

SHEET INDEX	
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10	SEDIMENT & EROSION CONTROL NOTES & DETAILS

Minimum Lot Size Chart			
LOT No.	GROSS AREA	PIPESTEM AREA	MINIMUM LOT SIZE
3	20,511 Sq.ft.	444 Sq.ft.	20,067 Sq.ft.
4	21,035 Sq.ft.	664 Sq.ft.	20,371 Sq.ft.
5	21,271 Sq.ft.	1,144 Sq.ft.	20,127 Sq.ft.
6	21,795 Sq.ft.	1,715 Sq.ft.	20,080 Sq.ft.
7	28,569 Sq.ft.	2,371 Sq.ft.	26,198 Sq.ft.

# FINAL ROAD CONSTRUCTION PLAN ROCK BURN MEADOWS

LOTS 1 THRU 7

ZONED: R-20

TAX MAP No. 37 GRID No. 05 PARCEL NO. 211 & 641

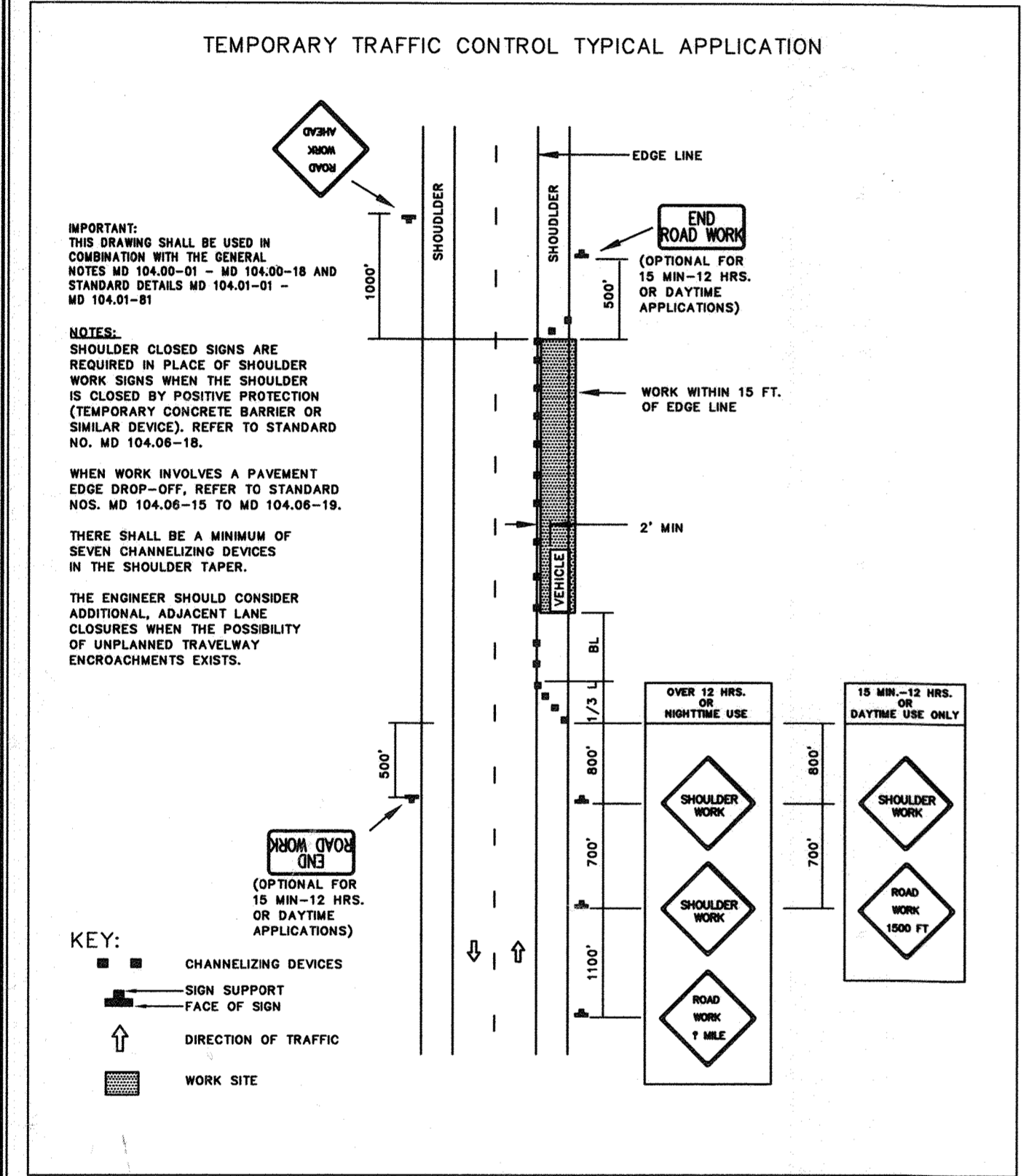
ROADWAY INFORMATION CHART			
ROAD NAME	CLASSIFICATION	DESIGN SPEED	EASEMENT WIDTH
ROCKBURN MEADOWS LANE	PRIVATE USE-IN-COMMON DRIVEWAY	15 M.P.H.	24'

STORMWATER MANAGEMENT SUMMARY			
AREA ID.	ESDy REQUIRED CU.FT.	ESDy PROVIDED CU.FT.	REMARKS
SITE	3,482	3,949	DRYWELLS (M-5), MICRO-BIORETENTION (M-6) & RAIN GARDENS (M-7)
TOTAL	3,482	3,949	

RECHARGE VOLUME (REV)  
 Rev = (5) (Ev) (A) / 12  
 = (0.16) (0.24) (3.06) / 12  
 = 0.0098 AC-FT OR 427 CU-FT

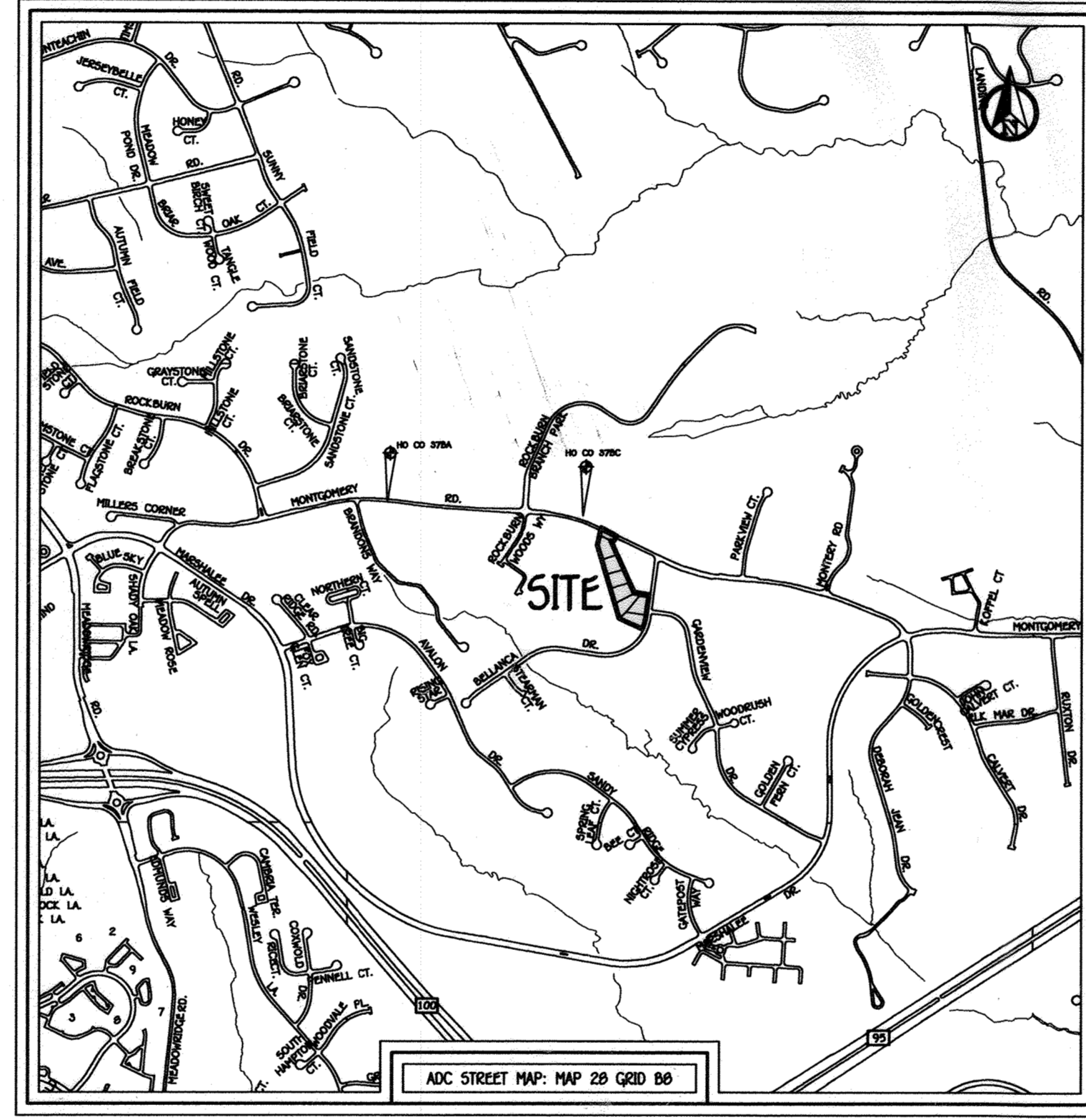
AS PERMITTED IN CHAPTER 2 OF THE 2000 MARYLAND STORMWATER DESIGN MANUAL, RECHARGE VOLUME HAS BEEN INCLUDED WITHIN THE ESDy.

GROSS AREA = 3.06 ACRE (SITE - LOTS 2 THRU 7)  
 LOD = 2.92 ACRES  
 RCN = 70  
 TARGET Pe = 1.3"



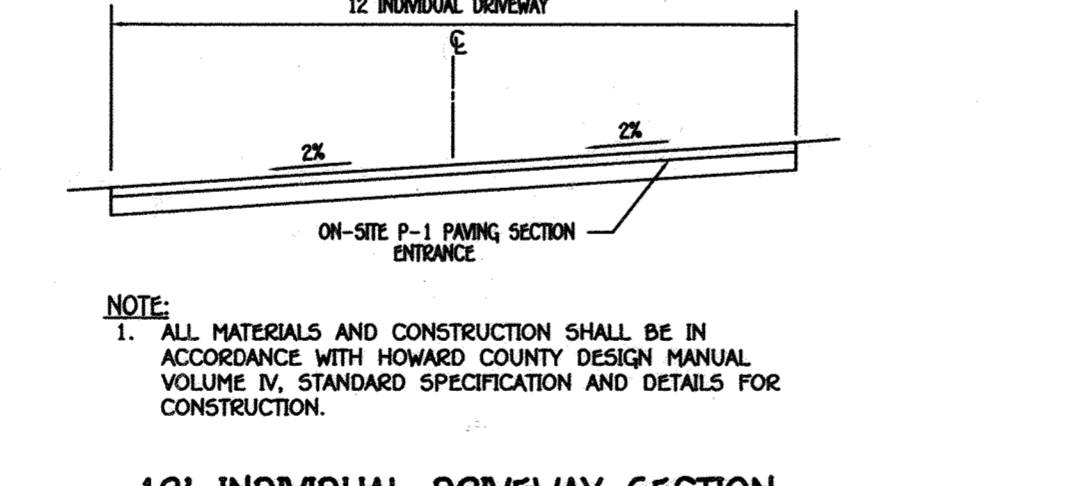
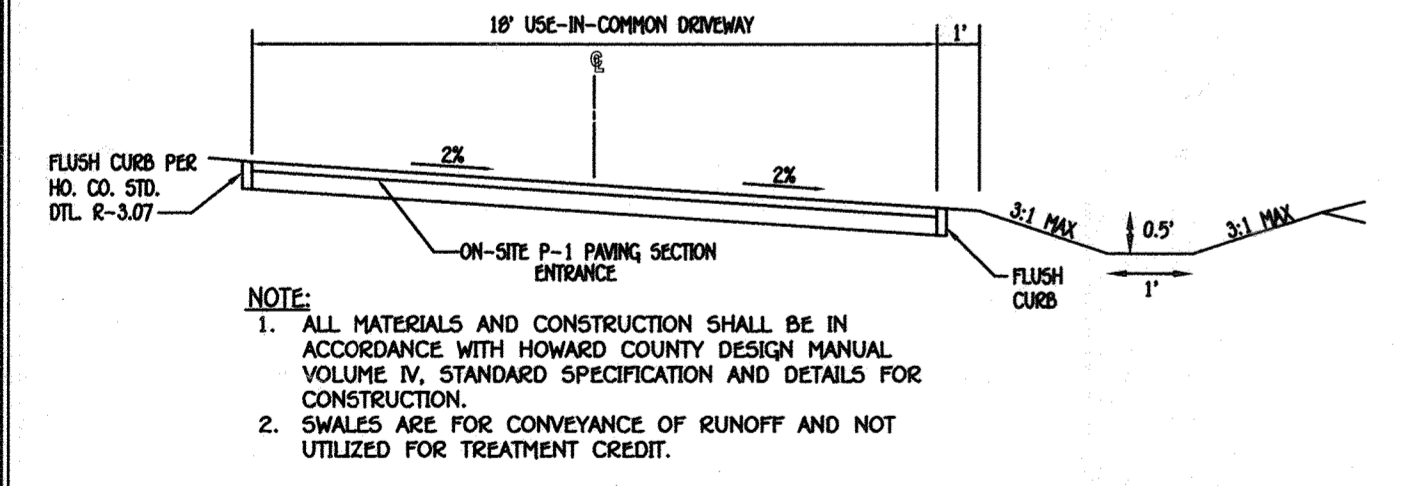
SITE ANALYSIS DATA CHART	
A.	TOTAL AREA OF THIS SUBMISSION = 3.60 AC.±
B.	AREA FOR TREATMENT OF STORMWATER = 3.00 AC.± (LOTS 2 THRU 7)
C.	LIMIT OF DISTURBED AREA = 2.92 AC.±
D.	PRESENT ZONING DESIGNATION: R-20 (PER 10/06/2013 COMPREHENSIVE ZONING PLAN)
E.	PROPOSED USE: RESIDENTIAL
F.	PREVIOUS HOWARD COUNTY FILES: ECP-15-019, S0P-15-025, PB10 PG 96, ECP-17-067, SP-17-012, AND WP-18-029.
G.	TOTAL AREA OF FLOODPLAIN LOCATED ON SITE = 0 AC.
H.	TOTAL AREA OF SLOPES IN EXCESS OF 15% = 0.46 AC. (0 AC. 25% OR GREATER)
I.	TOTAL AREA OF WETLANDS (INCLUDING BUFFER) = 0 AC.
J.	TOTAL AREA OF EXISTING FOREST = 1.1 AC.±
K.	TOTAL GREEN OPEN AREA = 3.80 AC.±
L.	TOTAL IMPERVIOUS AREA = 0.64 AC.± (PLUS 0.02 AC SIDEWALK ON BELLANCA DR)
M.	AREA OF ROAD DEDICATION = 0.08 AC.
N.	DENSITY PERMITTED = 3.60 AC X 6X = 21.60 SQ.FT. / LOT = 7 LOTS
O.	PROPOSED NUMBER OF LOTS = 7 LOTS
P.	OPEN SPACE REQUIRED = 3.60 AC X 6X = 0.22 AC
Q.	OPEN SPACE PROVIDED = 0 AC. (FEE-IN-LIEU BEING PAID)

OPERATION & MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION (M-6)	
A.	THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A-1.1 AND 2.
B.	THE OWNER SHALL PERFORM A PLANT IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL, TREAT DISEASED TREES AND SHRUBS AND REPLACE ALL DEFICIENT STAKES AND WIRDS.
C.	THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
D.	THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.



## FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

STORMWATER MANAGEMENT PRACTICES			
LOT NO.	DRY WELLS (M-5) Y/N, NUMBER	MICRO-BIORETENTION (M-6) Y/N, NUMBER	RAIN GARDEN (M-7) Y/N, NUMBER
1	-	-	-
2	YES, TWO (2)	NO	NO
3	YES, TWO (2)	NO	NO
4	NO	NO	YES, ONE (1)
5	NO	NO	YES, ONE (1)
6	NO	YES, ONE (1)	NO
7	YES, TWO (2)	NO	NO
COMMON DRIVE	NO	YES, TWO (2)	NO



SECTION NUMBER	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR)					
		3 TO <5	5 TO <7	>7	3 TO <5	5 TO <7	>7
P-1	PARKING BAYS: RESIDENTIAL AND NON-RESIDENTIAL PARKING DRIVE ANGLES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 2 HEAVY TRUCKS PER DAY	PAVEMENT MATERIAL (INCHES)					
		MIN HMA WITH GAB					
		HMA WITH CONSTANT GAB					
		HMA SUPERPAVE FINAL SURFACE 9.5 MM, PG 64-22, LEVEL 1 (ESAL)					
		1.5	1.5	1.5	1.5	1.5	1.5
		HMA SUPERPAVE INTERMEDIATE SURFACE N/A					
		N/A	N/A	N/A	N/A	N/A	N/A
		HMA SUPERPAVE BASE 19.0 MM, PG 64-22, LEVEL 1 (ESAL)					
		2.0	2.0	2.0	3.5	3.0	2.5
		GRADED AGGREGATE BASE (GAB)					
		8.5	7.0	5.0	4.0	4.0	4.0

- ### 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 410-313-1880 AT LEAST (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.
  - THIS SUBMISSION PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE 2013 ZONING REGULATIONS. DEVELOPMENT OR CONSTRUCTION ON THESE LOTS OR PARCELS MUST COMPLY WITH SETBACKS AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF A SITE DEVELOPMENT PLAN.
  - COORDINATES BASED ON NAD83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 37 BA AND NO. 37 BC.  
 HOWARD COUNTY MONUMENT NO. 37BC N 563,795.615 E 1,376,343.290 ELEV. (NAVDB8) = 393.965  
 HOWARD COUNTY MONUMENT NO. 37BA N 563,666.307 E 1,378,054.921 ELEV. (NAVDB8) = 373.107
  - SUBJECT PROPERTY ZONED R-20 PER 10/06/13 COMPREHENSIVE ZONING PLAN.
  - BACKGROUND INFORMATION:
    - SUBDIVISION NAME: ROCKBURN MEADOWS
    - TAX MAP NO. 37
    - PARCELS NO. 211 & 641
    - ZONING R-20
    - ELECTION DISTRICT: FIRST
    - GROSS AREA OF TRACT = 3.60 ACRES (SWM BASED ON 3.06 AC.)
    - NUMBER OF BUILDABLE LOTS: 7
    - NUMBER OF OPEN SPACE LOTS: 0
    - AREA OF BUILDABLE LOTS: 3.52 ACRES
    - AREA OF OPEN SPACE LOTS: 0
    - AREA OF ROADWAY TO BE DEDICATED: 0.08 ACRES
    - PREVIOUS FILE NUMBERS: ECP-15-019, S0P-15-025, PB10 PG 96, ECP-17-067, SP-17-012, AND WP-18-029.
    - AREA OF FLOODPLAIN = 0
    - AREA OF 15% OR GREATER SLOPES = 0.46 ACRES (0 AC. 25% OR GREATER)
    - DEED REFERENCES: LIBER 1531 FOLIO 677 (6198 MONTGOMERY ROAD) & LIBER 15594, FOLIO 326 (5814 BELLANCA DRIVE).
  - OPEN SPACE REQUIREMENTS:
    - AREA OF OPEN SPACE REQUIRED = 3.60 X 6% = 0.22 ACRES
    - AREA OF OPEN SPACE PROVIDED = 0 AC (NOTE: A FEE-IN-LIEU OF OPEN SPACE IN THE AMOUNT OF \$7,500 WILL BE PAID ALONG WITH THIS FINAL PLAN)
  - NOISE STUDY IS NOT REQUIRED.
  - ALL FILL AREAS WITHIN ROADWAYS AND UNDER STRUCTURES SHALL BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF ASHTO T-180.
  - WATER AND SEWER ARE PUBLIC. EXTENSION TO BE MADE UNDER CONT# 14-5015-D.
  - SOILS INFORMATION TAKEN FROM SOIL SURVEY MAP NO. 19, HOWARD COUNTY, MARYLAND.
  - EXISTING WELL & SEPTIC SYSTEMS TO BE ABANDONED AND DOCUMENTATION SENT TO THE HEALTH DEPARTMENT PRIOR TO SIGNATURE APPROVAL ON THE PLAN.
  - EXISTING STRUCTURES LOCATED ON PARCEL 211 ARE TO BE RAZED AS SHOWN ON PLAN AND NEWLY CONSTRUCTED HOUSE AT 5814 BELLANCA DRIVE IS TO REMAIN.
  - BOUNDARY OUTLINE BASED ON FIELD RUN SURVEY PERFORMED BY FISHER, COLLINS, & CARTER, INC. DATED MAY, 2017.
  - EXISTING TOPOGRAPHY BASED ON FIELD RUN SURVEY BY FISHER, COLLINS & CARTER, INC. DATED MAY, 2017 AND SUPPLEMENTED WITH HOWARD COUNTY TOPOGRAPHY.
  - STORMWATER MANAGEMENT WILL BE PROVIDED IN ACCORDANCE WITH THE NEW MDE, CHAPTER 5 REGULATIONS AND THE NEW HOWARD COUNTY SWM MANUAL, ADOPTED ON OR AROUND MAY 4, 2010. RECHARGE VOLUME WILL BE PROVIDED THROUGH THE USE OF STONE BENEATH MICRO-BIORETENTION AND RAIN GARDENS. WATER QUALITY AND CHANNEL PROTECTION VOLUME WILL BE PROVIDED BY RAIN GARDENS, MICRO-BIORETENTION FACILITIES, AND DRY WELLS. OVERBANK FLOOD PROTECTION VOLUME AND EXTREME FLOOD VOLUMES ARE NOT REQUIRED FOR THIS SITE. THE STORMWATER MANAGEMENT FACILITIES WILL BE PRIVATELY OWNED & MAINTAINED BY THE PRIVATE HOMEOWNERS.
  - NO FLOODPLAIN, WETLANDS, STREAM, STREAM BUFFERS, OR 25% SLOPES OR GREATER EXIST ON-SITE.
  - THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY HARS GROUP DATED MAY, 2017.
  - THE FOREST CONSERVATION ACT REQUIREMENTS FOR THIS PROJECT WILL BE MET THROUGH USE OF A FOREST BANK TO MEET THE 1.54 AC.± REQUIREMENT FOR FOREST CONSERVATION PLAN AND FOREST MITIGATION BANK AT PARKME-TERRA-PHASE ONE (E-15-054), CATTAIL MEADOWS (SP-16-027)
  - SOIL BORING REPORT FOR THIS PROJECT WAS PREPARED BY FISHER, COLLINS, & CARTER, INC. DATED MAY, 2017.
  - THE FOREST STAND DELINEATION AND WETLAND DELINEATION FOR THIS PROJECT WAS PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. DATED JUNE, 2017.
  - THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
  - FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND THE ROAD R/W LINE AND NOT THE PIPESTEM LOT DRIVEWAY.
  - NO CEMETRIES EXIST WITHIN THIS SUBDIVISION.
  - AN HISTORIC STRUCTURE, STRUCTURE OVER 50 YEARS OLD, EXISTS ON-SITE AND IS PROPOSED TO BE DEMOLISHED. SUBDIVISION HAS BEEN TO HISTORIC PRESERVATION COMMISSION ON JUNE 1, 2017 FOR ADVISORY COMMENT WHERE THE HPC STATED THEY WANTED THE HOUSE TO REMAIN.
  - PERIMETER LANDSCAPE REQUIREMENTS IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL HAVE BEEN SHOWN. FINANCIAL SURETY WILL BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$6,250 FOR 20 SHADE TREES @ \$300 / TREE AND 15 EVERGREEN TREES @ \$150 / TREE.
  - TRAFFIC CONTROL DEVICES:
    - THE R1-1 ("STOP") SIGN AND THE STREET NAME SIGN (SNS) ASSEMBLY FOR THIS DEVELOPMENT MUST BE INSTALLED BEFORE THE BASE PAVING IS COMPLETE.
    - THE TRAFFIC CONTROL DEVICE LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MUST BE FIELD APPROVED BY HOWARD COUNTY TRAFFIC DIVISION (410-313-2430) PRIOR TO THE INSTALLATION OF ANY OF THE TRAFFIC CONTROL DEVICES.
    - ALL TRAFFIC CONTROL DEVICES AND THEIR LOCATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD).
    - ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT OF WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED ("QUICK PUNCH"), SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) - 3" LONG. THE ANCHOR SHALL NOT EXTEND MORE THAN TWO "QUICK PUNCH" HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
  - DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING (MINIMUM) REQUIREMENTS:
    - WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE)
    - SURFACE - SIX (6") INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING.
    - GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM OF 45 TURNING RADIUS.
    - STRUCTURES (CULVERTS/BRIDGES) CAPABLE OF SUPPORTING 25 GROSS TONS (H 25 LOADING).
    - DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
    - STRUCTURE CLEARANCES - MINIMUM 12 FEET.
    - MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE.
  - FOR THE USE IN COMMON DRIVEWAY FOR LOTS 2 - 7, A PRIVATE STREET SIGN ASSEMBLY SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DEVELOPER'S/OWNER'S EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-5752 FOR DETAILS AND COST ESTIMATE.
  - ALTERNATIVE COMPLIANCE APPLICATION, WP-18-029, WAS GRANTED APPROVAL OF THE ALTERNATIVE COMPLIANCE ON OCTOBER 18, 2017 TO SECTION 16.127(C)(4)(1), SECTION 16.127(C)(4)(B) AND SECTION 16.1209(a)(7). APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS:
    - LOTS 2-7 WILL BE REQUIRED TO UTILIZE A USE-IN-COMMON DRIVEWAY (LOT 2 IS DENIED A SEPARATE DRIVEWAY ENTRANCE ONTO BELLANCA DRIVE). THE EXISTING DRIVEWAY FOR LOT 1 WILL BE PERMITTED TO REMAIN.
    - THE FRONT SETBACK FOR LOT 2 SHALL BE ESTABLISHED AS 50' MINIMUM FROM THE BELLANCA DRIVE RIGHT-OF-WAY IN ACCORDANCE WITH THE "R-20" ZONING REGULATIONS. THE FRONT SETBACK FOR LOT 7 SHALL BE ESTABLISHED IN ACCORDANCE WITH SECTION 16.127(C)(4)(11).
    - THE APPROVAL OF THIS ALTERNATIVE COMPLIANCE REQUEST APPLIES ONLY TO THE FIVE (5) SPECIMEN TREES AS SHOWN TO BE REMOVED ON THE PLAN EXHIBIT. THE REMOVAL OF ANY OTHER SPECIMEN TREE ON THE SUBJECT PROPERTY IS NOT PERMITTED UNDER THIS REQUEST UNLESS IT CAN BE SUFFICIENTLY DEMONSTRATED BY THE APPLICANT TO BE JUSTIFIED.
    - THE DEVELOPER SHALL PLANT TEN (10) 2.5" MINIMUM-CALIPER NATIVE SHADE TREES IN ADDITION TO THE REQUIRED PERIMETER LANDSCAPING TO MITIGATE THE REMOVAL OF THE FIVE SPECIMEN TREES, INCLUDE THE ADDITIONAL TREES ON SP-17-012 AND ALL SUBSEQUENT PLANS. THESE TREES WILL BE BONDED ALONG WITH THE REQUIRED PERIMETER LANDSCAPING AS PART OF THE FINAL SUBDIVISION PLAN.
  - THE PLANNING DIRECTOR DENIED THE ALTERNATIVE COMPLIANCE TO SECTION 16.132(A)(2)(i), SECTION 16.134(A)(1) AND SECTION 16.136. BASED ON THE FOLLOWING:
    - THE DEVELOPER WILL BE REQUIRED TO CONSTRUCT ROAD IMPROVEMENTS ALONG THE MONTGOMERY ROAD AND BELLANCA DRIVE FRONTAGES IN ACCORDANCE WITH SECTION 16.132 OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, THE DESIGN MANUAL AND THE ATTACHED DEVELOPMENT ENGINEERING DIVISION COMMENTS DATED SEPTEMBER 19, 2017.
    - THE DEVELOPER SHALL BE REQUIRED TO CONSTRUCT SIDEWALK ON BELLANCA DRIVE ALONG THE FRONTAGE OF PROPOSED LOT 2 NORTHWARD TO THE INTERSECTION AT MONTGOMERY ROAD. RAMPAS SHALL BE CONSTRUCTED TO PROVIDE ACCESS TO EXISTING SIDEWALK LOCATED ON MONTGOMERY ROAD AND GARDENVIEW DRIVE. THE CONTINUATION OF THE SIDEWALK IS NECESSARY TO PROVIDE SAFE PEDESTRIAN TRAVEL AND TO COMPLETE A SIDEWALK SYSTEM LEADING TO THE ROCKBURN ELEMENTARY SCHOOL LOCATED DIRECTLY ACROSS MONTGOMERY ROAD FROM THIS SUBDIVISION. REFER TO THE ATTACHED COMMENTS FROM THE DEVELOPMENT ENGINEERING DIVISION AND OFFICE OF TRANSPORTATION.
    - THE DEVELOPER WILL BE REQUIRED TO PROVIDE STREET TREES IN ACCORDANCE WITH SECTION 16.136 OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. STREET LIGHTING WILL BE EVALUATED FOR COMPLIANCE WITH SECTION 16.135 AS PART OF THE FINAL SUBDIVISION PLAN.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Karl A. DeLoach*  
 Chief, Division of Land Development  
 11-26-18  
 Date

APPROVED: DEPARTMENT OF PUBLIC WORKS

*Walter A. Mayer*  
 Chief, Bureau of Highways  
 10-19-18  
 Date

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL SQUARE OFFICE PARK - 10722 BALTIMORE NATIONAL PARK  
 ELLICOTT CITY, MARYLAND 21142  
 (410) 461-2000

**OWNER**  
 TRACEY R FUHR  
 5814 BELLANCA DRIVE  
 ELK RIDGE, MD, 21075

**DEVELOPER**  
 MG LAND HOLDINGS, LLC  
 4652 SHEPPARD LANE  
 ELLICOTT CITY, MD 21042  
 410-409-0333

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

*Stephen J. Junt*  
 Signature of Professional Engineer  
 DATE 9/13/18

**PROFESSIONAL CERTIFICATION**

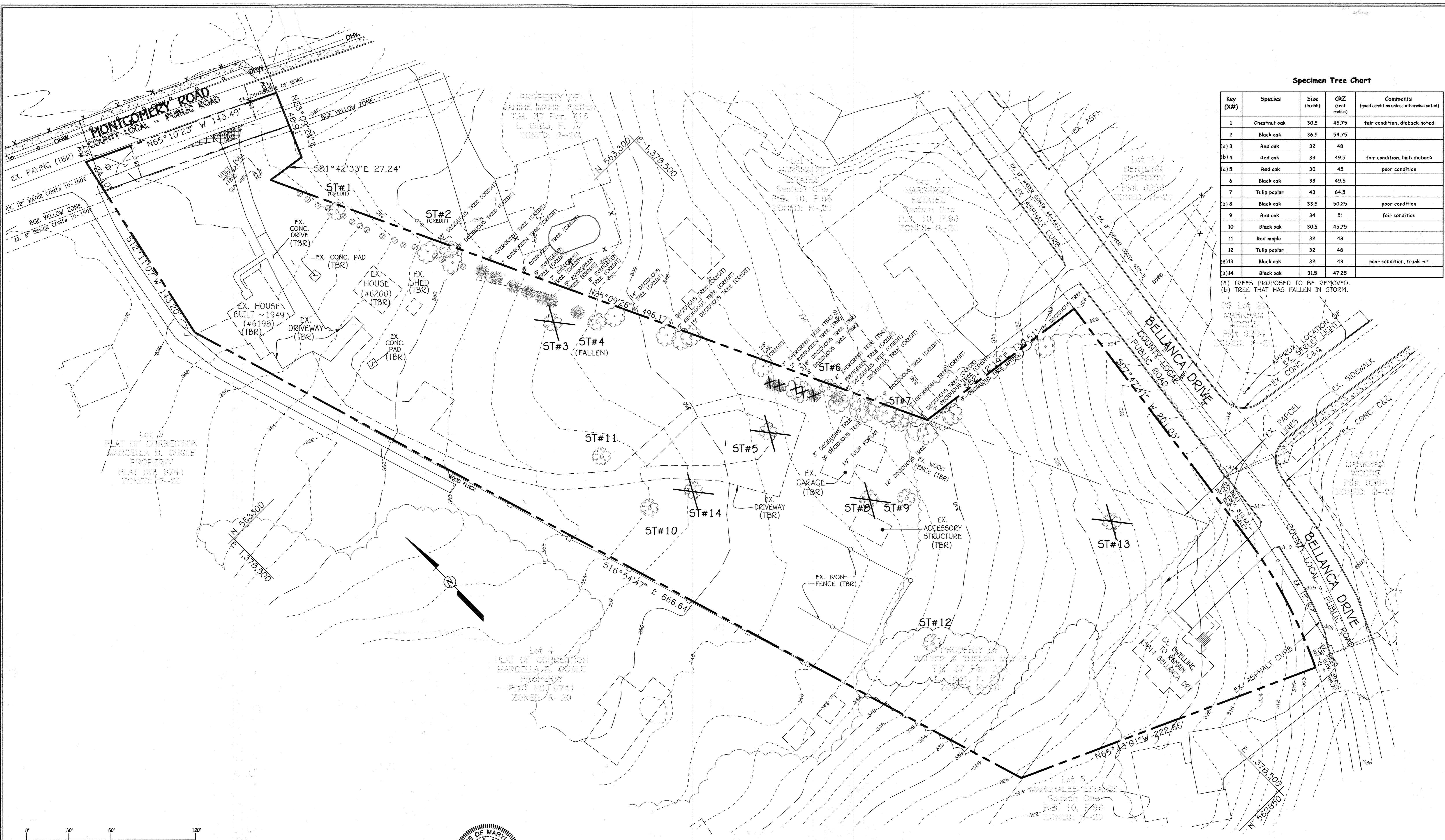
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 36306, EXPIRATION DATE: 01/12/2020.

*Stephen J. Junt*  
 Signature of Professional Engineer  
 DATE 9/13/18

STATE OF MARYLAND  
 PROFESSIONAL ENGINEER  
 LICENSE NO. 36306

**TITLE SHEET**  
**ROCK BURN MEADOWS**  
 LOTS 1 THRU 7  
 ZONED R-20  
 TAX MAP No. 37 GRID No. 05 PARCEL No. 211 & 641  
 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 SCALE: AS SHOWN DATE: JULY, 2018  
 SHEET 1 OF 10  
 F-18-093

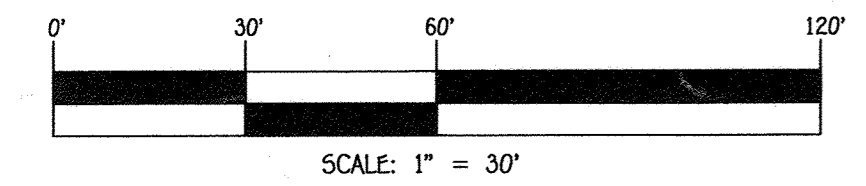




**Specimen Tree Chart**

Key (X#)	Species	Size (in.d.b.h)	CRZ (feet radius)	Comments (good condition unless otherwise noted)
1	Chestnut oak	30.5	45.75	fair condition, dieback noted
2	Black oak	36.5	54.75	
a)3	Red oak	32	48	
b)4	Red oak	33	49.5	fair condition, limb dieback
a)5	Red oak	30	45	poor condition
6	Black oak	33	49.5	
7	Tulip poplar	43	64.5	
a)8	Black oak	33.5	50.25	poor condition
9	Red oak	34	51	fair condition
10	Black oak	30.5	45.75	
11	Red maple	32	48	
12	Tulip poplar	32	48	
a)13	Black oak	32	48	poor condition, trunk rot
a)14	Black oak	31.5	47.25	

(a) TREES PROPOSED TO BE REMOVED.  
 (b) TREE THAT HAS FALLEN IN STORM.



**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
 ELICOTT CITY, MARYLAND 21042  
 (410) 431-2295

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Karl C. ...*  
 Chief, Division of Land Development  
 Date: 11-26-18

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Chad ...*  
 Chief, Development Engineering Division  
 Date: 10-19-18

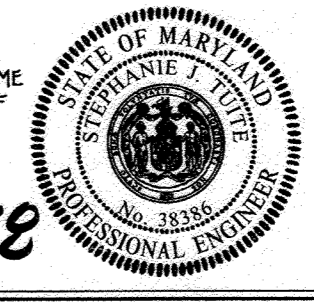
**THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET**

APPROVED: BUREAU OF HIGHWAYS  
*...*  
 CHIEF, BUREAU OF HIGHWAYS  
 DATE: 10/11/2018

**OWNER**  
 TRACEY R. FUHR  
 5814 BELLANCA DRIVE  
 ELK RIDGE, MD, 21075

**DEVELOPER**  
 MG LAND HOLDINGS, LLC  
 4652 SHEPARD LANE  
 ELICOTT CITY, MD 21042  
 410-409-0333

**PROFESSIONAL CERTIFICATION**  
 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. 38386, EXPIRATION DATE: 01/12/2020.  
*Stephan ...*  
 Signature of Professional Engineer  
 DATE: 9/13/18



**DEMOLITION PLAN**  
**ROCKBURN MEADOWS**  
 LOTS 1 THRU 7  
 ZONED R-20  
 TAX MAP No. 37 GRID No. 05 PARCEL No. 211 & 641  
 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 SCALE: AS SHOWN DATE: JULY, 2018  
 SHEET 2 OF 10 F-18-093

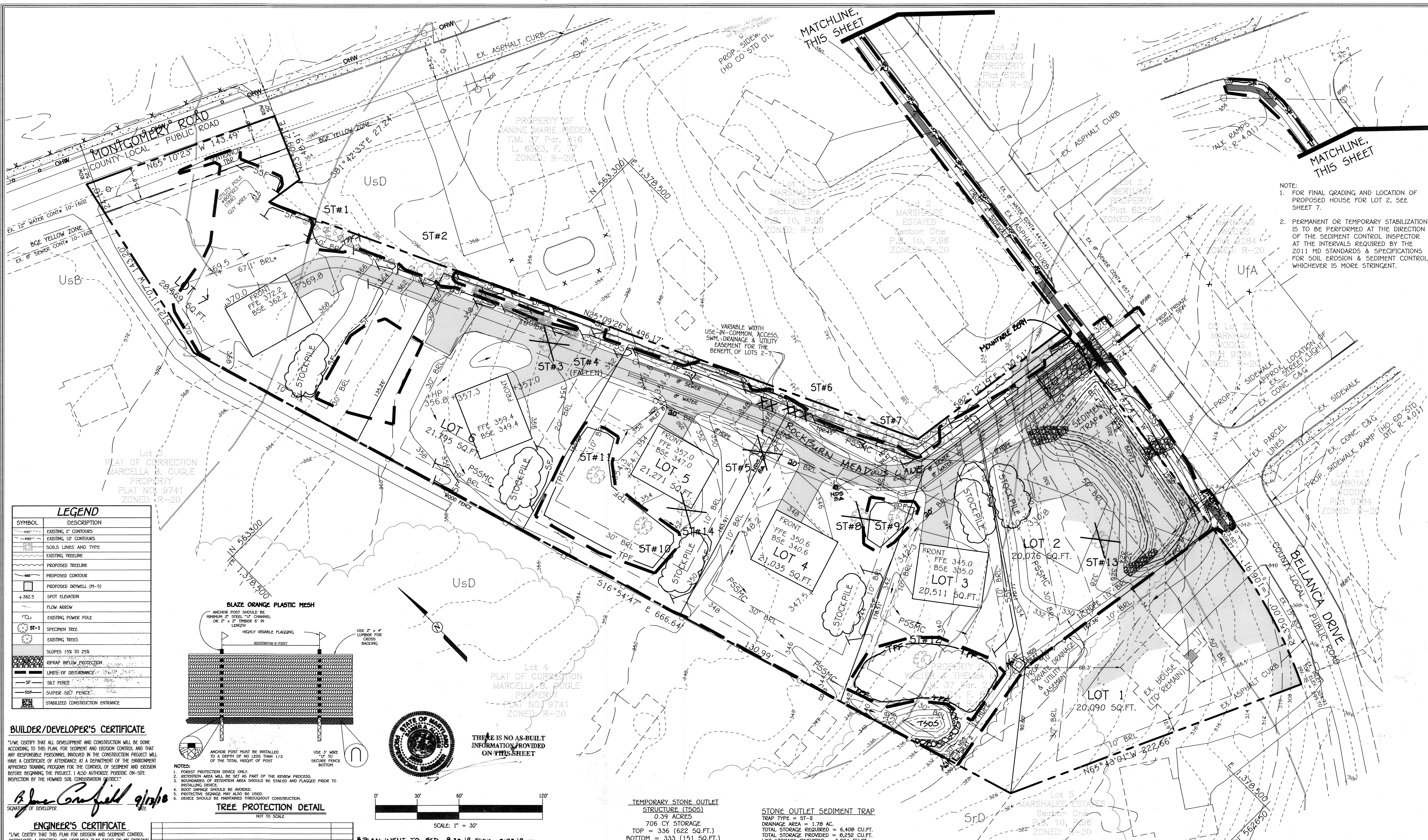






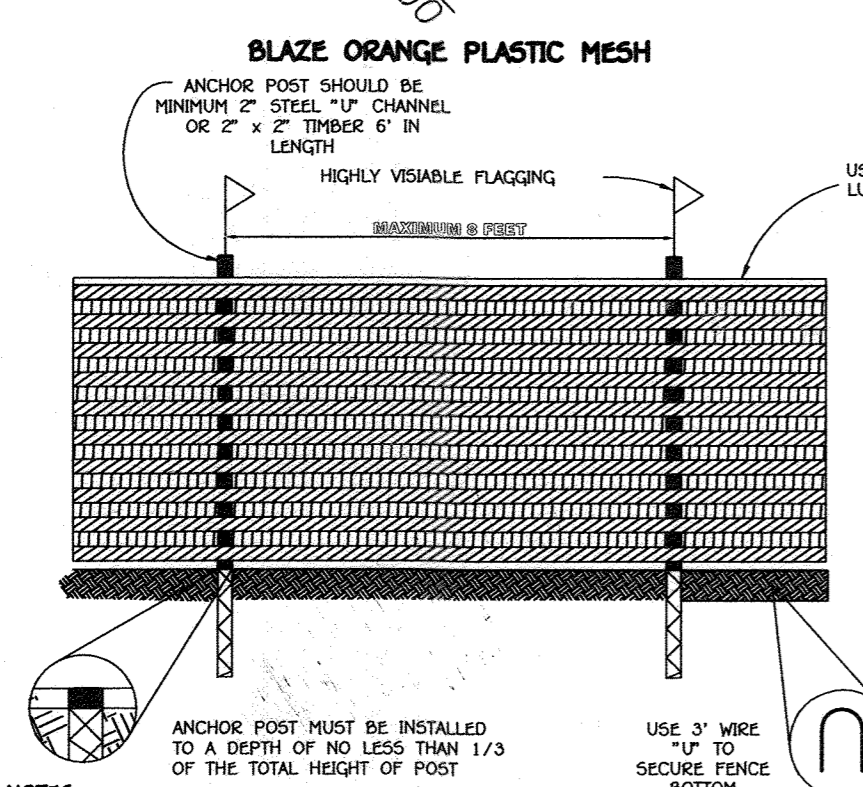






NOTE:  
 1. FOR FINAL GRADING AND LOCATION OF PROPOSED HOUSE FOR LOT 2, SEE SHEET 7.  
 2. PERMANENT OR TEMPORARY STABILIZATION IS TO BE PERFORMED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR AT THE INTERVALS REQUIRED BY THE 2011 MD STANDARDS & SPECIFICATIONS FOR SOIL EROSION & SEDIMENT CONTROL WHICHEVER IS MORE STRINGENT.

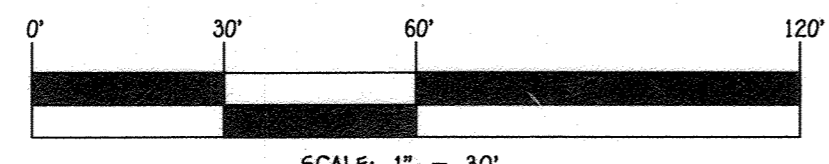
LEGEND	
SYMBOL	DESCRIPTION
	EXISTING 2' CONTOURS
	EXISTING 10' CONTOURS
	SOILS LINES AND TYPE
	EXISTING TREE LINE
	PROPOSED TREE LINE
	PROPOSED CONTOUR
	PROPOSED DRYWELL (M-5)
	SPOT ELEVATION
	FLOW ARROW
	EXISTING POWER POLE
	SPECIMEN TREE
	EXISTING TREES
	SLOPES 15% TO 25%
	RIPPRAP INFLOW PROTECTION
	LIMITS OF DISTURBANCE
	SILT FENCE
	SUPER SILT FENCE
	STABILIZED CONSTRUCTION ENTRANCE



NOTES:  
 1. FOREST PROTECTION DEVICE ONLY.  
 2. RETENTION AREA WILL BE SET AS PART OF THE SEDIMENT PROCESS.  
 3. BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE.  
 4. ROOT DAMAGE SHOULD BE AVOIDED.  
 5. PROTECTIVE SIGNAGE MAY ALSO BE USED.  
 6. DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.



THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET



**BUILDER/DEVELOPER'S CERTIFICATE**  
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL 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 ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 Signature: *Blue Crawford* 9/13/18  
 DATE: 9/13/18

**ENGINEER'S CERTIFICATE**  
 I/WE CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.  
 Signature: *Andrew Lantz* 9/13/18  
 DATE: 9/13/18

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 Signature: *Walter Mayer* 9/13/18  
 DATE: 9/13/18  
 Signature: *Paul Umh* 10-19-18  
 DATE: 10-19-18

\*PLAN WENT TO SCD 9-20-18 THRU 9-20-18  
 THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 APPROVED:  
 Signature: *John R. Roberts* 4/2/18  
 DATE: 4/2/18  
 APPROVED: DEPARTMENT OF PUBLIC WORKS  
 Signature: *[Signature]* 10/1/2018  
 DATE: 10/1/2018

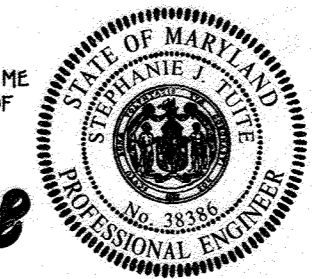
**OWNER**  
 TRACEY R. FUHR  
 5814 BELLANCA DRIVE  
 ELK RIDGE, MD, 21075

**DEVELOPER**  
 WALTER A. MAYER  
 4692 SHEPARD LANE  
 6198 MONTGOMERY RD  
 ELK RIDGE, MD, 21075

**TEMPORARY STONE OUTLET STRUCTURE (TS05)**  
 0.39 ACRES  
 706 CY STORAGE  
 TOP = 336 (622 SQ.FT.)  
 BOTTOM = 333 (151 SQ.FT.)

**STONE OUTLET SEDIMENT TRAP**  
 TRAP TYPE = ST-II  
 DRAINAGE AREA = 1.78 AC.  
 TOTAL STORAGE REQUIRED = 6,400 CU.FT.  
 TOTAL STORAGE PROVIDED = 8,252 CU.FT.  
 WET STORAGE REQUIRED = 3,204 CU.FT.  
 WET STORAGE PROVIDED = 4,091 CU.FT. @ 318.75  
 DRY STORAGE REQUIRED = 3,204 CU.FT.  
 DRY STORAGE PROVIDED = 4,195 CU.FT. @ 320.00  
 EXISTING GROUND ELEV. AT OUTLET = 317.5  
 BOTTOM OF TRAP DIMENSIONS = 16 FT x 112 FT  
 WEIR LENGTH = 20 FT  
 WEIR CREST ELEV. = 320.00  
 CLEANOUT ELEV. = 317.00  
 TOP OF EMBANKMENT = 321.00  
 SIDE SLOPES = 2:1  
 EMBANKMENT WIDTH = 4 FT  
 EMBANKMENT HEIGHT = 4 FT  
 OUTLET PROTECTION APRON LENGTH = 12 FT  
 OUTLET PROTECTION DEPTH = 19 INCHES

**PROFESSIONAL CERTIFICATION**  
 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. 38386, EXPIRATION DATE: 01/12/2020.  
 Signature: *Andrew Lantz* 9/13/18  
 DATE: 9/13/18



**GRADING & SEDIMENT CONTROL PLAN**  
**ROCKBURN MEADOWS**  
 LOTS 1 THRU 7  
 ZONED R-20  
 TAX MAP No. 37 GRID No. 05 PARCEL No. 211 & 641  
 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 SCALE: AS SHOWN DATE: JULY, 2018  
 SHEET 5 OF 10 F-18-093



SOILS LEGEND			
SOIL	NAME	CLASS	KW
SfB	Sassafras gravelly sandy loam, 2 to 5 percent slopes	B	0.24
SrD	Sassafras and Croom soils, 10 to 15 percent slopes	B	0.37
UfA	Urban land-Fallsington complex, 0 to 2 percent slopes	D	-
UsB	Urban land-Sassafras-Beltville complex, 0 to 5 percent slopes	D	-
UsD	Urban land-Sassafras-Beltville complex, 5 to 1 percent slopes	D	-

SAVAGE NE PAGE (19)

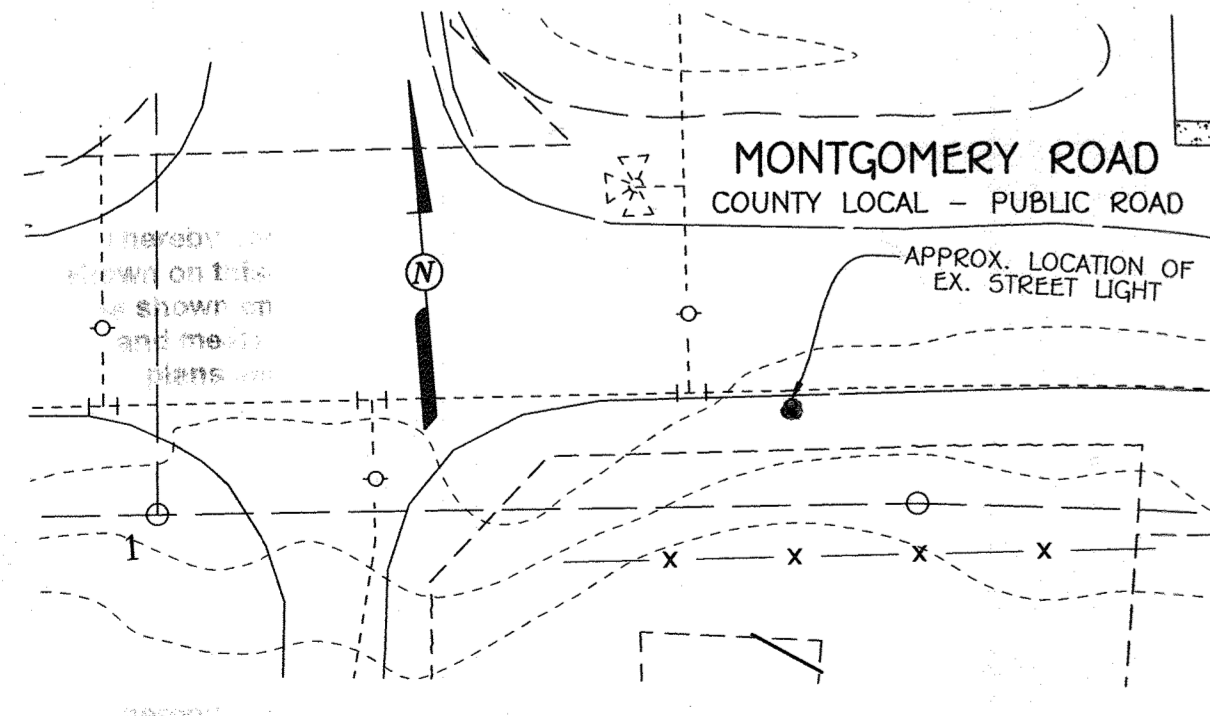
**DRAINAGE AREA INFORMATION**

STR #	AREA	C FACTOR	Tc
EX I-3	0.06 AC	0.87	10 MIN.
EX I-4	0.96 AC	0.30	10 MIN.
EX I-5	0.59 AC	0.32	10 MIN.
EX I-6	3.54 AC	0.36	10 MIN.
NDS1	0.24 AC	0.44	10 MIN.
NDS2	0.24 AC	0.44	10 MIN.
NDS3	0.05 AC	0.28	10 MIN.

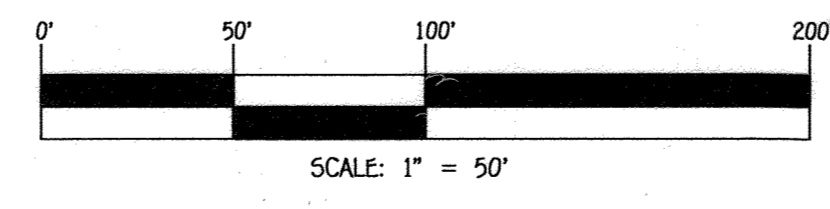
HOWARD COUNTY DEPT OF RECREATION & PARKS  
1M 31 PARCEL 235  
ROCKBURN BRANCH PARK  
PLAT NO. 14461  
ZONED: R-20

LEGEND	
SYMBOL	DESCRIPTION
	EXISTING 2' CONTOURS
	EXISTING 10' CONTOURS
	SOILS LINES AND TYPE
	EXISTING TREELINE
	INDIVIDUAL TREES & SHRUBS
	EXISTING FENCE LINE
	EXISTING & PROPOSED PAVING
	PROPOSED TREELINE
	PROPOSED CONTOUR
	SPOT ELEVATION

I hereby certify that the facility shown on this plan was constructed as shown on the 'As-Built' plans and meets with the approved plans and specifications.



NO	REVISION	DATE
2	ADD SWM AS-BUILT INFO	OCT 2022
1	ELIMINATE C/68, REPLACE IPT W/NDS 8A, REPLACE C/OT W/NDS 3A	3/26/19



**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SQUARE OFFICE PARK - 10722 BALDOR NATIONAL PARK  
ELK RIDGE CITY, MARYLAND 21042  
410.461.2995

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Karl D. Duvall*  
Chief, Division of Land Development  
Date: 11-26-18

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Chad E. Smith*  
Chief, Development Engineering Division  
Date: 10-19-18

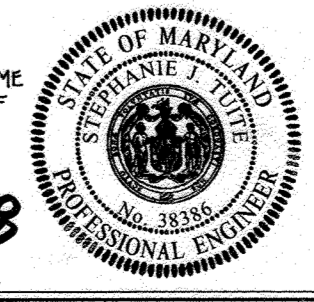
APPROVED: DEPARTMENT OF PUBLIC WORKS  
*James*  
CHIEF, BUREAU OF HIGHWAYS  
Date: 10/11/2018

**OWNER**  
TRACEY R. FUHR  
5014 BELLANCA DRIVE  
ELK RIDGE, MD, 21075

**DEVELOPER**  
WALTER A. MAYER  
THELMA T. MAYER  
6190 MONTGOMERY RD  
ELK RIDGE, MD, 21075

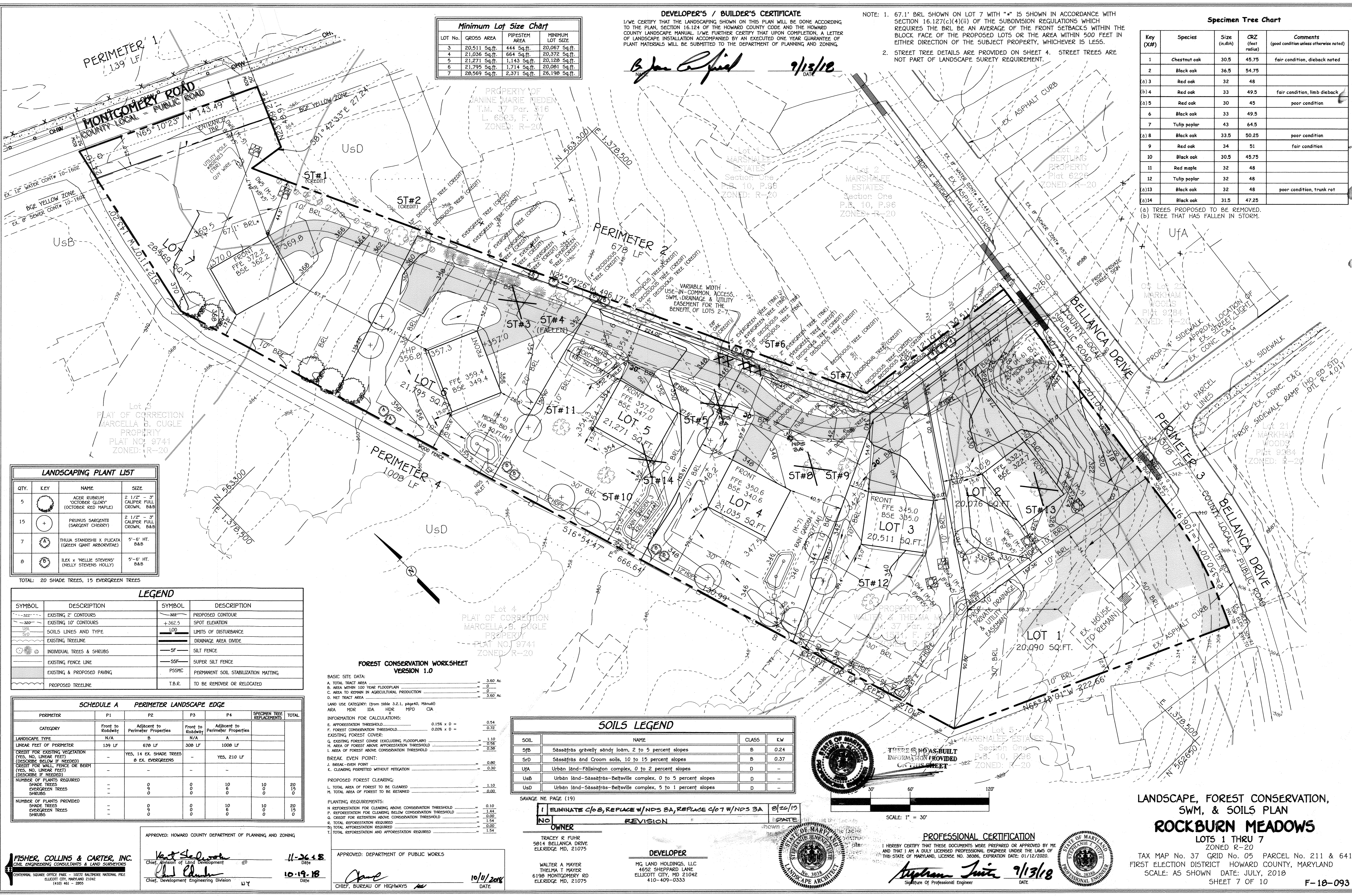
**DEVELOPER**  
MG LAND HOLDINGS, LLC  
4692 SHEPPARD LANE  
ELLCOTT CITY, MD 21042  
410-409-0333

**PROFESSIONAL CERTIFICATION**  
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. 36386, EXPIRATION DATE: 01/12/2020.  
*Stephen J. Fitch*  
Signature of Professional Engineer  
Date: 9/13/18



**INLET DRAINAGE AREA MAP**  
**ROCKBURN MEADOWS**  
LOTS 1 THRU 7  
ZONED R-20  
TAX MAP No. 37 GRID No. 05 PARCEL No. 211 & 641  
FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
SCALE: AS SHOWN DATE: JULY, 2018  
SHEET 6 OF 10 F-18-093





LOT No.	GROSS AREA	PIPESTEM AREA	MINIMUM LOT SIZE
3	20,511 Sq.ft.	444 Sq.ft.	20,067 Sq.ft.
4	21,036 Sq.ft.	664 Sq.ft.	20,372 Sq.ft.
5	21,271 Sq.ft.	1,143 Sq.ft.	20,128 Sq.ft.
6	21,795 Sq.ft.	1,714 Sq.ft.	20,081 Sq.ft.
7	28,569 Sq.ft.	2,371 Sq.ft.	26,198 Sq.ft.

**DEVELOPER'S / BUILDER'S CERTIFICATE**  
 I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, 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.

*Tracy R. Fuhr* 9/13/18  
 DATE

NOTE: 1. 67.1' BRL SHOWN ON LOT 7 WITH "\*" IS SHOWN IN ACCORDANCE WITH SECTION 16.127(c)(4)(ii) OF THE SUBDIVISION REGULATIONS WHICH REQUIRES THE BRL BE AN AVERAGE OF THE FRONT SETBACKS WITHIN THE BLOCK FACE OF THE PROPOSED LOTS OR THE AREA WITHIN 500 FEET IN EITHER DIRECTION OF THE SUBJECT PROPERTY, WHICHEVER IS LESS.  
 2. STREET TREE DETAILS ARE PROVIDED ON SHEET 4. STREET TREES ARE NOT PART OF LANDSCAPE SURETY REQUIREMENT.

Key (X#)	Species	Size (at B&B)	CRZ (feet radius)	Comments (good condition unless otherwise noted)
1	Chestnut oak	30.5	45.75	fair condition, dieback noted
2	Black oak	36.5	54.75	
(a) 3	Red oak	32	48	
(b) 4	Red oak	33	49.5	fair condition, limb dieback
(a) 5	Red oak	30	45	poor condition
6	Black oak	33	49.5	
7	Tulip poplar	43	64.5	
(a) 8	Black oak	33.5	50.25	poor condition
9	Red oak	34	51	fair condition
10	Black oak	30.5	45.75	
11	Red maple	32	48	
12	Tulip poplar	32	48	
(a) 13	Black oak	32	48	poor condition, trunk rot
(a) 14	Black oak	31.5	47.25	

(a) TREES PROPOSED TO BE REMOVED.  
 (b) TREE THAT HAS FALLEN IN STORM.

QTY.	KEY	NAME	SIZE
5	(Symbol)	ACER RUBRUM 'OCTOBER GLORY' (OCTOBER RED MAPLE)	2 1/2" - 3" CALIPER FULL CROWN, B&B
15	(Symbol)	PRUNUS SARGENTII (SARGENT CHERRY)	2 1/2" - 3" CALIPER FULL CROWN, B&B
7	(Symbol)	THUJA STANDISHII X PLICATA (GREEN GIANT ARBORVITAE)	5'-6" HT. B&B
8	(Symbol)	ILEX X 'NELLIE STEVENS' (NELLIE STEVENS HOLLY)	5'-6" HT. B&B

TOTAL: 20 SHADE TREES, 15 EVERGREEN TREES

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
(Symbol)	EXISTING 2' CONTOURS	(Symbol)	PROPOSED CONTOUR
(Symbol)	EXISTING 10' CONTOURS	(Symbol)	SPOT ELEVATION
(Symbol)	SOILS LINES AND TYPE	(Symbol)	LIMITS OF DISTURBANCE
(Symbol)	EXISTING TREELINE	(Symbol)	DRAINAGE AREA DIVIDE
(Symbol)	INDIVIDUAL TREES & SHRUBS	(Symbol)	SILT FENCE
(Symbol)	EXISTING FENCE LINE	(Symbol)	SUPER SILT FENCE
(Symbol)	EXISTING & PROPOSED PAVING	(Symbol)	PERMANENT SOIL STABILIZATION MATTING
(Symbol)	PROPOSED TREELINE	(Symbol)	TO BE REMOVED OR RELOCATED

PERIMETER	P1	P2	P3	P4	SPECIMEN TREE REPLACEMENTS	TOTAL
LANDSCAPE TYPE	N/A	B	N/A	A		
LINEAR FEET OF PERIMETER	139 LF	678 LF	308 LF	1008 LF		
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)		YES, 14 EX. SHADE TREES		YES, 210 LF		
CREDIT FOR WALL, FENCE OR BERR (YES, NO, LINEAR FEET)		8 EX. EVERGREENS				
CREDIT FOR NEARBY TREES (YES, NO, LINEAR FEET)						
NUMBERS OF PLANTS REQUIRED						
SHADE TREES	0	0	0	10	10	20
EVERGREEN TREES	0	9	0	6	0	15
SHRUBS	0	0	0	0	0	0
NUMBERS OF PLANTS PROVIDED						
SHADE TREES	0	9	0	10	10	20
EVERGREEN TREES	0	9	0	6	0	15
SHRUBS	0	0	0	0	0	0

**FOREST CONSERVATION WORKSHEET VERSION 1.0**

BASIC SITE DATA:		
A. TOTAL TRACT AREA	3.60	Ac
B. AREA WITHIN 100 YEAR FLOODPLAIN	0	
C. AREA TO REMAIN IN AGRICULTURAL PRODUCTION	0	
D. NET TRACT AREA	3.60	Ac
LAND USE CATEGORY: (from table 3.2.1, page 40, Manual)		
AREA	MDR	IDA HDR MPD CIA
INFORMATION FOR CALCULATIONS:		
E. AFFORESTATION THRESHOLD	0.15% x D =	0.54
F. FOREST CONSERVATION THRESHOLD	0.20% x D =	0.72
EXISTING FOREST COVER:		
G. EXISTING FOREST COVER (EXCLUDING FLOODPLAIN)		1.10
H. AREA OF FOREST ABOVE AFFORESTATION THRESHOLD		0.56
I. AREA OF FOREST ABOVE CONSERVATION THRESHOLD		0.36
BREAK-EVEN POINT:		
J. BREAK-EVEN POINT		0.80
K. CLEARING PERMITTED WITHOUT MITIGATION		0.30
PROPOSED FOREST CLEARING:		
L. TOTAL AREA OF FOREST TO BE CLEARED	1.10	
M. TOTAL AREA OF FOREST TO BE RETAINED	0.00	
PLANTING REQUIREMENTS:		
N. REFORESTATION FOR CLEARING ABOVE CONSERVATION THRESHOLD	0.10	
P. REFORESTATION FOR CLEARING BELOW CONSERVATION THRESHOLD	1.54	
Q. CREDIT FOR RETENTION ABOVE CONSERVATION THRESHOLD	0.00	
R. TOTAL REFORESTATION REQUIRED	1.54	
S. TOTAL REFORESTATION REQUIRED	0.00	
T. TOTAL REFORESTATION AND AFFORESTATION REQUIRED	1.54	

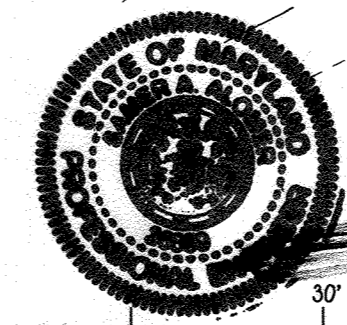
SOIL	NAME	CLASS	KW
SfB	Sassafras gravelly sandy loam, 2 to 5 percent slopes	B	0.24
SfD	Sassafras and Croom soils, 10 to 15 percent slopes	B	0.37
UJA	Urban land-Fallsington complex, 0 to 2 percent slopes	D	-
UsB	Urban land-Sassafras-Beltsville complex, 0 to 5 percent slopes	D	-
UsD	Urban land-Sassafras-Beltsville complex, 5 to 1 percent slopes	D	-

SAVAGE NE PAGE (19)  
 1 ELIMINATE C108, REPLACE W/ NPS 8A, REPLACE C107 W/ NPS 3A 8/20/18  
 NO REVISION DATE

**OWNER**  
 TRACEY & FUHR  
 5814 BELLANCA DRIVE  
 ELK RIDGE, MD, 21075

**DEVELOPER**  
 WALTER A. MAYER  
 THELMA T. MAYER  
 6199 MONTGOMERY RD  
 ELK RIDGE, MD, 21075

**MG LAND HOLDINGS, LLC**  
 4652 SHEPPARD LANE  
 ELLICOTT CITY, MD 21042  
 410-409-0333

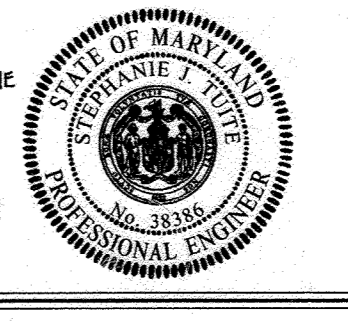


THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET

**PROFESSIONAL CERTIFICATION**

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. 38386, EXPIRATION DATE: 01/12/2020.

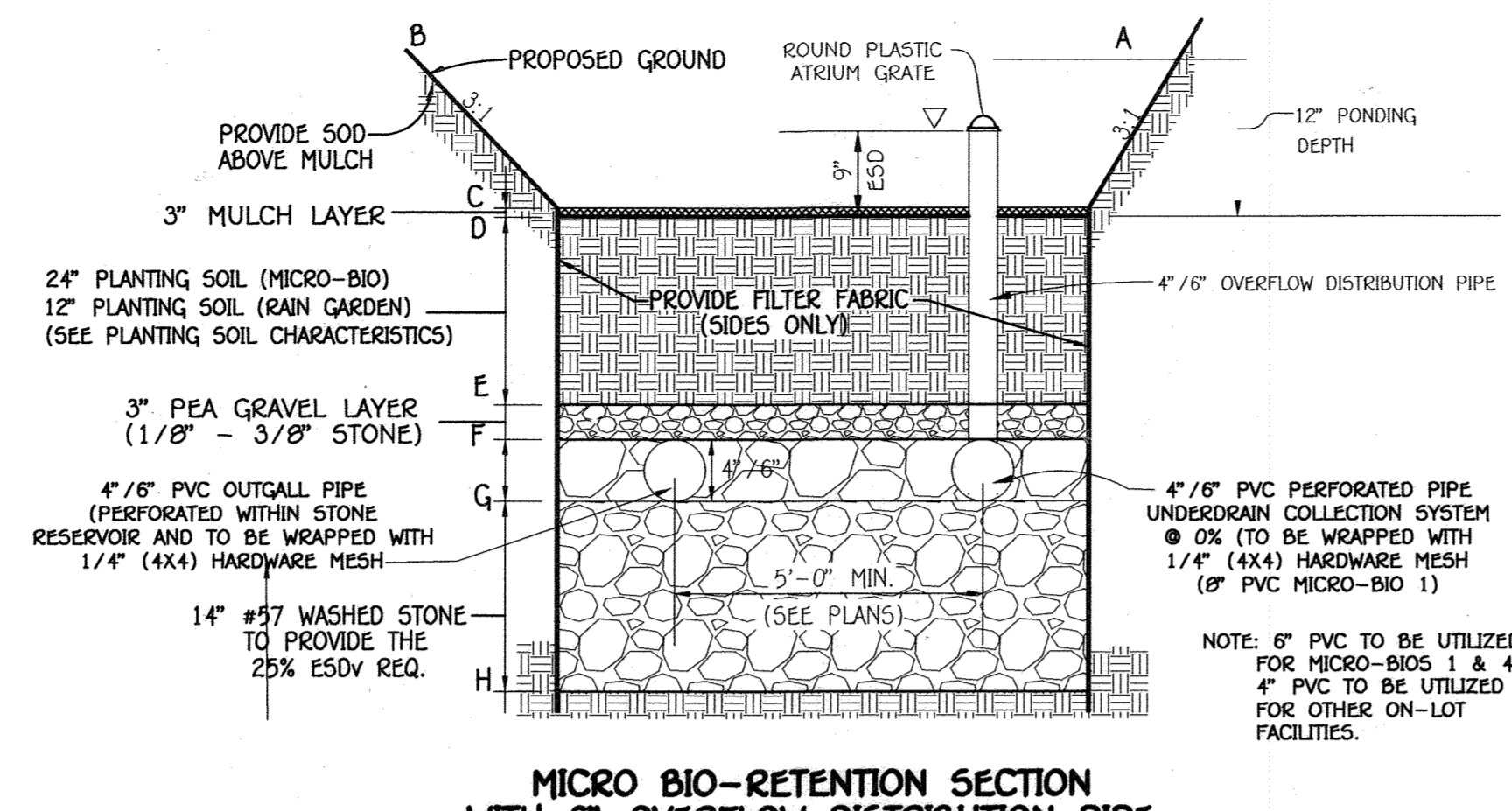
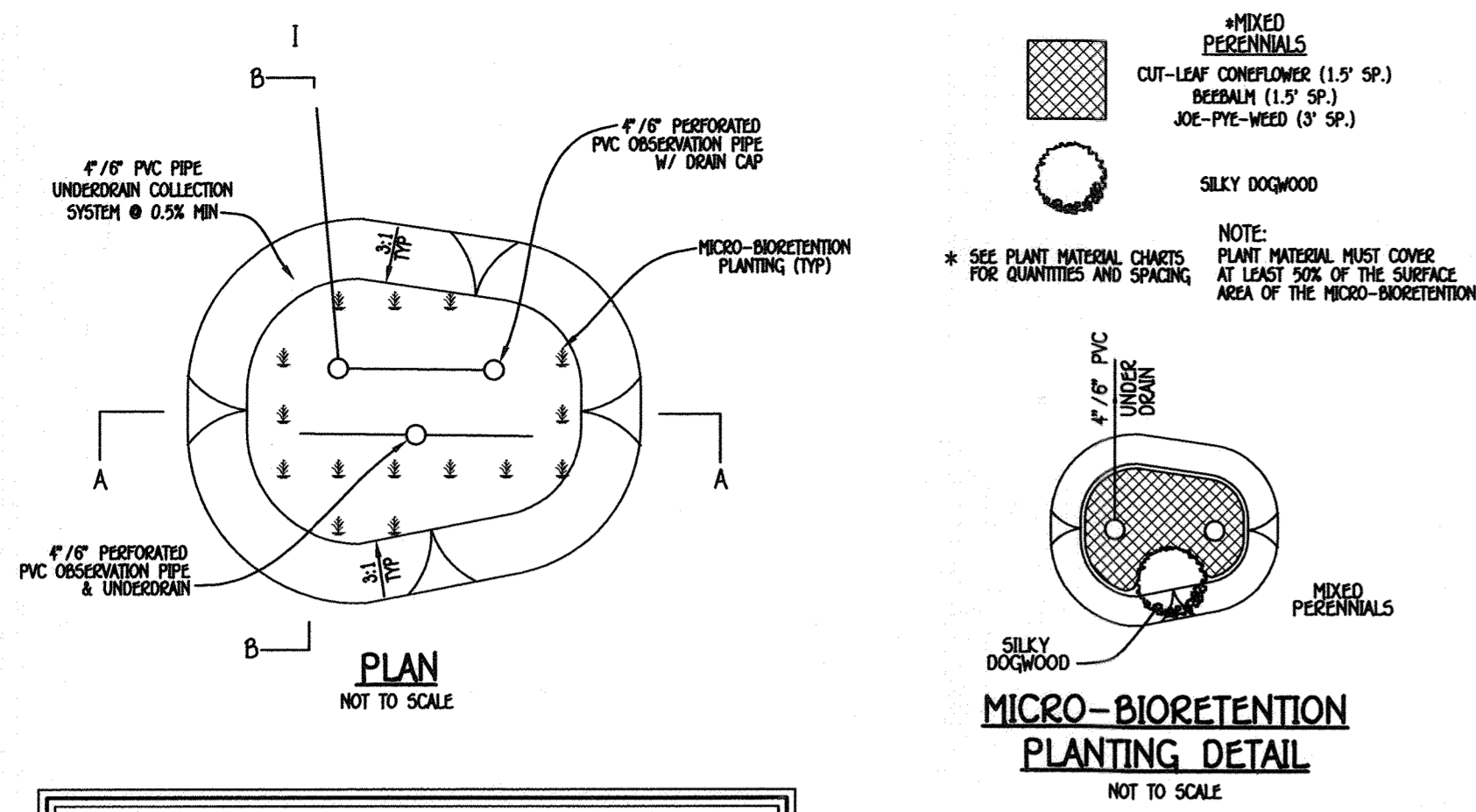
*Stephen J. Jurek* 9/13/18  
 DATE



**LANDSCAPE, FOREST CONSERVATION, SWM, & SOILS PLAN**  
**ROCKBURN MEADOWS**  
 LOTS 1 THRU 7  
 ZONED R-20  
 TAX MAP No. 37 GRID No. 05 PARCEL No. 211 & 641  
 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 SCALE: AS SHOWN DATE: JULY, 2018  
 SHEET 7 OF 10 F-18-093

11/20/2017 10:17:07 Engineering Design (Final) 17017-3001 Final Road Plans.dwg 07-LP035.11



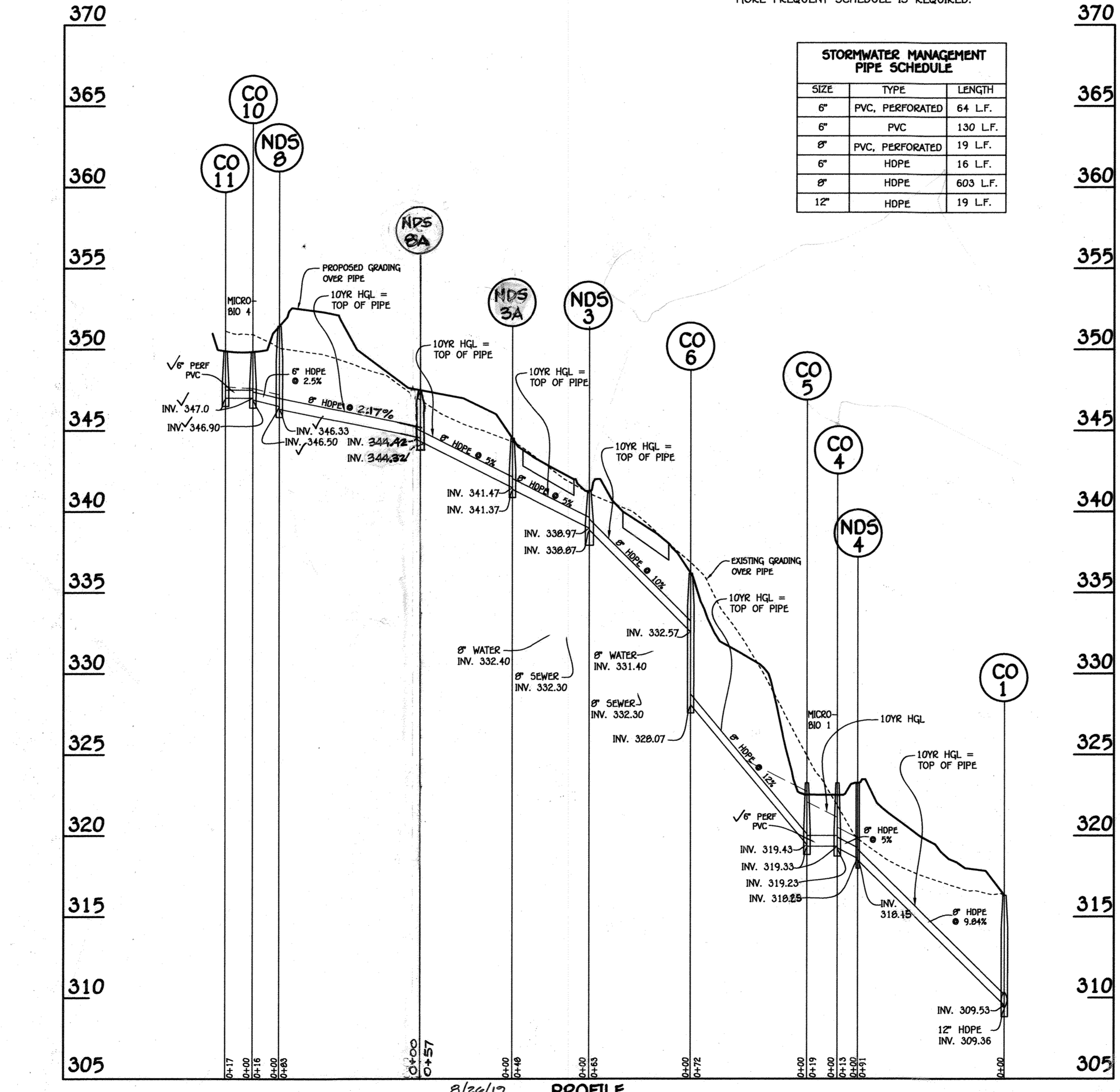
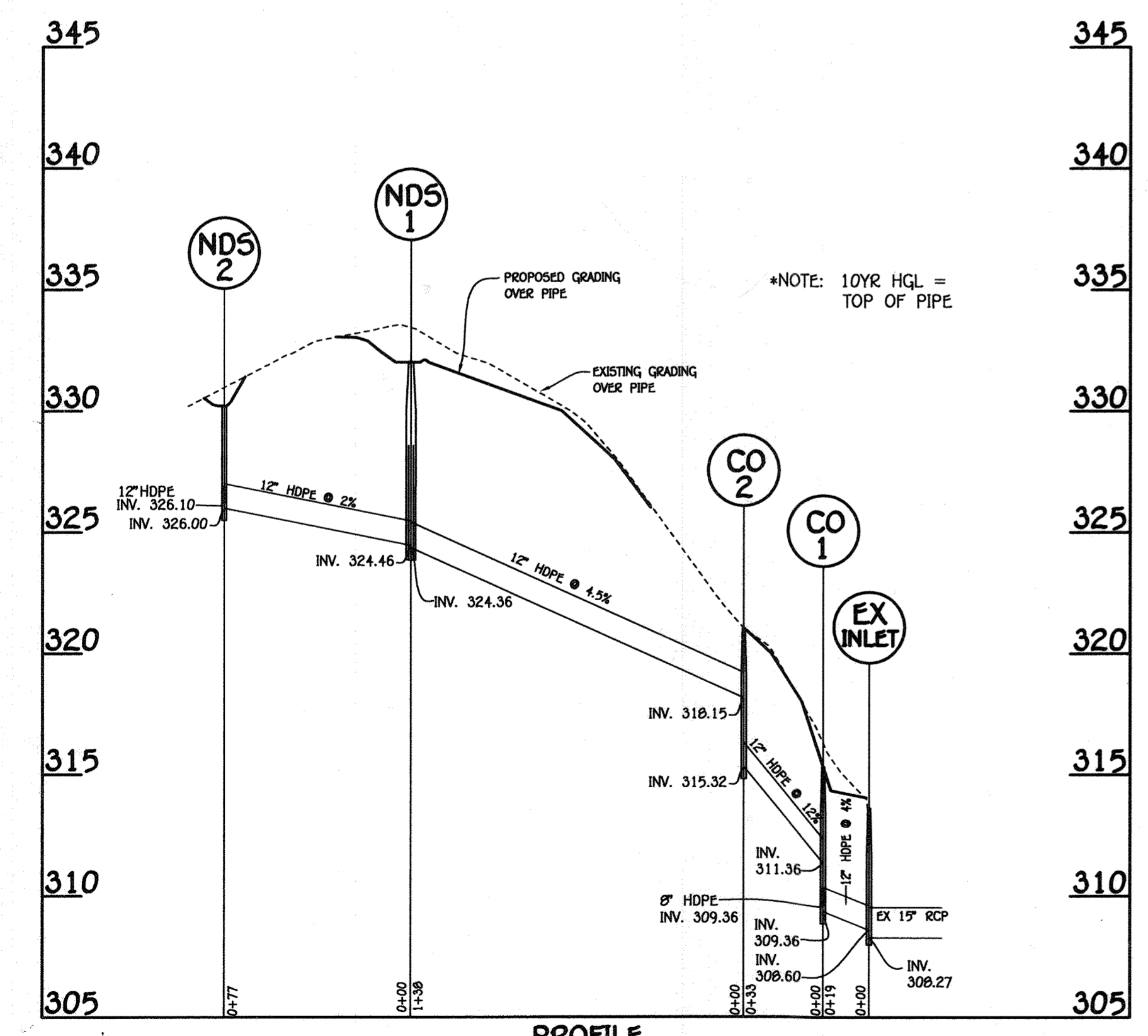


MICRO-BIO/RAIN GARDEN FILTER	A	B	C	D	E	F	G	H	I
#1	323.50	323.50	322.50	322.25	320.25	320.00	319.33	318.33	318.16
#2	345.50	345.50	345.00	344.75	343.75	343.50	343.17	342.00	341.36
#3	351.00	351.00	350.50	350.25	349.25	349.00	348.67	347.50	346.50
#4	351.00	351.00	350.00	349.75	347.75	347.50	347.00	345.83	345.50
#5	355.00	355.00	354.00	353.75	351.75	351.50	351.17	350.00	350.33

MICRO-BIO 1 QUANTITY	RAIN GARDEN 2 QUANTITY	RAIN GARDEN 3 QUANTITY	MICRO-BIO 4 QUANTITY	MICRO-BIO 5 QUANTITY	NAME	MAXIMUM SPACING (FT.)
55	30	45	45	25	MIXED PERENNIALS	1.5 TO 3.0 FT.
2	1	1	1	1	SILKY DOGWOOD	PLANT AWAY FROM INFLOW LOCATION

**OPERATION & MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION (M-6)**

- THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A.4.1 AND 2.
- THE OWNER SHALL PERFORM A PLAN IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL, TREAT DISEASED TREES AND SHRUBS AND REPLACE ALL DEFICIENT STAKES AND WIRES.
- THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
- THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.



No	REVISION	DATE
1	ELIMINATE CO-8, REPLACE IFT W/ NDS 8-A, REPLACE CO-7 W/ NDS 8-A	8/20/17
2	ADD SWM AS-BUILT INFO	OCT 2022

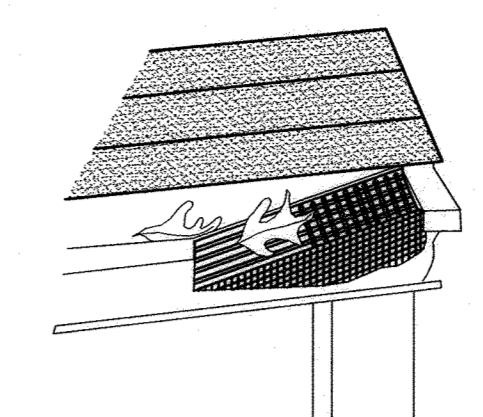
LOT No.	DRYWELL No.	AREA OF ROOF PER DRYWELL	VOLUME REQUIRED	VOLUME PROVIDED	AREA OF TREATMENT	L	W	D
LOT 2 (F)	1	1000 SQ.FT.	101 C.F.	128 C.F.	100%*	8'	8'	5'
LOT 2 (R)	2	1000 SQ.FT.	101 C.F.	128 C.F.	100%*	8'	8'	5'
LOT 3 (F)	3	1000 SQ.FT.	101 C.F.	128 C.F.	100%*	8'	8'	5'
LOT 3 (R)	4	1000 SQ.FT.	101 C.F.	128 C.F.	100%*	8'	8'	5'
LOT 7 (L)	5	1000 SQ.FT.	101 C.F.	128 C.F.	100%*	8'	8'	5'
101 C.F.	6	1000 SQ.FT.	101 C.F.	128 C.F.	100%*	8'	8'	5'

**OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DRY WELLS (M-5)**

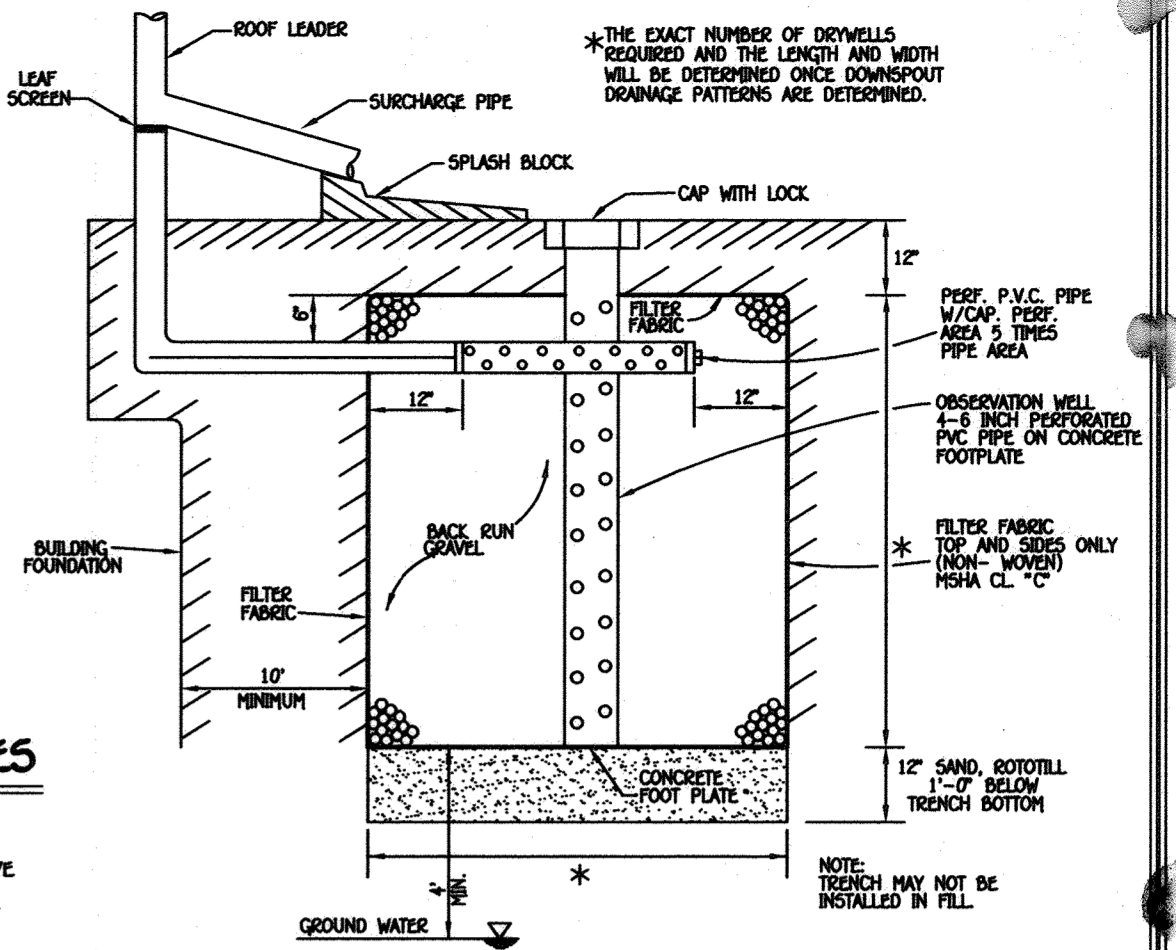
- THE OWNER SHALL INSPECT THE MONITORING WELLS AND STRUCTURES ON A QUARTERLY BASIS AND AFTER EVERY MAJOR STORM EVENT.
- THE OWNER SHALL RECORD THE WATER LEVELS AND SEDIMENT BUILD UP IN THE MONITORING WELLS OVER A PERIOD OF SEVERAL DAYS TO ENSURE TRENCH DRAINAGE.
- THE OWNER SHALL MAINTAIN A LOG BOOK TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS.
- WHEN THE FACILITY BECOMES CLOGGED SO THAT IT DOES NOT DRAIN DOWN WITHIN A SEVENTY-TWO (72) HOUR TIME PERIOD, CORRECTIVE ACTION SHALL BE TAKEN.
- THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA.
- ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION FACILITY HAVE BEEN VERIFIED, THE MONITORING SCHEDULE CAN BE REDUCED TO AN ANNUAL BASIS UNLESS THE PERFORMANCE DATA INDICATES THAT A MORE FREQUENT SCHEDULE IS REQUIRED.

SIZE	TYPE	LENGTH
6"	PVC, PERFORATED	64 L.F.
6"	PVC	130 L.F.
6"	PVC, PERFORATED	19 L.F.
6"	HDPE	16 L.F.
6"	HDPE	603 L.F.
12"	HDPE	19 L.F.

STR #	STATION & OFFSET OR COORDINATES	TOP ELEV	TYPE	INV IN	INV OUT
CO1	N 562,825.33 E 1,378,611.84	316.5	12" CLEANOUT	309.53 309.53 311.36	309.36
CO2	N 562,825.33 E 1,378,291.80	321.0	8" CLEANOUT	318.84	315.32
CO3	N 562,928.80 E 1,378,622.55	322.18	8" CLEANOUT	318.84	318.74
CO4	N 562,939.39 E 1,378,615.53	322.5	8" CLEANOUT	√319.33	√319.23
CO5	N 562,948.15 E 1,378,598.92	322.5	8" CLEANOUT	√319.43	√319.33
CO6	N 562,968.46 E 1,378,529.74	336.0	8" CLEANOUT	332.57	328.07
NDS 3A	N 563,029.64 E 1,378,442.21	344.2	24" NDS INLET	341.47	341.37
CO8	N 563,086.39 E 1,378,418.16	347.2	8" CLEANOUT	344.67	344.57
CO9	N 563,165.44 E 1,378,394.46	351.5	8" CLEANOUT	346.50	346.33
C10	N 563,171.77 E 1,378,379.31	350.2	6" CLEANOUT	√347.00	√346.90
C11	N 563,187.83 E 1,378,374.19	350.2	6" CLEANOUT	-	√347.00
NDS1	N 562,846.60 E 1,378,446.06	331.00	24" NDS INLET	324.46	324.36
NDS2	N 562,832.48 E 1,378,367.84	329.0	24" NDS INLET	326.10	326.00
NDS3	N 563,014.75 E 1,378,486.57	341.0	24" NDS INLET	338.97	338.87
NDS 4A	N 563,081.81 E 1,378,422.11	347.0	24" NDS INLET	344.42	344.32
NDS4	N 562,930.94 E 1,378,623.29	322.7	24" NDS INLET	318.25	318.15
NDS8	N 563,165.50 E 1,378,394.17	351.3	24" NDS INLET	346.5	346.3



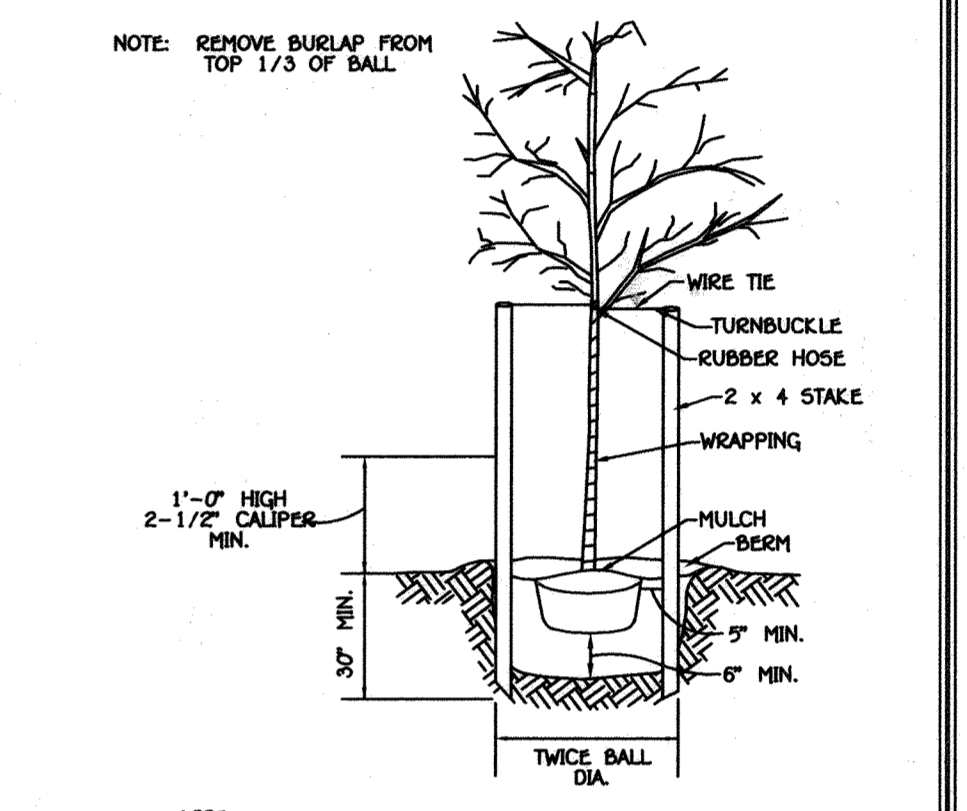
GUTTER DRAIN FILTER DETAIL NOT TO SCALE



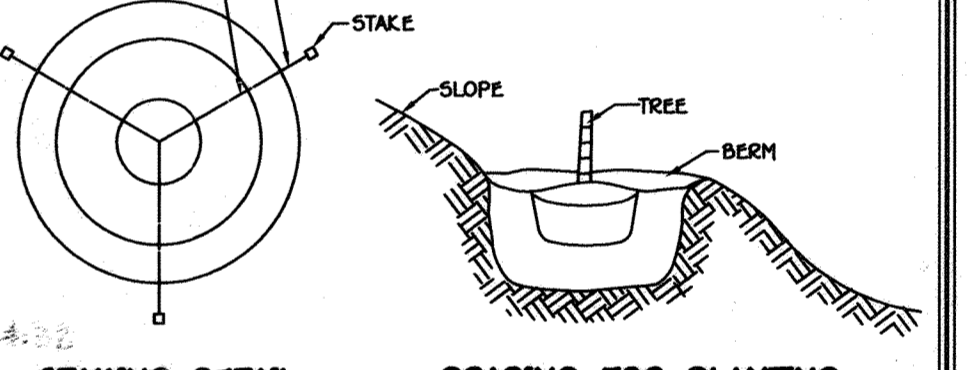
DRY WELL DETAIL (M-5) NOT TO SCALE

**STORMWATER MANAGEMENT NOTES**

- STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH CHAPTER 3, "ENVIRONMENTAL SITE DESIGN" OF THE 2007 MARYLAND STORMWATER MANAGEMENT DESIGN MANUAL, EFFECTIVE MAY 4, 2010.
- MAXIMUM CONTRIBUTING ROOF TOP AREA TO EACH DOWNSPOUT SHALL BE 1,000 SQ. FT. OR LESS.
- DRYWELLS SHALL BE PROVIDED AT LOCATIONS WHERE THE LENGTH OF DISCONNECTION IS LESS THAN 75' AT 5% THE SIZE AND CONSTRUCTION OF THE DRYWELL SHALL BE IN ACCORDANCE WITH THE DETAIL SHOWN ON THIS SHEET.
- FINAL GRADING IS SHOWN ON THE SITE DEVELOPMENT PLAN.



TREE PLANTING NOT TO SCALE



STAKING DETAIL NOT TO SCALE



GRADING FOR PLANTING ON SLOPES NOT TO SCALE

Material	Specification	Size	Notes
Planting soil	see Appendix A, Table A.4	n/a	plantings are late-specific
Planting soil (2" to 4" deep)	loamy sand 60-65% compost 35-40% or sandy loam 50% compost and 30% compost 40%		USDA soil types loamy sand or sandy loam; clay content <5%
Organic Content	Min. 10% by dry weight (ASTM D 2974)		
Mulch	shredded hardwood		aged 6 months, minimum
Pea gravel diaphragm	pea gravel: ASTM-D-448	No. 8 or No. 9 (1/8" to 3/8")	
Curtain drain	ornamental stone: washed cobbles	stone: 2" to 5"	
Geotextile		n/a	PE Type 1 nonwoven
Gravel (underdrains and infiltration berms)	MSHTO H-45	No. 57 or No. Aggregate (3/8" to 3/4")	
Underdrain piping	F 758, Type P5 28 or MSHTO H-278	4" to 6" rigid schedule 40 PVC or SDR35	Slotted or perforated pipe; 3/8" perft.; 8" on center, 4 holes per row; minimum of 3" of gravel over pipes; not necessary underneath pipes. Perforated pipe shall be wrapped with 1/4 inch galvanized hardware cloth
Poured in place concrete (if required)	MSHA Mix No. 3, f = 3500 psi @ 28 days, normal weight, air-entrained; reinforcing to meet ASTM-A-63		n/a
Sand	MSHTO-H-6 or ASTM-C-33	0.02" to 0.04"	on-site testing of poured-in-place concrete required: 28 day strength and slump test; all concrete design (cast-in-place or pre-cast) not using previously approved site or local standards requires design drawings sealed and approved by a professional structural engineer licensed in the State of Maryland - design to include meeting ACI Code 308.2R/99, vertical loading D1-10 or H-202; allowable horizontal loading (based on soil pressure); and analysis of potential cracking Sand substitutions such as Database and Geotexts (MSHTO) #10 are not acceptable. No calcium carbonylated or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.

**FISHER, COLLINS & CARTER, INC.**  
ENGINEERING CONSULTANTS & LAND SURVEYORS  
10772 BALTIMORE NATIONAL PARK  
ELICOTT CITY, MARYLAND 21042  
(410) 461-2895

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Keith S. Schuch*  
Chief, Division of Land Development  
11-26-18  
10-19-18

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*John*  
CHIEF, BUREAU OF HIGHWAYS  
10/11/2022

OWNER  
TRACY R FUHR  
5814 BELLANCA DRIVE  
ELK RIDGE, MD, 21075  
WALTER A MAYER  
THELMA T MAYER  
6198 MONTGOMERY RD  
ELK RIDGE, MD, 21075

DEVELOPER  
HG LAND HOLDINGS, LLC  
4652 SHEPPARD LANE  
ELICOTT CITY, MD 21042  
410-409-0333

STATE OF MARYLAND  
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED IN ACCORDANCE WITH THE AS-BUILT PLANS AND MEETS WITH THE APPROVED PLANS AND SPECIFICATIONS.

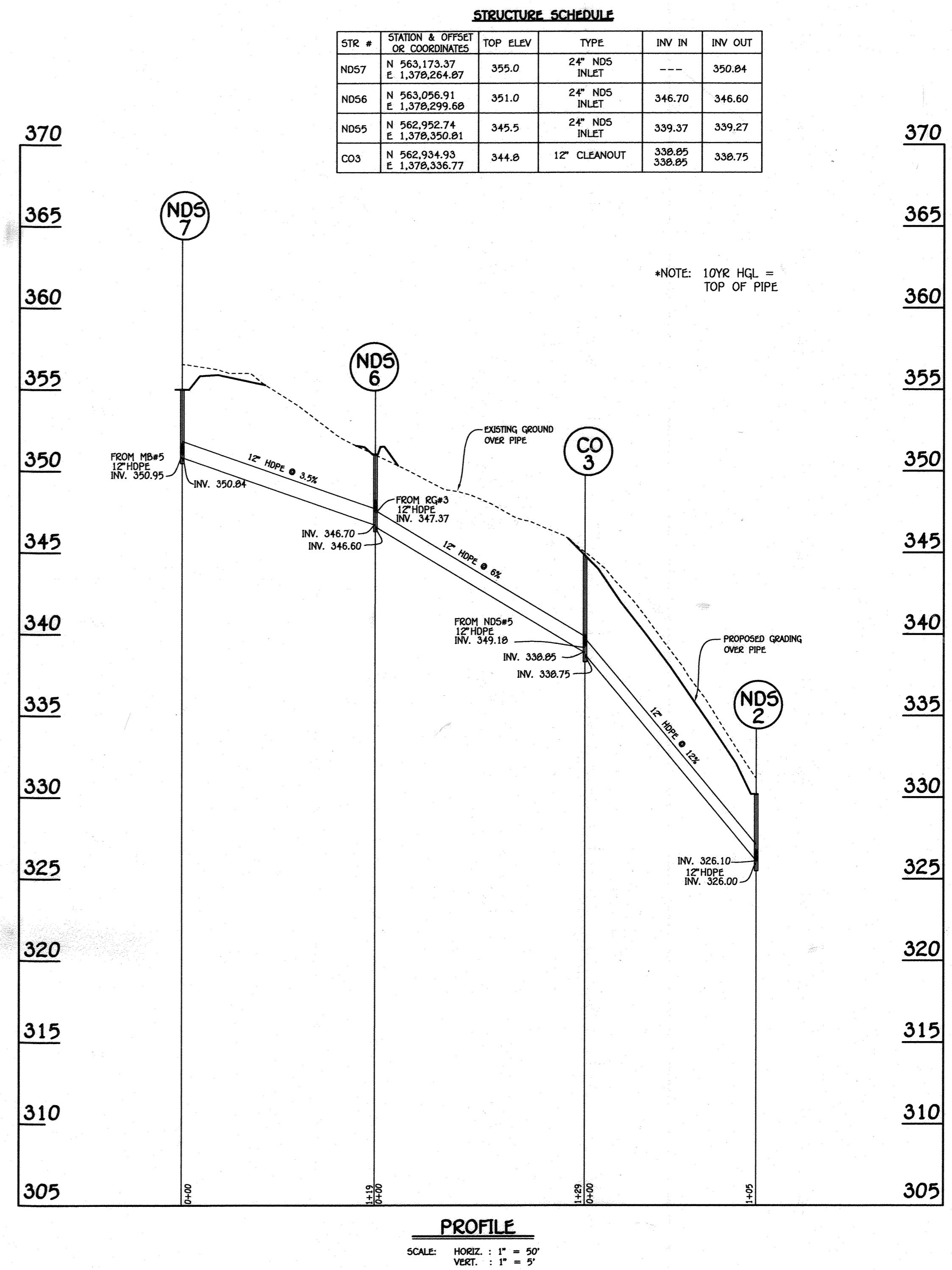
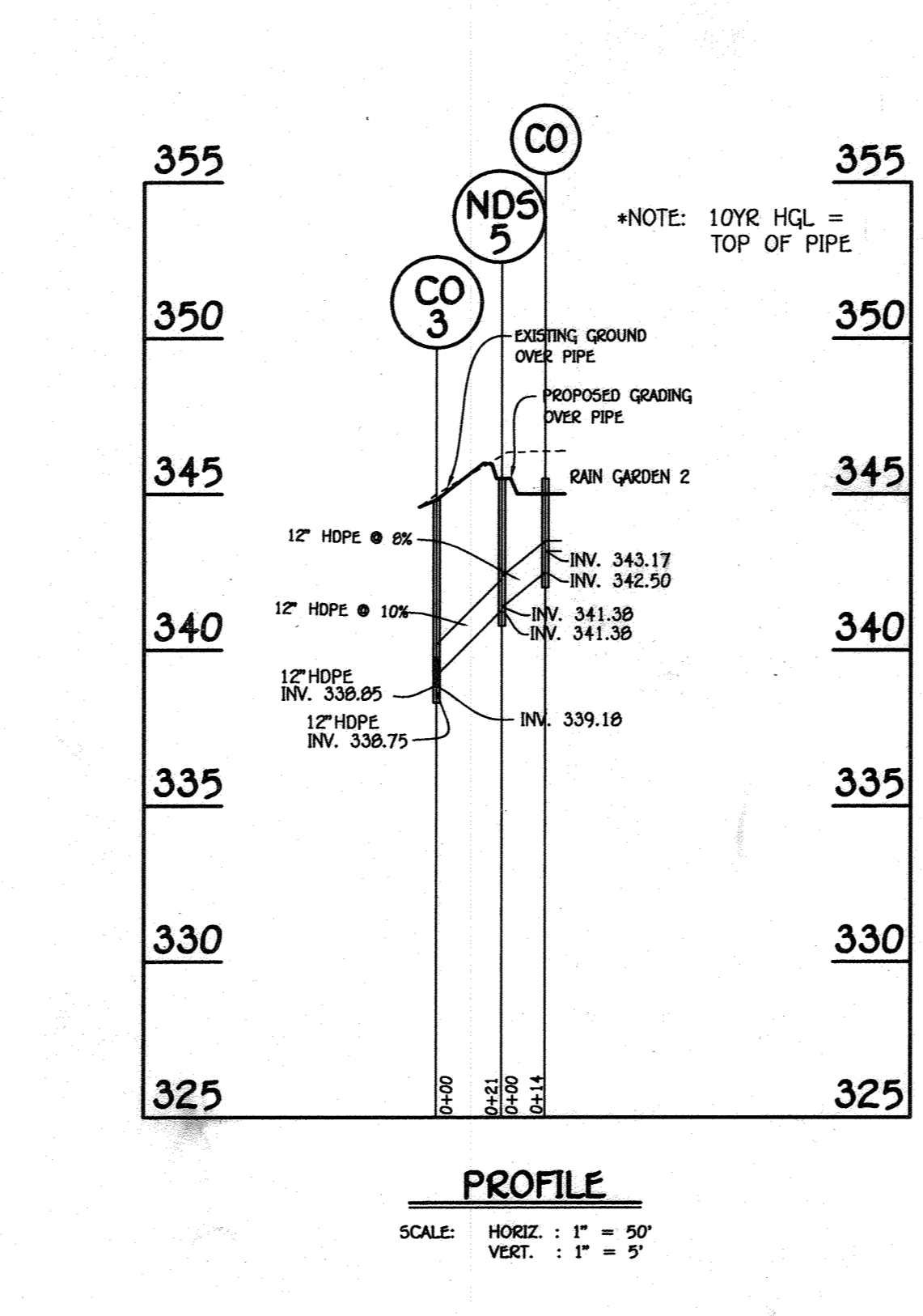
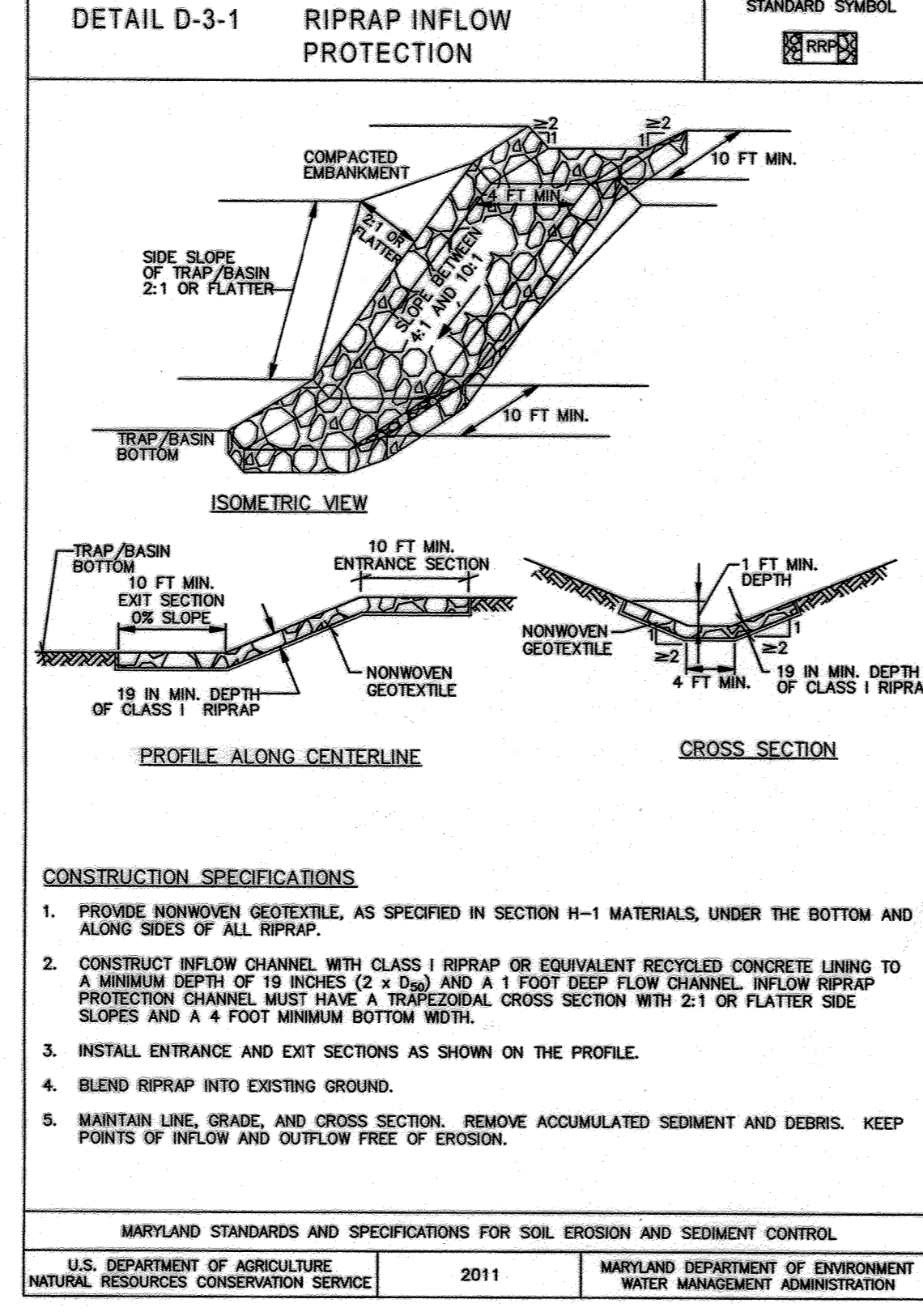
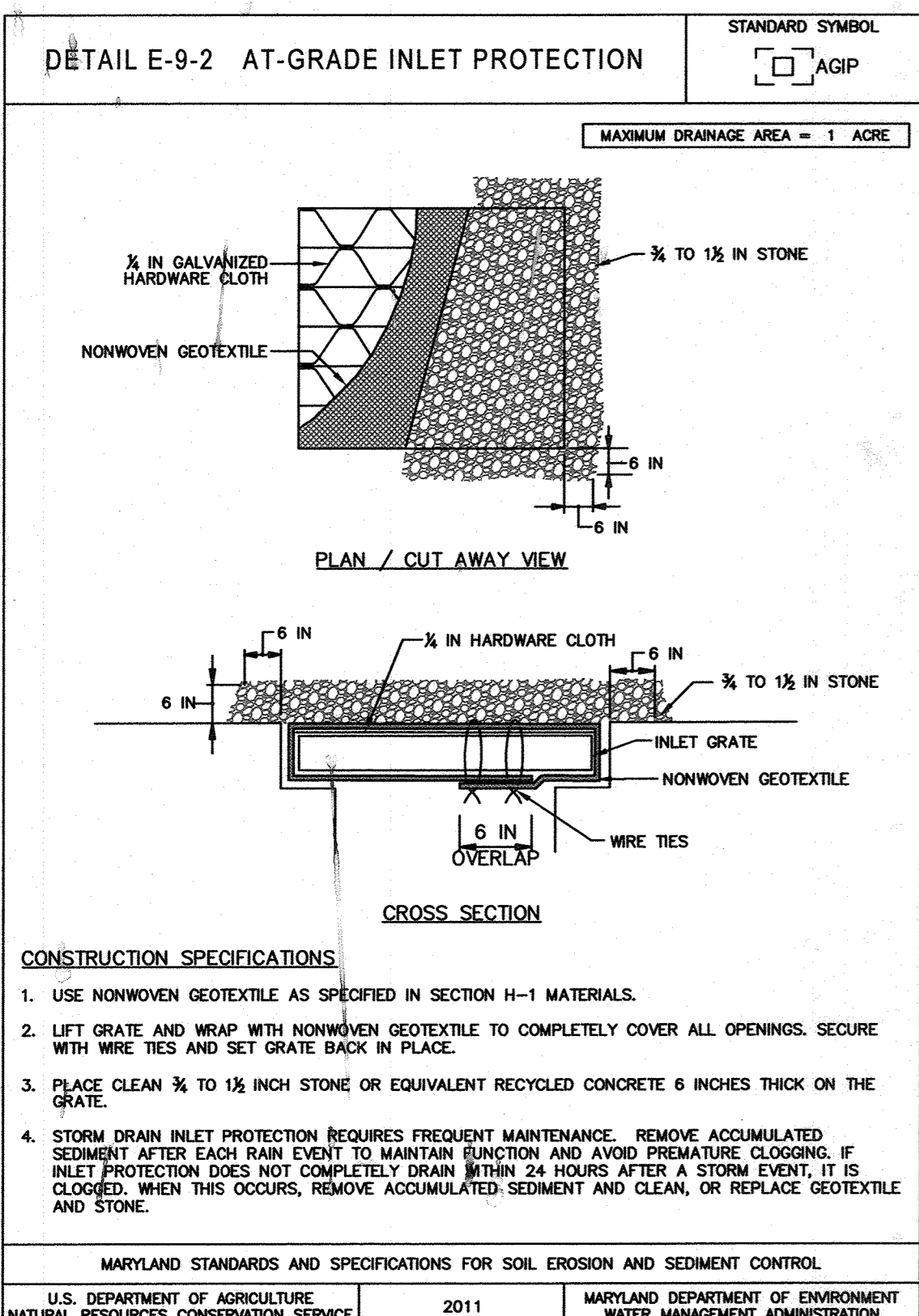
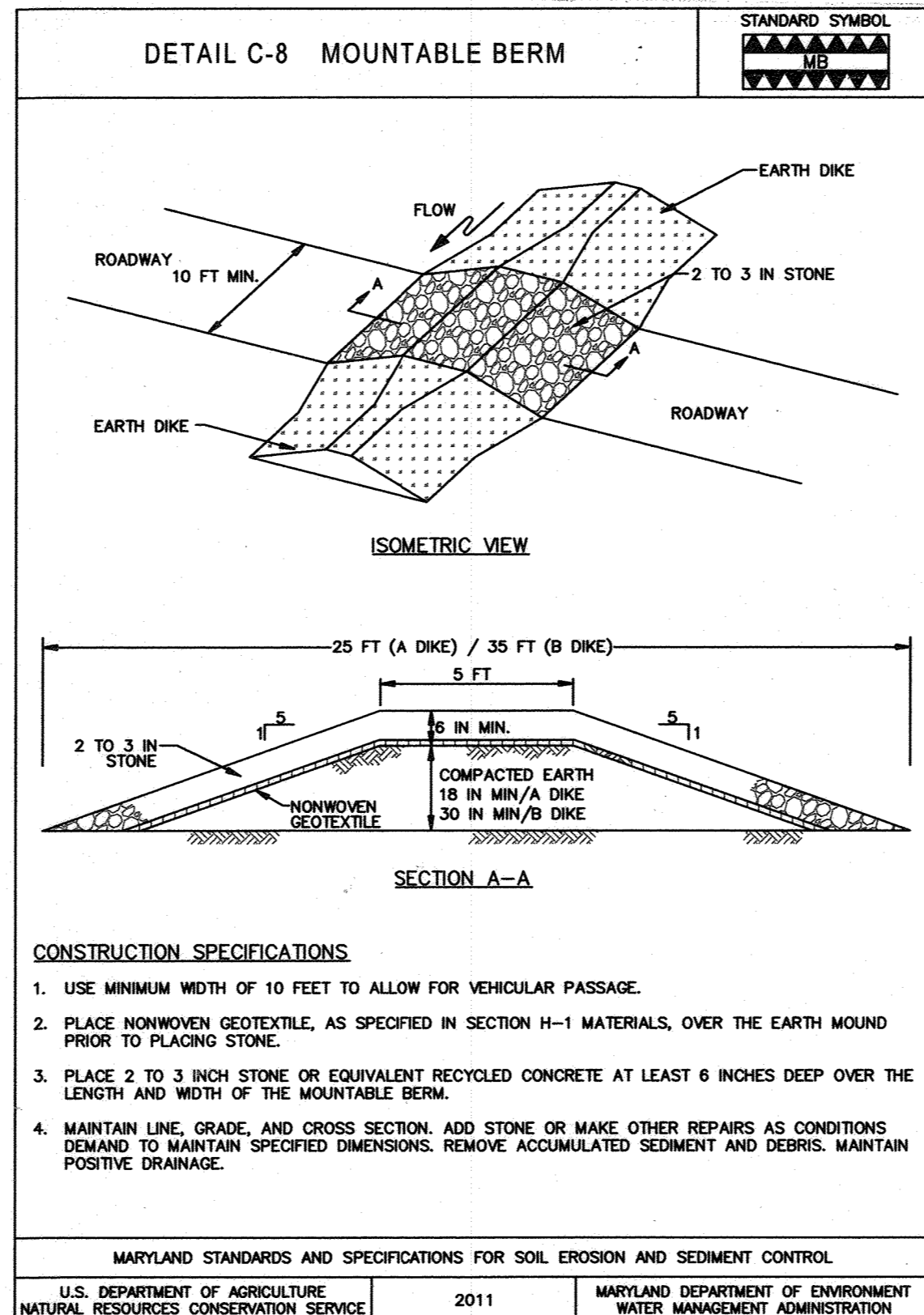
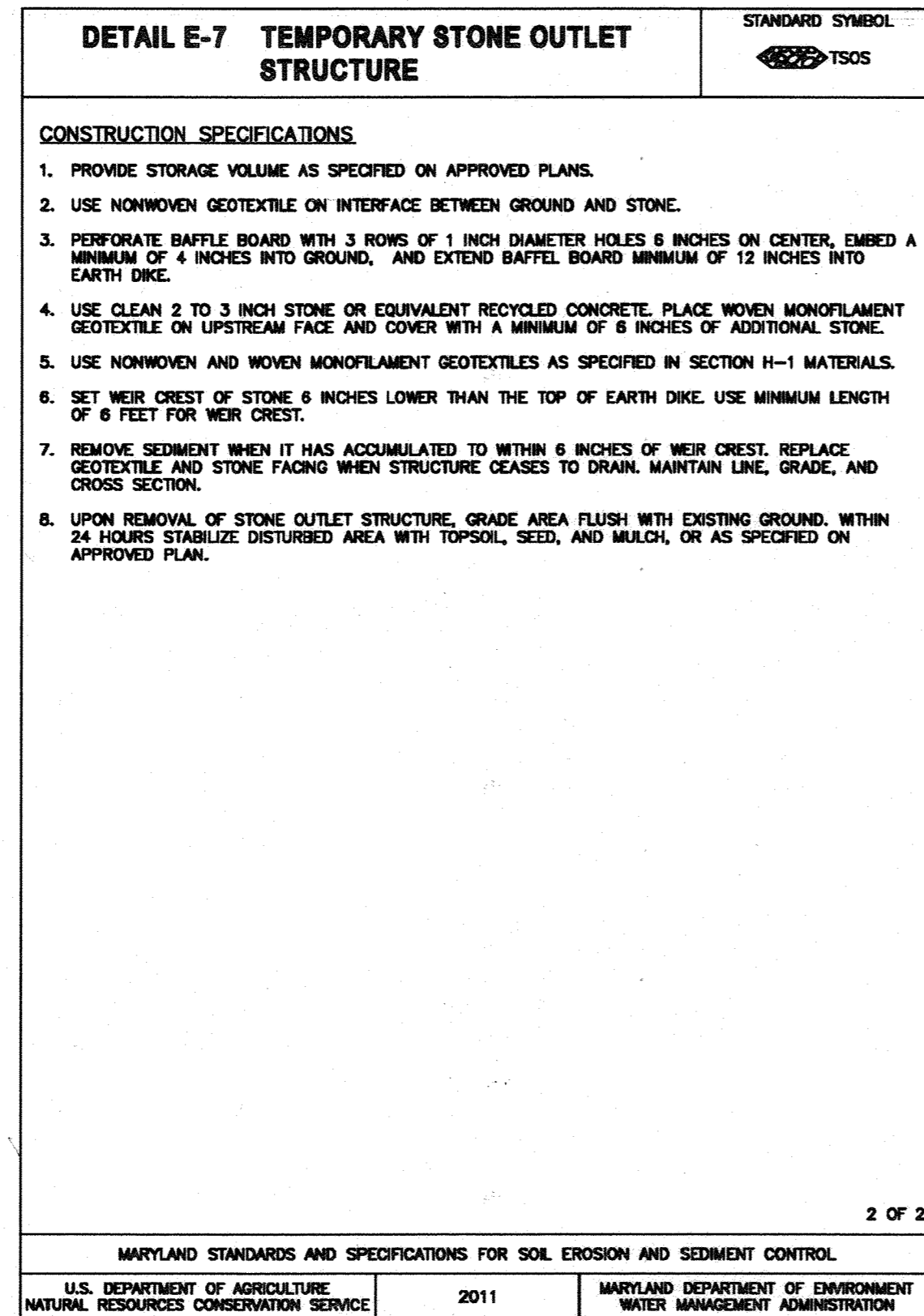
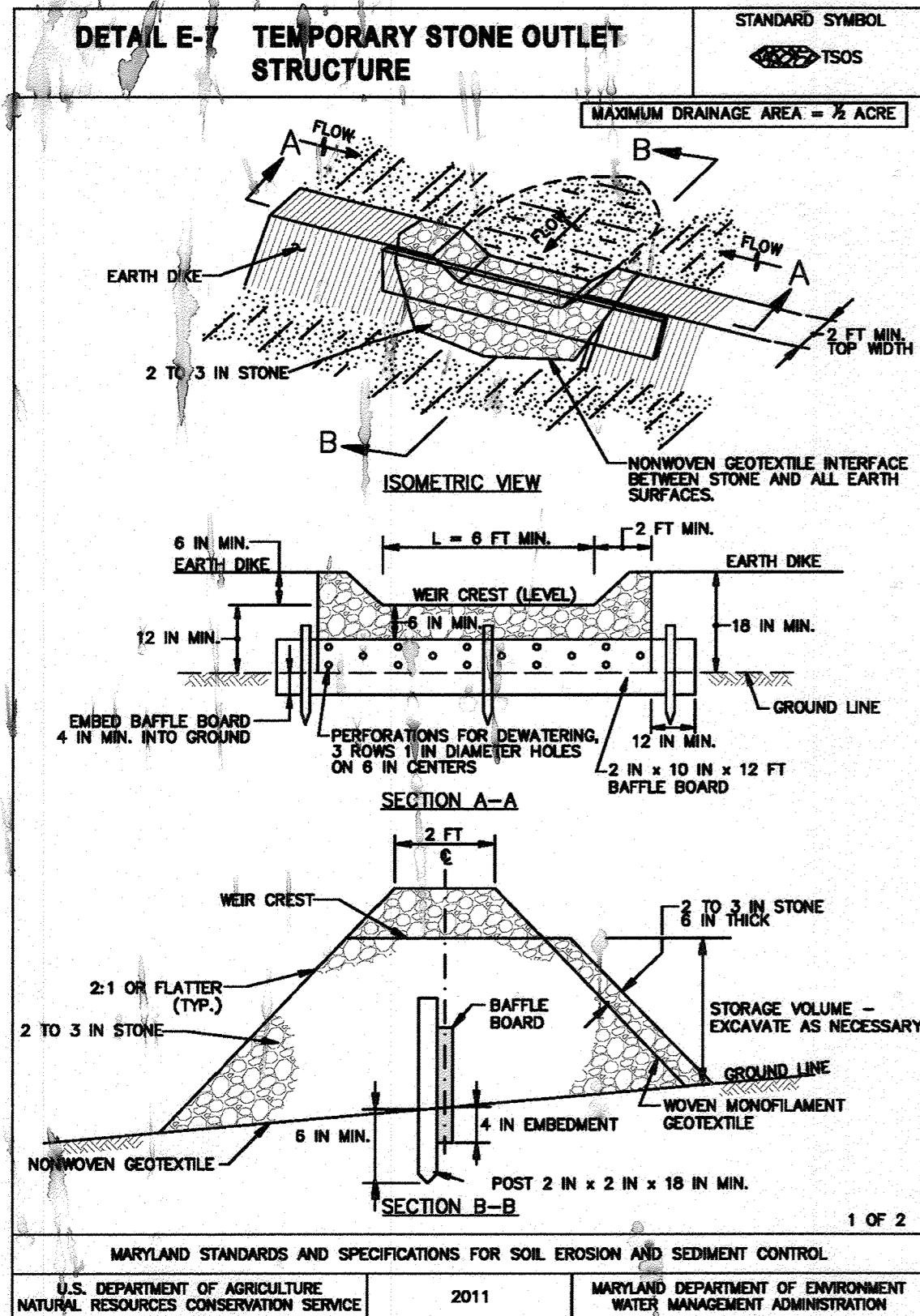
PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 36366, EXPIRATION DATE: 01/12/2020.  
*Stephen J. J...*  
9/13/18  
Signature of Professional Engineer DATE

**STORMWATER MANAGEMENT DETAILS & NOTES**  
**ROCKBURN MEADOWS**  
LOTS 1 THRU 7  
ZONED R-20  
TAX MAP No. 37 GRID No. 05 PARCEL No. 211 & 641  
FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
SCALE: AS SHOWN DATE: JULY, 2018  
SHEET 8 OF 10 F-18-093









**BUILDER/DEVELOPER'S CERTIFICATE**

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, FOR SEDIMENT AND EROSION CONTROL 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 ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

Signature: *John Buford* DATE: 9/13/18

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

APPROVED: *John Buford* DATE: 11/21/18  
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: *John* DATE: 10/11/2018  
CHIEF, BUREAU OF HIGHWAYS

**OWNER**

TRACY R FUHR  
5814 BELLANCA DRIVE  
ELK RIDGE MD, 21075

WALTER A MAYER  
THELMA T MAYER  
6198 MONTGOMERY RD  
ELK RIDGE MD, 21075

**ENGINEER'S CERTIFICATE**

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

Signature: *Stephen Tuite* DATE: 9/13/18

**DEVELOPER**

HG LAND HOLDINGS, LLC  
4652 SHEPPARD LANE  
ELICOTT CITY, MD 21042  
410-409-0333

THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET

Professional Engineer Seal: *Stephen Tuite* 28823

**PROFESSIONAL CERTIFICATION**

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. 36386, EXPIRATION DATE: 01/12/2020.

Signature: *Stephen Tuite* DATE: 9/13/18



**SEDIMENT & EROSION CONTROL NOTES & DETAILS**

**ROCKBURN MEADOWS**

LOTS 1 THRU 7  
ZONED R-20

TAX MAP No. 37 GRID No. 05 PARCEL No. 211 & 641  
FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
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SHEET 10 OF 10 F-18-093