24 | 593889.6064 | 1353234.0971 | 62 | 593026.9666 | 1353895.5774

26 | 593517.1576 | 1355299.5672 | 64 | 593107.8548 | 1354592.2489

592133.7735 | 1355101.3705 | 74 | 592827.4972 | 1353073.6836

8 | 592097.6579 | 1355007.9558 | 76 | 593217.5419 | 1355314.7481

592101.8656 | 1355078.8379 | 75 | 593342.9108 | 1353194.8086

593116.4433 1354352.8932

25 | 593640.3071 | 1353235.4953 | 63

593243.2758 | 1355822.6408 | 66

	COC	ORDIN	IA T	TE TAI	BLE		OPEN S	PACE	CHART	_
Point #	Northing 594172.6867	Easting 1353324.5106	Point #	Northing 592423.3863	Easting 1354663.6996	LOT No.	OWNER	OPEN SPACE AREA (AC)	NON CREDITED OPEN SPACE AREA (AC)	PURPOSE
3	594190.0730 594191.6490	1353369.4753 1353370.0969	40 41	593081.2535 593106.0097	1354666.3302 1354691.5593	156	HOMEOWNERS ASSOCIATION	6.51	2.68	OPEN SPACE
4	594122.1068	1353546.4262	42	593010.7452	1355144.0795	157	HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS	7.43	0	OPEN SPACE
5 6	593897.4439 593827.5186	1354136.1383 1354455.1373	43	592833.1063 592922.2352	1355516.8535 1355493.9052	158	HOMEOWNERS ASSOCIATION	3.31	0.98	OPEN SPACE
7	593825.9080	1354478.4697	45	592914.2352	1355462.8341	159	HOMEOWNERS ASSOCIATION	1.92	0.28	OPEN SPACE
8	593819.7748 593818.5736	1354728.4133 1354878.5219	46 47	593055.8822 593155.5295	1355165.5887 1354734.0942	160	HOMEOWNERS ASSOCIATION	1.64	0.05	OPEN SPACE
10	593813.1268	1355749.8783	48	593166.3855	1354355.2967	161	HOMEOWNERS ASSOCIATION	0.79	0	OPEN SPACE
11 12	593841.4499 593808.2093	1355936.3101 1355929.9935	49 50	593072.3203 592994.4260	1353874.5288 1353620.9932	162	HOMEOWNERS ASSOCIATION	0.52	0	OPEN SPACE
13	593783.1260	1355749.9154	51	592970.1243	1353471.9604	163	HOMEOWNERS ASSOCIATION	1.14	0.02	OPEN SPACE
14	593788.5743	1354878.3081	52	592955.3459	1353249.6291	164	HOMEOWNERS ASSOCIATION	1.73	0.27	OPEN SPACE
15 16	593789.7768 593568.4336	1354728.0461 1354725.3363	53 54	592973.7912 592979.1091	1353181.8612 1353132.9697	165	HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS	2.42	0.02	OPEN SPACE
17	593571.4940	1354475.3550	55	593004.5606	1353115.2944	166	HOMEOWNERS ASSOCIATION	7.27	1.69	OPEN SPACE
18 19	593795.8621 593797.6153	1354478.1018 1354452.7022	56 57	592887.1599 592906.2097	1353087.7046 1353115.4309	167	HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS	10.83	0	OPEN SPACE
20	593869.2706	1354125.8224	58	592899.3866	1353176.6136	168	HOWARD COUNTY DEPARTMENT OF	0.20	0	OPEN SPACE
21	594094.1351 594167.5621	1353535.5811 1353349.4015	59 60	592905.2123 592920.7761	1353251.3870		RECREATION AND PARKS	45.71	5.99	
23	594154.1444	1353317.0194	61	592945.0777	1353629.0401	NOTE:	See General Note	8 for this pro	ject's total op	en

RECREATIONAL OPEN SPACE											
North Section Recreational Open Space											
		Open Space	Open Space								
<u>Unit Type</u>	# of Units	<u>Calculation</u>	<u>Requirement</u>								
Single Family Detached Units	0	200 s.f./unit	0 s.f.								
Single Family Attached/Semi-	20										
<u>Detatched Units</u>	38	400 s.f./unit	15,200 S.F.								
Total Required			15,200 S.F.								
Total Provided			30,627 S.F								

South Section Recreation Open Space			
		Open Space	Open Space
<u>Unit Type</u>	# of Units	<u>Calculation</u>	<u>Requirement</u>
Single Family Detached Units	19	200 s.f./unit	3,800 S.F.
Single Family Attached/Semi-	0.7		
<u>Detatched Units</u>	<u>97</u>	400 s.f./unit	38,800 S.F.
Total Required			42,600 S.F.
Total Provided			45,995 S.F.

										,				
LC	T SIZE & DWE	ELLING TYPE CHART	LOT SIZE & DWELLING TYPE CHART			LC	T SIZE & DWI	ELLING TYPE CHART	LC	LOT SIZE & DWELLING TYPE CHART				
LOT#	GROSS AREA (SF)	DWELLING TYPE	LOT#	GROSS AREA (SF)	DWELLING TYPE	LOT#	GROSS AREA (SF)	DWELLING TYPE	LOT#	GROSS AREA (SF)	DWELLING TYPE			
1	2,800 (SF)	SINGLE FAMILY ATTACHED	37	9,175 (SF)	SINGLE FAMILY DETACHED	73	3,066 (SF)	SINGLE FAMILY ATTACHED	109	3,066 (SF)	SINGLE FAMILY ATTACHED			
2	2,800 (SF)	SINGLE FAMILY ATTACHED	38	3,342 (SF)	SINGLE FAMILY ATTACHED	74	3,066 (SF)	SINGLE FAMILY ATTACHED	110	3,066 (SF)	SINGLE FAMILY ATTACHED			
3	2,800 (SF)	SINGLE FAMILY ATTACHED	39	3,380 (SF)	SINGLE FAMILY ATTACHED	75	3,066 (SF)	SINGLE FAMILY ATTACHED	111	3,066 (SF)	SINGLE FAMILY ATTACHED			
4	2,800 (SF)	SINGLE FAMILY ATTACHED	40	3,379 (SF)	SINGLE FAMILY ATTACHED	76	3,066 (SF)	SINGLE FAMILY ATTACHED	112	3,066 (SF)	SINGLE FAMILY ATTACHED			
5	2,800 (SF)	SINGLE FAMILY ATTACHED	41	3,340 (SF)	SINGLE FAMILY ATTACHED	77	3,066 (SF)	SINGLE FAMILY ATTACHED	113	3,066 (SF)	SINGLE FAMILY ATTACHED			
6	2,800 (SF)	SINGLE FAMILY ATTACHED	42	3,304 (SF)	SINGLE FAMILY ATTACHED	78	3,066 (SF)	SINGLE FAMILY ATTACHED	114	3,066 (SF)	SINGLE FAMILY ATTACHED			
7	2,800 (SF)	SINGLE FAMILY ATTACHED	43	3,259 (SF)	SINGLE FAMILY ATTACHED	79	3,066 (SF)	SINGLE FAMILY ATTACHED	115	3,066 (SF)	SINGLE FAMILY ATTACHED			
8	2,800 (SF)	SINGLE FAMILY ATTACHED	44	3,191 (SF)	SINGLE FAMILY ATTACHED	80	3,066 (SF)	SINGLE FAMILY ATTACHED	116	3,019 (SF)	SINGLE FAMILY ATTACHED			
9	2,800 (SF)	SINGLE FAMILY ATTACHED	45	3,209 (SF)	SINGLE FAMILY ATTACHED	81	3,101 (SF)	SINGLE FAMILY ATTACHED	117	2,940 (SF)	SINGLE FAMILY ATTACHED			
10	2,800 (SF)	SINGLE FAMILY ATTACHED	46	3,174 (SF)	SINGLE FAMILY ATTACHED	82	2,800 (SF)	SINGLE FAMILY ATTACHED	118	2,940 (SF)	SINGLE FAMILY ATTACHED			
11	2,800 (SF)	SINGLE FAMILY ATTACHED	47	3,078 (SF)	SINGLE FAMILY ATTACHED	83	2,800 (SF)	SINGLE FAMILY ATTACHED	119	2,940 (SF)	SINGLE FAMILY ATTACHED			
12	2,800 (SF)	SINGLE FAMILY ATTACHED	48	3,219 (SF)	SINGLE FAMILY ATTACHED	84	2,800 (SF)	SINGLE FAMILY ATTACHED	120	2,940 (SF)	SINGLE FAMILY ATTACHED			
13	2,800 (SF)	SINGLE FAMILY ATTACHED	49	3,025 (SF)	SINGLE FAMILY ATTACHED	85	2,800 (SF)	SINGLE FAMILY ATTACHED	121	2,941 (SF)	SINGLE FAMILY ATTACHED			
14	2,800 (SF)	SINGLE FAMILY ATTACHED	50	3,199 (SF)	SINGLE FAMILY ATTACHED	86	2,800 (SF)	SINGLE FAMILY ATTACHED	122	2,941 (SF)	SINGLE FAMILY ATTACHED			
15	2,800 (SF)	SINGLE FAMILY ATTACHED	51	3,492 (SF)	SINGLE FAMILY ATTACHED	87	2,800 (SF)	SINGLE FAMILY ATTACHED	123	2,941 (SF)	SINGLE FAMILY ATTACHED			
16	2,800 (SF)	SINGLE FAMILY ATTACHED	52	3,880 (SF)	SINGLE FAMILY ATTACHED	88	2,802 (SF)	SINGLE FAMILY ATTACHED	124	2,941 (SF)	SINGLE FAMILY ATTACHED			
17	2,800 (SF)	SINGLE FAMILY ATTACHED	53	3,043 (SF)	SINGLE FAMILY ATTACHED	89	2,800 (SF)	SINGLE FAMILY ATTACHED	125	2,800 (SF)	SINGLE FAMILY ATTACHED			
18	2,800 (SF)	SINGLE FAMILY ATTACHED	54	3,083 (SF)	SINGLE FAMILY ATTACHED	90	2,800 (SF)	SINGLE FAMILY ATTACHED	126	2,800 (SF)	SINGLE FAMILY ATTACHED			
19	8,778 (SF)	SINGLE FAMILY DETACHED	55	3,113 (SF)	SINGLE FAMILY ATTACHED	91	3,382 (SF)	SINGLE FAMILY ATTACHED	127	2,800 (SF)	SINGLE FAMILY ATTACHED			
20	8,792 (SF)	SINGLE FAMILY DETACHED	56	3,091 (SF)	SINGLE FAMILY ATTACHED	92	3,278 (SF)	SINGLE FAMILY ATTACHED	128	2,800 (SF)	SINGLE FAMILY ATTACHED			
21	8,792 (SF)	SINGLE FAMILY DETACHED	57	3,127 (SF)	SINGLE FAMILY ATTACHED	93	2,800 (SF)	SINGLE FAMILY ATTACHED	129	2,786 (SF)	SINGLE FAMILY ATTACHED			
22	8,792 (SF)	SINGLE FAMILY DETACHED	58	3,181 (SF)	SINGLE FAMILY ATTACHED	94	2,800 (SF)	SINGLE FAMILY ATTACHED	130	2,800 (SF)	SINGLE FAMILY ATTACHED			
23	8,792 (SF)	SINGLE FAMILY DETACHED	59	3,168 (SF)	SINGLE FAMILY ATTACHED	95	2,800 (SF)	SINGLE FAMILY ATTACHED	131	2,800 (SF)	SINGLE FAMILY ATTACHED			
24	8,792 (SF)	SINGLE FAMILY DETACHED	60	3,086 (SF)	SINGLE FAMILY ATTACHED	96	2,800 (SF)	SINGLE FAMILY ATTACHED	132	2,800 (SF)	SINGLE FAMILY ATTACHED			
25	11,732 (SF)	SINGLE FAMILY DETACHED	61	3,024 (SF)	SINGLE FAMILY ATTACHED	97	2,800 (SF)	SINGLE FAMILY ATTACHED	133	2,800 (SF)	SINGLE FAMILY ATTACHED			
26	9,927 (SF)	SINGLE FAMILY DETACHED	62	3,024 (SF)	SINGLE FAMILY ATTACHED	98	2,800 (SF)	SINGLE FAMILY ATTACHED	134	2,800 (SF)	SINGLE FAMILY ATTACHED			
27	8,691 (SF)	SINGLE FAMILY DETACHED	63	3,024 (SF)	SINGLE FAMILY ATTACHED	99	2,800 (SF)	SINGLE FAMILY ATTACHED	135	2,800 (SF)	SINGLE FAMILY ATTACHED			
28	8,702 (SF)	SINGLE FAMILY DETACHED	64	3,024 (SF)	SINGLE FAMILY ATTACHED	100	2,800 (SF)	SINGLE FAMILY ATTACHED	136	2,800 (SF)	SINGLE FAMILY ATTACHED			
29	8,699 (SF)	SINGLE FAMILY DETACHED	65	3,079 (SF)	SINGLE FAMILY ATTACHED	101	2,798 (SF)	SINGLE FAMILY ATTACHED	137	2,800 (SF)	SINGLE FAMILY ATTACHED			
30	8,701 (SF)	SINGLE FAMILY DETACHED	66	3,090 (SF)	SINGLE FAMILY ATTACHED	102	2,800 (SF)	SINGLE FAMILY ATTACHED	138	2,800 (SF)	SINGLE FAMILY ATTACHED			
31	8,699 (SF)	SINGLE FAMILY DETACHED	67	3,079 (SF)	SINGLE FAMILY ATTACHED	103	2,800 (SF)	SINGLE FAMILY ATTACHED	139	2,800 (SF)	SINGLE FAMILY ATTACHED			
32	8,831 (SF)	SINGLE FAMILY DETACHED	68	3,066 (SF)	SINGLE FAMILY ATTACHED	104	2,800 (SF)	SINGLE FAMILY ATTACHED	140	2,800 (SF)	SINGLE FAMILY ATTACHED			
33	8,426 (SF)	SINGLE FAMILY DETACHED	69	3,066 (SF)	SINGLE FAMILY ATTACHED	105	3,065 (SF)	SINGLE FAMILY ATTACHED	141	2,800 (SF)	SINGLE FAMILY ATTACHED			
34	8,307 (SF)	SINGLE FAMILY DETACHED	70	3,066 (SF)	SINGLE FAMILY ATTACHED	106	3,066 (SF)	SINGLE FAMILY ATTACHED	142	2,800 (SF)	SINGLE FAMILY ATTACHED			

NEIGHBORHOOD	TOTAL UNITS	SINGLE FAMILY ATTACHED VILLAS	FAMILY SEMI- DETACHED VILLAS	SINGLE- FAMILY DETACHED UNITS	SPACES FOR DWELLING UNITS (2 SPACES/DWELLING UNIT)	PARKING SPACES FOR DWELLING UNITS *	REQUIRED PARKING SPACES FOR GUEST (0.3 SPACES/DWELLING UNIT)	PARKING SPACES FOR	COMMUNITY BUILDING PARKING ***	GUEST PARKING SPACES IN COMMON AREAS	TOTAL PARKING SPACES	
ORTH COMMUNITY												ĺ
Α	38	34	4		76	76	12	76	8	17	177	ĺ
ORTH COMMUNITY TOTAL	38	34	4			76		76	8	17	177	
		1			l l				1			4

ROAD NAME

ROAD 1

ROAD 4

ROAD 5

ROAD 6

**UNIT & PARKING SCHEDULE TABLE** 

SINGLE FAMILY ATTACHED 107 3,066 (SF) SINGLE FAMILY ATTACHED 143 2,800 (SF) SINGLE FAMILY ATTACHED

SINGLE FAMILY ATTACHED 108 3,066 (SF) SINGLE FAMILY ATTACHED 144 2,707 (SF) SINGLE FAMILY ATTACHED

TOTAL								
TOTAL UNITS 154 131		4	19	308	308	48	308	30
SITE ANALYS	SIS DA	ATA /	TABUL	ATION		THIS PROJECT IS IN A B.3.C. AND 133.0.D.2.		

3.066 (SF)

TOTAL PROJECT AREA AREA OF WETLANDS AND BUFFER AREA OF 100-YR FLOODPLAIN 2.10 AC. AREA OF FOREST 27.60 AC. AREA OF STEEP SLOPES (25% OR GREATER) 0.44 AC. AREA OF PUBLIC ROAD DEDICATION (ROAD R/W) 7.09 AC. INTERMITTENT STREAM & 50' BUFFER HIGHLY ERODIBLE SOILS (K> 0.35) 14.37 AC. NUMBER OF RESIDENTIAL UNITS TO REMAIN NUMBER OF RESIDENTIAL UNITS PROPOSED LIMIT OF DISTURBED AREA PRESENT ZONING DESIGNATION AGE RESTRICTED ADULT HOUSING PROPOSED USE: IMPERVIOUS COVER 17.24 AC.

NOTE: THE TOTAL PROPERTY AREA IS 68.56 ACRES. 100-YR FLOODPLAINS, FORESTED AREAS. AREAS OF STEEP SLOPES. AND ERODIBLE SOILS HAVE BEEN IDENTIFIED WITHIN THE PROJECT AREA.

TENTATIVELY APPROVED **DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY** 11/17/2021

DATE

PLANNING DIRECTOR

FACILITY NAME & NUMBER	PRACTICE TYPE (QUALITY)	PUBLIC	PRIVATE	HOA MAINTAINS	HOMEOWNER MAINTAINS	MISC.
8' X 14' DRYWELLS (1,000SF)	MDE M-5		√		V	HOMEOWNER
7' X 12' DRYWELLS (748 SF)	MDE M-5		√		1	HOMEOWNER
SURFACE SAND FILTER FACILITY #A1	MDE F-1		√	√		
MICRO-BIORETENTION FACILITY #A2	MDE M-6		√	√		
MICRO-BIORETENTION FACILITY #A3	MDE M-6		√	√		
MICRO-BIORETENTION FACILITY #A4	MDE M-6		√	√		
MICRO-BIORETENTION FACILITY #A5	MDE M-6		√	√		
MICRO-BIORETENTION FACILITY #A6	MDE M-6		√	√		
MICRO-BIORETENTION FACILITY #A7	MDE M-6		√	√		
SURFACE SAND FILTER FACILITY #A8	MDE F-1		<b>√</b>	√		
MICRO-BIORETENTION FACILITY #C1	MDE M-6		<b>√</b>	√		
MICRO-BIORETENTION FACILITY #C2	MDE M-6		<b>√</b>	√		
DETENTION POND FACILITY #C3			√	√		
MICRO-BIORETENTION FACILITY #C4	MDE M-6	<b>V</b>				
MICRO-BIORETENTION FACILITY #C5	MDE M-6	<b>V</b>				
SURFACE SAND FILTER FACILITY #C6	MDE F-1		<b>√</b>	√		
MICRO-BIORETENTION FACILITY #D1	MDE M-6	<b>V</b>				
MICRO-BIORETENTION FACILITY #D2	MDE M-6		√	√		
MICRO-BIORETENTION FACILITY #D3	MDE M-6		√	√		
MICRO-BIORETENTION FACILITY #D4	MDE M-6		<b>V</b>	√		
SURFACE SAND FILTER FACILITY #D5	MDE F-1		<b>V</b>	√		-
SURFACE SAND FILTER FACILITY #D6	MDE F-1		√	√		-

SURFACE SAND FILTER

FACILITY #E5 MICRO-BIORETENTION FACILITY #E6 BIORETENTION FACILITY

EXCESS

\* TWO SPACES IN GARAGE

R/W WIDTH (PUBLIC)

ACCESS EASEMENT WIDTH

(PRIVATE)

50 FT.

50 FT.

50 FT.

50 FT.

50 FT.

50 FT

50 FT.

50 FT

AREA"

ESDv

Rev

CPv

QP(10)

QP(6.6)

\* TWO SPACES DRIVEWAY

\* \* 10 SPACES/1,000 SF

ROADWAY INFORMATION CHART

DESIGN SPEED

30 MPH

25 MPH

25 MPH

25 MPH

CLASSIFICATION

PUBLIC ACCESS STREET

PUBLIC ACCESS STREET

PUBLIC ACCESS PLACE

PRIVATE ACCESS STREET

PRIVATE ACCESS PLACE

J-I-C DRIVEWAY | PRIVATE ACCESS PLACE |

MDE F-1

MDE F-6

LOT SIZE & DWELLING TYPE CHART

IN ACCORDANCE WITH SECTION 131.0.N.1.A (16) OF THE ZONING REGULATIONS, AT LEAST 10% OF THE DWELLINGS IN EACH R-20 DEVELOPMENT SHALL BE MODERATE INCOME HOUSING UNITS. SIXTEEN (16) MODERATE INCOME HOUSING UNITS ARE PROPOSED OR A FEE-IN-LIEU PAYMENT WILL BE PROVIDED.

34. EXISTING STRUCTURE (HOUSE) ON PROPOSED LOT 155 TO REMAIN. ALL OTHER STRUCTURES TO BE REMOVED PRIOR TO FINAL RECORDATION OF THE FINAL PLAT AND BEFORE THE RELEASE OF ANY BUILDING PERMITS.

35. A CERTIFIED LANDSCAPE PLAN WILL BE PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.

38. NO DECKS, PATIOS, SHEDS OR OTHER IMPERVIOUS STRUCTURES OR SURFACES SHALL EXTEND INTO THE DRAINAGE EASEMENTS AT THE REAR OF THE LOTS. 39. PER SECTION 3.105 OF THE COUNTY CODE, ELECTRIC VEHICLE (EV) CHARGING STATIONS (IF REQUIRED) ARE TO BE LOCATED WITHIN PROPOSED GARAGES AND SPECIFIED BY THE BUILDERS. CONTRACTOR/BUILDER TO CONTACT HOWARD COUNTY CHIEF OF PLAN REVIEW FOR DILP TO CONFIRM REQUIREMENTS.

40. LANDSCAPING FOR THIS SUBDIVISION WILL BE PROVIDED IN ACCORDANCE WITH THIS CERTIFIED LANDSCAPE PLAN AND IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. PERIMETER LANDSCAPE AND STORMWATER MANAGEMENT SURETY IN THE AMOUNT OF \$131,290 FOR THE INSTALLATION OF 202 SHADE TREES (\$300.00 EACH); AND, 326 EVERGREEN TREES (\$150.00 EACH); THE INSTALLATION OF A FENCE TOTALING 2,179 LINEAR FEET (\$10 PER LINEAR FOOT); AND FINANCIAL SURETY IN THE AMOUNT OF \$5,400 FOR 18 MITIGATION SHADE TREES (WP-19-118); AND FINANCIAL SURETY IN THE AMOUNT OF \$40,500 FOR 135 SHADE TREES (\$300 EACH) FOR RESIDENTIAL INTERNAL LANDSCAPING, FOR A TOTAL SURETY OF \$177,190 SHALL BE POSTED BY THE DEVELOPER AS PART OF THE DPW DEVELOPER'S AGREEMENT,

42. IN AREAS WHERE FOREST CONSERVATION EASEMENTS ARE LESS THAN 35 FEET FROM LOT LINES, A LARGE STOCK (TWO ROWS OF ONE (1) INCH CALIPER) TREES ARE TO BE PLANTED ALONG THE EDGE OF THE FOREST CONSERVATION EASEMENT IN ACCORDANCE WITH SECTION 16.1209(B)(4) OF THE COUNTY CODE.

45. IF THIS DEVELOPMENT IS TO BE CONSTRUCTED IN PHASES, PER THE D&O FOR THE CONDITIONAL USE, OPEN SPACE AREA, RECREATIONAL FACILITIES/COMMUNITY CENTERS SHALL BE PROVIDED IN EACH PHASE TO MEET THE NEEDS OF THE RESIDENTS. THE DEVELOPERS WILL NEED TO PROVIDED A SCHEDULE FOR THE INSTALLATION OF SUCH FACILITIES WITH SDPs.

THE PROPOSED 6' HIGH FENCES IN NEIGHBORHOODS C AND D WILL SCREEN THE PROPOSED DEVELOPMENT FROM ADJOINING SUBDIVISIONS TO THE SOUTH AND WEST, AS REQUIRED BY THE CONDITIONAL USE APPROVAL. A 10' MAINTENANCE EASEMENT HAS BEEN ESTABLISHED FOR THE FENCE WHEN THE FENCE IS LOCATED ON PRIVATE LOTS. THIS EASEMENT WILL ALLOW THE HOA TO MAINTAIN THE FENCE ON THESE PRIVATE LOTS. REFER TO GRADING SHEETS FOR FENCE PLACEMENT.

33. HIGHLY ERODIBLE SOILS EXIST ON SITE. SEDIMENT CONTROL PLANS WILL ADDRESS THE EROSION CONCERNS.

36. A CRITICAL FLOODPLAIN REPORT, DATED NOVEMBER 2020 HAS BEEN PREPARED BY BOHLER FOR THIS PROJECT.

37. A PRE-SUBMISSION COMMUNITY MEETING WAS HELD ON JUNE 30, 2016.

46. MAINTENANCE OF ON STREET PARKING SHALL BE THE RESPONSIBILITY OF THE HOA.

ESD SUMMARY TABLE

114,627.51 C.F. (REQUIRED), 114,737 C.F. (PROVIDED)

15,195.10 C.F. (REQUIRED), 18,982 C.F. (PROVIDED)

INCLUDED IN ESDV

EX: 175.53 CFS, PROP. 171.55 CFS

EX: 460.83 CFS, PROP. 430.87 CFS

EX: 467.39 CFS, PROP. 444.02 CFS

# PRELIMINARY EQUIVALENT SKETCH PLAN STORMWATER MANAGEMENT PRACTICES

**BETHANY GLEN - ARAH** LOTS 1 THRU 155 AND **OPEN SPACE LOTS 156 THRU 168** 

**LOCATION OF SITE** 9891 OLD FREDERICK ROAD - ROUTE 99 2ND ELECTION DISTRICT **TAX MAP 17, GRID 15, PARCEL 34 HOWARD COUNTY, MARYLAND** 



### **VICINITY MAP**

THE SITE IS LOCATED WITHIN THE PLUMTREE BRANCH WATERSHED. STORMWATER MANAGEMENT WILL BE PROVIDED IN ACCORDANCE THE SITE IS LOCATED WITHIN THE PLOWINGE BRANCH WATERSHED. STORMWATER MANAGEMENT WILL BE PROVIDED IN ACCORDANCE WITH HOWARD COUNTY SPECIFICATIONS. WATER QUALITY AND RECHARGE VOLUMES WILL BE PROVIDED BY MICRO-BIORETENTION FACILITIES, BIORETENTION FACILITIES, SURFACE SAND FILTERS AND DRYWELLS TO MEET MDE REQUIREMENTS.WATER QUANTITY WILL BE PROVIDED BY SURFACE SAND FILTERS TO MEET REQUIREMENTS INCLUDING THE MANAGEMENT OF THE 10-YR, 100-YR, AND 6.6" STORM EVENTS AS DESCRIBED AND REQUIRED BY COUNTY COUNCIL RESOLUTION 123-2019. FACILITIES TREATING ONLY AREAS FROM PRIVATE PROPERTY WILL BE OWNED AND MAINTAINED BY PROPERTY OWNERS AND HOA. FACILITIES TREATING AREAS WITHIN PUBLIC R/W WILL BE PLACED IN EASEMENTS AND WILL BE MAINTAINED BY HOA. HOWARD COUNTY WILL MAINTAIN PIPES AND PROPERTY OWNERS/HOA WILL MAINTAIN FACILITY SURFACES.

24. THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS PER COUNCIL BILL NO. 45-2003 AND THE AMENDED ZONING REGULATIONS PER COUNCIL BILL NO. 32-2013. DEVELOPMENT OR CONSTRUCTION ON THIS RTY MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF CONDITIONAL USE PLAN APPROVAL DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE)
SURFACE - SIX (6") INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATIN

. LAND DEDICATED TO HOWARD COUNTY, MARYLAND, FOR PURPOSES OF THE PUBLIC ROAD (7.09 ACRES).

GEOMETRY - MÀXÍMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM OF 45 TURNING RADIUS G. MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE

S. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAMS OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREA (SUBJECT TO 27. FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND ROAD RIGHT-OF-WAY LINE AND NOT ONTO THE PIPESTEM LOT DRIVEWAY. 28. WATER AND SEWER SERVICE TO THESE LOTS WILL BE GRANTED UNDER THE PROVISIONS OF SECTION 18.122.B OF THE HOWARD

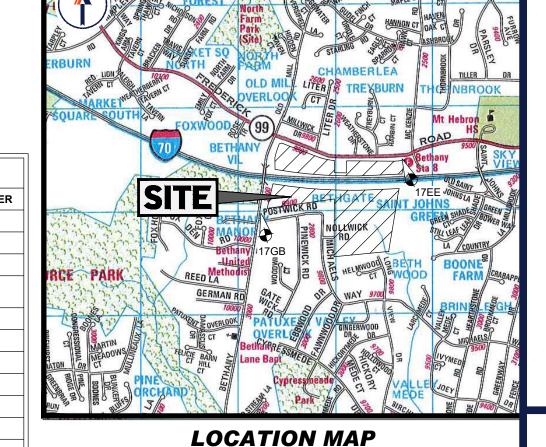
29. THIS PLAN IS SUBJECT TO COUNCIL BILL NO. 61-2019 AND 62-2019, WHICH WENT INTO EFFECT ON FEB. 5, 2020. 30. RESERVATION OF PUBLIC UTILITY AND FOREST CONSERVATION EASEMENTS DEVELOPER RESERVES UNTO ITSELF, ITS SUCCESSORS AND ASSIGNS, ALL EASEMENTS SHOWN ON THIS PLAN FOR WATER, SEWER, STORM DRAINAGE, OTHER PUBLIC UTILITIES AND FOREST CONSERVATION (DESIGNATED AS "FOREST CONSERVATION AREA"), LOCATED IN, ON, OVER AND THROUGH LOTS/PARCELS, ANY CONVEYANCES OF THE AFORESAID LOTS/PARCELS SHALL BE SUBJECT TO THE EASEMENTS HEREIN RESERVED, WHETHER OR NOT EXPRESSLY STATED IN THE DEED(S) CONVEYING SAID LOT(S)/PARCELS. DEVELOPER SHALL EXECUTE AND DELIVER DEEDS FOR THE EASEMENTS HEREIN RESERVED TO HOWARD COUNTY WITH A METES AND BOUNDS DESCRIPTION OF THE FOREST CONSERVATION AREA. UPON COMPLETION OF THE PUBLIC UTILITIES AND THEIR ACCEPTANCE BY HOWARD COUNTY, AND IN THE CASE OF THE FOREST CONSERVATION INSTALLATION AND MAINTENANCE AGREEMENT EXECUTED BY THE DEVELOPER'S OBLIGATIONS UNDER THE FOREST CONSERVATION INSTALLATION AND MAINTENANCE AGREEMENT EXECUTED BY THE DEVELOPER AND THE COUNTY, AND THE RELEASE OF DEVELOPER'S SURETY POSTED WITH SAID AGREEMENT. THE COUNTY SHALL ACCEPT THE EASEMENTS AND RECORD THE DEED(S) OF EASEMENT IN THE LAND RECORDS OF HOWARD COUNTY.

31. GRADING AND DISTURBANCE OF ENVIRONMENTAL FEATURES AS APPLICABLE FOR OUTFALL LOCATIONS AND/OR UTILITY CONSTRUCTION IS CONSIDERED ESSENTIAL DISTURBANCE. NO OTHER GRADING, DISTURBANCE OR VEGETATIVE REMO PERMITTED IN WETLANDS, STREAMS, THEIR BUFFERS, FLOOD PLAIN OR FOREST CONSERVATION EASEMENT AREAS.

PREPARED BY

COUNTY CODE. WATER AND SEWER TO BE PUBLIC FOR ALL LOTS.

#### SHEET INDEX **SHEET NUMBER** COVER SHEET EXISTING CONDITIONS AND LEGEND PRELIMINARY SKETCH PLAN PRELIMINARY GRADING, EROSION & SEDIMENT CONTROL 8-12 LANDSCAPE PLAN - OVERALL NEIGHBORHOOD PLAN LANDSCAPE PLAN 14-18 LANDSCAPE NOTES & DETAILS PRELIMINARY FOREST CONSERVATION PLAN PRELIMINARY FOREST CONSERVATION NOTES & DETAILS ROAD PLAN & PROFILES 22-28 PRE-DEVELOPMENT QUANTITY DRAINAGE AREA MAP POST-DEVELOPMENT QUANTITY DRAINAGE AREA MAP ESD FACILITY DRAINAGE AREA MAP QUALITY COVERAGE AREA MAPS



PERMIT USE NO. 20602153-5 ADC MAP COORDINATES: 24/B5

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#### **GENERAL NOTES**

- 1. THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVE
- 2. THE PROPERTY BOUNDARY AND ON-SITE EXISTING TOPOGRAPHY IS BASED ON A BOUNDARY & TOPOGRAPHIC SURVEY BY BOHLER ENGINEERING, TITLED "BOUNDARY & TOPOGRAPHIC SURVEY, HARBIN PROPERTY 9891 OLD FREDERICK ROAD ROUTE 99, 2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND", FILE NO. SD152018, DATED 03/04/16; LAST REVISED 03/28/16.

- 6. EXISTING UTILITIES ARE BASED ON FIELD RUN SURVEY PERFORMED BY BOHLER ENGINEERING, DATED 03/04/16 AND HOWARD COUNTY RECORDED PLANS.
- SUBJECT PROPERTY ZONED R-20 PER THE 10/06/13 COMPREHENSIVE ZONING REGULATIONS. AN AGE RESTRICTED CONDITIONAL USE COMMUNITY IS PROPOSED UNDER SECTION 131.O.N.1 AND AS APPROVED PER BA-17-018C. THE DECISION AND ORDER FOR THE CONDITIONAL USE WAS SIGNED BY THE HEARINGS EXAMINER ON SEPT. 2, 2020.

- 10. LOT 155 IS BEING CREATED FOR THE EXISTING STRUCTURE THAT IS TO REMAIN. THIS LOT AND STRUCTURE IS NOT A PART OF THE APPROVED CONDITIONAL USE AND WILL NOT BE AN AGE RESTRICTED ADULT
- 11. A WETLAND DELINEATION REPORT WAS COMPLETED FOR THIS PROJECT BY FORENVICON INC. ON 04/12/16 AND A FOREST STAND DELINEATION REPORT WAS COMPLETED BY FORENVICON INC. ON 04/12/16,

- 12. THERE ARE NO KNOWN CEMETERIES OR HISTORICAL FEATURES KNOWN ONSITE

1) BETHANY LANE (MINOR ARTERIAL ROAD), TO HAVE A MINIMUM INTERSECTION SPACE OF 330 FEET BETWEEN PROPOSED ROAD "C" AND EXISTING POSTWICK ROAD, MEASURING ALONG BETHANY LANE CENTERLINES OF THE PROPOSED ROAD "C" AND POSTWICK ROAD WAS APPROVED PENDING THE FOLLOWING CONDITIONS a) REQUIRED INTERSECTION AND STOPPING SIGHT DISTANCES ARE MAINTAINED AND THE PROPOSED ROAD IMPROVEMENT (EXCLUSIVE LEFT TURN LANE) ALONG BETHANY IS EXTENDED SOUTHWARD TO POSTWICK ROAD.

2) FROM HCDM-VOL. 2, SECTION 3.3.B.2.b1 "HORIZONTAL ALIGNMENT - LOCATION" WHICH LIMITS THE NON-LOOPED LENGTH OF 8" WATER MAIN TO 2,000 L.F. OR LENGTH REQUIRED TO PROVIDE THE SERVICE TO 5
UNITS. WHICH IS SHORTER. WAS APPROVED ON 9/13/26 WITHOUT CONDITIONS. 3) FROM HCDM-VOL. 3, CHAPTER 2.5.B.1, TABLE 2.07 TO REDUCE THE REQUIRED INTERSECTION SPACING FROM 750 FT TO 330 FT WAS APPROVED ON 6/10/21. SUBJECT TO THE IMPROVEMENTS SHOWN ON THE PLANS TO BE CONSTRUCTED.

4) FROM HCDM-VOL. 3, CHAPTER 5.2.3 APPENDIX A, TO REQUEST 350 FT MIN. CURVE RADIUS ON PUBLIC ACCESS STREETS CLOSED CROSS SECTION WAS APPROVED ON 6/10/21, WITHOUT CONDITIONS.

1. PROVIDING 24 FT. WIDE PAVEMENT FOR THE PROPOSED USE-IN-COMMON DRIVEWAY SEGMENT STA. 10+25 TO 13+50; 2. EXTENDING ROAD MEDIAN ON INTERNAL ROAD 6 TO 11+25: 3. THE NORTHERN ENTRANCE OF PROPOSED USE-IN-COMMON DRIVEWAY SHALL BE DESIGNED RIGHT TURN EXIT ONLY

#### 5. COMPLIANCE WITH STAFF REVIEW COMMENTS FOR SP-21-021 & ROAD FRONTAGE/ROAD DESIGN STANDARDS PER THE REGULATIONS REQUEST WP-21-064: DECISION LETTER DATED 2-11-21

2. FOR VARIANCE WITH RESPECT TO SECTION 16.1205(A)(3) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS FOR THE PURPOSES OF CONSTRUCTING TWO (2) PUBLIC ROADS (ROADS A AND B), WATER AND SEWER LINES, STORMWATER MANAGEMENT FACILITIES AND CULVERTS IN NEIGHBORHOODS D, AND E OF THE PROPOSED BETHANY GLEN ARAH SUBDIVISION: APPROVED THE REMOVAL OF 18 AND DENIED THE REMOVAL OF 10 F THE

APPROVAL OF THIS ALTERNATE COMPLIANCE IS SUBJECT TO THE FOLLOWING CONDITIONS: 1) 1. THE DISTURBANCE TO THE STREAMS, WETLANDS, THEIR BUFFERS, AND THE FLOODPLAIN SHALL BE LIMITED TO THE GRADING REQUIRED TO CONSTRUCT PUBLIC ROADS A AND ROAD B, WATER AND SEWER LINES, CULVERTS AND STORM WATER MANAGEMENT FACILITIES AND RELATED INFRASTRUCTURE IN POINTS #1, #2 AND #3 OF THE PLAN EXHIBIT SUBMITTED WITH THIS PETITION.

2. ANY NATURAL VEGETATION DISTURBED DURING THE GRADING OF THE IMPACTED ENVIRONMENTAL FEATURES MUST BE RESTORED TO ITS NATURAL CONDITION TO THE GREATEST EXTENT POSSIBLE ONCE CONSTRUCTION IS COMPLETED. A PLAN TO DEMONSTRATE HOW THESE IMPACTED AREAS SHALL BE RESTORED TO ITS NATURAL CONDITIONS MUST BE INCLUDED ON THE ROAD CONSTRUCTION PLAN WITH THE FINAL SUBDIVISION PLANS.

3. A COPY OF THE MARYLAND DEPARTMENT OF ENVIRONMENTAL (MDE) PERMIT FOR THE DISTURBANCE TO THE TWO STREAMS AND FLOODPLAIN MUST BE PROVIDED TO DPZ PRIOR TO THE RECORDATION OF THE FINAL SUBDIVISION PLANS.

AND REFERENCED AS A NOTE ON THE PLAT. AND REFERENCED AS A NOTE ON THE PLAT.

1. INCLUDE THIS ALTERNATIVE COMPLIANCE PETITION DECISION AS A GENERAL NOTE ON THE PRELIMINARY EQUIVALENT SKETCH PLAN, THE PLAT AND SITE DEVELOPMENT PLAN(S). THE NOTE SHALL INCLUDE THE PETITION'S FILE NUMBER, THE REGULATORY SECTIONS, THE DECISION DATE, AND THE CONDITIONS OF APPROVAL.

2. PROTECTIVE MEASURES SHALL BE UTILIZED DURING CONSTRUCTION TO PROTECT THE SPECIMEN TREES THAT ARE TO REMAIN, INCLUDING HOW THE CRITICAL ROOT ZONES ARE TO BE PROTECTED. INCLUDE DETAILS OF THE PROPOSED TREE PROTECTION MEASURES ON THE FINAL SUBDIVISION PLANS.

3. THE CRITICAL ROOT ZONE FOR THE SPECIMEN TREES TO REMAIN MUST BE SHOWN ON THE FINAL SUBDIVISION PLANS. IF SIGNIFICANT ROOT DISTURBANCE IS NECESSARY, A METHOD MUST BE PROVIDED TO EXPLAIN HOW THE TREES ARE TO BE PROTECTED.

WITH RESPECT TO SECTIONS 16.119(F)(1), 16.120(C)(3), 16.120(C)(4) AND A PORTION OF 16.134(A)(1) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS TO RETAIN THE DRIVEWAY FOR THE EXISTING HOUSE ON LOT 155 FOR INGRESS/EGRESS TO MD ROUTE 99; TO DEVELOP SINGLE-FAMILY ATTACHED LOTS 1-18; 82-104; 117-154 WITHOUT PUBLIC ROAD FRONTAGE TO PROVIDE A SIDEWALK ON ONE SIDE OF PUBLIC ROAD A (NEIGHBORHOOD C) AND PRIVATE ROADS 1, 2, 3, 4, 5, MD 7 WAS APPROVED. APPROVAL OF THIS ALTERNATIVE COMPLIANCE IS SUBJECT TO THE FOLLOWING CONDITIONS: 1. ALL THE PRIVATE ROAD MUST PROVIDE SAFE, ADEQUATE ACCESS TO THE RESIDENTIAL AND OPEN LOTS. THE PRIVATE ROADS ARE TO BE OWNED AND MAINTAINED BY THE COMMUNITY HOA.

2. THE PRIVATE ROAD DESIGN AND WIDTHS MUST COMPLY WITH DESIGN STANDARDS FOR PUBLIC ROADS AS REQUIRED BY THE DESIGN MANUAL. . COMPLIANCE WITH THE SRC PLAN REVIEW COMMENTS FOR THE PRELIMINARY EQUIVALENT SKETCH PLAN, SP-21-002.

A ALL SIDEWALK, CURB RAMPS AND OTHER ROADSIDE IMPROVEMENTS SHOULD BE DESIGNED CONSISTENT WITH THE HOWARD COUNTY DESIGN MANUAL AND US ACCESS BOARD ADA/PROWAG DESIGN SPECIFICATIONS.
5. SIDEWALK MUST BE PROVIDED ALONG THE LOT FRONTAGE OF THE TOWNHOME UNITS FOR PRIVATE ROAD 1, 2, AND 3 IN THE NEIGHBORHOOD C. NO SIDEWALK IS REQUIRED ALONG THE SIDE OF PRIVATE ROAD 1, 2 AND THAT ABUTS THE RECREATIONAL OPEN SPACE AREA; NO SIDEWALK ARE REQUIRED ALONG THE WESTERN SIDE OF PRIVATE ROAD 4 AND 5; AND NO SIDEWALK IS REQUIRED ALONG THE SOUTHERN SIDE OF PRIVATE ROAD 7. NO SIDEWALK IS REQUIRED ALONG THE SOUTHERN SIDE OF PUBLIC ROAD A IN NEIGHBORHOOD C.

BETHANY GLEN ARAH PROJECT. THIS REQUEST AND DECISION LETTER REPLACES THE PREVIOUS NECESSARY DISTURBANCE REQUEST THAT WAS APPROVED ON 2-11-21. THE REASON FOR WHY THIS NEW REQUEST REPLACES THE PREVIOUS REQUEST IS DUE TO UTILITY DESIGN CHANGES AND PREFERRED LAYOUT OF PUBLIC UTILITIES BY DPW AND DED. THE APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS AND MITIGATION METHODS: 2. THE DISTURBED AREA SHALL BE RE-VEGETATED AND RETURNED TO ITS NATURAL CONDITION TO THE GREATEST EXTENT POSSIBLE; ALL STEEP SLOPE DISTURBANCES ARE TO BE STABILIZED UTILIZING METHODS OF BEST PRACTICES.

16. EXISTING WELL AND SEPTIC SYSTEMS MUST BE PROPERLY ABANDONED AND HOWARD COUNTY HEALTH DEPARTMENT NOTIFIED PRIOR TO THE HEALTH DEPARTMENTS SIGNATURE ON THE FINAL PLAT.

- A) THE R1-1 ("STOP") SIGN AND THE STREET NAME SIGN (SNS) ASSEMBLY FOR THIS DEVELOPMENT MUST BE INSTALLED BEFORE THE BASE PAVING IS COMPLETED.
- B) 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.
- C) ALL TRAFFIC CONTROL DEVICES AND THEIR LOCATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MDMUTCD). 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 (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.
- STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURES AND POLES SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (2006), SECTION 5.5.A. A MINIMUM OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
- 0. PPRIVATE RANGE OF ADDRESS SIGN ASSEMBLIES SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DEVELOPERS/OWNERS EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-5752 FOR DETAILS AND COST ESTIMATES.

Brando DN: cn=Brand

n Rowe com, c=U THE ESTATE OF RUTH L. HARBIN H. MARK BOBOTEK, ESQ. P.O. BOX 66 ELLICOTT CITY, MD 21041 410-964-9700 ELM STREET DEVELOPMENT

5074 DORSEY HALL ROAD, SUITE 205 FLLICOTT CITY MD 21042

CONTACT: JASON VAN KIRK

SP-21-002

BOHLER//

**CONTACT: BRANDON ROWE** 

ELEV. 453.949' N 593,815.262 E 1,355,774.821

GEODETIC SURVEY CONTROL - 17EE

SUBDIVISION NAME: TBD SECTION/AREA: N/A DEED # 00226/ 00064

PREVIOUS FILE No. WP-21-127 ECP-19-041 BA-CASE NO. 17-018C ECP-21-017, WP-21-064 SP-19-005

PHONE: (410) 720-3021 TAX MAP: 17 GRID: 15 ZONED: R-20 2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND **PRELIMINARY EQUIVALENT SKETCH PLAN BETHANY** 

GLEN - ARAH

**REVISIONS** 

Call before you dir **ALWAYS CALL 811** 

It's fast. It's free. It's the law.

NOT APPROVED FOR

CONSTRUCTION

DRAWN BY:

CAD I.D.:

PROJECT:

REV DATE

LOTS 1 THRU 155 AND OPEN SPACE LOTS 155 THRU 168

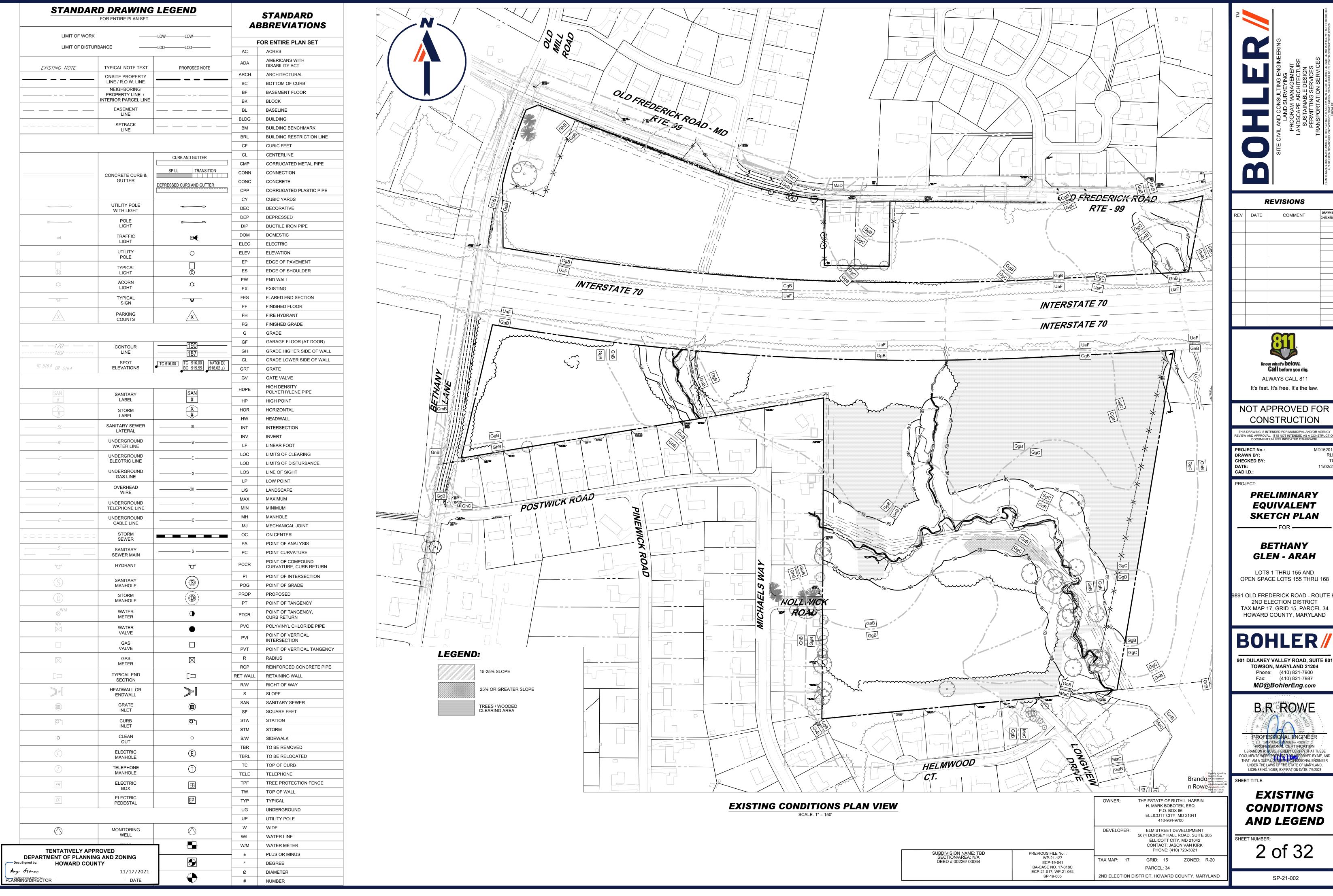
391 OLD FREDERICK ROAD - ROUTE 9 2ND ELECTION DISTRICT TAX MAP 17, GRID 15, PARCEL 34 HOWARD COUNTY, MARYLAND

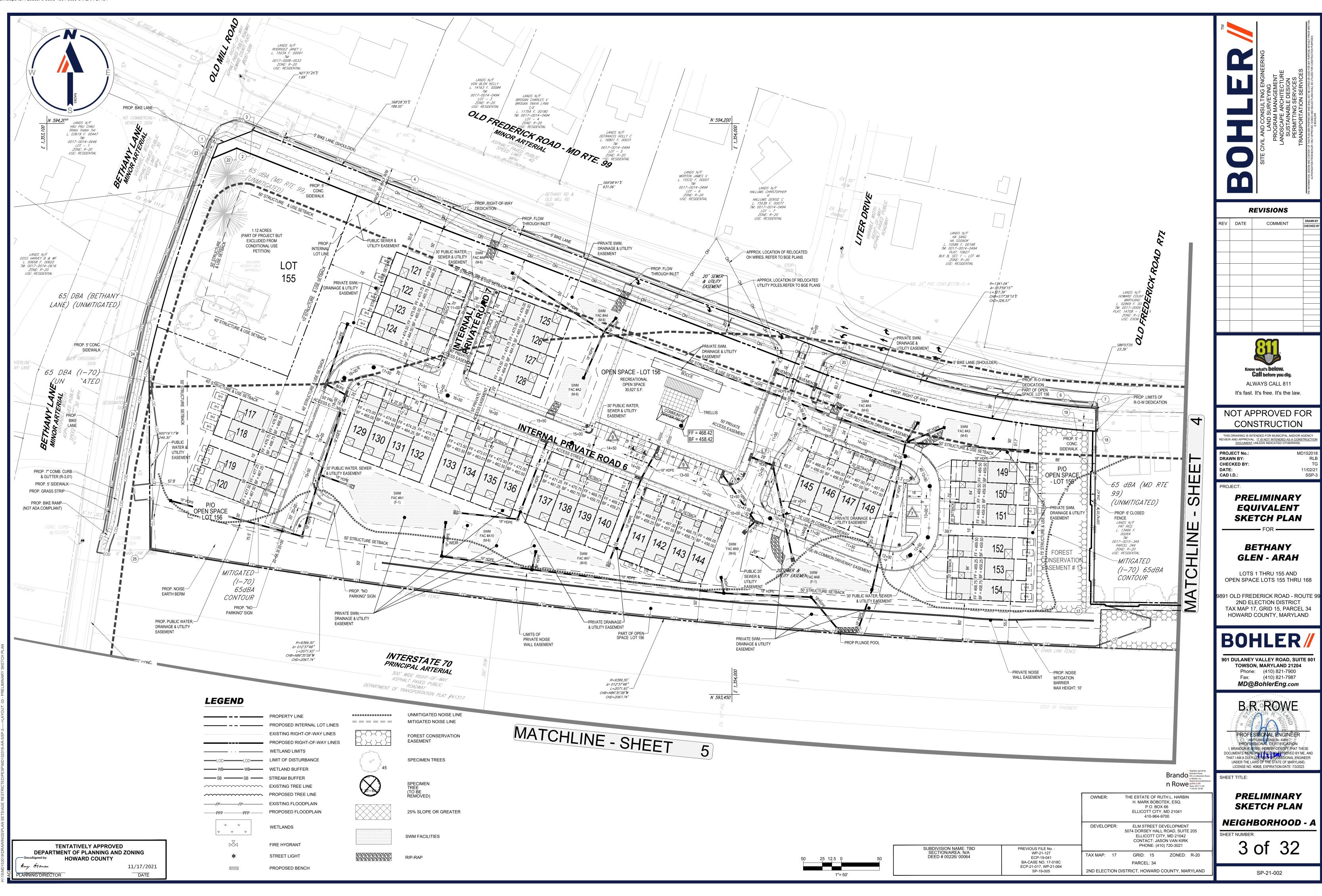
901 DULANEY VALLEY ROAD, SUITE 80 **TOWSON, MARYLAND 21204** Phone: (410) 821-7900 Fax: (410) 821-7987 MD@BohlerEng.com

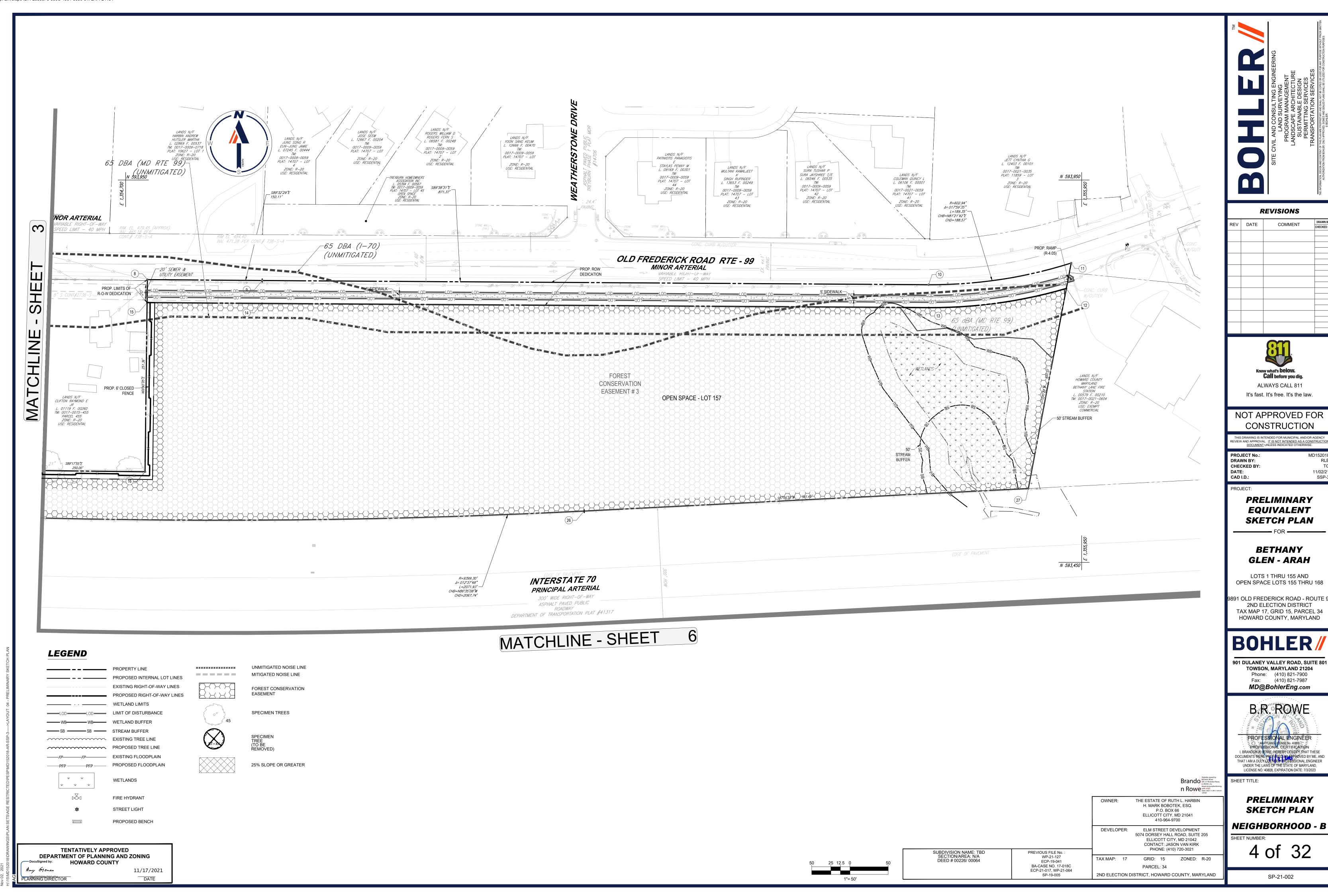
PROFESSIONAL ENGINEER MARYLAND LICENSE No. 40808
PROFESSIONAL CERTIFICATION I. BRANDON R. ROWE, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER LICENSE NO. 40808, EXPIRATION DATE: 7/3/2023

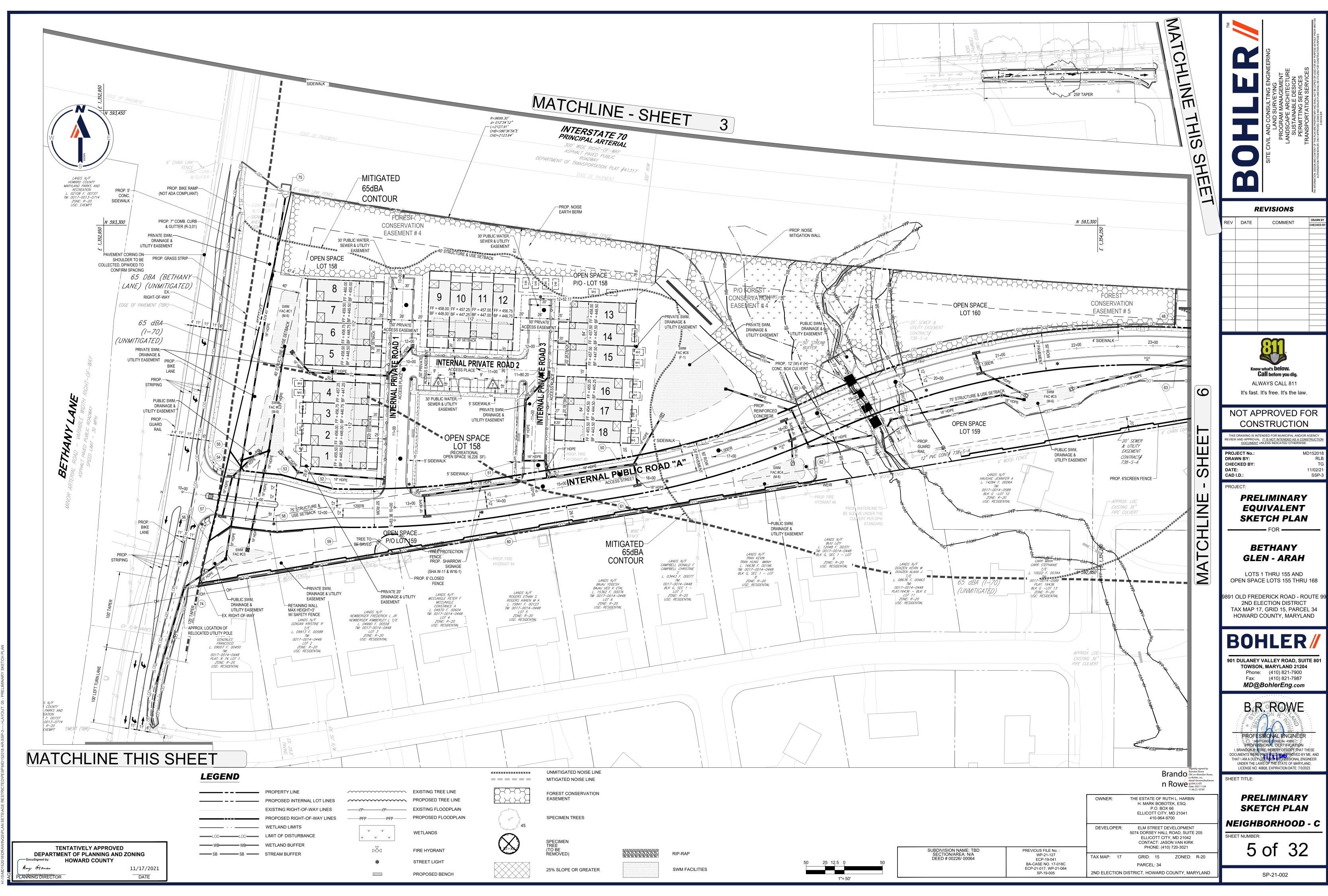
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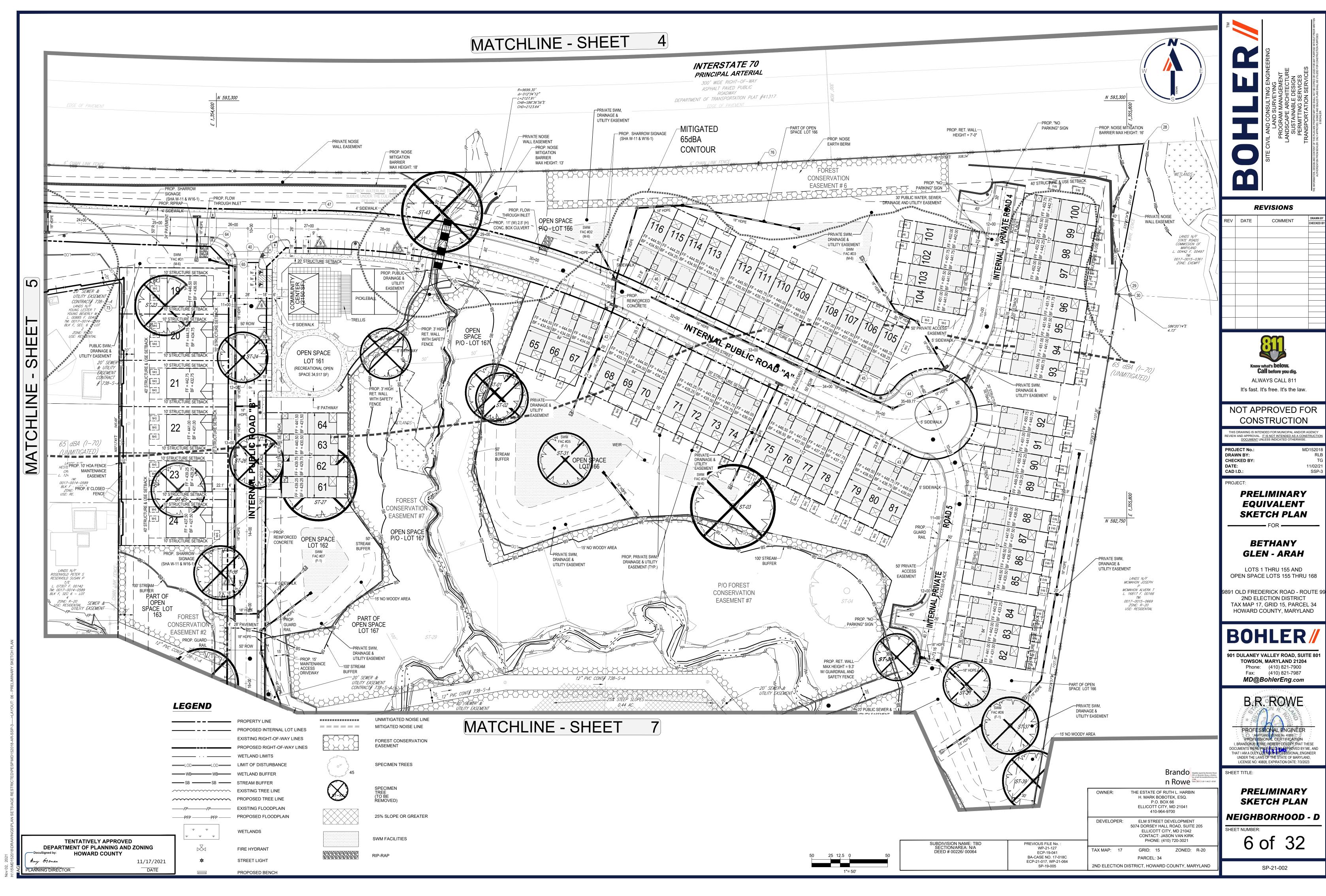
**COVER** 

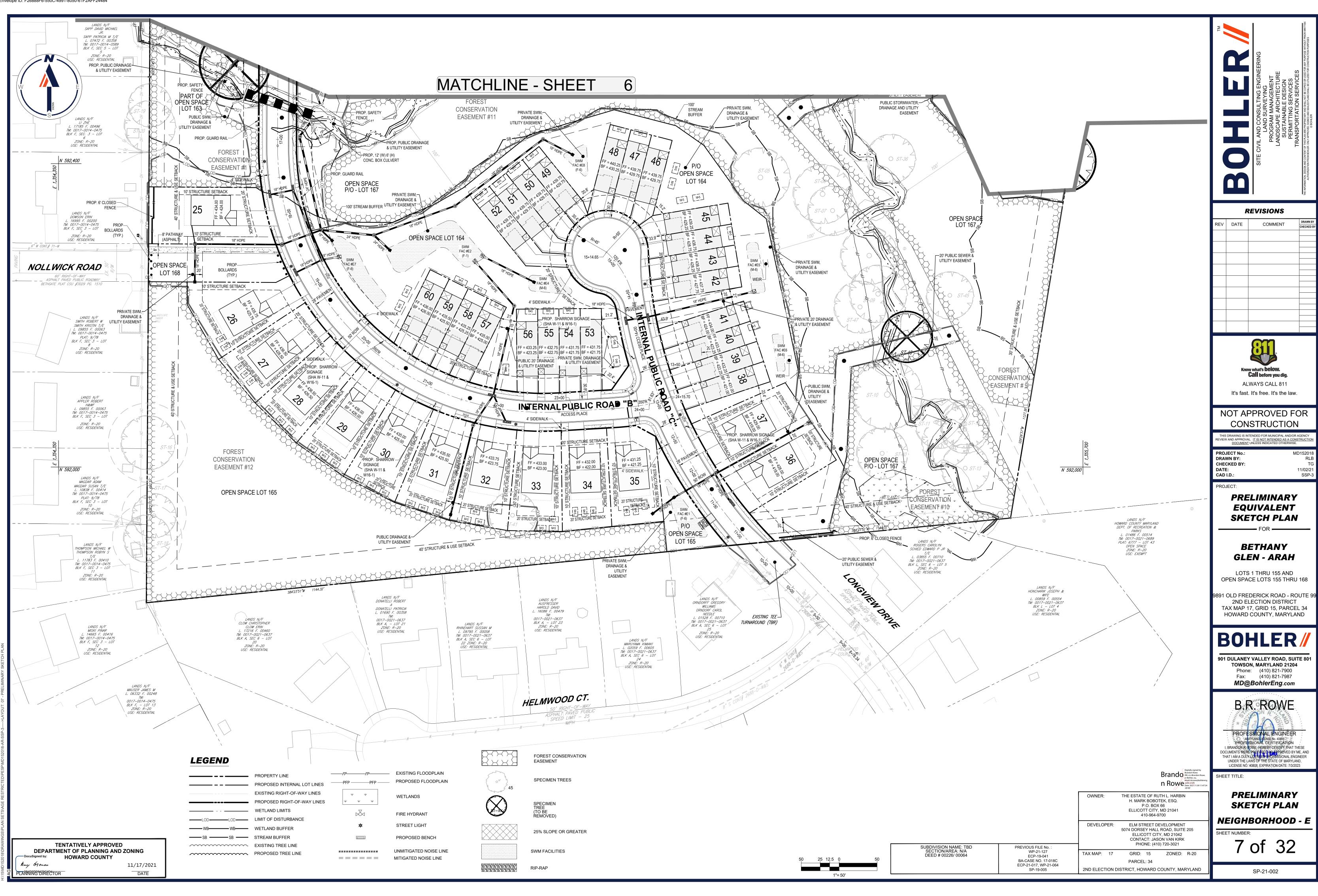


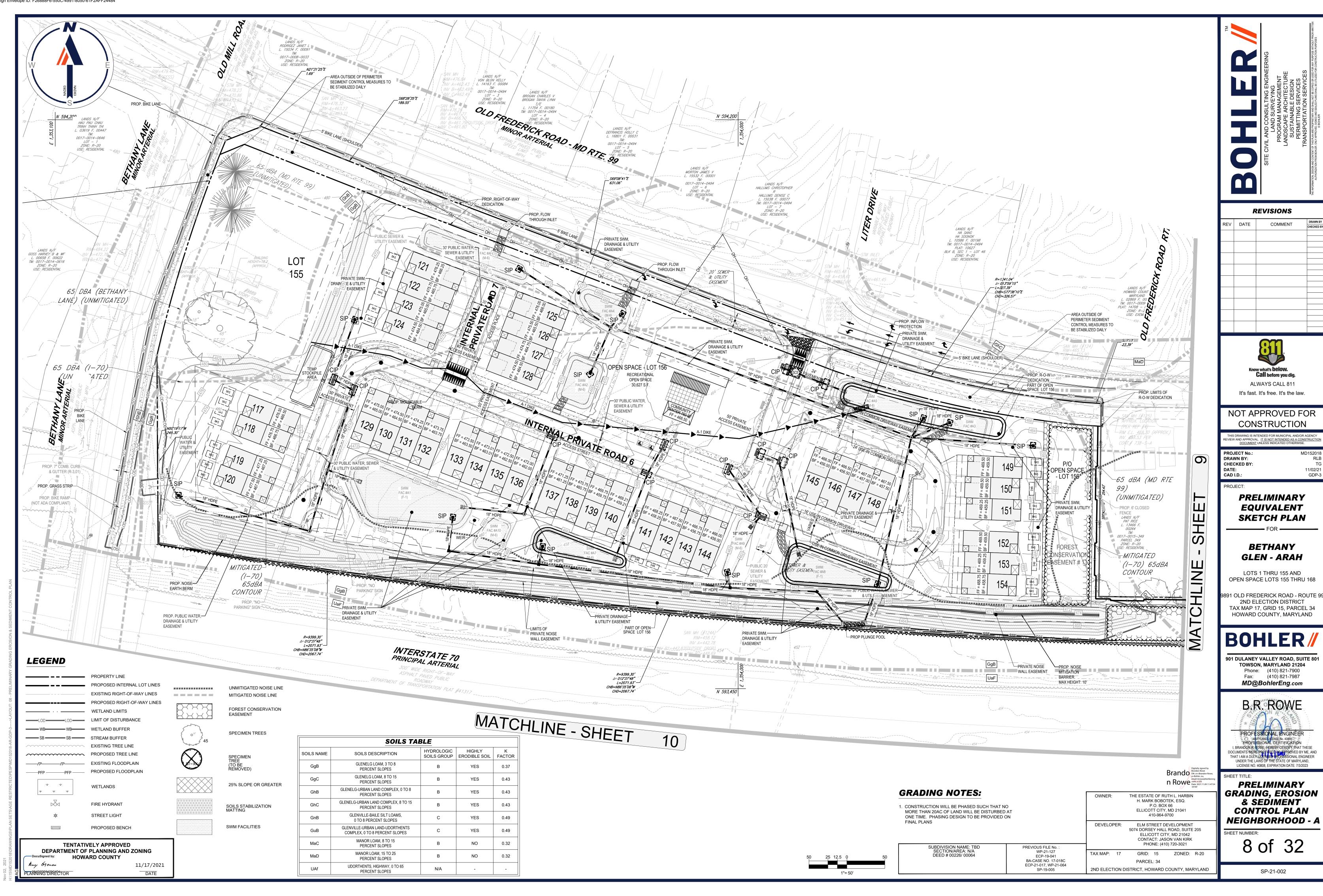












UNMITIGATED NOISE LINE

TENTATIVELY APPROVED

DEPARTMENT OF PLANNING AND ZONING

HOWARD COUNTY

11/17/2021

DATE

MITIGATED NOISE LINE



GLENELG-URBAN LAND COMPLEX, 0 TO 8

GLENELG-URBAN LAND COMPLEX, 8 TO 15

PERCENT SLOPES

0 TO 8 PERCENT SLOPES

GLENVILLE-URBAN LAND-UDORTHENTS

COMPLEX, 0 TO 8 PERCENT SLOPES

MANOR LOAM, 8 TO 15

PERCENT SLOPES

MANOR LOAM, 15 TO 25

PERCENT SLOPES

UDORTHENTS, HIGHWAY, 0 TO 65

PERCENT SLOPES

YES

YES

YES

YES

NO

N/A

0.43

0.43

0.49

0.49

0.32

0.32

GhB

GhC

GuB

MaC

MaD

**PRELIMINARY EQUIVALENT SKETCH PLAN BETHANY** GLEN - ARAH LOTS 1 THRU 155 AND OPEN SPACE LOTS 155 THRU 168

2ND ELECTION DISTRICT TAX MAP 17, GRID 15, PARCEL 34 HOWARD COUNTY, MARYLAND

# **BOHLER**

901 DULANEY VALLEY ROAD, SUITE 801 **TOWSON, MARYLAND 21204** Phone: (410) 821-7900 Fax: (410) 821-7987 MD@BohlerEng.com

B.R. ROWE PROFESSIONAL ENGINEER

MARYLAND LICENSE NO. 40808

PROFESSIONAL CERTIFICATION

I, BRANDON R. ROWE, 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. 40808, EXPIRATION DATE: 7/3/2023

SHEET TITLE:

Brando Digitally signed by Brando Nowe DN: cn=Brandon Rowe

ZONED: R-20

n Rowe C=US Date: 2021.11.09

THE ESTATE OF RUTH L. HARBIN

H. MARK BOBOTEK, ESQ.

P.O. BOX 66

ELLICOTT CITY, MD 21041

410-964-9700

ELM STREET DEVELOPMENT

5074 DORSEY HALL ROAD, SUITE 205

ELLICOTT CITY, MD 21042

CONTACT: JASON VAN KIRK

PHONE: (410) 720-3021

GRID: 15

PARCEL: 34

2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

TAX MAP: 17

PREVIOUS FILE No. WP-21-127

ECP-19-041

BA-CASE NO. 17-018C

ECP-21-017, WP-21-064

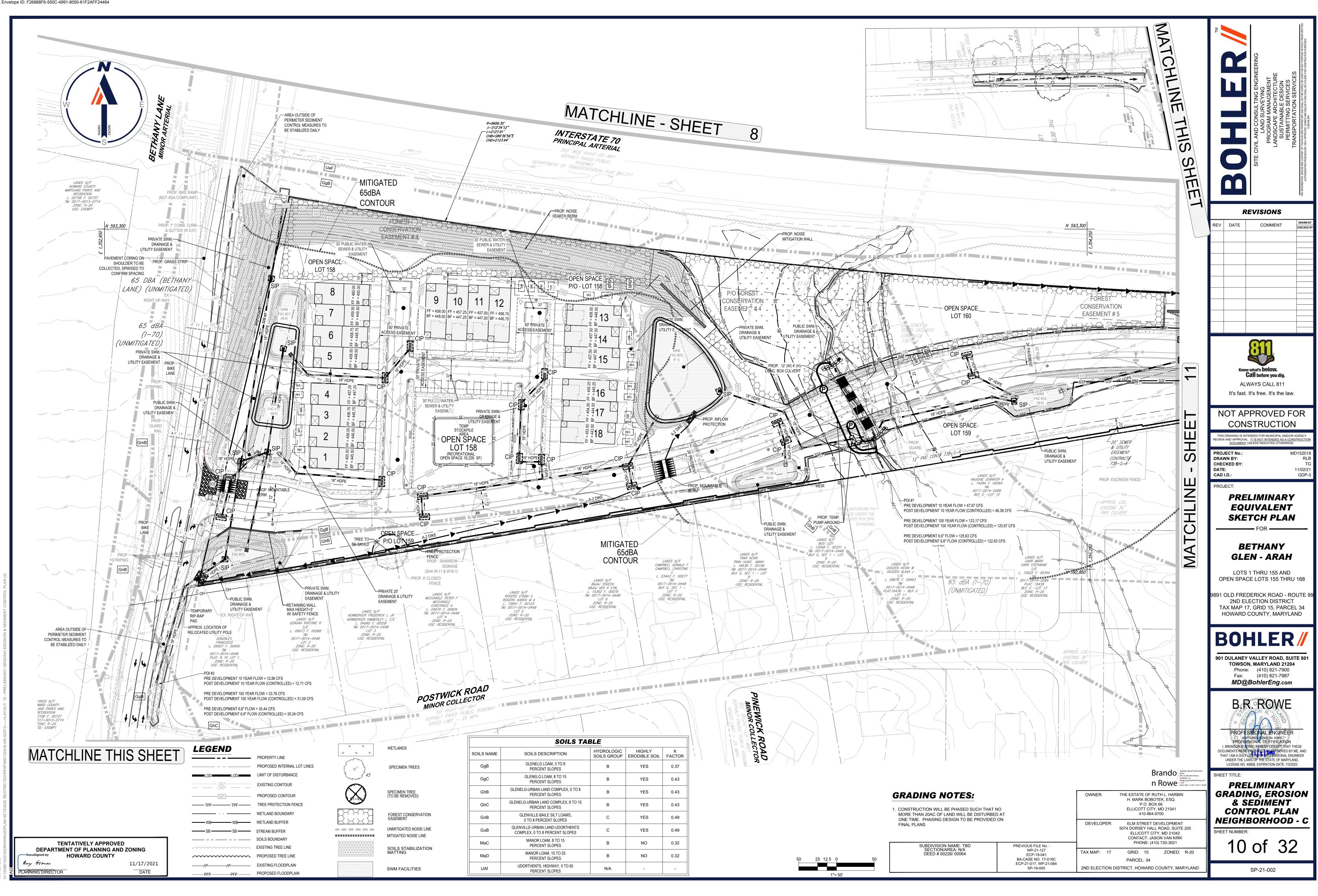
SP-19-005

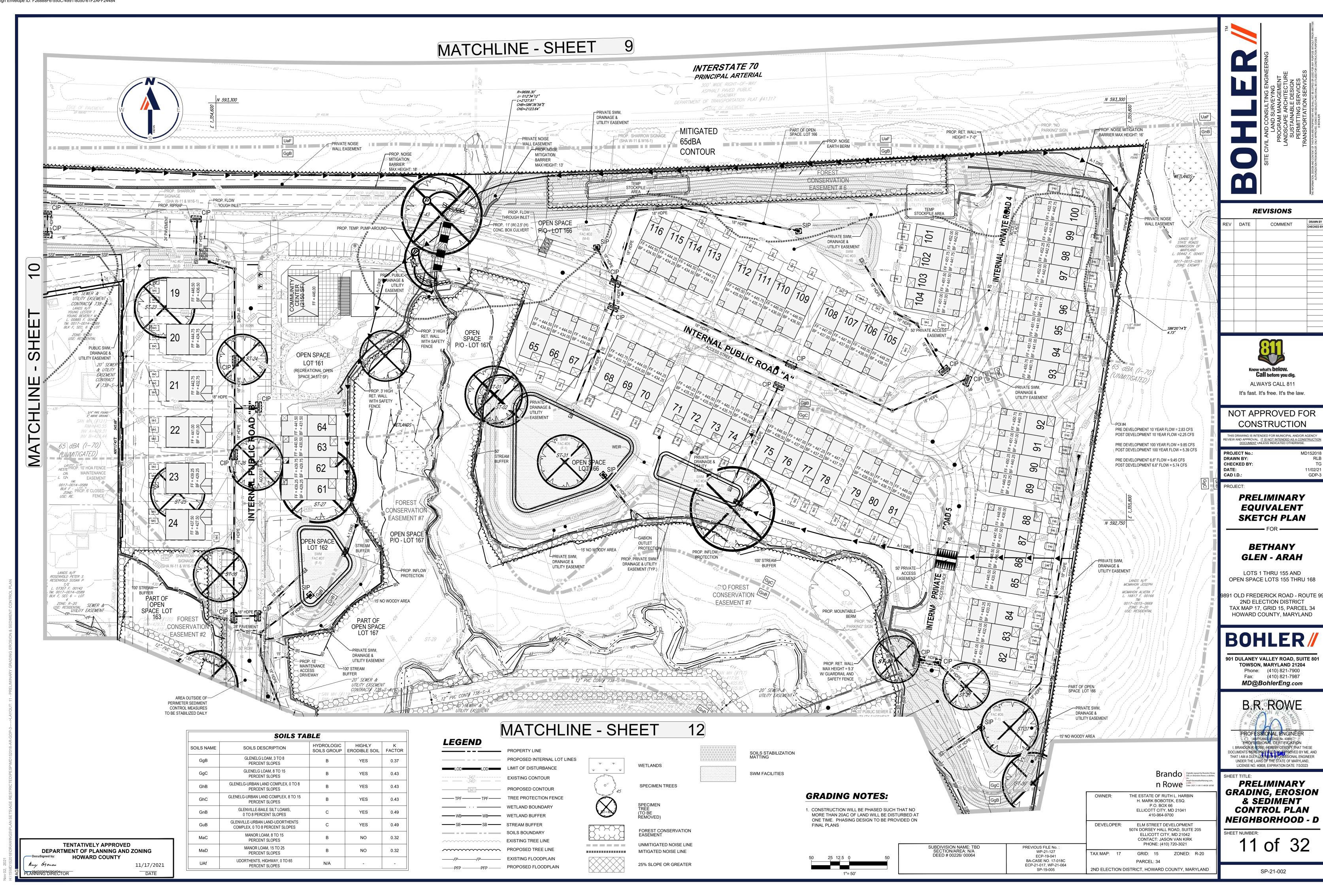
SUBDIVISION NAME: TBD SECTION/AREA: N/A DEED # 00226/ 00064

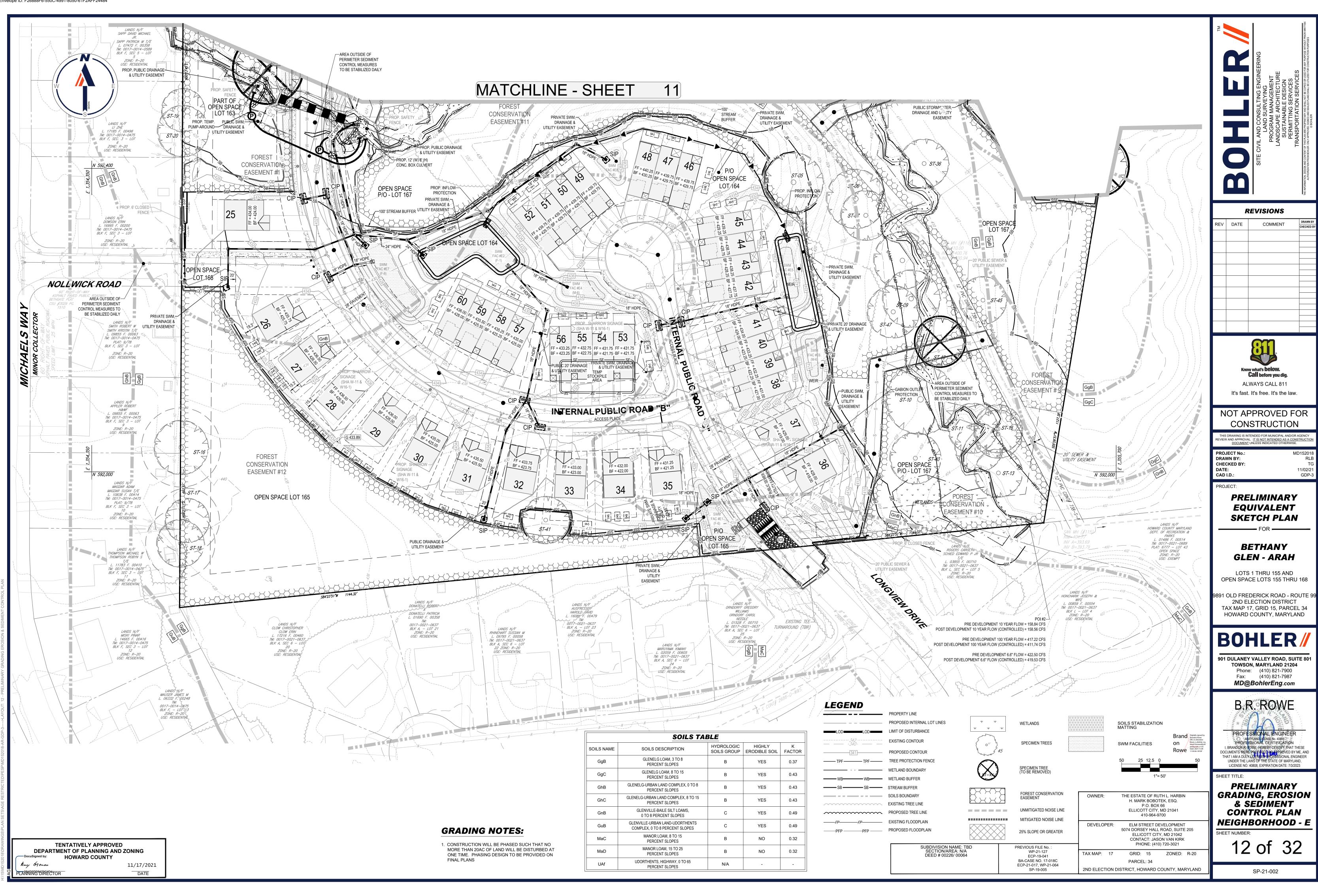
**PRELIMINARY GRADING, EROSION** & SEDIMENT **CONTROL PLAN NEIGHBORHOOD - B** 

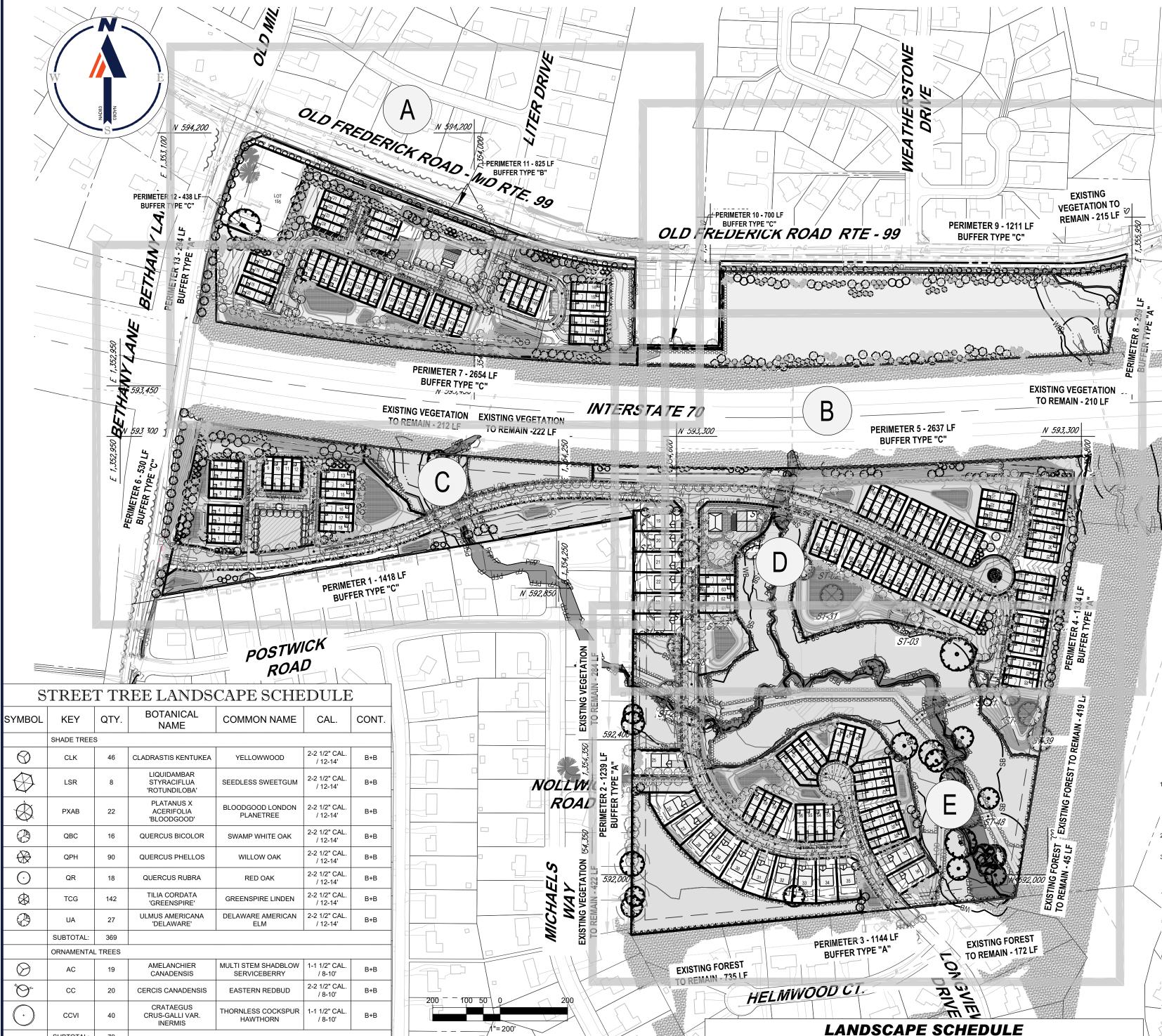
9 of 32

SP-21-002









	,		1 1	1/ / 1
TREET	TREE NOT	<u>res</u>		

- . FINANCIAL SURETY FOR THE REQUIRED 369 LARGE STREET TREES (\$300 EACH) AND 79 SMALL STREET TREES (\$150 EACH) WILL BE POSTED FOR THE AMOUNT OF \$122,550 WITH THE DEVELOPMENT ENGINEERING DIVISION (DED) COST ESTIMATE UNDER THE FINAL PLAN SUBMISSION.
- 2. SHADE TREES MUST BE PLANTED A MINIMUM OF 40 FEET AND ORNAMENTAL TREES MUST BE PLANTED A MINIMUM OF 25 FEET FROM POWER LINES PER B.G.E. PLANTING GUIDE.

SUBTOTAL: 79

- 3. FINAL PLACEMENT OF STREET TREES WILL OCCUR IN THE FIELD AND BE PLACED A MINIMUM OF 30 FEET FROM ALL SIGNS AND INTERSECTIONS WHEN PLANTED BETWEEN SIDEWALK AND CURB, BE LOCATED WITH CONSIDERATION OF UNDERGROUND UTILITIES AND STRUCTURES AND MAINTAIN A MINIMUM OF 5 FEET DISTANCE ON CENTER FROM A DRAIN INLET STRUCTURE, 5 FEET FROM AN OPEN ACCESS STRIP AND 10 FEET
- 4. A MINIMUM OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY STREET TREE.
- 5. ON THE APPROACH SIDE OF A STOP SIGN, NO STREET TREE CAN BE

J.	PLANTED WITHIN 30' OF THE STOP SIGN.
6.	WHERE TREES ARE PLANTED CLOSER THAN 3 FEET TO THE SIDEWALK, A BIOLOGIC ROOT INHIBITOR BARRIER IS REQUIRED.

TENTATIVELY APPROVED **DEPARTMENT OF PLANNING AND ZONING** HOWARD COUNTY 11/17/2021

PLANNING DIRECTOR

STREET TREE REQUIREMENTS  STREET LINEAR FEET SPACING REQUIRED TREES PROVIDED  BETHANY LANE (NORTH) 536 LF 40 LF. 14 TREES 14 TREES  BETHANY LANE (SOUTH) 530 LF - 41 LF (ENTRANCE) = 489 LF 40 L.F. 13 TREES 13 TREES  OLD FREDERICK ROAD - MD RTE. 99  INTERNAL PUBLIC ROAD 'A' (ENTRANCES) = 2343 LF 40 L.F. 63 TREES (X2) = 126 TREES  INTERNAL PUBLIC ROAD 'B' (ENTRANCES) = 2511 LF 40 L.F. 63 TREES (X2) = 72 TREES  INTERNAL PUBLIC ROAD 'B' (ENTRANCES) = 407 LF 40 L.F. 11 TREES (X2) = 22 TREES  INTERNAL PUBLIC ROAD 'C' (ENTRANCES) = 407 LF 40 L.F. 7 TREES (X2) = 14 TREES  INTERNAL PRIVATE ROAD 1' (ENTRANCES) = 269 LF 40 L.F. 5 TREES (X2) = 14 TREES (X2) = 10 TREES  INTERNAL PRIVATE ROAD 321 LF 40 L.F. 6 TREES (X2) = 12 TREES  INTERNAL PRIVATE ROAD 321 LF 40 L.F. 6 TREES (X2) = 12 TREES  INTERNAL PRIVATE ROAD 321 LF 40 L.F. 6 TREES (X2) = 12 TREES  INTERNAL PRIVATE ROAD 321 LF 40 L.F. 6 TREES (X2) = 12 TREES  INTERNAL PRIVATE ROAD 321 LF 40 L.F. 6 TREES (X2) = 12 TREES  INTERNAL PRIVATE ROAD 321 LF 40 L.F. 8 TREES (X2) = 16 TREES  INTERNAL PRIVATE ROAD 304 LF 40 L.F. 8 TREES (X2) = 16 TREES  INTERNAL PRIVATE ROAD 304 LF 40 L.F. 8 TREES (X2) = 16 TREES  INTERNAL PRIVATE ROAD 304 LF 40 L.F. 8 TREES (X2) = 16 TREES  INTERNAL PRIVATE ROAD (ENTRANCES) = 937 LF (ENTRANCES) = 937 LF (ENTRANCES) = 937 LF (ENTRANCES) = 367 LF (EN											
STREET   LINEAR FEET   SPACING   REQUIRED   TREES PROVIDED	S7.	TREET TREE	REQU	JIREME	NTS						
(NORTH)   536 LF	STREET	LINEAR FEET	SPACING		TREES PROVIDED						
(SOUTH) (ENTRANCE) = 489 LF 40 L.F. 13 TREES 13 TREES  OLD FREDERICK ROAD - MD RTE. 99  INTERNAL PUBLIC ROAD 'A' (ENTRANCES) = 2343 LF 40 L.F. 63 TREES (x2) = 126 TREES  INTERNAL PUBLIC ROAD 'B' 1416 LF 40 L.F. 36 TREES (x2) = 72 TREES  INTERNAL PUBLIC ROAD 'C' (ENTRANCE) = 407 LF 40 L.F. 11 TREES (x2) = 72 TREES  INTERNAL PUBLIC ROAD 'C' (ENTRANCE) = 407 LF 40 L.F. 11 TREES (x2) = 22 TREES  INTERNAL PUBLIC ROAD 'C' (ENTRANCE) = 407 LF 40 L.F. 11 TREES (x2) = 22 TREES  INTERNAL PRIVATE ROAD 17 LF 40 L.F. 5 TREES (x2) = 14 TREES  INTERNAL PRIVATE ROAD 179 LF 40 L.F. 5 TREES (x2) = 10 TREES  INTERNAL PRIVATE ROAD 252 LF - 26 LF (ENTRANCES) = 226 LF 40 L.F. 6 TREES (x2) = 12 TREES  INTERNAL PRIVATE ROAD 321 LF 40 L.F. 6 TREES (x2) = 12 TREES  INTERNAL PRIVATE ROAD 321 LF 40 L.F. 8 TREES (x2) = 16 TREES  INTERNAL PRIVATE ROAD 304 LF 40 L.F. 8 TREES (x2) = 16 TREES  INTERNAL PRIVATE ROAD 304 LF 40 L.F. 23 TREES (x2) = 16 TREES  INTERNAL PRIVATE ROAD 304 LF 40 L.F. 23 TREES (x2) = 16 TREES  INTERNAL PRIVATE ROAD 66 LF - 26 LF (ENTRANCES) = 937 LF 40 L.F. 23 TREES (x2) = 46 TREES  INTERNAL PRIVATE ROAD 66 LF - 26 LF (ENTRANCES) = 937 LF 40 L.F. 23 TREES (x2) = 46 TREES  INTERNAL PRIVATE ROAD 66 LF - 26 LF (ENTRANCES) = 937 LF 40 L.F. 23 TREES (x2) = 46 TREES  INTERNAL PRIVATE ROAD 66 LF - 26 LF (ENTRANCES) = 937 LF 40 L.F. 23 TREES (x2) = 46 TREES  INTERNAL PRIVATE ROAD 66 LF - 26 LF (ENTRANCES) = 937 LF 40 L.F. 23 TREES (x2) = 46 TREES  INTERNAL PRIVATE ROAD 66 LF - 26 LF (ENTRANCES) = 937 LF 40 L.F. 23 TREES (x2) = 46 TREES  INTERNAL PRIVATE ROAD 66 LF - 26 LF (ENTRANCES) = 937 LF 40 L.F. 23 TREES (x2) = 46 TREES  INTERNAL PRIVATE ROAD 66 LF - 26 LF (ENTRANCES) = 937 LF 40 L.F. 23 TREES (x2) = 46 TREES  INTERNAL PRIVATE ROAD 66 LF - 26 LF (ENTRANCES) = 937 LF 40 L.F. 23 TREES (x2) = 8 TREES		536 LF	40 L.F.	14 TREES	14 TREES						
ROAD - MD RTE   (ENTRANCES) = 2343 LF   30 L.F.*   79 TREES   79 TREES   79 TREES   99   INTERNAL PUBLIC ROAD 'A' (ENTRANCES) = 2511 LF   40 L.F.   63 TREES (x2) = 126 TREES   127 TREE			40 L.F.	13 TREES	13 TREES						
PUBLIC ROAD 'A' (ENTRANCES) = 2511 LF 40 L.F. = 126 TREES 126 TREES 172 TREES 1NTERNAL PUBLIC ROAD 'B' 1416 LF 40 L.F. = 126 TREES 72 TREES 72 TREES 1NTERNAL PUBLIC ROAD 'C' (ENTRANCE) = 407 LF 40 L.F. = 127 TREES 22 TREES 22 TREES 1NTERNAL PRIVATE ROAD 1'C' (ENTRANCES) = 269 LF 40 L.F. = 14 TREES (X2) = 14 TREES 11 TREES (X2) = 14 TREES 11 TREES (X2) = 14 TREES 11 TREES 11 TREES 11 TREES 11 TREES 12 TREES 11 TREES 12 TREES 12 TREES 12 TREES 12 TREES 13 TREES 14 TREES 14 TREES 15 TREES (X2) = 10 TREES 12 TREES 15 TREES (X2) = 10 TREES 12 TREES 15 TREES (X2) = 16 TREES 15 TREES (X2) = 16 TREES 17 TREES 17 TREES 16 TREES 16 TREES 16 TREES 17 TREES 17 TREES 16 TREES 17 TREES 17 TREES 17 TREES 16 TREES 16 TREES 17	ROAD - MD RTE.		30 L.F.*	79 TREES	79 TREES						
PUBLIC ROAD 'B'         1416 LF         40 L.F.         = 72 TREES         72 TREES           INTERNAL PUBLIC ROAD 'C'         435 LF - 28 LF (ENTRANCE) = 407 LF         40 L.F.         11 TREES (X2) = 22 TREES         22 TREES           INTERNAL PRIVATE ROAD '1'         295 LF - 26 LF (ENTRANCES) = 269 LF         40 L.F.         7 TREES (X2) = 14 TREES         14 TREES           INTERNAL PRIVATE ROAD '2'         179 LF         40 L.F.         5 TREES (X2) = 10 TREES         10 TREES           INTERNAL PRIVATE ROAD '3'         252 LF - 26 LF (ENTRANCES) = 226 LF         40 L.F.         6 TREES (X2) = 12 TREES         12 TREES           INTERNAL PRIVATE ROAD '4'         321 LF         40 L.F.         8 TREES (X2) = 16 TREES         16 TREES           INTERNAL PRIVATE ROAD '5'         304 LF         40 L.F.         23 TREES (X2) = 16 TREES         16 TREES           INTERNAL PRIVATE ROAD '6'         963 LF - 26 LF (ENTRANCES) = 937 LF         40 L.F.         23 TREES (X2) = 46 TREES         46 TREES           INTERNAL PRIVATE ROAD '6'         152 LF         40 L.F.         4 TREES (X2) = 8 TREES         8 TREES			40 L.F.		126 TREES						
PUBLIC ROAD 'C'         (ENTRANCE) = 407 LF         40 L.F.         = 22 TREES         22 TREES           INTERNAL PRIVATE ROAD '1'         295 LF - 26 LF (ENTRANCES) = 269 LF         40 L.F.         7 TREES (X2) = 14 TREES         14 TREES           INTERNAL PRIVATE ROAD '2'         179 LF         40 L.F.         5 TREES (X2) = 10 TREES         10 TREES           INTERNAL PRIVATE ROAD '3'         252 LF - 26 LF (ENTRANCES) = 226 LF         40 L.F.         6 TREES (X2) = 12 TREES         12 TREES           INTERNAL PRIVATE ROAD '4'         321 LF         40 L.F.         8 TREES (X2) = 16 TREES         16 TREES           INTERNAL PRIVATE ROAD '5'         304 LF         40 L.F.         23 TREES (X2) = 16 TREES         16 TREES           INTERNAL PRIVATE ROAD '6'         963 LF - 26 LF (ENTRANCES) = 937 LF         40 L.F.         23 TREES (X2) = 46 TREES         46 TREES           INTERNAL PRIVATE ROAD '6'         152 LF         40 L.F.         4 TREES (X2) = 8 TREES         8 TREES		1416 LF	40 L.F.		72 TREES						
PRIVATE ROAD '1'  INTERNAL PRIVATE ROAD '2'  INTERNAL PRIVATE ROAD '3'  INTERNAL PRIVATE ROAD '4'  INTERNAL PRIVATE ROAD '5'  INTERNAL PRIVATE ROAD '6'  INTERNAL PRIVATE ROAD '7'  INTERNAL PRIVATE ROAD '8'  INT			40 L.F.		22 TREES						
PRIVATE ROAD   179 LF	PRIVATE ROAD		40 L.F.	` '	14 TREES						
PRIVATE ROAD   252 LF - 26 LF   40 L.F.   6 TREES (X2)   12 TREES	PRIVATE ROAD	179 LF	40 L.F.	` '	10 TREES						
PRIVATE ROAD	PRIVATE ROAD		40 L.F.		12 TREES						
PRIVATE ROAD         304 LF         40 L.F.         8 TREES (X2) = 16 TREES         16 TREES           INTERNAL PRIVATE ROAD '6'         963 LF - 26 LF (ENTRANCES) = 937 LF         40 L.F.         23 TREES (X2) = 46 TREES         46 TREES           INTERNAL PRIVATE ROAD '7'         152 LF         40 L.F.         4 TREES (X2) = 8 TREES         8 TREES	PRIVATE ROAD	321 LF	40 L.F.		16 TREES						
PRIVATE ROAD (ENTRANCES) = 937 LF 40 L.F. 23 TREES (X2) = 46 TREES  INTERNAL PRIVATE ROAD 7' 40 L.F. 40 L.F. 4 TREES (X2) = 8 TREES  8 TREES	PRIVATE ROAD	304 LF	40 L.F.		16 TREES						
PRIVATE ROAD 152 LF 40 L.F. 4 TREES (X2) = 8 TREES 77' 8 TREES	PRIVATE ROAD		40 L.F.		46 TREES						
THE SYMBOL "%" REPRESENTS THE MATERIAL USED TO MEET THIS REQUIREMENT.	PRIVATE ROAD	152 LF	40 L.F.		8 TREES						
	THE SYMBOL "%" REPRESENTS THE MATERIAL USED TO MEET THIS REQUIREMENT.										
*NOTE: ORNAMENTAL TREES WILL BE PROVIDED ALONG MD											

RTE. 99 DUE TO OVERHEAD POWER LINES.

SYM.	KEY	QTY.	BOTANICAL NAME	COMMON NAME	CAL.	CONT.
SHADE TREES						
	AR	130	ACER RUBRUM	RED MAPLE	2 1/2-3" CAL. / 12-14'	В+В
$\bigotimes$	AR2	8	ACER RUBRUM	RED MAPLE	3-4" CAL. / 12-14'	B+B
	CLK	3	CLADRASTIS KENTUKEA	YELLOWWOOD	2-2 1/2" CAL. / 12-14'	B+B
NS NS		8	NYSSA SYLVATICA	SOURGUM OR TUPELO	3" CAL.	B+B
	PLO	3	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	2 1/2-3" CAL.	B+B
QВС		31	QUERCUS BICOLOR	SWAMP WHITE OAK	2 1/2-3" CAL.	B+B
	QBC2	6	QUERCUS BICOLOR	SWAMP WHITE OAK	3-4" CAL.	B+B
	QC	24	QUERCUS COCCINEA	SCARLET OAK	2 1/2-3" CAL.	B+B
	QC2	6	QUERCUS COCCINEA	SCARLET OAK	3-4" CAL.	B+B
	QPH	44	QUERCUS PHELLOS	WILLOW OAK	2 1/2-3" CAL. / 12-14'	B+B
+	QR	9	QUERCUS RUBRA	RED OAK	2 1/2-3" CAL.	B+B
+	QR2	8	QUERCUS RUBRA	RED OAK	3" CAL.	B+B
	TCG	42	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LINDEN	2 1/2-3" CAL.	В+В
SUBTOTAL:	322					

					HEDULE ER LANDSCAP								Ā			T PRIOR WRIT SES
		LINEAR FEET OF	CREDIT FOR EX.	CREDIT FOR	TOTAL LINEAR	_	R OF PLANTS RE	QUIRED		NUMBER OF PLA	ANTS PROVID	DED				WITHOU
PERIMETER	LANDSCAPE TYPE	ROADWAY FRONTAGE/ PERIMETER	VEGETATION (YES/NO; LF) (DESCRIBE BELOW IF NEEDED)	FENCE/WALL/BERM (YES/NO; LF) (DESCRIBE BELOW IF NEEDED)	FEET (AFTER CREDITS)	SHADE TREES	EVERGREEN TREES	SHRUBS	SHADE TREES	EVERGREEN TREES	SHRUBS	ORNAMENTAL TREES		IG ENGINEERING ING SEMENT		R ANY PURPOSE CONSTRUCTION
1	С	1418 LF	NO	YES - FENCE (865 LF + 422 LF = 1287 LF)	131 LF	4	7	0	4	0	0	7			JRE S CES	R USED FOR
2	А	1239 LF	YES (284 LF + 422 LF = 706 LF)	YES - FENCE (483 LF)	50 LF	1	0	0	2	0	0	0		NG ENGINE YING GEMENT	ECTU SIGN VICES	SE COPIED C SHALL BE UT
3	А	1144 LF - 25 LF ENTRANCE = 1119 LF	YES (735 LF + 172 LF = 907 LF)	YES - FENCE (136 LF)	76 LF	2	0	0	2	0	0	0		A F F F F F F F F F F F F F F F F F F F	프 등 등 등 등 등	AND SHALL NOT E
4	А	1334 LF	YES (45 LF + 419 LF = 464 LF)	NO (0)	870 LF	15	0	0	9	12	0	0		Z σ Ξ i	NDSCAPE ARG SUSTAINABL PERMITTING &	OPRIETARY A SIGNED AND BOHLER
5	С	2637 LF	YES (212 LF + 222 LF = 434 LF)	YES - BERM/WALL (1846 LF)	357 LF	9	18	0	9	8	0	10	IΙ	IL AND LA PROGE	ANDSC SUST PERN RANSP	LAN ARE PR APPROVED,
6	С	530 LF - 42 LF ENTRANCE = 488 LF	NO	NO (0)	488 LF	13	25	0	13	25	0	0		CIN	TA TA	NTENT OF THIS P M BOHLER. ONLY
7	С	2654 LF	YES (210 LF)	YES - BERM/WALL (1262 LF)	1182 LF	30	60	0	30	60	0	0		SITE		TION, DESIGN AND CC AUTHORIZATION FRO
8	А	259 LF	YES (93 LF)	NO (0)	166 LF	3	0	0	3	0	0	0				TON, DES AUTHORI;
9	С	1211 LF - 46 LF ENTRANCE = 1165 LF	YES (215 LF)	NO (0)	950 LF	24	48	0	24	48	0	0				THE INFORMAT
10	С	700 LF	NO	YES - FENCE (700 LF)	0 LF	0	0	0	0	0	0	0				
11	С	985 LF - 43 LF ENTRANCE = 942 LF	NO	NO (0)	942 LF	24	48	0	24	48	0	0		REVISIO		DRAWN BY
12	С	438 LF	NO	NO (0)	438 LF	11	22	0	11	22	0	0	REV DATE	СОММ		CHECKED
13	Α	294 LF	NO	NO (0)	294 LF	5	0	0	5	0	0	0				
HE SYMBOL "@	" REPRESENTS	THE MATERIAL USE	TO MEET THIS REQUIRE	MENT				-								
LOT 1	С	100 LF	NO	NO (0)	100 LF	3	5	0	2	7	0	0		+		
LOTS 8	С	100 LF	NO	NO (0)	100 LF	3	5	0	3	5	0	0		+		
LOTS 9	С	100 LF	NO	NO (0)	100 LF	3	5	0	3	3	20	0				
LOT 12	С	100 LF	NO	NO (0)	100 LF	3	5	0	0	5	30	0			_	
LOT 13	С	100 LF	NO	NO (0)	100 LF	3	5	0	3	5	0	0				
LOT 18	С	100 LF	NO	NO (0)	100 LF	3	5	0	3	5	0	0				
LOT 19	В	145 LF	NO	NO (0)	145 LF	3	4	0	3	4	0	0				
LOT 35	В	152 LF 100 LF	NO	NO (0) NO (0)	152 LF	4	4	0	4	4	0	0				
LOT 81	С	100 LF	NO NO	NO (0)	100 LF 100 LF	3	5	0	3	5	0	0				
LOT 100	С	100 LF	NO	NO (0)	100 LF	3	5	0	3	5	0	0			<u> </u>	
LOT 105	С	100 LF	NO	NO (0)	100 LF	3	5	0	3	5	0	0	ł	Ω11		
LOT 121	С	100 LF	NO	NO (0)	100 LF	3	5	0	3	5	0	0	1		8	
LOT 124	С	100 LF	NO	NO (0)	100 LF	3	5	0	3	0	50	0	1			
LOT 125	С	100 LF	NO	NO (0)	100 LF	3	5	0	0	11	0	0	Kı	now what's <b>belo</b> v <b>Call</b> before yo	W. ou dia.	
LOT 128	С	100 LF	NO	NO (0)	100 LF	3	5	0	3	0	50	0	<u> </u>	ALWAYS CALL	_	
LOT 129	С	100 LF	NO	NO (0)	100 LF	3	5	0	3	5	0	0		st. It's free. It's		
LOT 145	С	100 LF	NO	NO (0)	100 LF	3	5	0	3	5	0	0	1.0 10			
LOT 149	С	100 LF	NO	NO (0)	100 LF	3	5	0	3	5	0	0	NIOT A			
LOT 154	С	100 LF	NO	NO (0)	100 LF	3	5	0	3	5	0	0		APPROV		K
HE SYMBOL "#"	'REPRESENTS 1	HE MATERIAL USED	TO MEET THIS REQUIREM	IENT									CO	NSTRUC	JION	
OTAL						202	226	0	100	217	150	17				

### HOWARD COUNTY LANDSCAPE NOTES

CONSERVATION PLAN OF THIS SET.

LANDSCAPING FOR THIS SUBDIVISION WILL BE PROVIDED IN ACCORDANCE WITH THIS CERTIFIED LANDSCAPE PLAN AND IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. PERIMETER LANDSCAPE AND STORMWATER MANAGEMENT SURETY IN THE AMOUNT OF \$131,290 FOR THE INSTALLATION OF 202 SHADE TREES (\$300.00 EACH): AND. 326 EVERGREEN TREES (\$150.00 EACH): THE INSTALLATION OF A FENCE TOTALING 2.179 LINEAR FEE (\$10 PER LINEAR FOOT); AND FINANCIAL SURETY IN THE AMOUNT OF \$5,400 FOR 18 MITIGATION SHADE TREES (WP-19-118); AND FINANCIAL SURETY IN THE AMOUNT OF \$40,500 FOR 135 SHADE TREES (\$300 EACH) FOR RESIDENTIAL INTERNAL LANDSCAPING, FOR A TOTAL SURETY OF \$177,190 SHALL BE POSTED BY THE DEVELOPER AS PART OF THE DPW DEVELOPER'S AGREEMENT, \_\_\_\_

2. NO CLEARING OF EXISTING VEGETATION IS PERMITTED WITHIN A LANDSCAPE EDGE FOR WHICH CREDIT IS BEING TAKEN; HOWEVER, LANDSCAPE MAINTENANCE IS

3 AT THE TIME OF INSTALL MENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THE SITE SHALL BE OF PROPER HEIGHT. REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVED FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATIONS.

4. SHOULD ANY TREE DESIGNATED FOR PRESERVATION, FOR WHICH CREDIT IS GIVEN, PRIOR TO RELEASE OF BONDS, THE DEVELOPER WILL BE REQUIRED TO REPLACE THE TREE WITH THE EQUIVALENT SPECIES OR WITH A TREE WHICH WILL OBTAIN THE SAME HEIGHT, SPREAD AND GROWTH CHARACTERISTICS. THE REPLACEMENT TREE MUST BE A MINIMUM OF 3 INCHES IN CALIPER AND INSTALLED AS REQUIRED IN THE LANDSCAPE MANUAL.

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

(6. UNDER WP-21-064, SECTION 16.1205.(A).(7) - A REQUEST FOR ALTERNATIVE COMPLIANCE HAS BEEN REQUESTED FROM DPZ FOR THE REMOVAL OF EIGHTEEN (18) SPECIMEN TREES (#ST-01,02, 03, 21, 23, 24, 25, 26, 27, 28, 31, 35, 37, 38, 39, 43, 46, AND 48). MITIGATION FOR THE REMOVAL OF THESE EIGHTEEN (18) SPECIMEN TREES IS TO CONSIST OF TWO (2) 3-4" CALIBER TREE FOR EACH ONE (1) REMOVED SIMILAR OR IDENTICAL SPECIES. THESE THIRTY-SIX (36) TREES SHALL BE PLACED WITHIN CLOSE PROXIMITY TO THE LOCATION OF THE ORIGINAL SPECIMEN TREE AND WILL BE IN ADDITION TO THE REQUIRED PERIMETER LANDSCAPING. COSTS TO COVER THE INSTALLATION OF THESE TREES SHALL BE INCLUDED IN THE PERIMETER LANDSCAPING ESTIMATE; INSPECTION FEES SHALL BE POSTED WITH THE DPW DEVELOPER'S AGREEMENT AT THE FINAL PLAN STAGE FOR THIS DEVELOPMENT; SURETY WILL BE ADDRESSED WITH THIS PLAN STAGE FOR THIS DEVELOPMENT. THE SYMBOL "\$" REPRESENTS PLANT MATERIAL TO MEET THIS REQUIREMENT. '. MATERIAL LABELED WITH A "\$" SYMBOL DESIGNATES MATERIAL PROPOSED FOR MITIGATION. A SCHEDULE OF SPECIMEN TREES CAN BE FOUND ON THE FOREST

$\bigotimes$	AC	11	AMELANCHIER CANADENSIS	MULTI STEM SHADBLOW SERVICEBERRY	1-1 1/2" CAL. / 8-10'	B+B				
0	СС	26	CERCIS CANADENSIS	EASTERN REDBUD	2-2 1/2" CAL. / 8-10'	B+B				
₩	СК	18	CORNUS KOUSA	KOUSA DOGWOOD	1-1 1/2" CAL. / 8-10'	B+B				
$\Diamond$	CMAS	3	CORNUS MAS	CORNELIAN CHERRY	1-1 1/2" CAL. / 8-10'	B+B				
$\odot$	PXO	7	PRUNUS X 'OKAME'	OKAME CHERRY	1-1 1/2" CAL. / 8-10'	B+B				
SUBTOTAL:	65									
EVERGREEN TREES										
*	JV	44	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	8-10'	B+B				
	PIAB	66	PICEA ABIES	NORWAY SPRUCE	6-7'	В+В				
	PS	137	PINUS STROBUS	EASTERN WHITE PINE	6-7'	В+В				
	PV	97	PINUS VIRGINIANA	VIRGINIA PINE	7-8'	В+В				
*	TP	9	THUJA PLICATA	WESTERN RED CEDAR	7-8'	B+B				
SUBTOTAL:	353									
DECIDUOUS SHRUBS										
$\odot$	IV	50	ITEA VIRGINICA 'HENRY'S GARNET'	GARNET SWEETSPIRE	24-30"	#5 CAN				
EVERGREEN SHRUBS	-					•				
0	IGC	50	ILEX GLABRA 'COMPACTA'	DWARF INKBERRY HOLLY	24-30"	#5 CAN				
$\odot$	IGS	100	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY HOLLY	24-30"	#5 CAN				
SUBTOTAL:	150									
PERENNIALS										
+	HHR	382	HEMEROCALLIS 'HAPPY RETURNS'	HAPPY RETURNS DAYLILY	2 GAL.	CONTAINER				
ORNAMENTAL GRASSES				•						
+	РАН	47	PENNISETUM ALOPECUROIDES 'HAMELN'	DWARF FOUNTAIN GRASS	2 GAL.	CONTAINER				

SCHEDULE C - RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING 135 SINGLE FAMILY ATTACHED (SFA) UNITS NUMBER OF DWELLING UNITS:

19 SINGLE FAMILY DETACHED (SFD) UNITS NUMBER OF TREES REQUIRED: NUMBER OF TREES REQUIRED: (1 PER DWELLING UNIT - SFA) (0 PER DWELLING UNIT - SFD) NUMBER OF PLANTS PROVIDED: NUMBER OF PLANTS PROVIDED: 98 SHADE TREES SHADE TREES 48 ORNAMENTAL TREES OTHER TREES (2:1 SUBSTITUTION) 28 EVERGREEN TREES

1. 48 ORNAMENTAL TREES SUBSTITUTED FOR 24 SHADE TREES 2. 28 EVERGREEN TREES SUBSTITUTED FOR 14 SHADE TREES

JBDIVISION NAME: TBD SECTION/AREA: N/A

DEED # 00226/ 00064

THE SYMBOL "\*" REPRESENTS THE MATERIAL USED TO MEET THIS REQUIREMENT

PREVIOUS FILE No.

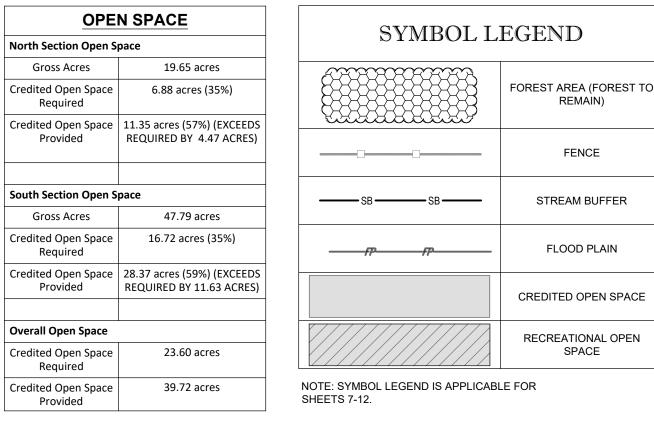
WP-21-127

ECP-19-041

BA-CASE NO. 17-018C

ECP-21-017, WP-21-064

SP-19-005



OWNER:

Digitally signed by Eric McWilliams DN: cn=Eric McWilliams, o=Bohler, ou, email=emcwilliams@bohl Eric McWillia

THE ESTATE OF RUTH L. HARBIN H. MARK BOBOTEK, ESQ.

P.O. BOX 66 ELLICOTT CITY, MD 21041 410-964-9700 ELM STREET DEVELOPMENT DEVELOPER: 5074 DORSEY HALL ROAD, SUITE 205 ELLICOTT CITY, MD 21042 CONTACT: JASON VAN KIRK PHONE: (410) 720-3021

GRID: 15

PARCEL: 34

2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

ZONED: R-20

SP-21-002

ms

LICENSE NO. 3697, EXPIRATION DATE: 9/20/22 LANDSCAPE PLAN -

OVERALL NEIGHBORHOOD

**PRELIMINARY** 

**EQUIVALENT** 

**SKETCH PLAN** 

**BETHANY** 

GLEN - ARAH

LOTS 1 THRU 155 AND

OPEN SPACE LOTS 155 THRU 168

891 OLD FREDERICK ROAD - ROUTE 9

2ND ELECTION DISTRICT

TAX MAP 17, GRID 15, PARCEL 34

HOWARD COUNTY, MARYLAND

901 DULANEY VALLEY ROAD, SUITE 801

TOWSON, MARYLAND 21204

Phone: (410) 821-7900

Fax: (410) 821-7987

MD@BohlerEng.com

E.R. McWILLIAMS

REGISTERED LANDSCAPE ARCHITECT

DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT

UNDER THE LAWS OF THE STATE OF MARYLAND,

S HEREBY CERTIFY THAT THESE

11/05/2021

I. ERIC R. McWHJ

PROJECT No.:

DRAWN BY:

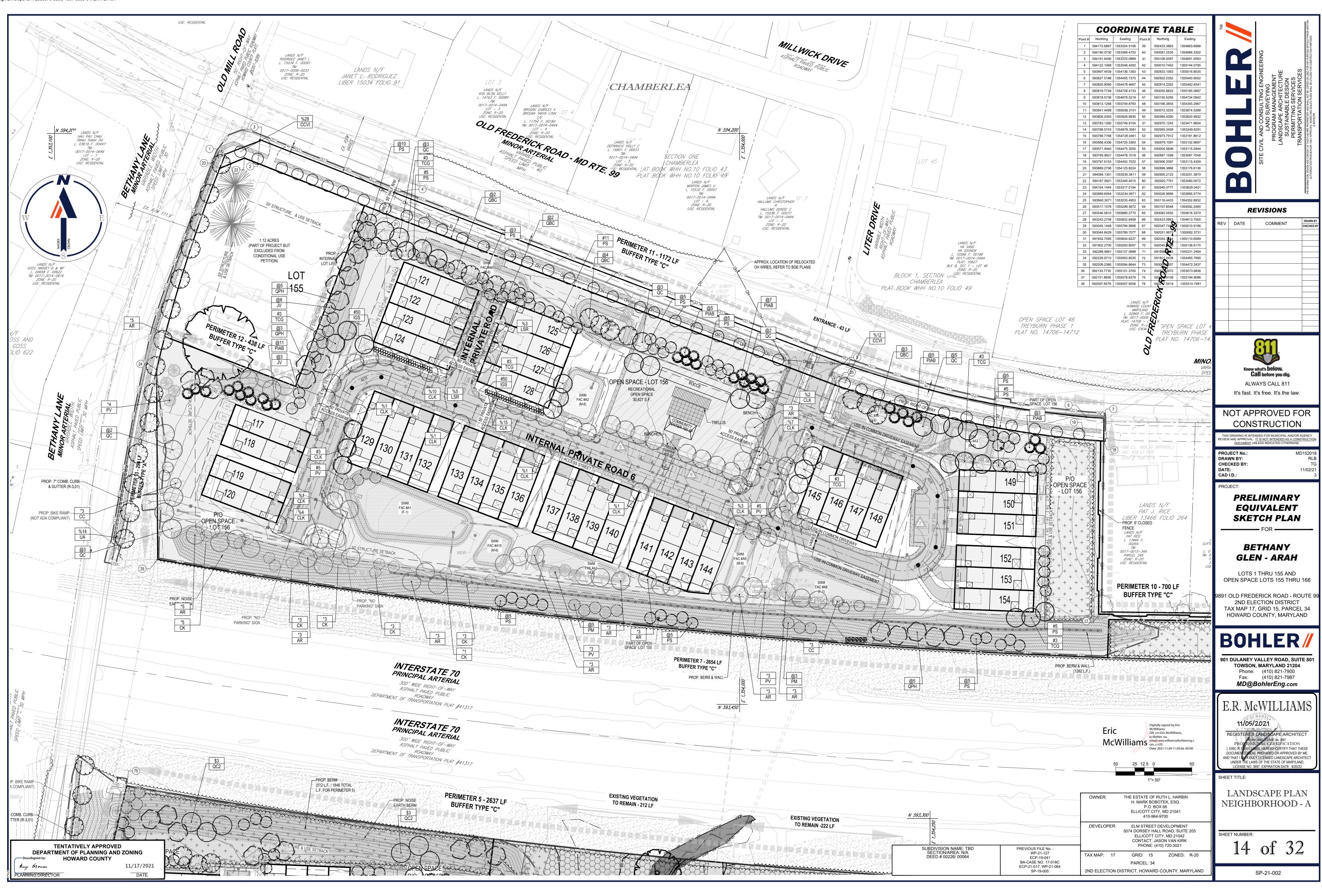
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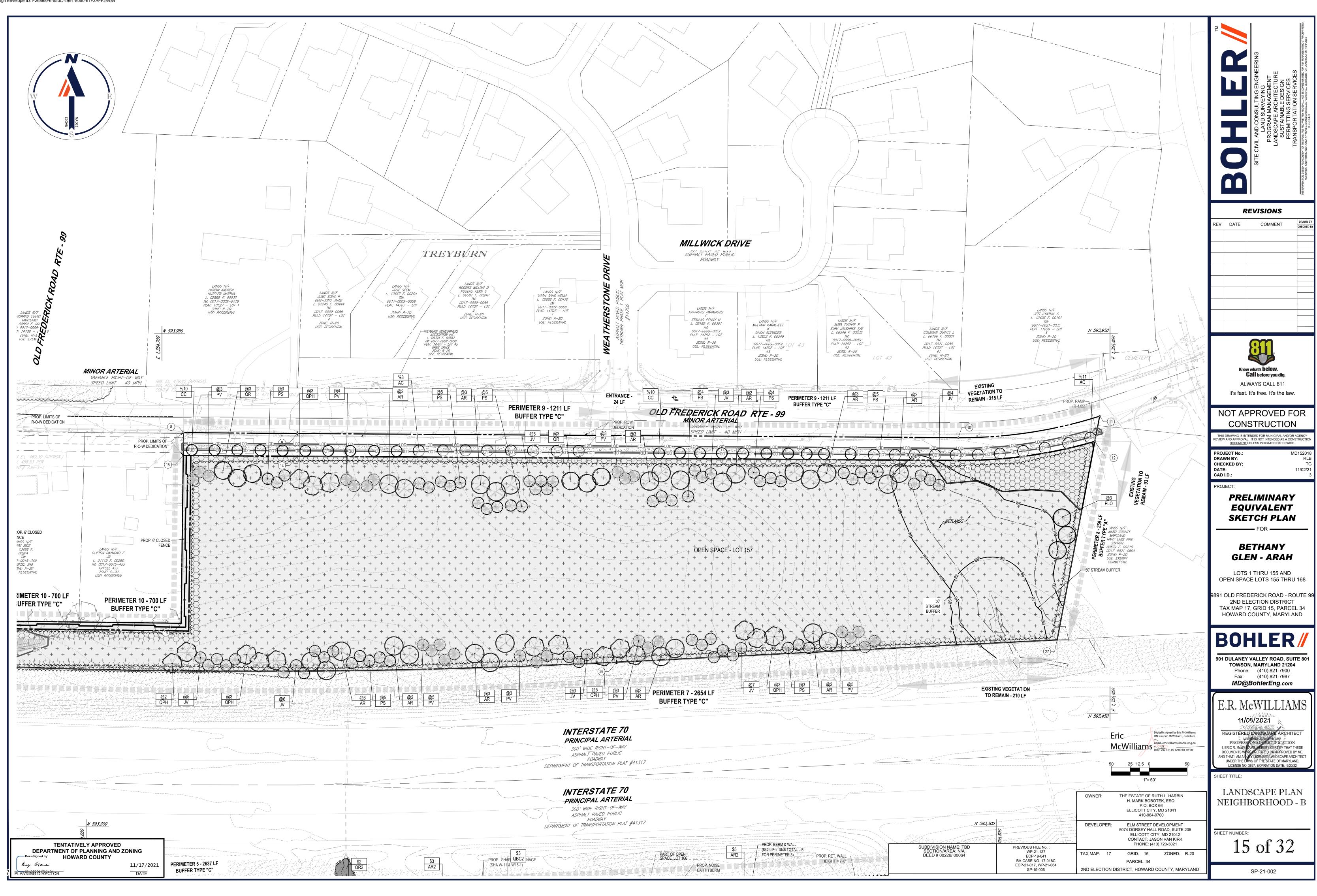
CAD I.D.:

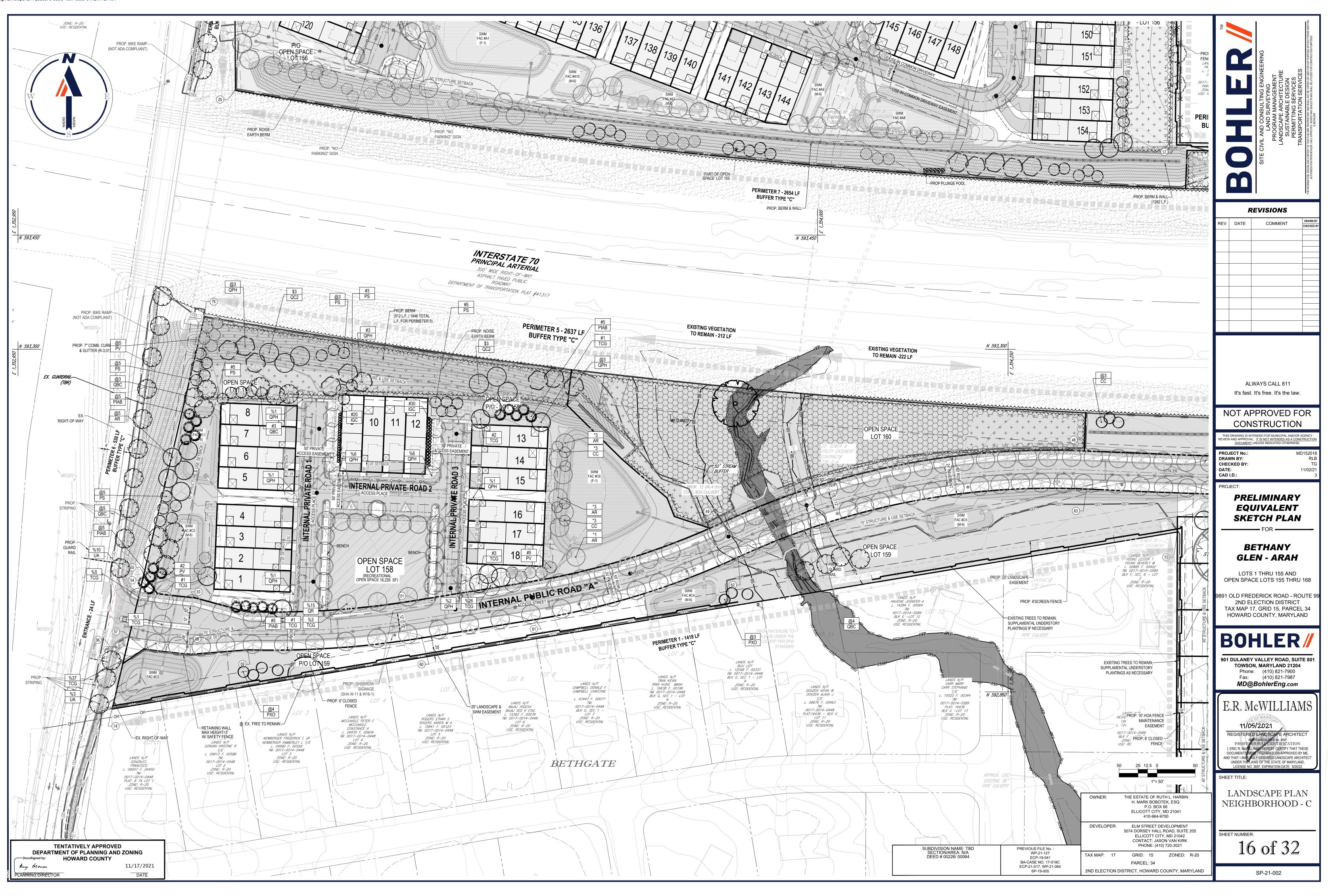
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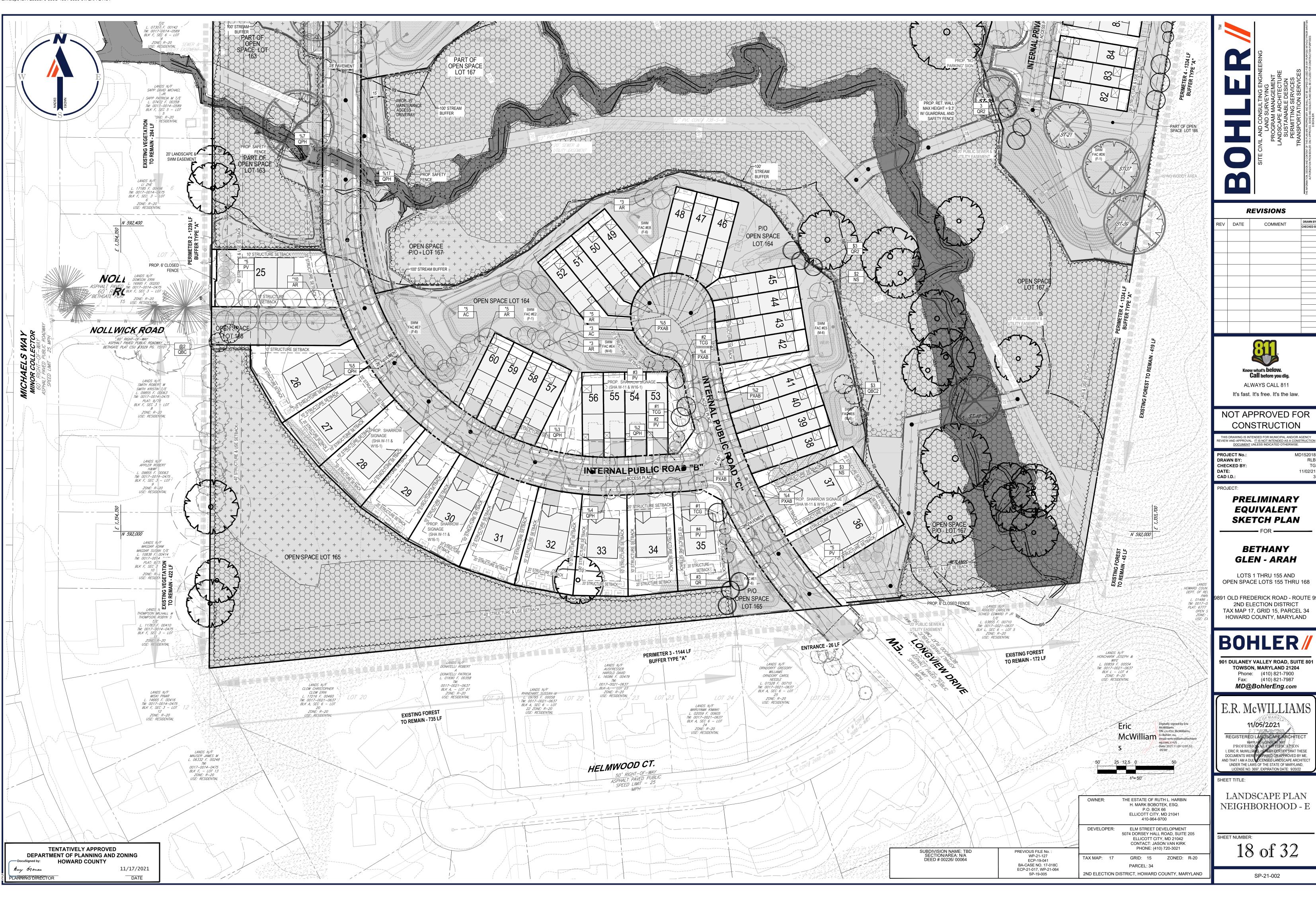
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### LANDSCAPE SPECIFICATIONS

## SCOPE OF WORK

HE LANDSCAPE CONTRACTOR SHALL BE REQUIRED TO PERFORM ALL CLEARING, FINISHED GRADING. SOIL REPARATION, PERMANENT SEEDING OR SODDING, PLANTING AND MULCHING INCLUDING ALL LABOR, MATERIALS, OOLS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THIS PROJECT, UNLESS OTHERWISE CONTRACTED BY THE GENERAL CONTRACTOR.

- A. GENERAL ALL HARDSCAPE MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF TRANSPORTATION'S SPECIFICATIONS.
- 3. TOPSOIL NATURAL, FRIABLE, LOAMY SILT SOIL HAVING AN ORGANIC CONTENT NOT LESS THAN 5%, A PH RANGE BETWEEN 4.5-7.0. IT SHALL BE FREE OF DEBRIS, ROCKS LARGER THAN ONE INCH (1"), WOOD, ROOTS, VEGETABLE
- C. LAWN ALL DISTURBED AREAS ARE TO BE TREATED WITH A MINIMUM SIX INCH (6") THICK LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, AND SEEDED OR SODDED IN ACCORDANCE WITH THE PERMANENT STABILIZATION METHODS INDICATED WITHIN THE SOIL EROSION AND SEDIMENT CONTROL NOTES. 1.1. LAWN SEED MIXTURE SHALL BE FRESH, CLEAN NEW CROP SEED
- 1.2 SOD SHALL BE STRONGLY ROOTED, WEED AND DISEASE/PEST ERFE WITH A LINIFORM THICKNESS. 1.3. SOD INSTALLED ON SLOPES GREATER THAN 4:1 SHALL BE PEGGED TO HOLD SOD IN PLACE.
- D. MULCH THE MULCH AROUND THE PERIMETER OF THE BUILDING SHALL BE A 3" LAYER OF DOUBLE SHREDDED BLACK CEDAR MULCH ONLY. ALL OTHER AREAS SHALL BE MULCHED WITH A 3" LAYER OF DOUBLE SHREDDED DARK BROWN HARDWOOD BARK MULCH. UNLESS OTHERWISE STATED ON THE LANDSCAPE PLAN.

- 1.1. FERTILIZER SHALL BE DELIVERED TO THE SITE MIXED AS SPECIFIED IN THE ORIGINAL UNOPENED STANDARD BAGS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. FERTILIZER SHALL BE STORED IN A WEATHERPROOF PLACE SO THAT IT CAN BE KEPT DRY PRIOR TO USE
- 1.2. FOR THE PURPOSE OF BIDDING, ASSUME THAT FERTILIZER SHALL BE 10% NITROGEN, 6% PHOSPHORUS AND 4% POTASSIUM BY WEIGHT. A FERTILIZER SHOULD NOT BE SELECTED WITHOUT A SOIL TEST PERFORMED BY A CERTIFIED SOIL LABORATORY

### . PLANT MATERIAI

- 1.1. ALL PLANTS SHALL IN ALL CASES CONFORM TO THE REQUIREMENTS OF THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.1), LATEST EDITION, AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION
- 1.2. IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL PLANT MATERIAL 1.3. PLANTS SHALL BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE. TAGS ARE TO REMAIN ON AT LEAST
- ONE PLANT OF EACH SPECIES FOR VERIFICATION PURPOSES DURING THE FINAL INSPECTION. 1.4 TREES WITH ABRASION OF THE BARK SUN SCALDS DISFIGURATION OR FRESH CUTS OF LIMBS OVER 11/4" WHICH HAVE NOT BEEN COMPLETELY CALLUSED, SHALL BE REJECTED.PLANTS SHALL NOT BE BOUND WITH
- WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES. 1.5. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH: WELL DEVELOPED BRANCHES. DENSELY FOLIATED. VIGOROUS ROOT SYSTEMS AND BE FREE OF DISEASE, INSECTS, PESTS, EGGS OR LARVAE.
- 1.6. CALIPER MEASUREMENTS OF NURSERY GROWN TREES SHALL BE TAKEN AT A POINT ON THE TRUNK SIX INCHES (6") ABOVE THE NATURAL GRADE FOR TREES UP TO AND INCLUDING A FOUR INCH (4") CALIPER SIZE. IF THE CALIPER AT SIX INCHES (6") ABOVE THE GROUND EXCEEDS FOUR INCHES (4") IN CALIPER. THE CALIPER SHOULD BE MEASURED AT A POINT 12" ABOVE THE NATURAL GRADE.
- 1.7. SHRUBS SHALL BE MEASURED TO THE AVERAGE HEIGHT OR SPREAD OF THE SHRUB, AND NOT TO THE LONGEST BRANCH. 1.8. TREES AND SHRUBS SHALL BE HANDLED WITH CARE BY THE ROOT BALL

A. CONTRACTOR TO UTILIZE WORKMANLIKE INDUSTRY STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH WORKDAY. ALL DEBRIS. MATERIALS AND TOOLS SHALL BE PROPERLY STORED. STOCKPILED OR DISPOSED OF

3. WASTE MATERIALS AND DEBRIS SHALL BE COMPLETELY DISPOSED OF AT THE CONTRACTOR'S EXPENSE. DEBRIS SHALL NOT BE BURIED, INCLUDING ORGANIC MATERIALS, BUT SHALL BE REMOVED COMPLETELY FROM THE SITE.

A. BEFORE AND DURING PRELIMINARY GRADING AND FINISHED GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES OUTLINED HEREIN.

- 3. ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE TRUNK. CONTRACTOR SHALL ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH CLEAN, SHARP TOOLS AND TOPSOIL SHALL BE PLACED AROUND THE REMAINDER OF THE ROOTS. EXISTING TREES SHALL BE MONITORED ON A REGULI AR BASIS FOR ADDITIONAL ROOT OR BRANCH DAMAGE AS A RESULT OF CONSTRUCTION. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR SHALL WATER EXISTING TREES AS NEEDED TO PREVENT SHOCK OR DECLINE.
- CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE-OUT TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE MATERIAL. UTILITY COMPANIES SHALL BE CONTACTED THREE (3) DAYS PRIOR TO THE BEGINNING OF WORK.

#### TREE PROTECTION

- A. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES TO REMAIN. A TREE PROTECTION ZONE SHALL BE ESTABLISHED AT THE DRIP LINE OR 15 FEET FROM THE TRUNK OR AT THE LIMIT OF CONSTRUCTION DISTURBANCE, WHICHEVER IS GREATER. LOCAL STANDARDS THAT MAY REQUIRE A MORE STRICT TREE PROTECTION ZONE SHALL BE HONORED.
- 3. A FORTY-EIGHT INCH (48") HIGH WOODEN SNOW FENCE OR ORANGE COLORED HIGH-DENSITY 'VISI-FENCE', OR APPROVED EQUAL, MOUNTED ON STEEL POSTS SHALL BE PLACED ALONG THE BOUNDARY OF THE TREE PROTECTION ZONE. POSTS SHALL BE LOCATED AT A MAXIMUM OF EIGHT FEET (8') ON CENTER OR AS INDICATED WITHIN THE TREE PROTECTION DETAIL
- C. WHEN THE TREE PROTECTION FENCING HAS BEEN INSTALLED, IT SHALL BE INSPECTED BY THE APPROVING AGENCY PRIOR TO DEMOLITION, GRADING, TREE CLEARING OR ANY OTHER CONSTRUCTION. THE FENCING ALONG THE TREE PROTECTION ZONE SHALL BE REGULARLY INSPECTED BY THE LANDSCAPE CONTRACTOR AND MAINTAINED LINTIL ALL CONSTRUCTION ACTIVITY HAS BEEN COMPLETED
- D. AT NO TIME SHALL MACHINERY, DEBRIS, FALLEN TREES OR OTHER MATERIALS BE PLACED, STOCKPILED OR LEFT STANDING IN THE TREE PROTECTION ZONE.

### SOIL MODIFICATIONS

- A. CONTRACTOR SHALL ATTAIN A SOIL TEST FOR ALL AREAS OF THE SITE PRIOR TO CONDUCTING ANY PLANTING. SOIL TESTS SHALL BE PERFORMED BY A CERTIFIED SOIL LABORATORY
- B. LANDSCAPE CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL. SOIL MODIFICATIONS, AS SPECIFIED HEREIN, MAY NEED TO BE CONDUCTED BY THE LANDSCAPE CONTRACTOR DEPENDING ON SITE CONDITIONS
- . THE FOLLOWING AMENDMENTS AND QUANTITIES ARE APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY. COMPOSITION OF AMENDMENTS SHOULD BE REVISED DEPENDING ON THE OUTCOME OF A TOPSOIL ANALYSIS PERFORMED BY A CERTIFIED SOIL LABORATORY.
- 1.1. TO INCREASE A SANDY SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS, THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 6-12". USE COMPOSTED BARK, COMPOSTED LEAF MULCH OR PEAT MOSS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A PH HIGHER THAN 7.5.
- 1.2. TO INCREASE DRAINAGE, MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR AGRICULTURAL GYPSUM COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX.
- SUBSURFACE DRAINAGE LINES MAY NEED TO BE ADDED TO INCREASE DRAINAGE 1.3. MODIFY EXTREMELY SANDY SOILS (MORE THAN 85%) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.

### FINISHED GRADING

- A. UNLESS OTHERWISE CONTRACTED, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINE-GRADING WITHIN THE DISTURBANCE AREA OF THE
- B. LANDSCAPE CONTRACTOR SHALL VERIFY THAT SUBGRADE FOR INSTALLATION OF TOPSOIL HAS BEEN ESTABLISHED. THE SUBGRADE OF THE SITE MUST MEET THE FINISHED GRADE LESS THE REQUIRED TOPSOIL
- arphi ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A  $\,$  SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS DEPICTED WITHIN THIS SET OF CONSTRUCTION PLANS, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER OR LANDSCAPE ARCHITECT.
- D. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER IN AND AROUND THE PLANTING BEDS. STANDING WATER SHALL NOT BE PERMITTED IN PLANTING BEDS.

- A. CONTRACTOR SHALL PROVIDE A SIX INCH (6") THICK MINIMUM LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, IN ALL PLANTING AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED COMPACTED THICKNESS.
- B. ON-SITE TOPSOIL MAY BE USED TO SUPPLEMENT THE TOTAL AMOUNT REQUIRED. TOPSOIL FROM THE SITE MAY BE REJECTED IF IT HAS NOT BEEN PROPERLY REMOVED, STORED AND PROTECTED PRIOR TO CONSTRUCTION.
- C. CONTRACTOR SHALL FURNISH TO THE APPROVING AGENCY AN ANALYSIS OF BOTH IMPORTED AND ON-SITE TOPSOIL TO BE UTILIZED IN ALL PLANTING AREAS. THE PH AND NUTRIENT LEVELS MAY NEED TO BE ADJUSTED THROUGH SOIL MODIFICATIONS AS NEEDED TO ACHIEVE THE REQUIRED LEVELS AS SPECIFIED IN THE MATERIALS
- D. ALL PLANTING AND LAWN AREAS ARE TO BE CULTIVATED TO A DEPTH OF SIX INCHES (6"). ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES SECTION ABOVE. THE FOLLOWING SHALL BE TILLED INTO THE TOP FOUR INCHES (4") IN TWO DIRECTIONS (QUANTITIES BASED ON A 1,000 SQUARE FOOT AREA): 1.1. 20 POUNDS 'GROW POWER' OR APPROVED EQUAL
- 1.2. 20 POUNDS NITRO-FORM (COURSE) 38-0-0 BLUE CHIP E. THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN CONDITIONS.

#### **TENTATIVELY APPROVED DEPARTMENT OF PLANNING AND ZONING**

PLANNING TIRECTOR

- A. INSOFAR THAT IT IS FEASIBLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THAT THIS IS NOT POSSIBLE, LANDSCAPE CONTRACTOR SHALL PROTECT UNINSTALLED PLANT MATERIAL. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE DAY PERIOD AFTER DELIVERY. PLANTS THAT WILL NOT BE PLANTED FOR A PERIOD OF TIME GREATER THAN THREE DAYS SHALL BE HEALED IN WITH TOPSOIL OR MULCH TO HELP PRESERVE ROOT MOISTURE.
- B. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE.

PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN A MUDDY OR FROZEN CONDITION.

- C. ANY INJURED ROOTS OR BRANCHES SHALL BE PRUNED TO MAKE CLEAN-CUT ENDS PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS. ONLY INJURED OR DISEASED BRANCHING SHALL BE REMOVED.
- D. ALL PLANTING CONTAINERS AND NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED FROM ROOT BALLS DURING PLANTING. NATURAL FIBER BURLAP MUST BE CUT FROM AROUND THE TRUNK OF THE TREE AND FOLDED DOWN AGAINST THE ROOT BALL PRIOR TO BACKFILLING.
- F POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO EXCAVATING PITS. MAKING NECESSARY ADJUSTMENTS AS DIRECTED.
- F. PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, THE PROPOSED LANDSCAPE, AS SHOWN ON THE APPROVED LANDSCAPE PLAN. MUST BE INSTALLED, INSPECTED AND APPROVED BY THE APPROVING AGENCY. THE APPROVING AGENCY SHALL TAKE INTO ACCOUNT SEASONAL CONSIDERATIONS IN THIS REGARD AS FOLLOWS. THE PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER SHALL OCCUR ONLY DURING THE FOLLOWING PLANTING SEASONS
- 1.1. PLANTS: MARCH 15 TO DECEMBER 15 1.2. LAWN: MARCH 15 TO JUNE 15 OR SEPT. 1 TO DECEMBER 1
- G. PLANTINGS REQUIRED FOR A CERTIFICATE OF OCCUPANCY SHALL BE PROVIDED DURING THE NEXT APPROPRIATE SEASON AT THE MUNICIPALITY'S DISCRETION. CONTRACTOR SHOULD CONTACT APPROVING AGENCY FOR POTENTIAL SUBSTITUTIONS
- H. FURTHERMORE, THE FOLLOWING TREE VARIETIES ARE UNUSUALLY SUSCEPTIBLE TO WINTER DAMAGE. WITH TRANSPLANT SHOCK AND THE SEASONAL LACK OF NITROGEN AVAILABILITY, THE RISK OF PLANT DEATH IS GREATLY INCREASED. IT IS NOT RECOMMENDED THAT THESE SPECIES BE PLANTED DURING THE FALL PLANTING SEASON:
- ACER RUBRUM PLATANUS X ACERIFOLIA BETULA VARIETIES POPULOUS VARIETIES PRUNUS VARIETIES CARPINUS VARIETIES CRATAEGUS VARIETIES PYRUS VARIETIES KOELREUTERIA QUERCUS VARIETIES LIQUIDAMBER STYRACIFLUA TILIA TOMENTOSA LIRIODENDRON TULIPIFERA ZELKOVA VARIETIES
- I. PLANTING PITS SHALL BE DUG WITH LEVEL BOTTOMS, WITH THE WIDTH TWICE THE DIAMETER OF ROOT BALL THE ROOT BALL SHALL REST ON UNDISTURBED GRADE. EACH PLANT PIT SHALL BE BACKFILLED IN LAYERS WITH THE FOLLOWING PREPARED SOIL MIXED THOROUGHLY:
- 1 PART PEAT MOSS
- 1 PART COMPOSTED COW MANURE BY VOLUME • 3 PARTS TOPSOIL BY VOLUME • 21 GRAMS 'AGRIFORM' PLANTING TABLETS (OR APPROVED EQUAL) AS FOLLOWS:
- A) 2 TABLETS PER 1 GALLON PLANT B) 3 TABLETS PER 5 GALLON PLANT
- C) 4 TABLETS PER 15 GALLON PLANT D) LARGER PLANTS: 2 TABLETS PER 1/2" CALIPER OF TRUNK
- J. FILL PREPARED SOIL AROUND BALL OF PLANT HALF-WAY AND INSERT PLANT TABLETS. COMPLETE BACKFILL AND WATER THOROUGHLY
- K. ALL PLANTS SHALL BE PLANTED SO THAT THE TOP OF THE ROOT BALL, THE POINT AT WHICH THE ROOT FLARE BEGINS, IS SET AT GROUND LEVEL AND IN THE CENTER OF THE PIT. NO SOIL IS TO BE PLACED DIRECTLY ON TOP OF THE ROOT BALL
- L. ALL PROPOSED TREES DIRECTLY ADJACENT TO WALKWAYS OR DRIVEWAYS SHALL BE PRUNED AND MAINTAINED TO A MINIMUM BRANCHING HEIGHT OF 7' FROM GRADE.
- M. GROUND COVER AREAS SHALL RECEIVE A 1/4" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING. ALL GROUND COVER AREAS SHALL BE WEEDED AND TREATED WITH A PRE-EMERGENT CHEMICAL AS PER MANUFACTURER'S RECOMMENDATION.
- N. NO PLANT, EXCEPT GROUND COVERS, GRASSES OR VINES, SHALL BE PLANTED LESS THAN TWO FEET (2') FROM EXISTING STRUCTURES AND SIDEWALKS
- O. ALL PLANTING AREAS AND PLANTING PITS SHALL BE MULCHED AS SPECIFIED HEREIN TO FILL THE ENTIRE BED AREA OR SAUCER. NO MULCH IS TO TOUCH THE TRUNK OF THE TREE OR SHRUB.
- P. ALL PLANTING AREAS SHALL BE WATERED IMMEDIATELY UPON INSTALLATION IN ACCORDANCE WITH THE WATERING SPECIFICATIONS AS LISTED HEREIN.
- 10. TRANSPLANTING (WHEN REQUIRED) A. ALL TRANSPLANTS SHALL BE DUG WITH INTACT ROOT BALLS CAPABLE OF SUSTAINING THE PLANT.
- B. IF PLANTS ARE TO BE STOCKPILED BEFORE REPLANTING, THEY SHALL BE HEALED IN WITH MULCH OR SOIL
- C. PLANTS SHALL NOT BE DUG FOR TRANSPLANTING BETWEEN APRIL 10 AND JUNE 30.
- D. UPON REPLANTING, BACKFILL SOIL SHALL BE AMENDED WITH FERTILIZER AND ROOT GROWTH HORMONE. E. TRANSPLANTS SHALL BE GUARANTEED FOR THE LENGTH OF THE GUARANTEE PERIOD SPECIFIED HEREIN.
- F. IF TRANSPLANTS DIE, SHRUBS AND TREES LESS THAN SIX INCHES (6") DBH SHALL BE REPLACED IN KIND. TREES GREATER THAN SIX INCHES (6") DBH MAY BE REQUIRED TO BE REPLACED IN ACCORDANCE WITH THE MUNICIPALITY'S TREE REPLACEMENT GUIDELINES.

#### A. NEW PLANTINGS OR LAWN AREAS SHALL BE ADEQUATELY IRRIGATED BEGINNING IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACKFILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED. WATERING SHALL CONTINUE AT LEAST UNTIL PLANTS ARE ESTABLISHED

- B. SITE OWNER SHALL PROVIDE WATER IF AVAILABLE ON SITE AT TIME OF PLANTING. IF WATER IS NOT AVAILABLE ON SITE, CONTRACTOR SHALL SUPPLY ALL NECESSARY WATER. THE USE OF WATERING BAGS IS RECOMMENDED FOR ALL NEWLY PLANTED TREES
- C. IF AN IRRIGATION SYSTEM HAS BEEN INSTALLED ON THE SITE, IT SHALL BE USED TO WATER PROPOSED PLANT MATERIAL, BUT ANY FAILURE OF THE SYSTEM DOES NOT ELIMINATE THE CONTRACTOR'S RESPONSIBILITY OF MAINTAINING THE DESIRED MOISTURE LEVEL FOR VIGOROUS, HEALTHY GROWTH.

### 12. GUARANTEE

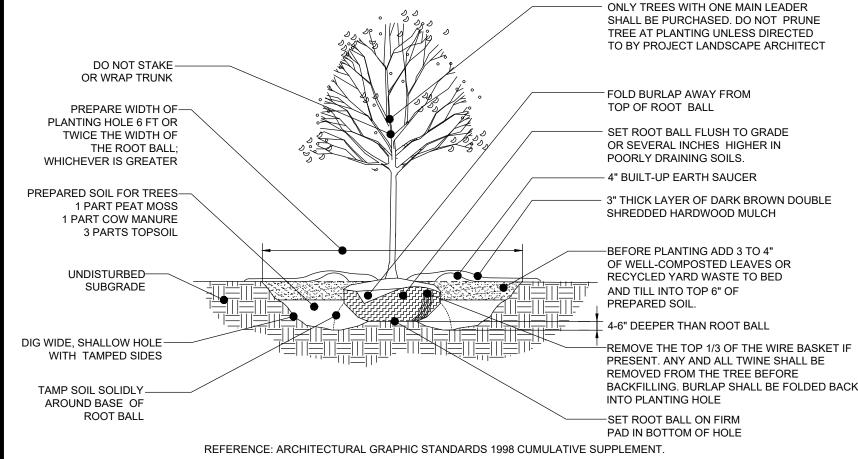
- A. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF ONE (1) YEAR FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE APPROVING AGENCY. CONTRACTOR SHALL SUPPLY THE OWNER WITH A MAINTENANCE BOND FOR TEN PERCENT (10%) OF THE VALUE OF THE LANDSCAPE INSTALLATION WHICH WILL BE RELEASED AT THE CONCLUSION OF THE GUARANTEE PERIOD AND WHEN A FINAL INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE
- B. ANY DEAD OR DYING PLANT MATERIAL SHALL BE REPLACED FOR THE LENGTH OF THE GUARANTEE PERIOD. REPLACEMENT OF PLANT MATERIAL SHALL BE CONDUCTED AT THE FIRST SUCCEEDING PLANTING SEASON. ANY DEBRIS SHALL BE DISPOSED OF OFF-SITE WITHOUT EXCEPTION
- C. TREES AND SHRUBS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION AND THROUGHOUT THE 90 DAY MAINTENANCE PERIOD AS SPECIFIED HEREIN. CULTIVATION, WEEDING, WATERING AND THE PREVENTATIVE TREATMENTS SHALL BE PERFORMED AS NECESSARY TO KEEP PLANT MATERIAL IN GOOD CONDITION AND FREE OF INSECTS AND DISEASE
- D. LAWNS SHALL BE MAINTAINED THROUGH WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING, REGARDING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.

#### A. UPON THE COMPLETION OF ALL LANDSCAPE INSTALLATION AND BEFORE THE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL UNUSED MATERIALS, EQUIPMENT AND DEBRIS FROM THE SITE. ALL PAVED AREAS ARE TO BE CLEANED.

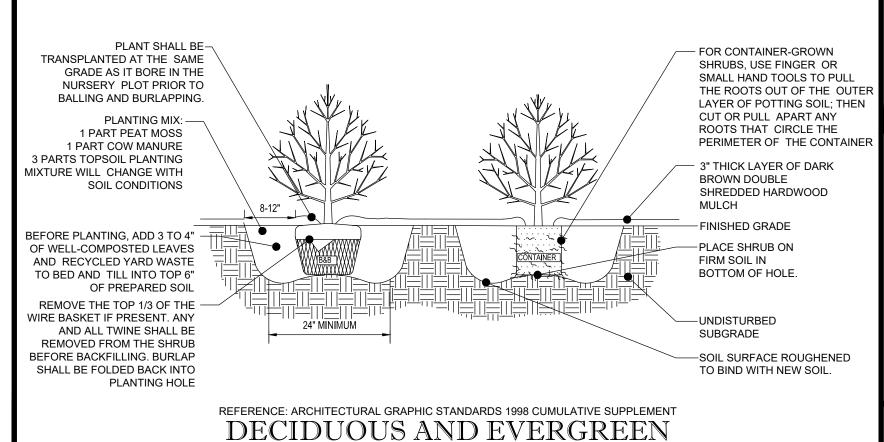
B. THE SITE SHALL BE CLEANED AND LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.

#### ONLY TREES WITH ONE MAIN LEADER SHALL BE PURCHASED, DO NOT PRUNE TREE AT PLANTING UNLESS DIRECTED TO BY PROJECT LANDSCAPE ARCHITECT DO NOT STAKE OR -FOLD BURLAP AWAY FROM TOP OF WRAP TRUNK **ROOT BALL** PREPARE WIDTH OF -SET ROOT BALL FLUSH TO GRADE OR SEVERAL INCHES HIGHER IN PLANTING HOLE 6 FT OR TWICE THE WIDTH POORLY DRAINING SOILS. OF THE ROOT BALL 4" BUILT-UP EARTH SAUCER WHICHEVER IS GREATER - 3" THICK LAYER OF DARK BROWN DOUBLE SHREDDED HARDWOOD MULCH PREPARED SOIL FOR TREES 1 PART PEAT MOSS 1 BEFORE PLANTING ADD 3 TO 4" PART COW MANURE 3 OF WELL-COMPOSTED LEAVES PARTS TOPSOIL OR RECYCLED YARD WASTE TO BED AND TILL INTO TOP 6" OF PREPARED SOIL. 4-6" DEEPER THAN ROOT BALL UNDISTURBED-**SUBGRADE** REMOVE THE TOP 1/3 OF THE WIRE BASKET IF PRESENT. ANY AND ALL TWINE SHALL BE DIG WIDE, SHALLOW HOLE-REMOVED FROM THE TREE BEFORE WITH TAMPED SIDES BACKFILLING. BURLAP SHALL BE FOLDED TAMP SOIL SOLIDLY AROUND BACK INTO PLANTING HOLE BASE OF ROOT BALL SET ROOT BALL ON FIRM PAD IN BOTTOM OF HOLE REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT

# EVERGREEN TREE PLANTING DETAIL



# DECIDUOUS TREE PLANTING DETAIL



SHRUB PLANTING DETAIL

NOT TO SCALE

# SEEDING SPECIFICATIONS

- PRIOR TO SEEDING. AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN 2" DIAMETER
- PRIOR TO SEEDING, CONSULT MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS

SEEDING RATES: PERENNIAL RYEGRASS KENTUCKY BLUEGRASS RED FESCUE SPREADING FESCUE FERTILIZER (20:10:10)

REQUIRED TO PROVIDE

NOTE: TREE STAKING TO BE REMOVED

DO NOT WRAP TRUNK

2 PFR TREE

EXISTING GRADE-

1 PART PEAT MOSS

3 PARTS TOPSOIL

1 PART COW MANURE

REINFORCED RUBBER HOSE-

PREPARED SOIL FOR TREES-

UNDISTURBED SUBGRADE

TAMP SOIL SOLIDLY AROUND-

BASE OF ROOT BALL

12 GAUGE GALVANIZED WIRE GUYS TWISTED-

2" DIA. HARDWOOD STAKES 2/3 TREE HT.-

AFTER 2 GROWING SEASONS

1/2 LB/1.000 SQ FT 1 LB/1,000 SQ FT 1 1/2 LBS/1 000 SQ F 1 1/2 LBS/1.000 SQ FT 14 LBS/1.000 SQ FT 90 LBS/1.000 SQ FT

TREE PLANTING ON SLOPE DETAIL

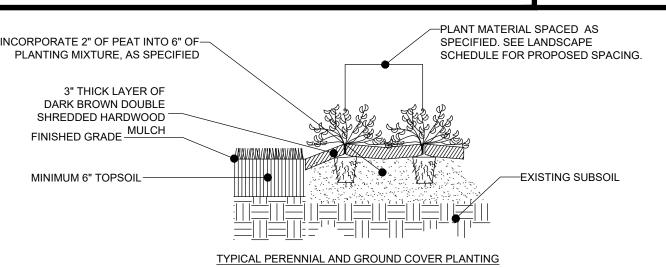
GERMINATION RATES WILL VARY AS TO TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEEDED AREA UNTIL AN ACCEPTABLE STAND OF COVER IS ESTABLISHED BY OWNER.

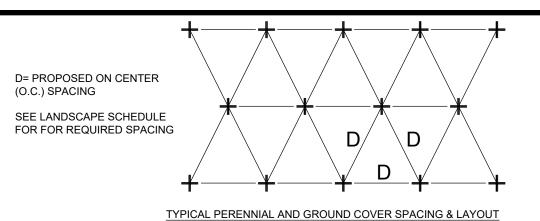
### OWNER MAINTENANCE RESPONSIBILITIES

JPON OWNER'S (OR OWNER CONTRACTOR'S) COMPLETION OF LANDSCAPING WORK, THE OWNER IS FULLY RESPONSIBLE FOR ALL FUTURE MAINTENANCE, CARE, UPKEEP, WATERING, AND TRIMMING OF ALI INSTALLED VEGETATION PLANTS TREE BUSHES SHRUBS GRASSES GRASS ORNAMENTAL PLANTS AN FLOWERS, FLOWERS, GROUND COVER, AND LANDSCAPING, INCLUDING ALL LANDSCAPE ISLANDS AND AREAS ADJACENT OR PART OF THE LANDSCAPED AREAS. THIS RESPONSIBILITY INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING:

- TREES ADJACENT TO WALKWAYS AND AREAS OF PEDESTRIAN TRAFFIC MUST BE MAINTAINED TO ASSURE THAT ANY BRANCHES MUST BE LIMBED UP TO A CLEARANCE HEIGHT OF 7 FT. (FROM ALL PEDESTRIAN SURFACES) OR PRUNED BACK TO AVOID ANY INTERFERENCE WITH THE TYPICAL PATH
- TREES WITHIN VEHICULAR SIGHT LINES, AS ILLUSTRATED ON THE LANDSCAPE PLAN, ARE TO BE TRIMMED TO A CLEARANCE HEIGHT OF 7 FT. (FROM ALL PAVED, TRAVELED SURFACES), OR AS OTHERWISE INDICATED ON THE PLANS.
- VEGETATIVE GROUND COVER, SHRUBS AND ORNAMENTAL PLANTS AND GRASSES MUST BE TRIMMED SURFACES) ALONG AND WITHIN THE SIGHT LINES OF PARKING LOTS AND INGRESS-EGRESS WAYS.
- FALLEN PLANT FLOWERS, FRUIT, SEEDS AND DEBRIS DROPPINGS ARE TO BE REMOVED IMMEDIATEL' FROM VEHICULAR AND PEDESTRIAN TRAFFIC AREAS TO PREVENT TRIPPING, SLIPPING OR ANY

THESE REQUIREMENTS DO NOT AFFECT THE PLANT LIFE GUARANTEES THE LANDSCAPE CONTRACTOR IS





PERENNIAL/GROUND COVER PLANTING DETAIL

Digitally signed by Eric DN: cn=Eric McWilliams, o=Bohler, ou, McWilliams email=emco Date: 2021.11.09 12:02:25 -05'0

THE ESTATE OF RUTH L. HARBIN

H. MARK BOBOTEK, ESQ.

P.O. BOX 66

ELLICOTT CITY, MD 21041 410-964-9700 DEVELOPER: ELM STREET DEVELOPMENT 5074 DORSEY HALL ROAD, SUITE 205 ELLICOTT CITY, MD 21042 CONTACT: JASON VAN KIRK

PHONE: (410) 720-3021 GRID: 15 ZONED: R-20 PARCEL: 34 2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

ONLY TREES WITH ONE MAIN LEADER

-SET ROOT BALL FLUSH TO GRADE

OR SEVERAL INCHES HIGHER IN

POORLY DRAINING SOILS.

-3" THICK LAYER OF DARK

HARDWOOD MULCH

OF PREPARED SOIL

**BROWN DOUBLE SHREDDED** 

-4" BUILT-UP EARTH SAUCER

BACK INTO PLANTING HOLE

-SET ROOT BALL ON FIRM

PAD IN BOTTOM OF HOLF

-BEFORE PLANTING ADD 3 TO 4" OF

WELL-COMPOSTED LEAVES OR RECYCLED

YARD WASTE TO BED AND TILL INTO TOP 6"

REMOVE THE TOP 1/3 OF THE WIRE BASKET

IF PRESENT. ANY AND ALL TWINE SHALL BE

BACKFILLING. BURLAP SHALL BE FOLDED

REMOVED FROM THE TREE BEFORE

SHALL BE PURCHASED. DO NOT PRUNE TREE AT PLANTING UNLESS DIRECTED

TO BY PROJECT LANDSCAPE ARCHITECT

**REVISIONS** 

EV DATE COMMENT

Call before you dir **ALWAYS CALL 811** It's fast. It's free. It's the law

### NOT APPROVED FOR CONSTRUCTION

EVIEW AND APPROVAL. <u>IT IS NOT INTENDED AS A CONSTRUCTI</u>

<u>DOCUMENT</u> UNLESS INDICATED OTHERWISE.

PROJECT No.: DRAWN BY: CHECKED BY: DATE: CAD I.D.:

PROJECT: **PRELIMINARY EQUIVALENT** 

**SKETCH PLAN** 

# **BETHANY GLEN - ARAH**

LOTS 1 THRU 155 AND OPEN SPACE LOTS 155 THRU 168

891 OLD FREDERICK ROAD - ROUTE 9 2ND ELECTION DISTRICT TAX MAP 17, GRID 15, PARCEL 34 HOWARD COUNTY, MARYLAND

901 DULANEY VALLEY ROAD, SUITE 80 TOWSON, MARYLAND 21204 Phone: (410) 821-7900 Fax: (410) 821-7987 MD@BohlerEng.com

E.R. McWILLIAMS 11/05/2021 REGISTERED LANDSCAPE ARCHITECT ONAL CERTIFICATION S. HEREBY CERTIFY THAT THESE I. ERIC R. McWill DOCUMENTS WERE PREPARED OR APPROVED BY ME. AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITEC UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 3697. EXPIRATION DATE: 9/20/22

LANDSCAPE NOTES & DETAILS

19 of 32

SP-21-002

HOWARD COUNTY 11/17/2021 DATE

SUBDIVISION NAME: TBD SECTION/AREA: N/A PREVIOUS FILE No WP-21-127 DEED # 00226/ 00064 ECP-19-041 BA-CASE NO. 17-018C ECP-21-017, WP-21-06 SP-19-005

OWNER:

#### **FOREST CONSERVATION** SEQUENCE OF CONSTRUCTION

**SURETY NOTE** 

FOREST CONSERVATION REQUIREMENTS PER SECTION

\$243,936.00 WILL BE POSTED WITH THE DEVELOPERS

16.1200 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL FOR THIS SUBDIVISION WILL BE

FULFILLED BY RETENTION OF EXISTING FOREST IN THE AMOUNT OF 9.2 ACRES. THE REFORESTATION OBLIGATION OF 15.4 ACRES WILL BE PROVIDED BY 11.2 ACRES ONSITE, AND 4.2 ACRES AT A FOREST CONSERVATION BANK (\_\_\_\_\_\_). TOTAL REFORESTATION PROVIDED FOR

THIS SUBDIVISION IS 15.4 ACRES. SURETY IN THE AMOUNT OF

SPECIMEN

TREES TO

REMAIN

NO

NO

YES

NO

YES

YES

YES

YES

N 594,200

PRECONSTRUCTION MEETING SHALL BE HELD BETWEEN DEVELOPER, CONTRACTOR, AND COUNTY INSPECTOR.

SEDIMENT CONTROL SHALL BE INSTALLED IN ACCORDANCE WITH GENERAL CONSTRUCTION PLAN FOR SITE, TEMPORARY PROTECTIVE FENCING AND CONSERVATION SIGNAGE SHALL BE INSTALLED AS PER FOREST CONSERVATION PLAN. 3. SITE SHALL BE GRADED, INFRASTRUCTURE INSTALLED, AND HOUSES CONSTRUCTED. DISTURBED AREAS SHALL BE

STABILIZED. PERMANENT SIGNAGE IN POOR CONDITION SHALL

4. POSTCONSTRUCTION MEETING SHALL BE HELD WITH COUNTY INSPECTOR TO ENSURE COMPLIANCE WITH DEVELOPMENT PLAN. SEDIMENT CONTROL AND TEMPORARY PROTECTIVE FENCING UPON STABILIZATION OF SITE AND COMPLETION OF CONSTRUCTION ACTIVITIES.

#### SITE AREA COMPUTATIONS

GROSS TRACT AREA = 68.57 AC 100 YEAR FLOODPLAIN = 2.10 AC T TRACT AREA = 66.47 AC

FORESTED FLOODPLAIN

FOREST = 1.94 AC

#### FOREST CLEARING

FOREST TO BE CLEARED = 18.7 AC. (0.3 AC. WITHIN FLOODPLAIN)

	SPE	CIM	EN TREES			SPE	CIN	IEN TREE
ID# SPECIES NAME SIZE		SIZE	CONDITION	SPECIMEN TREES TO REMAIN	ID#	SPECIES NAME	SIZE	CONDITION
			VEDV COOR HEALTHY		ST-26	TULIP POPLAR	31.8"	GOOD
ST-01	BLACK GUM	34"	VERY GOOD, HEALTHY CROWN	NO	ST-27	SCARLET OAK	44.9"	FAIR, DOUBLE BOLE HAZARD
ST-02	TULIP POPLAR	31"	VERY GOOD, HEALTHY CANOPY CROWN	NO	ST-28	SCARLET OAK	41.7"	DEAD
ST-03	TULIP POPLAR	50"	VERY POOR, MOSTLY DEAD CROWN, BROKEN	NO	ST-31	TULIP POPLAR	32.1"	FAIR, LIMB BREAKAGE
			FAIR, SOME LIMB		ST-35	TULIP POPLAR	30.8"	FAIR, LIMB BREAKAGE
ST-04	TULIP POPLAR	48"	DIEBACK, BROAD CROWN	YES	ST-36	TULIP POPLAR	31.5"	GOOD
ST-05	AMERICAN	38"	VERY GOOD, TYPICAL,	YES	ST-37	TULIP POPLAR	33.7"	POOR, ROTTEN CORE
ST-06	AMERICAN AMERICAN	38"	HEALTHY CROWN VERY GOOD, TYPICAL,	YES	ST-38	BLACK OAK	39.0"	FAIR, DOUBLE BOLE, BELOW 4.3 Ft.
	ELM		HEALTHY CROWN	. =0	ST-39	TULIP POPLAR	36.0"	GOOD
ST-07	AMERICAN ELM	32"	VERY GOOD, TYPICAL, HEALTHY CROWN	YES	ST-40	RED MAPLE	32.9"	POOR, DIEBACK, LIMB BREAKAGE
ST-08	AMERICAN ELM	36"	VERY GOOD, HEALTHY CROWN, TWO VOLE	YES	ST-41	RED OAK	30.4"	GOOD
ST-09	TULIP POPLAR	37"	GOOD, SOME LIMB	YES	ST-42	TULIP POPLAR	30.0"	GOOD
ST-10	TULIP POPLAR	45"	DIEBACK VERY GOOD, HEALTHY	YES	ST-43	RED MAPLE	47.4"	POOR, MULTI BOLE, DIEBACK
31-10	TULIF FUFLAR	45	CANOPY CROWN	IEO	ST-45	TULIP POPLAR	30.4"	GOOD
ST-11	TULIP POPLAR	32"	VERY GOOD, HEALTHY CANOPY CROWN	YES	ST-46	BLACK GUM	30.0"	FAIR, SOME DIEBACK
ST-12	TULIP POPLAR	31"	VERY GOOD, HEALTHY CANOPY CROWN	YES	ST-47	TULIP POPLAR	33.6"	GOOD
ST-13	TULIP POPLAR	32"	VERY GOOD, HEALTHY CANOPY CROWN	YES	ST-48	TULIP POPLAR	30.2"	FAIR, SOME BREAKAGE
ST-14	TULIP POPLAR	30"	VERY GOOD, HEALTHY CANOPY CROWN	YES				7
ST-15	TULIP POPLAR	31"	VERY GOOD, HEALTHY CANOPY CROWN	YES				
ST-16	BLACK CHERRY	39"	FAIR TO GOOD, OPEN BROKEN, FENCE LINE	YES				
ST-17	RED OAK	32"	VERY GOOD, HEALTHY CROWN	YES				L
ST-18	BLACK OAK	34"	GOOD, BROKEN CROWN LIMB, FENCELINE	YES				
ST-19	AMERICAN ELM	31"	GOOD, LIGHT CROWN, FENCELINE	YES				
ST-20	AMERICAN ELM	36"	VERY GOOD, LARGE CROWN, FENCELINE	YES				
ST-21	TULIP POPLAR	31"	VERY GOOD, HEALTHY CANOPY CROWN	NO				_
ST-22	AMERICAN SYCAMORE	48"	EXCELLENT, LARGE BROAD CROWN IN OPEN LAWN	YES				
ST-23	BLACK OAK	35.5"	DEAD	NO				
ST-24	TULIP POPLAR	29.8"	GOOD	NO				

ST-25 | SCARLET OAK | 31.9" GOOD UNDER WP-21-064, SECTION 16.1205.(A).(7) - A REQUEST FOR ALTERNATIVE COMPLIANCE HAS BEEN REQUESTED FROM DPZ FOR THE REMOVAL OF EIGHTEEN (18) SPECIMEN TREES (#ST-01,02, 03, 21, 23, 24, 25, 26, 27, 28, 31, 35, 37, 38, 39, 43, 46 AND 48). MITIGATION FOR THE REMOVAL OF THESE EIGHTEEN (18) SPECIMEN TREES IS TO CONSIST OF TWO (2) 3-4" CALIBER TREE FOR EACH ONE (1) REMOVED SIMILAR OR IDENTICAL SPECIES. THESE THIRTY-SIX (36) TREES SHALL BE PLACED WITHIN CLOSE PROXIMITY TO THE LOCATION OF THE ORIGINAL SPECIMEN TREE AND WILL BE IN ADDITION TO THE REQUIRED PERIMETER LANDSCAPING. COSTS TO COVER THE INSTALLATION OF THESE TREES SHALL BE INCLUDED IN THE PERIMETER LANDSCAPING ESTIMATE: INSPECTION FEES SHALL BE POSTED WITH THE DPW DEVELOPER'S AGREEMENT AT THE FINAL PLAN STAGE FOR THIS DEVELOPMENT; SURETY WILL BE ADDRESSED WITH THIS PLAN STAGE FOR THIS DEVELOPMENT. THE SYMBOL "\$" REPRESENTS PLANT MATERIAL TO MEET THIS REQUIREMENT.

			1			i	
EASEMENT	EXISTING FOREST AREA (GROSS AC.)	FOREST AREA NONCREDITED (FOR FOREST LESS THAN 10,000 S.F. (AC)	FOREST AREA NONCREDITED (100 YEAR FLOODPLAIN) (AC)	NET FOREST (RETAINED) (CREDITED) (AC)	PLANTED AREA (REFORESTATION) (CREDITED) (AC)	CREDITED EASEMENT AREA (AC)	TOTAL EASEMEN AREA (AC
FCE # 1	0.4	0.0	0.0	0.4	0.1	0.5	0.5
FCE # 2	0.2	0.0	0.0	0.2	0.2	0.4	0.4
FCE#3	0.2	0.0	0.0	0.2	7.2	7.4	7.4
FCE # 4	0.6	0.0	0.1	0.5	0.9	1.4	1.5
FCE # 5	0.4	0.0	0.0	0.4	0.3	0.7	0.7
FCE # 6	0.0	0.0	0.0	0.0	0.6	0.6	0.6
FCE # 7	4.5	0.0	0.7	3.8	0.2	4.0	4.7
FCE # 8	0.4	0.0	0.0	0.4	0.0	0.4	0.4
FCE # 9	1.0	0.0	0.5	0.5	0.0	0.5	1.0
FCE # 10	1.7	0.0	0.3	1.4	0.4	1.8	2.1
FCE # 11	1.4	0.0	0.0	1.4	0.9	2.3	2.3
FCE # 12	0.0	0.0	0.0	0.0	0.4	0.4	0.4
TOTAL	10.8	0.0	1.6	9.2	11.2	20.4	22.0

FOREST CONSERVATION EASEMENT AREA TABULATION

# FOREST CONSERVATION

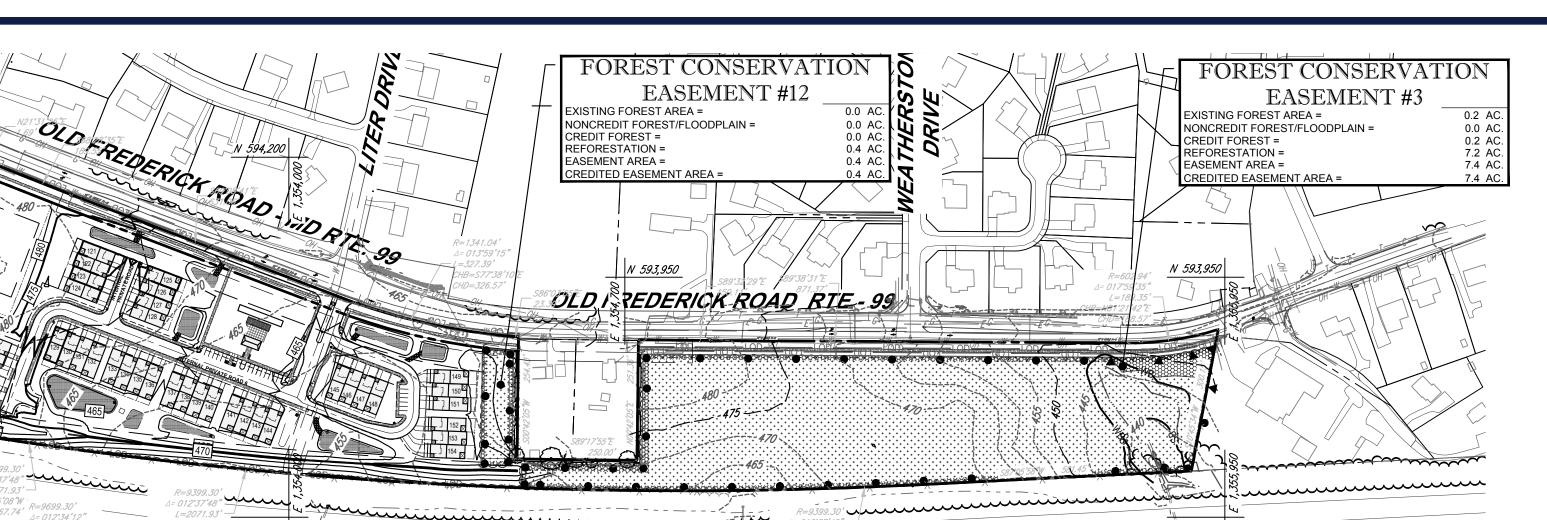
48" 4

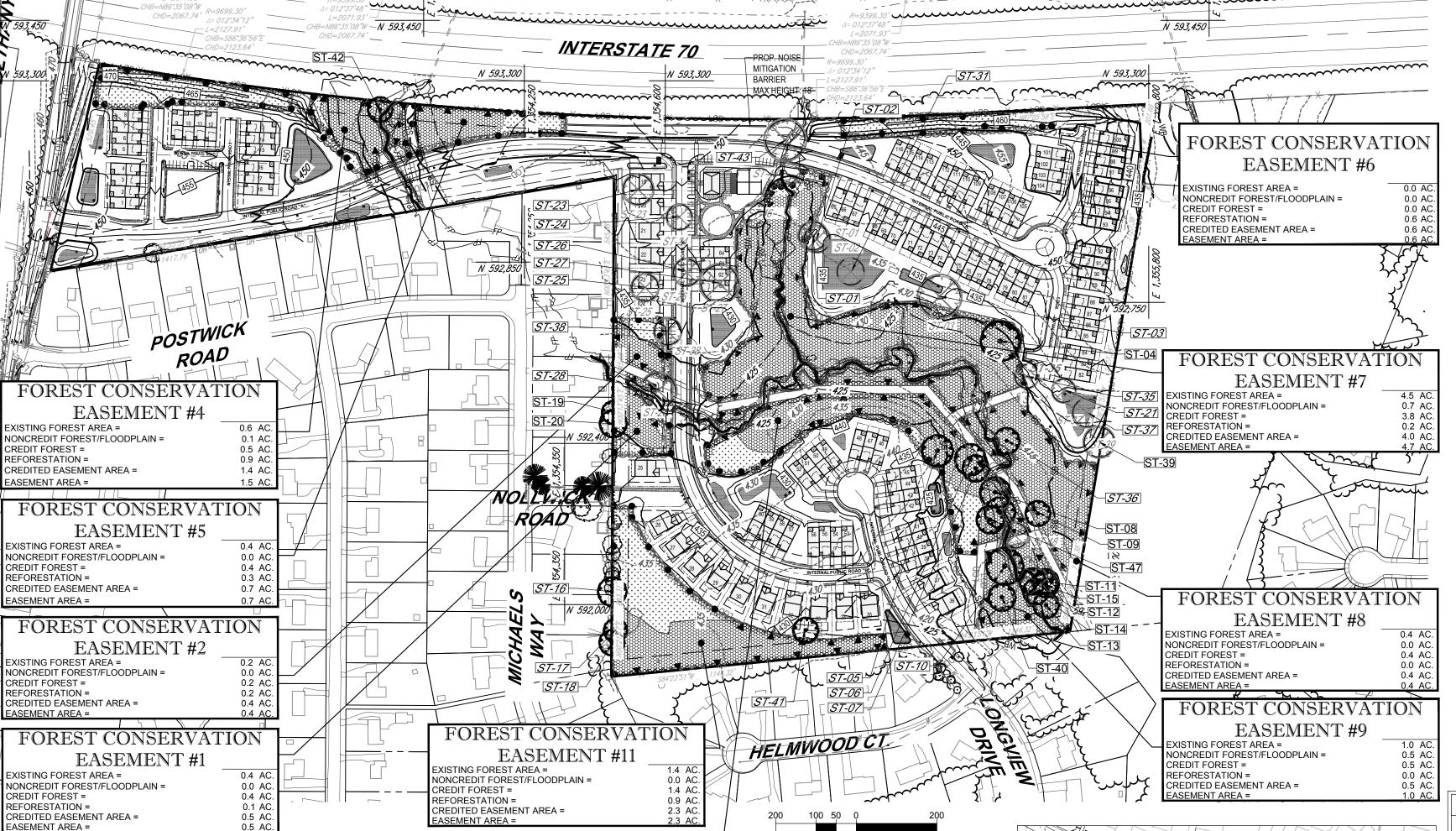
EASEMENT #10 EXISTING FOREST AREA = NONCREDIT FOREST/FLOODPLAIN = 0.3 AC CREDIT FOREST = 14 AC REFORESTATION = 0.4 AC CREDITED EASEMENT AREA = 1.8 AC FASEMENT AREA =

FOREST STAND	COMMUNITY IDENTIFICATION	AREA (ac*)	AGE (yrs.)	Avg. Dia."	SOIL TYPE	TYPICAL COVER	GENERAL CONDITION	SENSITIVE Area (ac*)
FS1	Early Successional Abandoned Farmland	0.35	35	2-6	GgC	Mixed Hardwoods	Healthy, even-aged dense understory	0.00
FS2	Early Successional Abandoned Farmland	9.45	35	2-6	GgB	Mixed Hardwoods	Healthy, even-aged dense understory	0.00
FS3	Early Successional Abandoned Farmland	0.75	35	2-6	GgB	Mixed Hardwoods	Healthy, even-aged dense understory	0.00
FS4	Red Maple Wetland Association	1.05	75	12-20+	GnB	Mixed Hardwoods	Healthy, even-aged Light understory	Wetlands 0.65
FS5	Tulip Poplar/Oak Association	11.0	75	12-24+	GgBC GnB	Mixed Hardwoods	Healthy, even-aged light understory	Steep slopes 0.45
FS6	Tulip Poplar Association	5.40	75	12-24+	GgC GnB	Mixed Hardwoods	Healthy, even-aged light understory	Floodplain 1.00
FS7	Oak-Hickory Association	2.20	75	12-24+	GgB MaC	Mixed Hardwoods	Healthy, even-aged moderate understory	0.00
		•		•			·	

FOREST STAND / VEGETATIVE COVER

### FOREST CONSERVATION NOTES:





LEGEND

V V V

———*FP*———*FP*——

PROPERTY LINE

REFORESTATION AREA

FOREST REMOVAL

REFORESTATION SIGNAGE

SPECIMEN TREES

STEEP SLOPES 15-24.99%

STEEP SLOPES 25% +

SPECIMEN TREE

(TO BE REMOVED)

WETLANDS

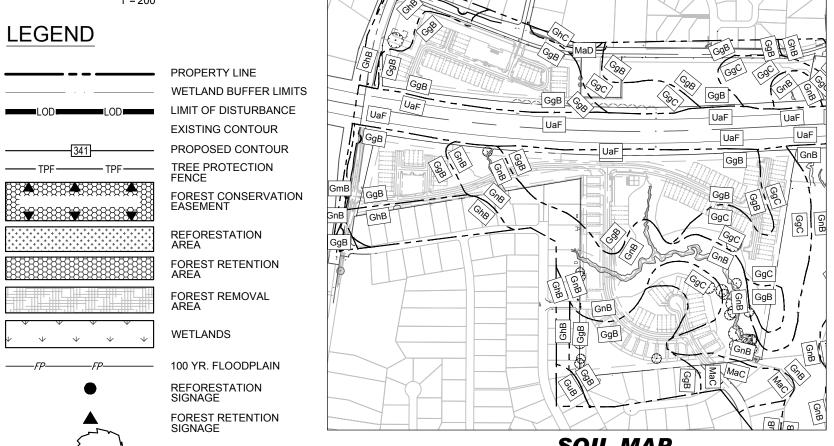
SIGNAGE

WB—— 25-FOOT WETLAND BUFFER

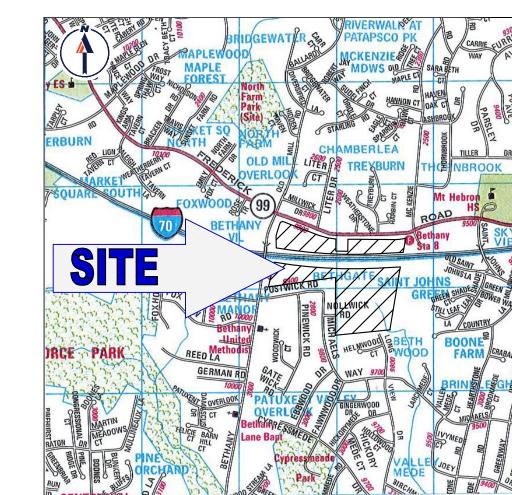
SB — 100-FOOT STREAM BUFFER

SOILS BOUNDARY

EXISTING TREE LINE



**SOIL MAP** 



LOCATION MAP COPYRIGHT ADC THE MAP PEOPLE PERMIT USE NO. 20602153-5 SCALE: 1"=2000'

FOREST CONSERVATION WORKSHEET FOR \_ **Net Tract Area** Total (Gross) Tract Area Area within 100-year Floodplain Net Tract Area **Land Use Category** Insert the number "1" under the appropriate land use (limit to only one entry) Resid Resid Resid. Inst./ Retail/Ind./ Mixed Use. Rural LD Rural MD Suburban Linear Office 0 0 1 0 0 0 F. Reforestation Threshold (Net Tract Area x **Existing Forest Cover** G. Existing Forest Cover within the Net Tract Area H. Area of Forest above Afforestation Threshold Area of Forest above Reforestation Threshold **Break Even Point** Forest Clearing Permitted without Mitigation **Proposed Forest Clearing** Total Area of Forest to be Cleared M. Total Area of Forest to be Retained Planting Requirements Inside Watershed Reforestation for Clearing above the Reforestation Threshold Reforestation for Clearing below the Reforestation Threshold Credit for Retention above the Reforestation Threshold Total Reforestation Required Total Afforestation Required Total Reforestation and Afforestation Requirement 75% of Total Obligation (Retention + Planting) Planting Required Onsite to meet 75% Obligation **Planting Requirements Outside Watershed** Total Planting within Development Site Watershed Total Afforestation Required Remaining Planting within Watershed for Reforestation Cred Reforestation for Clearing above the Reforestation Threshold Reforestation for Clearing below the Reforestation Threshold Credit for Retention above the Reforestation Threshold Total Reforestation Required DD. Total Afforestation and Reforestation Requirement

SOILS TABLE HYDROLOGIC SOILS NAME SOILS DESCRIPTION SOILS GROUP | ERODIBLE SOIL | FACTOR GgB NO 0.28 PERCENT SLOPES GLENELG LOAM, 8 TO 15 NO 0.28 PERCENT SLOPES GLENELG-URBAN LAND COMPLEX, 0 TO 8 GhB NO PERCENT SLOPES GLENELG-URBAN LAND COMPLEX, 8 TO 15 NO PERCENT SLOPES GLENVILLE-BAILE SILT LOAMS, GnB YES 0 TO 8 PERCENT SLOPES GLENVILLE-URBAN LAND-UDORTHENTS YES 0.43 COMPLEX, 0 TO 8 PERCENT SLOPES MANOR LOAM 8 TO 15 NO 0.28 PERCENT SLOPES MANOR LOAM, 15 TO 25 MaD NO 0.28 PERCENT SLOPES

**McWilliams** 

### FOREST CONSERVATION NARRATIVE:

UDORTHENTS, HIGHWAY, 0 TO 65

PERCENT SLOPES

UAf

THIS FOREST CONSERVATION PLAN PROPOSES THE REMOVAL OF 18.7 (0.30 WITH FLOODPLAIN) ACRES OF FOREST FROM THE PROPOSED LIMIT OF DISTURBANCE. THIS FOREST CLEARING IS UNAVOIDABLE WITH THE SUBDIVISION OF THE PROPERTY. THIS PROJECT IS ZONED R-20 WHICH ENCOURAGES A DEVELOPMENT OF THIS DENSITY. THE PROPOSED CLEARING WILL NOT IMPACT HIGH PRIORITY FOREST OR FOREST AREAS.

THE PROPOSED FOREST RETENTION IS LOCATED WITHIN ENVIRONMENTALLY SENSITIVE AREAS. THIS STAND INCLUDES STEEP SLOPES, STREAMS, WETLANDS AND THEIR BUFFERS AND MULTIPLE SPECIMEN TREES. FOR THESE REASONS THE FOREST RETENTION AREA IS CONSIDERED THE HIGHEST PRIORITY FOR RETENTION WITHIN THE FOREST STAND DELINEATION.

N/A

2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

THE ESTATE OF RUTH L. HARBIN H. MARK BOBOTEK, ESQ. P.O. BOX 66 ELLICOTT CITY, MD 21041 410-964-9700 NOTE: ALL EXISTING STRUCTURES, FENCES, DEVELOPER: ELM STREET DEVELOPMENT DRIVEWAYS, ELECTRIC LINES, ETC. MUST 5074 DORSEY HALL ROAD, SUITE 205 BE REMOVED FROM ALL FOREST EASEMENT ELLICOTT CITY, MD 21042 AREAS BEFORE RECORDING PLAT CONTACT: JASON VAN KIRK PHONE: (410) 720-3021 SUBDIVISION NAME: TBD SECTION/AREA: N/A PREVIOUS FILE No. WP-21-127 GRID: 15 ZONED: R-20 DEED # 00226/ 00064 ECP-19-041 BA-CASE NO. 17-018C PARCEL: 34 ECP-21-017, WP-21-064

SP-19-005

REVISIONS									
REV	DATE	COMMENT	DRAWN BY						
(EV	DATE	COMMENT	CHECKED BY						



# It's fast. It's free. It's the law. NOT APPROVED FOR

CONSTRUCTION THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGEN

REVIEW AND APPROVAL. <u>IT IS NOT INTENDED AS A CONSTRUC'</u>

<u>DOCUMENT</u> UNLESS INDICATED OTHERWISE. PROJECT No.: DRAWN BY: CHECKED BY:

PROJECT:

CAD I.D.:

**PRELIMINARY EQUIVALENT** SKETCH PLAN

**BETHANY** GLEN - ARAH

LOTS 1 THRU 155 AND

OPEN SPACE LOTS 155 THRU 168

891 OLD FREDERICK ROAD - ROUTE 9 2ND ELECTION DISTRICT TAX MAP 17, GRID 15, PARCEL 34 HOWARD COUNTY, MARYLAND

901 DULANEY VALLEY ROAD, SUITE 80 **TOWSON, MARYLAND 21204** Phone: (410) 821-7900 Fax: (410) 821-7987 MD@BohlerEng.com

11/05/2021 REGISTERED LANDSCAPE ARCHITECT MARYLAND LICENSE No. 3697
PROFESSIONAL CERTIFICATION
I, ERIC R. MC/ LLIAMS HEREBY CERTIFY THAT THESE
DOCUMENTS WERE PREPARED OR APPROVED BY ME,

AND THAT I AN A DULY LICENSED LANDSCAPE ARCHITECT

UNDER THE LAWS OF THE STATE OF MARYLAND,

SHEET TITLE:

**FOREST CONSERVATION** PLAN

20 of 32

SP-21-002

**TENTATIVELY APPROVED DEPARTMENT OF PLANNING AND ZONING** HOWARD COUNTY 11/17/2021 PLANNING DIRECTOR DATE

DEVELOPER'S/OWNER'S LANDSCAPE CERTIFICATE WE CERTIFY THAT HE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED IN PART GUARANTEE OF PLANT

1. WHEN REFORESTATION IS WITHIN 35 FEET OF THE SIDE OR REAR YARD OF A LOT, TWO (2) ROWS OF 1" CAL. TREES MUST BE PLANTED IN ADDITION TO THE FOREST CONSERVATION REQUIREMENT. THIS AFFECTS THE FOLLOWING LOTS: 7, 8, 9, 10, 11, 12, 13, 24, 25, 26, 27, 28, 29, 30, 31, 45, 46, 47, 48, 49, 50, 51, 52, 114, 115, 116, 149, 150, 151, 152, 153, AND 154.

# 4" x 4" PRESSURE — TREATED POST EXISTING GRADE MIN 11" **FOREST** RETENTION AREA MACHINERY, DUMPING MIN 15" OR STORAGE OF ANY MATERIALS PROHIBITED **VIOLATORS ARE SUBJECT TO** FINES IMPOSED BY THE MARYLAND FOREST CONSERVATION ACT OF 1991 MIN 11" SPECIMEN TREE DO NOT REMOVE MACHINERY. DUMPING MIN 15" OR STORAGE OF ANY MATERIALS PROHIBITED VIOLATORS ARE SUBJECT TO FINES IMPOSED BY THE MARYLAND FOREST CONSERVATION ACT OF 1991 MIN 11" Forest Conservation Area REFORESTATION **PROJECT** Trees for Your Future **FOREST CONSERVATION** SIGN DETAIL

### FOREST CONSERVATION SPECIFICATIONS

# A. INSOFAR THAT IT IS FEASIBLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THAT THIS IS NOT

POSSIBLE, LANDSCAPE CONTRACTOR SHALL PROTECT UNINSTALLED PLANT MATERIAL. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE DAY PERIOD AFTER DELIVERY. PLANTS THAT WILL NOT BE PLANTED FOR A PERIOD OF TIME GREATER THAN THREE DAYS SHALL BE HEALED IN WITH TOPSOIL OR MULCH TO HELP PRESERVE ROOT MOISTURE.

B. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN OPSOIL THAT IS IN A MUDDY OR FROZEN CONDITION.

C. ANY INJURED ROOTS OR BRANCHES SHALL BE PRUNED TO MAKE CLEAN-CUT ENDS PRIOR TO PLANTING UTILIZING CLEAN, SHARF TOOLS. ONLY INJURED OR DISEASED BRANCHING SHALL BE REMOVED.

D. ALL PLANTING CONTAINERS AND NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED FROM ROOT BALLS DURING PLANTING. NATURAL FIBER BURLAP MUST BE CUT FROM AROUND THE TRUNK OF THE TREE AND FOLDED DOWN AGAINST THE ROOT BALL

E. POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO EXCAVATING PITS. MAKING NECESSARY ADJUSTMENTS AS DIRECTED

F. PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, THE PROPOSED LANDSCAPE, AS SHOWN ON THE APPROVED LANDSCAPE PLAN, MUST BE INSTALLED, INSPECTED AND APPROVED BY THE APPROVING AGENCY. THE APPROVING AGENCY SHALL TAKE INTO ACCOUNT SEASONAL CONSIDERATIONS IN THIS REGARD AS FOLLOWS. THE PLANTING OF TREES, SHRUBS. VINES OR GROUND COVER SHALL OCCUR ONLY DURING THE FOLLOWING PLANTING SEASONS: 1.1 PLANTS: MARCH 15 TO DECEMBER 15 1.2. LAWN: MARCH 15 TO JUNE 15 OR SEPT. 1 TO DECEMBER 1

G. PLANTINGS REQUIRED FOR A CERTIFICATE OF OCCUPANCY SHALL BE PROVIDED DURING THE NEXT APPROPRIATE SEASON AT THE MUNICIPALITY'S DISCRETION. CONTRACTOR SHOULD CONTACT APPROVING AGENCY FOR POTENTIAL SUBSTITUTIONS.

H. FURTHERMORE, THE FOLLOWING TREE VARIETIES ARE UNUSUALLY SUSCEPTIBLE TO WINTER DAMAGE. WITH TRANSPLANT SHOCK AND THE SEASONAL LACK OF NITROGEN AVAILABILITY, THE RISK OF PLANT DEATH IS GREATLY INCREASED. IT IS NOT RECOMMENDED THAT THESE SPECIES BE PLANTED DURING THE FALL PLANTING SEASON:

BETULA VARIETIES POPULOUS VARIETIES CARPINUS VARIETIES PRUNUS VARIETIES **CRATAEGUS VARIETIES** PYRUS VARIETIES LIQUIDAMBER STYRACIFLUA TILIA TOMENTOSA LIRIODENDRON TULIPIFERA ZELKOVA VARIETIES

I. PLANTING PITS SHALL BE DUG WITH LEVEL BOTTOMS, WITH THE WIDTH TWICE THE DIAMETER OF ROOT BALL. THE ROOT BALL SHALL REST ON UNDISTURBED GRADE. EACH PLANT PIT SHALL BE BACKFILLED IN LAYERS WITH THE FOLLOWING PREPARED

• 1 PART PEAT MOSS 1 PART COMPOSTED COW MANURE BY VOLUME

ACER RUBRUM

• 3 PARTS TOPSOIL BY VOLUME • 21 GRAMS 'AGRIFORM' PLANTING TABLETS (OR APPROVED EQUAL) AS FOLLOWS:

PLATANUS X ACERIFOLIA

A) 2 TABLETS PER 1 GALLON PLANT B) 3 TABLETS PER 5 GALLON PLANT C) 4 TABLETS PER 15 GALLON PLAN

D) LARGER PLANTS: 2 TABLETS PER 1/2" CALIPER OF TRUNK

J. FILL PREPARED SOIL AROUND BALL OF PLANT HALF-WAY AND INSERT PLANT TABLETS. COMPLETE BACKFILL AND WATER

K. ALL PLANTS SHALL BE PLANTED SO THAT THE TOP OF THE ROOT BALL. THE POINT AT WHICH THE ROOT FLARE BEGINS, IS SET AT

GROUND LEVEL AND IN THE CENTER OF THE PIT. NO SOIL IS TO BE PLACED DIRECTLY ON TOP OF THE ROOT BALL

L. ALL PROPOSED TREES DIRECTLY ADJACENT TO WALKWAYS OR DRIVEWAYS SHALL BE PRUNED AND MAINTAINED TO A MINIMUM BRANCHING HEIGHT OF 7' FROM GRADE.

M. GROUND COVER AREAS SHALL RECEIVE A 1/4" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING ALL GROUND COVER AREAS SHALL BE WEEDED AND TREATED WITH A PRE-EMERGENT CHEMICAL AS PER MANUFACTURER'S RECOMMENDATION.

N. NO PLANT, EXCEPT GROUND COVERS, GRASSES OR VINES, SHALL BE PLANTED LESS THAN TWO FEET (2') FROM EXISTING STRUCTURES AND SIDEWALKS.

O. ALL PLANTING AREAS AND PLANTING PITS SHALL BE MULCHED AS SPECIFIED HEREIN TO FILL THE ENTIRE BED AREA OR SAUCER. NO MULCH IS TO TOUCH THE TRUNK OF THE TREE OR SHRUB.

P. ALL PLANTING AREAS SHALL BE WATERED IMMEDIATELY UPON INSTALLATION IN ACCORDANCE WITH THE WATERING SPECIFICATIONS AS LISTED HEREIN.

10. TRANSPLANTING (WHEN REQUIRED) L TRANSPLANTS SHALL BE DUG WITH INTACT ROOT BALLS CAPABLE OF SUSTAINING THE PLANT.

B. IF PLANTS ARE TO BE STOCKPILED BEFORE REPLANTING, THEY SHALL BE HEALED IN WITH MULCH OR SOIL, ADEQUATELY WATERED AND PROTECTED FROM EXTREME HEAT. SUN AND WIND.

C. PLANTS SHALL NOT BE DUG FOR TRANSPLANTING BETWEEN APRIL 10 AND JUNE 30.

D. UPON REPLANTING, BACKFILL SOIL SHALL BE AMENDED WITH FERTILIZER AND ROOT GROWTH HORMONE.

E. TRANSPLANTS SHALL BE GUARANTEED FOR THE LENGTH OF THE GUARANTEE PERIOD SPECIFIED HEREIN.

F. IF TRANSPLANTS DIE, SHRUBS AND TREES LESS THAN SIX INCHES (6") DBH SHALL BE REPLACED IN KIND. TREES GREATER THAN SIX INCHES (6") DBH MAY BE REQUIRED TO BE REPLACED IN ACCORDANCE WITH THE MUNICIPALITY'S TREE REPLACEMENT GUIDELINES.

A. NEW PLANTINGS OR LAWN AREAS SHALL BE ADEQUATELY IRRIGATED BEGINNING IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACKFILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED. WATERING SHALL CONTINUE AT LEAST UNTIL PLANTS ARE ESTABLISHED.

B. SITE OWNER SHALL PROVIDE WATER IF AVAILABLE ON SITE AT TIME OF PLANTING. IF WATER IS NOT AVAILABLE ON SITE, CONTRACTOR SHALL SUPPLY ALL NECESSARY WATER. THE USE OF WATERING BAGS IS RECOMMENDED FOR ALL NEWLY

C. IF AN IRRIGATION SYSTEM HAS BEEN INSTALLED ON THE SITE. IT SHALL BE USED TO WATER PROPOSED PLANT MATERIAL. BUT ANY FAILURE OF THE SYSTEM DOES NOT ELIMINATE THE CONTRACTOR'S RESPONSIBILITY OF MAINTAINING THE DESIRED MOISTURE LEVEL FOR VIGOROUS, HEALTHY GROWTH.

A. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF ONE (1) YEAR FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE APPROVING AGENCY. CONTRACTOR SHALL SUPPLY THE OWNER WITH A MAINTENANCE BOND FOR TEN PERCENT (10%) OF THE VALUE OF THE LANDSCAPE INSTALLATION WHICH WILL BE RELEASED AT THE CONCLUSION OF THE GUARANTEE PERIOD AND WHEN A FINAL INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE OWNER OR AUTHORIZED

B. ANY DEAD OR DYING PLANT MATERIAL SHALL BE REPLACED FOR THE LENGTH OF THE GUARANTEE PERIOD. REPLACEMENT OF PLANT MATERIAL SHALL BE CONDUCTED AT THE FIRST SUCCEEDING PLANTING SEASON. ANY DEBRIS SHALL BE DISPOSED OF OFF-SITE, WITHOUT EXCEPTION

C. TREES AND SHRUBS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION AND THROUGHOUT THE 90 DAY MAINTENANCE PERIOD AS SPECIFIED HEREIN. CULTIVATION, WEEDING, WATERING AND THE PREVENTATIVE TREATMENTS SHALL BE PERFORMED AS NECESSARY TO KEEP PLANT MATERIAL IN GOOD CONDITION AND FREE OF INSECTS AND DISEASE.

D. LAWNS SHALL BE MAINTAINED THROUGH WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING, REGARDING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR

A. UPON THE COMPLETION OF ALL LANDSCAPE INSTALLATION AND BEFORE THE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL UNUSED MATERIALS, EQUIPMENT AND DEBRIS FROM THE SITE. ALL PAVED AREAS ARE TO BE CLEANED.

B. THE SITE SHALL BE CLEANED AND LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE

FCE #1 | FCE #2 | FCE #3 | FCE #4 | FCE #5 | FCE #6 | FCE #7 | FCE #8 | FCE #11 | FCE #12 | FCE #13

ACREAGE 0.1 0.2 7.2 0.9 0.3 0.6 0.2 0.1 0.7 0.9 0.4

P.U. REQUIRED 36 72 2592 324 108 216 72 36 252 324 144

#### REFORESTATION PLAN

THE REFORESTATION AREA WILL BE PLACED INTO A FOREST CONSERVATION EASEMENT.

A. PLANTING PLAN AND METHODS

PLANT MATERIAL WILL BE INSTALLED IN ACCORDANCE WITH THE PLANTING DETAIL AND PLANTING SPECIFICATIONS SHOWN ON THE FOREST CONSERVATION PLAN. AMENDMENTS TO EXISTING SOIL WILL BE IN ACCORDANCE WITH THE PLANTING SPECIFICATIONS SHOWN ON THE FOREST CONSERVATION PLAN. SOIL DISTURBANCE WILL BE LIMITED TO INDIVIDUAL PLANTING I OCATIONS

SEE POST CONSTRUCTION NOTES D. GUARANTEE REQUIREMENTS

E. SECURITY FOR REFORESTATION

SECTION 16-1209 OF THE HOWARD COUNTY FOREST CONSERVATION ACT REQUIRES THAT A DEVELOPER SHALL POST A SECURITY (BOND, LETTER OF CREDIT, ETC.) WITH THE COUNTY TO INSURE THAT ALL WORK IS DONE IN ACCORDANCE WITH THE FCP.

A. FOREST PROTECTION TECHNIQUES 1. SOIL PROTECTION AREA (CRITICAL ROOT ZONE)

2. FENCING AND SIGNAGE

EXISTING FOREST LIMITS OCCURRING WITHIN 25 FEET OF THE LIMITS OF DISTURBANCE SHALL BE PROTECTED USING TEMPORARY PROTECTIVE FENCING. PERMANENT SIGNAGE SHALL BE PLACED AROUND THE AFFORESTATION AREA PRIOR TO PLANT INSTALLATION, AS SHOWN ON THE PLAN.

UPON STAKING OF LIMITS OF DISTURBANCE A PRE-CONSTRUCTION MEETING WILL BE HELD BETWEEN THE DEVELOPER, CONTRACTOR AND APPROPRIATE COUNTY INSPECTOR. THE PURPOSE OF THE MEETING WILL BE TO VERIFY THAT ALL SEDIMENT CONTROL IS IN ORDER, AND TO NOTIFY THE CONTRACTOR OF POSSIBLE PENALTIES FOR NON-COMPLIANCE WITH THE FCP.

D. SEQUENCE OF CONSTRUCTION

THE FOLLOWING TIMETABLE REPRESENTS THE PROPOSED TIMETABLE FOR DEVELOPMENT. THE ITEMS OUTLINED IN THE FOREST CONSERVATION PLAN WILL BE ENACTED WITHIN TWO (2) YEARS OF SUBDIVISION APPROVAL. BELOW FIND A PROPOSED SEQUENCE OF CONSTRUCTION.

1. INSTALL ALL SIGNAGE AND SEDIMENT CONTROL DEVICES

2 HOLD PRE-CONSTRUCTION MEETING BETWEEN DEVELOPER CONTRACTOR AND COUNTY INSPECTOR

3. BUILD ACCESS ROADS, INSTALL WELL AND SEPTIC SYSTEMS, AND CONSTRUCT HOUSES. STABILIZE ALL DISTURBED AREAS ACCORDINGLY 4. INSTALL PERMANENT PROTECTIVE SIGNAGE FOR EASEMENTS AND INITIATE PLANTINGS IN ACCORDANCE WITH FOREST CONSERVATION PLAN. PLANTINGS WILL BE COMPLETED WITHIN TWO (2) YEARS OF SUBDIVISION APPROVAL.

6. HOLD POST-CONSTRUCTION MEETING WITH COUNTY INSPECTORS TO ASSURE COMPLIANCE WITH FCP. SUBMIT CERTIFICATION OF INSTALLATION. 7. MONITOR AND MAINTAIN PLANTINGS FOR 2 YEARS.

ECO-SCIENCE PROFESSIONALS, OR ANOTHER QUALIFIED PROFESSIONAL DESIGNATED BY THE DEVELOPER, WILL MONITOR CONSTRUCTION OF THE PROJECT TO ENSURE THAT ALL ACTIVITIES ARE IN COMPLIANCE WITH THE FOREST CONSERVATION PLAN. F. POST-CONSTRUCTION MEETING

UPON COMPLETION OF CONSTRUCTION, ECO-SCIENCE PROFESSIONALS, OR ANOTHER QUALIFIED PROFESSIONAL DESIGNATED BY THE DEVELOPER, WILL NOTIFY THE COUNTY THAT CONSTRUCTION HAS BEEN COMPLETED AND ARRANGE FOR A POST-CONSTRUCTION MEETING TO REVIEW THE PROJECT SITE. THE MEETING WILL ALLOW THE COUNTY INSPECTOR TO VERIFY THAT AFFORESTATION PLANTINGS HAVE REEN INSTALLED.

THE FOLLOWING ITEMS WILL BE INCORPORATED INTO THE PLAN A. FENCING AND SIGNAGE

PERMANENT SIGNAGE INDICATING THE LIMITS OF THE RETENTION/REFORESTATION AREA SHALL BE MAINTAINED. B. GENERAL SITE INSPECTIONS/MAINTENANCE OF PLANTINGS

SITE INSPECTIONS WILL BE PERFORMED A MINIMUM OF THREE TIMES DURING THE GROWING SEASON. THE PURPOSE OF THE INSPECTIONS WILL BE TO ASSESS THE HEALTH OF THE AFFORESTATION PLANTINGS. APPROPRIATE MEASURES WILL BE TAKEN TO RECTIFY ANY PROBLEMS WHICH MAY ARISE. IN ADDITION, MAINTENANCE OF THE AFFORESTATION PLANTINGS WILL INVOLVE THE FOLLOWING STEPS:

WATERING - ALL PLANT MATERIAL SHALL BE WATERED TWICE A MONTH DURING THE 1ST GROWING SEASON, MORE OR LESS FREQUENTLY DEPENDING ON WEATHER CONDITIONS. DURING THE SECOND GROWING SEASON, ONCE A MONTH DURING MAY-SEPTEMBER, IF NEEDED. REMOVAL OF INVASIVE EXOTICS AND NOXIOUS WEEDS. OLD FIELD SUCCESSIONAL SPECIES WILL BE RETAINED.

IDENTIFICATION OF SERIOUS PLANT PESTS AND DISEASES, TREATMENT WITH APPROPRIATE AGENT.

4. PRUNING OF DEAD BRANCHES.

5. AFTER 12 AND 24 MONTHS, REPLACEMENT OF PLANTS, IF REQUIRED, IN ACCORDANCE WITH THE GUARANTEE REQUIREMENTS SHOWN ON THE FCP. C. EDUCATION

THE DEVELOPER WILL PROVIDE APPROPRIATE MATERIALS TO PROPERTY OWNERS INFORMING THEM OF THE LOCATION AND PURPOSE OF THE AFFORESTATION AREA. MATERIALS MAY INCLUDE SITE PLANS AND INFORMATION EXPLAINING THE INTENT OF THE FOREST CONSERVATION LAW.

AKE PLACE BETWEEN MARCH 15TH, AND APRIL 30TH OR SEPTEMBER 15TH - NOVEMBER 15TH. SHALL BE SPREAD OVER ALL FORESTATION AREAS IMPACTED BY SITE GRADING TO ASSURE A SUITABLE PLANTING AREA. "STABILIZED AS PER GENERAL CONSTRUCTION PLAN FOR PROJECT. PLANTING AREAS NOT IMPACTED BY SITE GRADING." /E THEIR ROOT SYSTEMS DIPPED INTO AN ANTI-DESICCANT GEL PRIOR TO PLANTING. TOP OF ROOT MASS IS LEVEL WITH THE TOP OF EXISTING GRADE. BACKFILL IN THE PLANTING PITS SHALL CONSIST OF

TROL AND TREE PROTECTION DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH GENERAL CONSTRUCTION PLAN FOR SITE. SITE SHALL BE RDANCE WITH GENERAL CONSTRUCTION PLANS

TED BY SITE GRADING SHALL BE TOPSOILED AND STABILIZED AS PER #2 OF PLANTING/SOIL SPECIFICATIONS FOR

1. IVALINATED BY PLANTINGS SHALL LAST FOR A PERIOD OF 24 MONTH BS.
2. ALL PLANT MATERIAL SHALL BE WATERED TWICE A MONTH DURING THE 1ST GROWING SEASON. WATERING MAY BE MORE OR LESS FREQUENT DEPENDING ON WEATHER CONDITIONS. DURING SECOND GROWING SEASON, ONCE A MONTH DURING MAY SEPTEMBER. IF NEEDED.
3. INVASIVE EXOTICS AND NOXIOUS WEEDS WILL BE REMOVED FROM FORESTATION AREAS. OLD FIELD SUCCESSIONAL SPECIES WILL BE RETAINED.
4. PLANTS WILL BE EXAMINED A MINIMUM TWO TIMES DURING THE GROWING SEASON FOR SERIOUS PLANT PESTS AND DISEASES. SERIOUS PROBLEMS WILL BE TREATED WITH THE APPROPRIATE AGENT.
5. DEAD BRANCHES WILL BE PRUNED FROM PLANTINGS. **GUARANTEE REQUIREMENTS** 

1. A 75 PERCENT SURVIVAL RATE OF FORESTATION PLANTINGS WILL BE REQUIRED AT THE END OF THE 24 MONTH MAINTENANCE PERIOD. ALL PLANT MATERIAL BELOW THE 75 PERCENT THRESHOLD WILL BE REPLACED AT THE BEGINNING OF THE NEXT GROWING SEASON.

4. Signs should be placed around each specimen tree

as indicated on the plan.

#### SURETY FOR FORESTATION

1. THE DEVELOPER SHALL POST A SURETY (BOND, LETTER OF CREDIT) TO ENSURE THAT FORESTATION PLANTINGS ARE COMPLETED. UPON ACCEPTANCE OF THE PLANTINGS BY THE COUNTY. THE ROND SHALL BE RELEASED.

FCP NOTES ANY FOREST CONSERVATION EASEMENT (FCE) AREA SHOWN HEREON IS SUBJECT TO PROTECTIVE COVENANTS WHICH MAY BE FOUND IN THE LAND RECORDS OF HOWARD COUNTY WHICH RESTRICT THE DISTURBANCE AND USE OF THESE AREAS.

FORESTED AREAS OCCURRING OUTSIDE OF THE FCE SHALL NOT BE CONSIDERED PART OF THE FCE AND SHALL NOT BE SUBJECT TO PROTECTIVE I AND COVENANTS

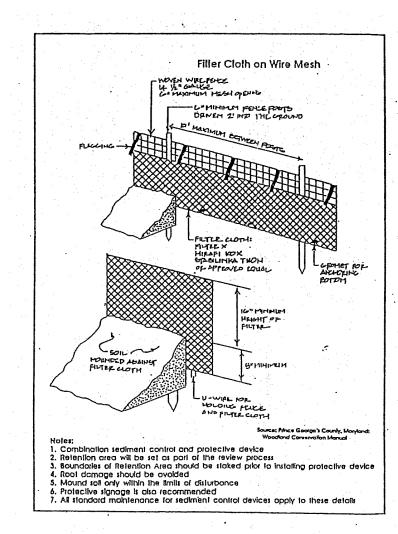
LIMITS OF DISTURBANCE SHALL BE RESTRICTED TO AREAS OUTSIDE THE LIMIT OF TEMPORARY FENCING OR THE FCE BOUNDARY, WHICHEVER IS GREATER.

THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION EASEMENT, EXCEPT AS PERMITTED

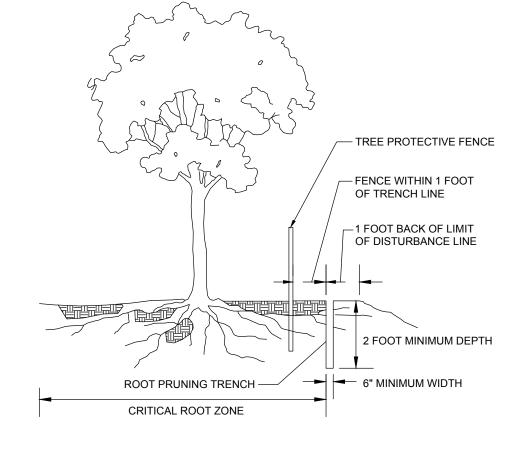
NO STOCKPILES, PARKING AREAS, EQUIPMENT CLEANING AREAS, ETC. SHALL OCCUR WITHIN AREAS DESIGNATED AS FOREST CONSERVATION EASEMENTS.

TEMPORARY FENCING SHALL BE USED TO PROTECT FOREST RESOURCES DURING CONSTRUCTION.
FENCING SHALL BE INSTALLED ALONG LIMITS OF DISTURBANCE OCCURRING WITHIN 50 FEET OF THE PROPOSED FCE LIMITS.

PERMANENT SIGNAGE WILL BE POSTED A AT 50-100 FOOT INTERVALS ALONG ALL FCE LIMITS



# PROTECTIVE TREE FENCE DETAIL



1. RETENTION AREAS WILL BE SET AS PART OF THE REVIEW PROCESS.

2. BOUNDARIES OF RETENTION AREAS SHOULD BE STAKED FLAGGED PRIOR TO TRENCHING.

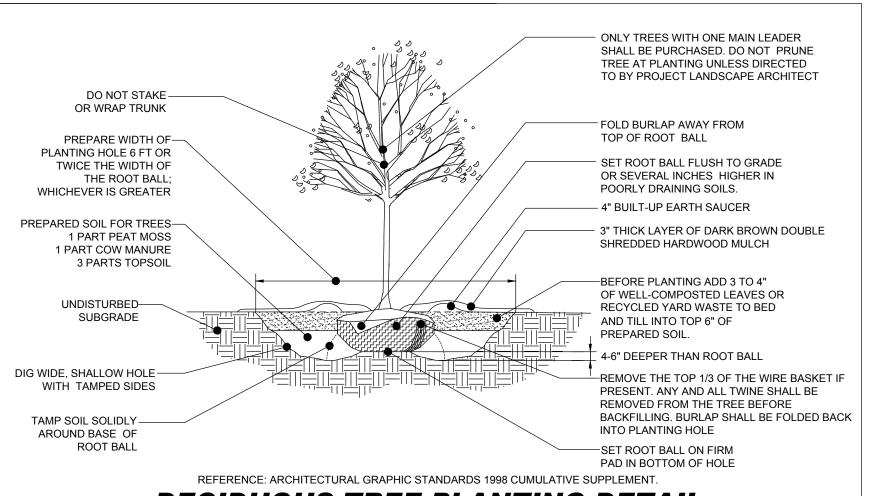
3. EXACT LOCATION OF TRENCH SHOULD BE IDENTIFIED. 4. TRENCH SHOULD BE IMMEDIATELY BACKFILLED WITH SOIL REMOVED OR

OTHER HIGH ORGANIC SOIL.

5. ROOTS SHOULD BE CLEANLY CUT USING VIBRATORY KNIFE OR OTHER ACCEPTABLE EQUIPMENT.

### **ROOT PRUNING DETAIL**

NOT TO SCALE



# **DECIDUOUS TREE PLANTING DETAIL**

McWillia

Digitally signed by Eric

McWilliams DN: cn=Eric McWilliams,

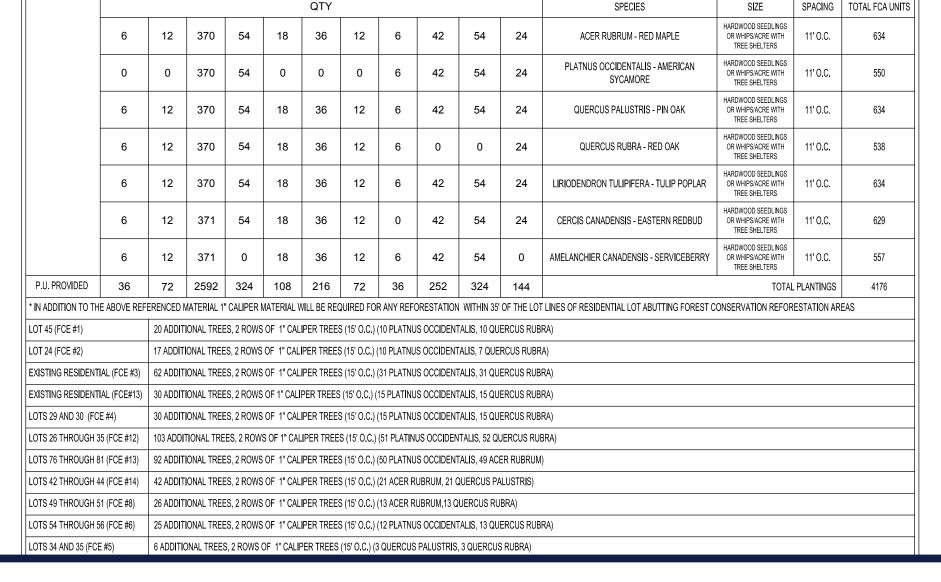
o=Bohler, ou,

CONTACT: JASON VAN KIRK PHONE: (410) 720-3021 GRID: 15 ZONED: R-20 PARCEL: 34

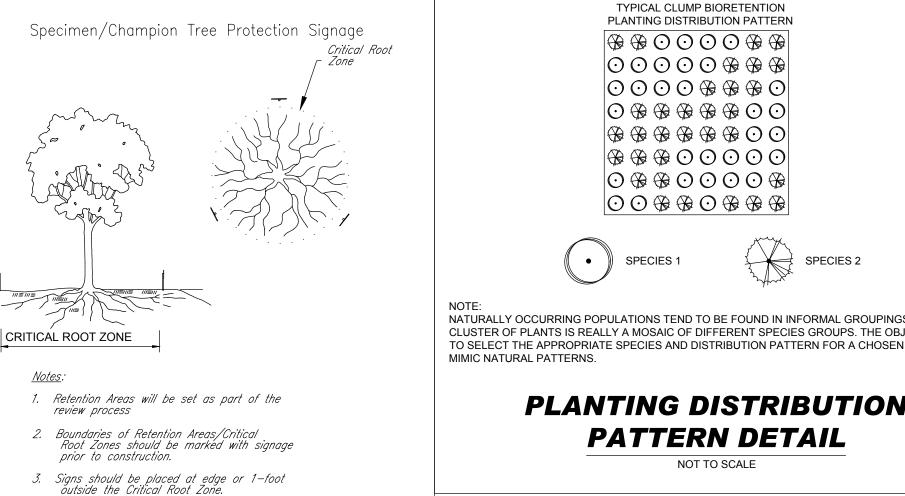
**DEVELOPER'S/OWNER'S LANDSCAPE CERTIFICATE** TENTATIVELY APPROVED **DEPARTMENT OF PLANNING AND ZONING** DocuSigned by: HOWARD COUNTY 11/17/2021

DATE

NOT TO SCALE



REFORESTATION PLANTING SCHEDULE



NATURALLY OCCURRING POPULATIONS TEND TO BE FOUND IN INFORMAL GROUPINGS. A CLUSTER OF PLANTS IS REALLY A MOSAIC OF DIFFERENT SPECIES GROUPS. THE OBJECTIVE IS TO SELECT THE APPROPRIATE SPECIES AND DISTRIBUTION PATTERN FOR A CHOSEN SITE THAT **PLANTING DISTRIBUTION** 

SUBDIVISION NAME: TBD SECTION/AREA: N/A PREVIOUS FILE No. WP-21-12 DEED # 00226/ 00064 ECP-19-041 BA-CASE NO. 17-018C ECP-21-017, WP-21-064 SP-19-005

email=emcwilliams@ reng.com, c=US Date: 2021.11.09 12:03:31 -05'00' THE ESTATE OF RUTH L. HARBIN P.O. BOX 66 410-964-9700

H. MARK BOBOTEK, ESQ. ELLICOTT CITY, MD 21041 ELM STREET DEVELOPMENT DEVELOPER: 5074 DORSEY HALL ROAD, SUITE 205 ELLICOTT CITY, MD 21042 TAX MAP: 17

2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

**NOTES & DETAILS** SHEET NUMBER: 21 of 32

**REVISIONS** 

Know what's **below**.

Call before you dig

**ALWAYS CALL 811** 

It's fast. It's free. It's the law.

NOT APPROVED FOR

CONSTRUCTION

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGEN

REVIEW AND APPROVAL. <u>IT IS NOT INTENDED AS A CONSTRUC'</u>

<u>DOCUMENT</u> UNLESS INDICATED OTHERWISE.

**PRELIMINARY** 

**EQUIVALENT** 

SKETCH PLAN

**BETHANY** 

GLEN - ARAH

LOTS 1 THRU 155 AND

OPEN SPACE LOTS 155 THRU 168

391 OLD FREDERICK ROAD - ROUTE 9

2ND ELECTION DISTRICT

TAX MAP 17, GRID 15, PARCEL 34

HOWARD COUNTY, MARYLAND

**BOHLER** 

901 DULANEY VALLEY ROAD, SUITE 80

**TOWSON, MARYLAND 21204** 

Phone: (410) 821-7900

Fax: (410) 821-7987

MD@BohlerEng.com

11/05/2021

REGISTERED AND SCAPE ARCHITECT

MARY AND LICENSING 3897

PROFESSIONAL CERTIFICATION

I. ERIC R. McWILLIAMS, HEREBY CERNEY THAT THESE

DOCUMENTS WERE PREPARED OR APPROVED BY ME,
AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITEC

UNDER THE LAWS OF THE STATE OF MARYLAND,

**PRELIMINARY** 

**FOREST** 

**CONSERVATION** 

**PROJECT No.:** 

CHECKED BY:

DRAWN BY:

CAD I.D.:

PROJECT:

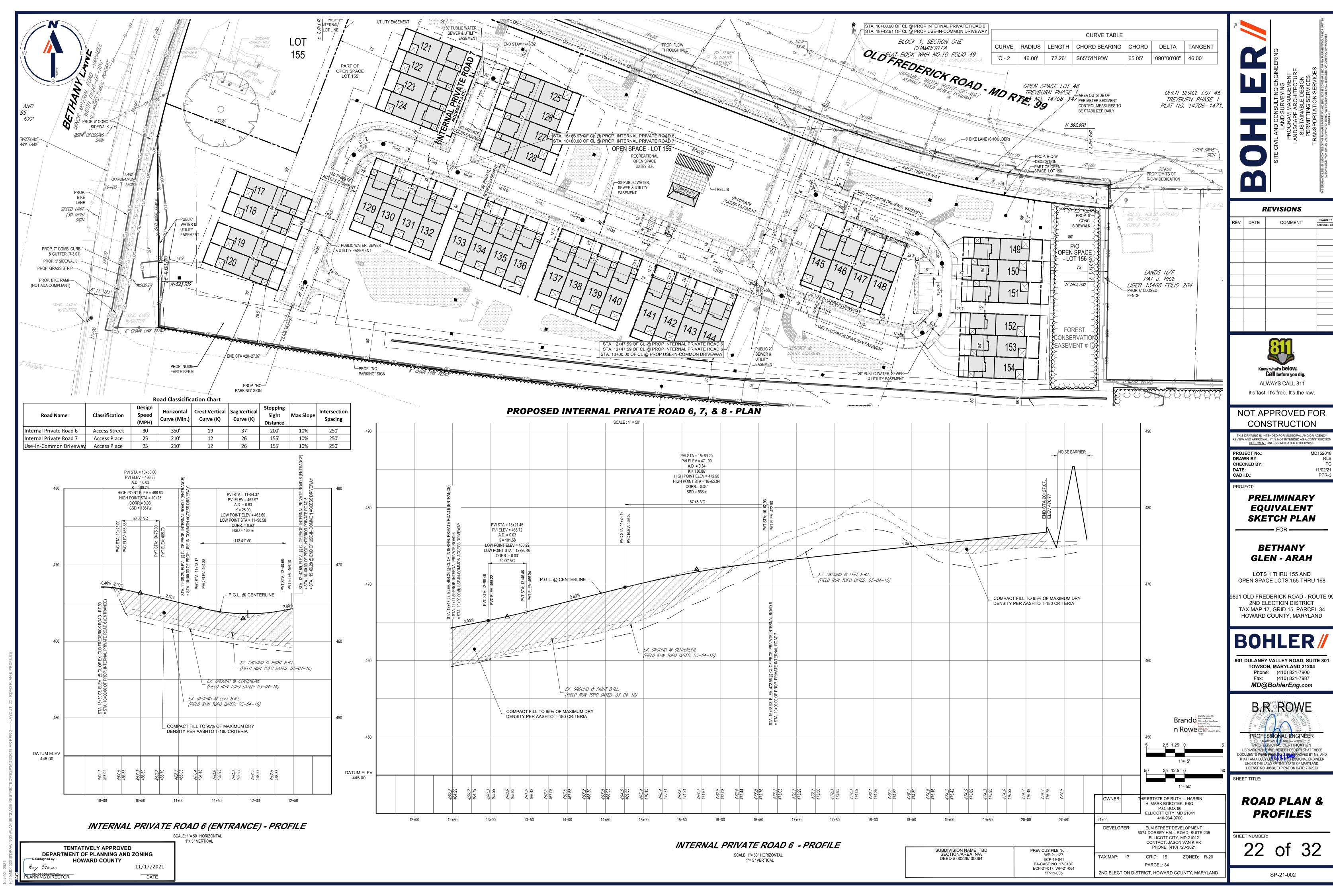
COMMENT

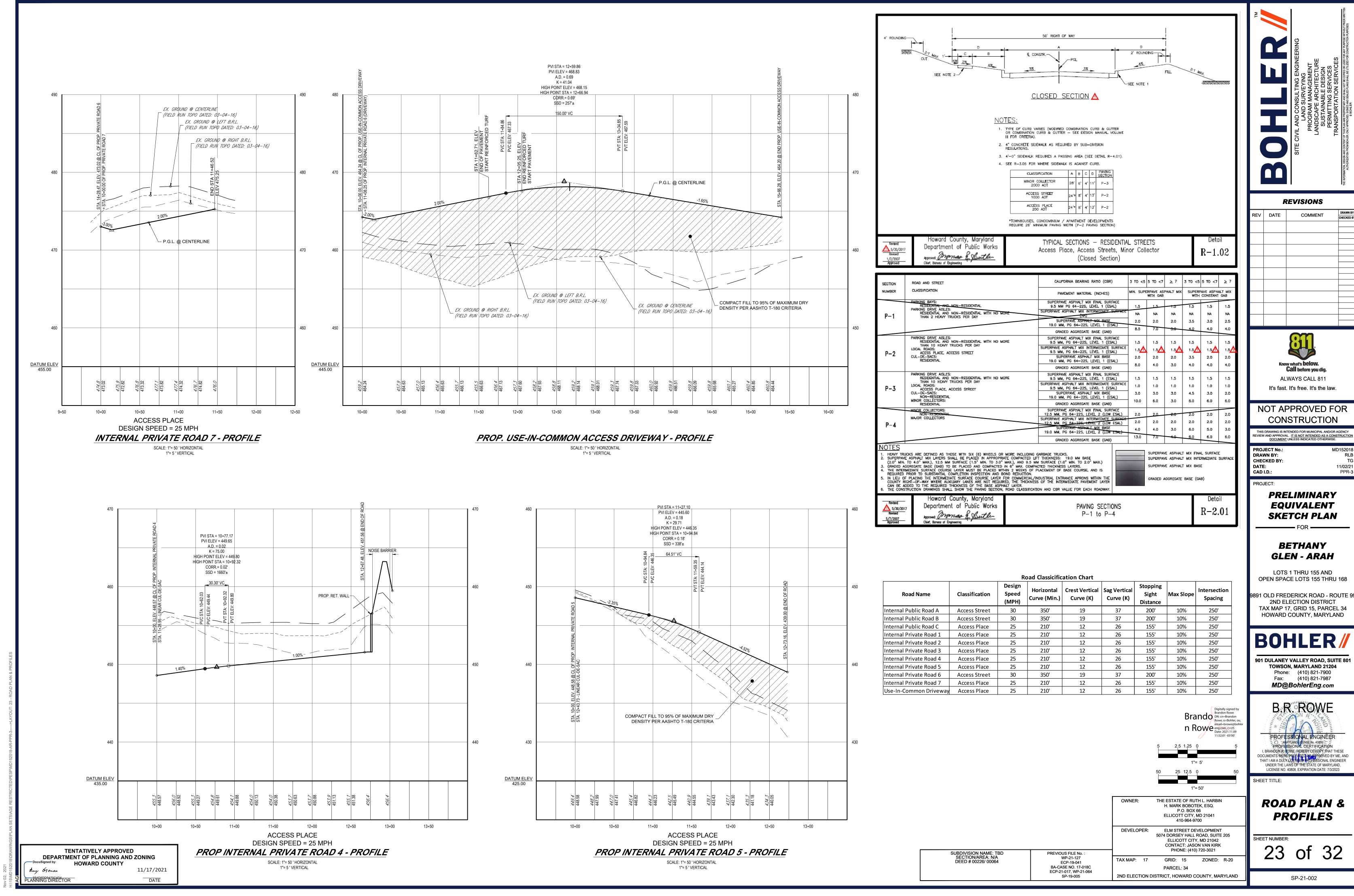
REV DATE

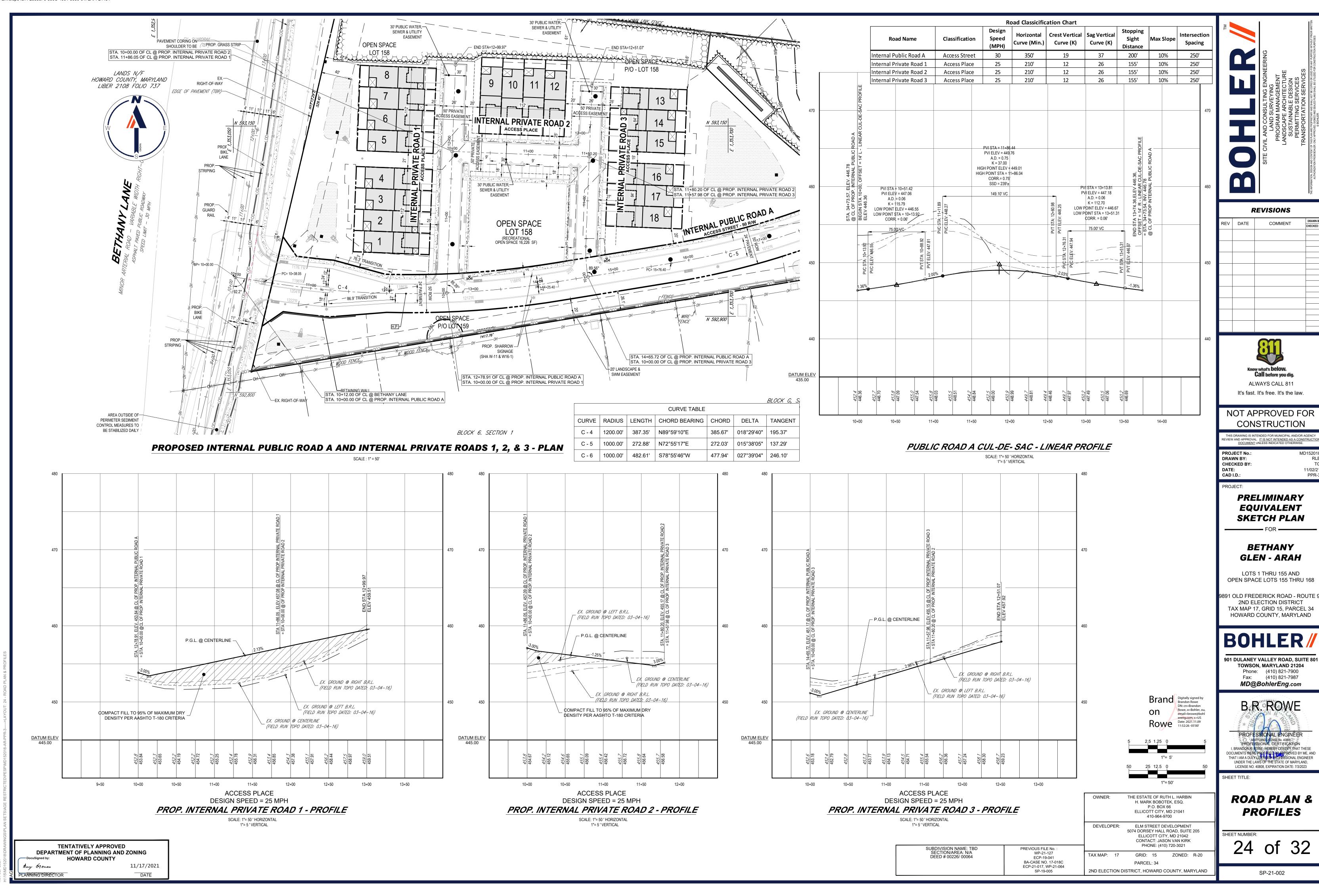
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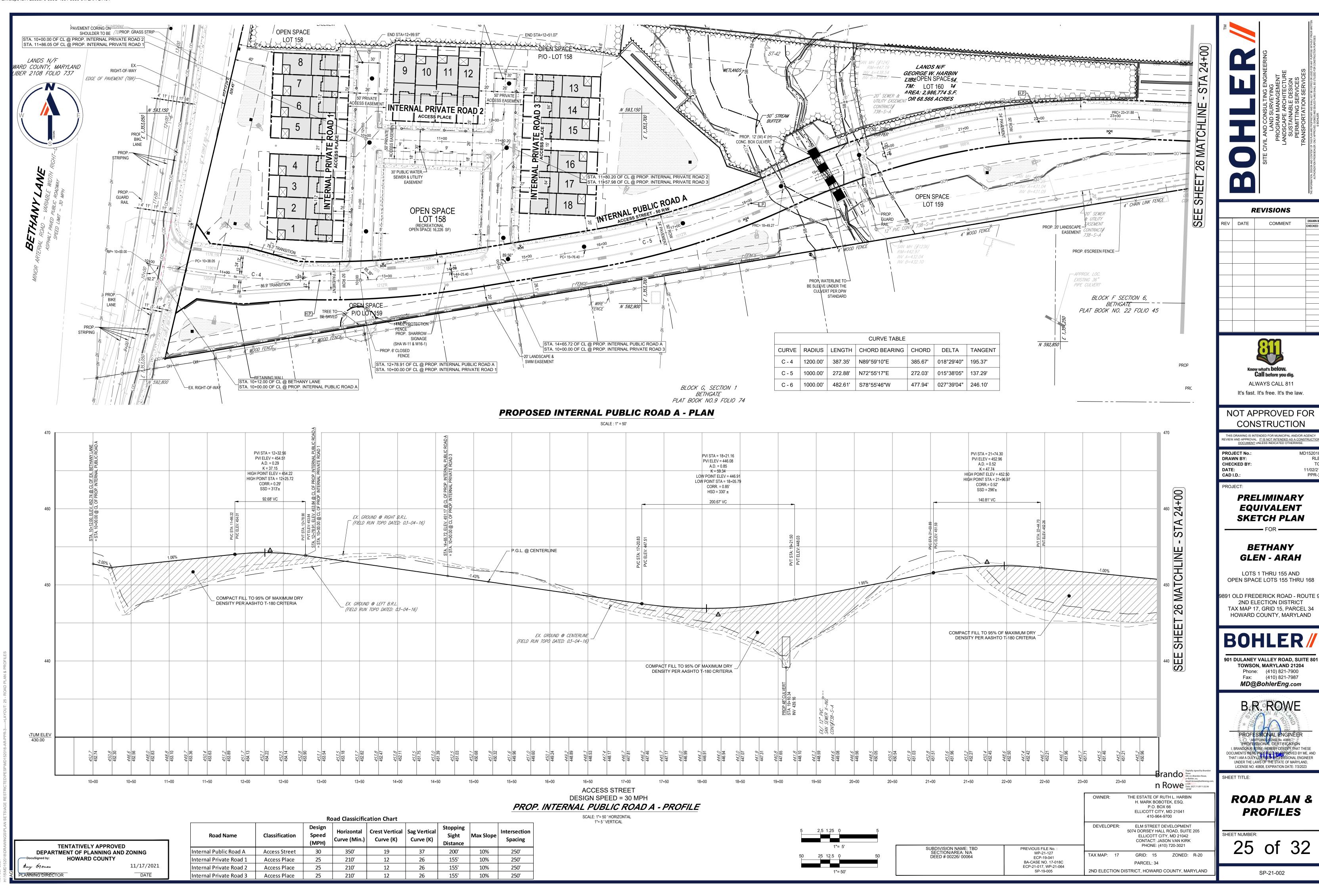
Amy Gonan

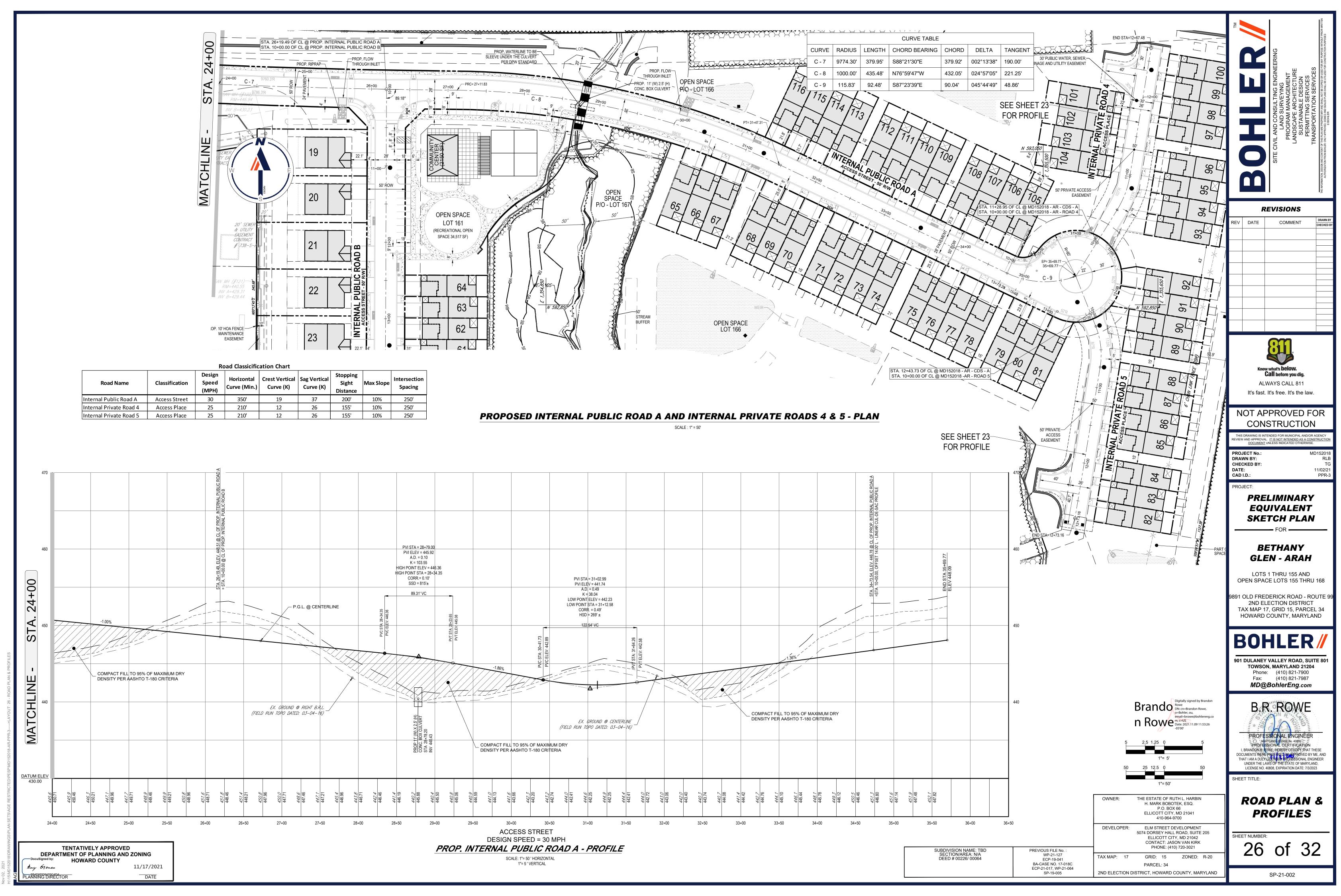
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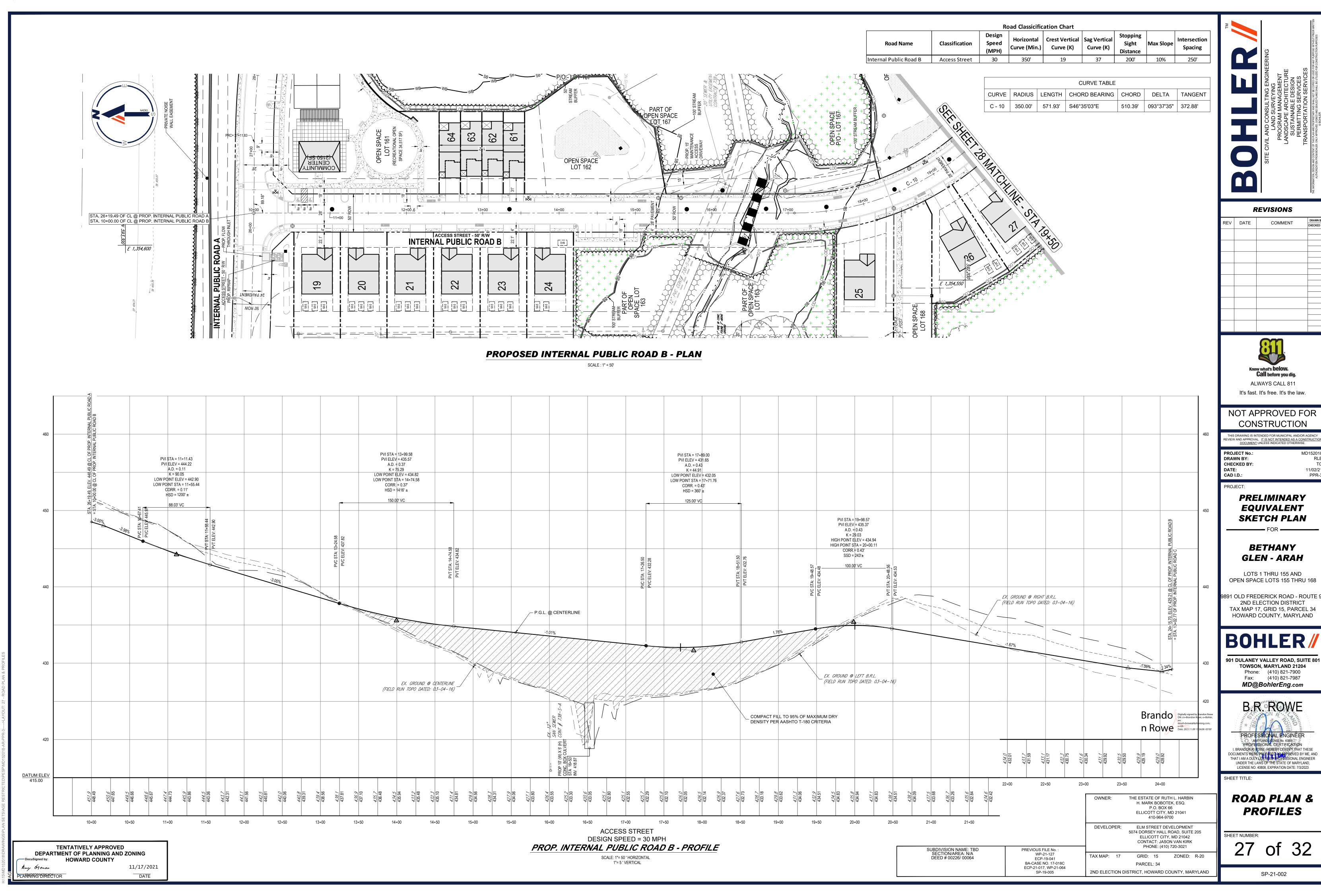


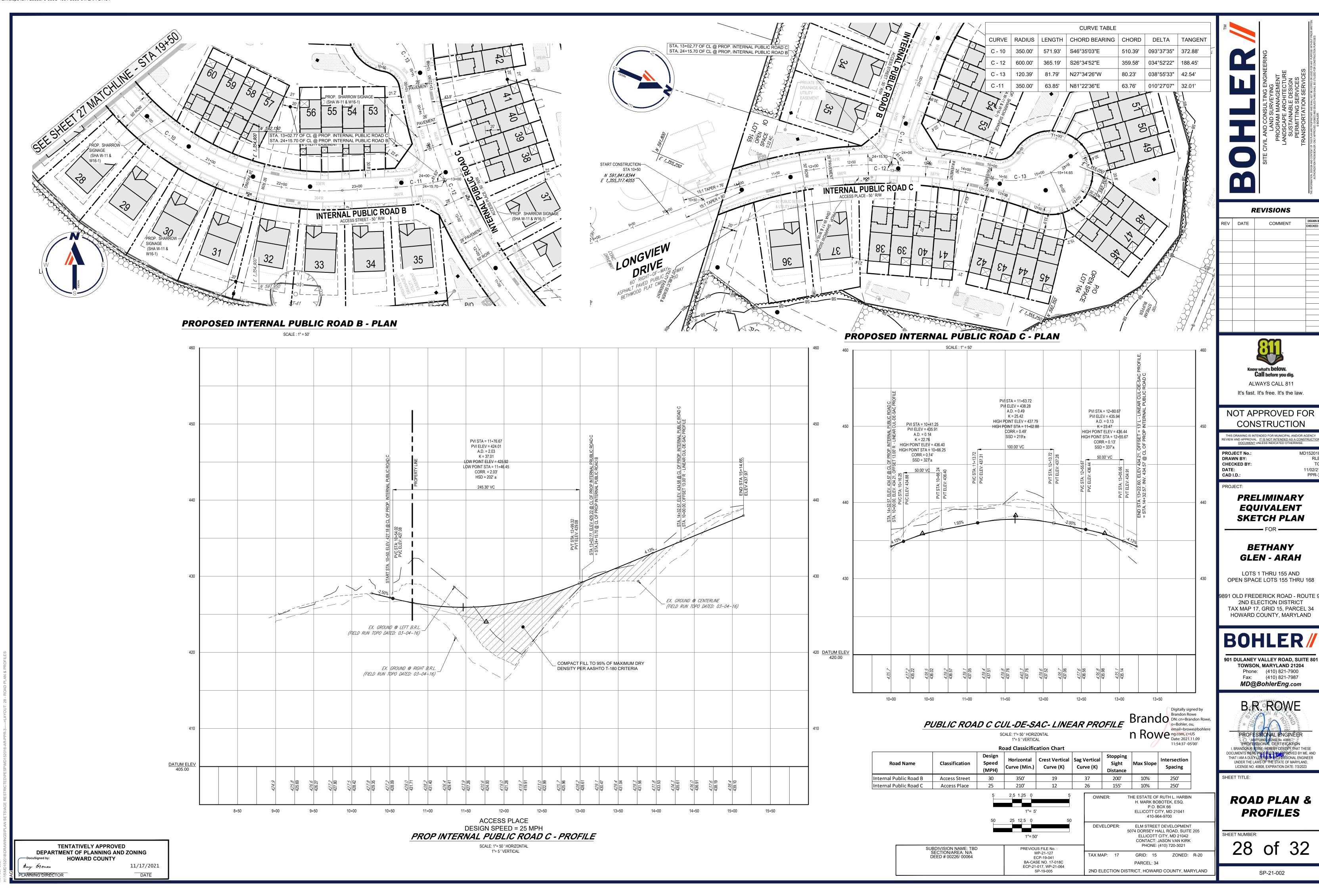


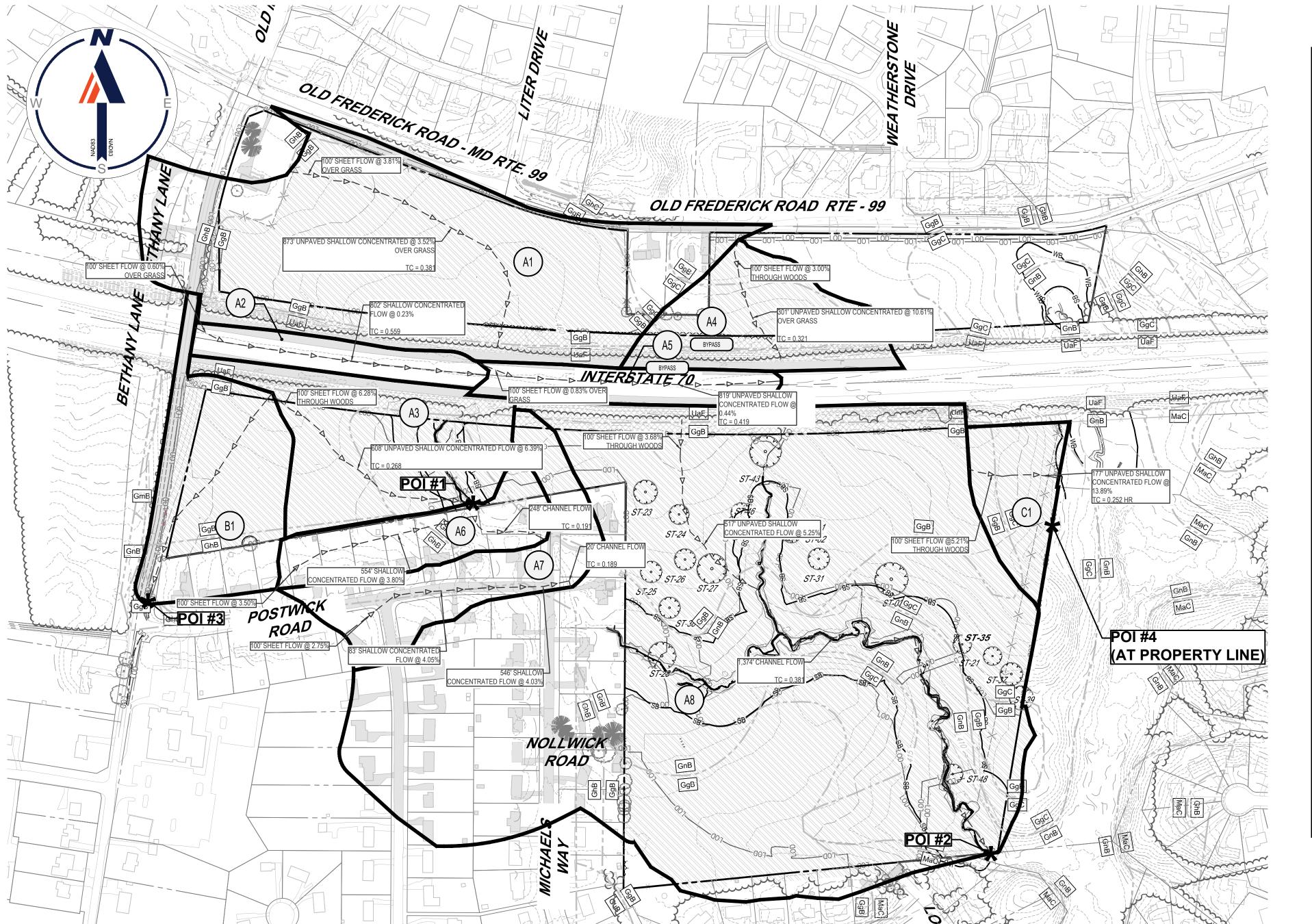












SOILS TABLE									
SOILS NAME	SOILS DESCRIPTION	HYDROLOGIC SOILS GROUP	HIGHLY ERODIBLE SOIL	K FACT					
GgB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	В	YES	0.3					
GgC	GLENELG LOAM, 8 TO 15 PERCENT SLOPES	В	YES	0.4					
GhB	GLENELG-URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPES	В	YES	0.4					
GhC	GLENELG-URBAN LAND COMPLEX, 8 TO 15 PERCENT SLOPES	В	YES	0.4					
GnB	GLENVILLE-BAILE SILT LOAMS, 0 TO 8 PERCENT SLOPES	С	YES	0.4					
GuB	GLENVILLE-URBAN LAND-UDORTHENTS COMPLEX, 0 TO 8 PERCENT SLOPES	С	YES	0.4					
MaC	MANOR LOAM, 8 TO 15 PERCENT SLOPES	В	NO	0.3					
MaD	MANOR LOAM, 15 TO 25 PERCENT SLOPES	В	NO	0.3					
UAf	UDORTHENTS, HIGHWAY, 0 TO 65 PERCENT SLOPES	N/A	-	-					

## **Quantity - Coverage Summary Chart Pre-Development**

Project: Bethany Glen (MD152018)

**Location:** Howard County

In accordance with CR-123-2019, Site Pre-Development Drainage Area Coverage Conditions have been

modeled as Woods in Good Condition.

Off-Site Drainage has been modeled as existing coverage (in the existing and proposed conditions).

OI	DA	Tc (hr)	AREA (ac) CN	DESCRIPTION
			2.010	61 B SOILS - OPEN SPACE; GRASS COVER > 75% (Offsite)
			2.225	98 IMPERVIOUS (Offsite)
			1.963	61 B SOILS - PASTURE, GRASSLAND OR RANGE (Offsite)
			12.562	55 B SOILS - WOODS
	A1	0.381	18.760	63 (Weighted CN)
			1.403	80 D SOILS - OPEN SPACE; GRASS COVER > 75% (Offsite)
1			0.659	98 IMPERVIOUS (Offsite)
	A2	0.559	2.062	86 (Weighted CN)
			0.715	98 IMPERVIOUS (Offsite)
			1.085	61 B SOILS - PASTURE, GRASSLAND OR RANGE (Offsite)
			0.135	74 C SOILS - PASTURE, GRASSLAND OR RANGE (Offsite)
			2.299	55 B SOILS - WOODS
		0.000	2.662	70 C SOILS - WOODS
	A3	0.268	6.896	67 (Weighted CN)
			0.239	61 B SOILS - OPEN SPACE; GRASS COVER > 75% (Offsite)
			0.529	98 IMPERVIOUS (Offsite) 55 B SOILS - WOODS
	A4	0.321	3.931	
	A4	0.321	<b>4.699</b> 1.459	<b>60 (Weighted CN)</b> 80 D SOILS - OPEN SPACE; GRASS COVER > 75% (Offsite)
			0.831	98 IMPERVIOUS (Offsite)
	A5	0.419	<b>2.290</b>	87 (Weighted CN)
}		0.415	1.531	61 B SOILS - OPEN SPACE; GRASS COVER > 75% (Offsite)
			0.963	74 C SOILS - OPEN SPACE; GRASS COVER > 75% (Offsite)
			0.349	98 IMPERVIOUS (Offsite)
			0.237	55 B SOILS - WOODS
_			0.198	70 C SOILS - WOODS
2	A6	0.191	3.278	69 (Weighted CN)
			2.059	61 B SOILS - OPEN SPACE; GRASS COVER > 75% (Offsite)
			0.772	74 C SOILS - OPEN SPACE; GRASS COVER > 75% (Offsite)
			1.241	98 IMPERVIOUS (Offsite)
			0.688	55 B SOILS - WOODS
	A7	0.189	4.760	72 (Weighted CN)
			8.869	61 B SOILS - OPEN SPACE; GRASS COVER > 75% (Offsite)
			1.605	74 C SOILS - OPEN SPACE; GRASS COVER > 75% (Offsite)
			3.442	98 IMPERVIOUS (Offsite)
			27.304	55 B SOILS - WOODS
			11.796	70 C SOILS - WOODS
	A8	0.381	53.016	63 (Weighted CN)
			1.036	61 B SOILS - OPEN SPACE; GRASS COVER > 75% (Offsite)
3			1.078	98 IMPERVIOUS (Offsite)
,			4.035	55 B SOILS - WOODS
	B1	0.212	6.149	64 (Weighted CN)
4			2.546	55 B SOILS - WOODS
			0.033	70 C SOILS - WOODS
	C1	0.252	2.579	55 (Weighted CN)

### **LEGEND**

DRAINAGE AREA DIVIDE TIME OF CONCENTRATION PATH SOIL BOUNDARY LINE DrE SOIL LABEL DRAINAGE AREA LABEL POI LABEL

Brando Digitally signed by Brandon Rowe DN: cn=Brandon Rowe, o=Bohler, n Rowe C=US Date: 2021.11.09 11:55:07 -05'00'

NOTE:

FOR AREAS WHERE NO TC PATHS ARE DELINEATED, A TIME OF CONCENTRATION OF 0.10 HOURS WAS ASSUMED.

THE ESTATE OF RUTH L. HARBIN H. MARK BOBOTEK, ESQ. P.O. BOX 66 ELLICOTT CITY, MD 21041 410-964-9700

SP-21-002

SUBDIVISION NAME: TBD SECTION/AREA: N/A DEED # 00226/ 00064 PREVIOUS FILE No. : WP-21-127 ECP-19-041 BA-CASE NO. 17-018C ECP-21-017, WP-21-064 SP-19-005

IMPERVIOUS AREA

PASTURE, GRASSLAND,

OR RANGE

WOODS IN (GOOD CONDITION)

LAWNS IN

(GOOD CONDITION)

ELM STREET DEVELOPMENT 5074 DORSEY HALL ROAD, SUITE 205 ELLICOTT CITY, MD 21042 CONTACT: JASON VAN KIRK PHONE: (410) 720-3021 TAX MAP: 17 GRID: 15 ZONED: R-20 PARCEL: 34 2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

**REVISIONS** REV DATE



# NOT APPROVED FOR CONSTRUCTION

DRAWN BY: CHECKED BY: DATE: CAD I.D.:

PROJECT:

**PRELIMINARY EQUIVALENT** SKETCH PLAN

**BETHANY** GLEN - ARAH

LOTS 1 THRU 155 AND OPEN SPACE LOTS 155 THRU 168

891 OLD FREDERICK ROAD - ROUTE 9 2ND ELECTION DISTRICT TAX MAP 17, GRID 15, PARCEL 34 HOWARD COUNTY, MARYLAND

901 DULANEY VALLEY ROAD, SUITE 801 TOWSON, MARYLAND 21204 Phone: (410) 821-7900 Fax: (410) 821-7987 MD@BohlerEng.com

B.R. ROWE PROFESSIONAL ENGINEER

MARYLAND LICENSE NO. 40808
PROFESSIONAL CERTIFICATION
I, BRANDON R. ROWE, 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. 40808, EXPIRATION DATE: 7/3/2023

SHEET TITLE:

PRE-DEVELOPMENT **QUANTITY** DRAINAGE AREA MAP

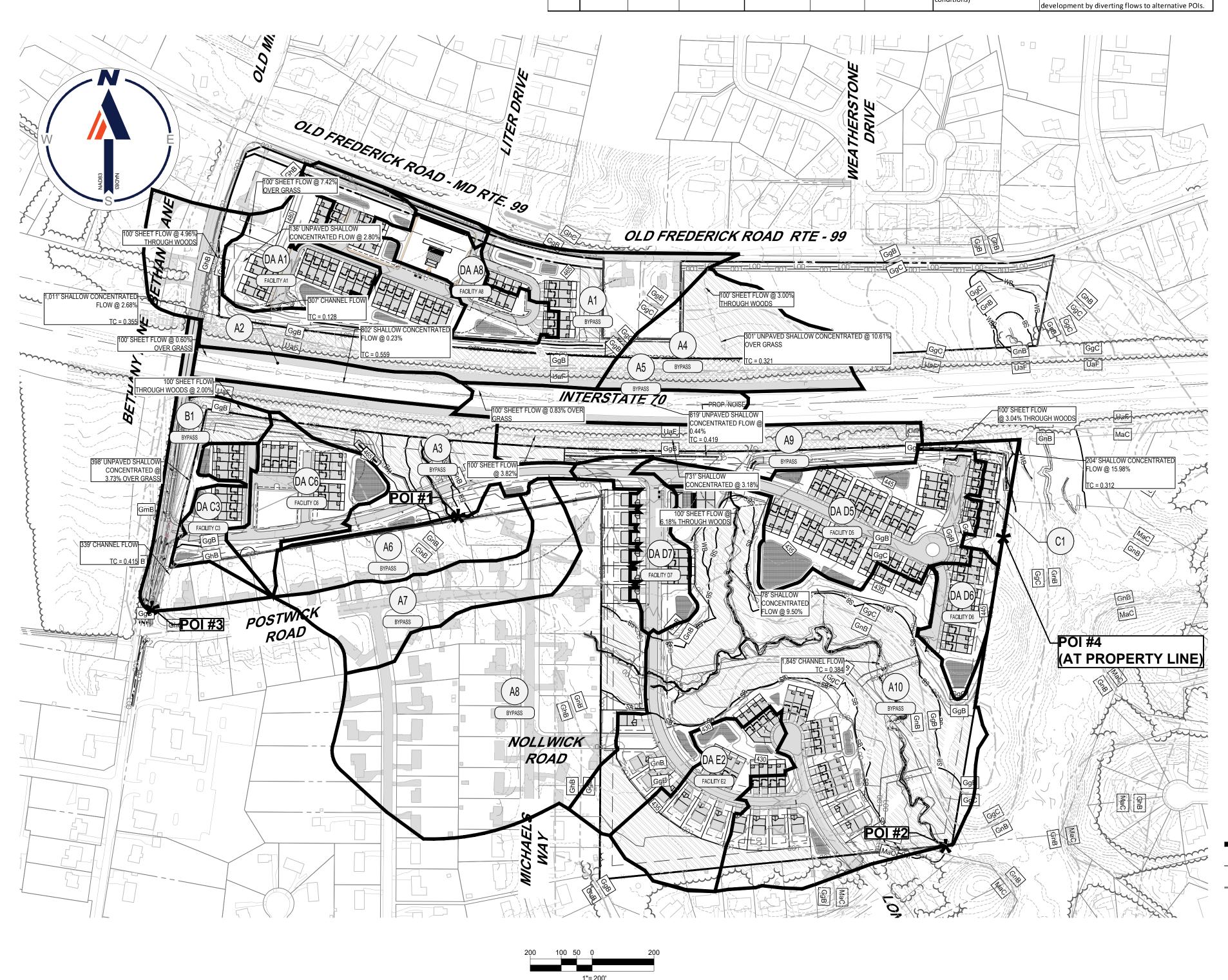
29 OF 32

TENTATIVELY APPROVED DEPARTMENT OF PLANNING AND ZONING **HOWARD COUNTY** 11/17/2021 DATE PLANNING BIRECTOR

SOILS TABLE									
SOILS NAME	SOILS DESCRIPTION	HYDROLOGIC SOILS GROUP	HIGHLY ERODIBLE SOIL	K FACTOR					
GgB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	В	YES	0.37					
GgC	GLENELG LOAM, 8 TO 15 PERCENT SLOPES	В	YES	0.43					
GhB	GhB GLENELG-URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPES  GhC GLENELG-URBAN LAND COMPLEX, 8 TO 15 PERCENT SLOPES		YES	0.43					
GhC			YES	0.43					
GnB	GLENVILLE-BAILE SILT LOAMS, 0 TO 8 PERCENT SLOPES	С	YES	0.49					
GuB	GLENVILLE-URBAN LAND-UDORTHENTS COMPLEX, 0 TO 8 PERCENT SLOPES	С	YES	0.49					
MaC	MANOR LOAM, 8 TO 15 PERCENT SLOPES	В	NO	0.32					
MANOR LOAM, 15 TO 25 PERCENT SLOPES		В	NO	0.32					
UAf	UDORTHENTS, HIGHWAY, 0 TO 65 PERCENT SLOPES	N/A	-	-					

		Quantity Management - POI Summary Chart
roject:	Bethany Glen (MD152018)	
cation:	Howard County	•
y:	TG	•
ate:	August, 2021	
		-

POI#	Pre-	Development Ru	ınoff Rates	Post-Development Runoff Rates			POI Description	Notes
	Q10(pre) (cfs)	Q100(pre) (cfs)	QHoCo6.6(pre)(cfs)	Q10 (post)(cfs)	Q100 (post)(cfs)	QHoCo6.6(post)(cfs)		
1	47.67	123.17	125.63	47.38	120.97		Point within existing stream located to the southeast of Neighborhood C	Discharge to POI#1 from Neighborhoods A and C. Flows to be managed with two surface sand filters in Neighborhood A (Facility 1 & Facility 2) with control structures and a surface sand filter in Neighborhood C (Facility 3) with a control structure.
2	158.84	417.22	422.50	158.56	411.74		Point within existing stream located to the southeast of Neighborhood E	Discharge to POI #2 from Neighborhoods A, B, C, D and E. Flows to be managed with several surface sand filters in Neighborhoods D & E with control structures. POI #1 ultimately outfalls to this POI as well and is included in the computations.
3	12.86	33.76	35.44	12.71	31.59		Existing storm drain inlet located to the southwest of Neighborhood C	Discharge to POI #3 from Neighborhood C. Flows to be managed with one surface sand filter in Neighborhood C (Facility 4) with a control structure. A portion of the Neighborhood bypasses the facilities and outfalls directly into POI.
4	2.83	9.85	9.45	2.25	5.39		Portion of northeast property boundary of Neighborhood D (Sheet Runoff in pre and post conditions)	Discharge to POI#4 from Neighborhood D. Flows have been reduces from pre development to post



### **Quantity - Coverage Summary Chart Post-Development**

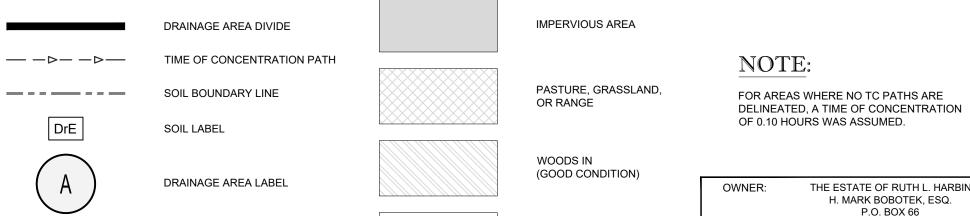
**Project:** Bethany Glen (MD152018) **Location:** Howard County

Date: August, 2021

POI	DA	Tc (hr)	AREA (ac)   CN 5.346	<b>DESCRIPTION</b>   61 B SOILS - OPEN SPACE; GRASS COVER > 75
	1		3.289	98 IMPERVIOUS
			1.963	61 B SOILS - PASTURE, GRASSLAND OR RANG
	A1 (Dunasa)	0.355	3.305	55 B-SOILS - WOODS
	(Bypass)	0.355	<b>13.903</b> 1.934	68 (Weighted CN) 61 B SOILS - OPEN SPACE; GRASS COVER > 75
	DA A1		1.018	98 IMPERVIOUS
	(Facility A1)	0.128	2.952	74 (Weighted CN)
	DA A8		1.060	61 B SOILS - OPEN SPACE; GRASS COVER > 75 98 IMPERVIOUS
	(Facility A8)	0.218	0.724 <b>1.784</b>	76 (Weighted CN)
	( acmey recy		1.403	80 D SOILS - OPEN SPACE; GRASS COVER > 75
	A2		0.659	98 IMPERVIOUS
1	(Bypass)	0.559	<b>2.062</b> 1.442	<b>86 (Weighted CN)</b> 61 B SOILS - OPEN SPACE; GRASS COVER > 75
			0.231	74 C SOILS - OPEN SPACE; GRASS COVER > 75
			1.318	98 IMPERVIOUS
			0.028	61 B SOILS - PASTURE, GRASSLAND OR RANG
	DA C6	0.211	0.192	55 B-SOILS - WOODS
	(Facility C6)	0.211	<b>3.211</b> 0.927	77 (Weighted CN) 61 B SOILS - OPEN SPACE; GRASS COVER > 75
			0.303	74 C-SOILS - OPEN SPACE; GRASS COVER > 75
			1.140	98 IMPERVIOUS
			1.085	61 B SOILS - PASTURE, GRASSLAND OR RANG
			0.135 0.869	74 C SOILS - PASTURE, GRASSLAND OR RANG 55 B-SOILS - WOODS
	A3		0.905	70 C-SOILS - WOODS
	(Bypass)	0.226	5.364	70 (Weighted CN)
POI	DA	Tc (hr)	AREA (ac) CN	DESCRIPTION
	DA DE		2.996 3.354	61 B SOILS - OPEN SPACE; GRASS COVER > 75 98 IMPERVIOUS
	DA D5 (Facility D5)	0.169	<b>6.350</b>	77 (Weighted CN)
	(i domey 20)		0.838	61 B SOILS - OPEN SPACE; GRASS COVER > 75
	DA D6		0.785	98 IMPERVIOUS
	(Facility D6)	0.100	1.623	79 (Weighted CN)
			1.083 0.003	61 B SOILS - OPEN SPACE; GRASS COVER > 75 74 C SOILS - OPEN SPACE; GRASS COVER > 75
	DA D7		1.060	98 IMPERVIOUS
	(Facility D7)	0.169	2.146	79 (Weighted CN)
			1.2959	61 B SOILS - OPEN SPACE; GRASS COVER > 75
			0.13 1.4065	74 C SOILS - OPEN SPACE; GRASS COVER > 75 55 B-SOILS - WOODS
	DA E2		0.932	98 IMPERVIOUS
	(Facility E2)	0.163	3.7643	68 (Weighted CN)
			0.239	61 B SOILS - OPEN SPACE; GRASS COVER > 75
	A4		0.630 3.931	98 IMPERVIOUS 55 B-SOILS - WOODS
	(Bypass)	0.321	4.800	60 (Weighted CN)
			1.459	80 D-SOILS - LAWN
	A5 (Bypass)	0.419	0.831 <b>2.290</b>	98 D-SOILS - IMPERVIOUS 87 (Weighted CN)
•	(Буразз)	0.415	2.159	61 B SOILS - OPEN SPACE; GRASS COVER > 75
2			0.890	74 C-SOILS - OPEN SPACE; GRASS COVER > 75
	A6		0.249	98 IMPERVIOUS
	(Bypass)	0.191	<b>3.298</b> 2.432	67 (Weighted CN) 61 B-SOILS - LAWN
			0.691	74 C-SOILS - LAWN
	A7		1.143	98 IMPERVIOUS
	(Bypass)	0.189	4.266	73 (Weighted CN)
	1		9.222 1.597	61 B-SOILS - LAWN 74 C-SOILS - LAWN
			3.110	98 IMPERVIOUS
	1		0.322	55 B-SOILS - WOODS
	A8		1.039	70 C-SOILS - WOODS
	(Bypass)	0.395	<b>15.290</b> 0.779	70 (Weighted CN) 61 B SOILS - LAWN
			0.779 0.261	98 IMPERVIOUS
	A9		3.232	55 B SOILS - WOODS
	(Bypass)	0.348	4.272	59 (Weighted CN)
			5.6121	61 B-SOILS - LAWN
			2.2293 2.5374	74 C-SOILS - LAWN 98 IMPERVIOUS
			4.6295	55 B SOILS - WOODS
	A10		6.439	70 C-SOILS - WOODS
	(Bypass)	0.384	21.4473	68 (Weighted CN)
	DA	Tc (hr)	AREA (ac) CN	DESCRIPTION  61 P.SOUS ODEN SPACE GRASS COVER > 75
POI			1.561 1.231	61 B SOILS - OPEN SPACE; GRASS COVER > 75 98 IMPERVIOUS
POI			1.201	55 B SOILS - WOODS
<u>POI</u>	B1		0.432	33 B 301F3 - MOOD3
<u>POI</u> 3	B1 (Bypass)	0.129	3.224	74 (Weighted CN)
	(Bypass)	0.129	<b>3.224</b> 0.94	<b>74 (Weighted CN)</b> 61 B SOILS - OPEN SPACE; GRASS COVER > 75
	(Bypass)  DA C3		<b>3.224</b> 0.94 0.731	74 (Weighted CN) 61 B SOILS - OPEN SPACE; GRASS COVER > 75 98 IMPERVIOUS
	(Bypass)	0.129	<b>3.224</b> 0.94	74 (Weighted CN) 61 B SOILS - OPEN SPACE; GRASS COVER > 75 98 IMPERVIOUS 77 (Weighted CN)
	(Bypass)  DA C3		3.224 0.94 0.731 1.671 0.732 0.034	74 (Weighted CN) 61 B SOILS - OPEN SPACE; GRASS COVER > 75 98 IMPERVIOUS 77 (Weighted CN) 61 B SOILS - OPEN SPACE; GRASS COVER > 75 74 C SOILS - OPEN SPACE; GRASS COVER > 75
	(Bypass)  DA C3		3.224 0.94 0.731 1.671 0.732 0.034 0.195	74 (Weighted CN) 61 B SOILS - OPEN SPACE; GRASS COVER > 75 98 IMPERVIOUS 77 (Weighted CN) 61 B SOILS - OPEN SPACE; GRASS COVER > 75 74 C SOILS - OPEN SPACE; GRASS COVER > 75 98 IMPERVIOUS
3	(Bypass)  DA C3		3.224 0.94 0.731 1.671 0.732 0.034	74 (Weighted CN) 61 B SOILS - OPEN SPACE; GRASS COVER > 75 98 IMPERVIOUS 77 (Weighted CN) 61 B SOILS - OPEN SPACE; GRASS COVER > 75 74 C SOILS - OPEN SPACE; GRASS COVER > 75

# **LEGEND**

POI LABEL



THE ESTATE OF RUTH L. HARBIN H. MARK BOBOTEK, ESQ. P.O. BOX 66 ELLICOTT CITY, MD 21041 LAWNS IN 410-964-9700 (GOOD CONDITION)

ELM STREET DEVELOPMENT 5074 DORSEY HALL ROAD, SUITE 205 ELLICOTT CITY, MD 21042 CONTACT: JASON VAN KIRK PHONE: (410) 720-3021 SUBDIVISION NAME: TBD SECTION/AREA: N/A DEED # 00226/ 00064 PREVIOUS FILE No. : WP-21-127 TAX MAP: 17 GRID: 15 ZONED: R-20 ECP-19-041 BA-CASE NO. 17-018C PARCEL: 34 ECP-21-017, WP-21-064 SP-19-005 2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

C1 0.312 0.994 63 (Total)

REVISIONS

REV DATE COMMENT



NOT APPROVED FOR CONSTRUCTION

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTI  $\underline{\text{DOCUMENT}} \text{ UNLESS INDICATED OTHERWISE}.$ PROJECT No.:

DRAWN BY: CHECKED BY: DATE: CAD I.D.: PROJECT:

> **PRELIMINARY EQUIVALENT**

SKETCH PLAN

**BETHANY** GLEN - ARAH

LOTS 1 THRU 155 AND

OPEN SPACE LOTS 155 THRU 168 9891 OLD FREDERICK ROAD - ROUTE 9

2ND ELECTION DISTRICT TAX MAP 17, GRID 15, PARCEL 34 HOWARD COUNTY, MARYLAND

901 DULANEY VALLEY ROAD, SUITE 801 **TOWSON, MARYLAND 21204** Phone: (410) 821-7900 Fax: (410) 821-7987 MD@BohlerEng.com

B.R. ROWE PROFESSIONAL ENGINEER

MARYLANDLICENSE NO. 40808

PROFESSIONAL CERTIFICATION

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SHEET TITLE: POST-DEVELOPMENT **QUANTITY** DRAINAGE AREA MAP

30 OF 32

SP-21-002

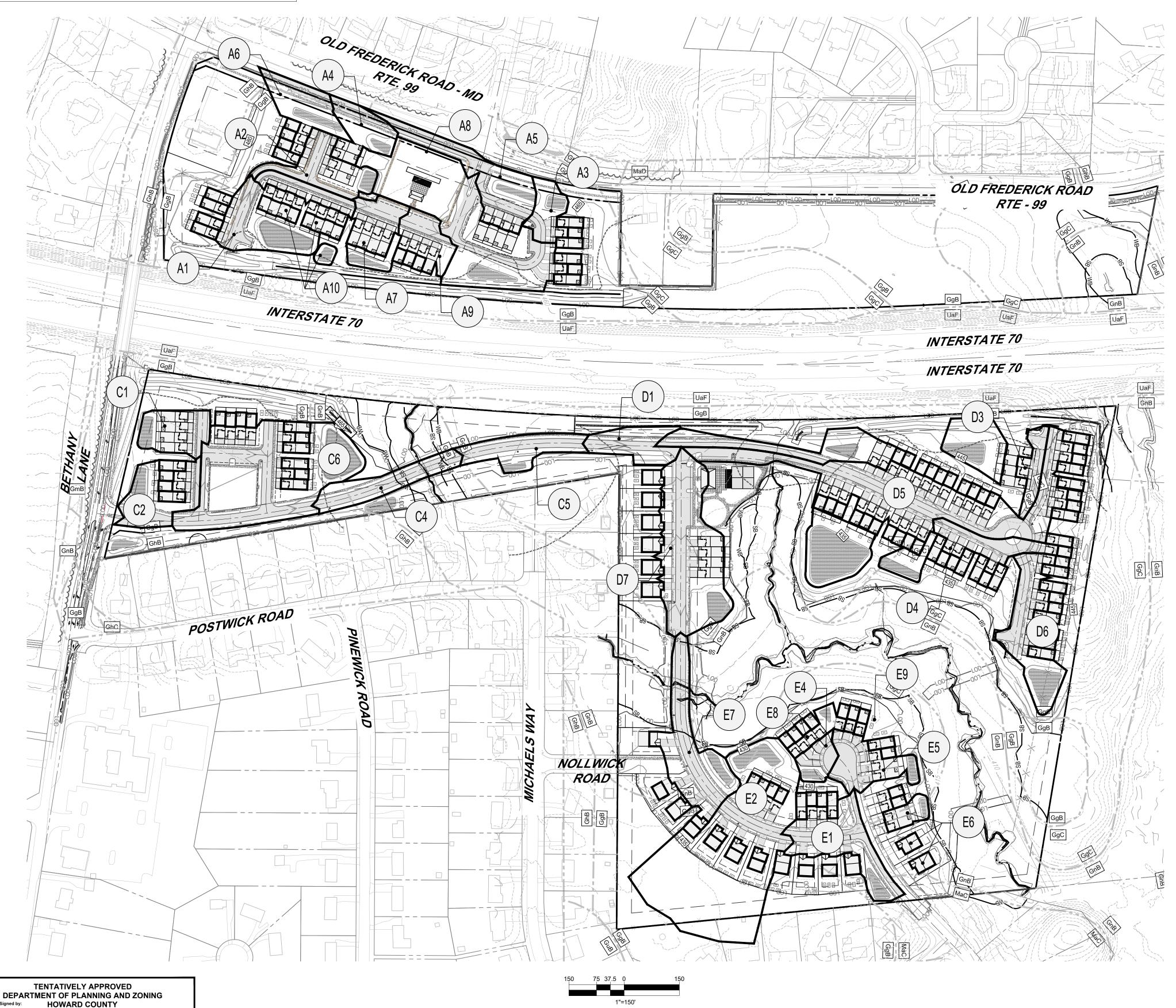
TENTATIVELY APPROVED DEPARTMENT OF PLANNING AND ZONING **HOWARD COUNTY** 11/17/2021 DATE PLANNING DIRECTOR

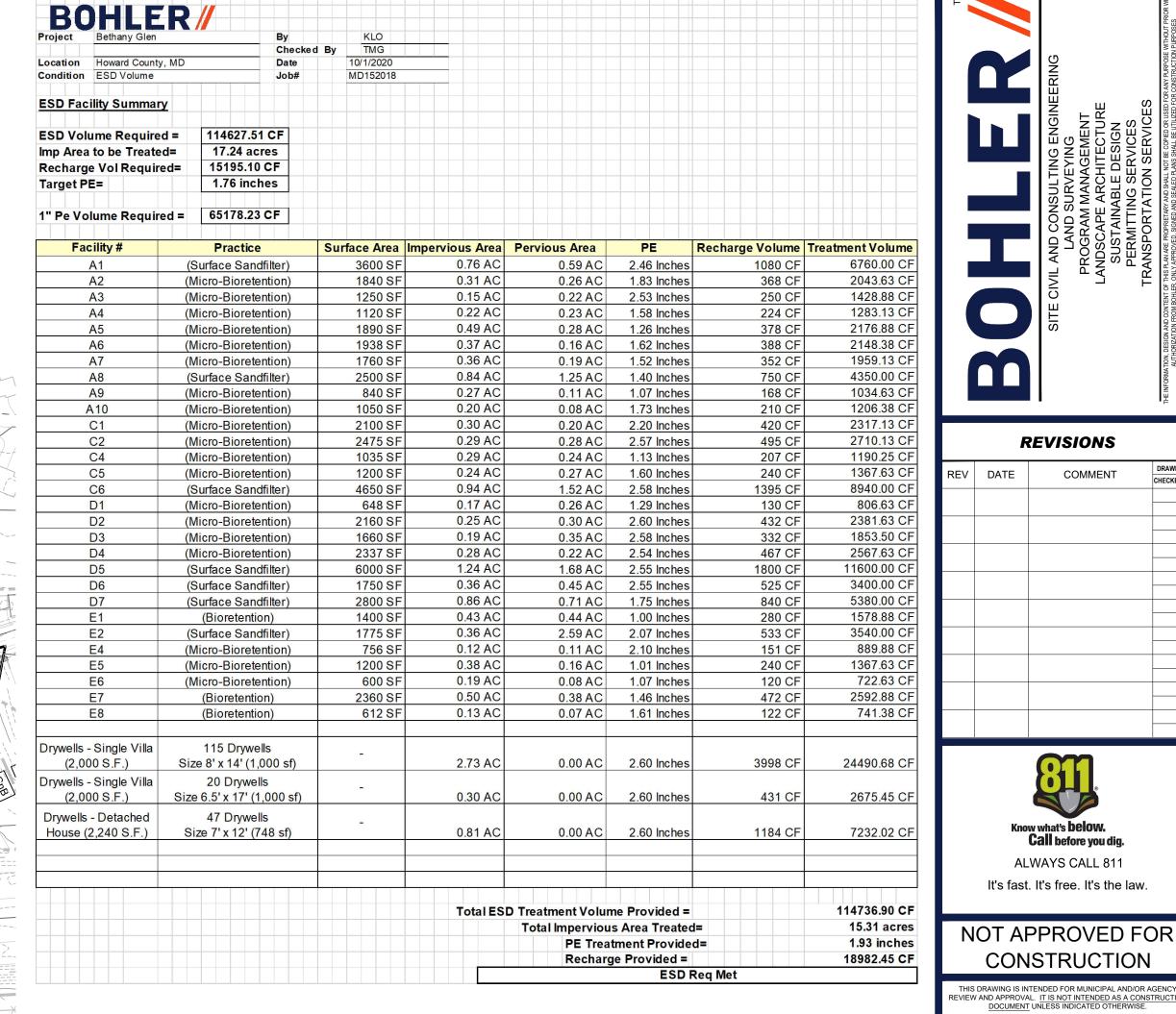
	SOILS TAI	BLE		
SOILS NAME	SOILS DESCRIPTION	HYDROLOGIC SOILS GROUP	HIGHLY ERODIBLE SOIL	K FACTOR
GgB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	В	YES	0.37
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GhC	GLENELG-URBAN LAND COMPLEX, 8 TO 15 PERCENT SLOPES	В	YES	0.43
GnB	GLENVILLE-BAILE SILT LOAMS, 0 TO 8 PERCENT SLOPES	С	YES	0.49
GuB	GLENVILLE-URBAN LAND-UDORTHENTS COMPLEX, 0 TO 8 PERCENT SLOPES	С	YES	0.49
MaC	MANOR LOAM, 8 TO 15 PERCENT SLOPES	В	NO	0.32
MaD	MANOR LOAM, 15 TO 25 PERCENT SLOPES	В	NO	0.32
UAf	UDORTHENTS, HIGHWAY, 0 TO 65 PERCENT SLOPES	N/A	-	-

11/17/2021

DATE

PLANNING DIRECTOR





# **LEGEND**

DRAINAGE AREA DIVIDE

\_\_\_\_\_

SOIL BOUNDARY LINE

DrE SOIL LABEL

DRAINAGE AREA LABEL

IMPERVIOUS AREA

LOTS 1 THRU 155 AND OPEN SPACE LOTS 155 THRU 168 891 OLD FREDERICK ROAD - ROUTE 9 2ND ELECTION DISTRICT TAX MAP 17, GRID 15, PARCEL 34

**REVISIONS** 

Know what's **below. Call** before you dig.

**ALWAYS CALL 811** It's fast. It's free. It's the law.

CONSTRUCTION

**PRELIMINARY EQUIVALENT** 

SKETCH PLAN

**BETHANY** GLEN - ARAH

PROJECT No.: DRAWN BY: CHECKED BY:

DATE: CAD I.D.:

PROJECT:

COMMENT

**BOHLER** 

HOWARD COUNTY, MARYLAND

901 DULANEY VALLEY ROAD, SUITE 801 **TOWSON, MARYLAND 21204** Phone: (410) 821-7900 Fax: (410) 821-7987 MD@BohlerEng.com

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**ESD FACILITY** DRAINAGE AREA MAP

31 OF 32

SP-21-002

Brando Digitally signed by Brando Rowe DN: cn=Brandon Rowe, o=Bohler, ou, email=browe@bohlereng.s n Rowe m, c=US Date: 2021.11.09 11:55:33

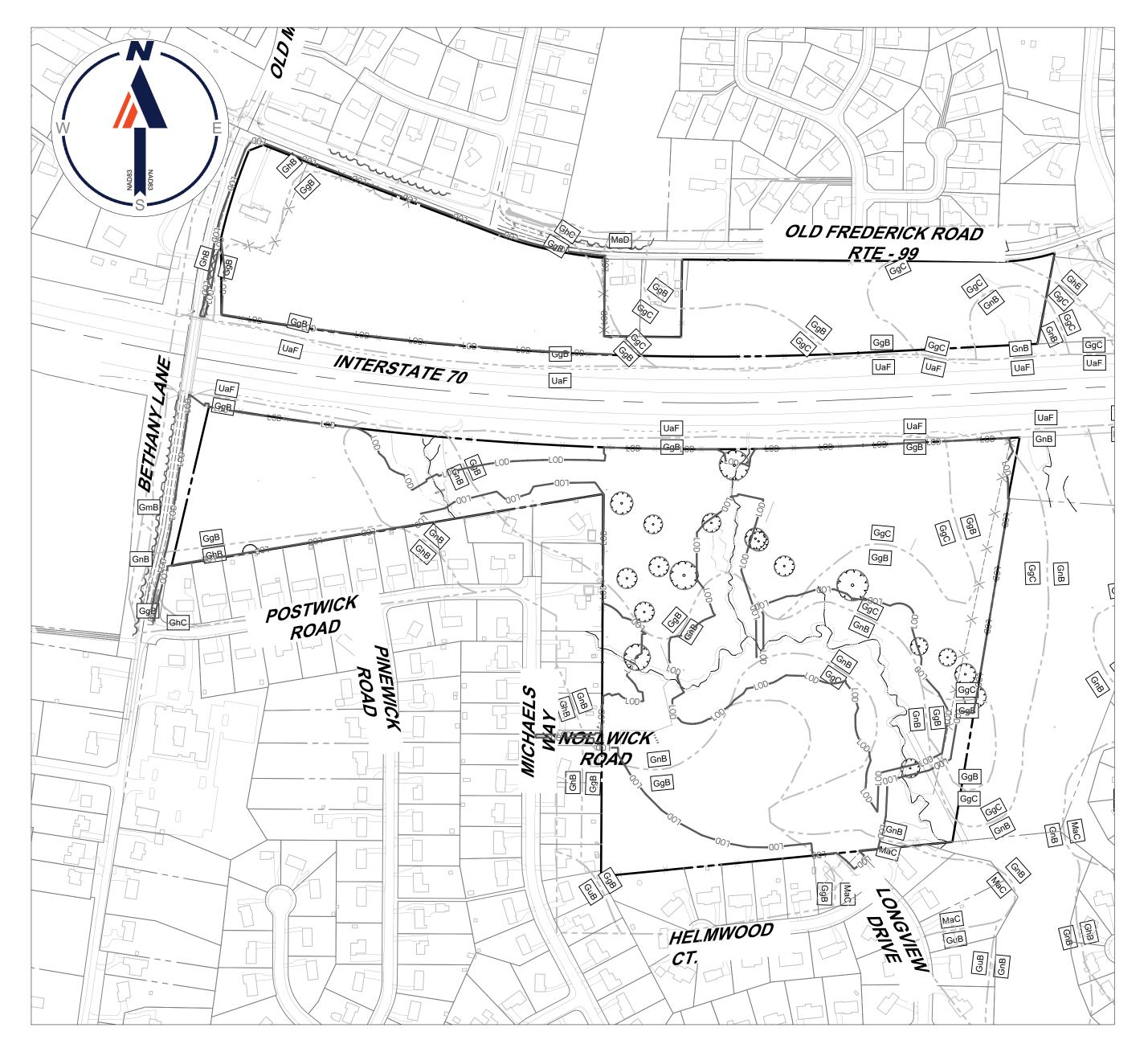
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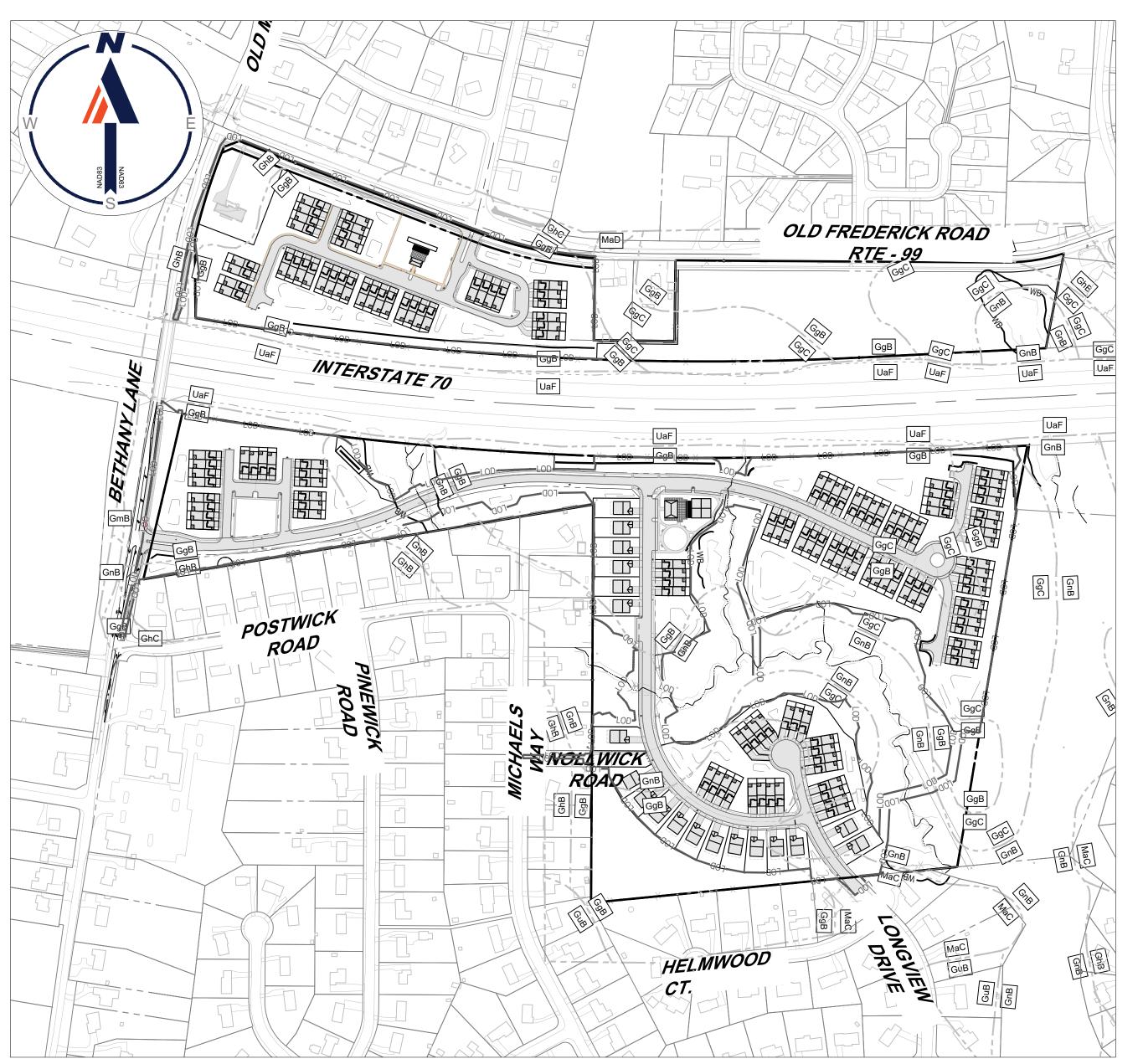
SUBDIVISION NAME: TBD SECTION/AREA: N/A DEED # 00226/ 00064 PREVIOUS FILE No. WP-21-127

TAX MAP: 17 GRID: 15 ZONED: R-20 PARCEL: 34

ECP-19-041 BA-CASE NO. 17-018C ECP-21-017, WP-21-064 2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND SP-19-005

	SOILS TAP	BLE		
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MaD	MANOR LOAM, 15 TO 25 PERCENT SLOPES	В	NO	0.32
UAf	UDORTHENTS, HIGHWAY, 0 TO 65 PERCENT SLOPES	N/A	-	-





### EXISTING COVERAGE AREA MAP

IMPERVIOUS AREA: 10,541 SF OR 0.242 AC. PERVIOUS AREA: 2,113,837 SF OR 48.527 AC. LIMIT OF DISTURBANCE: 2,124,378 SF OR 48.769 AC.

# LEGEND

LIMITS OF DISTURBANCE SOIL BOUNDARY LINE DrE SOIL LABEL

IMPERVIOUS AREA

### PROPOSED COVERAGE AREA MAP

IMPERVIOUS AREA: 751,018 SF OR 17.241 AC. PERVIOUS AREA: 1,373,360 SF OR 31.528 AC. LIMIT OF DISTURBANCE: 2,124,378 SF OR 48.769 AC.



11:56:07 -05'00'

NOTE:

FOR AREAS WHERE NO TC PATHS ARE DELINEATED, A TIME OF CONCENTRATION OF 0.10 HOURS WAS ASSUMED.

THE ESTATE OF RUTH L. HARBIN H. MARK BOBOTEK, ESQ. P.O. BOX 66 ELLICOTT CITY, MD 21041 410-964-9700 ELM STREET DEVELOPMENT 5074 DORSEY HALL ROAD, SUITE 205 ELLICOTT CITY, MD 21042 CONTACT: JASON VAN KIRK PHONE: (410) 720-3021 DEVELOPER: TAX MAP: 17 GRID: 15

SUBDIVISION NAME: TBD SECTION/AREA: N/A DEED # 00226/ 00064 PREVIOUS FILE No. : WP-21-127 ECP-19-041 BA-CASE NO. 17-018C ECP-21-017, WP-21-064 SP-19-005

ZONED: R-20 PARCEL: 34 2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

**REVISIONS** 

REV DATE COMMENT



NOT APPROVED FOR

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CONSTRUCTION

11/02/21 HDP-3

DRAWN BY: CHECKED BY: DATE: CAD I.D.:

PROJECT:

**PRELIMINARY EQUIVALENT** SKETCH PLAN

**BETHANY** 

GLEN - ARAH

LOTS 1 THRU 155 AND OPEN SPACE LOTS 155 THRU 168

891 OLD FREDERICK ROAD - ROUTE 9 2ND ELECTION DISTRICT TAX MAP 17, GRID 15, PARCEL 34 HOWARD COUNTY, MARYLAND

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SHEET TITLE:

**QUALITY COVERAGE MAPS** 

32 OF 32

SP-21-002

TENTATIVELY APPROVED DEPARTMENT OF PLANNING AND ZONING **HOWARD COUNTY** 11/17/2021 DATE PLANNING BIRECTOR