	SHEET INDEX
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	DEMOLITION PLAN
3	DRIVEWAY PROFILE
4	CROSS SECTIONS & STREET TREE PLAN
5	GRADING & SEDIMENT CONTROL PLAN
6	INLET DRAINAGE AREA MAP
7	LANDSCAPE, FOREST CONSERVATION, SWM, & SOILS PLAN
8	STORMWATER MANAGEMENT DETAILS & NOTES
9	SEDIMENT & EROSION CONTROL NOTES & DETAILS
10	SEDIMENT & EROSION CONTROL NOTES & DETAILS

ROADWAY INFORMATION CHART

ROCKBURN MEADOWS LANE PRIVATE USE-IN-COMMON DRIVEWAY 15 M.P.H.

**CLASSIFICATION** 

	1inimum Lo	t Size Ch	art
LOT No.	GROSS AREA	PIPESTEM AREA	MINIMUM LOT SIZE
3	20,511 5q.ff.	444 5q.ff.	20,067 5q.ff.
4	21,035 5q.ff.	664 5q.ff.	20,371 5q.ff.
5	21,271 5q.ff.	1,144 5q.ff.	20,127 5q.ff.
6	21,795 5q.ff.	1,715 5q.ff.	20,080 54.ff.
7	28,569 54.ft.	2,371 5q.ff.	26,198 54.ff.

## FINAL ROAD CONSTRUCTION PLAN

# ROCKBURN MEADOWS

LOTS 1 THRU 7

ZONED:	R-	20
--------	----	----

	STORMWA	ITER MAN	IAGEMENT SUMMARY
AREA ID.	E5Dv REQUIRED CU.FT.	ESDV 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)

WITHIN THE ESDV.

AS PERMITTED IN CHAPTER 2 OF THE 2000

MARYLAND STORMWATER DESIGN MANUAL

RECHARGE VOLUME HAS BEEN INCLUDED

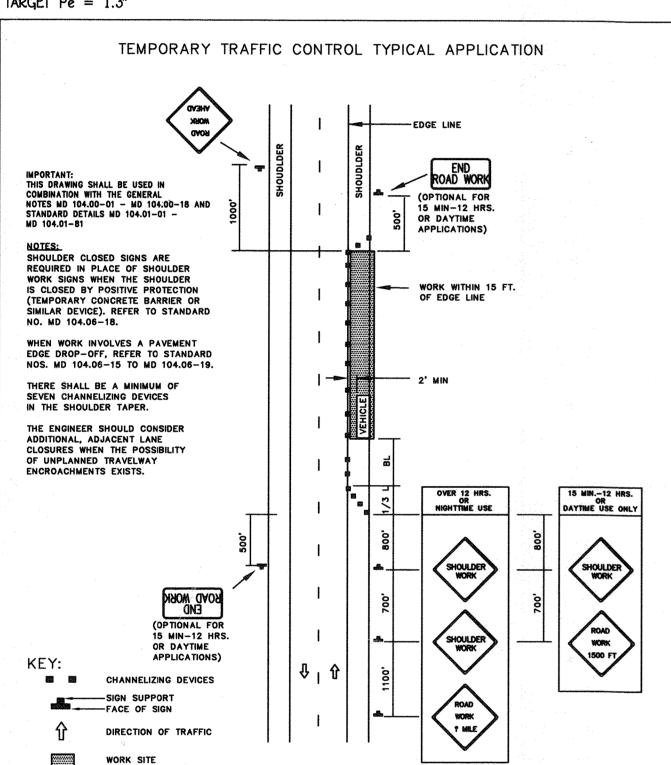
DESIGN SPEED EASEMENT WIDTH

Rev = (5) (Rv) (A) / 12= (0.16) (0.24) (3.06) / 12= 0.0098 AC-FT OR 427 CU-FT

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

GROSS AREA = 3.06 ACRE (SITE - LOTS 2 THRU 7) LOD = 2.92 ACRES

RCN = 70TARGET Pe = 1.3"

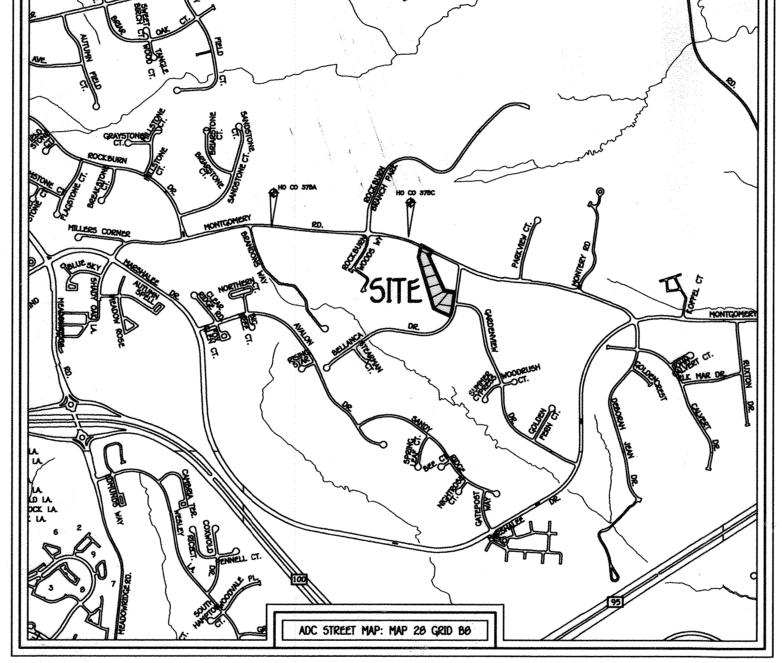


#### SITE ANALYSIS DATA CHART

- AREA FOR TREATMENT OF STORMWATER = 3.00 AC. + (LOTS 2 THRU 7) B. LIMIT OF DISTURBED AREA = 2.92 Ac. \*
- PRESENT ZONING DESIGNATION: R-20 (PER 10/06/2013 COMPREHENSIVE ZONING PLAN)
- PROPOSED USE: RESIDENTIAL
- E. PREVIOUS HOWARD COUNTY FILES: ECP-15-019, SDP-15-025, PB10 PG 96. ECP-17-067, 5P-17-012, AND WP-18-029.
- TOTAL AREA OF FLOODPLAIN LOCATED ON SITE = 0 AC
- TOTAL AREA OF SLOPES IN EXCESS OF 15% = 0.46 AC. (0 AC. 25% OR GREATER)
- TOTAL AREA OF WETLANDS (INCLUDING BUFFER) = 0 AC. TOTAL AREA OF EXISTING FOREST = 1.1 AC. ±
- TOTAL GREEN OPEN AREA = 3.86 AC. ± TOTAL IMPERVIOUS AREA = 0.64 AC. + (PLUS 0.02 AC SIDEWALK ON BELLANCA DR)
- AREA OF ERODIBLE SOILS = 3.43 AC.
- M. AREA OF ROAD DEDICATION = 0.00 AC.
- N. DENSITY PERMITTED = 3.60 AC X 20,000 SQ.FT. / LOT = 7 LOTS O. PROPOSED NUMBER OF LOTS = 7 LOTS
- P. OPEN SPACE REQUIRED = 3.60 AC X 6% = 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 MUICH 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.
- 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 WIRES.
- 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
- D. THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.



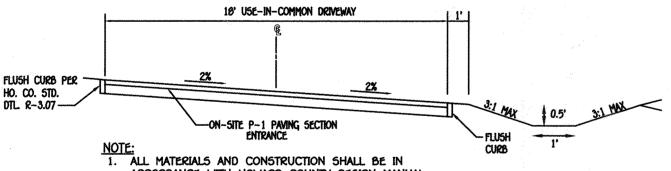
VICINITY MAP

FIRST ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

YES, ONE (1)

YES, TWO (2)



ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IV. STANDARD SPECIFICATION AND DETAILS FOR 2. SWALES ARE FOR CONVEYANCE OF RUNOFF AND NOT UTILIZED FOR TREATMENT CREDIT.

16' USE-IN-COMMON DRIVEWAY & SWALE CROSS SLOPE SECTION

 12 INOMIDUAL Q	DRIVEWAT
	2%
2%	
ON-SITE P-1 PA	MING SECTION —

ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD SPECIFICATION AND DETAILS FOR

## 12' INDIVIDUAL DRIVEWAY SECTION

SECTION NUMBER	ROAD AND STREET	CALIFORNIA BEARING RATIO (CBR)	3 TO <5	5 TO <7	_≥7	3 TO <5	5 TO <7	_≥7
	CLASSIFICATION	PAVEMENT MATERIAL (INCHES)	MIN HMA WITH GAB			HMA WITH CONSTANT GAB		
	PARKING BAYS: RESIDENTIAL AND NON-RESIDENTIAL	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
P-1	PARKING DRIVE AISLES:	HMA SUPERPAVE INTERMEDIATE SURFACE N/A	N/A	N/A	N/A	N/A	N/A	N/A
	RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 2 HEAVY TRUCKS PER DAY	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)	<i>9</i> .5	7.0	5.0	4.0	4.0	4.0

FISHER. COLLINS & CARTER. INC. MIL ENGINEERING CONSULTANTS & LAND SURVEYORS OFFICE PARK - 10272 BALTIMORE NATIONAL PIL FLUCOTT CITY, MARYLAND 21042

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

APPROVED: DEPARTMENT OF PUBLIC WORKS CHIEF, BUREAU OF HIGHWAYS

THE STATE OF THE S

STORMWATER MANAGEMENT PRACTICES (M-6) Y/N, NUMBER Y/N, NUMBER YES, TWO (2) YES, TWO (2)

YES, TWO (2)

OWNER TRACEY R FUHR 5814 BELLANCA DRIVE ELKRIDGE MD, 21075 WALTER A MAYER THELMA T MAYER 6198 MONTGOMERY RD

ELKRIDGE MD, 21075

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

n on this plan was constructed as shown on the 'As-Built's and meets with the approv

RAIN GARDEN

Y/N, NUMBER

NO

NO

YES, ONE (1)

YES, ONE (1)

NO

NO

f. STRUCTURE CLEARANCES - MINIMUM 12 FEET. q. MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE. 30. 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

PROFESSIONAL CERTIFICATION

HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY

AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF

GENERAL NOTES

7. BACKGROUND INFORMATION:

8. OPEN SPACE REQUIREMENTS:

10. NOISE STUDY IS NOT REQUIRED.

b. TAX MAP NO. 37

d. ZONING R-20

c. PARCELS NO. 211 & 641

e. ELECTION DISTRICT: FIRST

q. NUMBER OF BUILDABLE LOTS: 7

m. AREA OF FLOODPLAIN = 0

h. NUMBER OF OPEN SPACE LOTS: 0

i. AREA OF BUILDABLE LOTS: 3.52 ACRES J. AREA OF OPEN SPACE LOTS: 0

k. AREA OF ROADWAY TO BE DEDICATED: 0.00 ACRES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE

a. SUBDIVISION NAME: ROCKBURN MEADOWS

LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.

410-313-1880 AT LEAST (5) WORKING DAYS PRIOR TO THE START OF WORK.

6. SUBJECT PROPERTY ZONED R-20 PER 10/06/13 COMPREHENSIVE ZONING PLAN.

f. GROSS AREA OF TRACT = 3.60 ACRES (SWM BASED ON 3.06 AC.)

n. AREA OF 15% OR GREATER SLOPES = 0.46 ACRES (0 AC. 25% OR GREATER)

o. DEED REFERENCES: LIBER 1531 FOLIO 677 (6190 MONTGOMERY ROAD) &

a. AREA OF OPEN SPACE REQUIRED = 3.60 x 6% = 0.22 ACRES

11. WATER AND SEWER ARE PUBLIC. EXTENSION TO BE MADE UNDER CONT# 14-5015-D. 12. SOILS INFORMATION TAKEN FROM SOIL SURVEY MAP NO. 19, HOWARD COUNTY, MARYLAND.

FACILITIES WILL BE PRIVATELY OWNED & MAINTAINED BY THE PRIVATE HOMEOWNERS.

23. THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.

25. NO CEMETERIES EXIST WITHIN THIS SUBDIVISION.

28. TRAFFIC CONTROL DEVICES:

(MINIMUM) REQUIREMENTS

TREE AND 15 EVERGREEN TREES @ \$150/ TREE.

TRAFFIC CONTROL DEVICES" (MdMUTCD).

POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.

a. WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE)

AND THE ROAD R/W LINE AND NOT THE PIPESTEM LOT DRIVEWAY.

18. NO FLOODPLAIN, WETLANDS, STREAM, STREAM BUFFERS, OR 25% SLOPES OR GREATER EXIST ON-SITE.

21. SOIL BORING REPORT FOR THIS PROJECT WAS PREPARED BY FISHER, COLLINS, & CARTER, INC. DATED MAY, 2017.

DIVISION (410-313-2430) PRIOR TO THE INSTALLATION OF ANY OF THE TRAFFIC CONTROL DEVICES.

b. SURFACE - SIX (6") INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING.

d. STRUCTURES (CULVERTS/BRIDGES) CAPABLE OF SUPPORTING 25 GROSS TONS (H 25 LOADING).

c. GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM OF 45 TURNING RADIUS.

2. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS / BUREAU OF ENGINEERING / CONSTRUCTION INSPECTION DIVISION AT

3. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.

HOWARD COUNTY MONUMENT NO. 378C N 563,705.615 E 1,376,343.290 ELEV. (NAVD00) = 393.965 HOWARD COUNTY MONUMENT NO. 378A N 563,666.307 E 1,378,054.921 ELEV. (NAVDØ) = 373,107

1. PREVIOUS FILE NUMBERS: ECP-15-019, SDP-15-025, PB10 PG 96, ECP-17-067, SP-17-012, AND WP-10-029.

9. ALL FILL AREAS WITHIN ROADWAYS AND UNDER STRUCTURES SHALL BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO T-180.

13. EXISTING WELL & SEPTIC SYSTEMS TO BE ABANDONED AND DOCUMENTATION SENT TO THE HEALTH DEPARTMENT PRIOR TO SIGNATURE APPROVAL ON THE

14. EXISTING STRUCTURES LOCATED ON PARCEL 211 ARE TO BE RAZED AS SHOWN ON PLAN AND NEWLY CONSTRUCTED HOUSE AT 5014 BELLANCA DRIVE IS

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

17. STORMWATER MANAGEMENT WILL BE PROVIDED IN ACCORDANCE WITH THE NEW MDE, CHAPTER 5 REGULATIONS AND THE NEW HOWARD COUNTY SWM

20. THE FOREST CONSERVATION ACT REQUIREMENTS FOR THIS PROJECT WILL BE MET THROUGH USE OF A FOREST BANK TO MEET THE 1.54 Ac. #

WELLS. OVERBANK FLOOD PROTECTION VOLUME AND EXTREME FLOOD VOLUMES ARE NOT REQUIRED FOR THIS SITE. THE STORMWATER MANAGEMENT

22. THE FOREST STAND DELINEATION AND WETLAND DELINEATION FOR THIS PROJECT WAS PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. DATED JUNE,

24. FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM

26. AN HISTORIC STRUCTURE, STRUCTURE OVER 50 YEARS OLD, EXISTS ON-SITE AND IS PROPOSED TO BE DEMOLISHED. SUBDIVISION HAS BEEN TO HISTORIC

a. THE R1-1 ("STOP") SIGN AND THE STREET NAME SIGN (SNS) ASSEMBLY FOR THIS DEVELOPMENT MUST BE INSTALLED BEFORE THE BASE PAVING IS

c. ALL TRAFFIC CONTROL DEVICES AND THEIR LOCATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MARYLAND MANUAL ON UNIFORM

(12 GAUGE) - 3" LONG. THE ANCHOR SHALL NOT EXTEND MORE THAN TWO "QUICK PUNCH" HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL

b. THE TRAFFIC CONTROL DEVICE LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MUST BE FIELD APPROVED BY HOWARD COUNTY TRAFFIC

d. 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

29. DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING

e. DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.

ion commission on june 1, 2017 for advisory comment where the HPC stated they wanted the house to remain

27. 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/

b. 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

LIBER 15594, FOLIO 326 (5814 BELLANCA DRIVE).

15. BOUNDARY OUTLINE BASED ON FIELD RUN SURVEY PERFORMED BY FISHER, COLLINS, & CARTER, INC. DATED MAY, 2017.

4. THIS SUBDIMISION PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIMISION 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

5. COORDINATES BASED ON NAD'83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 37 BA AND NO.

31. 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)(II) AND SECTION 16.1205(a)(7). APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS:

1. 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.

2. 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). 3. 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 15 NOT PERMITTED UNDER THIS REQUEST UNLESS IT CAN BE SUFFICIENTLY DEMONSTRATED BY THE APPLICANT TO BE JUSTIFIED.

4. 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.

1. 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.

2. THE DEVELOPER WILL BE REQUIRED TO CONSTRUCT SIDEWALK ON BELLANCA DRIVE ALONG THE FRONTAGE OF PROPOSED LOT 2 NORTHWARD TO THE INTERSECTION AT MONTGOMERY ROAD. RAMPS 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 RESUBDIVISION. REFER TO THE attached comments from the development engineering division and office of transportation.

3. 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 SUBDIMISION PLAN.

TITLE SHEET

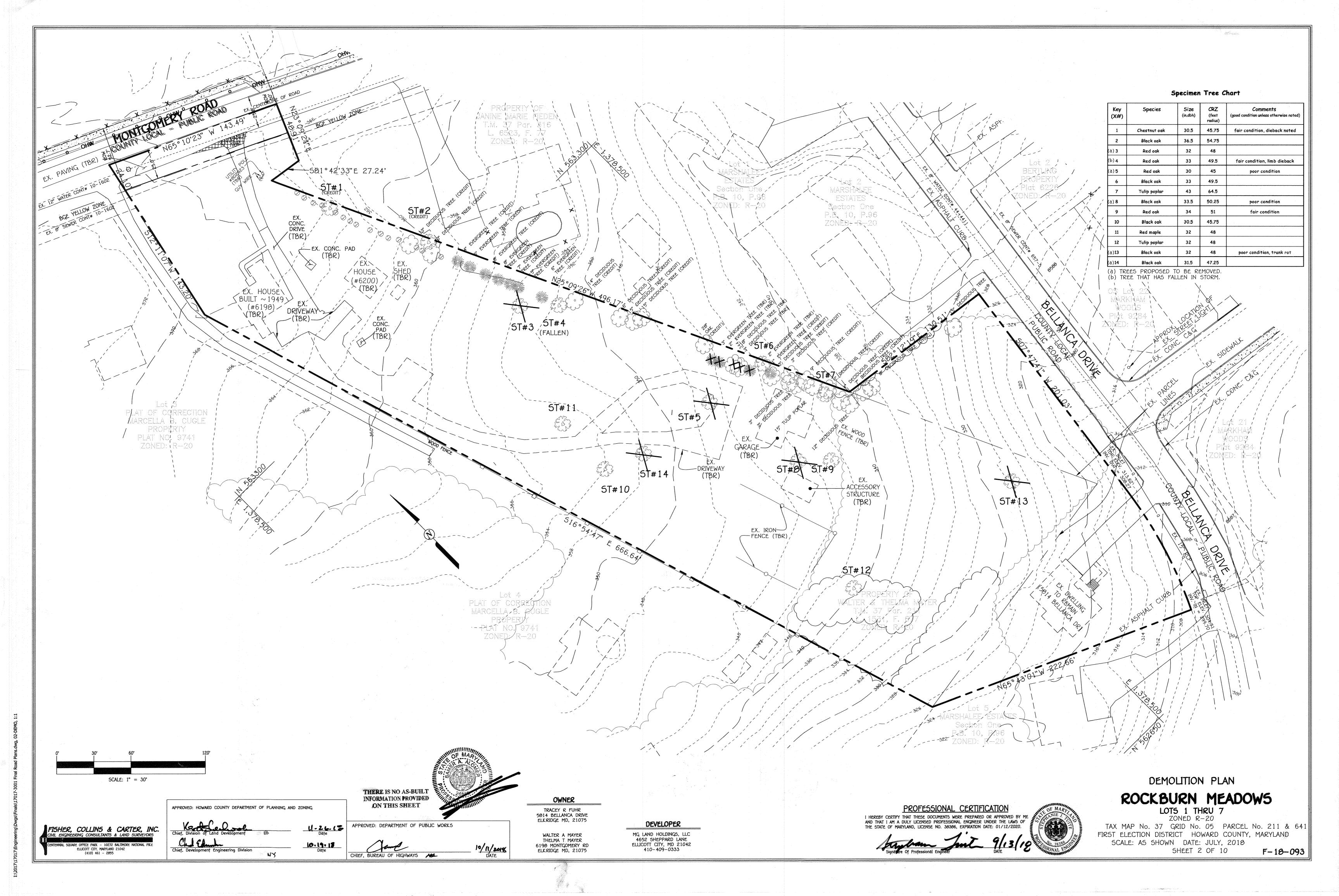
### ROCKBURN MEADOWS

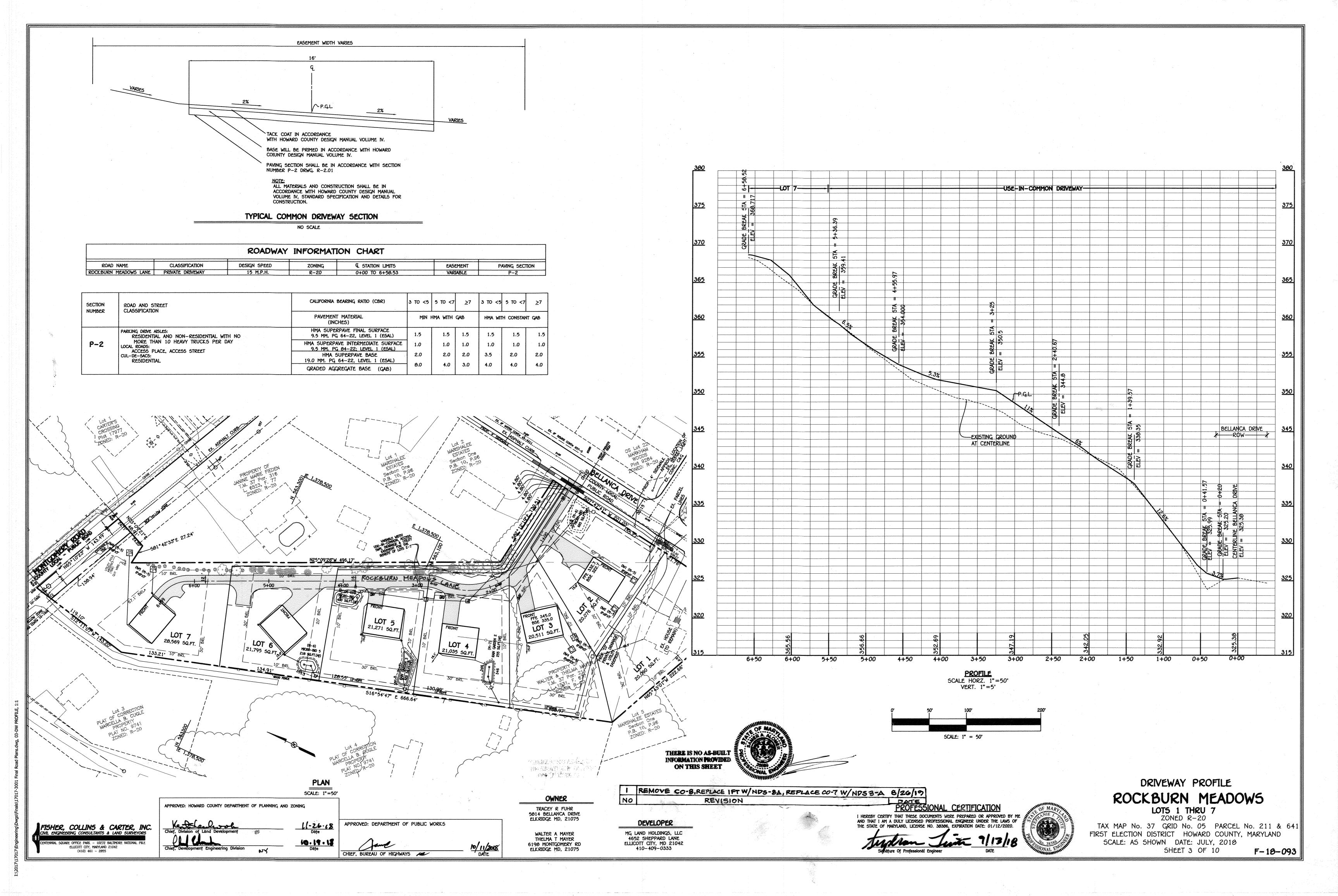
LOTS 1 THRU 7 ZONED R-20

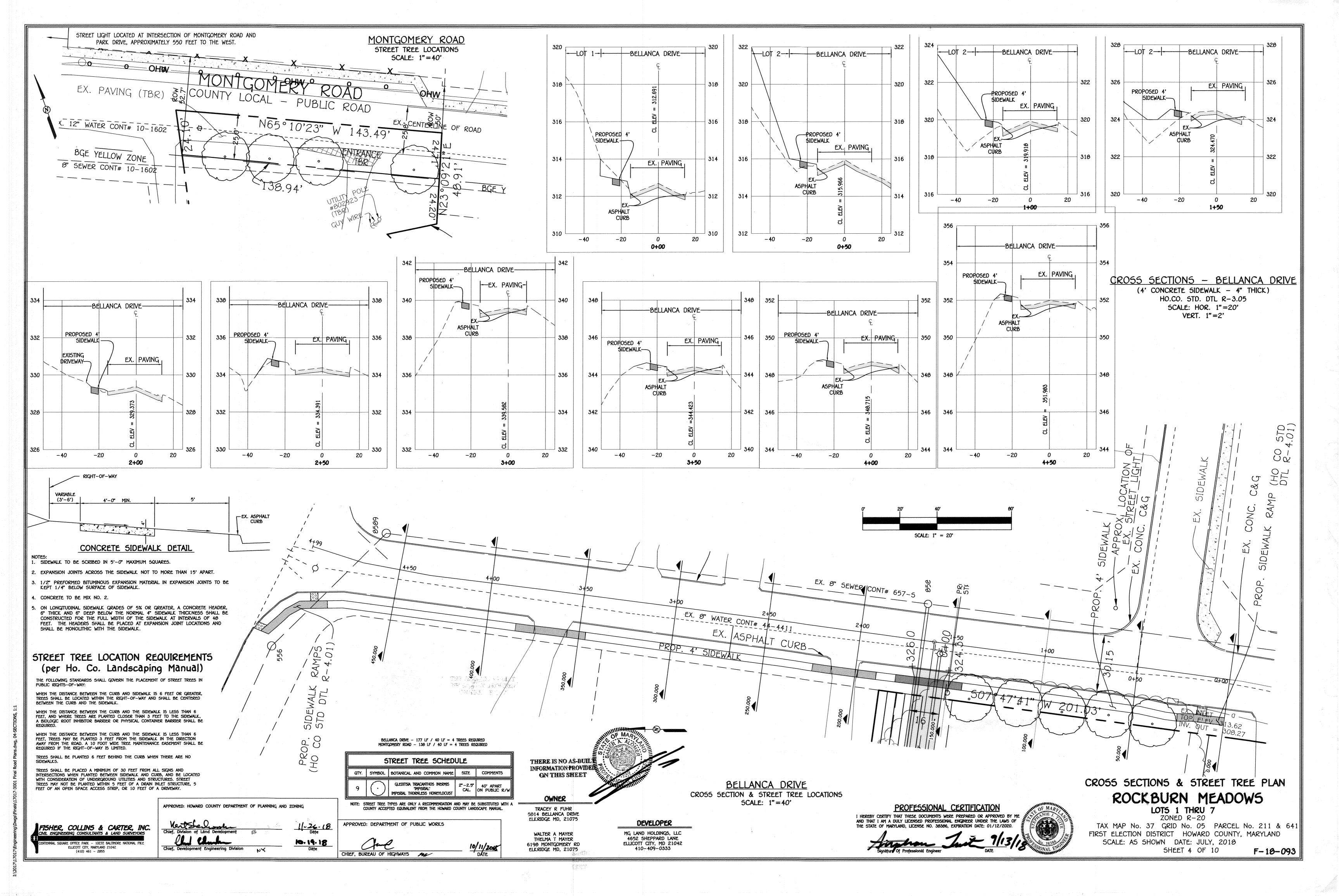
TAX MAP No. 37 GRID No. 05 PARCEL No. 211 & 641 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: JULY, 2018

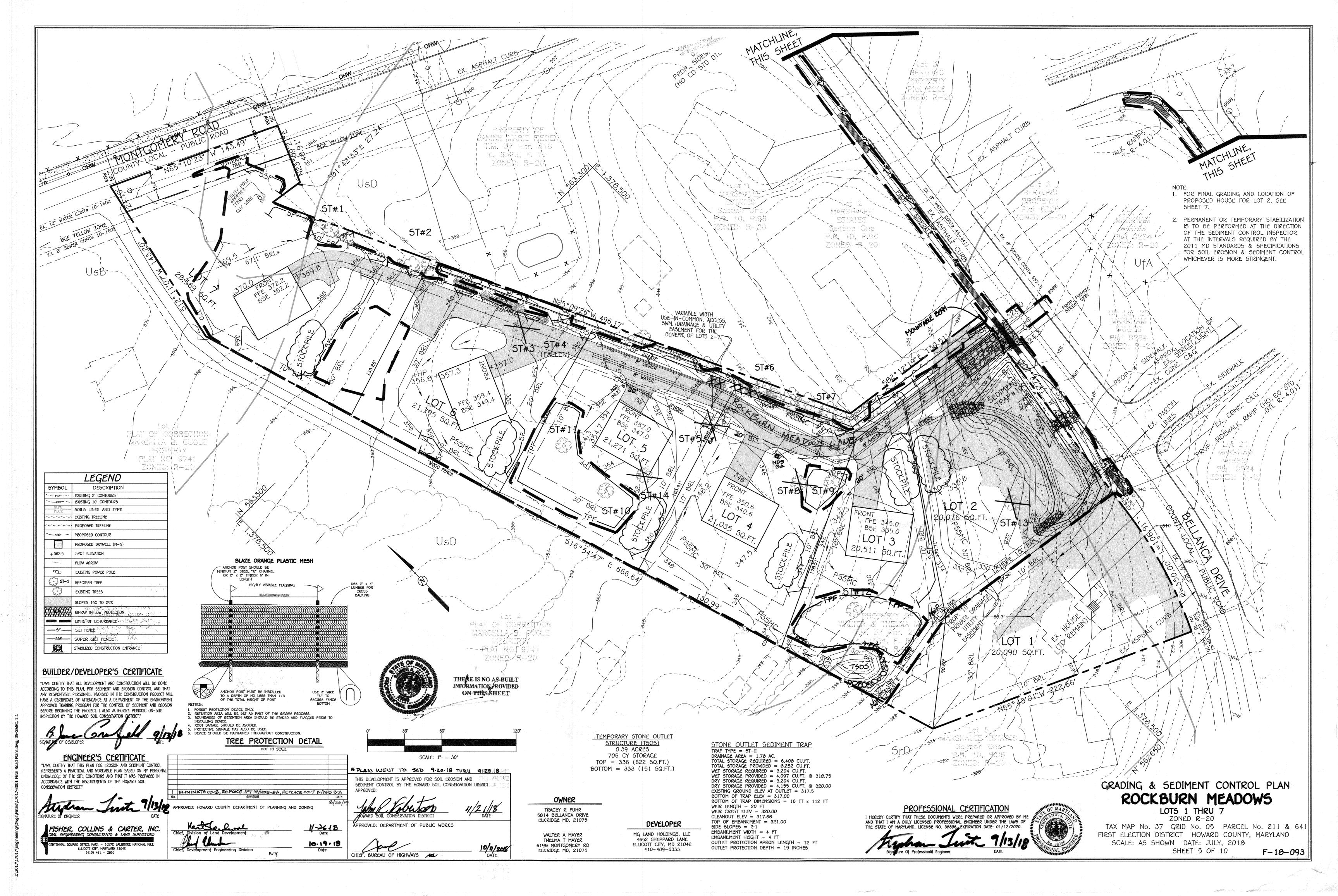
SHEET 1 OF 10

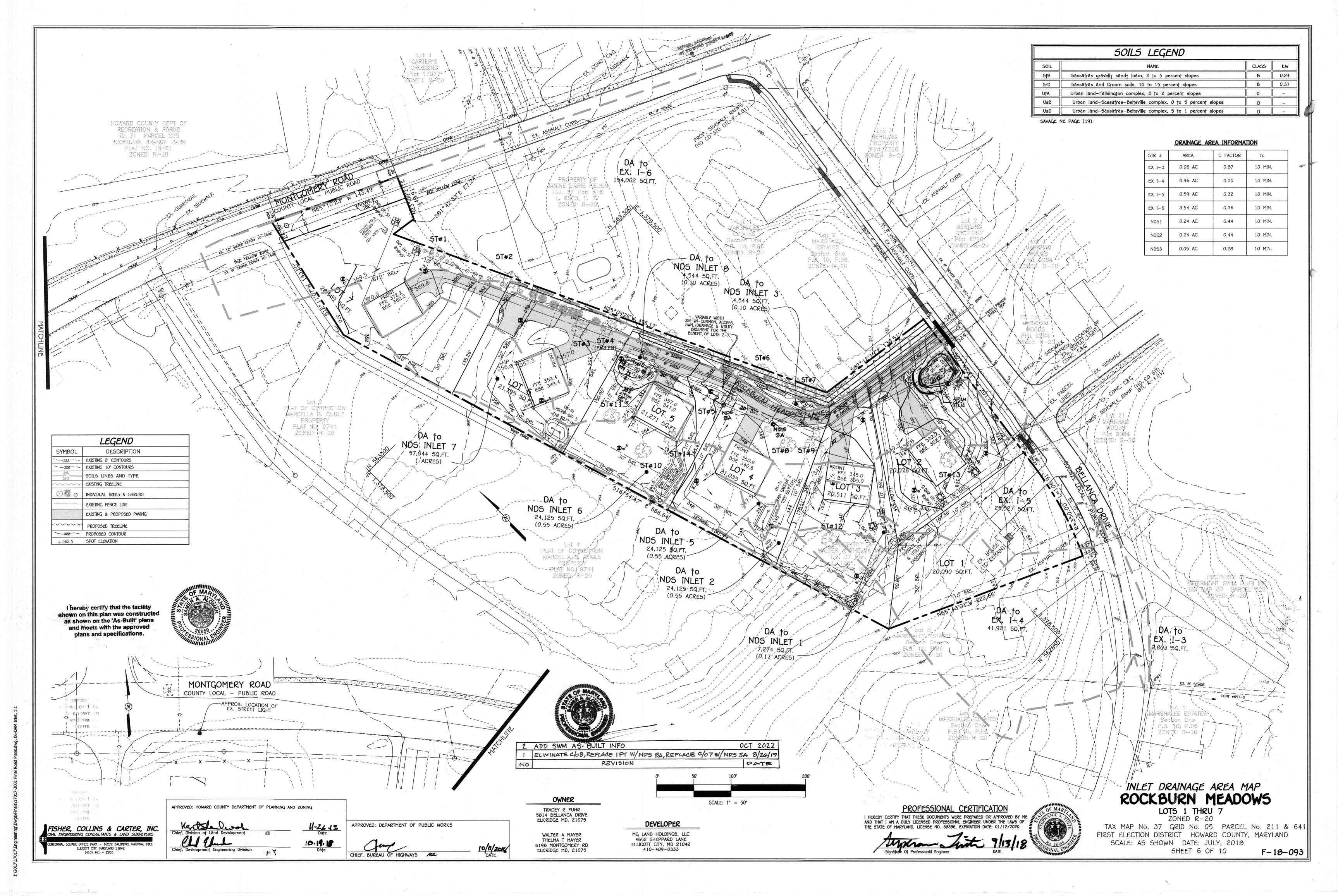
F-18-093

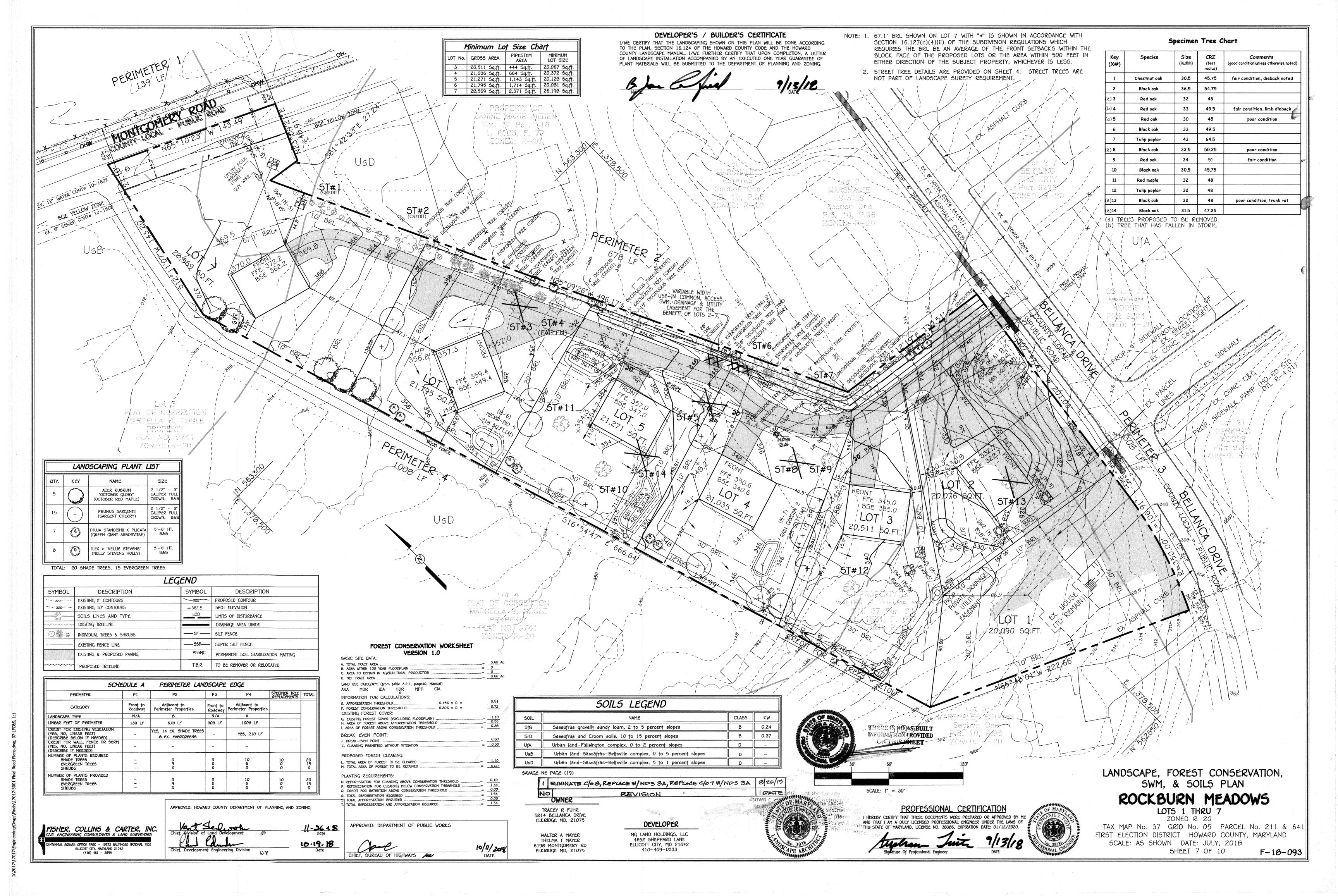


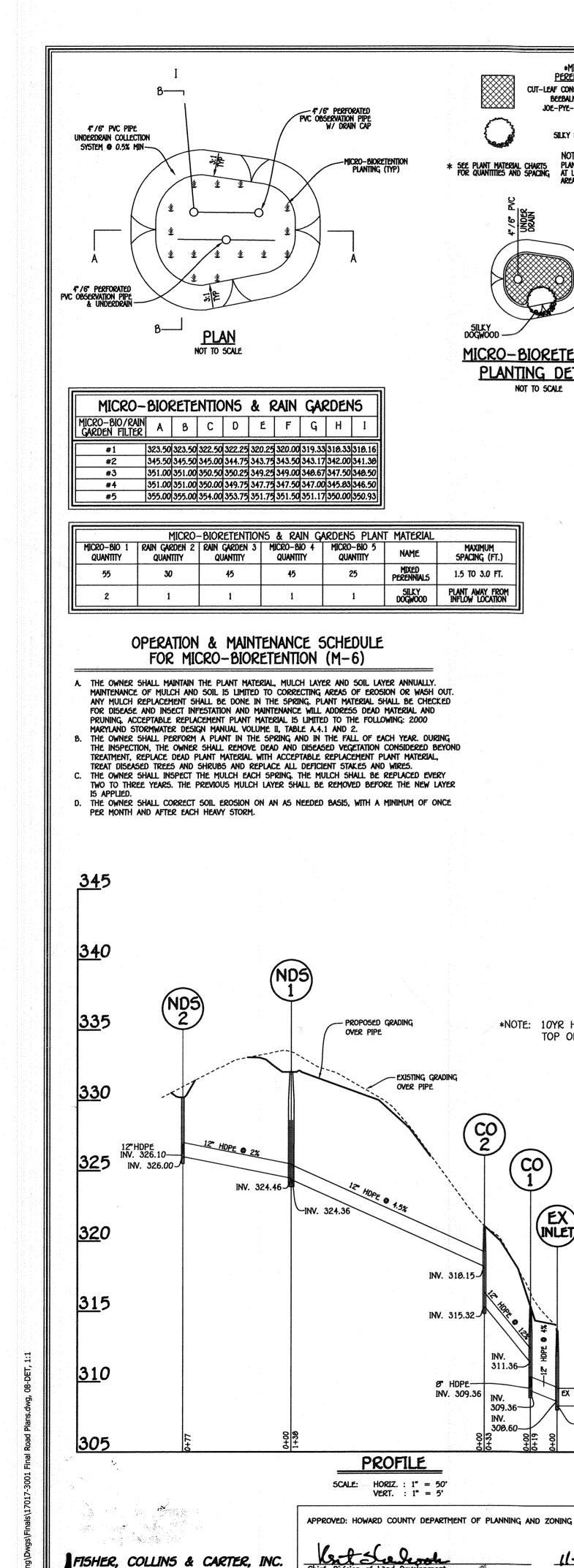




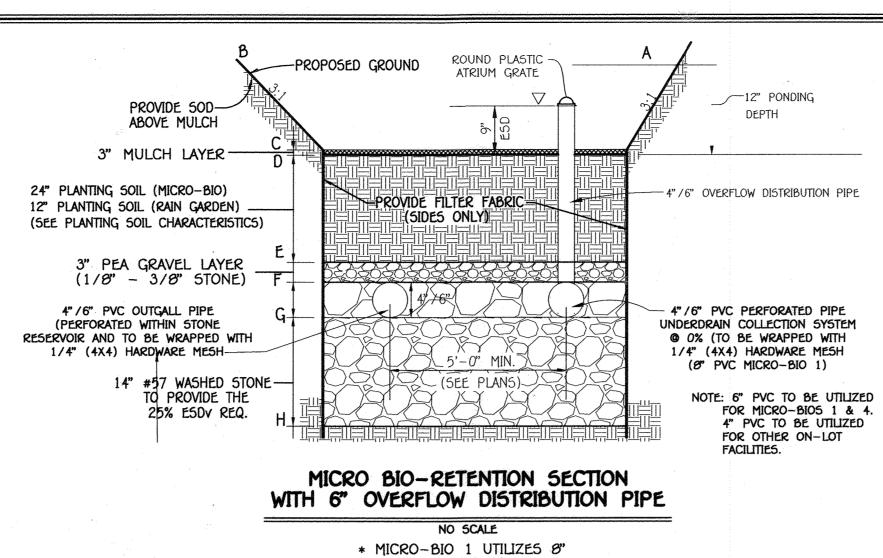








(410) 461 - 2<del>8</del>55



\*MIXED PERENNIALS

CUT-LEAF CONEFLOWER (1.5' SP.)

BEEBALM (1.5' SP.)

JOE-PYE-WEED (3' SP.)

SILKY DOGWOOD

\* SEE PLANT MATERIAL CHARTS
FOR QUANTITIES AND SPACING
AT LEAST 50% OF THE SURFACE
AREA OF THE MICRO-BIORETENTION

MICRO-BIORETENTION

PLANTING DETAIL

NAME

-existing grading

(CO)

INV. 318.15

INV. 315.32

309.36-

308.60-

OVER PIPE

SPACING (FT.)

1.5 TO 3.0 FT.

PLANT AWAY FROM INFLOW LOCATION

NOT TO SCALE

\*NOTE: 10YR HGL =

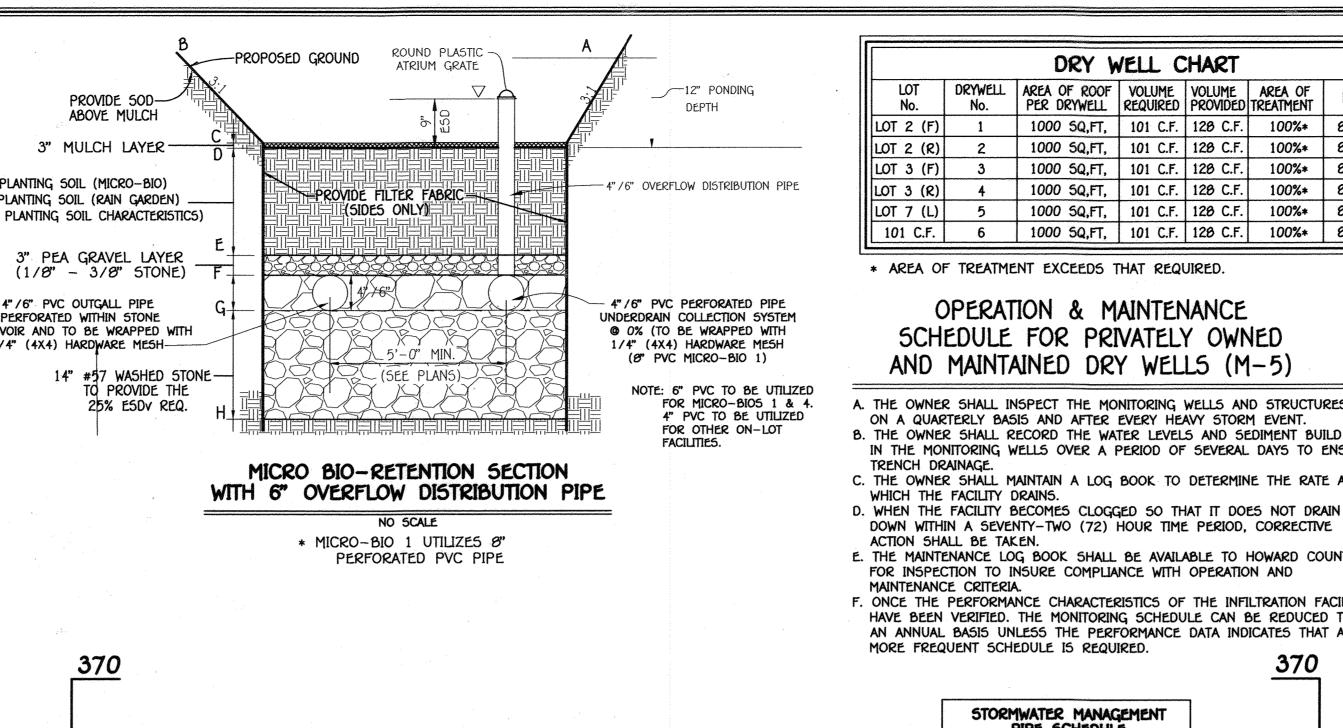
(INLET,

TOP OF PIPE

<u>330</u>

325

CHIEF, BUREAU OF HIGHWAYS



		DRY W	VELL C	1 IAK I				
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'	x 8'	x 5
LOT 2 (R)	2	1000 SQ,FT,	101 C.F.	128 C.F.	100%*	8'	x 8'	x 5
LOT 3 (F)	3	1000 5Q,FT,	101 C.F.	128 C.F.	100%*	8'	x 8'	x 5
LOT 3 (R)	4	1000 5Q,FT,	101 C.F.	128 C.F.	100%*	8'	x 8'	x 5
LOT 7 (L)	5	1000 SQ,FT,	101 C.F.	128 C.F.	100%*	8'	x 8'	x 5
101 C.F.	6	1000 5Q,FT,	101 C.F.	128 C.F.	100%*	8'	x 8'	x 5

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

A. THE OWNER SHALL INSPECT THE MONITORING WELLS AND STRUCTURES ON A QUARTERLY BASIS AND AFTER EVERY HEAVY STORM EVENT. B. 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. C. THE OWNER SHALL MAINTAIN A LOG BOOK TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS.

DOWN WITHIN A SEVENTY-TWO (72) HOUR TIME PERIOD, CORRECTIVE ACTION SHALL BE TAKEN. E. THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND

MAINTENANCE CRITERIA. F. 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

STORMWATER MANAGEMENT

TYPE

6" PVC, PERFORATED

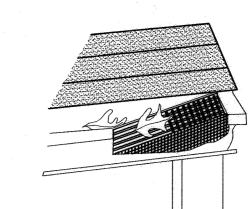
SIZE

PIPE SCHEDULE

MORE FREQUENT SCHEDULE IS REQUIRED. 370

LENGTH

64 L.F.



GUTTER DRAIN FILTER DETAIL

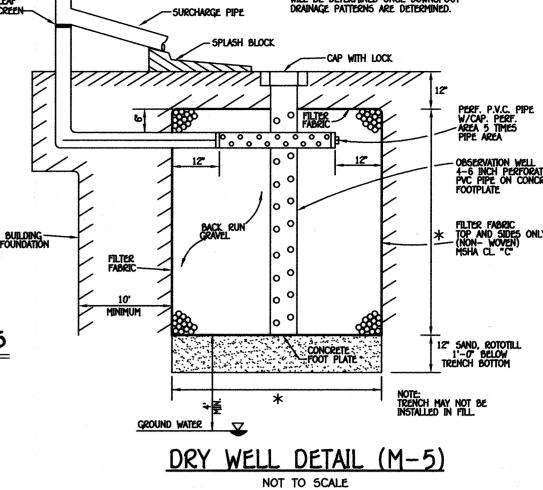
#### STORMWATER MANAGEMENT NOTES

- 1. STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH WITH CHAPTER 5, "ENVIRONMENTAL SITE DESIGN" OF THE 2007 MARYLAND STORMWATER MANAGEMENT DESIGN MANUAL, EFFECTIVE MAY 4, 2010.

  2. MAXIMUM CONTRIBUTING ROOF TOP AREA TO EACH DOWNSPOUT SHALL BE 1,000 SQ. FT. OR LESS.

  3. 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.

AND CONSTRUCTION OF THE DRYWELL SHALL BE IN ACCORDANCE WITH THE DETAIL SHOWN ON THIS SHEET. 4. FINAL GRADING IS SHOWN ON THE SITE DEVELOPMENT PLAN



	\$	TRUCTUR	E SCHEDULE			
TR #	STATION & OFFSET OR COORDINATES	TOP ELEV	TYPE	INV IN	INV OUT	
01	N 562,030.00 E 1,370,611.04	316.5	12" CLEANOUT	309.53 309.53 311.36	309.36	·
02	N 562,825.33 E 1,378,581.88	321.0	& CLEANOUT	318.84	315.32	
03	N 562,920.00 E 1,370,622.55	322.10	& CLEANOUT	318.84	310.74	
04	N 562,939.39 E 1,370,615.53	322. <b>5</b> )	& CLEANOUT	<b>/</b> 319.33	√319.23	1' 2-1
05	N 562,940.15 E 1,376,596.92	322.55	8" CLEANOUT	√319.43	√319.33	2-1/
06	N 562,960.46 E 1,370,529.74	336.0	6" CLEANOUT	332.57	320.07	
yds Ba	N 563,029.64 E 1,370,442.21	344.2	24" NDS INLET	341.47	341.37	
08	N 563,006.39 E 1,378,418.16	347.2	- CLEANOUT	344.67	344.57	:
09	N 563,165.44 E 1,370,394.46	351.5	8" CLEANOUT	346.50	346.33	W TURNBUCKLE
10	N 563,171.77 E 1,370,379.31	350.2	6" CLEANOUT	√347.00	√346.90	TOKINDOCKIE
11	N 563,107.03 E 1,370,374.19	350.25	6" CLEANOUT		√347.00	
D51	N 562,846.60 E 1,378,446.06	331.00	24" ND5 // INLET	324.46	324.36	
D52	N 562,032.40 E 1,370,367.04	329.0	24" ND5 INLET	326.10	326.00	
D53	N 563,014.75 E 1,370,406.57	341.0	24" ND5 INLET	338.97	330.07	
105 84	N 503,081.51 E 1378420.11	347.0	24" NDS INLET	344.42	344.32	5TAKING
DS4	NS62930.94 E1378623.29	322.7	24'NDS INLET	318.25	318.15	NOT TO S
DS8	NS63165.50 E1378394.17	351.3	24"NDS INLET	346.5	346.3	

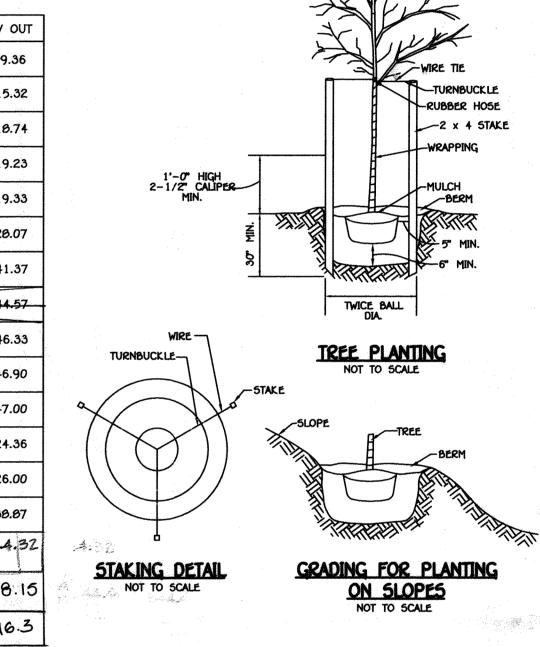


Table 8.4. Materials Specifications for Micro-Bioretention, Rain Gardens & Landscape Infiltration

Material	Specification	Size	Notes
Plantings	see Appendix A; Table A.4	n/ā	plantings are site-specific
Planting soil [2' to 4' deep]	loamy sand 60-65% compost 35-40% or sandy loam 30% coarse sand 30%		USDA soil types loamy sand or sandy loam; clay content <52
	compost 40%	&	
Organic Content	Min. 10% by dry weight (ASTM D 2974)		
Mulch	shredded hardwood		aged 6 months, minimum
Pea gravel diaphragm	pea gravel: ASTM-D-440	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)	AASHTO M-43	No. 57 or No. Aggregate (3/8" to 3/4")	
Underdrain piping	F 750, Type P5 20 or AASHTO M-270	4" to 6" rigid schedule 40 PVC or 5DR35	Slotted or perforated pipe; 3/8" pert. © 6" 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 at 20 days, normal weight, air-entrained; reinforcing to meet ASTM-615-60	n.a	on-site testing of poured-in-place concrete required: 20 day strength and slump test; all concrete design (cast-in-place or pre-cast) not using previously approved 57ate or local standards requires design drawings sealed and approved by a professional structural engineer licensed in the 57ate of Maryland - design to include meeting ACI Code 350.8/09; vertical loading IH-10 or H-201; allowable horizontal loading (based on soil pressures); and analysis of potential cracking
5and	AASHTO-M-6 or ASTM-C-33	0.02" to 0.04"	Sand substitutions such as Diabase and Graystone (AASHTO) #10 are not acceptable. No calcium carbonated or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.

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

6" 130 L.F. 8" PVC. PERFORATED 19 L.F.  $\begin{pmatrix} co \\ 11 \end{pmatrix}$ HOPE 16 L.F. 603 L.F. HDPE 19 L.F. HOPE - PROPOSED GRADING OVER PIPE (NDS) MDS 3A 10YR HGL = TOP OF PIPE  $\begin{pmatrix} co \\ 6 \end{pmatrix}$ - 10YR HGL = TOP OF PIPE  $\binom{\text{co}}{5}$ -10YR HGL = TOP OF PIPE 345 INV. 346.33 INV., 346.50 INV. 344.42 CO 4 340 INV. 338.87 330 INV. 332.40 (CO) INV. 332.30 8" SEWER INV. 332.30 INV. 328.07 -TOP OF PIPE 320 INV. 319.33 INV. 319.23 INV. 318.25 315 315 318.45 310 12" HOPE INV. 309.36

MG LAND HOLDINGS, LLC

4652 SHEPPARD LANE ELLICOTT CITY, MD 21042

410-409-0333

PROFILE 8/26/19 ELIMINATE CO-8, REPLACE IFT W/NDS 8-A , REPLACE CO-7 W/NDS 3A HORIZ. : 1" = 50' REVISION DATE VERT. : 1" = 5' 2 ADD SWM AS-BUILT INFO OWNER OCT 2022 TRACEY R FUHR 5014 BELLANCA DRIVE ELKRIDGE MD, 21075 DEVELOPER

WALTER A MAYER

THELMA T MAYER

6198 MONTGOMERY RD

ELKRIDGE MD, 21075

nereby certify that the facility yn on this plan was constructed shown on the 'As-Built' plans meets with the approved

HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY I

concinuate

F-18-093

A. Soil Preparation

a. Seedbed preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened, it must not be rolled or dragged smooth but left in the roughened condition. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the contour of the slope.

b. Apply fertilizer and lime as prescribed on the plans. . Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable means

a. A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishmen

i. Soil pH between 6.0 and 7.0

ii. Soluble salts less than 500 parts per million (ppm). iii. Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception: if lovegrass will be planted, then a sandy soil (less than 30 percent silt plus clay) would be acceptable

iv. Soil contains 1.5 percent minimum organic matter by weigh

v. Soil contains sufficient pore space to permit adequate root penetration

Application of amendments or topsoil is required if on-site soils do not meet the above conditions

c. Graded areas must be maintained in a true and even grade as specified on the approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches.

d. Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test

e. Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rake lawn areas to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface where site conditions will not permit normal seedbed preparation. Track slopes 3:1 or flatter with tracked equipment leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. Leave the top 1 to 3 inches of soil loose and triable. Seedbed loosening may be unnecessary on newly disturbed areas.

B. Topsoiling

. Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide a suitable soil medium t vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation 2. Topsoil salvaged from an existing site may be used provided 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-NRCS.

3. Topsoiling 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 turnish continuing supplies of moisture and plant

c. The original soil to be vegetated contains material toxic to plant growth.

d. The soil is so acidic that treatment with limestone is not feasible

l. Areas having slopes steeper than 2:1 require special consideration and design

5. Topsoil Specifications: Soil to be used as topsoil must meet the following criteria:

a. Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoil must not be a mixture of contrasting textured subsoils and must contain less than 5 percent by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2

b. Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison iv, thistle, or others as specified.

c. Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority may be used in lieu of natural topsoil.

6. Topsoil Application

Erosion and sediment control practices must be maintained when applying topsoil

b. Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. Spreading is to be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations must be corrected in order to prevent the formation of depressions or water pockets.

Topsoil must not be placed if the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

C. Soil Amendments (Fertilizer and Lime Specifications)

1. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more. Soil analysis may be performed by a recognized private or commercial laboratory. Soil samples taken for engineering purposes may above used for cremical analyses.

2. Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers must all be delivered to the site fully labeled according to the applicable laws and must bear the name, trade name or trademark and warranty of the producer.

3. Lime materials must be ground limestone (hydrated or burnt lime may be substituted except when hydroseeding) which contains at least 50 percent total oxides (calcium oxide plus magnesium oxide). Limestone must be ground to such fineness that at least 50 percent will pass through a #100 mesh sieve and 90 to 100 percent will pass through a #20 mesh sieve. 4. Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by disking or other suitable means 5. Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the rate of 4 to 8 tons/acre (200-400 pounds pe 1,000 square feet) prior to the placement of topsoil.

B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

The application of seed and mulch to establish vegetative cover

To protect disturbed soils from erosion during and at the end of construction

Conditions Where Practice Applies To the surface of all perimeter controls, slopes, and any disturbed area not under active grading

a. All seed must meet the requirement of the Maryland State Seed Law. All seed must be subject to re-testing by a recognized seed laboratory. All seed used must have been tested within the 6 months immediately preceding the date of sowing such material on any project. Refer to Table 8.4 regarding the quality of seed. Seed tags must be available upon request to the inspector to verify type of

b. Mulch alone may be applied between the fall and spring seeding dates only if the ground is frozen. The appropriate seeding mixture c. Inoculants: The inoculant for treating legume seed in the seed mixtures must be a pure culture of nitrogen fixing bacteria prepared specifically for the species. Inoculants must not be used later than the date indicated on the container. Add fresh inoculants as directed on the package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cook as possible until used. Temperatures above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less effective.

d. Sod or seed must not be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient

a. Dry Seeding: This includes use of conventional drop or broadcast spreaders.

time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table B.1, Permanent Seeding Table B.3, or site-specific ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction. Roll the seeded area with

weighted roller to provide good seed to soil contact. b. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be

firm after planting.

ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction.

c. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer).

i. If fertilizer is being applied at the time of seeding, the application rates should not exceed the following: nitrogen, 100 pounds per acre:

(absorberus) 200 pounds per acre: K O (potassium), 200 pounds per acre. total of soluble nitrogen; P O (phosphorus), 200 pounds per acre; K O (potassium), 200 pounds per acre.

ii. Lime: Use only ground agricultural limestone (up to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.

iii. Mix seed and fertilizer on site and seed immediately and without interruption. iv. When hydroseeding do not incorporate seed into the soil

a. Straw consisting of thoroughly threshed wheat, rye, oat, or barley and reasonably bright in color. Straw is to be free of noxious weed seeds as specified in the Maryland Seed Law and not musty, moldy, caked, decayed, or excessively dusty. Note: Use only sterile straw mulch in areas where one species of grass is desired.

b. Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose processed into uniform fibrous physical state.

i. WCFM is to be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.

ii. WCFM, including dye, must contain no germination or growth inhibiting factors.

iii. WCFM materials are to be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material must form a blotter-like ground cover, on application, having moisture absorption and percolation properties and must cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.

iv. WCFM material must not contain elements or compounds at concentration levels that will by phyto-toxic.

v. WCFM material must not contain elements or compounds at concentration levels that will by phyto-toxic.

v. WCFM must conform to the following physical requirements: fiber length of approximately 10 millimeters, diameter approximately 1 millimeters, pH range of 4.0 to 8.5, ash content of 1.6 percent maximum and water holding capacity of 90 percent minimum.

b. When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a uniform loose depth of 1 to 2 inches. Apply mulch to achieve a uniform distribution and depth so that the soil surface is not exposed. When using a mulch anchoring tool, increase the c. Wood cellulose fiber used as mulch must be applied to a net dry weight of 1500 pounds per acre. Mix the wood cellulose fiber with water to

attain a mixture with a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water. a. Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon the size of the area and erosion hazard:

i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of 2 inches. This

practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should follow the contour.

ii. Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. Mix the wood

ii. Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder of a net ary weight of 750 pounds per acre. Mix the wood cellulose fiber with water at a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.

iii. Synthetic binders such as Acrylic DLR (Agro-Tack), DCA-70, Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used.

Follow application rates as specified by the mappinacturer. Application of liquid binders needs to be heavier at the edges where wind catches mulch, such as in valleys and on containing the mappinacturer approaches in the catches with the containing may be stabled different acreding to manufacturer recommendations. Netting is usually available in rolls 4-15 feet wide and 300 to 3,000 feet 1000.

THERE IS NO AS-BU INFORMATION PROVI ON THIS SHEET FISHER, COLLINS & CARTER, INC IVIL ENGINEERING CONSULTANTS & LAND SURVEYORS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

11-26-13 10-14-18 TEMPORARY SEEDING NOTES (B-4-4)

To stabilize disturbed soils with vegetation for up to 6 months

To use fast growing vegetation that provides cover on disturbed soils. Conditions Where Practice Applies

Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time, permanent stabilization practices are required.

1. Select one or more of the species or seed mixtures listed in Table 8.1 for the appropriate Plant Hardiness Zone (from Figure 8.3), and enter them in the Temporary Seeding Summary below along with application rates, seeding dates and seeding depths. If this Summary is not put on the plan and completed, then Table B.1 plus fertilizer and lime rates must be put on the plan. 2. For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding.

3. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch alone as prescribed in Section B-4-3.A.1.b and maintain until the next seeding season.

ardiness Zon eed Mixture	e (from Figure B.: (from Table B.1):		Fertilizer Rate (10-20-20)	Lime Rațe	
Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths		
BARLEY	96	3/1 - 5/15.	์ปู*	436 lb/ac	2 tons/ac
0ATS	72	8/15 - 10/15	ଶ"	(10 lb/ 1000 sf)	(90 lb/ 1000 sf)
RYE	112		J"		

#### PERMANENT SEEDING NOTES (B-4-5) A. Seed Mixtures

General Use

a. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan. b. Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office

c. For sites having disturbed area over 5 acres, use and show the rates recommended by the soil testing agency. d. For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 1/2 pounds per 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown in the Permanent Seeding Summary.

a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance.

b. Select one or more of the species or mixtures listed below based on the site conditions or purpose Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The i. Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive management. Irrigation

required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegras Cultivars Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight. Kentucky Bluegrass/Perennial Rye: Full Sun Mixture: For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the

iii. Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes; Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 to 5 percent. Seeding

iv. Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes; Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 1 1/2 to 3

Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland"

Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line Ideal Times of Seeding for Turf Grass Mixtures Western MD: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5b, 6a) Central MD: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b) Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15

d. Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 1 1/2 inches in diameter The resulting seedbed must be in such condition that future moving of grasses will pose no difficulty. e. If soil moisture is deficient, supply new seedings with adequate water for plant growth ( 1/2 to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

			Permanent Se	eding Sum	marγ			
Hardiness Zone (from Figure B.3): 6b Seed Mixture (from Table B.3): 8					Fertiliza	er Rate (10-	20-20)	Lime Rate
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> 0	
8	TALL FESCUE	100	Mar. 1-May 15 Aug. 15-Oct. 15	1/4-1/2 in.	45 lbs. per acre	90 lb/ac (2 lb/	90 lb/ac (2 lb/	2 tons/ac (90 lb/
			-		(1.0 lb/ 1000 sf)	1000 sf)	1000 sf)	1000 sf)

#### Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).

General Specifications a. Class of turgrass sod must be Maryland State Certified. Sod labels must be made available to the iob

foreman and inspector. b. Sod must be machine cut at a uniform soil thickness to % inch, plus or minus 14 inch, at the time of cutting. Measurement for thickness must exclude top growth and thatch. Broken pads and torn or uneven ends will not

be acceptable c. Standard size sections of sod must be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section. d. Sod must not be harvested or transplanted when moisture content (excessively dry of wet) may adversely affect

e, Sod must be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period must be approved by an agronomist or soil scientist prior to its installation. a. During periods of excessively high temperature or in areas having dry subsoil, lightly irrigate the subsoil

b. Lay the first row of sod in a straight line with subsequent rows placed parallel to it and tightly wedged against each other. Stagger lateral joints to promote more uniform growth and strength. Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause air drying of the roots. c. Wherever possible, lay sod with the long edges parallel to the contour and with staggering joints. Roll and

tamp, peq or otherwise secure the sod to prevent slippage on slopes. Ensure solid contact exists between sod roots and the underlying soil surface.

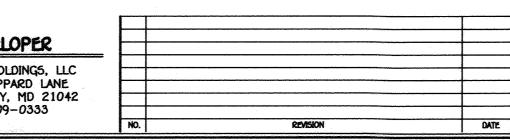
d. Water the sod immediately following rolling and tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. Complete the operations of laying, tamping, and irrigating for any piece of sod within eight hours.

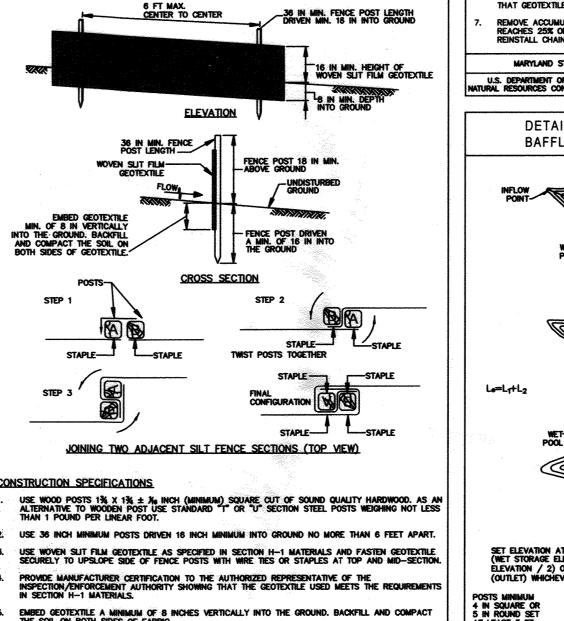
a. In the absence of adequate rainfall, water daily during the first week or as often and sufficiently as necessary to maintain moist soil to a depth of 4 inches. Water sod during the heat of the day to prevent wilting. b. After the first week, sod watering is required as necessary to maintain adequate moisture content. c. Do not mow until the sod is firmly rooted. No more than 1/3 of the grass leaf must be removed by the initial cutting or subsequent cuttings. Maintain a grass height of at least 3 inches unless otherwise specified.

THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISRICT. APPRQVED: MARD SOIL CONSERVATION DISTRICT APPROVED: DEPARTMENT OF PUBLIC WORKS

OWNER TRACEY R FUHR 5814 BELLANCA DRIVE ELKRIDGE MD, 21075

THE HOWARD SOIL CONSERVATION DISTRICT."



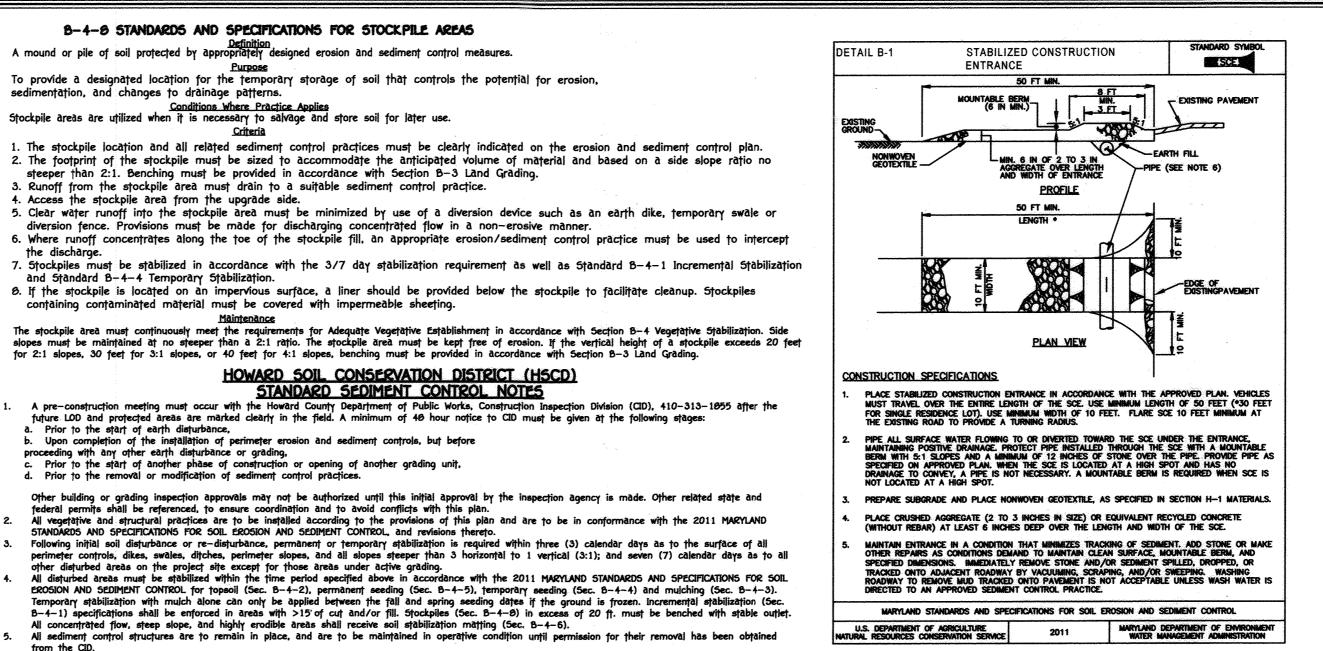


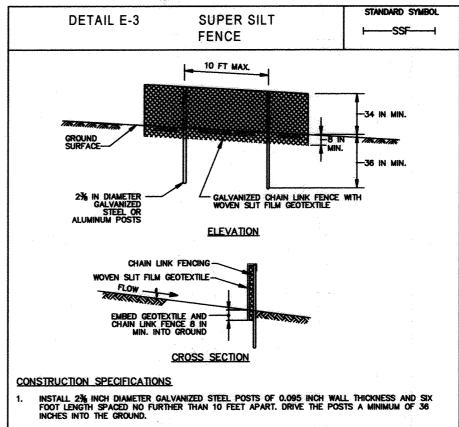
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USE 36 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APART. PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENT IN SECTION H-1 MATERIALS. EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND. BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FABRIC. WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.

SILT FENCE

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL 2011



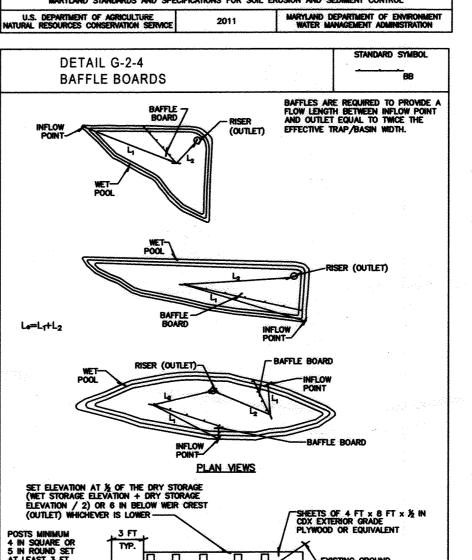


FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2% INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS. FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND M SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUN WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.

EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.

PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.

SUPER-SILT FENCE. (2 DAYS) REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE. MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL



-6 IN

BAFFLE DETAIL

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

2011

ISOMETRIC VIEW TOWN Y APRON LENGTH 10 FT MIN EXISTING GROUND SECTION A-A a - DEPTH OF OUTLET b - BOTTOM WIDTH OF OUTLET CONSTRUCTION SPECIFICATIONS CONSTRUCT TRAP IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE AVOIDED. CONSTRUCT TOP OF EMBANKMENT 1 FOOT MINIMUM ABOVE TOP OF RIPRAP OUTLET. COMPACT THE EMBANKMENT BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED. . MAKE ALL OUT AND FILL SLOPES 2:1 OR FLATTER USE CLEAN CLASS 1 RIPRAP PLACED 19 INCHES IN DEPTH FOR THE OUTLET AND APRON. USE OF RECYCLED CONCRETE EQUIVALENT IS ACCEPTABLE. CONSTRUCT AND MAINTAIN THE OUTLET ACCORDING TO APPROVED PLAN, AND IN SUCH A MANNER THAT EROSION AT OR BELOW THE OUTLET DOES NOT OCCUR. STABILIZE THE EMBANKMENT AND INTERIOR SLOPES WITH SEED AND MULCH. STABILIZE POINTS OF CONCENTRATED INFLOW AS SHOWN ON APPROVED PLAN. O. REMOVE SEDIMENT AND RESTORE TRAP TO ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO CLEANOUT ELEVATION (25% OF WET STORAGE DEPTH). DEPOSIT REMOVED SEDIMENT IN AN APPROVED AREA AND IN SUCH A MAINNER THAT IT WILL NOT ERODE. KEEP POINTS OF INFLOW AND OUTFLOW AS WELL AS INTERIOR OF THE TRAP FREE FROM EROSION AND REMOVE ACCUMULATED DEBRIS. MAINTAIN EMBANKMENTS TO CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION. REMOVE ANY TREES, BRUSH, OR OTHER WOODLY VEGETATION GROWING ON EMBANKMENT OR NEAR PRINCIPAL SPILLWAY. MAINTAIN LINE, GRADE, AND CROSS SECTION. WHEN DEWATERING TRAP, PASS THE REMOVED WATER THROUGH AN APPROVED SEDIMENT CONTROL 12. UPON REMOVAL, GRADE AND STABILIZE THE AREA OCCUPIED BY TRAP MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL MARYLAND DEPARTMENT OF ENVIRONMEN WATER MANAGEMENT ADMINISTRATION 2011

DETAIL G-1-3 RIPRAP OUTLET

SEDIMENT TRAP ST-III

STANDARD SYMBOL

MAXIMUM DRAINAGE AREA = 10 ACRES

#### SEQUENCE OF CONSTRUCTION

OBTAIN A GRADING PERMIT AND HOLD PRE-CONSTRUCTION MEETING WITH COUNTY INSPECTOR. (2 WEEKS)

NOTIFY "MISS UTILITY" AT LEAST 40 HOURS BEFORE BEGINNING ANY WORK AT 1-800-257-7777. NOTIFY THE HOWARD COUNTY DEPT OF PUBLIC WORKS, CONSTRUCTION INSPECTION DIVISION AT 410-313-1055 AT LEAST 40 HOURS BEFORE STARTING WORK.

INSTALL STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE, AND

INSTALL SEDIMENT TRAP, TEMPORARY STONE OUTLET STRUCTURE. AND STORM DRAIN PIPING FROM NDS INLET 2 TO THE EXISTING INLET IN BELLANCA DRIVE. INSTALL INLET PROTECTION FOR NDS INLETS 170 3 (5 DAYS) INCLUDING RIPRAP INFLOW PROTECTION IN SEPIMENT TRAP DEMOLISH EXISTING STRUCTURES. REMOVE ALL DESIGNATED UTILITIES SHOWN TO BE REMOVED AND PROVIDING SERVICE TO THE EXISTING HOUSE.

(1 MONTH) ROUGH GRADE SITE AND INSTALL SEWER AND WATER LINES PER COUNTY CONTRACT DRAWINGS. INSTALL REMAINING STORM DRAIN PIPING. (3 WEEKS) INSTALL EROSION CONTROL MATTING IN SWALES AS SHOWN ON THE PLANS,

AND TEMPORARY SEED DISTURBED AREAS AS NECESSARY. (3 DAYS) CONSTRUCT DRIVEWAY BASE PAVING AND INSTALL MOUNTABLE BERM.

9. AT ANY POINT IN THE SEQUENCE FROM HERE FORWARD, CURB & GUTTER ALONG MONTGOMERY ROAD AND SIDEWALK ALONG BELLANCA DRIVE MAY BE CONSTRUCTED. (5 DAYS)

10. INSTALL PERMANENT SEEDING. (3 DAYS) 11. ONCE INDIVIDUAL LOTS ARE CONSTRUCTED AND ALL FINE GRADING & STABILIZATION IS COMPLETE (HOUSES TO BE CONSTRUCTED UNDER FUTURE 5DP) AND WITH APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, MUCK OUT AND REMOVE SEDIMENT TRAP. (18 MONTHS)

12. UPON STABILIZATION, INSTALL ROOF LEADERS, DRYWELLS, AND MICRO-BIORETENTIONS. (3 DAYS EACH LOT) 13. ALL FINAL GRADES AND STABILIZATION SHOULD BE COMPLETED BEFORE ANY REMOVAL OF CONTROLS. WHEN ALL CONTRIBUTING AREAS TO THE SEDIMENT CONTROL DEVICES HAVE BEEN STABILIZED AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, THE SEDIMENT CONTROL DEVICES MAY

NOTE: THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE EACH RAINFALL AND ON A DAILY BASIS.

#### BUILDER/DEVELOPER'S CERTIFICATE

BE REMOVED. (3 DAYS)

"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 PERIOD ON-SITE INSPECTION BY THE HOWARD SOIL

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 SCALE: AS SHOWN DATE: JULY, 2018

SHEET 9 OF 10 F-18-093

fennial square office park — 10272 baltimore national pik ELLICOTT CITY, MARYLAND 2104 (410) 461 - 2855

CHIEF, BUREAU OF HIGHWAYS

immediately prior to laying the sod.

WALTER A MAYER THELMA T MAYER 6198 MONTGOMERY RD ELKRIDGE MD, 21075

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

B-4-8 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREAS

To provide a designated location for the temporary storage of soil that controls the potential for erosion

diversion fence. Provisions must be made for discharging concentrated flow in a non-erosive manner.

steeper than 2:1. Benching must be provided in accordance with Section B-3 Land Grading.

. The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan

8. If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to facilitate cleanup. Stockpiles

HOWARD SOIL CONSERVATION DISTRICT (HSCD) STANDARD SEDIMENT CONTROL NOTES

Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made. Other related state and federal permits shall be referenced, to ensure coordination and to avoid conflicts with this plan.

All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 2011 MARYLANG

Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.

Additional sediment control must be provided, if deemed necessary by the CID. The site and all controls shall be inspected by the contractor weekly; and the next day after each rain event. A written report by the contractor, made available upon request, is part of every inspection and should include:

9. Trenches for the construction of utilities is limited to three pipe lengths or that which can and shall be back-filled and stabilized by the end of each workday.

Wash water from any equipment, vehicles, wheels, pavement, and other sources must be treated in a sediment basin or other approved washout structure

All Silt Fence and Super Silt Fence shall be placed on-the-contour, and be imbricated at 25 minimum intervals, with lower ends curled uphill by 2 in elevation

A copy of this plan, the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and associated permits shall be on-site

PSSMC - \* 2.0 lb/ft

(\* INCLUDE SHEAR STRESS

Disturbance shall not occur outside the L.O.D. A project is to be sequenced so that grading activities begin on one grading unit (maximum acreage of 20 ac. per grading unit) at a time. Work may proceed to a subsequent grading unit when at least 50 percent of the disturbed area in the preceding grading unit has been stabilized and approved by the HSCD. Unless otherwise specified and approved by the HSCD, no more than 30 acres cumulatively may be disturbed at a

future LOD and protected areas are marked clearly in the field. A minimum of 40 hour notice to CID must be given at the following stages:

A mound or pile of soil protected by appropriately designed erosion and sediment control measures

Conditions Where Practice Applie

3. Runoff from the stockpile area must drain to a suitable sediment control practice.

containing contaminated material must be covered with impermeable sheeting.

b. Upon completion of the installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading,
c. Prior to the start of another phase of construction or opening of another grading unit.

other disturbed areas on the project site except for those areas under active grading.

tandards and specifications for soil erosion and sediment control, and revisions thereto.

2.26 1*0*00

Weather information (current conditions as well as time and amount of last recorded precipitation)
 Brief description of project's status (e.g., percent complete) and/or current activities

Acres Acres

d. Prior to the removal or modification of sediment control practices.

Stockpile areas are utilized when it is necessary to salvage and store soil for later use.

sedimentation, and changes to drainage patterns.

4. Access the stockpile area from the upgrade side.

and Standard B-4-4 Temporary Stabilization.

from the CID.

Area Disturbed:

\* Name and title of inspector

Evidence of sediment discharges
Identification of plan deficiencies

Use I and IP March 1 - June 15

and available when the site is active.

Use IV March 1 - May 31

STABILIZATION MATTING

CHANNEL APPLICATION

DETAIL B-4-6-C

\* Photographs
\* Monitoring/sampling

Area to be morfed or payed.

Area to be vegetatively stabilized:

Inspection type (routine, pre-storm event, during rain event)

Identification of sediment controls that require maintenance

Associated with Construction Activities (NPDES, MDE).

PERMANENT SOIL

\* Identification of missing or improperly installed sediment controls

\* Compliance status regarding the sequence of construction and stabilization

Maintenance and/or corrective action performed
 Other inspection items as required by the General Permit for Stormwate

Minor revisions may allowed by the CID per the list of HSCD-approved field changes.

15. Stream channels must not be disturbed during the following restricted time periods (inclusive):

13. Topsoil shall be stockpiled and preserved on-site for redistribution onto final grade.

ISOMETRIC VIEW

USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.

USE PERMANENT SOIL STABILIZATION MATTING MADE OF OPEN WEAVE SYNTHETIC, NON-DEGRADABLE FIBERS OR ELEMENTS OF UNIFORM THICKNESS AND DISTRIBUTION THROUGHOUT. CHEMICALS USED IN THE MAT MUS BE NON-LEACHING AND NON-TOJAC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2×2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.

SECURE MATTING USING STEEL STAPLES OR WOOD STAKES. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1 ½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPE AT THE BOTTOM.

UNROLL MATTING IN DIRECTION OF WATER FLOW, CENTERING THE FIRST ROLL ON THE CHANNEL CENTER LIN WORK FROM CENTER OF CHANNEL OUTWARD WHEN PLACING ROLLS. LAY MATTING SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.

OVERLAP OR ABUT EDGES OF MATTING ROLLS PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE NEXT DOWNSTREAM MAT.

KEY IN THE TOP OF SLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.

IF SPECIFIED BY THE DESIGNER OR MANUFACTURER AND DEPENDING ON THE TYPE OF MAT BEING INSTALLE ONCE THE MATTING IS KEYED AND STAPLED IN PLACE, FILL THE MAT VOIDS WITH TOP SOIL OR GRANULAR MATERIAL AND LIGHTLY COMPACT OR ROLL TO MAXIMIZE SOIL/MAT CONTACT WITHOUT CRUSHING MAT.

ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

2011

ENGINEER'S CERTIFICATE

"I/WE CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS !

CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF

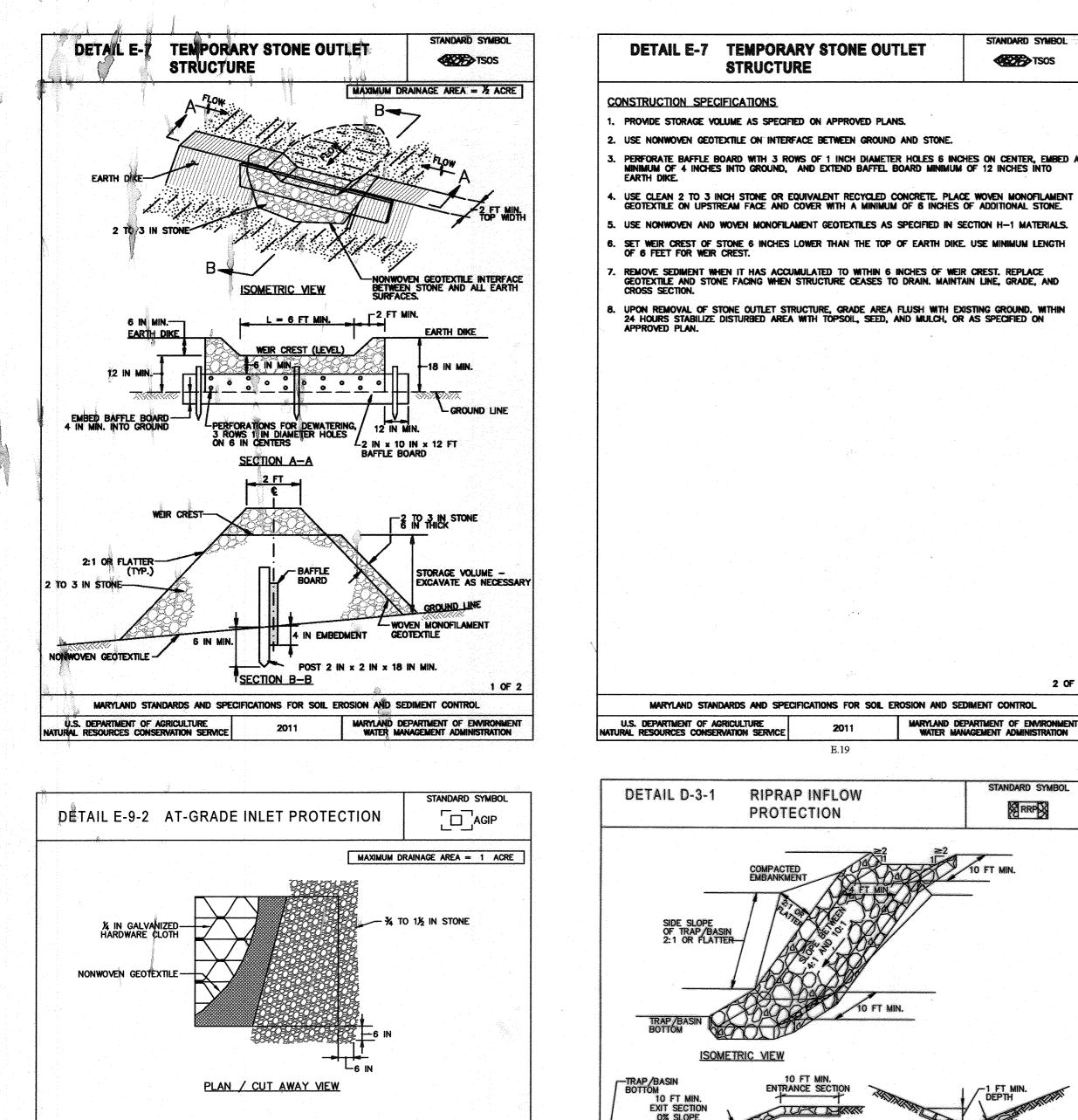
PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE

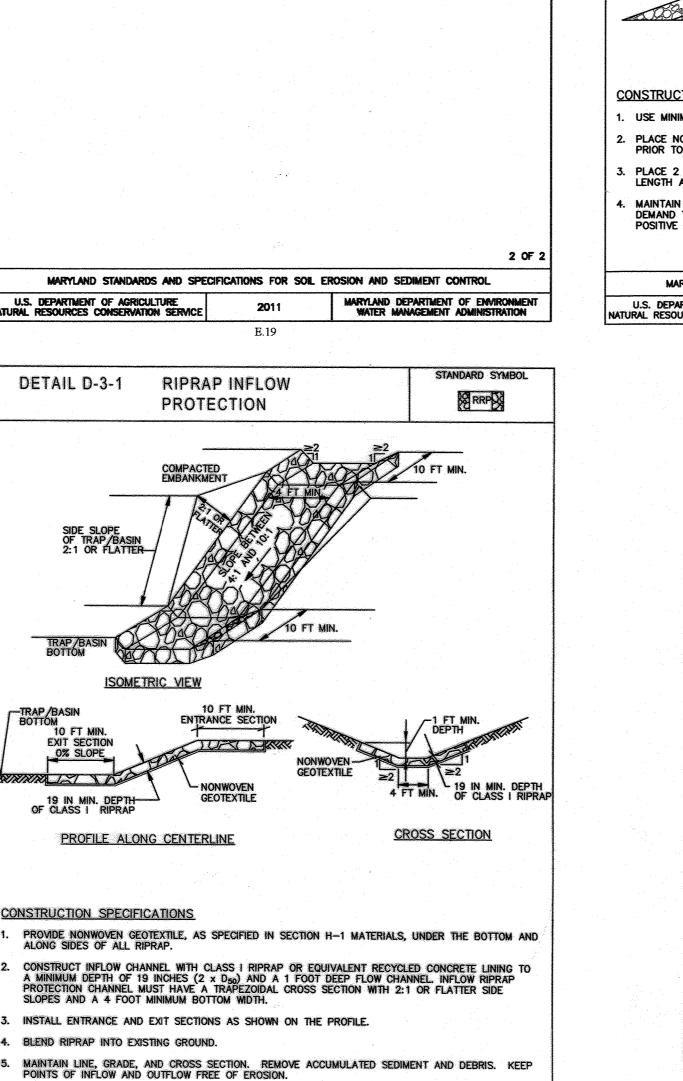
SHEAR STRESS FOR PSSMC = 62.4 LBS/FT x 0.05 FT x 0.04 = 2.0 LBS/FT

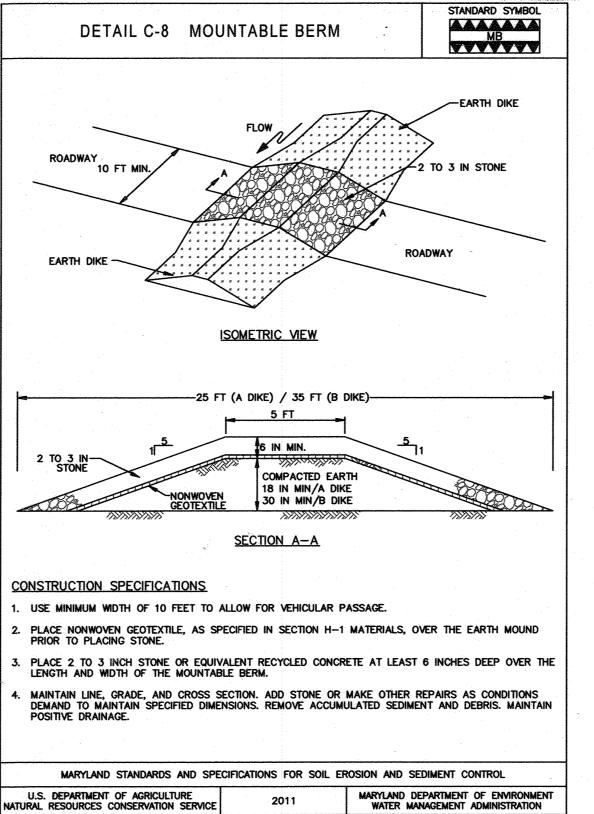
STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.

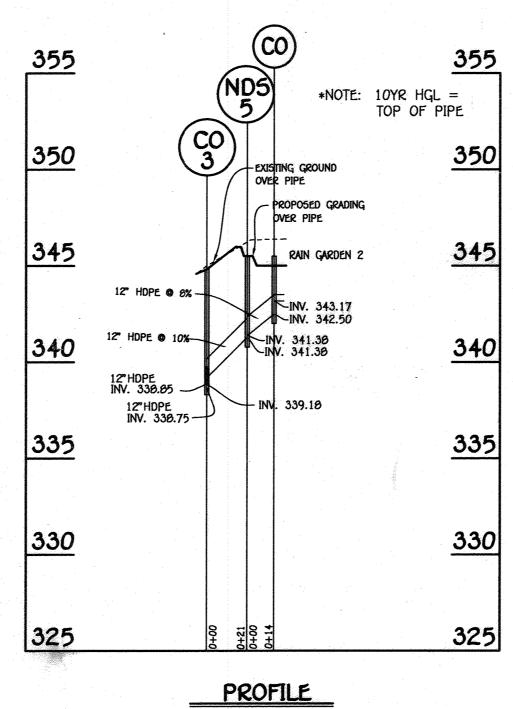


4 FT CENTER TO CENTER





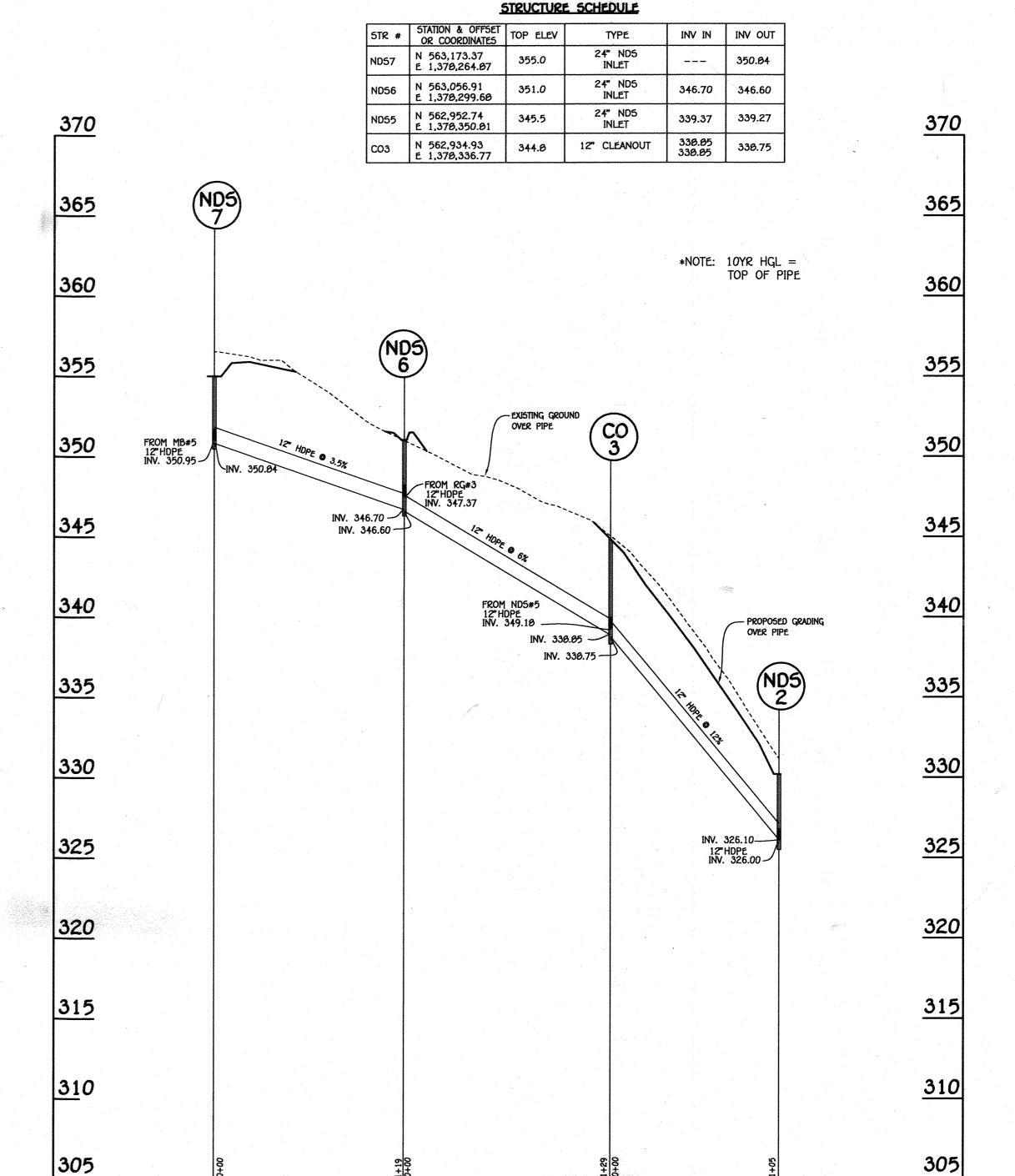




5CALE: HORIZ. : 1" = 50' VERT. : 1" = 5'

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



PROFILE

5CALE: HORIZ. : 1" = 50' VERT. : 1" = 5'

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



"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

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING FISHER, COLLINS & CARTER, INC. IVIL ENGINEERING CONSULTANTS & LAND SURVEYORS ELLICOTT CITY, MARYLAND 21042 (410) 461 - 2855

CROSS SECTION

2. LIFT GRATE AND WRAP WITH NONWOVEN GEOTEXTILE TO COMPLETELY COVER ALL OPENINGS. SECURE WITH WRE TIES AND SET GRATE BACK IN PLACE.

PLACE CLEAN % TO 1% INCH STONE OR EQUIVALENT RECYCLED CONCRETE 6 INCHES THICK ON THE GRATE.

STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN MITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.

CONSTRUCTION SPECIFICATIONS

THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISRICT. APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

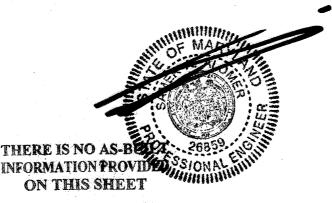
CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF OWNER TRACEY R FUHR 5814 BELLANCA DRIVE ELKRIDGE MD, 21075 DEVELOPER

WALTER A MAYER THELMA T MAYER

6198 MONTGOMERY RD

ELKRIDGE MD, 21075

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



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 SCALE: AS SHOWN DATE: JULY, 2018

SHEET 10 OF 10 F-18-093