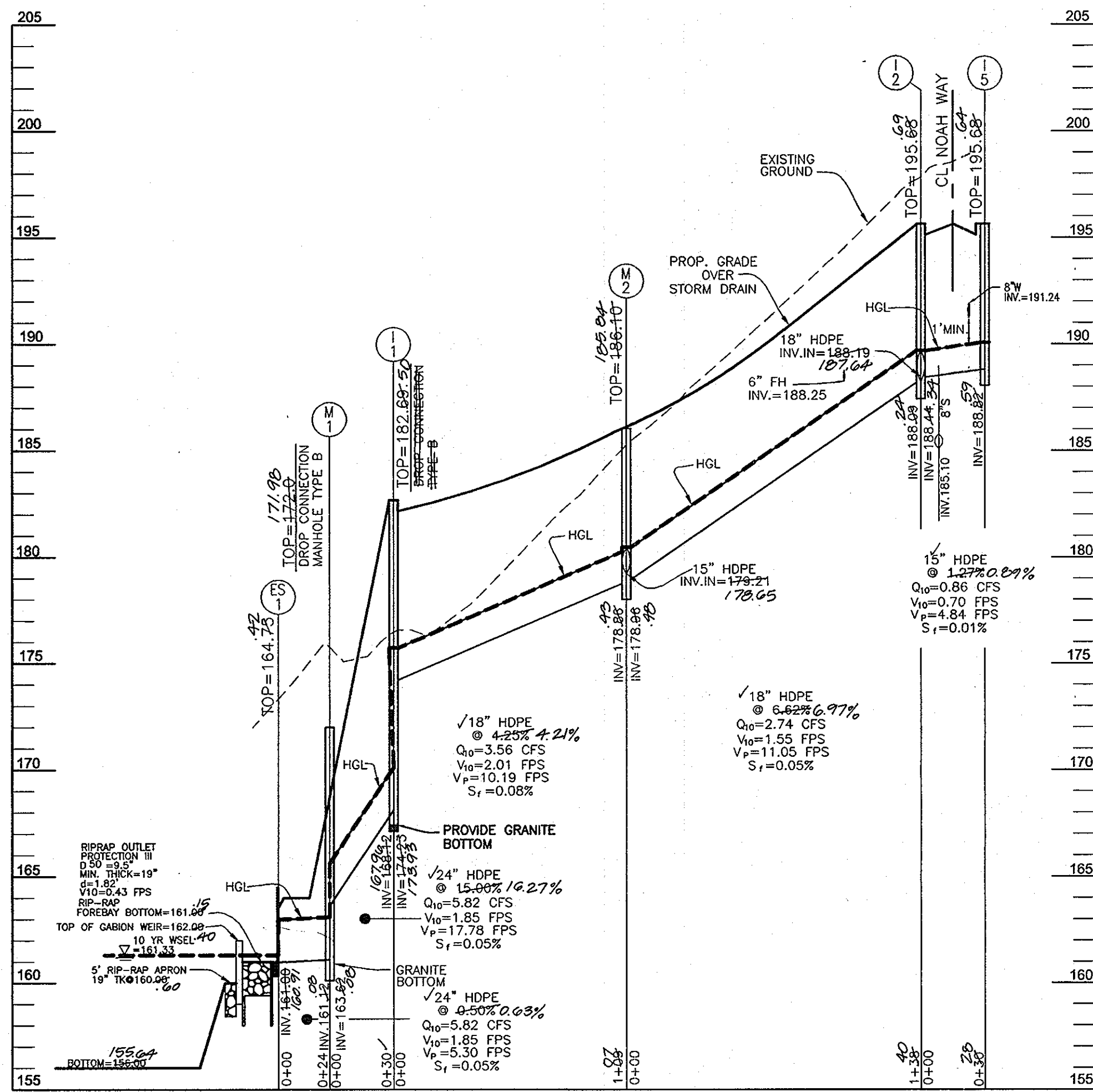
DEVELOPER'S CERTIFICATE
 "I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."
 Signature of Developer: *Michael P. Jones* (PRESIDENT)
 SIGNATURE OF DEVELOPER TRINITY QUALITY HOMES, INC.

ENGINEER'S CERTIFICATE
 "I HEREBY CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."
 Signature of Engineer: *Robert H. Vogel*
 SIGNATURE OF ENGINEER ROBERT H. VOGEL

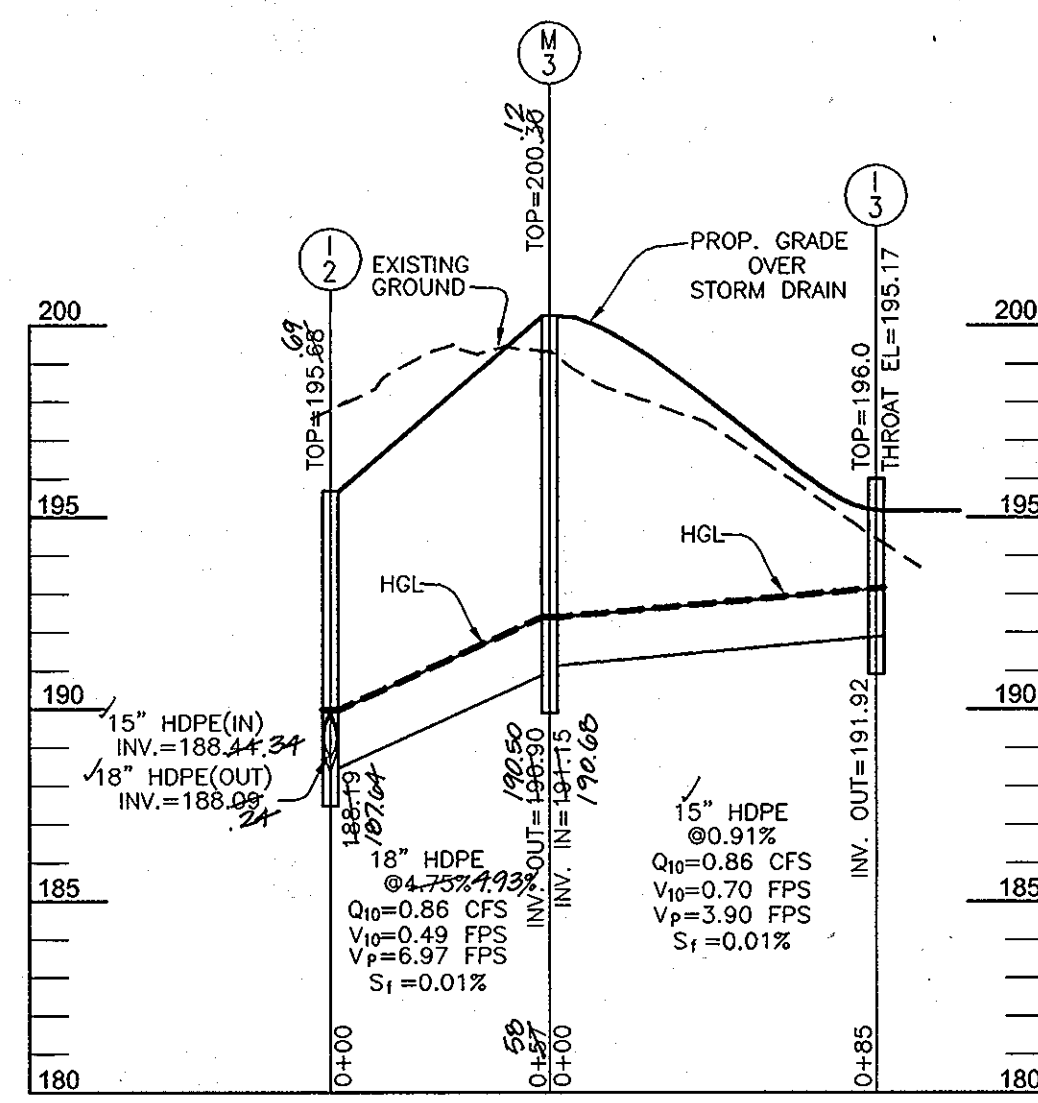
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Signature of Howard SCD: *Howard SCD*
 HOWARD SCD

OWNER
 MICHAEL L. PFAU
 3675 PARK AVE., STE. 301
 ELLICOTT CITY, MARYLAND 21043
 (410) 480-0023

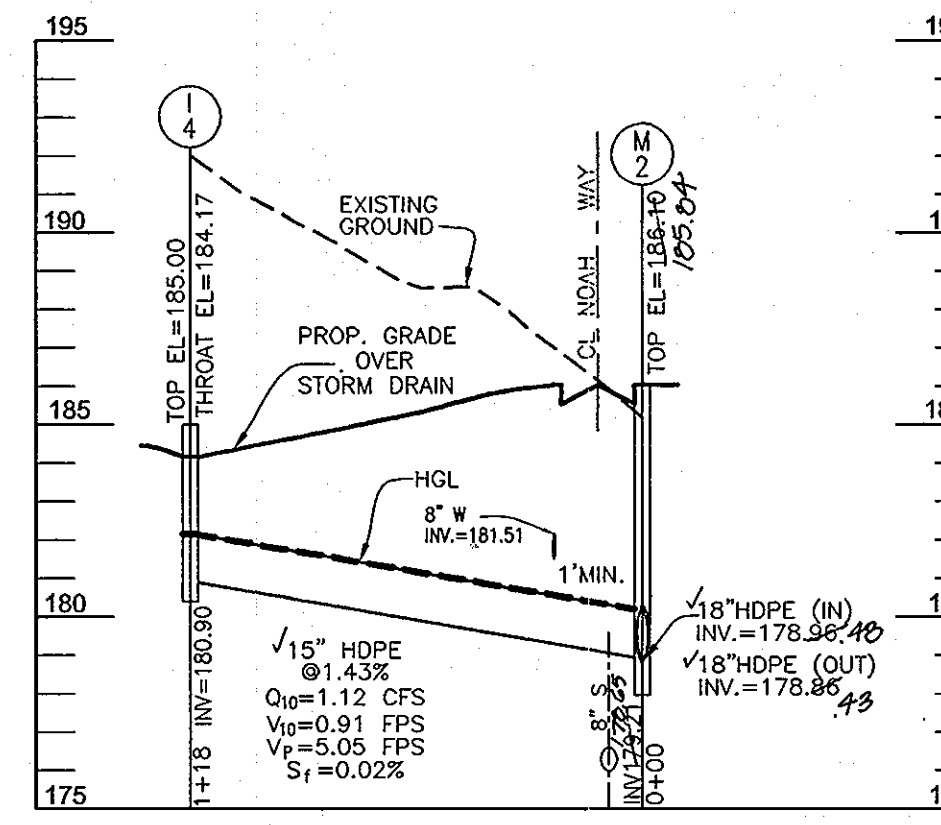
DEVELOPER
 TRINITY QUALITY HOMES
 3675 PARK AVE., STE. 301
 ELLICOTT CITY, MARYLAND 21043
 (410) 480-0023



NOAH WAY
STORM DRAIN PROFILE
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



STORM DRAIN PROFILE
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



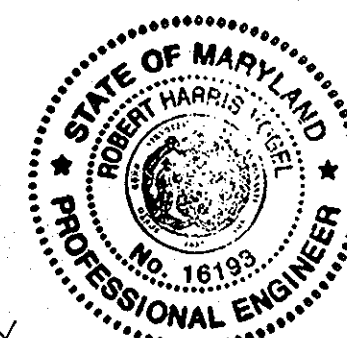
STORM DRAIN PROFILE
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'

STRUCTURE SCHEDULE							
NO.	TYPE	LOCATION		TOP ELEV.	INV. IN	INV. OUT	REMARKS
		NORTHING	EASTING				
I-1	TYPE 'A-5' INLET	LINEAR PROFILE STA. 1+69.10, TC		182.55	174.23	168.12	D-4.01
I-2	TYPE 'A-10' INLET	CL STA. 3+57.60, 12' RT		195.06	188.24	188.09	D-4.03
I-3	TYPE 'D' INLET, THROAT ELEV. 195.17	558455.14	E 1390708.99	196.00	-	191.92	D-4.10
I-4	TYPE 'D' INLET, THROAT ELEV. 184.17	558186.07	E 1390624.41	185.00	-	180.90	D-4.10
I-5	TYPE 'A-5' INLET	CL STA. 3+57.60, 12' LT		195.06	-	188.24	D-4.01
M-1	STANDARD 4' PRECAST MANHOLE	558259.32	E 1390439.12	172.00	163.08	161.32	G-5.12
M-2	STANDARD 4' PRECAST MANHOLE	CL STA. 4+95.66, 16.37' RT		185.10	178.86	178.86	G-5.12
M-3	STANDARD 4' PRECAST MANHOLE	CL STA. 3+00.28, 16.45' RT		200.36	190.50	190.50	G-5.12
M-4	STANDARD 4' PRECAST MANHOLE	558328.64	E 1390241.53	159.34	153.94	153.84	G-5.12
CS-1	CONTROL STRUCTURE	558303.33	E 1390349.92	162.33	-	155.50	SEE DETAIL SHEET 9
ES-1	TYPE 'X' HEADWALL, CIRCULAR PIPE (24")	558266.54	E 1390415.36	164.35	161.00	161.00	D-5.11

TOP ELEVATION FOR TYPE 'A' INLETS IS TOP OF CURB. TOP ELEVATION FOR TYPE 'D' INLETS IS TOP OF SLAB.

PIPE SCHEDULE		
PIPE SIZE	TYPE	TOTAL LENGTH
15"	HDPE	233 LF
18"	HDPE	304 LF
24"	HDPE	54 LF
36"	RCCP	166 LF

APPROVED: DEPARTMENT OF PUBLIC WORKS
 [Signature] 12-22-09
 CHIEF, BUREAU OF HIGHWAYS
 APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature] 2/02/10
 CHIEF, DIVISION OF LAND DEVELOPMENT
 [Signature] 1/6/10
 CHIEF, DEVELOPMENT ENGINEERING DIVISION



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."
 [Signature] 10/19/12 2/14/12
 PE No. DATE

OWNER
 MICHAEL L. PFAU
 3675 PARK AVE., STE. 301
 ELLICOTT CITY, MARYLAND 21043
 (410) 480-0023
 DEVELOPER
 TRINITY QUALITY HOMES
 3675 PARK AVE., STE. 301
 ELLICOTT CITY, MARYLAND 21043
 (410) 480-0023

NO.	REVISION	DATE

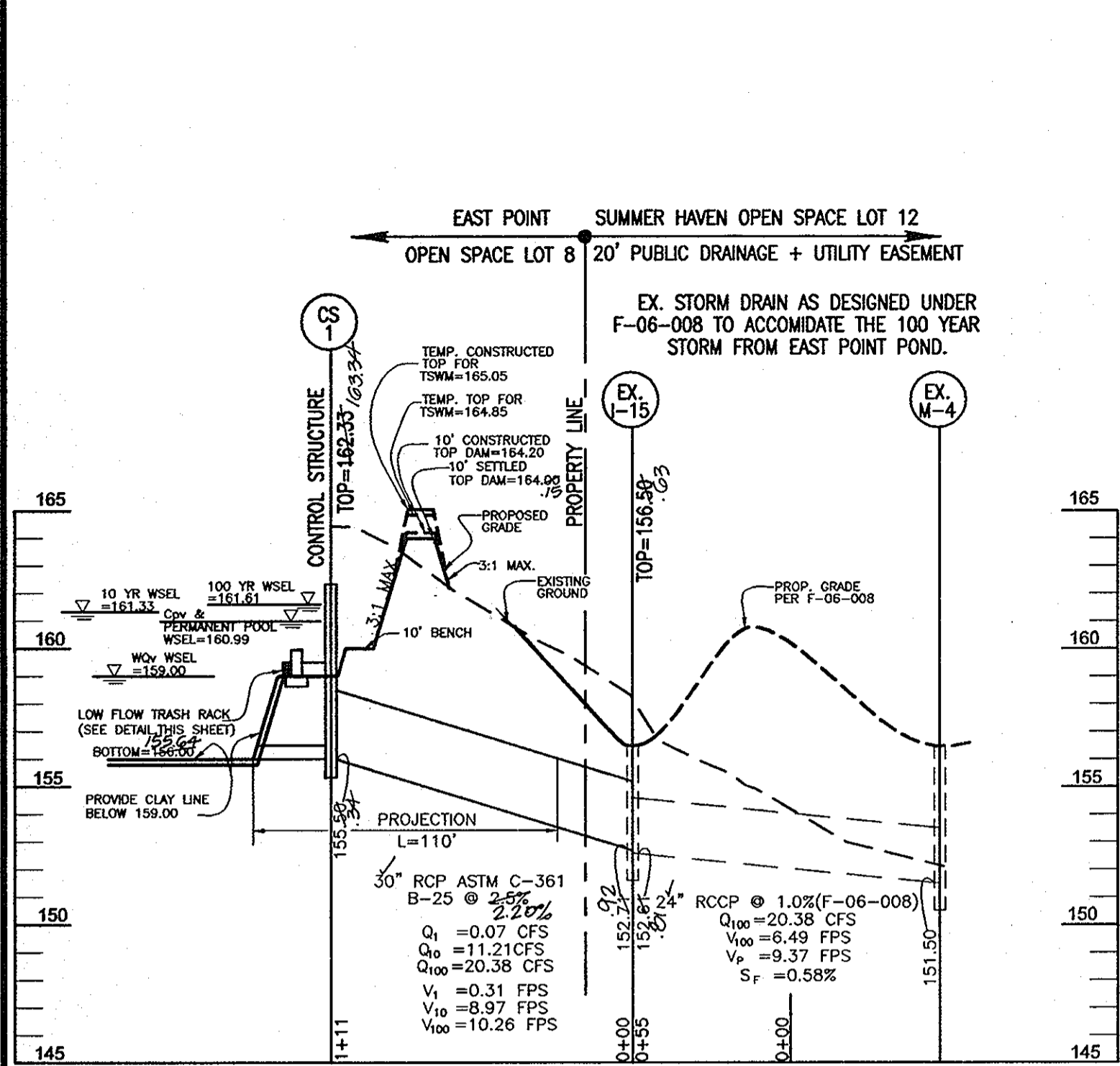
FINAL ROAD CONSTRUCTION PLAN
STORM DRAIN PROFILES
EAST POINT
 PHASE I
 LOTS 1-3 AND OPEN SPACE LOTS 4 & 5
 NON-BUILDABLE BULK PARCELS 'A' & 'B'
 TAX MAP 38 GRID 15 PARCEL 238, 237
 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

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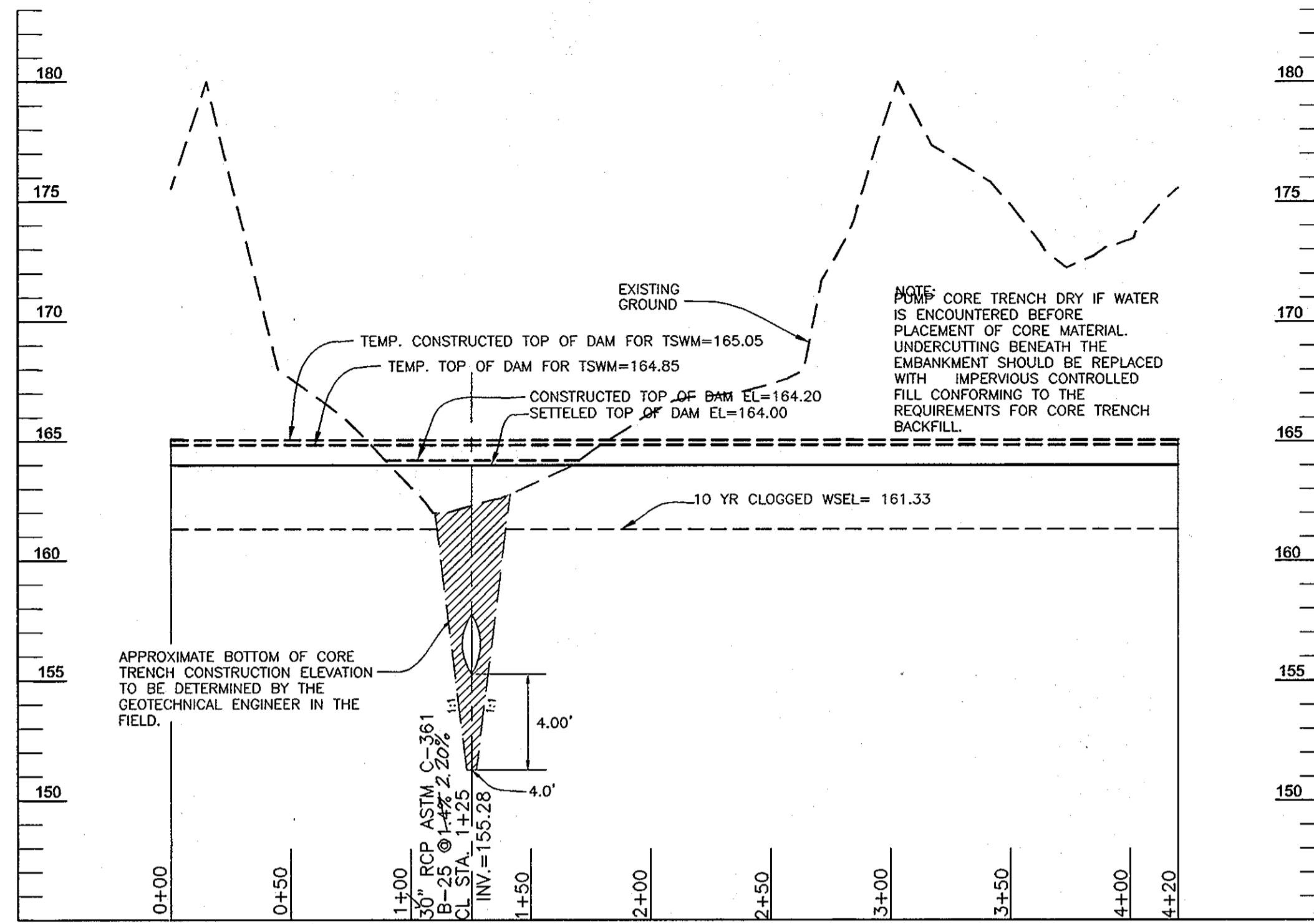
PROFESSIONAL CERTIFICATE
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DESIGN BY: BHV/BL
 DRAWN BY: RJV
 CHECKED BY: RJV
 DATE: OCTOBER 2009
 SCALE: AS SHOWN
 W.O. NO.: 03-23

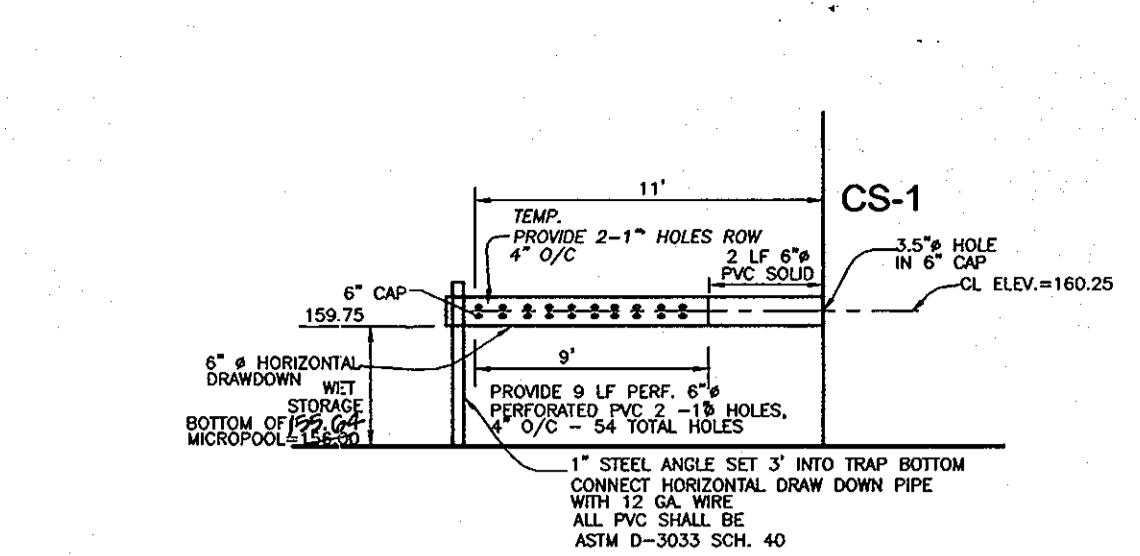
7 SHEET OF 11



PRINCIPAL SPILLWAY PROFILE
SCALE: 1"=50' HORIZ.
1"=5' VERT.



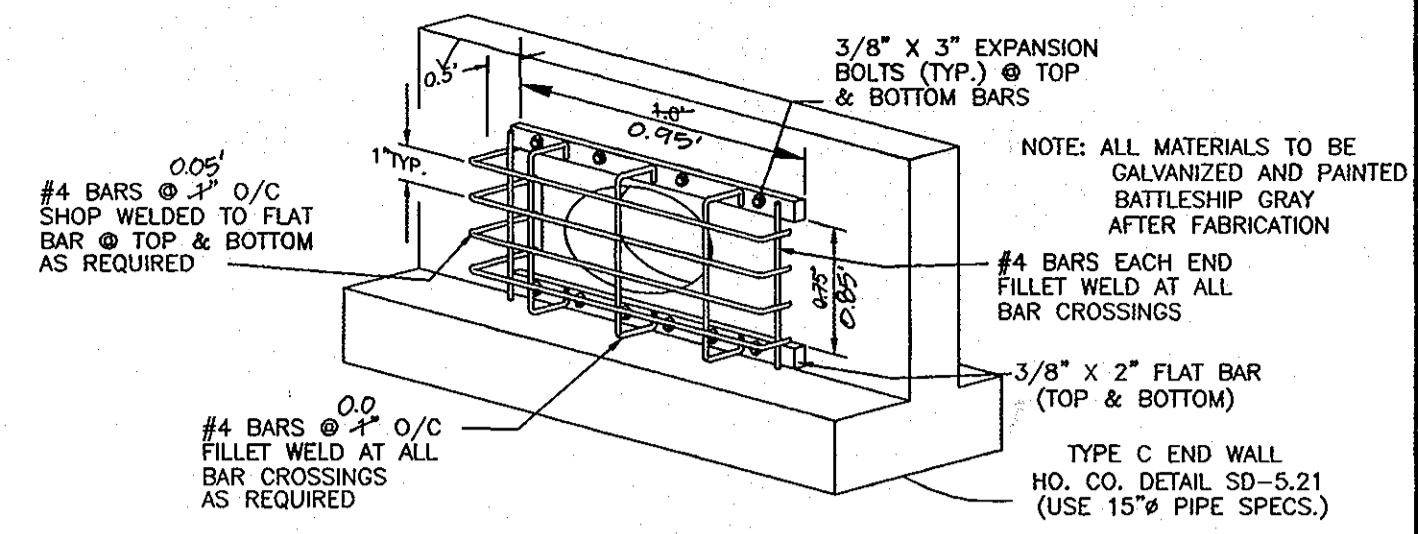
PROFILE THROUGH CL OF EMBANKMENT
SCALE: 1"=50' HORIZ.
1"=5' VERT.



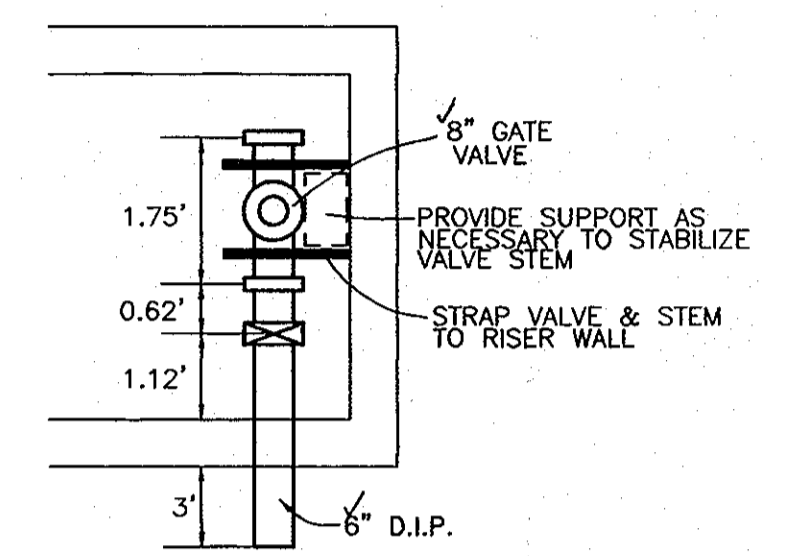
TEMP. SEDIMENT BASIN#1 - HORIZONTAL DRAW-DOWN DEVICE
NOT TO SCALE
REF: 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL PAGE C-10-29

CONSTRUCTION SPECIFICATIONS

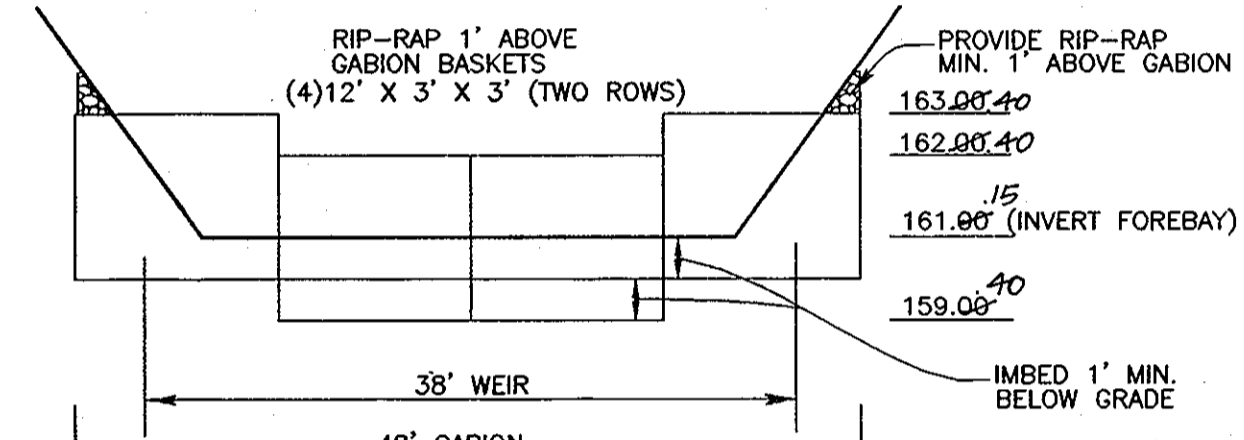
1. THE TOTAL AREA OF THE PERFORATIONS MUST BE GREATER THEN 4 TIMES THE AREA OF THE INTERNAL ORIFICE.
2. THE PERFORATED PORTION OF THE DRAW-DOWN DEVICE SHALL BE WRAPPED WITH 1/2" HARDWARE CLOTH AND GEOTEXTILE FABRIC. THE GEOTEXTILE FABRIC SHALL MEET THE SPECIFICATIONS FOR GEOTEXTILE CLASS E.
3. PROVIDE SUPPORT OF DRAW-DOWN DEVICE TO PREVENT SAGGING AND FLOATATION. AN ACCEPTABLE PREVENTATIVE MEASURE IS TO STAKE BOTH SIDES OF DRAW-DOWN DEVICE WITH 1" STEEL ANGLE, OR 1" X 4" SQUARE OR 2" ROUND WOODEN POSTS SET 3' MINIMUM INTO THE GROUND THEN JOINING THEM TO THE DEVICE BY WRAPPING WITH 12 GAUGE MINIMUM WIRE.



LOW FLOW ORIFICE TRASH RACK DETAIL
NOT TO SCALE

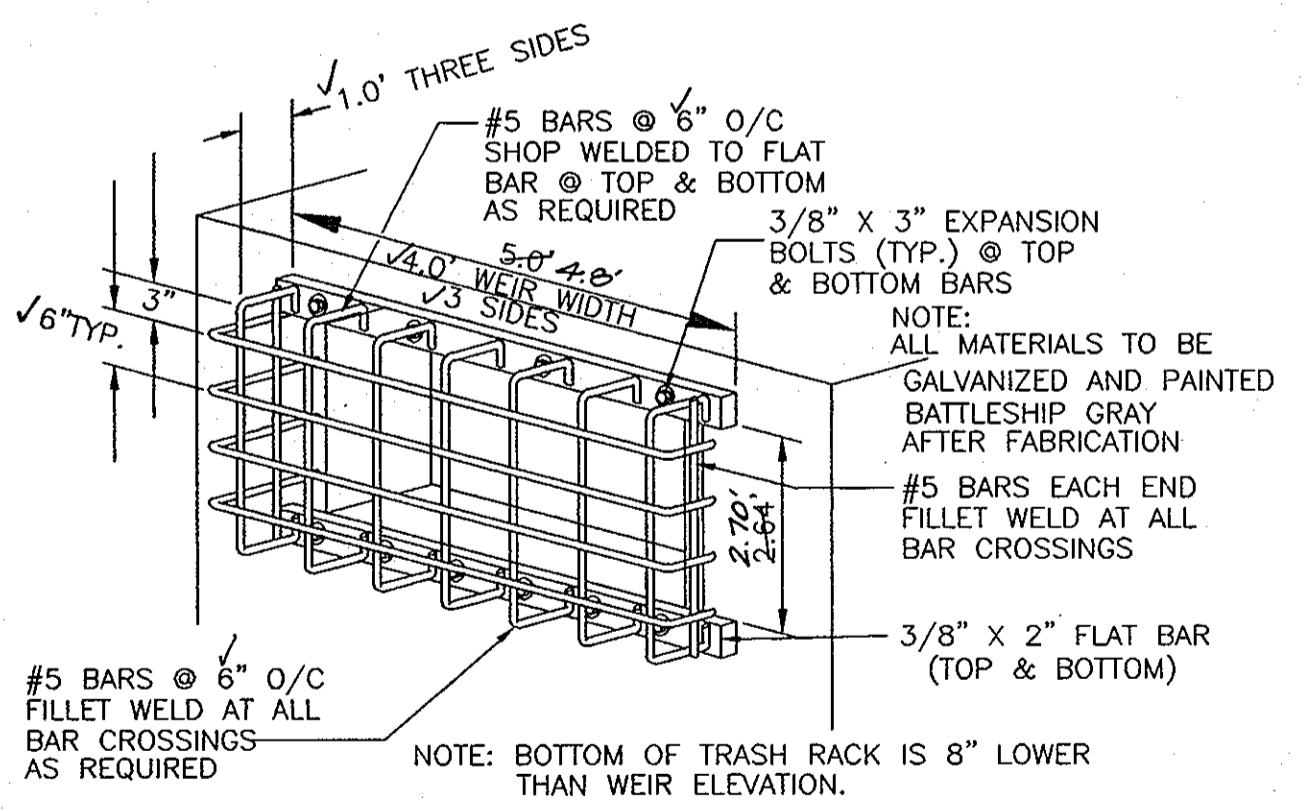


NOTE: VALVE TO BE PLACED UNDER COVER OPENING.
POND DRAIN DETAIL
NOT TO SCALE

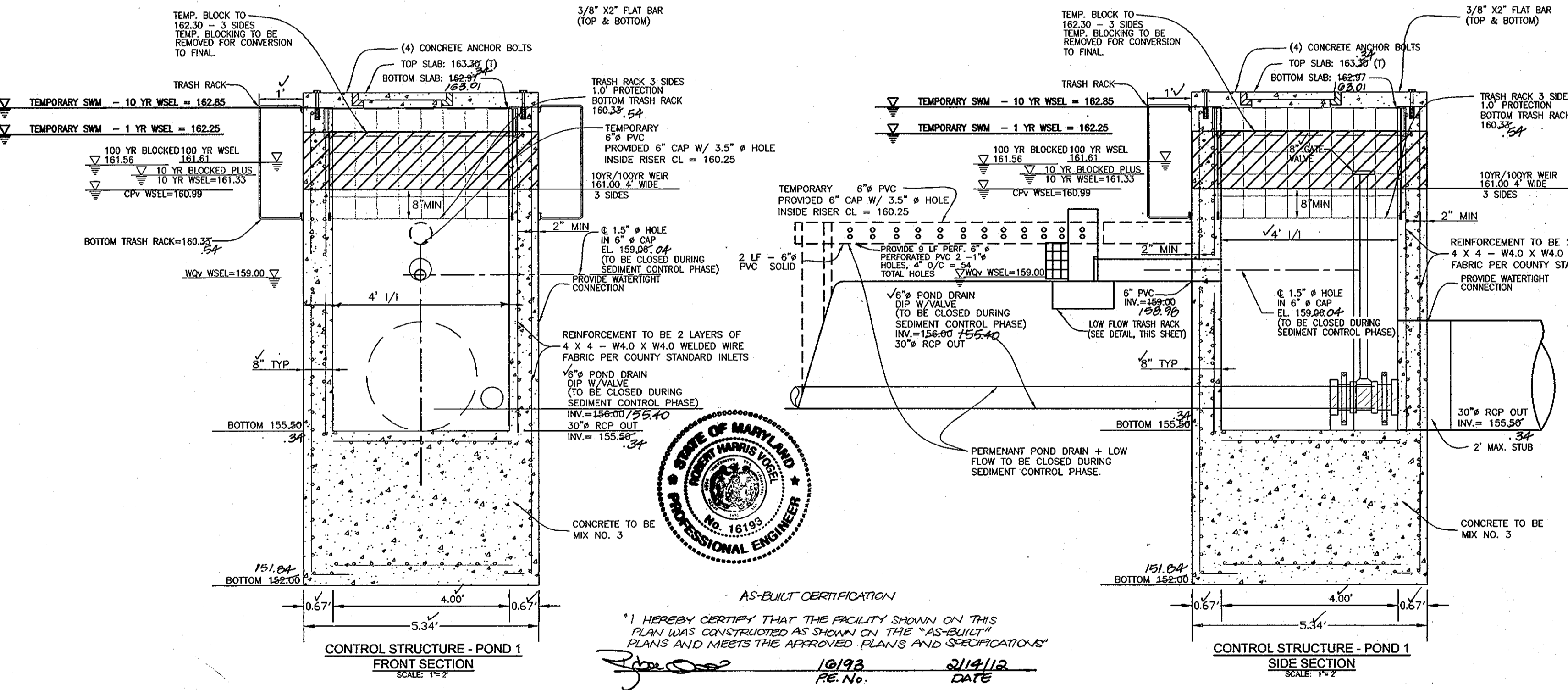


GABION BASKET WEIR DETAIL
POND #1
NOT TO SCALE

- NOTES:
1. ALL WIRE USED IN GABION CONSTRUCTION SHALL BE GALVANIZED AND PLASTIC COATED.
 2. FILTER CLOTH SHALL BE PLACED WHEREVER GABIONS COME INTO CONTACT WITH SOIL.
 3. STONE FILL SHALL CONSIST OF HARD, DURABLE, CLEAN STONE 4"-8" IN DIAMETER.
 4. CONSTRUCTION MATERIALS AND METHODS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
 5. RIP-RAP TO BE PLACED BELOW GABION WEIR TO BOTTOM OF FOREBAY.

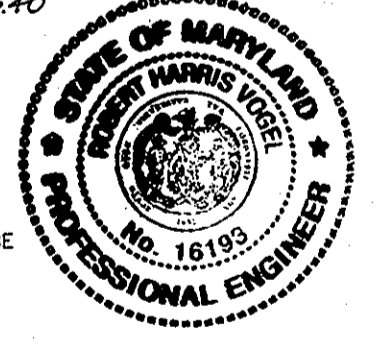


TRASH RACK DETAIL
SIDE VIEW
NOT TO SCALE



CONTROL STRUCTURE - POND #1
FRONT SECTION
SCALE 1/4"=1'

CONTROL STRUCTURE - POND #1
SIDE SECTION
SCALE 1/4"=1'



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."
10/9/09 RE. No. 2/14/12 DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS
12-22-09
APPROVED: DEPARTMENT OF PLANNING AND ZONING
2/22/10
1/6/10

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

ENGINEER'S CERTIFICATE
"I HEREBY CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."
Robert H. Vogel

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

OWNER
MICHAEL L. PFAU
3675 PARK AVE., STE. 301
ELLICOTT CITY, MARYLAND 21043
(410) 480-0023
DEVELOPER
TRINITY QUALITY HOMES
3675 PARK AVE., STE. 301
ELLICOTT CITY, MARYLAND 21043
(410) 480-0023

NO.	REVISION	DATE

FINAL ROAD CONSTRUCTION PLAN
STORMWATER MANAGEMENT
DETAILS AND NOTES
EAST POINT
PHASE I
LOTS 1-3 AND OPEN SPACE LOTS 4 & 5
NON-BUILDABLE BULK PARCELS 'A' & 'B'

TAX MAP 38 GRID 15 PARCEL 238, 237
1ST 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

PROFESSIONAL CERTIFICATE
DESIGN BY: RHV/RJ
DRAWN BY: RJ
CHECKED BY: RHV
DATE: OCTOBER 2009
SCALE: AS SHOWN
W.O. NO.: 03-22
EXPIRATION DATE: 09-27-2010

8 SHEET OF 11

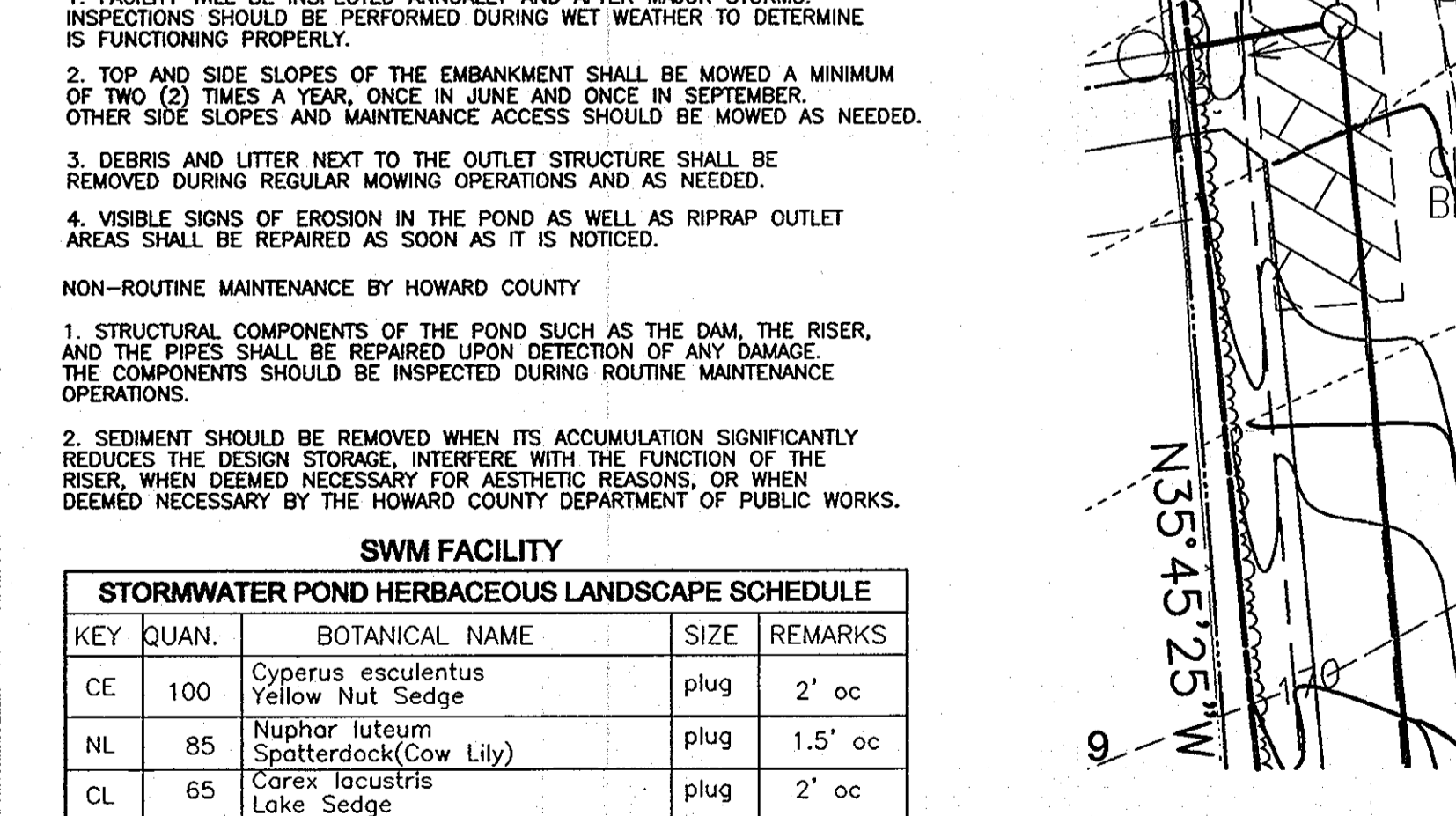
MARYLAND 378
STORMWATER MANAGEMENT POND CONSTRUCTION SPECIFICATIONS

CONSTRUCTION SPECIFICATIONS
THESE SPECIFICATIONS ARE APPROPRIATE TO ALL PONDS WITHIN THE SCOPE OF THE STANDARD FOR PRACTICE MD-378. ALL REFERENCES TO ASTM AND AASHTO SPECIFICATIONS APPLY TO THE MOST RECENT VERSION.
SITE PREPARATION
AREAS DESIGNATED FOR BORROW AREAS, EMBANKMENT, AND STRUCTURAL WORKS SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL...

REINFORCED CONCRETE PIPE
ALL OF THE FOLLOWING CRITERIA SHALL APPLY FOR REINFORCED CONCRETE PIPE.
MATERIALS - REINFORCED CONCRETE PIPE SHALL HAVE BELL AND SPIGOT JOINTS WITH RUBBER GASKETS AND SHALL EQUAL OR EXCEED ASTM C-110.
BEDDING - REINFORCED CONCRETE PIPE CONDUITS SHALL BE LAD IN A CONCRETE BEDDING/CRADLE FOR THEIR ENTIRE LENGTH...

OPERATION, MAINTENANCE AND INSPECTION
INSPECTION OF THE POND(S) SHOWN HEREON SHALL BE PERFORMED AT LEAST ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA, SCS 'STANDARDS AND SPECIFICATIONS FOR PONDS' (MD-378)...

SWM FACILITY
STORMWATER POND HERBACEOUS LANDSCAPE SCHEDULE
KEY QUAN. BOTANICAL NAME SIZE REMARKS
CE 100 Cyperus esculentus Yellow Nut Sedge plug 2' oc

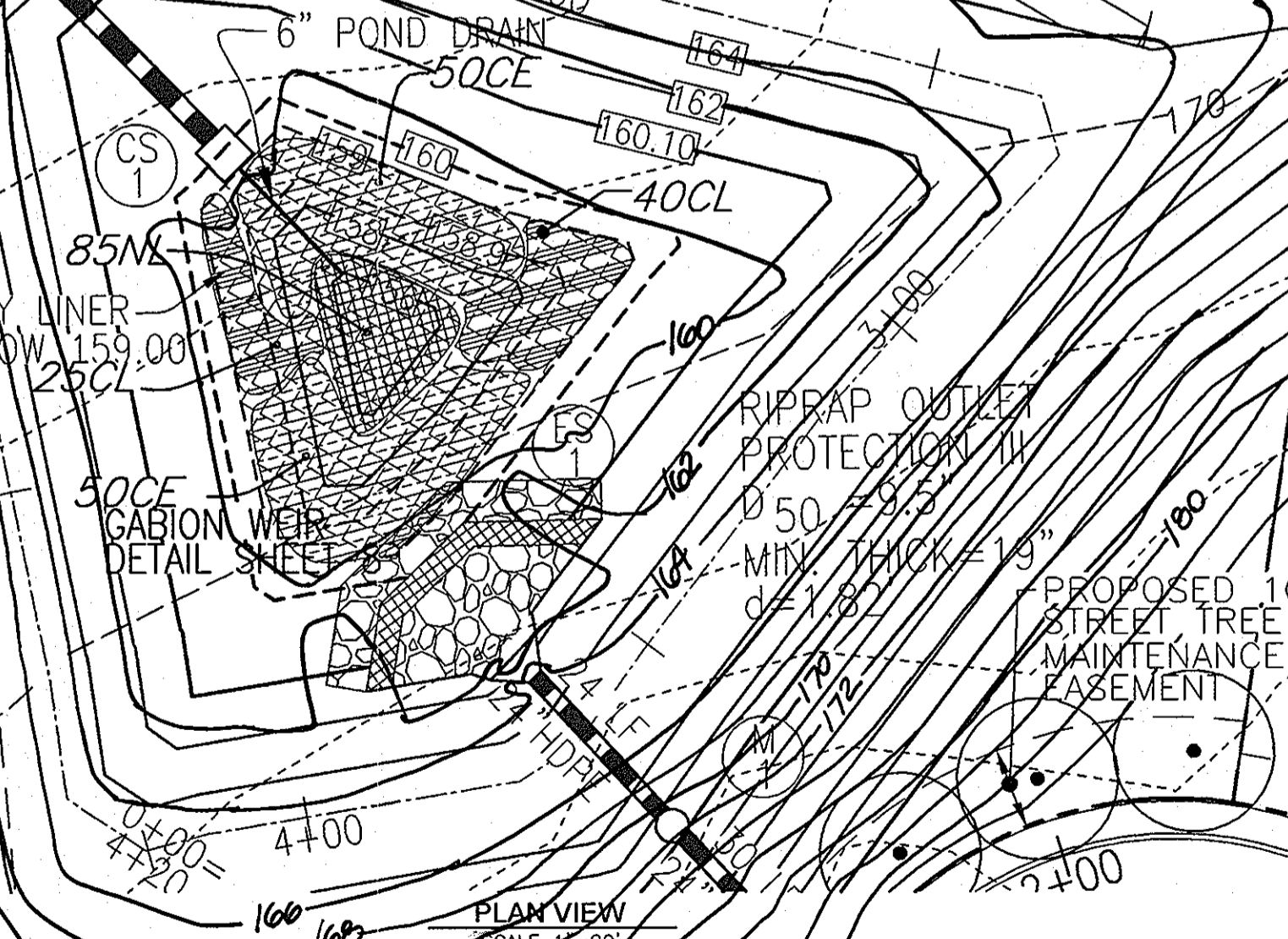


APPROVED: DEPARTMENT OF PUBLIC WORKS
DEPARTMENT OF PLANNING AND ZONING
DEVELOPER'S CERTIFICATE
ENGINEER'S CERTIFICATE

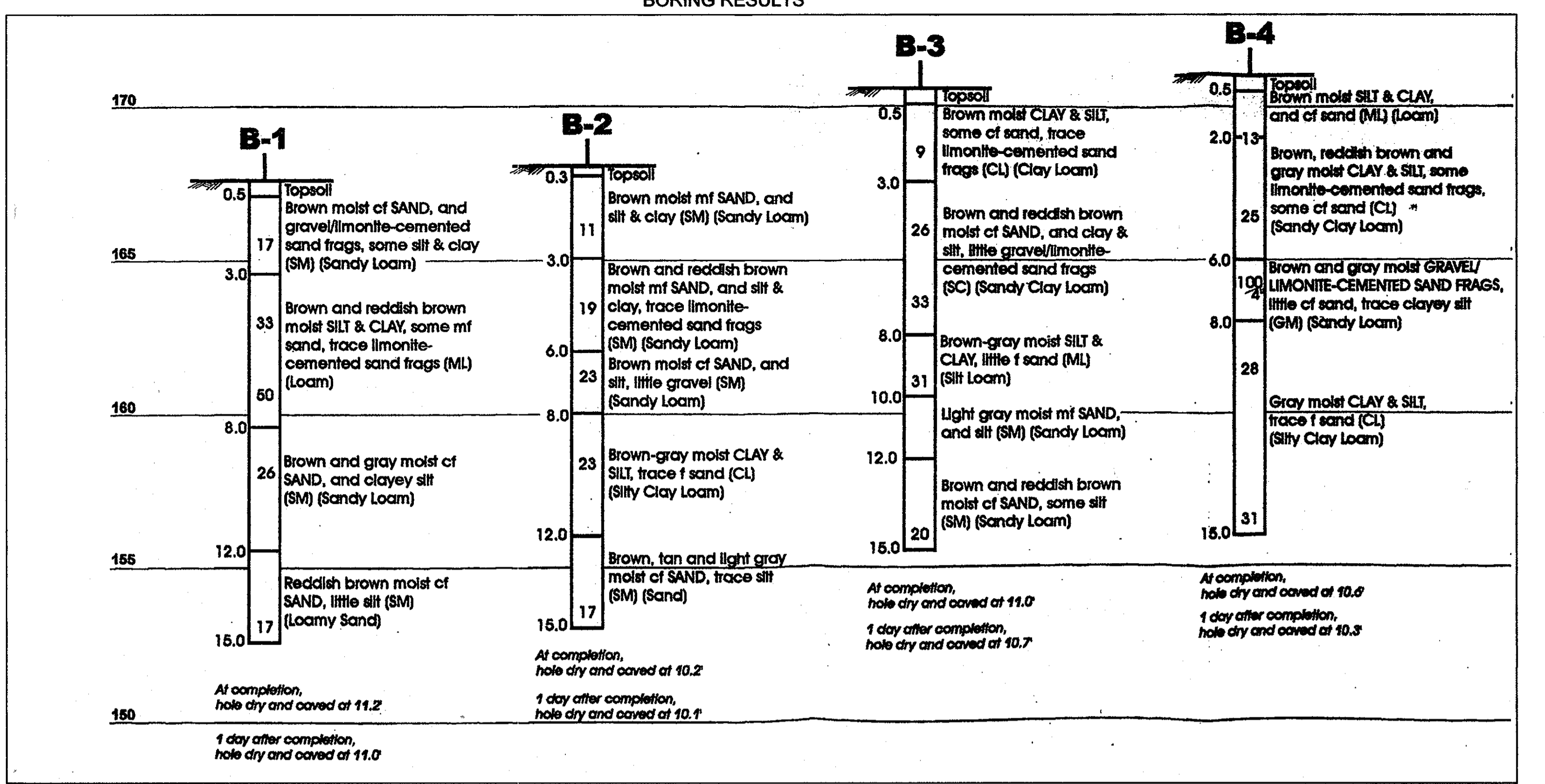
MATERIALS - (ALUMINUM PIPE) - THIS PIPE AND ITS APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATION M-196 OR M-211 WITH WATER TIGHT COUPLING BANDS OR FLANGES. ALUMINUM PIPE, WHEN USED WITH FLOWABLE FILL OR WHEN SOIL AND/OR WATER CONDITIONS WARRANT FOR INCREASED DURABILITY, SHALL BE FULLY BITUMINOUS COATED PER REQUIREMENTS OF AASHTO SPECIFICATION M-190 TYPE A...

CONCRETE
CONCRETE SHALL MEET THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 414, MTD NO. 3.
ROCK RIPRAP
ROCK RIPRAP SHALL MEET THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION MATERIALS, SECTION 311.

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



DEVELOPER'S CERTIFICATE
ENGINEER'S CERTIFICATE
SIGNATURE OF DEVELOPER
SIGNATURE OF ENGINEER



Ground water levels typically fluctuate with changes in seasons and precipitation. Since the borings were performed in October 2004 following normally weather patterns, it is likely that the water table beneath the site may recede by limited amounts during the extended dry seasons and correspondingly increase somewhat during the wettest spring periods. However, since no ground water was encountered, it is not expected that ground water will pose a factor for the plan construction.
VI. PROPOSED CONSTRUCTION
The design of this facility has not yet been completed. We understand that it will be an excavated facility and not designed for infiltration. Depending upon the design grades, it is possible that limited embankment construction will be required.
VII. RECOMMENDATIONS FOR STORM WATER MANAGEMENT CONSTRUCTION
It is recommended that the storm water management construction be in accordance with MD 378/2000. From the boring information, we consider that the subsolls will be acceptable for the plan construction. The soils are stable types which will support riser and other type construction using normal design methods. embankment and core trench backfill required shall be placed as controlled fill in accordance with MD 378/2000.
It is expected that the excavated soils will be removable by normal construction equipment, except possibly for the very dense region between 6 and 8 feet at boring B-4 which, depending upon its extent and continuity, may require some pre-breaking for removal. Cemented sand and gravel layers such as this may be found in other areas of the proposed pond as well.

When the design of the facility has been completed, we would like to review the final design to note that our geotechnical conclusions and recommendations are appropriate for the plan construction or to suggest any necessary changes. In the meantime, we are available to discuss our findings and provide any further geotechnical criteria necessary for design.
Please advise if there are any questions or you require our further services at this time.
Most Sincerely,
HERBST/BENSON & ASSOCIATES
By: Robert C. Benson, Principal
RCB/elh
04169MD
cc: Robert H. Vogel Engineering, Inc.; Attn: Mr. Rob Vogel (2cc.)

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.
10/19/09
2/14/10
DATE

VIII. GEOTECHNICAL MONITORING
We recommend that Herbst/Benson & Associates be retained to provide the geotechnical monitoring and testing services during construction. This is to observe compliance with design concepts, specifications or recommendations and to allow design changes in the event that subsurface conditions differ from those anticipated prior to the start of construction.
IX. GENERAL CONDITIONS
This report has been prepared in accordance with generally accepted geotechnical engineering practice to aid in the evaluation and design of this project. The extent of changes in the proposed construction (types, elevations, locations, etc.) the conclusions and recommendations presented in this report should not be considered valid unless changes are reviewed and the conclusions of this report are modified or approved in writing by our office.
The analyses and recommendations included in this report are based upon the data obtained from the test borings performed at the approximate locations indicated on the boring location plan. This report does not reflect variations which may occur between or away from the borings. The nature and extent of the variations may not become evident until the time of construction. If significant variations then become evident, it may be necessary for us to reevaluate the recommendations of this report.

OWNER
MICHAEL L. PFAU
3675 PARK AVE., STE. 301
ELLCOTT CITY, MARYLAND 21043
(410) 480-0023
DEVELOPER
TRINITY QUALITY HOMES
3675 PARK AVE., STE. 301
ELLCOTT CITY, MARYLAND 21043
(410) 480-0023

PROFESSIONAL CERTIFICATE
DESIGN BY: RHBVJ
DRAWN BY: RJ
CHECKED BY: RHV
DATE: OCTOBER 2009
SCALE: AS SHOWN
W.O. NO.: 03-23
9 SHEET OF 11
AS-BUILT 2/14/10

FINAL ROAD CONSTRUCTION PLAN
STORMWATER MANAGEMENT
BORINGS AND NOTES
EAST POINT
PHASE I
LOTS 1-3 AND OPEN SPACE LOTS 4 & 5
NON-BUILDABLE BULK PARCELS 'A' & 'B'
TAX MAP 38 GRID 15
1ST ELECTION DISTRICT
PARCEL 238, 237
HOWARD COUNTY, MARYLAND
ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLCOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

STATE OF MARYLAND
PROFESSIONAL ENGINEER
ROBERT H. VOGEL, P.E. NO. 16193

LEGEND:

	EXISTING CONTOUR		EXISTING FENCE		LIMIT OF DISTURBANCE
	PROPOSED CONTOUR		PROPERTY LINE		LANDSCAPE PERIMETER
	PROPOSED SPOT ELEVATION		RIGHT-OF-WAY LINE		TREE PROTECTION FENCE
	EXISTING SPOT ELEVATION		SOILS BOUNDARY		PROPOSED EVERGREEN TREE
	EXISTING CURB AND GUTTER		PROPOSED STORM DRAIN		PROPOSED STREET TREES
	PROPOSED CURB AND GUTTER		PROPOSED STORM DRAIN INLET		PROPOSED SHADE TREE FOR PERIMETER LANDSCAPING
	NO WOODY VEGETATION BUFFER		RECREATIONAL OPEN SPACE		
	PUBLIC SEWER & UTILITY EASEMENT		PUBLIC STREET TREE EASEMENT		
	PUBLIC STREET TREE EASEMENT		B & E WIRE ZONE		

ZONED R-12
NET TRACT AREA:

A. TOTAL TRACT AREA	= 4.33 AC
B. AREA WITHIN 100 YEAR FLOODPLAIN	= 0.00 AC
C. AREA TO REMAIN IN AGRICULTURAL PRODUCTION	= 0.00 AC
D. NET TRACT AREA	= 4.33 AC

LAND USE CATEGORY

INPUT THE NUMBER "1" UNDER THE APPROPRIATE LAND USE ZONING, AND LIMIT TO ONLY ONE ENTRY. ZONED R-12.

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

E. AFFOREST THRESHOLD
F. CONSERVATION THRESHOLD

15% X D = 0.65 AC
20% X D = 0.87 AC

EXISTING FOREST COVER:

G. EXISTING FOREST COVER (EXCLUDING FLOODPLAIN)	= 2.33 AC
H. AREA OF FOREST ABOVE AFFORESTATION THRESHOLD	= 1.68 AC
I. AREA OF FOREST ABOVE CONSERVATION THRESHOLD	= 1.46 AC

BREAK EVEN POINT:
(2 X I) + F = BREAK EVEN POINT

J. FOREST RETENTION WITH NO MITIGATION
K. CLEARING PERMITTED WITHOUT MITIGATION

= 1.16 AC
= 1.17 AC

PROPOSED FOREST CLEARING:

L. TOTAL AREA OF FOREST TO BE CLEARED	= 2.33 AC
M. TOTAL AREA OF FOREST TO BE RETAINED	= 0.00 AC

PLANTING REQUIREMENTS:

N. REFORESTATION FOR CLEARING ABOVE CONSERVATION THRESHOLD (L X .25)	= 0.37 AC
O. REFORESTATION FOR CLEARING BELOW CONSERVATION THRESHOLD	= 1.73 AC
P. CREDIT FOR RETENTION ABOVE CONSERVATION THRESHOLD (M-F)	= 0.00 AC
Q. TOTAL REFORESTATION REQUIRED (N+P-Q)	= 2.10 AC
R. TOTAL AFFORESTATION REQUIRED	= 0.00 AC
S. TOTAL REFORESTATION AND AFFORESTATION REQUIRED	= 2.10 AC

BANK, THE FOREST CONSERVATION OBLIGATIONS OF 2.10 ACRES OF REFORESTATION TO BE PROVIDED BY AN OFFSITE FOREST BANK, CYPRESS SPRING, LLC FOREST BANK, SDP 09-061, TAX MAP 38, PARCELS 42, 44, 45, & 46.

SCHEDULE A: PERIMETER LANDSCAPE EDGE

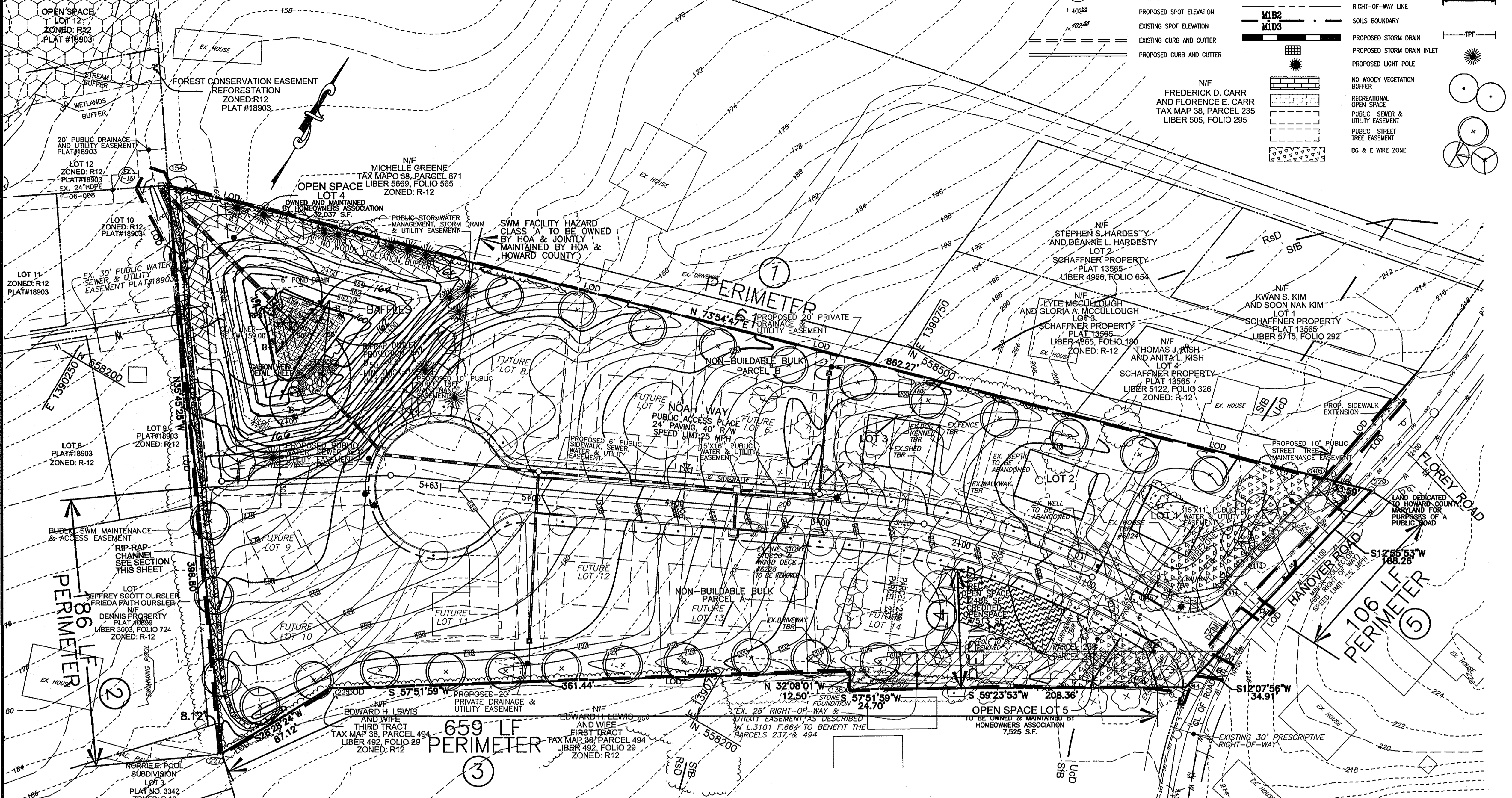
CATEGORY	ADJACENT TO PERIMETER ROW/PROPERTIES					TOTAL
	1	2	3	4	5	
PERIMETER/FRONTAGE DESIGNATION	610'	188'	659'	83'	106'	
LANDSCAPE TYPE						
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER						
CREDIT FOR EXISTING VEGETATION (NO, YES AND LINEAR FEET DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO	NO	
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO	NO	
NUMBER OF PLANTS REQUIRED (LF REMAINING)	1:60	11:1:60	3:1:60	11:1:50	2:1:50	REQUIRED 29
NUMBER OF PLANTS PROVIDED						PROVIDED 29
SHRUBS						
SHADE TREES	11	3	11	2	2	
EVERGREEN TREES						
OTHER TREES (2:1 SUBSTITUTION)						
SHRUBS (10:1 SUBSTITUTION)						
DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED						

SCHEDULE D: STORMWATER MANAGEMENT AREA LANDSCAPING

LANDSCAPE TYPE	TYPE B	TOTAL
LINEAR FEET OF PERIMETER	605 LF	
CREDIT FOR EXISTING VEGETATION (NO, YES AND LINEAR FEET)	NO	
CREDIT FOR OTHER LANDSCAPING (NO, YES AND LINEAR FEET)	NO	
NUMBER OF TREES REQUIRED		REQUIRED 12
SHADE TREES (1:50)	12	
EVERGREEN TREES (1:40)	15	
NUMBER OF TREES PROVIDED		PROVIDED 12
SHADE TREES (1:50)	12	
EVERGREEN TREES (1:40)	15	
OTHER TREES (2:1 SUBSTITUTION)		

LANDSCAPE SCHEDULE THIS SHEET

SYMBOL	QUAN.	BOTANICAL NAME	SIZE	REM.
	25	Tilia cordata Greenspire / Greenspire Littleleaf Linden (Shade tree)	2"-3" Cal.	B & B
	4	Amur Maple Acer ginnala (Shade trees - Growth Height=20')	2"-3" Cal.	B & B
	12	Acer Rubrum red maple (seedless cultivars such as celzam, karpick, and somerset only)	2"-3" Cal.	B & B
	15	Pinus strobus Eastern White Pine (Evergreen trees)	6'-8' Ht.	B & B



LANDSCAPE NOTES

- A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
- AT THE TIME OF PLANT INSTALLATION, ALL SHRUBS AND TREES LISTED AND APPROVED FOR THIS SITE BE OF THE PROPER HEIGHT REQUIREMENT IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF THE REQUIRED PLANTING MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION 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 APPLICABLE PLANS.
- THE OWNER, TENANTS AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. 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.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
- NO CLEARING OF EXISTING VEGETATION IS PERMITTED WITHIN THE LANDSCAPE EDGE FOR WHICH CREDIT IS BEING TAKEN; HOWEVER, LANDSCAPE MAINTENANCE IS AUTHORIZED.
- CONTRACTOR SHALL CERTIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
- FINAL LOCATION OF PLANT MATERIAL MAY NEED TO VARY TO MEET FINAL FIELD CONDITIONS. TREES SHALL NOT BE PLANTED IN THE BOTTOM OF DRAINAGE SWALES.

B,G & E NOTES:

- THE LANDSCAPING ON WIREZONE (40' FROM BGE POLES) IS IN ACCORDANCE WITH BGE LIST OF TREES AND PLANTS.
- BGE RESERVES THE RIGHT TO TRIM, TOP OR CUT DOWN ANY TREE IN PROXIMITY TO THE LINE THAT IN THE OPINION OF BGE SHALL BE DEEMED A HAZARD TO THE SAFE AND RELIABLE DELIVERY OF ELECTRICITY.
- THE DEPARTMENT OF PLANNING AND ZONING MAY AUTHORIZE THE TRIMMING OR REMOVAL OF TREES OR VEGETATION IMMEDIATELY ADJACENT TO THE BGE R/W OR EASEMENT, IF BGE DETERMINES THE TREES ARE COMPROMISING THE SAFETY OR A TRANSMISSION LINE LOCATED WITHIN THEIR UTILITY R/W OR EASEMENT, IF BGE DEVELOPER'S AGREEMENT

STREET TREES ARE PROVIDED FOR THIS PROJECT IN ACCORDANCE WITH SECTION 16.124(e)(1) OF THE SUBDIVISION REGULATIONS AND THE LANDSCAPE MANUAL. A FINANCIAL SURETY IN THE AMOUNT OF \$10,500.00 TO BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT FOR THE REQUIRED 35 PUBLIC STREET TREES.

FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING PROVIDED PER THE LANDSCAPE MANUAL TO BE POSTED WITH THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$14,550.00 FOR THE REQUIRED 41 SHADE TREES AND THE REQUIRED 15 EVERGREEN TREES.

DNR QUALIFIED FOREST PROFESSIONAL
J. CHRIS O'NEAL

DEVELOPER'S/OWNER'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.

Michael P. Pfauf (PRESIDENT)
DEVELOPER'S/OWNER'S NAME TRINITY QUALITY HOMES INC.

APPROVED: DEPARTMENT OF PUBLIC WORKS

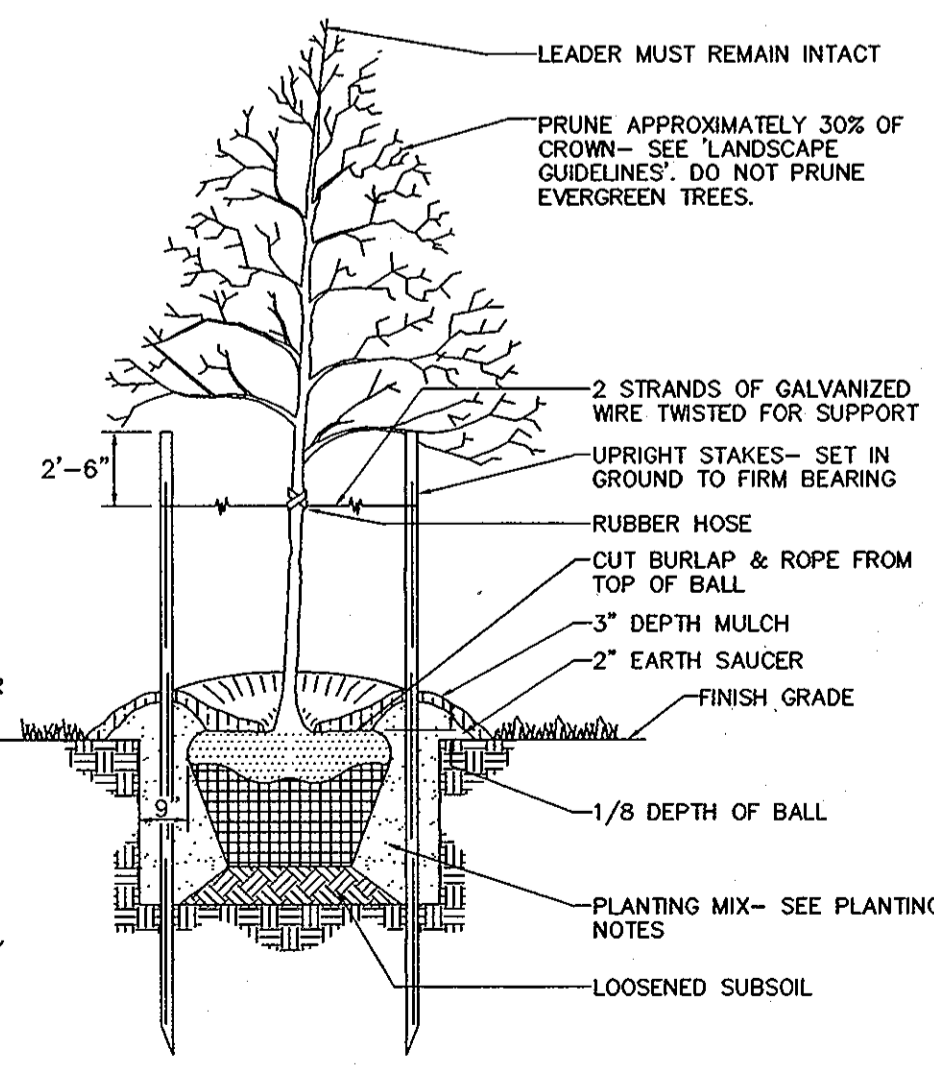
12-22-09
DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

2/10/10
DATE

1/10/10
DATE

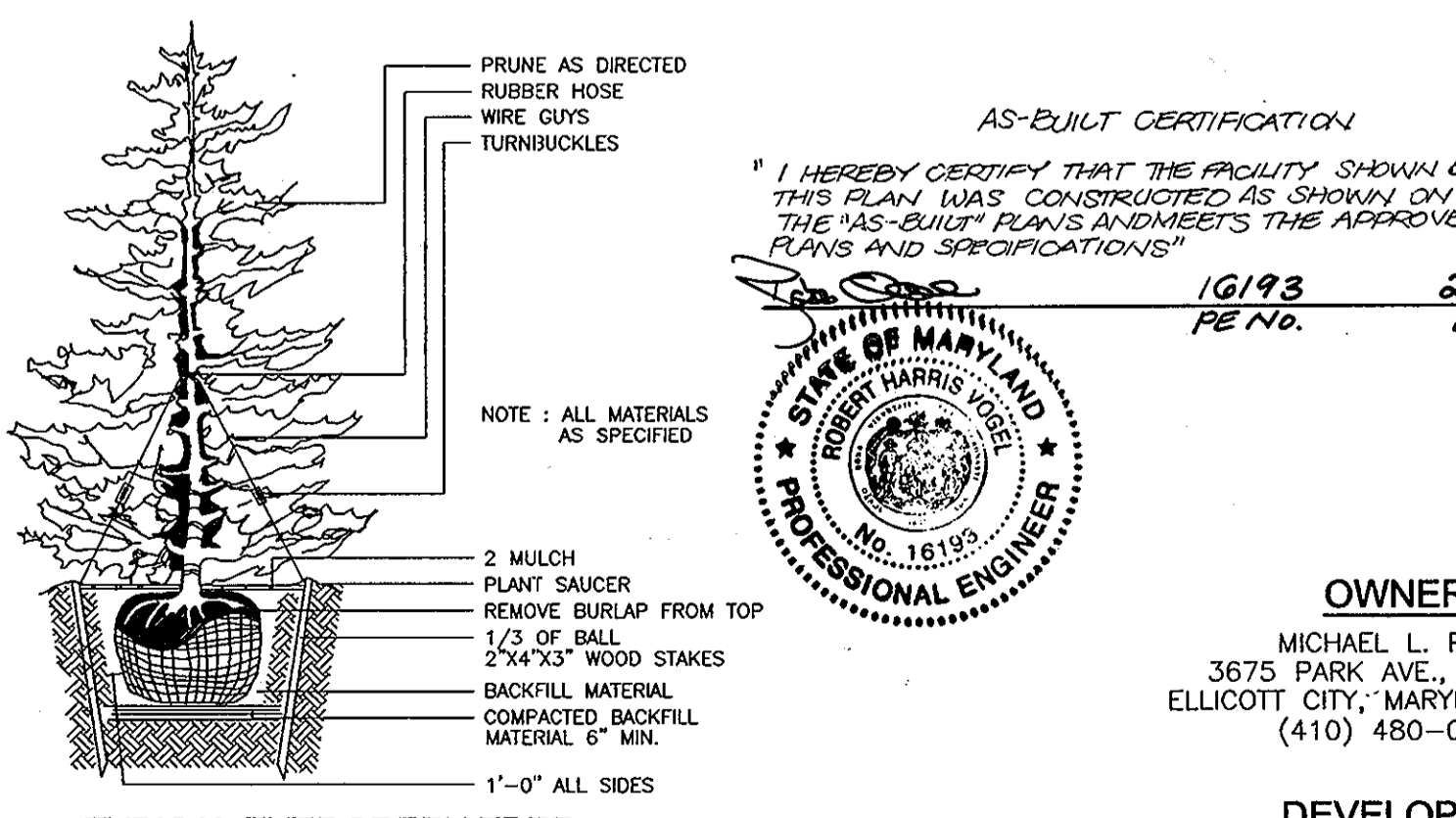
- SEE "LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE-WASHINGTON METROPOLITAN AREAS" FOR ALL MATERIAL PRODUCT, AND PROCEDURE SPECIFICATIONS.
- SEE "LANDSCAPE GUIDELINES" FOR SUPPORTING TREES LARGER THAN 2-1/2" CALIPER.
- PLACE UPRIGHT STAKES PARALLEL TO WALKS & BUILDINGS.
- KEEP MULCH 1" FROM TRUNK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



TREE PLANTING AND STAKING
DECIDUOUS TREES UP TO 2-1/2" CALIPER
NOT TO SCALE

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	TYPE
SfB	SASSAFRAS GRAVELLY SANDY LOAM, 2 TO 5 PERCENT SLOPES	B
RsD	RUSSETT FINE SANDY LOAM, 10 TO 15 PERCENT SLOPES	B
UcD	URBAN LAND CHILLUM - BELTSVILLE COMPLEX 5 TO 15 PERCENT SLOPES	B



TYPICAL EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE

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.

10/93
PE NO.

2/14/12
DATE

STATE OF MARYLAND
ROBERT H. VOGEL
PROFESSIONAL ENGINEER
NO. 16183

OWNER
MICHAEL L. PFAU
3675 PARK AVE., STE. 301
ELLICOTT CITY, MARYLAND 21043
(410) 480-0023

DEVELOPER
TRINITY QUALITY HOMES
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ELLICOTT CITY, MARYLAND 21043
(410) 480-0023

FINAL ROAD CONSTRUCTION PLAN
LANDSCAPE, FOREST
CONSERVATION PLAN AND DETAILS
EAST POINT
PHASE I
LOTS 1-3 AND OPEN SPACE LOTS 4 & 5
NON-BUILDABLE BULK PARCELS 'A' & 'B'

TAX MAP 38 GRID 15 PARCEL 238, 237
1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLICOTT CITY, MD 21043 TEL: 410.461.7866
FAX: 410.461.8961

DESIGN BY: BHV/RJ
DRAWN BY: BHV
CHECKED BY: BHV
DATE: OCTOBER 2009
SCALE: 1"=40'
W.O. NO.: 09-28

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

10 SHEET OF 11

AASCD/MAA VEGETATIVE ESTABLISHMENT DETAILS AND SPECIFICATIONS FOR THE PROJECT WITHIN 4 MILES OF BWI AIRPORT

SEEDING

ITEM NO. DESCRIPTION

903-1.1 GENERAL. This item provides specifications for seeding of areas as designated on plans or directed by the MAA Engineer. The species, mixtures, and methods of application provided in this item may be used to establish vegetation. Seed and rates of application provided in this item may be used to establish vegetation. All activities associated with seeding including soil preparation, seed application, fertilization, and maintenance shall also conform to these approved methods.

MATERIALS

903-2.1 SEED. All seed shall comply with the Maryland Seed Law (Agricultural Article of the Annotated Code of Maryland). Only MAA-approved species, mixtures, and rates of application provided in this item may be used to establish vegetation. Seed will be sampled and tested by an inspector from the Turf and Seed Section, Maryland Department of Agriculture (MDA), Annapolis, Maryland. All laws and turf seed and mixtures shall be free from the following state-listed restricted noxious weeds:

- corn cockle (*Agrostemma githago*),
- henbane (*Atropa* spp.),
- redtop (*Agrostis alba*),
- wild onion (*Allium canadense*),
- wild garlic (*Allium vineale*),
- blackgrass (*Cynodon dactylon*),
- Johnsongrass (*Sorghum halepense*),
- orchardgrass (*Dactylis glomerata*),
- tail fescue (*Festuca arvensis*),
- meadow fescue (*Festuca pratensis*),
- wild rye (*Elymus lanceolatus*),
- annual bluegrass (*Poa annua*),
- rough bluegrass (*Poa trivialis*),
- timothy (*Phleum pratense*), and
- Johnson grass (*Sorghum halepense*).

Restricted noxious-weed seed may not exceed 0.5 percent by weight of any seed mixture. In addition, all seeds sold in Maryland shall be free from the following listed prohibited species:

903-2.1.1 APPROVED MIXTURES AND APPLICATION RATES. Only seed mixtures and application rates described in this item may be used unless otherwise approved by the MAA Engineer. Seed mixtures shall meet detailed details in Paragraph 903-2.1.2. Seed mixtures have been formulated to minimize the attractiveness of areas to wildlife of common landscape recreation. The appropriate seed mixture for application will be designated based on environmental conditions and may vary from site to site. All planting rates listed are in pounds of Pure Live Seed (PLS) per acre.

Seed mixtures, application accention, and rates for permanent cool-season grasses are as follows:

- Seed Mixture No. 1 - relatively flat areas (grade less than 4:1) subject to normal conditions and regular mowing (Application rate = 234 lbs PLS/acre);
- Seed Mixture No. 2 - sloped areas (grade greater than 4:1) not subject to regular mowing (Application rate = 115 lbs PLS/acre); and
- Seed Mixture No. 3 - wetlands and their associated buffer zones (Application rate = 131 lbs PLS/acre).

Seed Mixture No. 1, Relatively flat areas regularly mowed and exposed to normal conditions (Application rate = 234 lbs PLS/acre)

MAA SEED MIXTURES	Purity Not Less Than %	Minimum % Germination	Pure Live Seed Factor
Certified Turf-Type Tall Fescue (Cenchrus caryophyllus)	98	90	1.13
Certified Kentucky Bluegrass (Poa pratensis)	98	80	1.39
Perennial Ryegrass (Lolium perenne)	98	90	1.13
Annual Ryegrass (Lolium multiflorum)	98	85	1.24
Perennial Ryegrass (Lolium perenne)	90	80	1.39
Perennial Ryegrass (Lolium perenne)	90	80	1.39
Perennial Ryegrass (Lolium perenne)	62	94	1.71

The percentage purity and germination shall be based on the following methods:
 - The percentage of germination shall be actual germination and not include hard seeds specifically provided by the MAA Engineer.
 - The percentage of purity shall be based on the following methods:
 - name and address of laboratory,
 - date of test,
 - lot number,
 - the results of tests as to name, percentage of purity and of germination,
 - percentage of weed content for the seed furnished,
 - and, in the case of a mixture, the proportions of each kind of seed.

903-2.1.2 PURITY. All seed shall be free of all state-designated noxious weeds listed in Paragraph 2.1.1 and conform to MAA specifications. To ensure compliance, MAA requires sampling and testing of seed by the Turf and Seed Section, Maryland Department of Agriculture (MDA). The Contractor shall furnish the MAA Engineer with duplicate signed copies of a statement by the Turf and Seed Section certifying that each lot of seed has been laboratory tested within six months of date of delivery. This statement shall include the following information:

- name and address of laboratory,
- date of test,
- lot number,
- the results of tests as to name, percentage of purity and of germination,
- percentage of weed content for the seed furnished,
- and, in the case of a mixture, the proportions of each kind of seed.

903-2.1.3 MAINTENANCE OF SEEDING AREAS. The contractor shall protect seeded areas against traffic or other use by wearing signs or barricades, as approved by the Engineer. Surfaces gullied or otherwise damaged following seeding shall be repaired by grading and reseeding as directed. The Contractor shall mow, water as directed, and otherwise maintain seeded areas in a satisfactory condition until final inspection and acceptance of the work.

903-2.1.4 MAINTENANCE OF SEEDING AREAS. The contractor shall protect seeded areas against traffic or other use by wearing signs or barricades, as approved by the Engineer. Surfaces gullied or otherwise damaged following seeding shall be repaired by grading and reseeding as directed. The Contractor shall mow, water as directed, and otherwise maintain seeded areas in a satisfactory condition until final inspection and acceptance of the work.

TEMPORARY SEEDING

Line: 100 pounds of domestic limestone per 1,000 square feet.
 Fertilizer: 15 pounds of 10-10-10 per 1,000 square feet.
 Seed: Per ITEM 903
 Mulch: Mulch shall be applied as per ITEM 905.

FILL

No fills may be placed on frozen ground. All fill to be placed in approximately horizontal layers, each layer having a base thickness of not more than 8 inches. All fill in roadways and parking areas is to be classified Type 2 as per Anne Arundel County Code - Article 21, Section 2-208, and compacted to 90% density, compaction to be determined by ASTM D-1557-67 (Modified Proctor). Any fill within the building area is to be compacted to a minimum of 95% density as determined by methods previously mentioned. Fills for good substructures shall be compacted as per MD-578 Construction Specifications. All other fills shall be compacted sufficiently so as to be stable and prevent erosion and slippage.

SODDING

Installation of sod should follow permanent seeding details. Sod preparation for sod shall be as noted above. Line and fertilizer per permanent seeding specifications and lightly irrigate soil prior to laying sod. Sod is to be laid on the contour with all ends tightly abutting. Joints are to be staggered between rows. Water and roll or tamp sod to insure positive contact with the soil. All slopes steeper than 3:1, as shown, are to be permanently sodded or protected with an approved erosion control matting. Additional watering for establishment may be required. Sod is not to be installed on frozen ground. Sod shall not be transplanted when moisture content (dry or wet) or surface temperature may adversely affect its survival. In the absence of adequate rainfall, irrigation should be performed to ensure establishment of sod.

Install sod as per ITEM 904.

AASCD/MAA NOTES

- THE PROPOSED PROJECT IS LOCATED IN HOWARD COUNTY, MARYLAND ON TAX MAP 38, BLOCK 15, PARCEL 238. THE PROPOSED PROJECT IS LOCATED NEAR THE BALTIMORE WASHINGTON INTERNATIONAL THURGOOD MARSHALL AIRPORT (BWI).
- SEDIMENT BASINS AND TRAPS ARE PROPOSED FOR SEDIMENT AND EROSION CONTROL DURING CONSTRUCTION.
 - SEDIMENT TRAPS AND BASINS MUST BE DRAINED COMPLETELY THROUGH A FILTERING DEVICE TO A CLEAR WATER OUTFALL WITHIN 24 HOURS FOLLOWING ANY RAINFALL EVENT.
 - LANDSCAPING & STORM WATER POND LANDSCAPING ON SITE:
 ANY DEVIATION TO PLANT SPECIES AND VEGETATION USED ON THESE PLANS NEED APPROVAL FROM AASCD/MAA. THE PLANT SPECIES USED ON THIS SITE ARE TO AVOID ITS POTENTIAL TO ATTRACT WILDLIFE THAT COULD POSE STRIKE HAZARD TO AIRCRAFT.
 - BWI AIRPORT NOISE ZONE:
 THE SITE FOR THIS PROJECT IS LOCATED OUTSIDE THE BOUNDARIES OF THE AIRPORT NOISE ZONE.
 - THE ALLOWABLE HEIGHT FOR ANY PERMANENT OR TEMPORARY STRUCTURES TALLER THAN 277 FEET ABOVE MEAN SEA LEVEL NEED OBSTRUCTION ANALYSIS REVIEW AND PERMIT FOR THE AIRPORT ZONE.

APPROVED: DEPARTMENT OF PUBLIC WORKS
 _____ 12-22-09
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 _____ 2/20/10
 CHIEF, DIVISION OF LAND DEVELOPMENT

_____ 1/6/10
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

OWNER
 MICHAEL L. PFAU
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 (410) 480-0023

DEVELOPER
 TRINITY QUALITY HOMES
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 ELLICOTT CITY, MARYLAND 21043
 (410) 480-0023

NO. _____ REVISION _____ DATE _____

FINAL ROAD CONSTRUCTION PLAN
AASCD/MAA NOTES & DETAILS
EAST POINT
PHASE I
LOTS 1-3 AND OPEN SPACE LOTS 4 & 5
NON-BUILDABLE BULK PARCELS 'A' & 'B'

TAX MAP 38 GRID 15 PARCEL 238, 237
 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL
ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET TEL: 410.461.7666
 ELLICOTT CITY, MD 21043 FAX: 410.461.8966

DESIGN BY: _____
 DRAWN BY: _____
 CHECKED BY: _____
 DATE: OCTOBER 2009
 SCALE: AS SHOWN
 W.O. NO.: 03-23

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: 09-27-2010

11 SHEET **11**