PRELIMINARY EQUIVALENT SKETCH PLAN

FOR

BETHANY GLEN

LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100

LOCATION OF SITE

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

MINIMUM LOT SIZE CHART

Lot No.	GROSS AREA (SF)	PIPE STEM	MINIMUM LOT SIZE (SF)
1	12,559		12,559
2	12,006		12,006
3	12,218		12,218
4	12,022		12,022
5	13,083		13,083
6	12,021		12,021
7	12,748		12,748
8	13,206	1,204	12,002
9	31,783	333	31,450
10	12,003		12,003
11	13,648	1,646	12,002
12	12,000		12,000
13	12,001		12,001
14	12,002		12,002
15	12,019		12,019
16	12,005		12,005
17	12,012		12,012
18	12,011		12,011
19	12,003		12,003
20	14,124		14,124
21	12,759	224	12,535
22	12,508	492	12,016
23	12,825	761	12,064
24	13,238	1,019	12,219
25	13,533	1,280	12,253
26	16,963		16,963
27	12,169		12,169
28	12,122		12,122
29	12,320	307	12,013

MINIMUM LOT SIZE CHART

Lot No.	GROSS AREA (SF)	PIPE STEM	MINIMUM LOT SIZE (SF)
30	13,237	321	12,916
31	13,646		13,646
32	13,150		13,150
33	13,313		13,313
34	12,244		12,244
35	15,050		15,050
36	12,000		12,000
37	12,000		12,000
38	12,003		12,003
39	12,010		12,010
40	12,000		12,000
41	12,000		12,000
42	12,000		12,000
43	12,002		12,002
44	15,485		15,485
45	12,153		12,153
46	13,432		13,432
47	12,843		12,843
48	12,185		12,185
49	12,039		12,039
50	12,005		12,005
51	12,007		12,007
52	12,005		12,005
53	12,282		12,282
54	12,012		12,012
55	12,012		12,012
56	12,487		12,487
57	13,485	1,077	12,408

MINIMUM LOT SIZE CHART

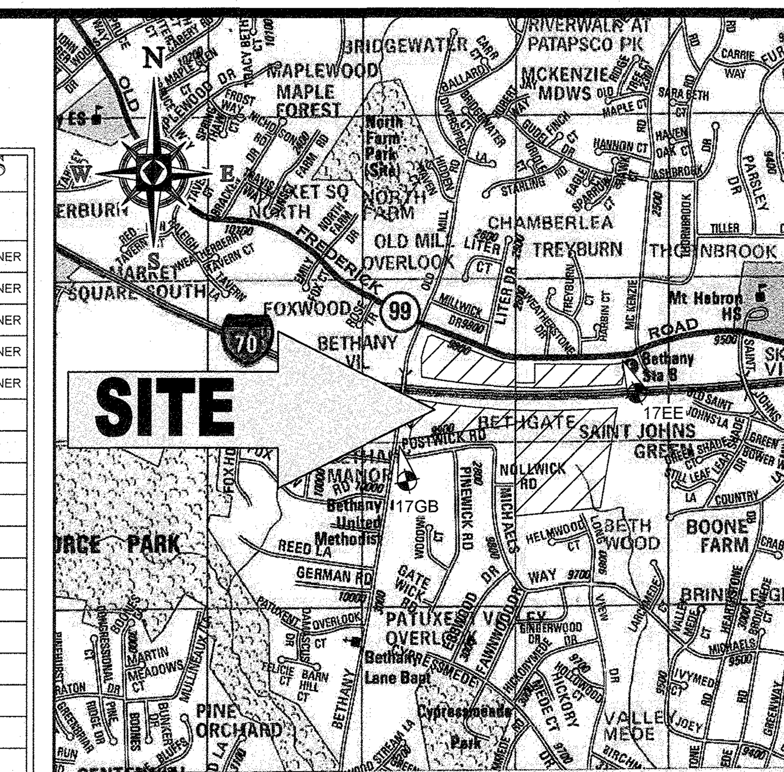
Lot No.	GROSS AREA (SF)	PIPE STEM	MINIMUM LOT SIZE (SF)
58	13,555	705	12,850
59	14,119	309	13,810
60	13,156		13,156
61	12,103		12,103
62	12,366		12,366
63	12,998	239	12,759
64	13,257	639	12,618
65	13,517	1,014	12,503
66	12,000		12,000
67	12,000		12,000
68	12,000		12,000
69	12,012		12,012
70	12,012		12,012
71	12,012		12,012
72	13,825		13,825
73	12,045		12,045
74	12,635		12,635
75	12,145		12,145
76	12,187		12,187
77	12,288		12,288
78	14,657		14,657
79	12,164		12,164
80	12,000		12,000
81	12,003		12,003
82	12,106		12,106
TOTAL	1,054,161	OR	23.93 AC.

OPEN SPACE CHART

LOT No.	OWNER	OPEN SPACE AREA (AC)	NON CREDITED OPEN SPACE AREA (AC)	PURPOSE
83	HOMEOWNERS ASSOCIATION	0.22	.02	OPEN SPACE
84	HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS	1.65	.05	OPEN SPACE
85	HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS	1.02	0	OPEN SPACE
86	HOMEOWNERS ASSOCIATION	0.44	0	OPEN SPACE
87	HOMEOWNERS ASSOCIATION	0.20	0	OPEN SPACE
88	HOMEOWNERS ASSOCIATION	0.44	0	RECREATIONAL OPEN SPACE
89	HOMEOWNERS ASSOCIATION	1.58	0.31	OPEN SPACE
90	HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS	11.23	0	OPEN SPACE
91	HOMEOWNERS ASSOCIATION	2.12	0.22	OPEN SPACE
92	HOMEOWNERS ASSOCIATION	1.26	0	OPEN SPACE
93	HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS	4.28	0	OPEN SPACE
94	HOMEOWNERS ASSOCIATION	1.26	0.14	OPEN SPACE
95	HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS	1.02	0	OPEN SPACE
96	HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS	7.40	0	OPEN SPACE
97	HOMEOWNERS ASSOCIATION	1.77	0	OPEN SPACE
98	HOMEOWNERS ASSOCIATION	0.32	0.03	OPEN SPACE
99	HOMEOWNERS ASSOCIATION	0.77	0	OPEN SPACE
100	HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS	0.28	0	RECREATIONAL OPEN SPACE
		37.26	0.77	

STORMWATER MANAGEMENT PRACTICES

FACILITY NAME & NUMBER	PRACTICE TYPE (QUANTITY)	PUBLIC	PRIVATE	HOA MAINTAINS	HOMEOWNER MAINTAINS	MISC.
HOUSE ENVELOPE "A" DRYWELLS	MDE M-5		√		√	HOMEOWNER
HOUSE ENVELOPE "B" DRYWELLS	MDE M-5		√		√	HOMEOWNER
HOUSE ENVELOPE "C" DRYWELLS	MDE M-5		√		√	HOMEOWNER
HOUSE ENVELOPE "D" DRYWELLS	MDE M-5		√		√	HOMEOWNER
HOUSE ENVELOPE "E" DRYWELLS	MDE M-5		√		√	HOMEOWNER
SURFACE SAND FILTER FACILITY #1	MDE F-1		√	√		-
SURFACE SAND FILTER FACILITY #2	MDE F-1		√	√		-
SURFACE SAND FILTER FACILITY #3	MDE F-1		√	√		-
SURFACE SAND FILTER FACILITY #4	MDE F-1		√	√		-
SURFACE SAND FILTER FACILITY #5	MDE F-1		√	√		-
SURFACE SAND FILTER FACILITY #6	MDE F-1		√	√		-
SURFACE SAND FILTER FACILITY #7	MDE F-1		√	√		-
SURFACE SAND FILTER FACILITY #8	MDE F-1		√	√		-
SURFACE SAND FILTER FACILITY #9	MDE F-1		√	√		-
DETENTION POND FACILITY #10			√	√		-
MICRO-BIORETENTION FACILITY #11	MDE M-6		√	√		-
MICRO-BIORETENTION FACILITY #12	MDE M-6	√		√		-
MICRO-BIORETENTION FACILITY #13	MDE M-6	√		√		-
MICRO-BIORETENTION FACILITY #14	MDE M-6		√	√		-

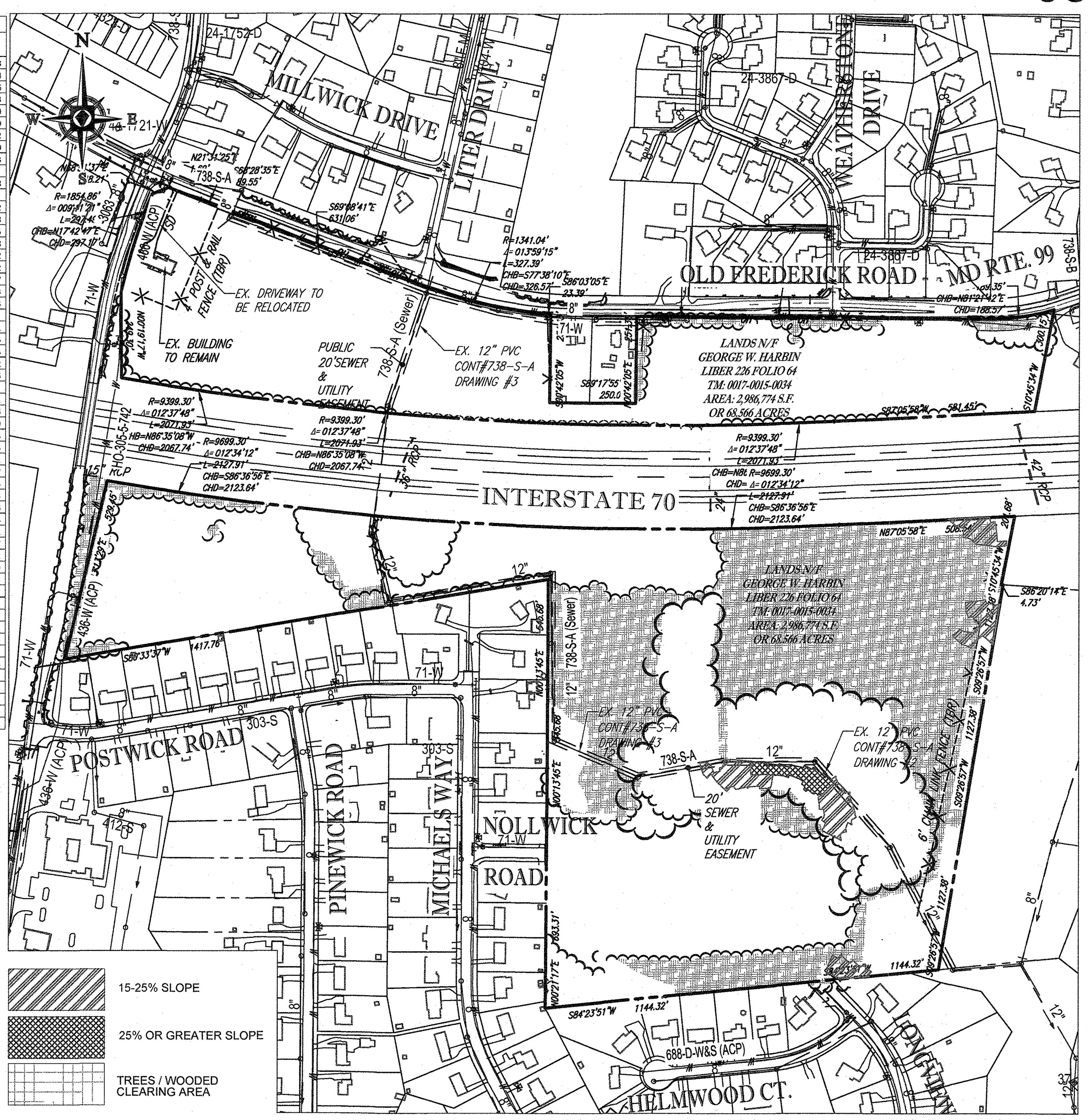


LOCATION MAP

COPYRIGHT ADC THE MAP PEOPLE
PERMIT USE NO. 20602153-5
SCALE: 1"=2000'
ADC MAP COORDINATES: 24/B5

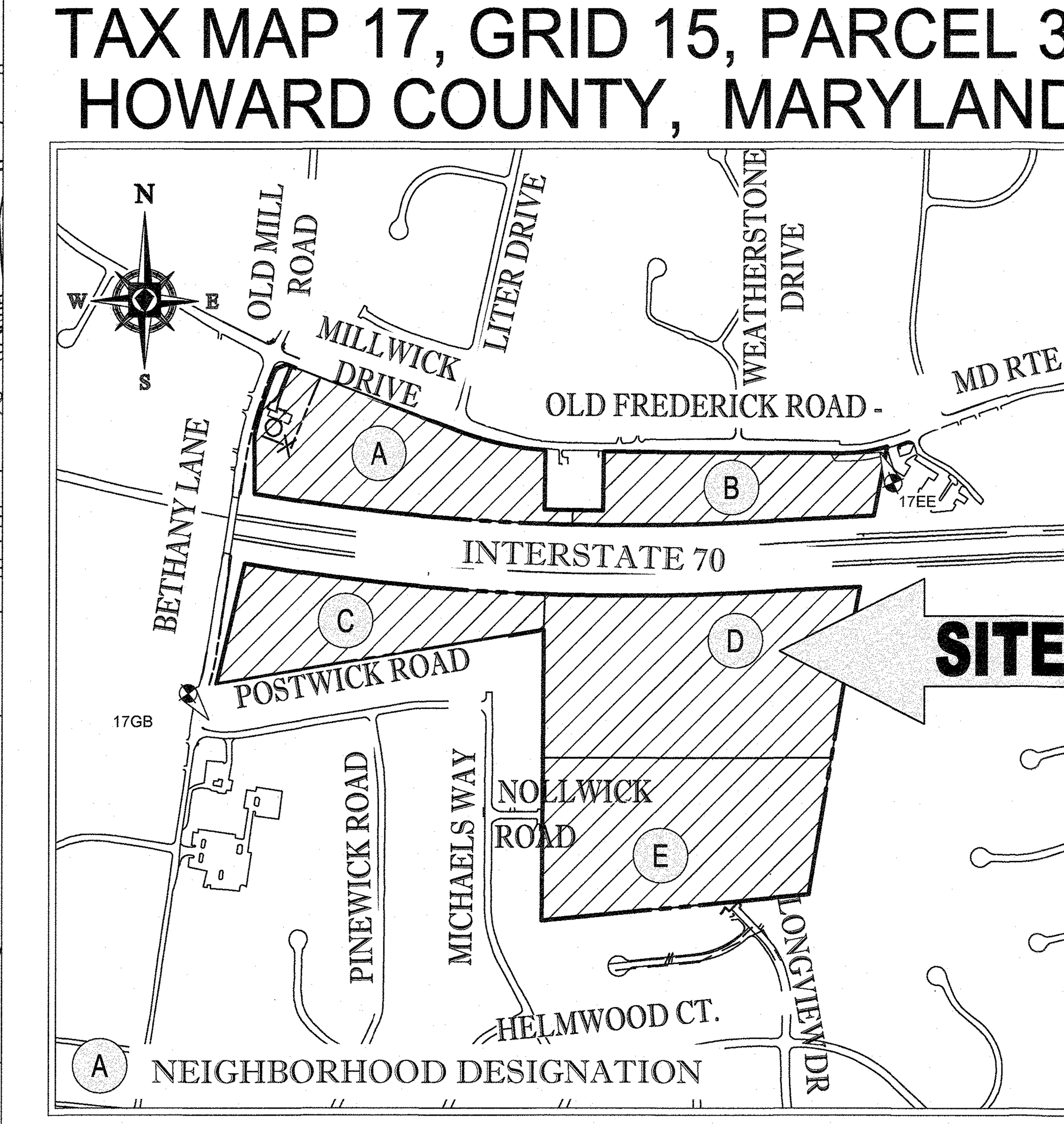
COORDINATE TABLE

POINTS	NORTHING	EASTING	POINTS	NORTHING	EASTING
1	594172.687	1353324.511	57	592177.37	1355090.433
2	594190.073	1353369.475	58	592127.56	1355103.204
3	594191.649	1353370.097	59	592102.286	1355085.926
4	594122.107	1353546.426	60	592098.572	1355023.353
5	593897.444	1354136.138	61	592411.204	1354679.309
6	593827.519	1354455.137	62	592730.557	1354667.709
7	593825.908	1354478.47	63	592981.869	1354735.662
8	593819.775	1354728.413	64	593031.872	1355001.659
9	593818.574	1354878.522	65	592932.225	1355279.013
10	593813.127	1355749.878	66	592906.319	1355473.84
11	593841.45	1355936.31	67	592892.55	1355491.258
12	593808.209	1355929.994	68	592959.451	1355507.18
13	593783.126	1355749.993	69	592954.739	1355486.542
14	593785.616	1355351.557	70	592982.149	1355281.768
15	593760.773	1355326.401	71	593072.121	1355031.325
16	593669.529	1355325.831	72	593008.618	1354693.418
17	593649.955	1355335.084	73	592728.743	1354617.742
18	593650.384	1355266.335	74	592409.389	1354629.342
19	593669.841	1355275.832	75	592331.031	1354640.547
20	593761.085	1355276.402	76	592300.907	1354621.873
21	593786.241	1355251.559	77	592293.828	1354552.364
22	593788.574	1354878.308	78	592294.346	1354468.7
23	593789.777	1354728.046	79	592244.347	1354468.391
24	593568.434	1354725.336	80	592243.829	1354552.055
25	593571.494	1354475.355	81	592255.286	1354646.395
26	593795.862	1354478.102	82	592242.94	1354675.152
27	593797.615	1354452.702	83	592048.66	1355026.316
28	593864.645	1354139.196	84	592053.34	1355105.15
29	593869.271	1354125.822	85	592032.163	1355140.671
30	593849.772	1354106.782	86	591895.133	1355231.246
31	593829.879	1354099.203	87	591821.044	1354465.769
32	593734.156	1353942.786	88	593060.021	1354472.244
33	593771.374	1353570.085	89	592827.497	1353073.684
34	593775.354	1353493.914	90	592894.89	1353089.521
35	593841.251	1353550.679	91	592915.216	1353119.917
36	593821.362	1353572.692	92	592908.159	1353165.474
37	593783.773	1353949.115	93	592913.971	1353532.823
38	593847.677	1354052.478	94	592927.039	1353611.426
39	593867.572	1354060.057	95	592985.804	1353545.394
40	593899.835	1354045.596	96	592963.295	1353524.622
41	594094.135	1353535.581	97	592970.003	1353564.977
42	594167.562	1353349.402	98	592951.268	1353429.062
43	594154.144	1353317.019	99	592974.409	1353403.089
44	593889.606	1353234.097	100	593084.947	1353398.483
45	593640.307	1353235.495	101	593085.487	1353411.447
46	593517.158	1355299.567	102	593125.452	1353409.781
47	593546.581	1355880.277	103	593122.29	1353333.897
48	593243.276	1355822.641	104	593082.323	1353335.512
49	593045.145	1355784.991	105	593082.865	1353348.526
50	593044.843	1355789.708	106	592972.327	1353353.132
51	591932.76	1355604.623	107	592947.106	1353329.174
52	591902.27	1355293.806	108	592962.329	1353141.71
53	591908.014	1355288.222	109	592964.008	1353131.383
54	592181.571	1355140.695	110	592992.356	1353112.426
55	592211.237	1355147.62	111	593342.911	1353194.809
56	592199.527	1355075.116	112	593217.542	1353314.748



EXISTING CONDITIONS PLAN VIEW

SCALE: 1" = 300'



VICINITY MAP

SCALE: 1" = 600'

GENERAL NOTES

1. THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
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.
3. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATES SYSTEM. HOWARD COUNTY MONUMENT Nos. 17GB AND 17EE WERE USED FOR THIS PROJECT.
4. WATER IS PUBLIC. CONT. # 71 W
5. SEWER IS PUBLIC. CONT. # 2738-S-A, 409 W & S
6. EXISTING UTILITIES ARE BASED ON FIELD RUN SURVEY PERFORMED BY BOHLER ENGINEERING, DATED 03/04/16 AND HOWARD COUNTY RECORDED PLANS.
7. THE STORMWATER MANAGEMENT SYSTEMS SHOWN ON THESE PLANS ARE AN APPROXIMATION OF THE SIZE, SHAPE AND LOCATION. IT IS UNDERSTOOD THAT THESE SYSTEMS HAVE BEEN DESIGN AND ACTUAL DESIGN MAY CHANGE, ALTERING THE NUMBER OF UNITS ALLOCATED FOR THIS DEVELOPMENT.
8. SUBJECT PROPERTY ZONED R-20 PER THE 10/06/13 COMPREHENSIVE ZONING REGULATIONS.
9. PROPERTY INFORMATION:
   a. GROSS AREA OF TRACT = 68.57 AC.
   b. AREA OF FLOODPLAIN = 2.10 AC.
   c. AREA OF 25% OR GREATER SLOPES = 0.44 AC.
   d. NET AREA OF TRACT = 66.24 AC.
   e. AREA OF PROPOSED R/W DEDICATION = 7.11 AC.
   f. NUMBER OF LOTS/PARCELS PROPOSED = 102 (TOTAL)
   g. AREA OF PROPOSED LOTS = 23.93 AC.
   h. BUILDABLE LOTS = 83
   i. OPEN SPACE LOT(S) = 19
   j. OPEN SPACE REQUIRED : 27.43 AC. (40% OF GROSS AREA)
   k. OPEN SPACE PROVIDED : 36.49 AC. GROSS OPEN SPACE (CREDITED); 0.77 AC GROSS OPEN SPACE (NON-CREDITED); 37.26 AC TOTAL
   l. RECREATIONAL OPEN SPACE REQUIREMENT: 200 S.F. / UNIT = 200 X 81 = 16,200 S.F.
   m. RECREATIONAL OPEN SPACE PROVIDED: 25,199 S.F. IN RECREATIONAL OPEN SPACE AREAS
10. 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, REVISED 01/25/20.
11. THE ADEQUATE ROAD FACILITIES TEST EVALUATION FOR THIS PROJECT WAS PREPARED BY THE TRAFFIC GROUP, DATED 5/2/19, REVISED 10/10/19.
12. THIS PROPERTY IS LOCATED INSIDE OF THE METROPOLITAN DISTRICT.
13. THERE ARE NO CEMETERIES OR HISTORICAL FEATURES KNOWN ONSITE.
14. DESIGN MANUAL WAIVER:
   A DESIGN MANUAL WAIVER REQUEST FOR THE FOLLOWING WAS APPROVED WITH ASSOCIATED CONDITIONS PER LETTER DATED 9/27/19:

   1) PROPOSED ROAD "A", A PUBLIC ACCESS STREET WITH A DESIGN SPEED OF 30 MPH, TO PROVIDE A MINIMUM HORIZONTAL CURVE RADIUS OF 125 FT WAS APPROVED PENDING THE FOLLOWING CONDITIONS:
   a) THE ROADWAY ALONG THE CURVE MUST BE 28-FEET WIDE
   b) NO PARKING WILL BE ALLOWED ALONG THE CURVATURE. SIGNAGE MUST BE PROVIDED.
   c) A SIGHT DISTANCE EASEMENT SHALL BE REQUIRED (IF NEEDED) FROM LOT 1 THROUGH SWM AREA. THE VEGETATION IN THIS AREA SHALL BE LIMITED.

   2) 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.
15. 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.
16. A NOISE STUDY HAS BEEN PERFORMED BY FORENVICON, ENTITLED, "BETHANY GLEN MARKET RATE, SINGLE FAMILY SUBDIVISION; FORMERLY SUBMITTED AS THE HARBIN PROPERTIES; HORIZON YEAR 2040 NOISE ASSESSMENT" DATED 3/28/2016, REVISED 02/03/2021, AND REPORT ADDENDUM DATED 12/12/19 AND A COMBINATION OF A PROPOSED EARTH BERMS AND NOISE BARRIERS HAS BEEN PROVIDED FOR NOISE MITIGATION. NOTE, IN AREAS WHERE THERE ARE "GAPS" IN NOISE WALLS PROPOSED, EARTH BERM ELEVATIONS PROVIDE SUFFICIENT HEIGHT FOR MITIGATION.
17. TRAFFIC CONTROL DEVICES:
   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.
18. 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.
19. PRIVATE 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.
20. ALL TRAFFIC CONTROL SIGNS SHALL BE PLACED IN FRONT OF TREE LOCATIONS FOR MAXIMUM SIGHT VISIBILITY. NO TREE CAN BE INSTALLED WITHIN 30' OF ANY STOP SIGN (APPROACH DIRECTION). WHERE SIGNS NEED TO BE PLACED BEHIND THE SIDEWALK, ADDITIONAL SPACING BETWEEN TREES MAY BE REQUIRED AT THOSE LOCATIONS.
21. THE SITE IS LOCATED WITHIN THE PLUMTREE 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. 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.
22. LAND DEDICATED TO HOWARD COUNTY, MARYLAND, FOR PURPOSES OF THE PUBLIC ROAD (7.11 ACRES).
23. DPZ FILE NUMBERS ASSOCIATED WITH THIS PROJECT INCLUDE: WP-19-118 AND ECP-19-041.
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. 75-2003. DEVELOPMENT OR CONSTRUCTION ON THIS PROPERTY MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION APPLICATION OR BUILDING/GRADING PERMIT APPLICATIONS.
25. DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING (MINIMUM) REQUIREMENTS:
   A. WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE)
   B. SURFACE - SIX (6") INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING
   C. GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM OF 45 TURNING RADIUS
   D. STRUCTURES (CULVERTS/BRIDGES) CAPABLE OF SUPPORTING 25 GROSS TONS (H 25 LOADING)
   E. DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
   F. STRUCTURE CLEARANCES - MINIMUM 12 FEET
   G. MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE
26. 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 APPROVAL OF WP-19-118 AND NECESSARY DISTURBANCE JUSTIFICATION).
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 COUNTY CODE. WATER AND SEWER TO BE PUBLIC FOR ALL LOTS.
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 EASEMENT(S), UPON COMPLETION OF 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 REMOVAL IS PERMITTED IN WETLANDS, STREAMS, THEIR BUFFERS, FLOOD PLAIN OR FOREST CONSERVATION EASEMENT AREAS UNLESS SUCH ACTIVITIES ARE APPROVED THROUGH AN ALTERNATIVE COMPLIANCE PETITION.
32. THE SHARED DRIVEWAY ACCESS AND MAINTENANCE OBLIGATION AGREEMENTS FOR THE 16' DRIVEWAYS WHICH SERVE LOTS 8-10, 20-25, 28-31, 57-60, AND 62-65, WILL BE RECORDED IN THE LAND RECORDS OF HOWARD COUNTY SIMULTANEOUSLY WITH THE RECORDATION OF THE SUBDIVISION PLAT.
33. TRASH PAD MAINTENANCE AND LANDSCAPE SCREENING SHALL BE THE RESPONSIBILITY OF THE LOT OWNERS WHICH ACCESS ONTO THE APPLICABLE SHARED DRIVEWAYS AND A PART OF THE USE-IN-COMMON MAINTENANCE AGREEMENTS. HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS WILL NOT BE RESPONSIBLE FOR UPKEEP.
34. A) 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 $93,110 FOR THE INSTALLATION OF 187 SHADE TREES ($300.00 EACH); AND, 189 EVERGREEN TREES ($150.00 EACH); THE INSTALLATION OF A FENCE TOTALING 866 LINEAR FEET ($10 PER LINEAR FOOT); AND FINANCIAL SURETY IN THE AMOUNT OF $13,800 FOR 46 MITIGATION SHADE TREES (WP-19-118) FOR A TOTAL SURETY OF $106,910 SHALL BE POSTED BY THE DEVELOPER AS PART OF THE DPW DEVELOPER'S AGREEMENT,________.

   B) FINANCIAL SURETY FOR THE REQUIRED 235 LARGE STREET TREES ($300 EACH) AND 79 SMALL STREET TREES ($150 EACH) WILL BE POSTED FOR THE AMOUNT OF $ 82,350 WITH THE DEVELOPMENT ENGINEERING DIVISION (DED) COST ESTIMATE UNDER THE FINAL PLAN SUBMISSION.
35. THERE ARE NO DISTURBANCES PROPOSED TO THE 25% SLOPE OR GREATER, PER SECTION 16.116(B)(1).
36. 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.

GENERAL NOTES (cont.)

37. HIGHLY ERODIBLE SOILS EXIST ON SITE. SEDIMENT CONTROL PLANS WILL ADDRESS THE EROSION CONCERNS.
38. FOREST CONSERVATION REQUIREMENTS PER SECTION 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 9.9 ACRES. THE REFORESTATION OBLIGATION OF 14.0 ACRES WILL BE PROVIDED BY 12.6 ACRES ONSITE, AND 1.4 ACRES AT A __TBD__ FOREST CONSERVATION BANK (_TBD_). TOTAL FORESTATION PROVIDED FOR THIS SUBDIVISION IS 23.9 ACRES. SURETY IN THE AMOUNT OF $ 274,428.00 WILL BE POSTED WITH THE DEVELOPERS AGREEMENT AT FINAL PLAN.
39. EXISTING STRUCTURE (HOUSE) ON PROPOSED LOT 104 TO REMAIN. ALL OTHER STRUCTURES TO BE REMOVED PRIOR TO FINAL RECORDATION OF THE FINAL PLAT AND BEFORE THE RELEASE OF ANY BUILDING PERMITS.
40. ON-STREET PARKING WILL BE RESTRICTED TO ONE SIDE OF THE PUBLIC ROAD(S) WITH 24' PAVEMENT WIDTH.
41. THIS SITE IS SUBDIVIDING USING THE OPTIONAL LOT SIZE PER SECTION 16.121(a)(2) OF THE SUBDIVISION REGULATIONS. THIS SUBDIVISION WILL PROVIDE A MINIMUM LOT SIZE OF 12,000 SF AND 40% MINIMUM OPEN SPACE. REFER TO OPEN SPACE CHART FOR OPEN SPACE LOT DEDICATION.
42. IN ACCORDANCE WITH SECTION 108.0.E OF THE ZONING REGULATIONS, AT LEAST 10% OF THE DWELLINGS IN EACH R-20 DEVELOPMENT SHALL BE MODERATE INCOME HOUSING UNITS. THIS REQUIREMENT WILL BE ADDRESSED AT THE FINAL SUBDIVISION PLAN STAGE.
43. A CRITICAL FLOODPLAIN REPORT, DATED DECEMBER 2019 HAS BEEN PREPARED BY BOHLER ENGINEERING FOR THIS PROJECT.
44. A PRE-SUBMISSION COMMUNITY MEETING WAS HELD ON MARCH 28, 2019 AT 6:30 PM AT MARRIOTTS RIDGE HIGH SCHOOL.
45. NO DECKS, PATIOS, SHEDS OR OTHER IMPERVIOUS STRUCTURES OR SURFACES SHALL EXTEND INTO THE DRAINAGE EASEMENTS AT THE REAR OF THE LOTS
46. 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.
47. ALTERNATIVE COMPLIANCE
   REQUEST WP-19-118 HAS BEEN APPROVED DATED SEPTEMBER 24, 2020 FOR THE FOLLOWING:
   A) SECTION 16.1216(c)(1)-(7); FOR SPECIMEN TREE REMOVAL
   B) SECTIONS 16.115(c)(2), 16.116(a)(i), AND 16.116(a)(c); FOR ENVIRONMENTAL IMPACTS FOR THE INSTALLATION OF THE CULVERT AND ROAD CROSSING IN NEIGHBORHOODS D AND E. GRADING NOT PERMITTED WITHIN FIFTY FEET OF AN INTERMITTENT STREAM BANK.

   REQUEST B APPROVED ON SEPT. 24 2020 IS SUBJECT TO THE FOLLOWING CONDITIONS:
   1. THE DISTURBANCE TO THE STREAMS, WETLAND, THEIR BUFFERS, AND FLOODPLAIN SHALL BE LIMITED TO THE GRADING REQUIRED TO CONSTRUCT PUBLIC ROAD F, WATER AND SEWER LINES, CULVERT AND STORM WATER MANAGEMENT FACILITIES AND RELATED INFRASTRUCTURE AS FEATURED IN POINTS #1 AND #2 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 DEMONSTRATED ON THE ROAD CONSTRUCTION PLANS WITH THE FINAL SUBDIVISION PLANS.
   3. A COPY OF MARYLAND DEPARTMENT OF ENVIRONMENT (MDE) PERMIT APPROVAL FOR THE DISTURBANCE TO THE TWO STREAMS AND FLOODPLAIN MUST BE PROVIDED TO THE DPZ PRIOR TO THE RECORDATION OF THE PLAT AND REFERENCED AS A NOTE ON THE PLAT.
   4. INCLUDE THIS ALTERNATIVE COMPLIANCE PETITION DECISION AS GENERAL NOTE ON THE PRELIMINARY EQUIVALENT SKETCH PLAN, THE PLAT AND SITE DEVELOPMENT PLAN(S). THIS NOTE SHALL INCLUDE THE PETITION'S FILE NUMBER, THE REGULATORY SECTIONS, THE DECISION DATE, AND THE CONDITIONS OF APPROVAL.

   REQUEST A APPROVED ON SEPT. 24, 2020, SUBJECT TO THE FOLLOWING CONDITIONS:
   1. THE ALTERNATIVE COMPLIANCE APPROVAL APPLIES ONLY TO SPECIMEN TREES No's. 1, 2, 3, 21, 23, 26, 27, 28, 31, 37, 38, 39, 41, 43, 46, AND 48.
   2. THE REMOVAL OF THE 16 SPECIMEN TREES APPROVED WILL REQUIRE THE PLANTING OF 32 NATIVE SHADE TREES. THE TREES SHALL BE A MINIMUM OF 3" DBH AND SHALL BE SHOWN ON THE LANDSCAPING AND FOREST CONSERVATION PLAN SHEETS. THE TREES WILL BE BONDED ALONG WITH THE SUBMISSION'S REQUIRED PERIMETER LANDSCAPING.
48. NECESSARY DISTURBANCE
   REQUEST SECTION 16.115(c)(2) AND 16.116(c)(1)HAS BEEN APPROVED DATED SEPTEMBER 30, 2020 FOR THE FOLLOWING:
   A) SECTION 16.116; FOR ENVIRONMENTAL IMPACTS FOR THE INSTALLATION OF SANITARY SEWER OUTFALL CONNECTIONS, AND WATERLINE CONSTRUCTION.

   APPROVAL OF THE ABOVE DESCRIBED ESSENTIAL OR NECESSARY DISTURBANCES ARE SUBJECT TO THE FOLLOWING CONDITIONS AND MITIGATION METHODS:
   1. THE SEWER LINE INSTALLATIONS AND THE WATER LINE SHALL ONLY DISTURB THOSE ENVIRONMENTAL AREAS AS STATED IN THE REQUEST AND DELINEATED IN NEIGHBORHOODS C, D AND E ON THE NECESSARY DISTURBANCE PLAN EXHIBIT; ANY DISTURBANCES TO ENVIRONMENTALLY REGULATED FEATURES BEYOND WHAT'S BEEN APPROVED ARE NOT PERMITTED UNLESS THE FOR SUCH DISTURBANCES IN ACCORDANCE WITH SECTIONS 16.115(C)(2) AND 16.116(C)(1).
   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.
   3. THE DEVELOPER SHALL OBTAIN AUTHORIZATION FROM THE MARYLAND DEPARTMENT OF THE ENVIRONMENT AND U.S. ARMY CORPS OF ENGINEERS FOR ACTIVITIES IN REGULATED WETLAND AND STREAM AREAS PRIOR TO SUBMISSION OF ANY GRADING PERMIT APPLICATIONS. REFERENCE THE APPLICABLE MDE OR USACE PERMITS OR TRACKING NUMBERS ON ANY ASSOCIATED SUBDIVISION PLANS, SITE DEVELOPMENT PLANS AND BUILDING OR GRADING PERMITS.
49. LOTS ARE SUBJECT TO THE 30' BRL, AND LOTS ABUTTING INTERSTATE 70 ARE SUBJECT TO A 50' BRL MEASURED FROM THE RIGHT OF WAY. BRLs SHALL BE ESTABLISHED AND DRAWN TO COMPLY WITH THE MOST RESTRICTIVE CRITERIA AS APPLICABLE, AND AS SUCH MAY NOT BE PARALLEL TO THE PROPERTY LINE.

SINGLE FAMILY DETACHED PARKING ANALYSIS

NUMBER OF SINGLE DETACHED LOTS FOR THIS SKETCH PLAN = 83

REQUIRED PARKING (@ 2.5 SPACES PER SFD UNIT) = 208
PER SECTION 133.0 D.2.A OF THE ZONING REGULATIONS

TOTAL REQUIRED SPACES = 208 SPACES

PARKING PROVIDED

83 UNITS X (2 GARAGE & 2 DRIVEWAY SPACES/UNIT) = 332 SPACES

ROADWAY INFORMATION CHART

ROAD NAME	CLASSIFICATION	DESIGN SPEED	R/W WIDTH
ROAD A	PUBLIC ACCESS STREET	30 MPH	50 FT.
ROAD C	PUBLIC ACCESS PLACE	25 MPH	50 FT.
ROAD D	PUBLIC ACCESS PLACE	25 MPH	50 FT.
ROAD E	PUBLIC ACCESS PLACE	25 MPH	50 FT.
ROAD F	PUBLIC ACCESS STREET	30 MPH	50 FT.
ROAD G	PUBLIC ACCESS STREET	30 MPH	50 FT.

SHEET INDEX

SHEET TITLE	SHEET NUMBER
COVER SHEET	1
PRELIMINARY SKETCH PLAN	2 - 6
PRELIMINARY GRADING, EROSION & SEDIMENT CONTROL PLAN	7- 11
OVERALL LANDSCAPE PLAN	12
LANDSCAPE PLAN	13 - 17
LANDSCAPE NOTES & DETAILS	18
PRELIMINARY FOREST CONSERVATION PLAN	19
PRELIMINARY FOREST CONSERVATION NOTES & DETAILS	20
ROAD PLAN & PROFILES	21 - 26
PRE-DEVELOPMENT QUANTITY DRAINAGE AREA MAP	27
POST-DEVELOPMENT QUANTITY DRAINAGE AREA MAP	28
ESD FACILITY DRAINAGE AREA MAP	29
QUALITY COVERAGE AREA MAPS	30

ESD SUMMARY TABLE

"SITE AREA"	48.12 AC.
ESDv	78,905.76 S.F. (REQUIRED), 102,380.47S.F. (PROVIDED)
Rev	11,497.03 C.F. (REQUIRED), 16,116.40 C.F. (PROVIDED)
CPv	INCLUDED IN ESDv
QP(10)	EX: 192.99 CFS, PROP. 189.41 CFS
QP(100)	EX: 493.60 CFS, PROP. 480.11 CFS
QP(6.6)	EX: 508.75 CFS, PROP. 490.33 CFS

SITE ANALYSIS DATA / TABULATION

TOTAL PROJECT AREA	68.57 AC.
TOTAL NET TRACT AREA	66.24 AC.
AREA OF WETLANDS AND BUFFER	2.56 AC.
AREA OF 100-YR FLOODPLAIN	2.10 AC.
AREA OF FOREST	30.20 AC.
AREA OF STEEP SLOPES (25% OR GREATER)	0.44 AC.
AREA OF DEDICATION (ROAD R/W)	7.11 AC.
INTERMITTENT STREAM & 50' BUFFER	11.44 AC.
HIGHLY ERODIBLE SOILS (K> 0.35)	57.53 AC.
NUMBER OF RESIDENTIAL UNITS TO REMAIN	1
NUMBER OF RESIDENTIAL UNITS PROPOSED	82
LIMIT OF DISTURBED AREA	48.12 AC.
PRESENT ZONING DESIGNATION	R-20
PROPOSED USE:	SINGLE FAMILY DETACHED DWELLINGS
IMPERVIOUS COVER	12.42 AC.

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

[signature] PLANNING DIRECTOR — 6/28/21 DATE

PREPARED BY

BOHLER ENGINEERING™
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com
CONTACT: BRANDON R. ROWE

BENCHMARK

GEODETIC SURVEY CONTROL - 17GB
ELEV. 441.515'
N 592,656.774
E 1,353,019.981

GEODETIC SURVEY CONTROL - 17EE
ELEV. 453.949'
N 593,815.262
E 1,355,774.821

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

PREVIOUS FILE No. :
WP-19-118
ECP-19-041

OWNER:	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

TAX MAP: 17 GRID: 15 ZONED: R-20
PARCEL: 34
2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

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: 7/3/2021

BOHLER ENGINEERING™
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING PROGRAM MANAGEMENT LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN PERMITTING SERVICES TRANSPORTATION SERVICES
UPSTATE NEW YORK ◆ NEW ENGLAND ◆ BOSTON, MA ◆ NEW YORK, NY ◆ NEW YORK METRO ◆ NORTHERN NEW JERSEY ◆ SOUTHERN NEW JERSEY ◆ PHILADELPHIA, PA ◆ PITTSBURGH, PA ◆ LEHIGH VALLEY, PA ◆ SOUTHEASTERN, PA ◆ REHOBOTH BEACH, DE ◆ BALTIMORE, MD ◆ SOUTHERN MARYLAND ◆ NORTHERN VIRGINIA ◆ CENTRAL VIRGINIA ◆ RALEIGH, NC ◆ WASHINGTON, DC ◆ CHARLOTTE, NC ◆ ATLANTA, GA ◆ TAMPA, FL ◆ SOUTH FLORIDA ◆ DALLAS, TX

THE INFORMATION, DESIGN AND CONTENT OF THIS PLAN ARE PROPRIETARY AND SHALL NOT BE COPIED OR USED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM BOHLER ENGINEERING. ONLY APPROVED, SIGNED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES
© 2017 BOHLER ENGINEERING

REVISIONS

REV	DATE	COMMENT	BY

DIG WITH CARE — CALL BEFORE YOU DIG

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE. IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL - 811
(WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777)
(VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	MD152018
DRAWN BY:	AVG
CHECKED BY:	BRR
DATE:	05/17/2021
SCALE:	AS SHOWN
CAD I.D.:	SDP-5

PROJECT:

PRELIMINARY EQUIVALENT SKETCH PLAN
FOR
BETHANY GLEN
LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100

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

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

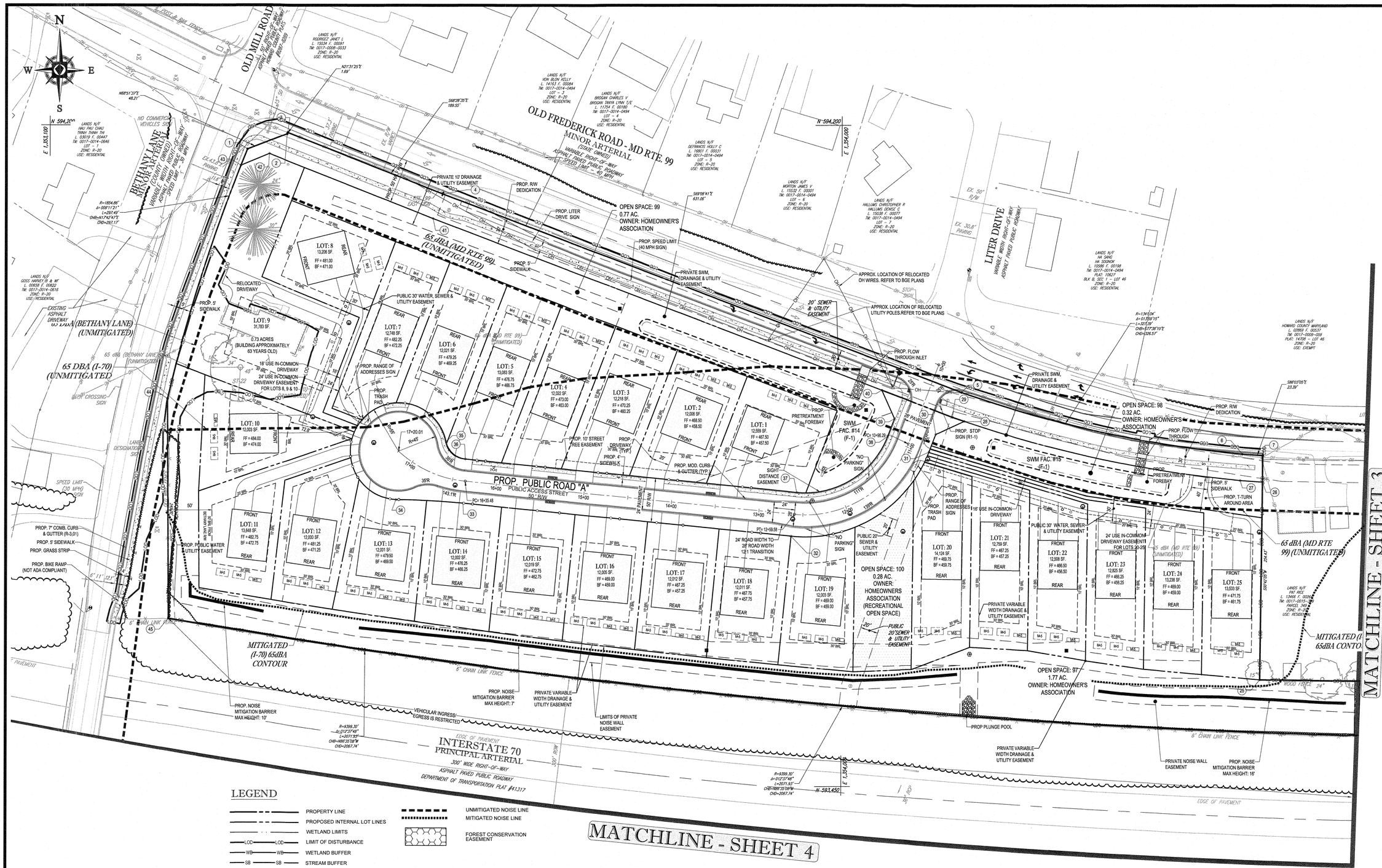
B.R. ROWE
PROFESSIONAL ENGINEER
MARYLAND LICENSE No. 40808
6/14/2021

SHEET TITLE:

COVER SHEET

SHEET NUMBER:

SP-19-005



LEGEND

- PROPERTY LINE
- PROPOSED INTERNAL LOT LINES
- WETLAND LIMITS
- LOD — LIMIT OF DISTURBANCE
- WB — WETLAND BUFFER
- SB — STREAM BUFFER
- EXISTING TREE LINE
- PROPOSED TREE LINE
- FP — EXISTING FLOODPLAIN
- PFP — PROPOSED FLOODPLAIN
- WETLANDS
- FIRE HYDRANT
- SPECIMEN TREES
- SPECIMEN TREE (TO BE REMOVED)
- UNMITIGATED NOISE LINE
- MITIGATED NOISE LINE
- FOREST CONSERVATION EASEMENT

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR — DATE 6/28/21

50 25 12.5 0 50
1"= 50'

OWNER:	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
TAX MAP: 17	GRID: 15 ZONED: R-20
	PARCEL: 34
	2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

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

PREVIOUS FILE No. :
WP-19-118
ECP-19-041

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: 7/3/2021

H:\19MD152018\DRAWINGS\PLAN SETS\PRELIMINARY EQUIVALENT SKETCH PLAN\MD152018-SSP-5.DWG PRINTED BY: AGAMBICA 5.19.21 @ 8:55 AM LAST SAVED BY: AGAMBICA

BOHLER™ ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT LANDSCAPE ARCHITECTURE
LAND SURVEYING TRANSPORTATION ENGINEERING ENVIRONMENTAL SERVICES
◆ UPSTATE NEW YORK ◆ NEW ENGLAND ◆ BOSTON, MA ◆ LONG ISLAND, NY ◆ NEW YORK METRO ◆ NORTHERN NEW JERSEY ◆ SOUTHERN NEW JERSEY ◆ PHILADELPHIA, PA ◆ PITTSBURGH, PA ◆ BALTIMORE, MD ◆ SOUTHERN MARYLAND ◆ NORTHERN VIRGINIA ◆ RICHMOND, VA ◆ SOUTHEASTERN, PA ◆ WASHINGTON, DC ◆ CHARLOTTE, NC ◆ ATLANTA, GA ◆ TAMPA, FL ◆ ORLANDO, FLORIDA ◆ RALEIGH, NC ◆ DALLAS, TX
THE BUSINESS OF ENGINEERING IS MANAGING RISK. WE HELP YOU MANAGE RISK BY PROVIDING STRONG, RELIABLE DESIGNS THAT MEET OR EXCEED CONSTRUCTION STANDARDS

REVISIONS

REV	DATE	COMMENT	BY

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL - 811
(WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777) (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	MD152018
DRAWN BY:	AVG
CHECKED BY:	BRR
DATE:	05/17/2021
SCALE:	1" = 50'
CAD I.D.:	SSP-5

PROJECT:
PRELIMINARY EQUIVALENT SKETCH PLAN
FOR
BETHANY GLEN
LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100
9891 OLD FREDERICK ROAD - ROUTE 99
2ND ELECTION DISTRICT
TAX MAP 17, GRID 15, PARCEL 34
HOWARD COUNTY, MARYLAND

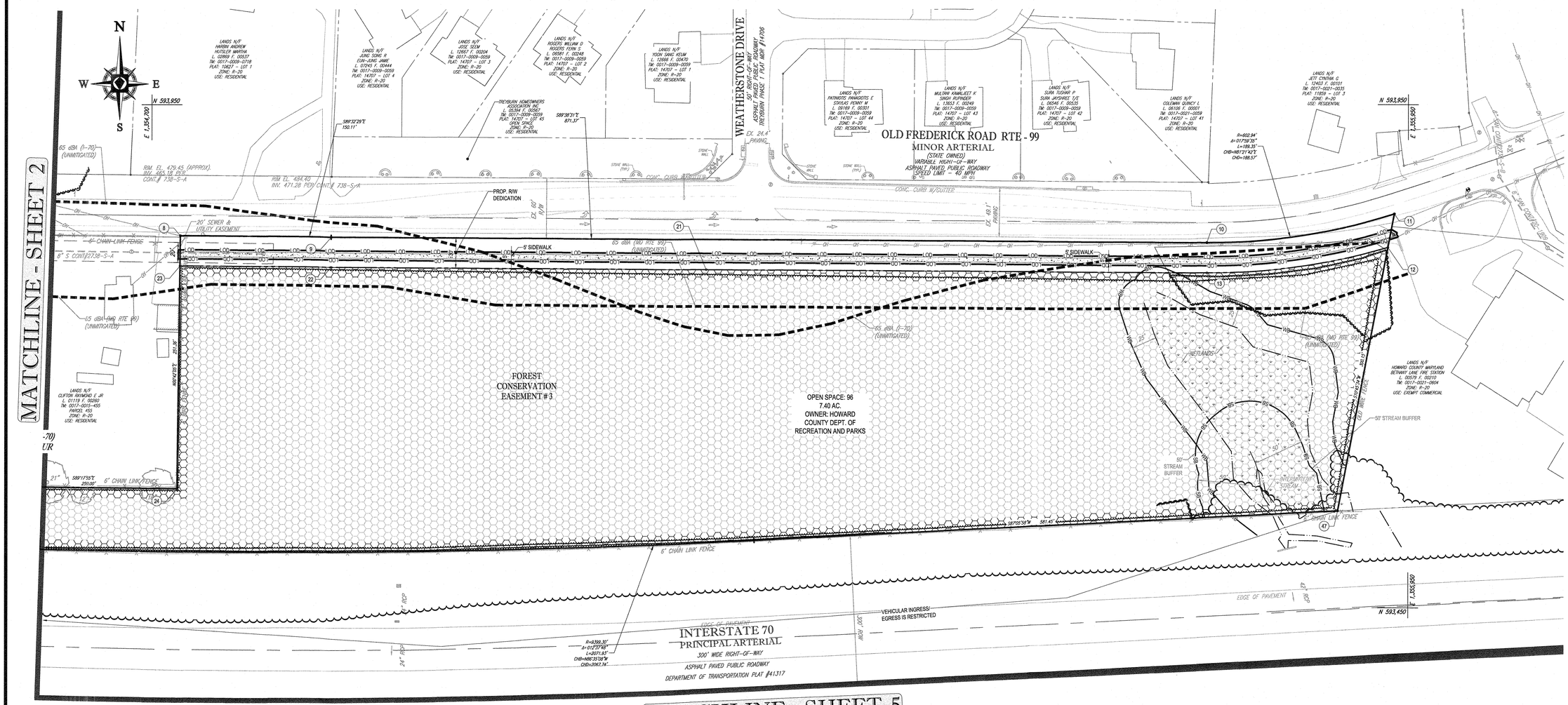
BOHLER ENGINEERING
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

B.R. ROWE
PROFESSIONAL ENGINEER
MARYLAND LICENSE No. 40808
6/4/2021

SHEET TITLE:
PRELIMINARY SKETCH PLAN
NEIGHBORHOOD - A

SHEET NUMBER:
2 of 30

SP-19-005



LEGEND

- PROPERTY LINE
- PROPOSED INTERNAL LOT LINES
- WETLAND LIMITS
- LOD — LIMIT OF DISTURBANCE
- WB — WETLAND BUFFER
- SB — STREAM BUFFER
- EXISTING TREE LINE
- PROPOSED TREE LINE
- FP — EXISTING FLOODPLAIN
- PFP — PROPOSED FLOODPLAIN
- WETLANDS
- FIRE HYDRANT
- SPECIMEN TREES
- SPECIMEN TREE (TO BE REMOVED)
- UNMITIGATED NOISE LINE
- MITIGATED NOISE LINE
- FOREST CONSERVATION EASEMENT

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR — DATE 6/28/21

50 25 12.5 0 50
1"= 50'

OWNER:	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
TAX MAP: 17	GRID: 15 ZONED: R-20 PARCEL: 34 2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

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

PREVIOUS FILE No. :
WP-19-118
ECP-19-041

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: 7/3/2021

H:\19MD152018\DRAWINGS\PLAN SETS\PRELIMINARY EQUIVALENT SKETCH PLAN\MD152018-SSP-5.DWG PRINTED BY: AGAMBOA 5:19:21 @ 8:55 AM LAST SAVED BY: AGAMBOA

BOHLER™ ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING · PROGRAM MANAGEMENT · LANDSCAPE ARCHITECTURE
ENVIRONMENTAL · TRANSPORTATION · SUSTAINABLE DESIGN · CONSTRUCTION SERVICES
◆ UPSTATE NEW YORK ◆ SOUTHERN NEW JERSEY ◆ BALTIMORE, MD ◆ CHARLOTTE, NC
◆ NEW ENGLAND ◆ PHILADELPHIA, PA ◆ SOUTHERN MARYLAND ◆ ATLANTA, GA
◆ NEW JERSEY ◆ HARRISBURG, PA ◆ CENTRAL VIRGINIA ◆ AUSTIN, TX
◆ NEW YORK ◆ LEHIGH VALLEY, PA ◆ RICHMOND, VIRGINIA ◆ SOUTH FLORIDA
◆ NEW YORK METRO ◆ SOUTHEASTERN, PA ◆ RALEIGH, NC ◆ DALLAS, TX
◆ NORTHERN NEW JERSEY ◆ READING, PA ◆ WASHINGTON, DC
THE ACTIVE OFFICES OF BOHLER ENGINEERING PC DO NOT PERFORM ARCHITECTURAL SERVICES IN NEW YORK. ARCHITECTURAL SERVICES IN NEW YORK ARE PROVIDED BY BOHLER ENGINEERING PLLC. ARCHITECTURAL SERVICES IN OTHER STATES ARE PROVIDED BY BOHLER ENGINEERING PC. ENGINEERING SERVICES ARE PROVIDED BY BOHLER ENGINEERING PC IN ALL STATES.
FROM BOHLER ENGINEERING: ONLY APPROVED, SIGNED AND SEALED PLANS WILL BE UTILIZED FOR CONSTRUCTION PURPOSES

REVISIONS

REV	DATE	COMMENT	BY

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL - 811
(WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777) (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	MD152018
DRAWN BY:	AVG
CHECKED BY:	BRR
DATE:	05/17/2021
SCALE:	1" = 50'
CAD I.D.:	SSP-5

PROJECT:
PRELIMINARY EQUIVALENT SKETCH PLAN
FOR
BETHANY GLEN
LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100
9891 OLD FREDERICK ROAD - ROUTE 99
2ND ELECTION DISTRICT
TAX MAP 17, GRID 15, PARCEL 34
HOWARD COUNTY, MARYLAND

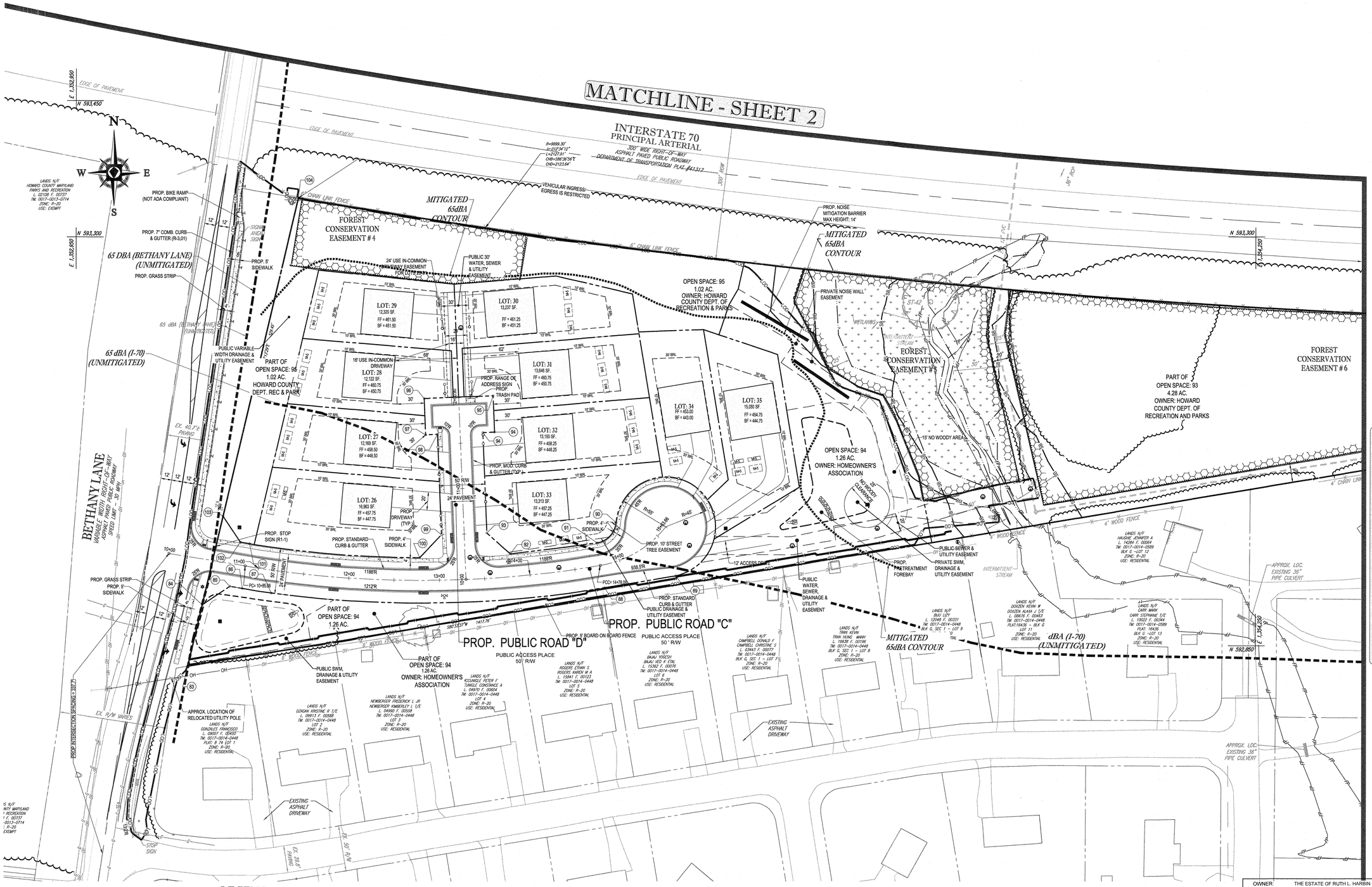
BOHLER ENGINEERING
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

B.R. ROWE
PROFESSIONAL ENGINEER
MARYLAND LICENSE No. 40808
6/17/2021

SHEET TITLE:
PRELIMINARY SKETCH PLAN
NEIGHBORHOOD B

SHEET NUMBER:
3 of 30

SP-19-005



LEGEND

- PROPERTY LINE
- PROPOSED INTERNAL LOT LINES
- WETLAND LIMITS
- LOD — LIMIT OF DISTURBANCE
- WB — WETLAND BUFFER
- SB — STREAM BUFFER
- EXISTING TREE LINE
- PROPOSED TREE LINE
- FP — EXISTING FLOODPLAIN
- PFP — PROPOSED FLOODPLAIN
- WETLANDS
- FIRE HYDRANT
- SPECIMEN TREES
- SPECIMEN TREE (TO BE REMOVED)
- FOREST CONSERVATION EASEMENT
- UNMITIGATED NOISE LINE
- MITIGATED NOISE LINE

50 25 12.5 0 50
1"= 50'

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR — DATE 6/28/21

OWNER:	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

TAX MAP: 17 GRID: 15 ZONED: R-20
PARCEL: 34
2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

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

PREVIOUS FILE No. :
WP-19-118
ECP-19-041

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: 7/3/2021.

BOHLER™ ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING · TRANSPORTATION · ENVIRONMENTAL · PROGRAM MANAGEMENT · LANDSCAPE ARCHITECTURE
◆ UPSTATE NEW YORK ◆ SOUTHERN NEW JERSEY ◆ BALTIMORE, MD ◆ CHARLOTTE, NC
◆ NEW ENGLAND ◆ PHILADELPHIA, PA ◆ SOUTHERN MARYLAND ◆ ATLANTA, GA
◆ BOSTON, MA ◆ PITTSBURGH, PA ◆ NORTHERN VIRGINIA ◆ TAMPA, FL
◆ NEW YORK METRO ◆ HARRISBURG, PA ◆ RICHMOND, VA ◆ JACKSONVILLE, FLORIDA
◆ NORTHERN NEW JERSEY ◆ READING, PA ◆ SOUTHEASTERN, PA ◆ RALEIGH, NC ◆ DALLAS, TX
◆ REHOBOTH BEACH, DE ◆ WASHINGTON, DC
THE REPRODUCTION, IN WHOLE OR IN PART, OF ANY STATEMENT, DESIGN OR DRAWING CONTAINED HEREIN IS PROHIBITED WITHOUT THE WRITTEN AUTHORIZATION OF BOHLER ENGINEERING. ONLY APPROVED, SIGNED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES

REVISIONS

REV	DATE	COMMENT	BY

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE, IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL - 811
(WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777) (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	MD152018
DRAWN BY:	AVG
CHECKED BY:	BRR
DATE:	05/17/2021
SCALE:	1" = 50'
CAD I.D.:	SSP-5

PROJECT:
PRELIMINARY EQUIVALENT SKETCH PLAN
FOR
BETHANY GLEN
LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100
9891 OLD FREDERICK ROAD - ROUTE 99
2ND ELECTION DISTRICT
TAX MAP 17, GRID 15, PARCEL 34
HOWARD COUNTY, MARYLAND

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

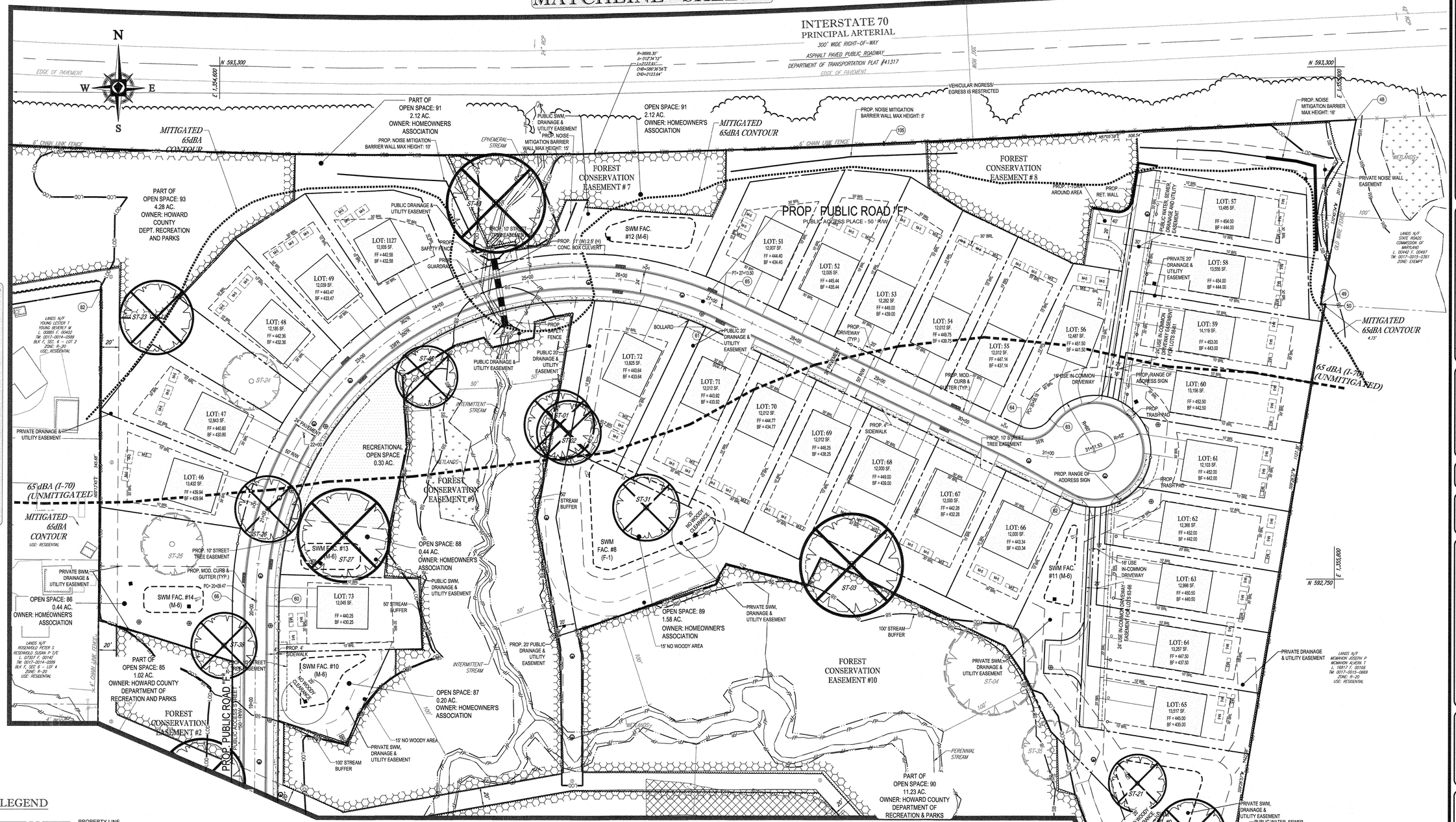
B.R. ROWE
PROFESSIONAL ENGINEER
MARYLAND LICENSE No. 40808
6/14/2021

SHEET TITLE:
PRELIMINARY SKETCH PLAN NEIGHBORHOOD - C

SHEET NUMBER:
4 of 30

SP-19-005

MATCHLINE - SHEET 3



MATCHLINE - SHEET 4

MATCHLINE - SHEET 6

LEGEND

- PROPERTY LINE
- PROPOSED INTERNAL LOT LINES
- WETLAND LIMITS
- LIMIT OF DISTURBANCE
- WETLAND BUFFER
- STREAM BUFFER
- EXISTING TREE LINE
- PROPOSED TREE LINE
- EXISTING FLOODPLAIN
- PROPOSED FLOODPLAIN
- 25% SLOPE OR GREATER
- WETLANDS
- FIRE HYDRANT
- SPECIMEN TREES
- SPECIMEN TREE (TO BE REMOVED)
- FOREST CONSERVATION EASEMENT
- UNMITIGATED NOISE LINE
- MITIGATED NOISE LINE

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR — DATE 6/28/21

50 25 12.5 0 50
1"= 50'

OWNER:	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
TAX MAP: 17	GRID: 15 ZONED: R-20
	PARCEL: 34
	2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

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

PREVIOUS FILE No. :
WP-19-118
ECP-19-041

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: 7/3/2021

H:\15\MD152018\DRAWINGS\PLAN SETS\PRELIMINARY EQUIVALENT SKETCH PLAN\MD152018-SSP-5.DWG PRINTED BY: AGAMBOA 5.19.21 @ 8:56 AM LAST SAVED BY: AGAMBOA

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT LANDSCAPE ARCHITECTURE
ENVIRONMENTAL CONSULTING TRANSPORTATION PLANNING
◆ UPSTATE NEW YORK ◆ SOUTHERN NEW JERSEY ◆ BALTIMORE, MD ◆ CHARLOTTE, NC
◆ NEW ENGLAND ◆ PHILADELPHIA, PA ◆ SOUTHERN MARYLAND ◆ ATLANTA, GA
◆ BOSTON, MA ◆ PITTSBURGH, PA ◆ NORTHERN VIRGINIA ◆ TAMPA, FL
◆ NEW JERSEY ◆ HARRISBURG, PA ◆ RICHMOND, VA ◆ ORLANDO, FLORIDA
◆ NEW YORK METRO ◆ SOUTHEASTERN, PA ◆ RALEIGH, NC ◆ DALLAS, TX
◆ NORTHERN NEW JERSEY ◆ REHOBOTH BEACH, DE ◆ WASHINGTON, DC
THE INFORMATION, DESIGNS, DRAWINGS AND SPECIFICATIONS CONTAINED HEREIN ARE THE PROPERTY OF BOHLER ENGINEERING AND MAY NOT BE REPRODUCED OR USED FOR OTHER PROJECTS WITHOUT WRITTEN AUTHORIZATION FROM BOHLER ENGINEERING. ONLY APPROVED, SIGNED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES

REVISIONS

REV	DATE	COMMENT	BY

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL - 811
(WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777)
(VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	MD152018
DRAWN BY:	AVG
CHECKED BY:	BRR
DATE:	05/17/2021
SCALE:	1" = 50'
CAD I.D.:	SSP-5

PROJECT:
PRELIMINARY EQUIVALENT SKETCH PLAN
FOR
BETHANY GLEN
LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100
9891 OLD FREDERICK ROAD - ROUTE 99
2ND ELECTION DISTRICT
TAX MAP 17, GRID 15, PARCEL 34
HOWARD COUNTY, MARYLAND

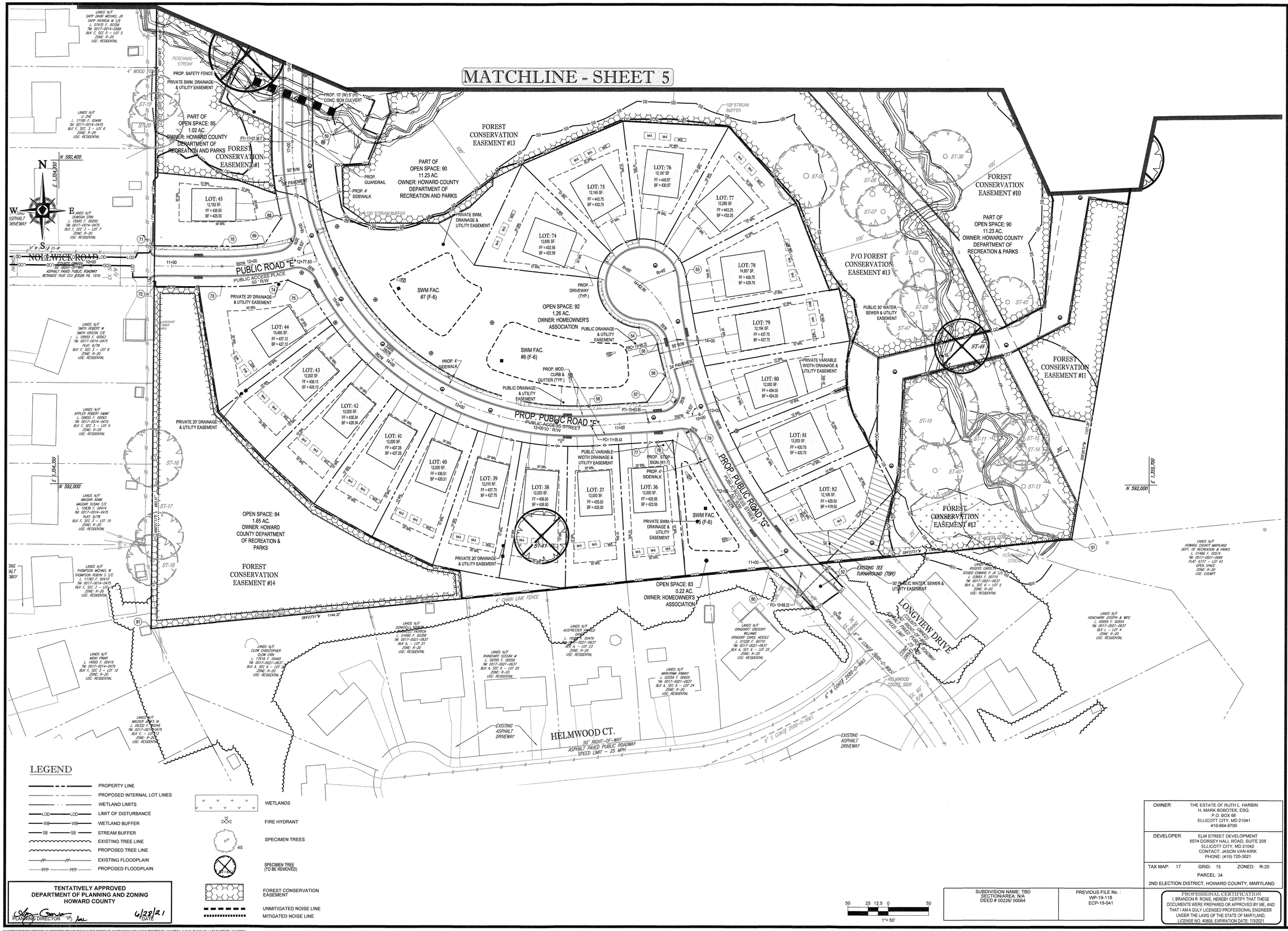
BOHLER ENGINEERING
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

B.R. ROWE
PROFESSIONAL ENGINEER
MARYLAND LICENSE No. 40808
6/17/2021

SHEET TITLE:
PRELIMINARY SKETCH PLAN
NEIGHBORHOOD - D

SHEET NUMBER:
5 of 30

SP-19-005



LEGEND

- PROPERTY LINE
- PROPOSED INTERNAL LOT LINES
- WETLAND LIMITS
- LOD — LIMIT OF DISTURBANCE
- WB — WETLAND BUFFER
- SB — STREAM BUFFER
- EXISTING TREE LINE
- PROPOSED TREE LINE
- FP — EXISTING FLOODPLAIN
- PFP — PROPOSED FLOODPLAIN
- WETLANDS
- FIRE HYDRANT
- SPECIMEN TREES
- SPECIMEN TREE (TO BE REMOVED)
- FOREST CONSERVATION EASEMENT
- UNMITIGATED NOISE LINE
- MITIGATED NOISE LINE

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR — DATE 6/28/21

50 25 12.5 0 50
1"= 50'

OWNER:	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

TAX MAP: 17 GRID: 15 ZONED: R-20
PARCEL: 34
2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

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

PREVIOUS FILE No. :
WP-19-118
ECP-19-041

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: 7/3/2021.

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN CONSTRUCTION MANAGEMENT
◆ UPSTATE NEW YORK ◆ SOUTHERN NEW JERSEY ◆ BALTIMORE, MD ◆ CHARLOTTE, NC
◆ NEW ENGLAND ◆ PHILADELPHIA, PA ◆ SOUTHERN MARYLAND ◆ ATLANTA, GA
◆ BOSTON, MA ◆ PITTSBURGH, PA ◆ NORTHERN VIRGINIA ◆ TAMPA, FL
◆ LONG ISLAND, NY ◆ HARRISBURG, PA ◆ ORLANDO ◆ SOUTHERN FLORIDA
◆ NEW YORK METRO ◆ SOUTHEASTERN, PA ◆ RALEIGH, NC
◆ NORTHERN NEW JERSEY ◆ REDNOTH BEACH, DE ◆ WASHINGTON, DC

THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF BOHLER ENGINEERING AND MAY NOT BE REPRODUCED OR TRANSMITTED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRITTEN PERMISSION OF BOHLER ENGINEERING. ALL PRINTED, SCANNED OR ELECTRONIC COPIES SHALL BE VALID FOR CONSTRUCTION PURPOSES

REVISIONS

REV	DATE	COMMENT	BY

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE, IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL - 811
WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777)
(VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	MD152018
DRAWN BY:	AVG
CHECKED BY:	BRR
DATE:	05/17/2021
SCALE:	1" = 50'
CAD I.D.:	SSP-5

PROJECT:

PRELIMINARY EQUIVALENT SKETCH PLAN

FOR

BETHANY GLEN

LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100

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

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

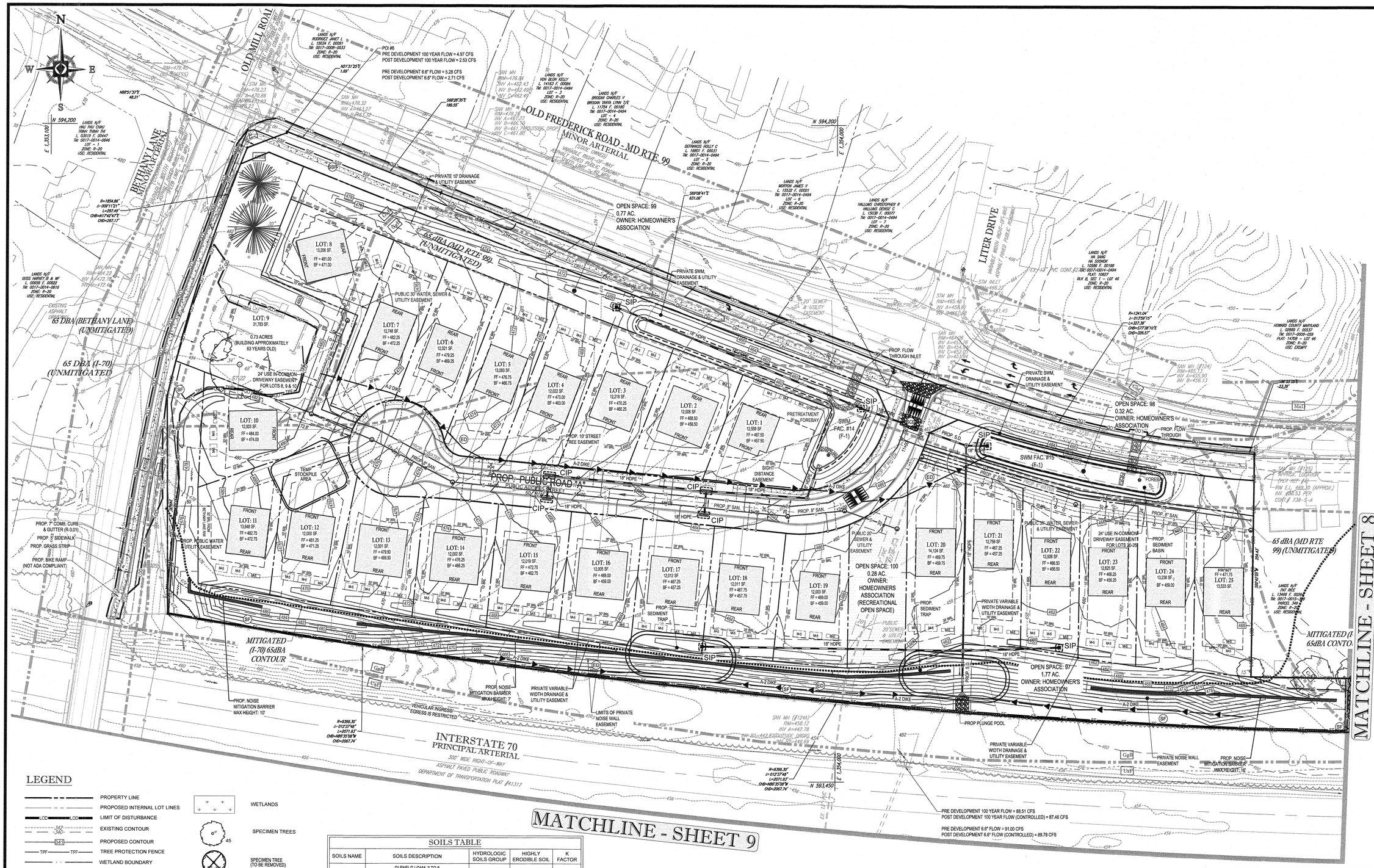
B.R. ROWE
PROFESSIONAL ENGINEER
MARYLAND LICENSE No. 40808
6/4/2021

SHEET TITLE:
PRELIMINARY SKETCH PLAN NEIGHBORHOOD - E

SHEET NUMBER:
6 of 30

SP-19-005

H:\15\MD152018\DRAWINGS\PLAN SETS\PRELIMINARY EQUIVALENT SKETCH PLAN\MD152018-SSP-5.DWG PRINTED BY: AGAMBOA 5.19.21 @ 8:56 AM LAST SAVED BY: AGAMBOA



LEGEND

- PROPERTY LINE
- PROPOSED INTERNAL LOT LINES
- LOD — LIMIT OF DISTURBANCE
- 342 — EXISTING CONTOUR
- 341 — PROPOSED CONTOUR
- TPF — TREE PROTECTION FENCE
- WETLAND BOUNDARY
- WB — WETLAND BUFFER
- SB — STREAM BUFFER
- SOILS BOUNDARY
- EXISTING TREE LINE
- PROPOSED TREE LINE
- FP — EXISTING FLOODPLAIN
- PFP — PROPOSED FLOODPLAIN
- WETLANDS
- SPECIMEN TREES
- SPECIMEN TREE (TO BE REMOVED)
- FOREST CONSERVATION EASEMENT
- UNMITIGATED NOISE LINE
- MITIGATED NOISE LINE
- PAVED ACCESS TO IN-STREAM POND

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR — DATE 6/28/21

SOILS TABLE

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

50 25 12.5 0 50
1"= 50'

OWNER:	THE ESTATE OF RUTH L. HARBIN H. MARK BOBOTEK, ESQ. P.O. BOX 66 ELLICOTT CITY, MD 21041 410-664-9700
DEVELOPER:	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	

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

PREVIOUS FILE No. :
WP-19-118
ECP-19-041

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: 7/3/2021

H:\15\MD152018\DRAWINGS\PLAN SETS\PRELIMINARY EQUIVALENT SKETCH PLAN\MD152018-GDP-5.DWG PRINTED BY: AGAMBOA 5.19.21 @ 8:57 AM LAST SAVED BY: AGAMBOA

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING · PROGRAM MANAGEMENT · LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN · ENVIRONMENTAL CONSULTING · TRANSPORTATION ENGINEERING
◆ UPSTATE NEW YORK ◆ SOUTHERN NEW JERSEY ◆ BALTIMORE, MD ◆ CHARLOTTE, NC
◆ NEW ENGLAND ◆ PHILADELPHIA, PA ◆ SOUTHERN MARYLAND ◆ ATLANTA, GA
◆ NEW JERSEY ◆ LEHIGH VALLEY, PA ◆ CENTRAL VIRGINIA ◆ AUSTIN, TX
◆ NEW YORK, NY ◆ SOUTHEASTERN, PA ◆ RALEIGH, NC ◆ SOUTH FLORIDA
◆ NEW YORK METRO ◆ NORTHERN VIRGINIA ◆ WASHINGTON, DC ◆ DALLAS, TX
THE INFORMATION, DESIGNS AND CONTENTS OF THIS PLAN ARE PROPRIETARY AND ARE THE PROPERTY OF BOHLER ENGINEERING. ALL OTHER USES OR DISTRIBUTIONS OF THIS PLAN WITHOUT WRITTEN PERMISSION FROM BOHLER ENGINEERING, CALV APPROVED, SIGNED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES

REVISIONS

REV.	DATE	COMMENT	BY

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE: IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL - 811
(WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777)
(VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	MD152018
DRAWN BY:	AVG
CHECKED BY:	BRR
DATE:	05/17/2021
SCALE:	1" = 50'
CAD I.D.:	GDP-5

PROJECT:
PRELIMINARY EQUIVALENT SKETCH PLAN
FOR
BETHANY GLEN
LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100

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

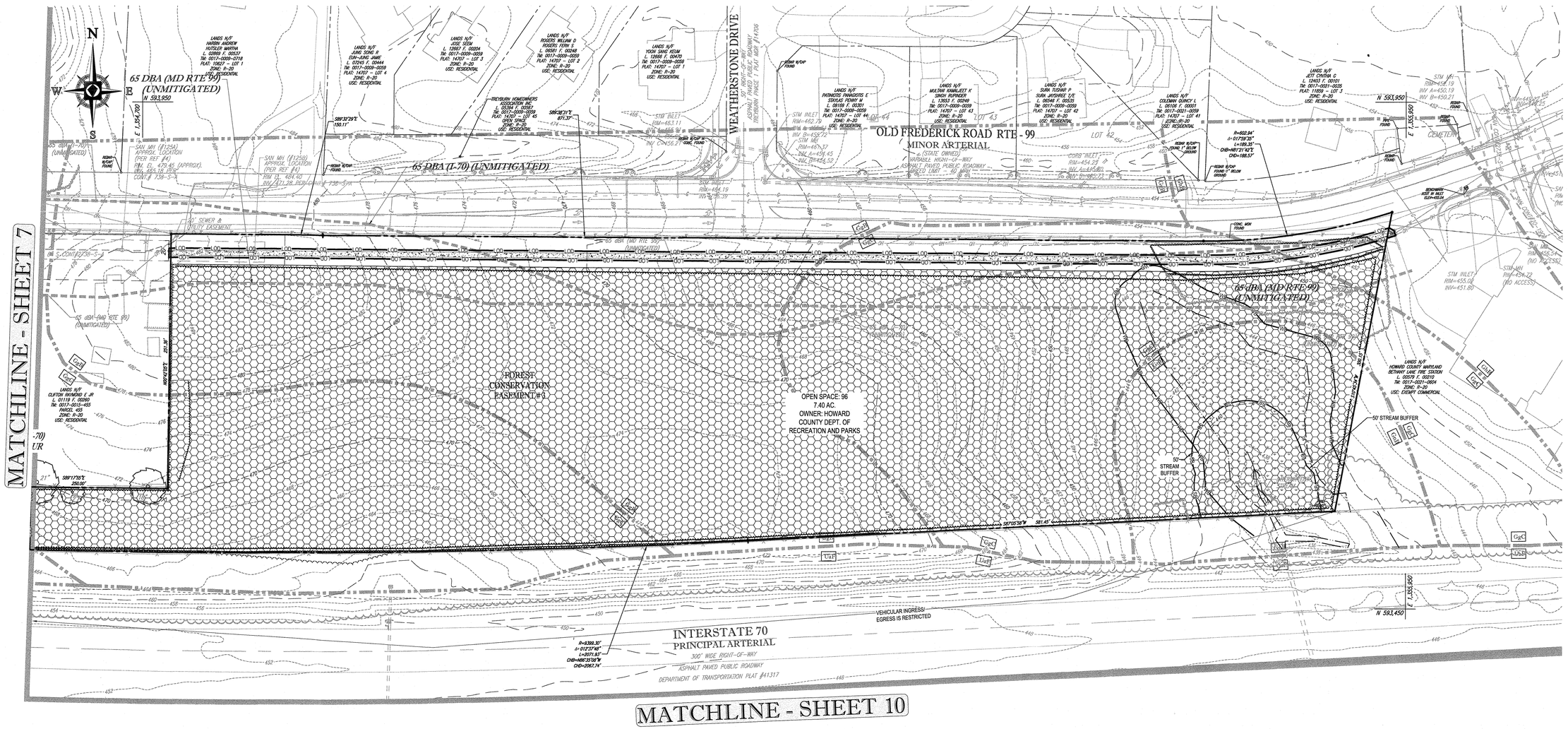
BOHLER ENGINEERING
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

B.R. ROWE
PROFESSIONAL ENGINEER
MARYLAND LICENSE No. 40808
6/14/2021

SHEET TITLE:
PRELIMINARY GRADING, EROSION & SEDIMENT CONTROL PLAN NEIGHBORHOOD

SHEET NUMBER:
7 of 30

SP-19-005



LEGEND

- PROPERTY LINE
- PROPOSED INTERNAL LOT LINES
- LOD — LIMIT OF DISTURBANCE
- 342 — EXISTING CONTOUR
- 341 — PROPOSED CONTOUR
- FOREST CONSERVATION EASEMENT
- UNMITIGATED NOISE LINE
- MITIGATED NOISE LINE

SOILS TABLE

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

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR — DATE 6/28/21

50 25 12.5 0 50
1"= 50'

SUBDIVISION NAME: TBD SECTION/AREA: N/A DEED # 00226/ 00064	PREVIOUS FILE No. : WP-19-118 ECP-19-041

OWNER: 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

TAX MAP: 17 GRID: 15 ZONED: R-20
PARCEL: 34
2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

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: 7/3/2021

H:\15\MD152018\DRAWINGS\PLAN SETS\PRELIMINARY EQUIVALENT SKETCH PLAN\MD152018-GDP-5.DWG PRINTED BY: AGAMBOA 5:19:21 @ 8:57 AM LAST SAVED BY: AGAMBOA

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING • LANDSCAPE ARCHITECTURE • ARCHITECTURE
SUSTAINABLE DESIGN • PERMITTING SERVICES • TRANSPORTATION SERVICES
◆ UPSTATE NEW YORK ◆ NEW ENGLAND ◆ NEW JERSEY ◆ NEW YORK ◆ NEW YORK METRO ◆ SOUTHERN NEW JERSEY ◆ BALTIMORE, MD ◆ PHILADELPHIA, PA ◆ SUSQUEHANNA ◆ LEHIGH VALLEY, PA ◆ SOUTHEASTERN, PA ◆ CHARLOTTE, NC ◆ SOUTHERN MARYLAND ◆ NORTHERN VIRGINIA ◆ CENTRAL VIRGINIA ◆ RALEIGH, NC ◆ WASHINGTON, DC ◆ ATLANTA, GA ◆ TAMPA ◆ SOUTH FLORIDA ◆ DALLAS, TX
THE INFORMATION, DESIGNS AND CONTENT OF THIS PLAN ARE PROPRIETARY AND SHALL NOT BE COPIED OR USED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM BOHLER ENGINEERING. ONLY APPROVED, SIGNED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES

REVISIONS

REV	DATE	COMMENT	BY

CALL MISS UTILITY 1-800-257-7777
THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE, IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL - 811
(WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777) (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	MD152018
DRAWN BY:	AVG
CHECKED BY:	BRR
DATE:	05/17/2021
SCALE:	1" = 50'
CAD I.D.:	GDP-5

PROJECT:
PRELIMINARY EQUIVALENT SKETCH PLAN
FOR
BETHANY GLEN
LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100

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

BOHLER ENGINEERING
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
4/4/2024

SHEET TITLE:
PRELIMINARY GRADING, EROSION & SEDIMENT CONTROL PLAN NEIGHBORHOOD

SHEET NUMBER:
8 of 30

SP-19-005

LEGEND

- PROPERTY LINE
- PROPOSED INTERNAL LOT LINES
- LOD — LIMIT OF DISTURBANCE
- 342 — EXISTING CONTOUR
- 340 — PROPOSED CONTOUR
- 341 — PROPOSED CONTOUR
- TPF — TREE PROTECTION FENCE
- WETLAND BOUNDARY
- WD — WETLAND BUFFER
- SB — STREAM BUFFER
- SOILS BOUNDARY
- EXISTING TREE LINE
- PROPOSED TREE LINE
- FP — EXISTING FLOODPLAIN
- PFP — PROPOSED FLOODPLAIN
- WETLANDS
- 45 — SPECIMEN TREES
- SPECIMEN TREE (TO BE REMOVED)
- FOREST CONSERVATION EASEMENT
- UNMITIGATED NOISE LINE
- MITIGATED NOISE LINE
- PAVED ACCESS TO IN-STREAM POND

SOILS TABLE

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

50 25 12.5 0 50
1" = 50'

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR — DATE 6/28/21

OWNER:	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

TAX MAP: 17 GRID: 15 ZONED: R-20
PARCEL: 34
2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

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

PREVIOUS FILE No. :
WP-19-118
ECP-19-041

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: 7/3/2021.

BOHLER™ ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT LANDSCAPE ARCHITECTURE
TRANSPORTATION ENVIRONMENTAL SERVICES
◆ UPSTATE NEW YORK ◆ SOUTHERN NEW JERSEY ◆ BALTIMORE, MD ◆ CHARLOTTE, NC
◆ NEW ENGLAND ◆ PHILADELPHIA, PA ◆ SOUTHERN MARYLAND ◆ ATLANTA, GA
◆ BOSTON, MA ◆ PITTSBURGH, PA ◆ NORTHERN VIRGINIA ◆ TAMPA, FL
◆ HARRISBURG, PA ◆ LANCASTER, PA ◆ RICHMOND, VA ◆ ORLANDO, FLORIDA
◆ NEW YORK METRO ◆ SOUTHEASTERN, PA ◆ RALEIGH, NC ◆ DALLAS, TX
◆ NORTHERN NEW JERSEY ◆ READING/LEHIGH VALLEY ◆ WASHINGTON, DC

THE INFORMATION, DESIGNS, DRAWINGS AND SPECIFICATIONS CONTAINED HEREIN ARE THE PROPERTY OF BOHLER ENGINEERING AND SHALL NOT BE REPRODUCED, PATENTED OR USED FOR OTHER PROJECTS OR PURPOSES WITHOUT WRITTEN AUTHORIZATION FROM BOHLER ENGINEERING. ONLY APPROVED, SIGNED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES

REVISIONS

REV	DATE	COMMENT	BY

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE. IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL - 811
(WV: 1-800-245-4848) (PA: 1-800-242-1776) (DC: 1-800-257-7777) (VA 1-800-552-7001) (MD: 1-800-257-7777) (DE: 1-800-282-8555)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	MD152018
DRAWN BY:	AVG
CHECKED BY:	BRR
DATE:	05/17/2021
SCALE:	1" = 50'
CAD I.D.:	GDP-5

PROJECT:
PRELIMINARY EQUIVALENT SKETCH PLAN
FOR
BETHANY GLEN
LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100
9891 OLD FREDERICK ROAD - ROUTE 99
2ND ELECTION DISTRICT
TAX MAP 17, GRID 15, PARCEL 34
HOWARD COUNTY, MARYLAND

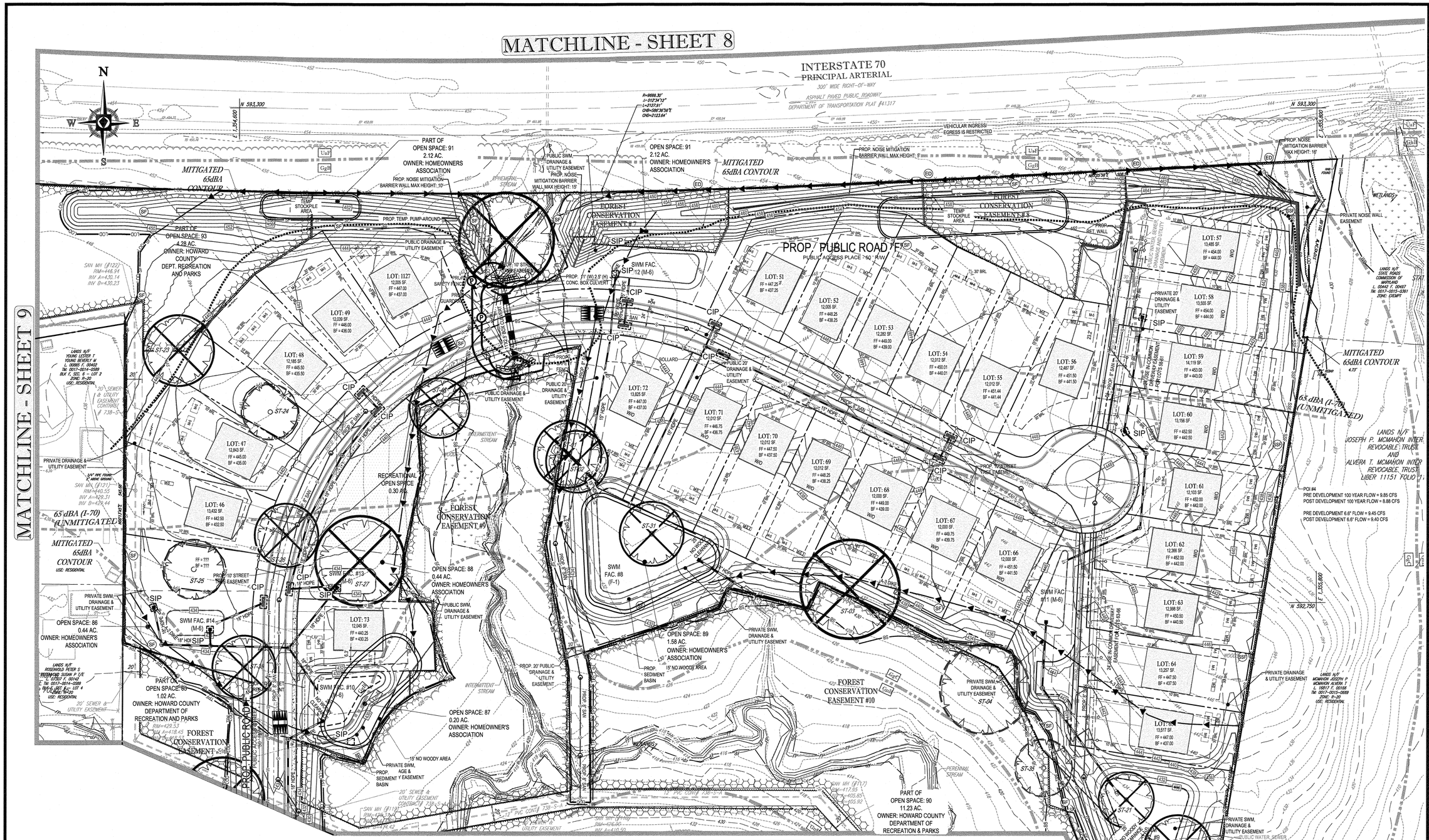
BOHLER ENGINEERING
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

B.R. ROWE
PROFESSIONAL ENGINEER
MARYLAND LICENSE No. 40808
6/4/2021

SHEET TITLE:
PRELIMINARY GRADING, EROSION & SEDIMENT CONTROL PLAN NEIGHBORHOOD - C

SHEET NUMBER:
9 of 30

SP-19-005



SOILS TABLE

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

LEGEND

- PROPERTY LINE
- PROPOSED INTERNAL LOT LINES
- LIMIT OF DISTURBANCE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- TREE PROTECTION FENCE
- WETLAND BOUNDARY
- WETLAND BUFFER
- STREAM BUFFER
- SOILS BOUNDARY
- EXISTING TREE LINE
- PROPOSED TREE LINE
- EXISTING FLOODPLAIN
- PROPOSED FLOODPLAIN
- WETLANDS
- SPECIMEN TREES
- SPECIMEN TREE (TO BE REMOVED)
- FOREST CONSERVATION EASEMENT
- UNMITIGATED NOISE LINE
- MITIGATED NOISE LINE
- PAVED ACCESS TO IN-STREAM POND

1"= 50'

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR — DATE 6/25/21

OWNER:	THE ESTATE OF RUTH L. HARBIN H. MARK BOBOTEK, ESQ. P.O. BOX 68 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
TAX MAP: 17 GRID: 15 ZONED: R-20	PARCEL: 34 2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

SUBDIVISION NAME: TBD
SECTION/AREA: N/A
DEED # 00225/ 00064

PREVIOUS FILE No. :
WP-19-118
ECP-19-041

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: 7/3/2021

H:\15MD152018\DRAWINGS\PLAN SET\PRELIMINARY EQUIVALENT SKETCH PLAN\MD152018-GDP-5.DWG PRINTED BY: AGAMBOA 5.19.21 @ 8:58 AM LAST SAVED BY: AGAMBOA

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
TRANSPORTATION ENGINEERING
PROGRAM MANAGEMENT LANDSCAPE ARCHITECTURE
ENVIRONMENTAL CONSULTING SUSTAINABLE DESIGN
◆ UPSTATE NEW YORK ◆ SOUTHERN NEW JERSEY ◆ BALTIMORE, MD ◆ CHARLOTTE, NC
◆ NEW ENGLAND ◆ PHILADELPHIA, PA ◆ SOUTHERN MARYLAND ◆ ATLANTA, GA
◆ BOSTON, MA ◆ PITTSBURGH, PA ◆ NORTHERN VIRGINIA ◆ TAMPA, FL
◆ NEW JERSEY ◆ HARRISBURG, PA ◆ MIDDLE TENNESSEE ◆ ORLANDO, FLORIDA
◆ NEW YORK METRO ◆ SOUTHEASTERN, PA ◆ TRI-STATE, NC ◆ DALLAS, TX
◆ NORTHERN NEW JERSEY ◆ REHOBOTH BEACH, DE ◆ WASHINGTON, DC
THE INFORMATION, DESIGNS, DRAWINGS AND SPECIFICATIONS CONTAINED HEREIN ARE THE PROPERTY OF BOHLER ENGINEERING, ONLY APPROVED CALCULATIONS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES

REVISIONS

REV	DATE	COMMENT	BY

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE: IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL - 811
(WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777) (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	MD152018
DRAWN BY:	AVG
CHECKED BY:	BRR
DATE:	05/17/2021
SCALE:	1" = 50'
CAD I.D.:	GDP-5

PROJECT:
PRELIMINARY EQUIVALENT SKETCH PLAN
FOR
BETHANY GLEN
LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100

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

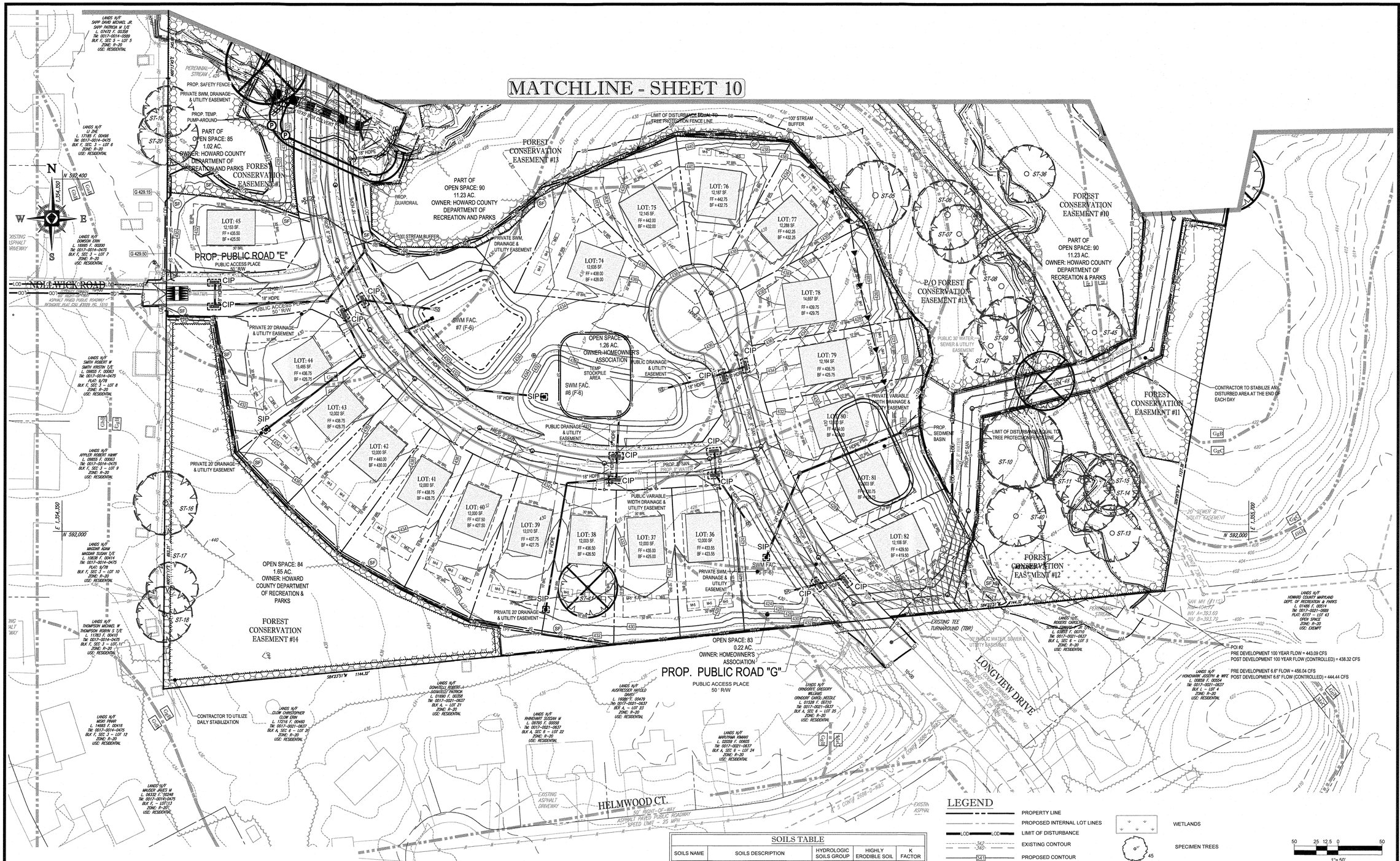
BOHLER ENGINEERING
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

B.R. ROWE
PROFESSIONAL ENGINEER
STATE OF MARYLAND LICENSE No. 40808
6/14/2021

SHEET TITLE:
PRELIMINARY GRADING, EROSION & SEDIMENT CONTROL PLAN NEIGHBORHOOD

SHEET NUMBER:
10 of 30

SP-19-005



SOILS TABLE

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

LEGEND

PROPERTY LINE
PROPOSED INTERNAL LOT LINES
LOD — LIMIT OF DISTURBANCE
342 — EXISTING CONTOUR
340 — PROPOSED CONTOUR
TPF — TREE PROTECTION FENCE
WETLAND BOUNDARY
WB — WETLAND BUFFER
SB — STREAM BUFFER
SOILS BOUNDARY
EXISTING TREE LINE
PROPOSED TREE LINE
FP — EXISTING FLOODPLAIN
PFP — PROPOSED FLOODPLAIN
WETLANDS
45 — SPECIMEN TREES
SPECIMEN TREE (TO BE REMOVED)
FOREST CONSERVATION EASEMENT
UNMITIGATED NOISE LINE
MITIGATED NOISE LINE
PAVED ACCESS TO IN-STREAM POND

50 25 12.5 0 50
1"= 50'

SUBDIVISION NAME: TBD SECTION/AREA: N/A DEED # 00226/ 00064	PREVIOUS FILE No. : WP-19-118 ECP-19-041

OWNER: 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

TAX MAP: 17 GRID: 15 ZONED: R-20
PARCEL: 34
2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

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: 7/3/2021

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY
PLANNING DIRECTOR — DATE 6/28/21

H:\19\MD152018\DRAWINGS\PLAN SETS\PRELIMINARY EQUIVALENT SKETCH PLAN\MD152018-GDP-5.DWG PRINTED BY: AGAMBOA 5-19-21 @ 8:58 AM LAST SAVED BY: AGAMBOA

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING • PROGRAM MANAGEMENT • LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN • TRANSPORTATION • STRATEGIC CONSULTING
◆ UPSTATE NEW YORK ◆ NEW ENGLAND ◆ NEW JERSEY ◆ NEW YORK, NY ◆ NEW YORK METRO ◆ SOUTHERN NEW JERSEY ◆ PHILADELPHIA, PA ◆ LEHIGH VALLEY, PA ◆ SOUTHEASTERN, PA ◆ BALTIMORE, MD ◆ SOUTHERN MARYLAND ◆ RICHMOND, VIRGINIA ◆ CENTRAL VIRGINIA ◆ RALEIGH, NC ◆ SOUTH FLORIDA ◆ DALLAS, TX ◆ ATLANTA, GA ◆ CHARLOTTE, NC
THE ACCEPTANCE OF THESE PLANS BY THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING IS FOR THE PURPOSE OF OBTAINING A SUBDIVISION OR LAND DEVELOPMENT PLAN APPROVAL. THIS ACCEPTANCE DOES NOT INDICATE THAT THE PLAN PROPOSED, DESIGNED AND DESIGN ELEMENTS SHOWN THEREON COMPLY WITH ALL OF THE REQUIREMENTS OF THE HOWARD COUNTY DESIGN MANUAL, VOLUME I AND THE HOWARD COUNTY DESIGN MANUAL, VOLUME III, AS FULLY OR FURTHER AMENDED, OR ANY OTHER LAWS OR REGULATIONS OF HOWARD COUNTY, MARYLAND. THE ACCEPTANCE DOES NOT IMPLY THAT THE PLAN PROPOSED IS ACCURATE OR ADEQUATE FOR CONSTRUCTION PURPOSES.

REVISIONS

REV	DATE	COMMENT	BY

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL - 811
WV: 1-800-245-4848) (PA: 1-800-242-1776) (DC: 1-800-257-7777) (VA: 1-800-552-7001) (MD: 1-800-257-7777) (DE: 1-800-282-8555)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	MD152018
DRAWN BY:	AVG
CHECKED BY:	BRR
DATE:	05/17/2021
SCALE:	1" = 50'
CAD I.D.	GDP-5

PROJECT:
PRELIMINARY EQUIVALENT SKETCH PLAN
FOR
BETHANY GLEN
LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100

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

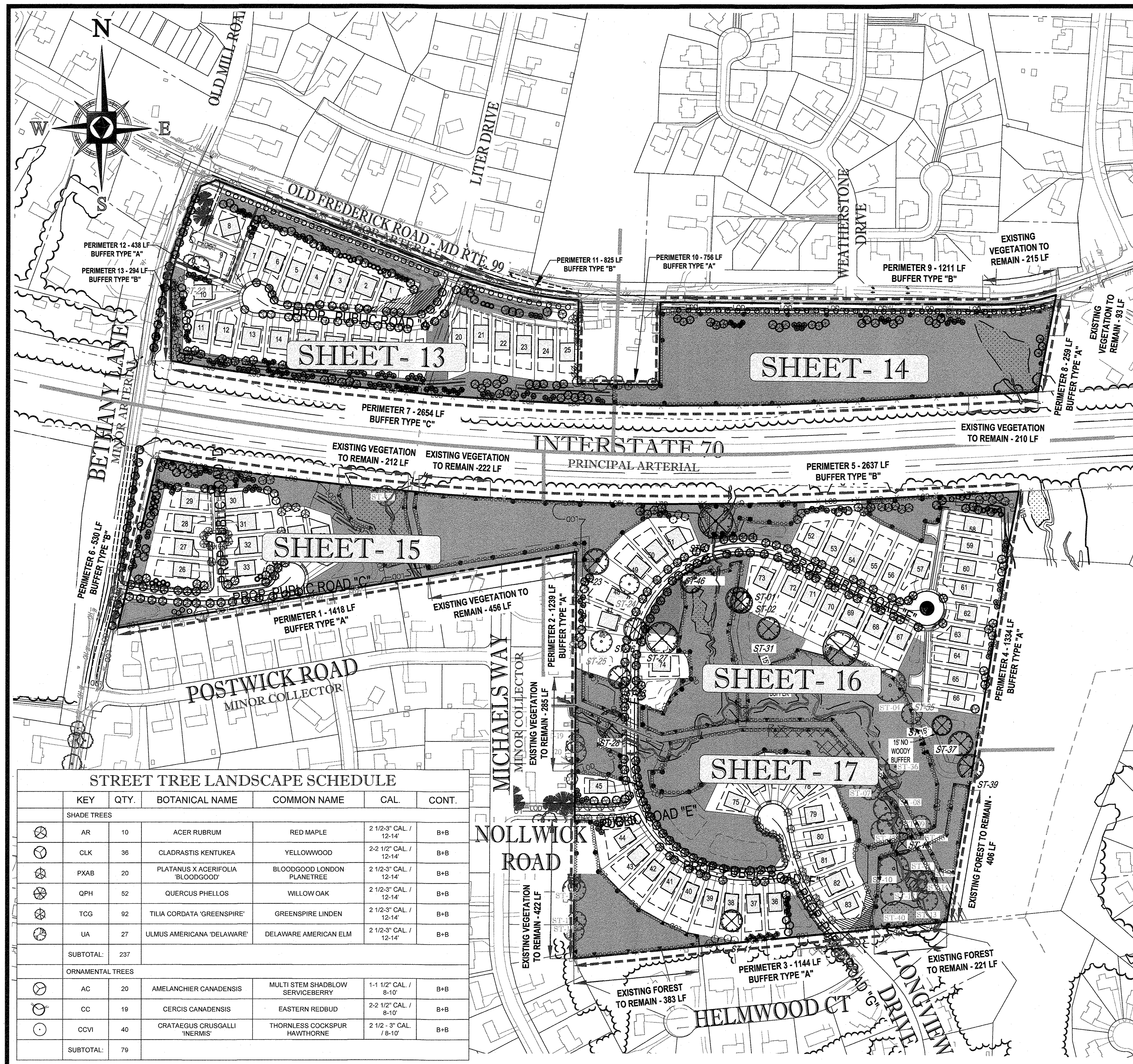
BOHLER ENGINEERING
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

B.R. ROWE
PROFESSIONAL ENGINEER
STATE OF MARYLAND
BRANDON R. ROWE
No. 40808
PROFESSIONAL ENGINEER
MARYLAND LICENSE No. 40808
6/8/2021

SHEET TITLE:
PRELIMINARY GRADING, EROSION & SEDIMENT CONTROL PLAN NEIGHBORHOOD

SHEET NUMBER:
11 of 30

SP-19-005



STREET TREE LANDSCAPE SCHEDULE

	KEY	QTY.	BOTANICAL NAME	COMMON NAME	CAL.	CONT.
	SHADE TREES					
	AR	10	ACER RUBRUM	RED MAPLE	2 1/2-3" CAL. / 12-14'	B+B
	CLK	36	CLADRASTIS KENTUKEA	YELLOWWOOD	2-2 1/2" CAL. / 12-14'	B+B
	PXAB	20	PLATANUS X ACERIFOLIA 'BLOODGOOD'	BLOODGOOD LONDON PLANETREE	2 1/2-3" CAL. / 12-14'	B+B
	QPH	52	QUERCUS PHELLOS	WILLOW OAK	2 1/2-3" CAL. / 12-14'	B+B
	TCG	92	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LINDEN	2 1/2-3" CAL. / 12-14'	B+B
	UA	27	ULMUS AMERICANA 'DELAWARE'	DELAWARE AMERICAN ELM	2 1/2-3" CAL. / 12-14'	B+B
	SUBTOTAL:	237				
	ORNAMENTAL TREES					
	AC	20	AMELANCHIER CANADENSIS	MULTI STEM SHADBLOW SERVICEBERRY	1-1 1/2" CAL. / 8-10'	B+B
	CC	19	CERCIS CANADENSIS	EASTERN REDBUD	2-2 1/2" CAL. / 8-10'	B+B
	CCVI	40	CRATAEGUS CRUSGALLI 'INERMIS'	THORNLESS COCKSPUR HAWTHORNE	2 1/2 - 3" CAL. / 8-10'	B+B
	SUBTOTAL:	79				

HOWARD COUNTY LANDSCAPE NOTES

1. 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 $100,300 FOR THE INSTALLATION OF 200 SHADE TREES ($300.00 EACH); AND, 212 EVERGREEN TREES ($150.00 EACH); THE INSTALLATION OF A FENCE TOTALING 850 LINEAR FEET ($10 PER LINEAR FOOT); AND FINANCIAL SURETY IN THE AMOUNT OF $9,600 FOR 32 MITIGATION SHADE TREES (WP-19-118) FOR A TOTAL SURETY OF $109,900 SHALL BE POSTED BY THE DEVELOPER AS PART OF THE DPW DEVELOPER'S AGREEMENT, TBD.
2. NO CLEARING OF EXISTING VEGETATION IS PERMITTED WITHIN A LANDSCAPE EDGE FOR WHICH CREDIT IS BEING TAKEN; HOWEVER, LANDSCAPE MAINTENANCE IS AUTHORIZED.
3. AT THE TIME OF INSTALLMENT, 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 NECESSARY, REPAIRED OR REPLACED.

DEVELOPER'S/OWNER'S LANDSCAPE CERTIFICATE

I/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 ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

[signature] 6-10-21

DEVELOPER'S / OWNER'S NAME — DATE

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

[signature] 6/28/21

PLANNING DIRECTOR — DATE

LANDSCAPE SCHEDULE

	KEY	QTY.	BOTANICAL NAME	COMMON NAME	CAL.	CONT.
	SHADE TREES					
	AR	37	ACER RUBRUM	RED MAPLE	2 1/2-3" CAL. / 12-14'	B+B
	AR2	12	ACER RUBRUM	RED MAPLE	3-4" CAL. / 12-14'	B+B
	CLK	12	CLADRASTIS KENTUKEA	YELLOWWOOD	2-2 1/2" CAL. / 12-14'	B+B
	LSR	6	LIQUIDAMBAR STYRACIFLUA 'ROTUNDILOBA'	SEEDLESS SWEETGUM	2 1/2-3" CAL. / 12-14'	B+B
	PLO	3	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	2 1/2-3" CAL. / 12-14'	B+B
	QBC	37	QUERCUS BICOLOR	SWAMP WHITE OAK	2 1/2-3" CAL. / 12-14'	B+B
	QC	23	QUERCUS COCCINEA	SCARLET OAK	2 1/2-3" CAL. / 12-14'	B+B
	QC2	10	QUERCUS COCCINEA	SCARLET OAK	3-4" CAL. / 12-14'	B+B
	QPH	29	QUERCUS PHELLOS	WILLOW OAK	2 1/2-3" CAL. / 12-14'	B+B
	QPH2	7	QUERCUS PHELLOS	WILLOW OAK	3-4" CAL. / 12-14'	B+B
	QR	8	QUERCUS RUBRA	RED OAK	2 1/2-3" CAL. / 12-14'	B+B
	QR2	3	QUERCUS RUBRA	RED OAK	3-4" CAL. / 12-14'	B+B
	TCG	15	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LINDEN	2 1/2-3" CAL. / 12-14'	B+B
	SUBTOTAL:	202				
	ORNAMENTAL TREES					
	CC	20	CERCIS CANADENSIS	EASTERN REDBUD	2-2 1/2" CAL. / 8-10'	B+B
	PSK	4	PRUNUS SERRULATA 'KWANZAN'	KWANZAN CHERRY	1-1 1/2" CAL. / 8-10'	B+B
	SUBTOTAL:	24				

	EVERGREEN TREES					
	JV	42	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	8-10'	B+B
	PIAB	33	PICEA ABIES	NORWAY SPRUCE	6-7'	B+B
	PS	108	PINUS STROBUS	EASTERN WHITE PINE	6-7'	B+B
	PV	48	PINUS VIRGINIANA	VIRGINIA PINE	7-8'	B+B
	TP	9	THUJA PLICATA	WESTERN RED CEDAR	7-8'	B+B
	SUBTOTAL:	240				
	EVERGREEN SHRUBS					
	VR	20	VIBURNUM X RHYTIDOPHYLLUM	LEATHERLEAF VIBURNUM	3-4'	B+B
	SUBTOTAL:	20				
	GROUND COVERS					
	JCBP	44	JUNIPERUS CONFERTA 'BLUE PACIFIC'	BLUE PACIFIC SHORE JUNIPER	15-18" SPRD.	#3 CAN
	SUBTOTAL:	44				
	PERENNIALS					
	AT	282	ASCLEPIAS TUBEROSA	BUTTERFLY WEED	1 GAL.	CONTAINER
	ATBI	282	AMSONIA TABERNAEMONTANA 'BLUE ICE'	BLUE ICE AMSONIA	1 GAL.	CONTAINER
	CVZ	284	COREOPSIS VERTICILLATA 'ZAGREB'	ZAGREB COREOPSIS	1 GAL.	CONTAINER
	EPKK	284	ECHINACEA PURPUREA	KIM'S KNEE HIGH CONEFLOWER	1 GAL.	CONTAINER
	SUBTOTAL:	1132				

NOTE: MATERIAL LABELED WITH A "$" SYMBOL DESIGNATES MATERIAL PROPOSED FOR MITIGATION. A SCHEDULE OF SPECIMEN TREES CAN BE FOUND ON THE FOREST CONSERVATION PLAN, SHEET 20 OF THIS SET.

SCHEDULE 'A'

PERIMETER LANDSCAPE EDGE

PERIMETER	LANDSCAPE TYPE	LINEAR FEET OF ROADWAY FRONTAGE/ PERIMETER	CREDIT FOR EX. VEGETATION (YES/NO; LF) (DESCRIBE BELOW IF NEEDED)	CREDIT FOR FENCE/WALL/BERM (YES/NO; LF) (DESCRIBE BELOW IF NEEDED)	TOTAL LINEAR FEET (AFTER CREDITS)	NUMBER OF PLANTS REQUIRED			NUMBER OF PLANTS PROVIDED			
						SHADE TREES	EVERGREEN TREES	SHRUBS	SHADE TREES	EVERGREEN TREES	SHRUBS	ORNAMENTAL TREES
1	A	1418 LF	YES (456 LF)	YES - FENCE (850 LF)	112 LF	2	0	0	0	0	0	4
2	A	1239 LF	YES (285 LF + 422 LF = 707 LF)	NO (0)	532 LF	9	0	0	6	6	0	0
3	A	1144 LF - 24 LF ENTRANCE = 1120 LF	YES (383 LF + 221 LF = 604 LF)	NO (0)	516 LF	9	0	0	5	8	0	0
4	A	1334 LF	YES (406 LF)	NO (0)	928 LF	16	0	0	10	12	0	0
5	B	2637 LF	YES (212 LF + 222 LF) = 343 LF	YES - BERMS (550 LF + 488 LF + 457 LF + 160 LF) = 1655 LF	639 LF	13	16	0	9	18	0	10
6	B	530 LF - 42 LF ENTRANCE = 488 LF	NO	NO (0)	488 LF	10	13	0	10	13	0	0
7	C	2654 LF	YES (210 LF)	YES - BERM (521 LF + 497 LF) = 1019 LF	1425 LF	36	72	0	36	72	0	0
8	A	259 LF	YES (93 LF)	NO (0)	166 LF	3	0	0	3	0	0	0
9	B	1211 LF	YES (215 LF)	NO (0)	996 LF	20	25	0	20	25	0	0
10	A	756 LF	YES (356 LF)	NO (0)	400 LF	7	0	0	2	0	20	10
11	B	1023 LF - 28 LF ENTRANCE = 995 LF	NO	NO (0)	995 LF	20	25	0	18	29	0	0
12	A	438 LF	NO	NO (0)	438 LF	8	0	0	5	6	0	0
13	B	294 LF	NO	NO (0)	294 LF	6	8	0	6	8	0	0
THE SYMBOL "@" REPRESENTS THE MATERIAL USED TO MEET THIS REQUIREMENT												
LOT 8	B	131 LF	NO	NO (0)	131 LF	3	4	0	3	4	0	0
LOT 10	B	98 LF	NO	NO (0)	98 LF	2	3	0	2	3	0	0
LOT 11	B	110 LF	NO	NO (0)	110 LF	3	3	0	3	3	0	0
LOT 1	B	100 LF	NO	NO (0)	100 LF	2	3	0	2	3	0	0
LOT 26	B	183 LF	NO	NO (0)	183 LF	4	5	0	4	5	0	0
LOT 29	B	150 LF	NO	NO (0)	150 LF	3	4	0	3	4	0	0
LOT 30	B	194 LF	NO	NO (0)	194 LF	4	5	0	4	5	0	0
LOT 33	B	183 LF	NO	NO (0)	183 LF	4	5	0	4	5	0	0
LOT 44	B	143 LF	NO	NO (0)	143 LF	3	4	0	3	4	0	0
LOT 45	B	164 LF	NO	NO (0)	164 LF	4	5	0	4	5	0	0
LOT 57	B	182 LF	NO	NO (0)	182 LF	4	5	0	4	5	0	0
LOT 36	B	170 LF	NO	NO (0)	170 LF	4	5	0	4	5	0	0
THE SYMBOL "#" REPRESENTS THE MATERIAL USED TO MEET THIS REQUIREMENT												
TOTAL						199	210	0	170	248	20	24

STREET TREE NOTES

1. FINANCIAL SURETY FOR THE REQUIRED 237 LARGE STREET TREES ($300 EACH) AND 79 SMALL STREET TREES ($150 EACH) WILL BE POSTED FOR THE AMOUNT OF $82,950 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.
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 FROM A DRIVEWAY.
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 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.

STREET TREE REQUIREMENTS

STREET	LINEAR FEET	SPACING	TREES REQUIRED	TREES PROVIDED
BETHANY LANE (NORTH)	536 LF	40 L.F.	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	2395 LF - 28 LF (ENTRANCES) =2367 LF	30 L.F.*	79 TREES	79 TREES
PUBLIC ROAD "A"	707 LF	40 L.F.	18 TREES (x2) = 36 TREES	36 TREES
PUBLIC ROAD "C"	545 LF - 24 LF (ENTRANCE) = 521 LF	40 L.F.	13 TREES (x2) = 26 TREES	26 TREES
PUBLIC ROAD "D"	192 LF	40 L.F.	5 TREES (X2) = 10 TREES	10 TREES
PUBLIC ROAD "E"	199 LF	40 L.F.	5 TREES (X2) = 10 TREES	10 TREES
PUBLIC ROAD "F"	2152 LF - 24 LF (ENTRANCE) = 2128 LF	40 L.F.	54 TREES (X2) = 108 TREES	108 TREES
PUBLIC ROAD "G"	401 LF - 24 LF (ENTRANCES) = 377 LF	40 L.F.	10 TREES (X2) = 20 TREES	20 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.

PERIMETER LANDSCAPE TYPE PLANT SUBSTITUTION CHART

2 SMALL DECIDUOUS TREES	1 SHADE TREE
2 EVERGREEN TREES	1 SHADE TREE
10 SHRUBS	1 SHADE TREE

SYMBOL LEGEND

	FOREST AREA (FOREST TO REMAIN)
	FENCE
—SB—SB—	STREAM BUFFER
—FP—FP—	FLOOD PLAIN
	CREDITED OPEN SPACE
	CREDITED RECREATIONAL OPEN SPACE
	STEEP SLOPES 15-24.99%
	STEEP SLOPES 25% +
	FOREST CONSERVATION EASEMENT

RECREATIONAL OPEN SPACE

North Section Recreational Open Space			
Unit Type	# of Units	Open Space Calculation	Open Space Requirement
Single Family Detached Units	25	200 s.f./unit	5000
Single Family Attached/Semi-Detatched Units	0	400 s.f./unit	0
Total Required			5,000 S.F.
Total Provided			12,138 S.F
South Section Recreation Open Space			
Unit Type	# of Units	Open Space Calculation	Open Space Requirement
Single Family Detached Units	58	200 s.f./unit	11600
Single Family Attached/Semi-Detatched Units	0	400 s.f./unit	0
Total Required			11,600 S.F.
Total Provided			13,060 S.F.

OPEN SPACE

North Section Open Space	
Gross Acres	20.77 acres
Open Space Required	8.31 acres (40%)
Credited Open Space Provided	10.23 acres (49.3%)
South Section Open Space	
Gross Acres	47.79 acres
Open Space Required	19.12 acres (40%)
Credited Open Space Provided	26.25 acres (54.9%)
Overall Open Space	
Open Space Required	27.43 acres
Credited Open Space Provided	36.48 acres

NOTE: SECTION 16.1205(A) OF THE COUNTY CODE (FOREST CONSERVATION) REQUIRES ON-SITE RETENTION FOR TREES AND OTHER VEGETATION IDENTIFIED ON THE LISTS OF RARE, THREATENED AND ENDANGERED SPECIES OF THE US FISH AND WILDLIFE SERVICE OR THE MARYLAND DEPT. OF NATURAL RESOURCES; TREES THAT ARE PART OF A HISTORIC SITE; AND STATE CHAMPION TREES, TREES 75% OF THE DIAMETER OF STATE CHAMPION TREES AND TREES 30" IN DIAMETER OR LARGER.

200 100 50 0 200
1"= 200'

OWNER: 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

TAX MAP: 17 GRID: 15 ZONED: R-20
PARCEL: 34
2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

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

PREVIOUS FILE No. :
WP-19-118
ECP-19-041

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

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING · PROGRAM MANAGEMENT · LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN · PERMITTING SERVICES · TRANSPORTATION SERVICES
UPSTATE NEW YORK · NEW ENGLAND · BOSTON, MA · NEW YORK, NY · NEW YORK METRO · NORTHERN NEW JERSEY
SOUTHERN NEW JERSEY · PHILADELPHIA, PA · PITTSBURGH, PA · LEHIGH VALLEY, PA · SOUTHEASTERN, PA · REHOBOTH BEACH, DE
BALTIMORE, MD · SOUTHERN MARYLAND · NORTHERN VIRGINIA · CENTRAL VIRGINIA · RALEIGH, NC · WASHINGTON, DC
CHARLOTTE, NC · ATLANTA, GA · TAMPA, FL · SOUTH FLORIDA · DALLAS, TX

THE INFORMATION, DESIGN AND CONTENT OF THIS PLAN ARE PROPRIETARY AND SHALL NOT BE COPIED OR USED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM BOHLER ENGINEERING. ONLY APPROVED, SIGNED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES
© 2017 BOHLER ENGINEERING

REVISIONS

REV	DATE	COMMENT	BY

DIG WITH C.A.R.E. CALL BEFORE YOU DIG
THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE. IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL - 811
(WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777) (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	MD152018
DRAWN BY:	AVG
CHECKED BY:	BRR
DATE:	05/17/2021
SCALE:	1" = 50'
CAD I.D.:	LSP-5

PROJECT:
PRELIMINARY EQUIVALENT SKETCH PLAN
FOR
BETHANY GLEN
LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100

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

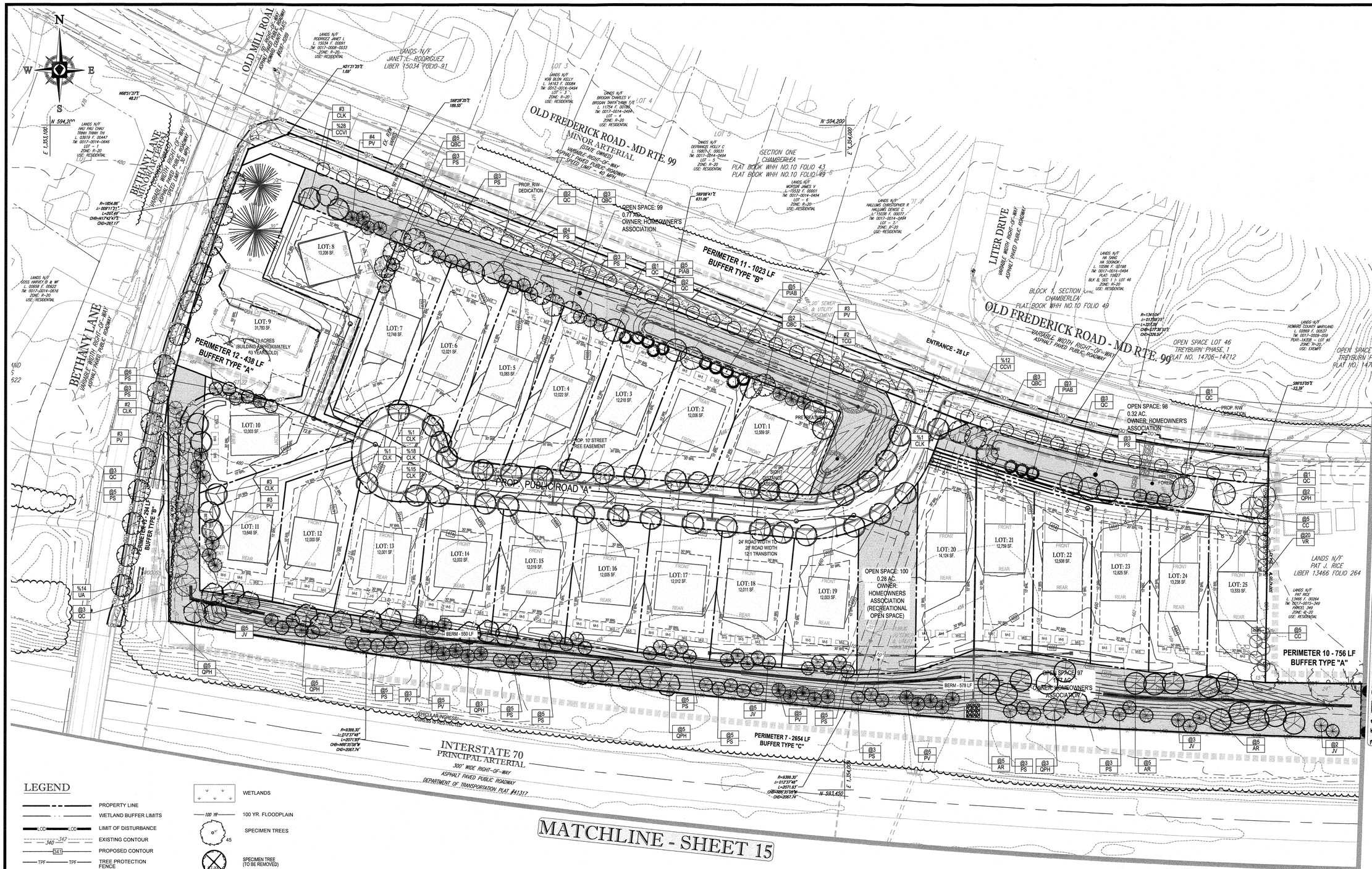
BOHLER ENGINEERING
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

E.R. McWILLIAMS
[signature] 5/20/21
REGISTERED LANDSCAPE ARCHITECT
MARYLAND LICENSE No. 3697

SHEET TITLE:
OVERALL LANDSCAPE PLAN

SHEET NUMBER:

SP-19-005



LEGEND

- PROPERTY LINE
- WETLAND BUFFER LIMITS
- LOD — LIMIT OF DISTURBANCE
- 340 — EXISTING CONTOUR
- 341 — PROPOSED CONTOUR
- TPF — TREE PROTECTION FENCE
- W — WETLAND BOUNDARY
- WB — 25-FOOT WETLAND BUFFER
- SB — 100-FOOT STREAM BUFFER
- SOILS BOUNDARY
- EXISTING TREE LINE
- WETLANDS
- 100 YR. — 100 YR. FLOODPLAIN
- SPECIMEN TREES
- SPECIMEN TREE (TO BE REMOVED)
- STEEP SLOPES 15-24.99%
- STEEP SLOPES 25% +
- FOREST CONSERVATION EASEMENT

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR — DATE 6/28/21

DEVELOPER'S/OWNER'S LANDSCAPE CERTIFICATE

I/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 ONE YEAR GUARANTEE COMMENCEMENT MATERIAL, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

DEVELOPER'S / OWNER'S NAME — DATE 6-10-21

50 25 12.5 0 50
1"= 50'

OWNER:	THE ESTATE OF RUTH L. HARBIN H. MARK BOBOTEK, ESQ. P.O. BOX 68 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
TAX MAP: 17	GRID: 15 ZONED: R-20
	PARCEL: 34
	2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

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

PREVIOUS FILE No. :
WP-19-118
ECP-19-041

PROFESSIONAL CERTIFICATION

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

BOHLER™ ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING · PROGRAM MANAGEMENT · LANDSCAPE ARCHITECTURE
TRANSPORTATION · ENVIRONMENTAL · SUSTAINABLE DESIGN · CONSTRUCTION SERVICES
◆ UPSTATE NEW YORK ◆ NEW ENGLAND ◆ BOSTON, MA ◆ LONG ISLAND, NY ◆ NEW YORK METRO ◆ NORTHERN NEW JERSEY ◆ SOUTHERN NEW JERSEY ◆ PHILADELPHIA, PA ◆ PITTSBURGH, PA ◆ SOUTHEASTERN, PA ◆ WASHINGTON, DC ◆ BALTIMORE, MD ◆ SOUTHERN MARYLAND ◆ SOUTHERN VIRGINIA ◆ RALEIGH, NC ◆ CHARLOTTE, NC ◆ ATLANTA, GA ◆ TAMPA, FLORIDA ◆ DALLAS, TX
THE BOHLER GROUP INCLUDES BOHLER ENGINEERING, BOHLER ENERGY, BOHLER FOUNDATION, HIGHGATE ENGINEERING, ONLY IN PARTICIPATING STATES, SOMEWHERE BRIDGE PLANNING, BE UTILITIES FOR CONSTRUCTION SERVICES

REVISIONS

REV	DATE	COMMENT	BY

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE, IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL - 811
WV: 1-800-245-4848) (PA: 1-800-242-1776) (DC: 1-800-257-7777) (VA 1-800-552-7001) (MD: 1-800-257-7777) (DE: 1-800-282-8555)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	MD152018
DRAWN BY:	AVG
CHECKED BY:	BRR
DATE:	05/17/2021
SCALE:	1" = 50'
CAD I.D.:	LSP-5

PROJECT:

PRELIMINARY EQUIVALENT SKETCH PLAN

FOR

BETHANY GLEN

LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100

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

BOHLER ENGINEERING
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 — 5/20/21

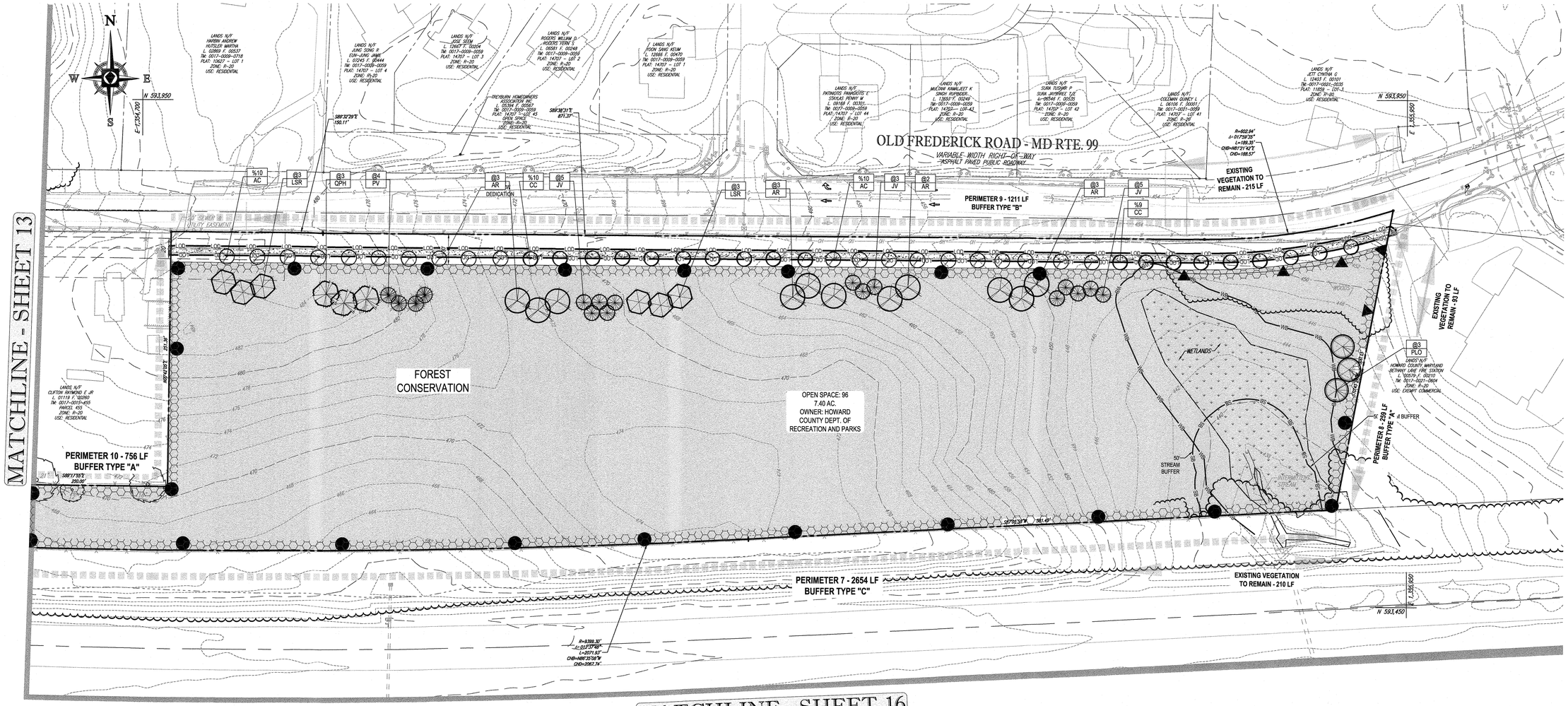
SHEET TITLE:

LANDSCAPE PLAN NEIGHBORHOOD - A

SHEET NUMBER:

13 of 30

SP-19-005



LEGEND

- PROPERTY LINE
- WETLAND BUFFER LIMITS
- LOD — LIMIT OF DISTURBANCE
- 340 — EXISTING CONTOUR
- 341 — PROPOSED CONTOUR
- TPF — TREE PROTECTION FENCE
- W — WETLAND BOUNDARY
- WB — 25-FOOT WETLAND BUFFER
- SB — 100-FOOT STREAM BUFFER
- SOILS BOUNDARY
- EXISTING TREE LINE
- WETLANDS
- 100 YR — 100 YR. FLOODPLAIN
- SPECIMEN TREES
- SPECIMEN TREE (TO BE REMOVED)
- STEEP SLOPES 15-24.99%
- STEEP SLOPES 25% +
- FOREST CONSERVATION EASEMENT

NOTE: REFORESTATION PLANTING SCHEDULE ON SHEET 20 OF THIS SET SHOWS 1" CAL. PLANT STOCK FOR REFORESTATION AREAS.

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR — DATE 6/23/21

DEVELOPER'S/OWNER'S LANDSCAPE CERTIFICATE

I/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 ONE YEAR GUARANTEE OF PLANT MATERIALS WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

DEVELOPERS / OWNER'S NAME — DATE 6-10-21

50 25 12.5 0 50
1"= 50'

SUBDIVISION NAME: TBD SECTION/AREA: N/A DEED # 00226/ 00064	PREVIOUS FILE No. : WP-19-118 ECP-19-041

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

H:\15\MD152018\DRAWING\PLAN SETS\PRELIMINARY EQUIVALENT SKETCH PLAN\MD152018-LSP-5.DWG PRINTED BY: AGAMBOA 5.19.21 @ 8:59 AM LAST SAVED BY: JCAMPBELL

BOHLER™ ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
LANDSCAPE ARCHITECTURE
PROGRAM MANAGEMENT
TRANSPORTATION
ENVIRONMENTAL SERVICES
◆ UPSTATE NEW YORK ◆ SOUTHERN NEW JERSEY ◆ BALTIMORE, MD ◆ CHARLOTTE, NC
◆ NEW ENGLAND ◆ PHILADELPHIA, PA ◆ SOUTHERN MARYLAND ◆ ATLANTA, GA
◆ NEW YORK, NY ◆ PITTSBURGH, PA ◆ NORTHERN VIRGINIA ◆ TAMPA, FL
◆ LONG ISLAND, NY ◆ READING, PA ◆ RICHMOND, VA ◆ ORLANDO, FL
◆ NEW YORK METRO ◆ SOUTHEASTERN, PA ◆ RALEIGH, NC ◆ DALLAS, TX
◆ NORTHERN NEW JERSEY ◆ PERKIOMEN BEAGLE, LLC ◆ WASHINGTON, DC

THIS INFORMATION IS PROPRIETARY AND CONFIDENTIAL. REPRODUCTION OR USE FOR ANY PURPOSE OTHER THAN THAT AUTHORIZED BY BOHLER ENGINEERING WITHOUT WRITTEN PERMISSION IS PROHIBITED. ONLY APPROVED, SIGNED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES

REVISIONS

REV	DATE	COMMENT	BY

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL - 811
(WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777) (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	MD152018
DRAWN BY:	AVG
CHECKED BY:	BRR
DATE:	05/17/2021
SCALE:	1" = 50'
CAD I.D.:	LSP-5

PROJECT:
PRELIMINARY EQUIVALENT SKETCH PLAN
FOR
BETHANY GLEN
LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100

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

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

E.R. McWILLIAMS
5/20/21
REGISTERED LANDSCAPE ARCHITECT
MARYLAND LICENSE No. 3697

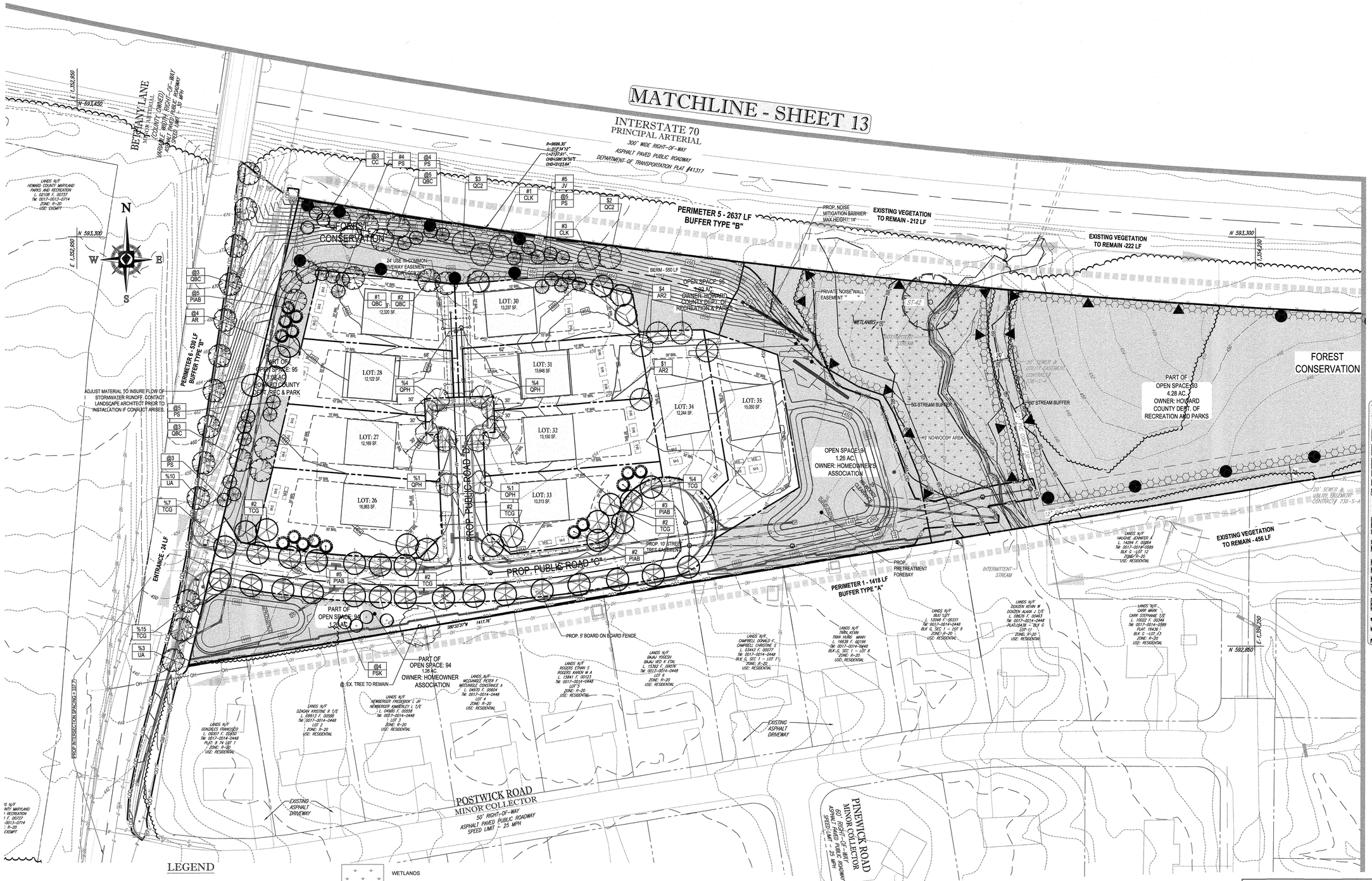
OWNER:	THE ESTATE OF RUTH L. HARBIN H. MARK BOBOTEK, ESQ. P.O. BOX 66 ELLICOTT CITY, MD 21041 410-964-9700
DEVELOPER:	ELM STREET DEVELOPMENT 5074 DORSEY HALL ROAD, SUITE 205 ELLICOTT CITY, MD 21042 CONTACT: JASON VAN KIRK PHONE: (410) 720-3021

TAX MAP: 17 GRID: 15 ZONED: R-20
PARCEL: 34
2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

SHEET TITLE:
LANDSCAPE PLAN
NEIGHBORHOOD - B

SHEET NUMBER:
14 of 30

SP-19-005



LEGEND

PROPERTY LINE	WETLANDS
WETLAND BUFFER LIMITS	100 YR. FLOODPLAIN
LIMIT OF DISTURBANCE	SPECIMEN TREES
EXISTING CONTOUR	SPECIMEN TREE (TO BE REMOVED)
PROPOSED CONTOUR	STEEP SLOPES 15-24.99%
TREE PROTECTION FENCE	STEEP SLOPES 25% +
WETLAND BOUNDARY	FOREST CONSERVATION EASEMENT
25-FOOT WETLAND BUFFER	
100-FOOT STREAM BUFFER	
SOILS BOUNDARY	
EXISTING TREE LINE	

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR — DATE 6/28/21

DEVELOPER'S/OWNER'S LANDSCAPE CERTIFICATE

I/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 ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

DEVELOPER'S / OWNER'S NAME — DATE 6-10-21

50 25 12.5 0 50
1"= 50'

SUBDIVISION NAME: TBD SECTION/AREA: N/A DEED # 00226/ 00064	PREVIOUS FILE No. : WP-19-118 ECP-19-041

OWNER: 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

TAX MAP: 17 GRID: 15 ZONED: R-20
PARCEL: 34
2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

PROFESSIONAL CERTIFICATION
I, ERIC R. McWILLIAMS, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 3997, EXPIRATION DATE: 9/20/22

BOHLER™ ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING PROGRAM MANAGEMENT LANDSCAPE ARCHITECTURE
ENVIRONMENTAL SERVICES TRANSPORTATION ENGINEERING SUSTAINABLE DESIGN
◆ UPSTATE NEW YORK ◆ SOUTHERN NEW JERSEY ◆ BALTIMORE, MD ◆ CHARLOTTE, NC
◆ NEW ENGLAND ◆ PHILADELPHIA, PA ◆ SOUTHERN MARYLAND ◆ ATLANTA, GA
◆ NEW JERSEY ◆ LEHIGH VALLEY, PA ◆ NORTHERN VIRGINIA ◆ TAMPA, FL
◆ NEW YORK ◆ CENTRAL PENNSYLVANIA ◆ CENTRAL VIRGINIA ◆ SOUTH FLORIDA
◆ NEW YORK, NY ◆ SOUTHEASTERN, PA ◆ RALEIGH, NC ◆ DALLAS, TX
◆ NEW YORK METRO ◆ WASHINGTON, DC
◆ NORTHERN NEW JERSEY ◆ PERKIOMEN VALLEY, PA
THE INFORMATION, DESIGNS, DRAWINGS, DIAGRAMS, SPECIFICATIONS AND ESTIMATES PROVIDED HEREIN IS INTENDED FOR CONSTRUCTION PURPOSES ONLY UPON THE ISSUANCE OF A WRITTEN NOTICE TO PROCEED OR PERMIT. ANY PRELIMINARY DOCUMENTS PROVIDED PRIOR TO ISSUANCE OF A WRITTEN NOTICE TO PROCEED OR PERMIT ARE NOT INTENDED FOR CONSTRUCTION PURPOSES. THE INFORMATION, DESIGNS, DRAWINGS, DIAGRAMS, SPECIFICATIONS AND ESTIMATES PROVIDED HEREIN SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES ONLY AFTER BOHLER ENGINEERING HAS RECEIVED A WRITTEN NOTICE TO PROCEED OR PERMIT FROM APPLICABLE ENGINEERING OR OTHER GOVERNMENTAL AGENCY.

REVISIONS

REV	DATE	COMMENT	BY

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL - 811
WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777) (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	MD152018
DRAWN BY:	AVG
CHECKED BY:	BRR
DATE:	05/17/2021
SCALE:	1" = 50'
CAD I.D.:	LSP-5

PROJECT:

PRELIMINARY EQUIVALENT SKETCH PLAN
FOR
BETHANY GLEN
LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100

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

BOHLER ENGINEERING
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
MARYLAND LICENSE No. 3997

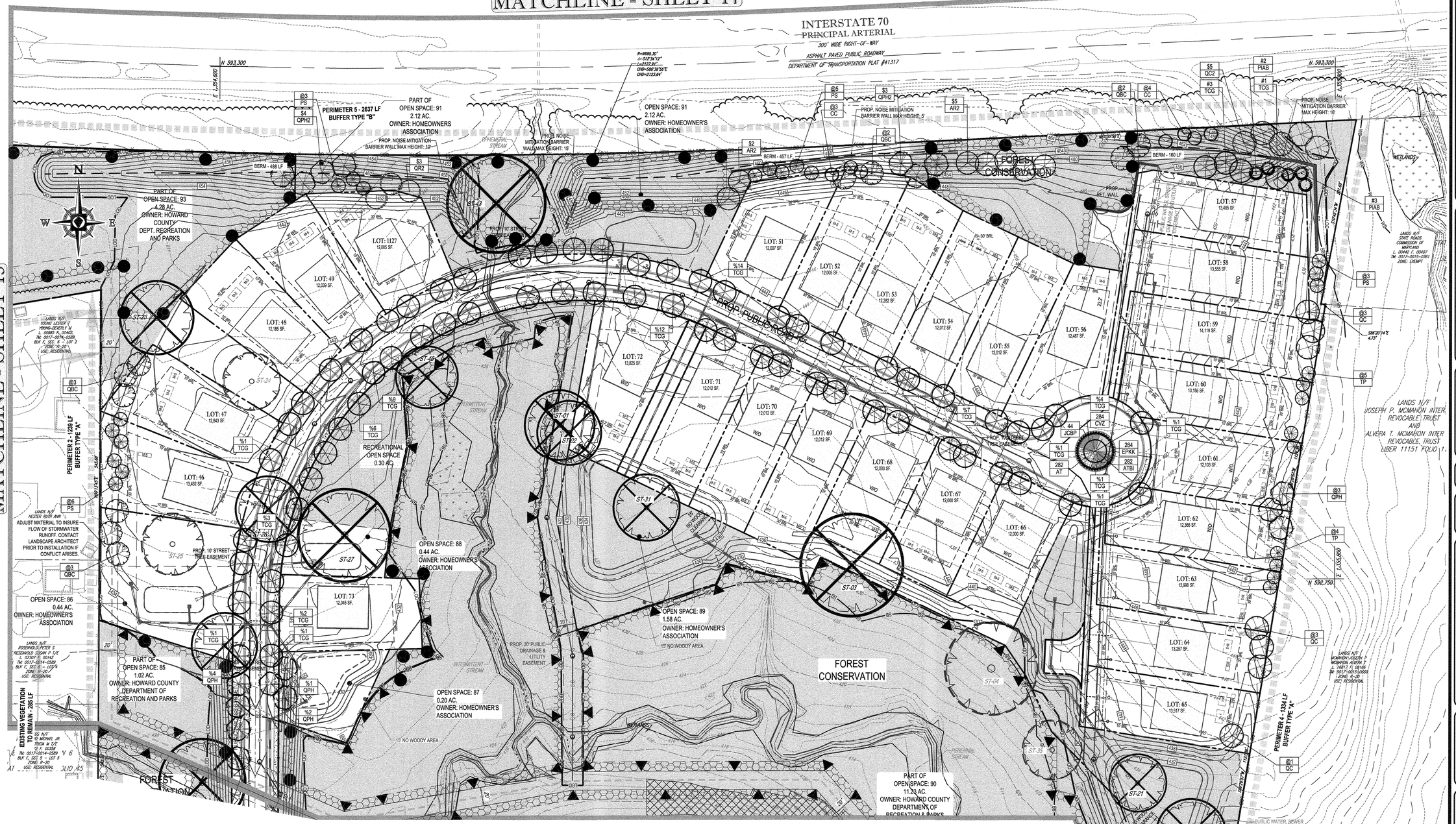
SHEET TITLE:
LANDSCAPE PLAN
NEIGHBORHOOD - C

SHEET NUMBER:
15 of 30

SP-19-005

H:\15\MD152018\DRAWING\SP\PLAN SETS\PRELIMINARY EQUIVALENT SKETCH PLAN\MD152018-LSP-5.DWG PRINTED BY: AGAMBOA 5.19.21 @ 9:00 AM LAST SAVED BY: JCAMPBELL

MATCHLINE - SHEET 14



MATCHLINE - SHEET 15

MATCHLINE - SHEET 17

LEGEND

- PROPERTY LINE
- WETLAND BUFFER LIMITS
- LOD — LIMIT OF DISTURBANCE
- 340 — EXISTING CONTOUR
- 341 — PROPOSED CONTOUR
- TPF — TREE PROTECTION FENCE
- W — WETLAND BOUNDARY
- WB — 25-FOOT WETLAND BUFFER
- SB — 100-FOOT STREAM BUFFER
- SOILS BOUNDARY
- EXISTING TREE LINE
- WETLANDS
- 100 YR. — 100 YR. FLOODPLAIN
- SPECIMEN TREES
- SPECIMEN TREE (TO BE REMOVED)
- STEEP SLOPES 15-24.99%
- STEEP SLOPES 25% +
- FOREST CONSERVATION EASEMENT

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR — DATE 4/23/21

DEVELOPER'S/OWNER'S LANDSCAPE CERTIFICATE

I/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 ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

DEVELOPER'S / OWNER'S NAME — DATE 6-10-21

50 25 12.5 0 50
1"= 50'

SUBDIVISION NAME: TBD SECTION/AREA: N/A DEED # 00226/ 00064	PREVIOUS FILE No. : WP-19-118 ECP-19-041

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

OWNER: 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

TAX MAP: 17 GRID: 15 ZONED: R-20
PARCEL: 34
2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
SUSTAINABLE DESIGN
PROGRAM MANAGEMENT LANDSCAPE ARCHITECTURE
PERMITTING SERVICES TRANSPORTATION SERVICES
NEW YORK • NEW JERSEY • PHILADELPHIA, PA • NEW ENGLAND • BOSTON, MA • NEW YORK METRO • NORTHERN NEW JERSEY • PITTSBURGH, PA • SOUTHWESTERN, PA • SOUTHEASTERN, PA • RENO/SPARKS, NV • SOUTHERN MARYLAND • ATLANTA, GA • NORTHERN VIRGINIA • TAMPA, FL • ORLANDO, FL • SOUTHEASTERN FLORIDA • RALEIGH, NC • WASHINGTON, DC • DALLAS, TX

THE INFORMATION, DESIGNS, DRAWINGS, AND SPECIFICATIONS CONTAINED HEREIN ARE THE PROPERTY OF BOHLER ENGINEERING AND MAY BE USED FOR PROJECT RELATED PURPOSES ONLY. ALL OTHER USES REQUIRE WRITTEN AUTHORIZATION FROM BOHLER ENGINEERING.

REVISIONS

REV	DATE	COMMENT	BY

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE: IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL 1-811
(VW 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777) (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	MD152018
DRAWN BY:	AVG
CHECKED BY:	BRR
DATE:	05/17/2021
SCALE:	1" = 50'
CAD I.D.:	LSP-5

PROJECT:
PRELIMINARY EQUIVALENT SKETCH PLAN
FOR
BETHANY GLEN
LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100
9891 OLD FREDERICK ROAD - ROUTE 99
2ND ELECTION DISTRICT
TAX MAP 17, GRID 15, PARCEL 34
HOWARD COUNTY, MARYLAND

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

E.R. McWILLIAMS
5/20/21
REGISTERED LANDSCAPE ARCHITECT
(MARYLAND) LICENSE No. 3697

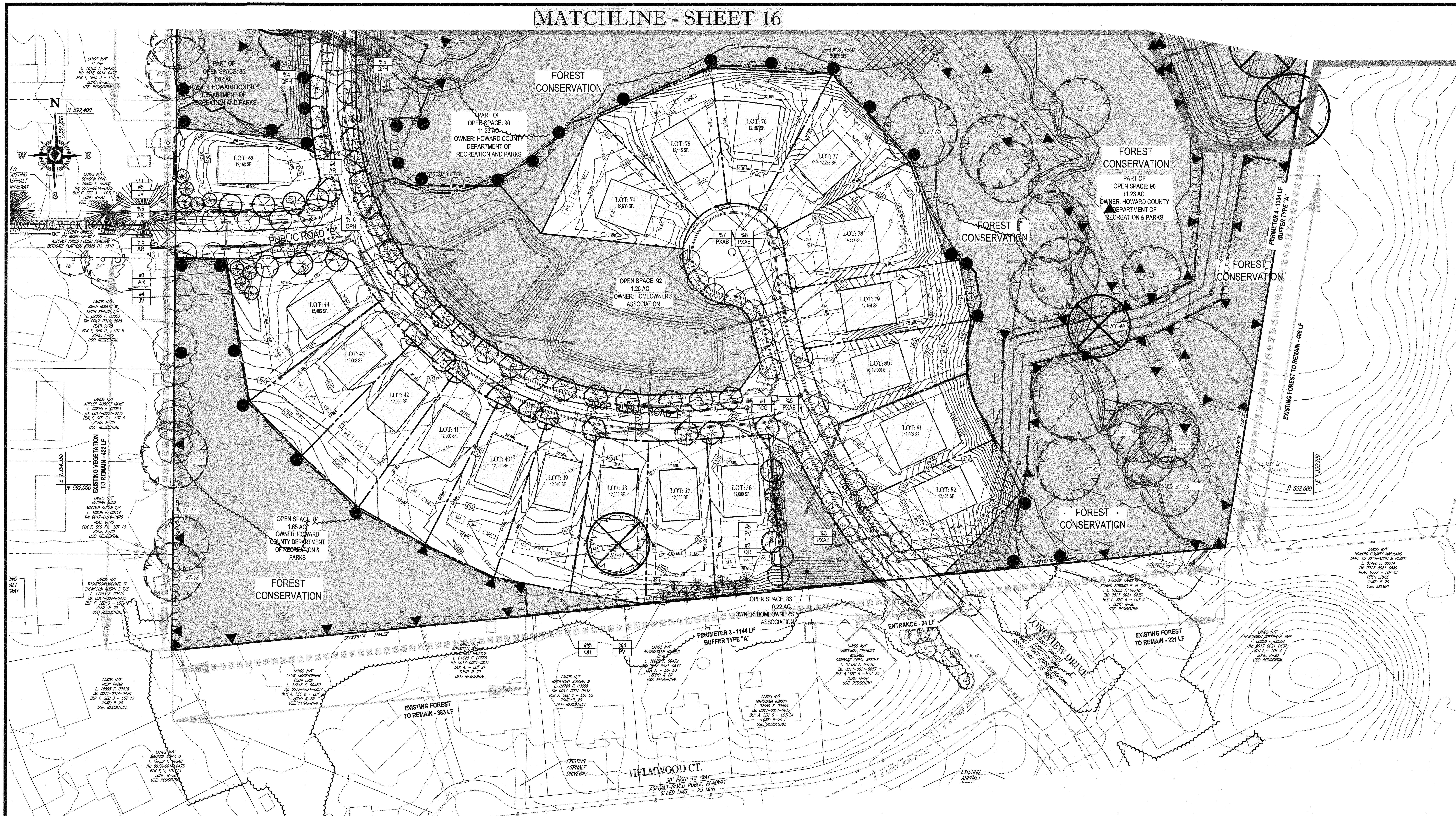
SHEET TITLE:
LANDSCAPE PLAN NEIGHBORHOOD - D

SHEET NUMBER:
16 of 30

SP-19-005

H:\19\MD152018\DRAWINGS\PLAN SET\PRELIMINARY EQUIVALENT SKETCH PLAN\MD152018-LSP-5.DWG PRINTED BY: AGAMBOA 5.19.21 @ 9:00 AM LAST SAVED BY: JCAMPBELL

MATCHLINE - SHEET 16



LEGEND

Symbol	Description
	PROPERTY LINE
	WETLAND BUFFER LIMITS
LOD	LIMIT OF DISTURBANCE
340 / 342	EXISTING CONTOUR
341	PROPOSED CONTOUR
TPF	TREE PROTECTION FENCE
W	WETLAND BOUNDARY
WB	25-FOOT WETLAND BUFFER
SB	100-FOOT STREAM BUFFER
	SOILS BOUNDARY
	EXISTING TREE LINE
	WETLANDS
100 YR	100 YR. FLOODPLAIN
45	SPECIMEN TREES
	SPECIMEN TREE (TO BE REMOVED)
	STEEP SLOPES 15-24.99%
	STEEP SLOPES 25% +
	FOREST CONSERVATION EASEMENT

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR — DATE 4/28/21

DEVELOPER'S/OWNER'S LANDSCAPE CERTIFICATE

I/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 ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

DEVELOPER'S / OWNER'S NAME — DATE 6-10-21

50 25 12.5 0 50
1"= 50'

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

PREVIOUS FILE No. :
WP-19-118
ECP-19-041

OWNER: 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

TAX MAP: 17 GRID: 15 ZONED: R-20
PARCEL: 34
2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

PROFESSIONAL CERTIFICATION

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

BOHLER ENGINEERING

REVISIONS

REV	DATE	COMMENT	BY

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE. IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL - 811
(WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777) (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	MD152018
DRAWN BY:	AVG
CHECKED BY:	BRR
DATE:	05/17/2021
SCALE:	1" = 50'
CAD I.D.:	LSP-5

PROJECT:

PRELIMINARY EQUIVALENT SKETCH PLAN

FOR

BETHANY GLEN

LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100

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

BOHLER ENGINEERING
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
5/20/21

SHEET TITLE:

LANDSCAPE PLAN
NEIGHBORHOOD - E

SHEET NUMBER:

SP-19-005

H:\15\MD152018\DRAWINGS\PLAN SETS\PRELIMINARY EQUIVALENT SKETCH PLAN\MD152018-LSP-5.DWG PRINTED BY: AGAMBOA 5.19.21 @ 9:00 AM LAST SAVED BY: JCAMPBELL

LANDSCAPE SPECIFICATIONS

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

2. MATERIALS
A. GENERAL - ALL HARDSCAPE MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF TRANSPORTATION'S SPECIFICATIONS.

B. 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 MATTER AND CLAY CLODS.

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 FREE WITH A UNIFORM 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.

E. FERTILIZER
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.

F. PLANT MATERIAL
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 1¼", 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.

3. GENERAL WORK PROCEDURES
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.

B. 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.

4. SITE PREPARATIONS
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.

B. 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 REGULAR 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.

C. 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.

5. 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.

B. 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 UNTIL 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.

6. 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.

C. 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.

7. 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 SITE.

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 THICKNESS (1"±).

C. 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.

8. TOPSOILING
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 SECTION ABOVE.

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.

9. PLANTING
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.

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:

ACER RUBRUM	PLATANUS X ACERIFOLIA
BETULA VARIETIES	POPULOUS VARIETIES
CARPINUS VARIETIES	PRUNUS 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 ½" 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 ¼" 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, 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.

11. WATERING
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.

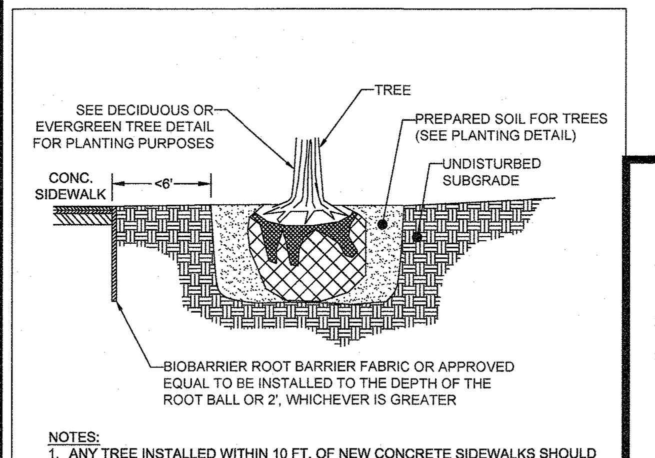
B. ANY DEAD OR DYING PLANT MATERIAL SHALL BE REPLACED FOR THE LENGTH OF THE GUARANTEE PERIOD. REPLACEMENT OF PLANT MATERIAL SHALL BE CONDUCTED AT THE FIRST SUCCEEDING PLANTING SEASON. ANY DEBRIS SHALL BE DISPOSED OF OFF-SITE, WITHOUT EXCEPTION.

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.

13. CLEANUP
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.



NOTES:
1. ANY TREE INSTALLED WITHIN 10 FT. OF NEW CONCRETE SIDEWALKS SHOULD BE INSTALLED WITH BIOBARRIER ROOT BARRIER FABRIC AS SHOWN.
2. TREES SHALL BE INSTALLED ACCORDING TO THE APPROPRIATE PLANTING DETAIL.

ROOT BARRIER DETAIL
NOT TO SCALE

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR [signature] DATE 6/29/21

SEEDING SPECIFICATIONS

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

PERENNIAL RYEGRASS	1/2 LB/1,000 SQ FT
KENTUCKY BLUEGRASS	1 LB/1,000 SQ FT
RED FESCUE	1 1/2 LBS/1,000 SQ FT
SPREADING FESCUE	1 1/2 LBS/1,000 SQ FT
FERTILIZER (20:10:10)	14 LBS/1,000 SQ FT
MULCH	90 LBS/1,000 SQ FT

4. 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.

DEVELOPER'S/OWNER'S LANDSCAPE CERTIFICATE

I/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 ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

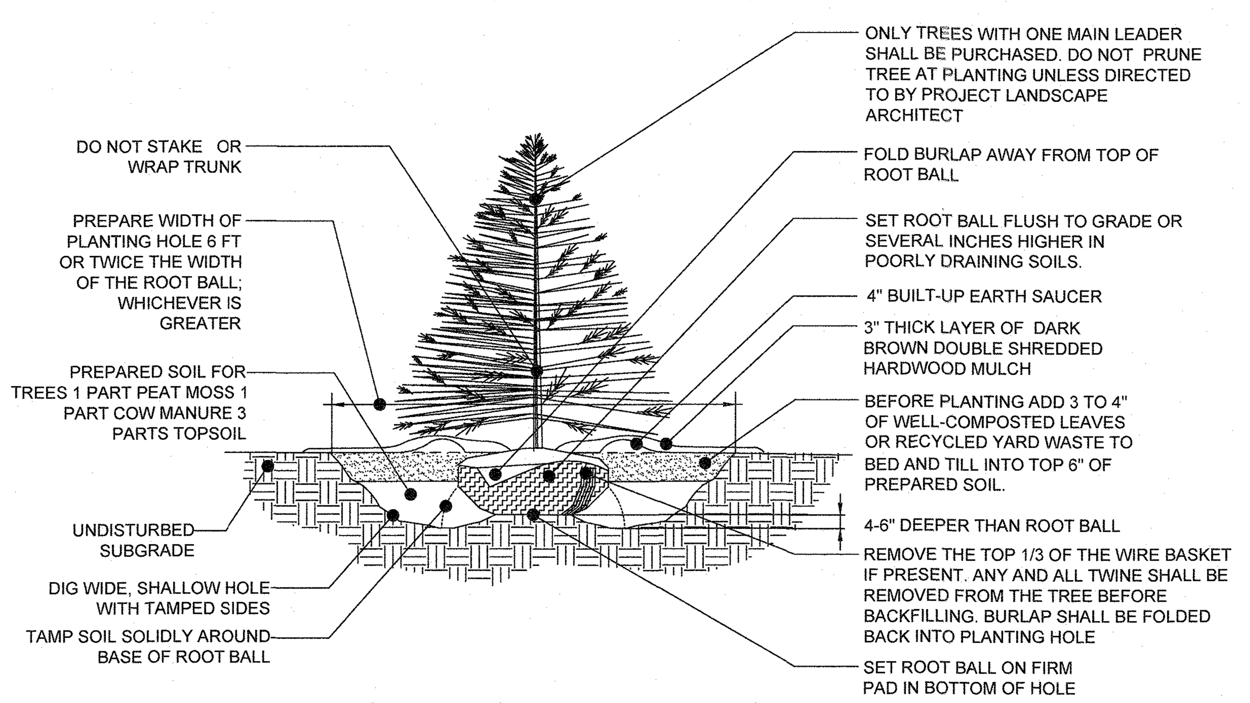
[signature] 6-10-21
DEVELOPER'S / OWNER'S NAME DATE

OWNER MAINTENANCE RESPONSIBILITIES

UPON 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 ALL INSTALLED VEGETATION, PLANTS, TREE, BUSHES, SHRUBS, GRASSES, GRASS, ORNAMENTAL PLANTS AND 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:

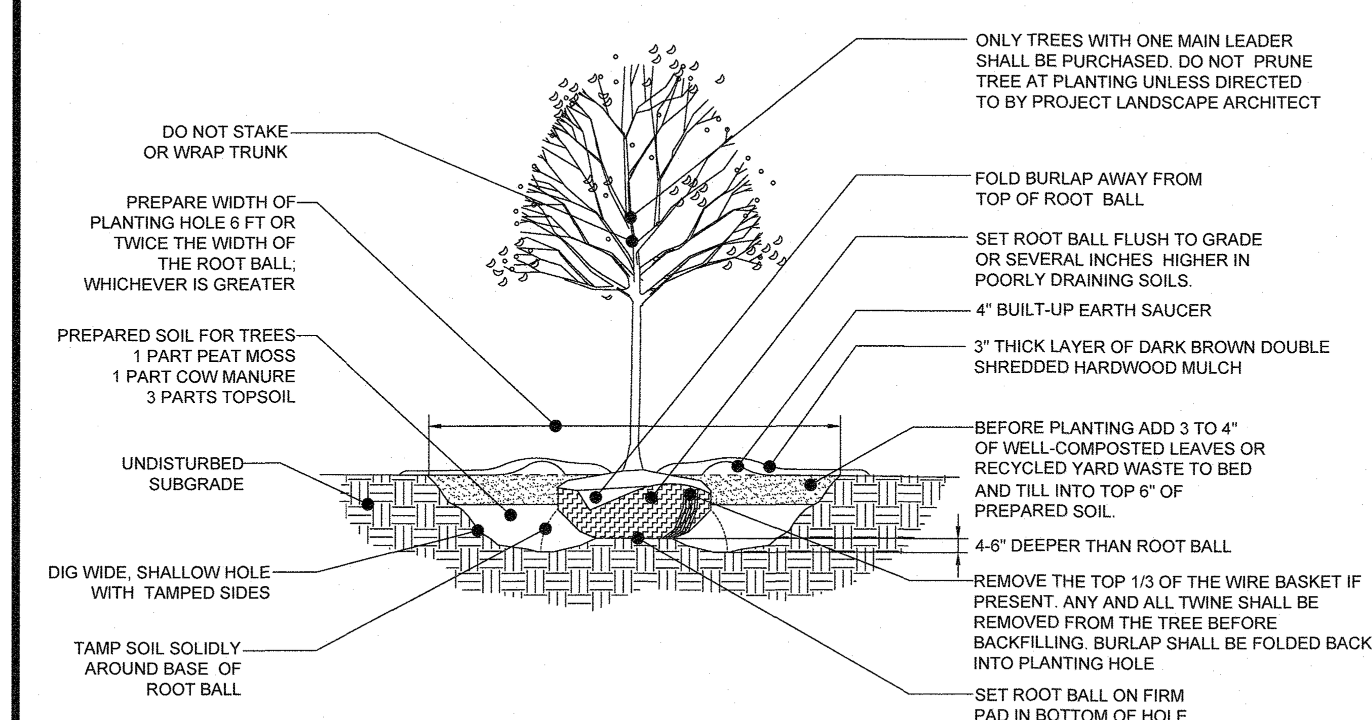
- TREES ADJACENT TO WALKWAYS AND AREAS OF PEDESTRIAN TRAFFIC MUST BE MAINTAINED TO ASSURE THAT ANY BRANCHES MUST BE LIMBED UP TO A CLEARANCE HEIGHT OF 7 FT. (FROM ALL PEDESTRIAN SURFACES) OR PRUNED BACK TO AVOID ANY INTERFERENCE WITH THE TYPICAL PATH OF TRAVEL.
- TREES WITHIN VEHICULAR SIGHT LINES, AS 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 SO THAT NO PORTION OF THE PLANT EXCEEDS 30 INCHES ABOVE GRADE (OF ALL PAVED, TRAVEL 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 IMMEDIATELY FROM VEHICULAR AND PEDESTRIAN TRAFFIC AREAS TO PREVENT TRIPPING, SLIPPING OR ANY OTHER HAZARDS.

THESE REQUIREMENTS DO NOT AFFECT THE PLANT LIFE GUARANTEES THE LANDSCAPE CONTRACTOR IS REQUIRED TO PROVIDE.



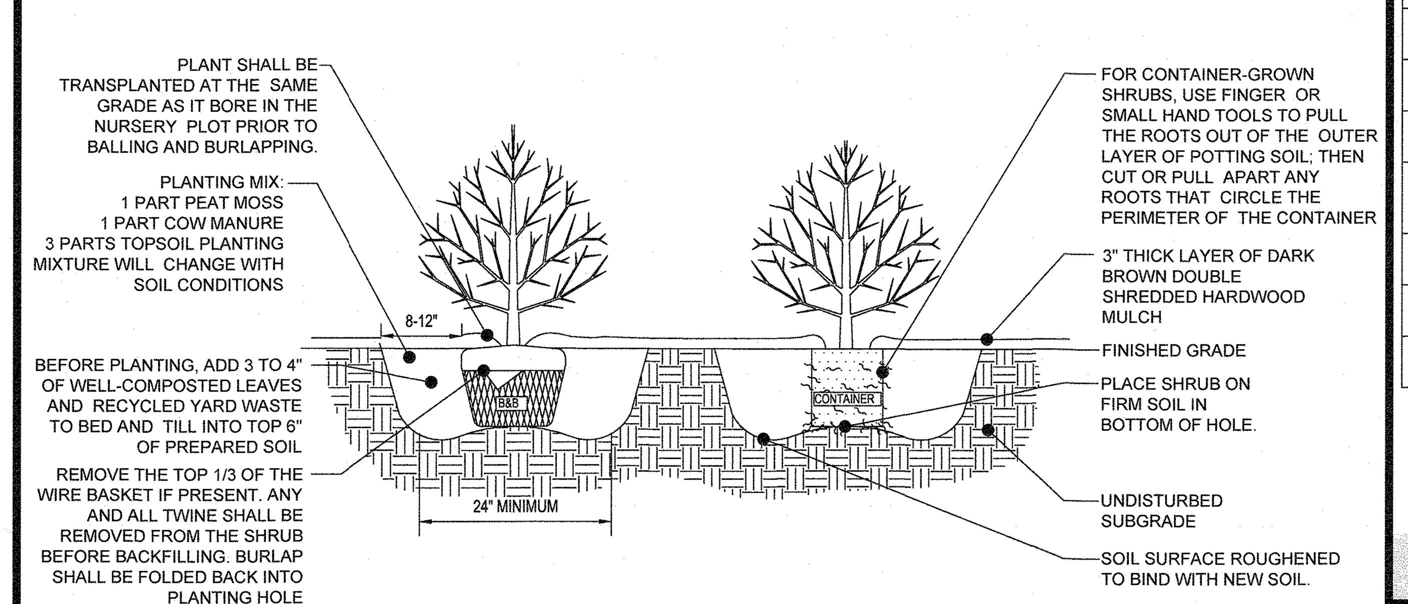
REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT.

EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE



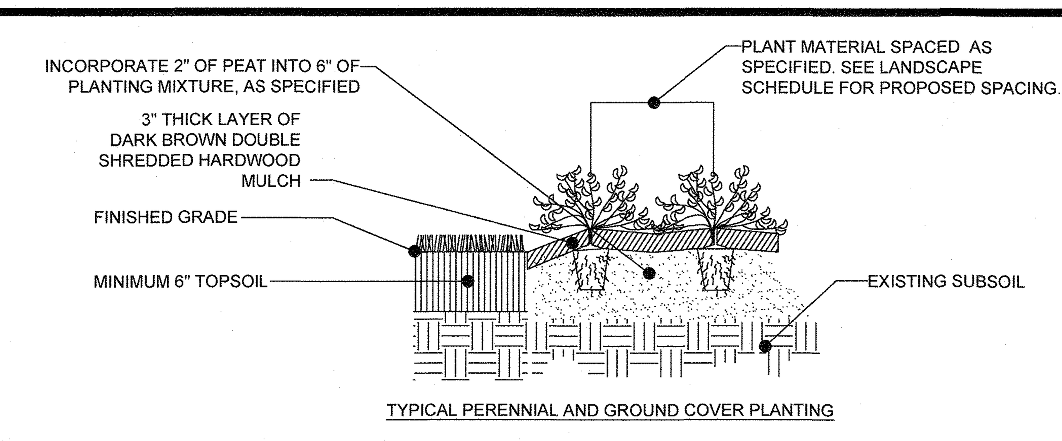
REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT.

DECIDUOUS TREE PLANTING DETAIL
NOT TO SCALE



REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT

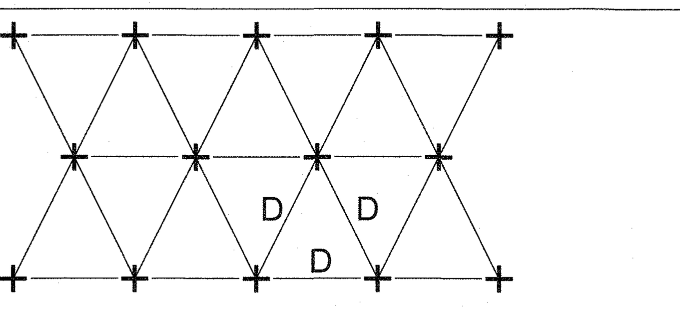
DECIDUOUS AND EVERGREEN SHRUB PLANTING DETAIL
NOT TO SCALE



TYPICAL PERENNIAL AND GROUND COVER PLANTING

D= PROPOSED ON CENTER (O.C.) SPACING

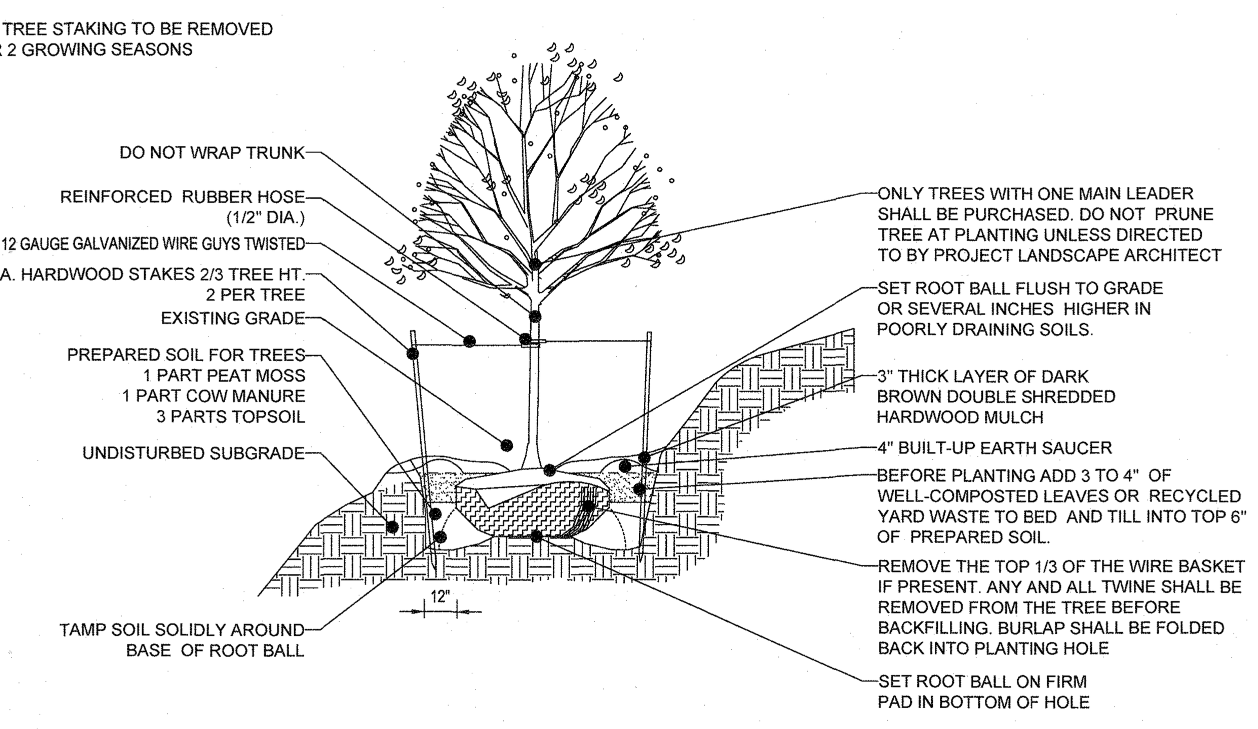
SEE LANDSCAPE SCHEDULE FOR FOR REQUIRED SPACING



TYPICAL PERENNIAL AND GROUND COVER SPACING & LAYOUT

PERENNIAL/GROUND COVER PLANTING DETAIL
NOT TO SCALE

NOTE: TREE STAKING TO BE REMOVED AFTER 2 GROWING SEASONS



TREE PLANTING ON SLOPE DETAIL
NOT TO SCALE

SAND FILTER AREAS PLANTING SCHEDULE - ERNST SEED MIX NATIVE DETENTION AREAS MIX

SEED MIX INFORMATION (SEE NOTE #1 BELOW FOR PLANTING DETAILS)		SWM FAC #1 (SAND FILTER) 3250 SF	SWM FAC #2 (SAND FILTER) 1900 SF	SWM FAC #3 (SAND FILTER) 3000 SF	SWM FAC #4 (SAND FILTER) 900 SF	SWM FAC #5 (SAND FILTER) 2400 SF
SEEDING RATE	½ LB PER ACRE	1.62 LBS	0.95 LBS	1.5 LBS	0.45 LBS	1.2 LBS
COST PER LB	$15.98	$25.89	$15.19	$23.97	$8.63	$19.18

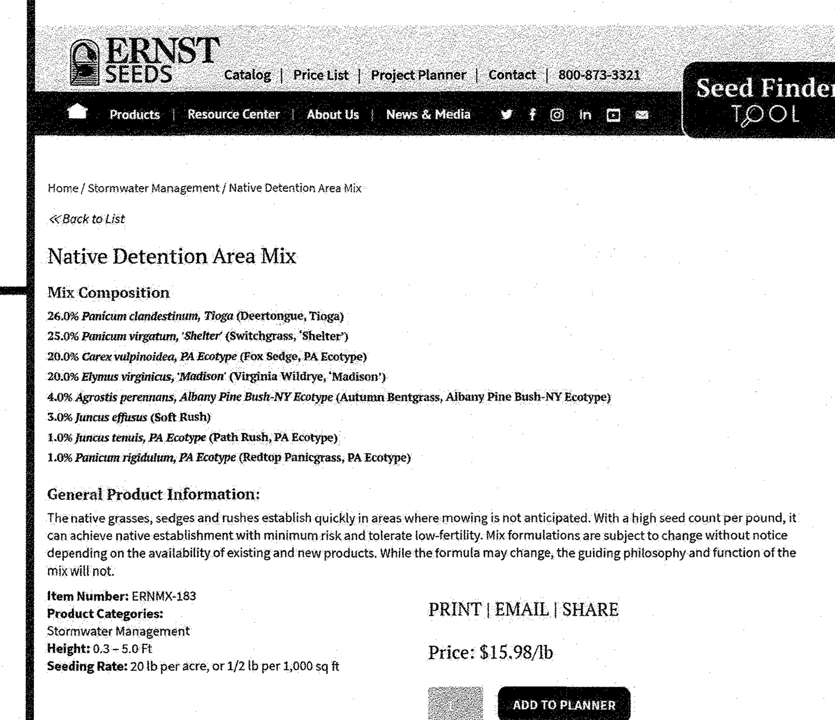
SAND FILTER AREAS PLANTING SCHEDULE - ERNST SEED MIX NATIVE DETENTION AREAS MIX

SEED MIX INFORMATION (SEE NOTE #1 BELOW FOR PLANTING DETAILS)		SWM FAC #6 (SAND FILTER) 3000 SF	SWM FAC #7 (SAND FILTER) 2500 SF	SWM FAC #8 (SAND FILTER) 3000 SF	SWM FAC #9 (SAND FILTER) 1000 SF
SEEDING RATE	½ LB PER ACRE	1.5 LBS	1.25 LBS	1.5 LBS	0.5 LBS
COST PER LB	$15.98	$23.97	$19.98	$23.97	$7.99

BIORETENTION AREAS PLANTING SCHEDULE

SPECIES		TYPE	SPACING	SIZE	SWM FAC #11 (MICROBIO) 1320 SF	SWM FAC #12 (MICROBIO) 1400 SF	SWM FAC #13 (MICROBIO) 1200 SF	SWM FAC #14 (MICROBIO) 1200 SF	TOTAL
BOTANICAL NAME	COMMON NAME								
CLETHERA ALNIFOLIA	SWEET PEPPERBUSH	SHRUB	30" O.C.	1 GAL. CONT.	24	25	21	21	91
CORNUS AMMOMUM	SILKY DOGWOOD	SHRUB	30" O.C.	1 GAL. CONT.	24	25	21	21	91
RUDBECKIA HIRTA	BLACK EYE SUSAN	PERENNIAL	12" O.C.	PLUG	147	156	133	133	569
ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	PERENNIAL	12" O.C.	PLUG	147	156	133	133	569
RUDBECKIA LACINIATA	TALL CONEFLOWER	PERENNIAL	12" O.C.	PLUG	147	156	133	133	569
JUNCUS EFFUSUS	SOFT RUSH	PERENNIAL	12" O.C.	PLUG	293	311	266	266	1136
SCIRPUS ACUTUS	HARDSTEMMED BULLRUSH	PERENNIAL	12" O.C.	PLUG	293	311	266	266	1136

NOTES:
1) SAND FILTERS ARE TO BE PLANTED WITH ERNST SEEDS NATIVE DETENTION AREA MIX. SEE DETAILS BELOW.
2) SIDE SLOPES OF DETENTION POND TO BE PLANTED WITH TURFRASS ESTABLISHMENT AND TYPE A STORMWATER STABILIZATION MATTING (SSM)
3) GRASS SWALE TO BE PLANTED WITH TURFRASS ESTABLISHMENT AND TYPE A STORMWATER STABILIZATION MATTING (SSM)


ERNST SEEDS | Catalog | Price List | Project Planner | Contact | 800-873-3321 | Seed Finder TOOL
Products | Resource Center | About Us | News & Media

Home / Stormwater Management / Native Detention Area Mix

« Back to List

Native Detention Area Mix

Mix Composition
26.0% *Panicum clandestinum, Tioga* (Deertongue, Tioga)
25.0% *Panicum virgatum, 'Shelter'* (Switchgrass, 'Shelter')
20.0% *Carex vulpinoidea, PA Ecotype* (Fox Sedge, PA Ecotype)
20.0% *Elymus virginicus, 'Madison'* (Virginia Wildrye, 'Madison')
4.0% *Agrostis perennans, Albany Pine Bush-NY Ecotype* (Autumn Bentgrass, Albany Pine Bush-NY Ecotype)
3.0% *Juncus effusus* (Soft Rush)
1.0% *Juncus tenuis, PA Ecotype* (Path Rush, PA Ecotype)
1.0% *Panicum rigidulum, PA Ecotype* (Redtop Panicgrass, PA Ecotype)

General Product Information:
The native grasses, sedges and rushes establish quickly in areas where mowing is not anticipated. With a high seed count per pound, it can achieve native establishment with minimum risk and tolerate low-fertility. Mix formulations are subject to change without notice depending on the availability of existing and new products. While the formula may change, the guiding philosophy and function of the mix will not.

Item Number: ERNMX-183
Product Categories: Stormwater Management
Height: 0.3 – 5.0 Ft
Seeding Rate: 20 lb per acre, or 1/2 lb per 1,000 sq ft

PRINT | EMAIL | SHARE

Price: $15.98/lb

ADD TO PLANNER

OWNER:	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

TAX MAP: 17 GRID: 15 ZONED: R-20
PARCEL: 34
2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

SUBDIVISION NAME: TBD SECTION/AREA: N/A DEED # 00226/ 00064	PREVIOUS FILE No. : WP-19-118 ECP-19-041

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

BOHLER ENGINEERING™
LAND SURVEYING · SITE CIVIL AND CONSULTING ENGINEERING · PROGRAM MANAGEMENT · LANDSCAPE ARCHITECTURE · SUSTAINABLE DESIGN · PERMITTING SERVICES · TRANSPORTATION SERVICES
◆ UPSTATE NEW YORK ◆ NEW ENGLAND ◆ BOSTON, MA ◆ NEW YORK, NY ◆ NEW YORK METRO ◆ NORTHERN NEW JERSEY
◆ SOUTHERN NEW JERSEY ◆ PHILADELPHIA, PA ◆ PITTSBURGH, PA ◆ LEHIGH VALLEY, PA ◆ SOUTHEASTERN, PA ◆ REHOBOTH BEACH, DE
◆ BALTIMORE, MD ◆ SOUTHERN MARYLAND ◆ NORTHERN VIRGINIA ◆ CENTRAL VIRGINIA ◆ RALEIGH, NC ◆ WASHINGTON, DC
◆ CHARLOTTE, NC ◆ ATLANTA, GA ◆ TAMPA, FL ◆ SOUTH FLORIDA ◆ DALLAS, TX

THE INFORMATION, DESIGN AND CONTENT OF THIS PLAN ARE PROPRIETARY AND SHALL NOT BE COPIED OR USED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM BOHLER ENGINEERING. ONLY APPROVED, SIGNED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES
© 2017 BOHLER ENGINEERING

REVISIONS

REV	DATE	COMMENT	BY

DIG WITH CARE · CALL BEFORE YOU DIG

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE. IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL - 811
(WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777)
(VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	MD152018
DRAWN BY:	AVG
CHECKED BY:	BRR
DATE:	05/17/2021
SCALE:	NTS
CAD I.D.:	LSP 5

PROJECT:
PRELIMINARY EQUIVALENT SKETCH PLAN
FOR
BETHANY GLEN
LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100

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

BOHLER ENGINEERING™
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
MARYLAND LICENSE No. 3697
[signature] 5/20/21

SHEET TITLE:
LANDSCAPE NOTES & DETAILS

SHEET NUMBER:

SP-19-005

FOREST CONSERVATION SEQUENCE OF CONSTRUCTION

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

SURETY NOTE

FOREST CONSERVATION REQUIREMENTS PER SECTION 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 9.9 ACRES. THE REFORESTATION OBLIGATION OF 14.0 ACRES WILL BE PROVIDED BY 12.6 ACRES ONSITE, AND 1.4 ACRES AT A ____________ FOREST CONSERVATION BANK (________). TOTAL FORESTATION PROVIDED FOR THIS SUBDIVISION IS 23.9 ACRES. SURETY IN THE AMOUNT OF $274,428.00 WILL BE POSTED WITH THE DEVELOPERS AGREEMENT ______.

SITE AREA COMPUTATIONS

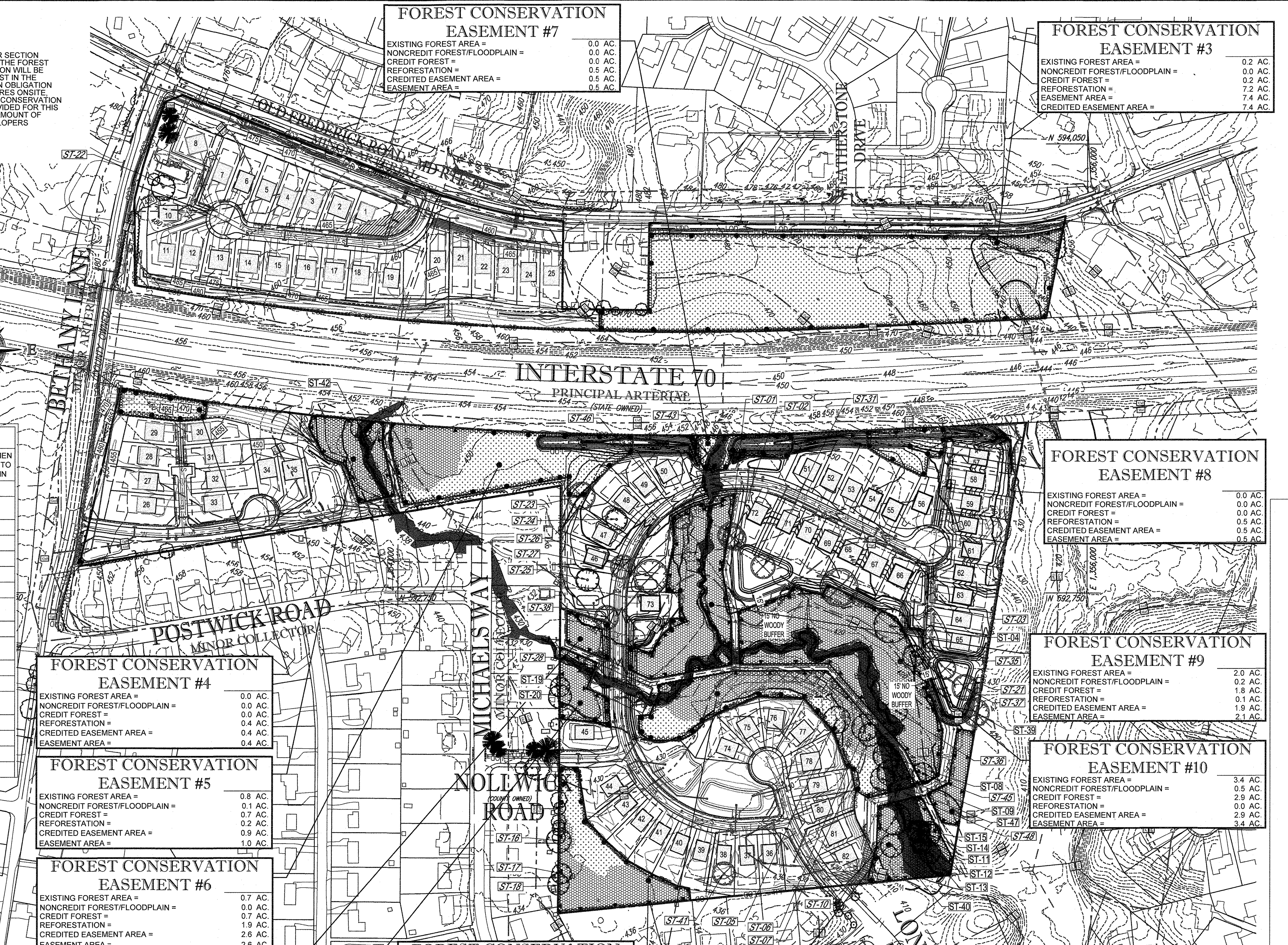
GROSS TRACT AREA = 68.57 AC
100 YEAR FLOODPLAIN = 2.10 AC
NET TRACT AREA = 66.47 AC
ZONING = R-20

FORESTED FLOODPLAIN

FOREST = 1.8 AC.

FOREST CLEARING

FOREST TO BE CLEARED = 17.8 AC. (0.1 AC. WITHIN FLOODPLAIN)



FOREST CONSERVATION EASEMENT #7

EXISTING FOREST AREA =	0.0 AC.
NONCREDIT FOREST/FLOODPLAIN =	0.0 AC.
CREDIT FOREST =	0.0 AC.
REFORESTATION =	0.5 AC.
CREDITED EASEMENT AREA =	0.5 AC.
EASEMENT AREA =	0.5 AC.

FOREST CONSERVATION EASEMENT #3

EXISTING FOREST AREA =	0.2 AC.
NONCREDIT FOREST/FLOODPLAIN =	0.0 AC.
CREDIT FOREST =	0.2 AC.
REFORESTATION =	7.2 AC.
EASEMENT AREA =	7.4 AC.
CREDITED EASEMENT AREA =	7.4 AC.

FOREST CONSERVATION EASEMENT #8

EXISTING FOREST AREA =	0.0 AC.
NONCREDIT FOREST/FLOODPLAIN =	0.0 AC.
CREDIT FOREST =	0.0 AC.
REFORESTATION =	0.5 AC.
CREDITED EASEMENT AREA =	0.5 AC.
EASEMENT AREA =	0.5 AC.

FOREST CONSERVATION EASEMENT #9

EXISTING FOREST AREA =	2.0 AC.
NONCREDIT FOREST/FLOODPLAIN =	0.2 AC.
CREDIT FOREST =	1.8 AC.
REFORESTATION =	0.1 AC.
CREDITED EASEMENT AREA =	1.9 AC.
EASEMENT AREA =	2.1 AC.

FOREST CONSERVATION EASEMENT #10

EXISTING FOREST AREA =	3.4 AC.
NONCREDIT FOREST/FLOODPLAIN =	0.5 AC.
CREDIT FOREST =	2.9 AC.
REFORESTATION =	0.0 AC.
CREDITED EASEMENT AREA =	2.9 AC.
EASEMENT AREA =	3.4 AC.

FOREST CONSERVATION EASEMENT #11

EXISTING FOREST AREA =	0.4 AC.
NONCREDIT FOREST/FLOODPLAIN =	0.0 AC.
CREDIT FOREST =	0.4 AC.
REFORESTATION =	0.0 AC.
CREDITED EASEMENT AREA =	0.4 AC.
EASEMENT AREA =	0.4 AC.

FOREST CONSERVATION EASEMENT #4

EXISTING FOREST AREA =	0.0 AC.
NONCREDIT FOREST/FLOODPLAIN =	0.0 AC.
CREDIT FOREST =	0.0 AC.
REFORESTATION =	0.4 AC.
CREDITED EASEMENT AREA =	0.4 AC.
EASEMENT AREA =	0.4 AC.

FOREST CONSERVATION EASEMENT #5

EXISTING FOREST AREA =	0.8 AC.
NONCREDIT FOREST/FLOODPLAIN =	0.1 AC.
CREDIT FOREST =	0.7 AC.
REFORESTATION =	0.2 AC.
CREDITED EASEMENT AREA =	0.9 AC.
EASEMENT AREA =	1.0 AC.

FOREST CONSERVATION EASEMENT #6

EXISTING FOREST AREA =	0.7 AC.
NONCREDIT FOREST/FLOODPLAIN =	0.0 AC.
CREDIT FOREST =	0.7 AC.
REFORESTATION =	1.9 AC.
CREDITED EASEMENT AREA =	2.6 AC.
EASEMENT AREA =	2.6 AC.

FOREST CONSERVATION EASEMENT #2

EXISTING FOREST AREA =	0.2 AC.
NONCREDIT FOREST/FLOODPLAIN =	0.0 AC.
CREDIT FOREST =	0.2 AC.
REFORESTATION =	0.1 AC.
CREDITED EASEMENT AREA =	0.3 AC.
EASEMENT AREA =	0.3 AC.

FOREST CONSERVATION EASEMENT #1

EXISTING FOREST AREA =	0.4 AC.
NONCREDIT FOREST/FLOODPLAIN =	0.0 AC.
CREDIT FOREST =	0.4 AC.
REFORESTATION =	0.1 AC.
CREDITED EASEMENT AREA =	0.5 AC.
EASEMENT AREA =	0.5 AC.

FOREST CONSERVATION EASEMENT #14

EXISTING FOREST AREA =	1.0 AC.
NONCREDIT FOREST/FLOODPLAIN =	0.0 AC.
CREDIT FOREST =	1.0 AC.
REFORESTATION =	0.6 AC.
CREDITED EASEMENT AREA =	1.6 AC.
EASEMENT AREA =	1.6 AC.

FOREST CONSERVATION EASEMENT #13

EXISTING FOREST AREA =	1.5 AC.
NONCREDIT FOREST/FLOODPLAIN =	0.3 AC.
CREDIT FOREST =	1.2 AC.
REFORESTATION =	0.8 AC.
CREDITED EASEMENT AREA =	2.0 AC.
EASEMENT AREA =	2.3 AC.

FOREST CONSERVATION EASEMENT #12

EXISTING FOREST AREA =	0.9 AC.
NONCREDIT FOREST/FLOODPLAIN =	0.5 AC.
CREDIT FOREST =	0.4 AC.
REFORESTATION =	0.1 AC.
CREDITED EASEMENT AREA =	0.5 AC.
EASEMENT AREA =	1.0 AC.

SPECIMEN TREES

ID #	SPECIES NAME	SIZE	CONDITION	SPECIMEN TREES TO REMAIN
ST-01	BLACK GUM	34"	VERY GOOD, HEALTHY CROWN	NO
ST-02	TULIP POPLAR	31"	VERY GOOD, HEALTHY CANOPY CROWN	NO
ST-03	TULIP POPLAR	50"	VERY POOR, MOSTLY DEAD CROWN, BROKEN	NO
ST-04	TULIP POPLAR	48"	FAIR, SOME LIMB DIEBACK, BROAD CROWN	YES
ST-05	AMERICAN ELM	38"	VERY GOOD, TYPICAL, HEALTHY CROWN	YES
ST-06	AMERICAN ELM	38"	VERY GOOD, TYPICAL, HEALTHY CROWN	YES
ST-07	AMERICAN ELM	32"	VERY GOOD, TYPICAL, HEALTHY CROWN	YES
ST-08	AMERICAN ELM	36"	VERY GOOD, HEALTHY CROWN, TWO VOLE	YES
ST-09	TULIP POPLAR	37"	GOOD, SOME LIMB DIEBACK	YES
ST-10	TULIP POPLAR	45"	VERY GOOD, HEALTHY CANOPY CROWN	YES
ST-11	TULIP POPLAR	32"	VERY GOOD, HEALTHY CANOPY CROWN	YES
ST-12	TULIP POPLAR	31"	VERY GOOD, HEALTHY CANOPY CROWN	YES
ST-13	TULIP POPLAR	32"	VERY GOOD, HEALTHY CANOPY CROWN	YES
ST-14	TULIP POPLAR	30"	VERY GOOD, HEALTHY CANOPY CROWN	YES
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
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	YES
ST-25	SCARLET OAK	31.9"	GOOD	YES

SPECIMEN TREES

ID #	SPECIES NAME	SIZE	CONDITION	SPECIMEN TREES TO REMAIN
ST-26	TULIP POPLAR	31.8"	GOOD	NO
ST-27	SCARLET OAK	44.9"	FAIR, DOUBLE VOLE HAZARD	NO
ST-28	SCARLET OAK	41.7"	DEAD	NO
ST-31	TULIP POPLAR	32.1"	FAIR, LIMB BREAKAGE	NO
ST-35	TULIP POPLAR	30.8"	FAIR, LIMB BREAKAGE	YES
ST-36	TULIP POPLAR	31.5"	GOOD	YES
ST-37	TULIP POPLAR	33.7"	POOR, ROTTEN CORE	NO
ST-38	BLACK OAK	39.0"	FAIR, DOUBLE VOLE, BELOW 4.3 Ft.	NO
ST-39	TULIP POPLAR	36.0"	GOOD	NO
ST-40	RED MAPLE	32.9"	POOR, DIEBACK, LIMB BREAKAGE	YES
ST-41	RED OAK	30.4"	GOOD	NO
ST-42	TULIP POPLAR	30.0"	GOOD	YES
ST-43	RED MAPLE	47.4"	POOR, MULTI VOLE, DIEBACK	NO
ST-45	TULIP POPLAR	30.4"	GOOD	YES
ST-46	BLACK GUM	30.0"	FAIR, SOME DIEBACK	NO
ST-47	TULIP POPLAR	33.6"	GOOD	YES
ST-48	TULIP POPLAR	30.2"	FAIR, SOME BREAKAGE	NO

UNDER WP-19-118, SECTION 16.1205.(A).(7) - A REQUEST FOR ALTERNATIVE COMPLIANCE HAS BEEN APPROVED DATED SEPT. 24, 2020 FOR THE REMOVAL OF SIXTEEN (16) SPECIMEN TREES (#ST-01,02, 03, 21, 23, 26, 27, 28, 31, 37, 38, 39, 41, 43, 46 AND 48). MITIGATION FOR THE REMOVAL OF THESE SIXTEEN (16) SPECIMEN TREES IS TO CONSIST OF TWO (2) 3-4" CALIBER TREE FOR EACH ONE (1) REMOVED SIMILAR OR IDENTICAL SPECIES. THESE THIRTY-TWO (32) 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.

FOREST STAND / VEGETATIVE COVER

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 CONSERVATION EASEMENT AREA TABULATION

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 EASEMENT 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	0.1	0.3	0.3
FCE # 3	0.2	0.0	0.0	0.2	7.2	7.4	7.4
FCE # 4	0.0	0.0	0.0	0.0	0.4	0.4	0.4
FCE # 5	0.8	0.1	0.0	0.7	0.2	0.9	1.0
FCE # 6	0.7	0.0	0.0	0.7	1.9	2.6	2.6
FCE # 7	0.0	0.0	0.0	0.0	0.5	0.5	0.5
FCE # 8	0.0	0.0	0.0	0.0	0.5	0.5	0.5
FCE # 9	2.0	0.0	0.2	1.8	0.1	1.9	2.1
FCE # 10	3.4	0.0	0.5	2.9	0.0	2.9	3.4
FCE # 11	0.4	0.0	0.0	0.4	0.0	0.4	0.4
FCE # 12	0.9	0.0	0.5	0.4	0.1	0.5	1.0
FCE # 13	1.5	0.0	0.3	1.2	0.8	2.0	2.3
FCE # 14	1.0	0.0	0.0	1.0	0.6	1.6	1.6
TOTAL	11.5	0.1	1.5	9.9	12.5	22.4	24.0

200 100 50 0 200
1"= 200'

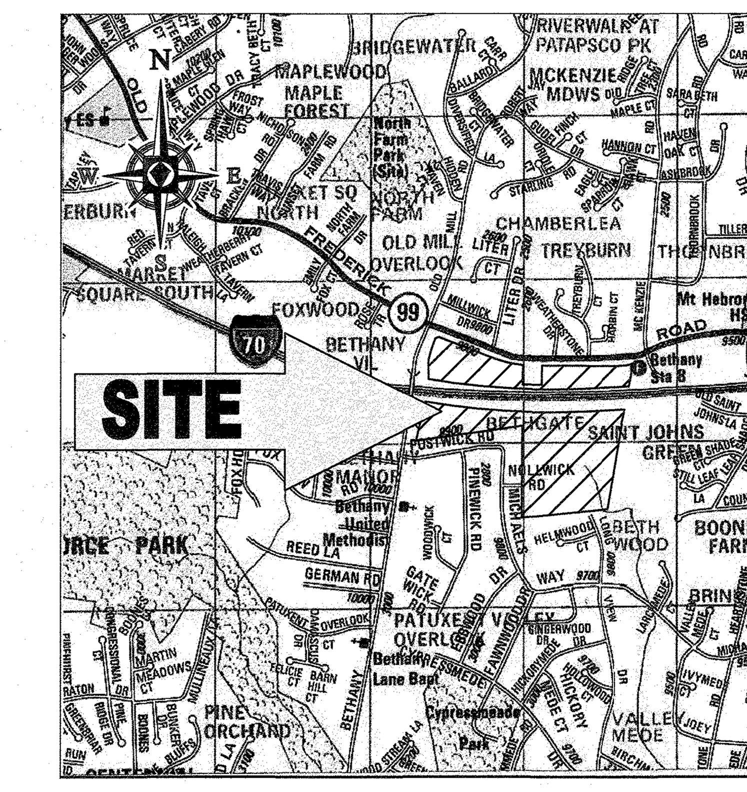
LEGEND

- PROPERTY LINE
- WETLAND BUFFER LIMITS
- LIMIT OF DISTURBANCE (LOD)
- EXISTING CONTOUR
- PROPOSED CONTOUR (341)
- TREE PROTECTION FENCE (TPF)
- FOREST CONSERVATION EASEMENT
- REFORESTATION AREA
- FOREST RETENTION AREA
- FOREST REMOVAL AREA
- WETLANDS
- 100 YR. FLOODPLAIN (FP)
- REFORESTATION SIGNAGE
- FOREST CONSERVATION SIGNAGE
- SPECIMEN TREES (45)
- WETLAND BOUNDARY (W)
- 25-FOOT WETLAND BUFFER (WB)
- 100-FOOT STREAM BUFFER (SB)
- SOILS BOUNDARY
- EXISTING TREE LINE
- STEEP SLOPES 15-24.99%
- STEEP SLOPES 25% +
- SPECIMEN TREE (TO BE REMOVED) (ST-XX)

FOREST CONSERVATION NARRATIVE:

THIS FOREST CONSERVATION PLAN PROPOSES THE REMOVAL OF 17.8 (0.1 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.



LOCATION MAP

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

BETHANY GLEN

FOREST CONSERVATION WORKSHEET FOR ____________

Net Tract Area

A.	Total (Gross) Tract Area	A =	68.6
B.	Area within 100-year Floodplain	B =	2.1
C.	Other Deductions (Identify: ____________)	C =	0.0
D.	Net Tract Area	D =	66.5

Land Use Category
Insert the number "1" under the appropriate land use (limit to only one entry)

Resid. Rural LD	Resid. Rural MD	Resid. Suburban	Inst./ Linear	Retail/Ind./ Office	Mixed Use/ PUD
0	0	1	0	0	0

E.	Afforestation Threshold	(Net Tract Area x	15%)	E =	10.0
F.	Reforestation Threshold	(Net Tract Area x	20%)	F =	13.3

Existing Forest Cover

G.	Existing Forest Cover within the Net Tract Area	G =	27.6
H.	Area of Forest above Afforestation Threshold	H =	17.6
I.	Area of Forest above Reforestation Threshold	I =	14.3

Break Even Point

J.	Break Even Point	J =	18.1
K.	Forest Clearing Permitted without Mitigation	K =	9.5

Proposed Forest Clearing

L.	Total Area of Forest to be Cleared	L =	17.7
M.	Total Area of Forest to be Retained	M =	9.9

Planting Requirements Inside Watershed

N.	Reforestation for Clearing above the Reforestation Threshold	N =	7.2
P	Reforestation for Clearing below the Reforestation Threshold	P =	6.8
Q.	Credit for Retention above the Reforestation Threshold	Q =	0.0
R.	Total Reforestation Required	R =	14.0
S.	Total Afforestation Required	S =	0.0
T	Total Reforestation and Afforestation Requirement	T=	14.0
U	75% of Total Obligation (Retention + Planting)	U=	17.9
V	Planting Required Onsite to meet 75% Obligation	V=	8.0

Planting Requirements Outside Watershed

W.	Total Planting within Development Site Watershed	W=	14.0
X.	Total Afforestation Required	X=	0.0
Y.	Remaining Planting within Watershed for Reforestation Credit	Y=	14.0
Z.	Reforestation for Clearing above the Reforestation Threshold	Z=	0.0
AA.	Reforestation for Clearing below the Reforestation Threshold	AA=	0.0
BB.	Credit for Retention above the Reforestation Threshold	BB=	0.0
CC.	Total Reforestation Required	CC=	0.0
DD.	Total Afforestation and Reforestation Requirement	DD=	0.0

Date: ____________

SOILS TABLE

SOILS NAME	SOILS DESCRIPTION	HYDROLOGIC SOILS GROUP	HIGHLY ERODIBLE SOIL	K FACTOR
GgB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	B	NO	0.28
GgC	GLENELG LOAM, 8 TO 15 PERCENT SLOPES	B	NO	0.28
GhB	GLENELG-URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPES	B	NO	0.28
GhC	GLENELG-URBAN LAND COMPLEX, 8 TO 15 PERCENT SLOPES	B	NO	0.28
GnB	GLENVILLE-BAILE SILT LOAMS, 0 TO 8 PERCENT SLOPES	C	YES	0.43
GuB	GLENVILLE-URBAN LAND-UDORTHENTS COMPLEX, 0 TO 8 PERCENT SLOPES	C	YES	0.43
MaC	MANOR LOAM, 8 TO 15 PERCENT SLOPES	B	NO	0.28
MaD	MANOR LOAM, 15 TO 25 PERCENT SLOPES	B	NO	0.28
UAf	UDORTHENTS, HIGHWAY, 0 TO 65 PERCENT SLOPES	N/A	-	-

NOTE: ALL EXISTING STRUCTURES, FENCES, DRIVEWAYS, ELECTRIC LINES, ETC. MUST BE REMOVED FROM ALL FOREST EASEMENT AREAS BEFORE RECORDING PLAT.

OWNER:	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

TAX MAP: 17 GRID: 15 ZONED: R-20
PARCEL: 34
2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

SUBDIVISION NAME: TBD SECTION/AREA: N/A DEED # 00226/ 00064	PREVIOUS FILE No. : WP-19-118 ECP-19-041

PROFESSIONAL CERTIFICATION
I, ERIC R. McWILLIAMS, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 3697, EXPIRATION DATE: 9/20/20

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY
PLANNING DIRECTOR 6/28/21 DATE

DEVELOPER'S/OWNER'S LANDSCAPE CERTIFICATE

I/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 ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

DEVELOPER'S / OWNER'S NAME 6-10-21 DATE

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING PROGRAM MANAGEMENT LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN PERMITTING SERVICES TRANSPORTATION SERVICES
UPSTATE NEW YORK ◆ NEW ENGLAND ◆ BOSTON, MA ◆ NEW YORK, NY ◆ NEW YORK METRO ◆ NORTHERN NEW JERSEY ◆ SOUTHERN NEW JERSEY ◆ PHILADELPHIA, PA ◆ PITTSBURGH, PA ◆ LEHIGH VALLEY, PA ◆ SOUTHEASTERN, PA ◆ REHOBOTH BEACH, DE ◆ BALTIMORE, MD ◆ SOUTHERN MARYLAND ◆ NORTHERN VIRGINIA ◆ CENTRAL VIRGINIA ◆ RALEIGH, NC ◆ WASHINGTON, DC ◆ CHARLOTTE, NC ◆ ATLANTA, GA ◆ TAMPA, FL ◆ SOUTH FLORIDA ◆ DALLAS, TX

THE INFORMATION, DESIGN AND CONTENT OF THIS PLAN ARE PROPRIETARY AND SHALL NOT BE COPIED OR USED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM BOHLER ENGINEERING. ONLY APPROVED, SIGNED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES
© 2017 BOHLER ENGINEERING

REVISIONS

REV	DATE	COMMENT	BY

CALL BEFORE YOU DIG
THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE. IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL - 811
(WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777)
(VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	MD152018
DRAWN BY:	AVG
CHECKED BY:	BRR
DATE:	05/17/2021
SCALE:	AS SHOWN
CAD I.D.:	FCP5

PROJECT:

PRELIMINARY EQUIVALENT SKETCH PLAN FOR BETHANY GLEN

LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100

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

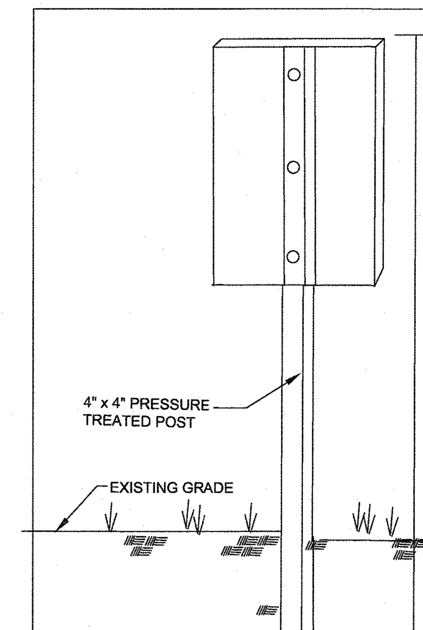
BOHLER ENGINEERING
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

E.R. McWILLIAMS
REGISTERED LANDSCAPE ARCHITECT
MARYLAND LICENSE No. 3697
5/20/21

SHEET TITLE:

PRELIMINARY FOREST CONSERVATION PLAN

H:\15\MD152018\DRAWINGS\PLAN SETS\PRELIMINARY EQUIVALENT SKETCH PLAN\MD152018-FCP-5.DWG PRINTED BY: AGAMBOA 5.19.21 @ 9:01 AM LAST SAVED BY: AGAMBOA



MIN 11"

FOREST RETENTION AREA
MACHINERY, DUMPING OR STORAGE OF ANY MATERIALS *PROHIBITED*
VIOLATORS ARE SUBJECT TO FINES IMPOSED BY THE MARYLAND FOREST CONSERVATION ACT OF 1991

MIN 15"

MIN 11"

SPECIMEN TREE
DO NOT REMOVE
MACHINERY, DUMPING OR STORAGE OF ANY MATERIALS *PROHIBITED*
VIOLATORS ARE SUBJECT TO FINES IMPOSED BY THE MARYLAND FOREST CONSERVATION ACT OF 1991

MIN 15"

MIN 11"

Forest Conservation Area
REFORESTATION PROJECT
Trees for Your Future

MIN 15"

FOREST CONSERVATION SIGN DETAIL

NOT TO SCALE

FOREST CONSERVATION SPECIFICATIONS

9. PLANTING

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.

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:

ACER RUBRUM	PLATANUS X ACERIFOLIA
BETULA VARIETIES	POPULOUS VARIETIES
CARPINUS VARIETIES	PRUNUS 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 ½" 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 ¼" 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, 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.

11. WATERING

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.

13. CLEANUP

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.

REFORESTATION PLAN

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

A. PLANTING PLAN AND METHODS

PLANT SPECIES SELECTION WAS BASED ON OUR KNOWLEDGE REGARDING PLANT COMMUNITIES IN MARYLAND'S PIEDMONT PLATEAU AND INFORMATION PROVIDED IN THE SOIL SURVEY ON TYPICAL VEGETATION FOR THE SOIL TYPE ON THE PLANTING SITE. SPECIES SELECTION WAS ALSO BASED ON OUR KNOWLEDGE OF PLANT AVAILABILITY IN THE NURSERY INDUSTRY.

REFORESTATION WILL BE ACCOMPLISHED THROUGH A MIXED PLANTING OF WHIPS AND BRANCHED TRANSPLANTS. CONTAINER GROWN STOCK IS RECOMMENDED BUT BAREROOT STOCK MAY BE USED TO HELP CONTROL AFFORESTATION COSTS. IF BAREROOT STOCK IS USED THE ROOT SYSTEMS OF ALL PLANTS WILL BE DIPPED IN AN ANTI-DESICCANT GEL PRIOR TO PLANTING TO IMPROVE MOISTURE RETENTION IN THE ROOT SYSTEMS.

PRIOR TO PLANTING THE PROPOSED FOREST CONSERVATION EASEMENTS ALL MULTIFLORA ROSE IN THE PLANTING AREA SHALL BE REMOVED. REMOVAL OF THE ROSE MAY BE PERFORMED WITH MOWING AND HERBICIDE TREATMENTS. PHYSICAL REMOVAL OF ALL TOP GROWTH FOLLOWING BY A PERIODIC HERBICIDE TREATMENT OF STUMP SPROUTS IS RECOMMENDED. NATIVE TREE AND SHRUB SPECIES OCCURRING WITHIN THE ROSE THICKETS SHOULD BE RETAINED WHEREVER POSSIBLE. HERBICIDES TREATMENTS SHALL OCCUR ON 2 MONTH INTERVALS DURING THE FIRST GROWING SEASON AND ONCE EACH IN THE SPRING AND FALL FOR SUBSEQUENT YEARS. HERBICIDE USED SHALL BE MADE SPECIFICALLY TO ADDRESS WOODY PLANT MATERIAL AND SHALL BE APPLIED AS PER MANUFACTURERS SPECIFICATIONS. CARE SHOULD BE TAKEN NOT TO SPRAY PLANTED TREES OR NATURALLY OCCURRING NATIVE TREE/SHRUB SEEDLINGS. IT IS RECOMMENDED THAT INITIATION OF ROSE REMOVAL BEGIN AT LEAST SIX MONTHS PRIOR TO PLANTING.

B. PLANTING AND SOIL SPECIFICATIONS

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 LOCATIONS.

C. MAINTENANCE OF PLANTINGS

SEE POST CONSTRUCTION NOTES

D. GUARANTEE REQUIREMENTS

A 90 PERCENT SURVIVAL RATE OF THE REFORESTATION PLANTINGS WILL BE REQUIRED AFTER ONE GROWING SEASON. ALL PLANT MATERIAL BELOW THE 90 PERCENT SURVIVAL THRESHOLD WILL BE REPLACED AT THE BEGINNING OF THE SECOND GROWING SEASON. AT THE END OF THE SECOND GROWING SEASON, A 75 PERCENT SURVIVAL RATE WILL BE REQUIRED. ALL PLANT MATERIAL BELOW THE 75 PERCENT SURVIVAL THRESHOLD WILL BE REPLACED BY THE BEGINNING OF THE NEXT GROWING SEASON.

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.

CONSTRUCTION PERIOD PROTECTION PROGRAM

A. FOREST PROTECTION TECHNIQUES

1. SOIL PROTECTION AREA (CRITICAL ROOT ZONE)

THE SOIL PROTECTION AREA, OR CRITICAL ROOT ZONE, OF A TREE IS THAT PORTION OF THE SOIL COLUMN WHERE MOST OF A ITS ROOTS MAY BE FOUND. THE MAJORITY OF ROOTS RESPONSIBLE FOR WATER AND NUTRIENT UPTAKE ARE LOCATED JUST BELOW THE SOIL SURFACE. TEMPORARY FENCING SHALL BE PLACED AROUND THE CRITICAL ROOT ZONE OF THE FOREST IN AREAS WHERE THE FOREST LIMITS OCCUR WITHIN 25 FEET OF THE LIMIT OF DISTURBANCE.

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.

B. PRE-CONSTRUCTION MEETING

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.

C. STORAGE FACILITIES/EQUIPMENT CLEANING

ALL EQUIPMENT STORAGE, PARKING, SANITARY FACILITIES, MATERIAL STOCKPILING, ETC. ASSOCIATED WITH CONSTRUCTION OF THE PROJECT WILL BE RESTRICTED TO THOSE AREAS OUTSIDE OF THE PROPOSED FOREST CONSERVATION EASEMENT. CLEANING OF EQUIPMENT WILL BE LIMITED TO AREA WITHIN THE LOD OF THE PROPOSED HOMESITES. WASTEWATER RESULTING FROM EQUIPMENT CLEANING WILL BE CONTROLLED TO PREVENT RUNOFF INTO ENVIRONMENTALLY SENSITIVE AREAS.

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.
5. REMOVE SEDIMENT CONTROL.
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.

E. CONSTRUCTION MONITORING

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 BEEN INSTALLED.

POST-CONSTRUCTION MANAGEMENT PLAN

HOWARD COUNTY REQUIRES A TWO YEAR POST-CONSTRUCTION MANAGEMENT PLAN BE PREPARED AS PART OF THE FOREST CONSERVATION PLAN. THE PLAN GOES INTO EFFECT UPON ACCEPTANCE OF THE CONSTRUCTION CERTIFICATION OF COMPLETION BY THE COUNTY. ECO-SCIENCE PROFESSIONALS, OR ANOTHER QUALIFIED PROFESSIONAL DESIGNATED BY THE DEVELOPER, WILL BE RESPONSIBLE FOR IMPLEMENTATION OF THE POST-CONSTRUCTION MANAGEMENT PLAN.

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:

1. 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.
2. REMOVAL OF INVASIVE EXOTICS AND NOXIOUS WEEDS. OLD FIELD SUCCESSIONAL SPECIES WILL BE RETAINED.
3. 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.

D. FINAL INSPECTION

AT THE END OF THE TWO YEAR POST-CONSTRUCTION MANAGEMENT PERIOD, ECO-SCIENCE PROFESSIONALS, OR ANOTHER QUALIFIED PROFESSIONAL, WILL SUBMIT TO THE ADMINISTRATOR OF THE HOWARD COUNTY FOREST CONSERVATION PROGRAM CERTIFICATION THAT ALL RETENTION/AFFORESTATION REQUIREMENTS HAVE BEEN MET. UPON ACCEPTANCE OF THIS CERTIFICATION, THE COUNTY WILL RELEASE THE DEVELOPER FROM ALL FUTURE OBLIGATIONS AND RELEASE THE DEVELOPER'S BOND.

PLANTING/SOIL SPECIFICATIONS

1. PLANTING OF NURSERY STOCK SHALL TAKE PLACE BETWEEN MARCH 15TH AND APRIL 30TH OR SEPTEMBER 15TH - NOVEMBER 15TH.
2. A TWELVE (12) INCH LAYER OF TOPSOIL SHALL BE SPREAD OVER ALL FORESTATION AREAS IMPACTED BY SITE GRADING TO ASSURE A SUITABLE PLANTING AREA. DISTURBED AREAS SHALL BE SEEDED AND STABILIZED AS PER GENERAL CONSTRUCTION PLAN FOR PROJECT. PLANTING AREAS NOT IMPACTED BY SITE GRADING SHALL HAVE NO ADDITIONAL TOPSOIL INSTALLED.
3. ALL BAREROOT PLANTING STOCK SHALL HAVE THEIR ROOT SYSTEMS DIPPED INTO AN ANTI-DESICCANT GEL PRIOR TO PLANTING.
4. PLANTS SHALL BE INSTALLED SO THAT THE TOP OF ROOT MASS IS LEVEL WITH THE TOP OF EXISTING GRADE. BACKFILL IN THE PLANTING PITS SHALL CONSIST OF 3 PARTS EXISTING SOIL TO 1 PART PINE FINES OR EQUIVALENT.
5. FERTILIZER SHALL CONSIST OF AGRIFORM 22-8-2, OR EQUIVALENT, APPLIED AS PER MANUFACTURER'S SPECIFICATIONS.
6. A TWO (2) INCH LAYER OF HARDWOOD MULCH SHALL BE PLACED OVER THE ROOT AREA OF ALL PLANTINGS.
7. PLANT MATERIAL SHALL BE TRANSPORTED TO THE SITE IN A TARPED OR COVERED TRUCK. PLANTS SHALL BE KEPT MOIST PRIOR TO PLANTING.
8. ALL NON-ORGANIC DEBRIS ASSOCIATED WITH THE PLANTING OPERATION SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR.

SEQUENCE OF CONSTRUCTION

1. SEDIMENT CONTROL AND TREE PROTECTION DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH GENERAL CONSTRUCTION PLAN FOR SITE. SITE SHALL BE GRADED IN ACCORDANCE WITH GENERAL CONSTRUCTION PLANS.
2. PROPOSED FORESTATION AREAS IMPACTED BY SITE GRADING SHALL BE TOPSOILED AND STABILIZED AS PER #2 OF PLANTING/SOIL SPECIFICATIONS FOR PROJECT.
3. PLANTS SHALL BE INSTALLED AS PER PLANT SCHEDULE AND THE PLANTING/SOIL SPECIFICATIONS FOR THE PROJECT.
4. UPON COMPLETION OF THE PLANTING, SIGNAGE SHALL BE INSTALLED AS PER THE FOREST PROTECTION DEVICES SHOWN ON THE FOREST CONSERVATION PLAN.
5. PLANTINGS SHALL BE MAINTAINED AND GUARANTEED IN ACCORDANCE WITH THE MAINTENANCE AND GUARANTEE REQUIREMENTS FOR PROJECT.

MAINTENANCE OF PLANTINGS

1. MAINTENANCE OF PLANTINGS SHALL LAST FOR A PERIOD OF 24 MONTHS.
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

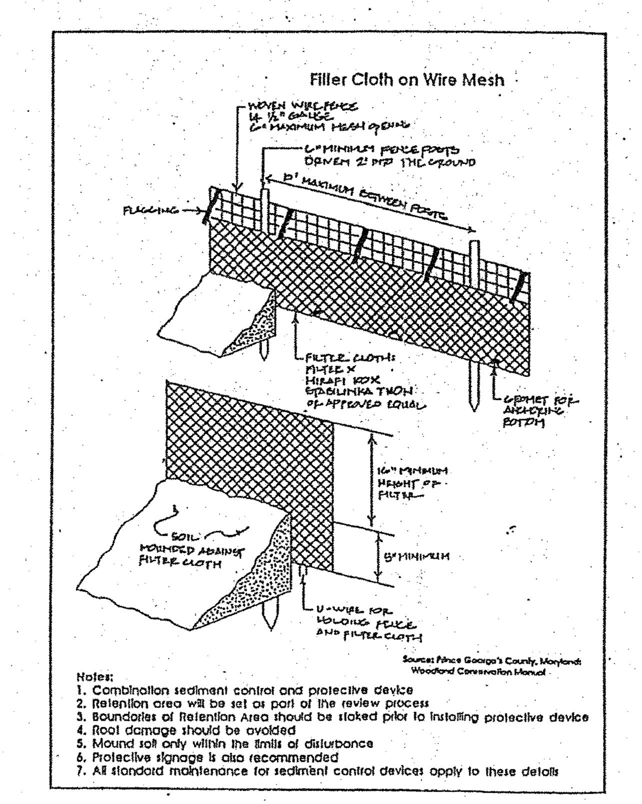
1. A 75 PERCENT SURVIVAL RATE OF FORESTATION PLANTINGS WILL BE REQUIRED AT THE END OF THE 24 MONTH MAINTENANCE PERIOD. ALL PLANT MATERIAL BELOW THE 75 PERCENT THRESHOLD WILL BE REPLACED AT THE BEGINNING OF THE NEXT GROWING SEASON.

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 BOND SHALL BE RELEASED.

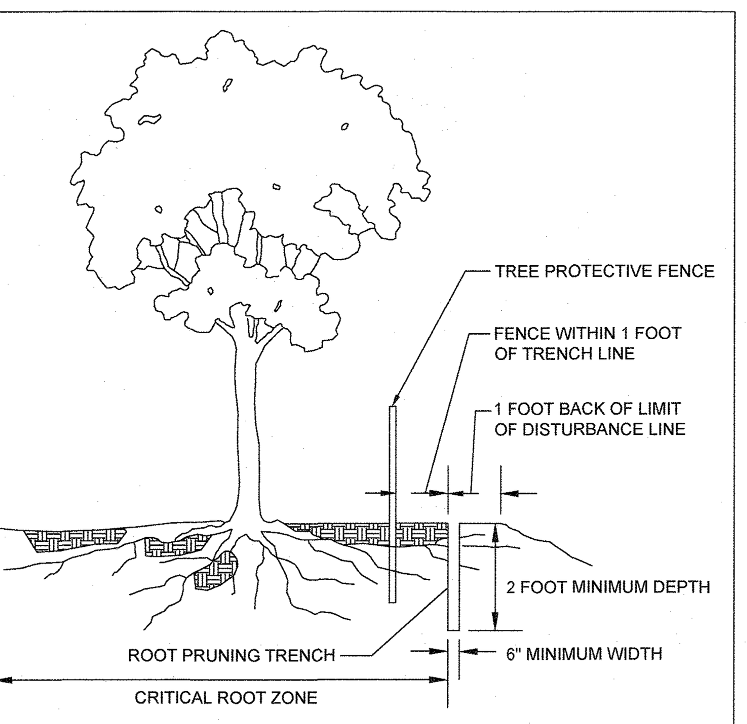
FCP NOTES

1. 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.
2. FORESTED AREAS OCCURRING OUTSIDE OF THE FCE SHALL NOT BE CONSIDERED PART OF THE FCE AND SHALL NOT BE SUBJECT TO PROTECTIVE LAND COVENANTS.
3. LIMITS OF DISTURBANCE SHALL BE RESTRICTED TO AREAS OUTSIDE THE LIMIT OF TEMPORARY FENCING OR THE FCE BOUNDARY, WHICHEVER IS GREATER.
4. THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION EASEMENT, EXCEPT AS PERMITTED BY HOWARD COUNTY DPZ.
5. NO STOCKPILES, PARKING AREAS, EQUIPMENT CLEANING AREAS, ETC. SHALL OCCUR WITHIN AREAS DESIGNATED AS FOREST CONSERVATION EASEMENTS.
6. 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.
7. PERMANENT SIGNAGE WILL BE POSTED A AT 50-100 FOOT INTERVALS ALONG ALL FCE LIMITS.
8. EXISTING FOREST CALCULATIONS DIFFER BETWEEN THE APPROVED FOREST STAND DELINEATION AND THE FOREST CONSERVATION PLAN. THE DIFFERENCE IS ATTRIBUTED TO A DIFFERENCE IN THE MAPPED FLOODPLAIN LIMITS. THE APPROXIMATE FLOODPLAIN LIMITS ON THE FSD WERE LARGER THAN THE CALCULATED LIMITS AND RESULTED IN A CALCULATION OF LESS NET TRACT AREA FOREST. THE EXISTING FOREST CALCULATION SHOWN IN THE FOREST CONSERVATION WORKSHEET REFLECTS THE REVISED FLOODPLAIN LIMITS AND COMPUTER CALCULATED FOREST AREA.



PROTECTIVE TREE FENCE DETAIL

NOT TO SCALE

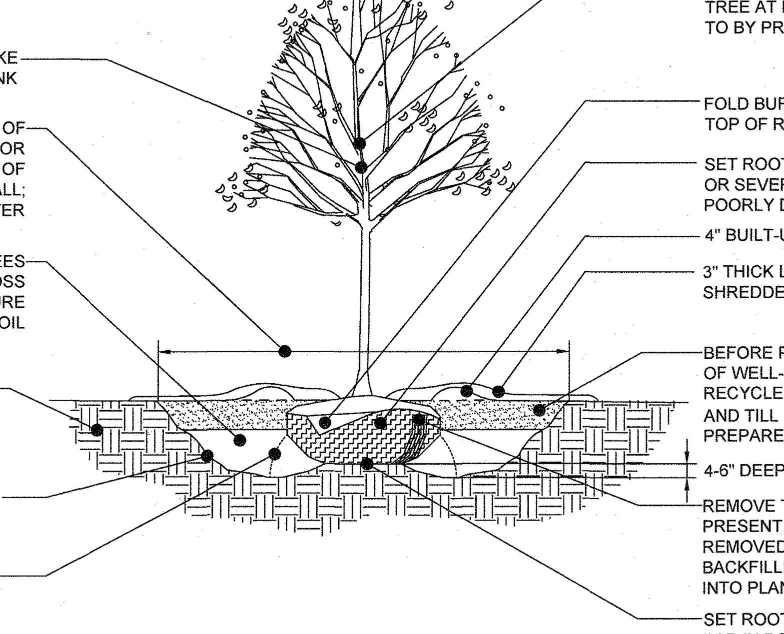


NOTES:

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



REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT.

DECIDUOUS TREE PLANTING DETAIL

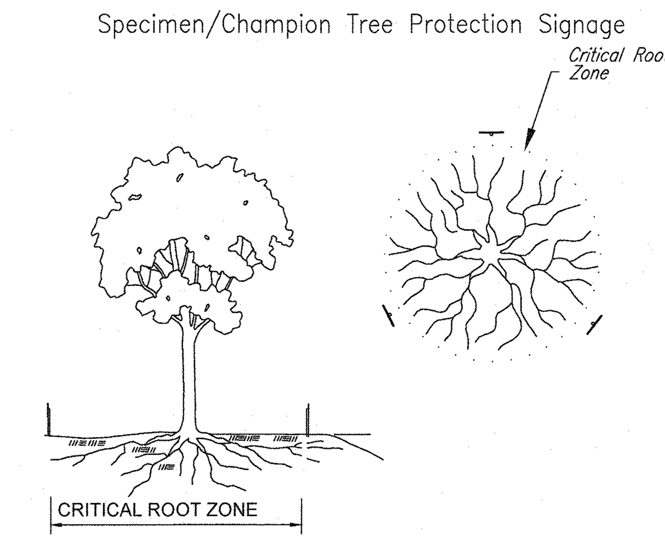
NOT TO SCALE

REFORESTATION PLANTING SCHEDULE

	FCE #1	FCE #2	FCE #3	FCE #4	FCE #5	FCE #6	FCE #7	FCE #8	FCE #9	FCE #12	FCE #13	FCE #14	SPECIES	SIZE	SPACING	TOTAL FCA UNITS
ACREAGE	0.1	0.1	7.2	0.4	0.2	1.9	0.6	0.5	0.1	0.1	0.8	0.6				
P.U. REQUIRED	36	36	2592	144	72	684	216	180	36	36	288	216				
	QTY															
	6	6	371	24	12	114	36	30	7	7	41	36	ACER RUBRUM - RED MAPLE	HARDWOOD SEEDLINGS OR WHIPS/ACRE WITH TREE SHELTERS	11' O.C.	690
	0	0	370	24	0	0	0	30	8	7	41	36	PLATNUS OCCIDENTALIS - AMERICAN SYCAMORE	HARDWOOD SEEDLINGS OR WHIPS/ACRE WITH TREE SHELTERS	11' O.C.	516
	6	6	370	24	12	114	36	30	7	8	41	36	QUERCUS PALUSTRIS - PIN OAK	HARDWOOD SEEDLINGS OR WHIPS/ACRE WITH TREE SHELTERS	11' O.C.	690
	6	6	370	24	12	114	36	30	0	0	41	36	QUERCUS RUBRA - RED OAK	HARDWOOD SEEDLINGS OR WHIPS/ACRE WITH TREE SHELTERS	11' O.C.	675
	6	6	370	24	12	114	36	30	7	7	41	36	LIRIODENDRON TULIPIFERA - TULIP POPLAR	HARDWOOD SEEDLINGS OR WHIPS/ACRE WITH TREE SHELTERS	11' O.C.	689
	6	6	370	24	12	114	36	0	0	0	41	0	CERCIS CANADENSIS - EASTERN REDBUD	HARDWOOD SEEDLINGS OR WHIPS/ACRE WITH TREE SHELTERS	11' O.C.	609
	6	6	371	0	12	114	36	30	7	7	42	36	AMELANCHIER CANADENSIS - SERVICEBERRY	HARDWOOD SEEDLINGS OR WHIPS/ACRE WITH TREE SHELTERS	11' O.C.	667
P.U. PROVIDED	36	36	2592	144	72	684	216	180	36	36	288	216	TOTAL PLANTINGS			4536

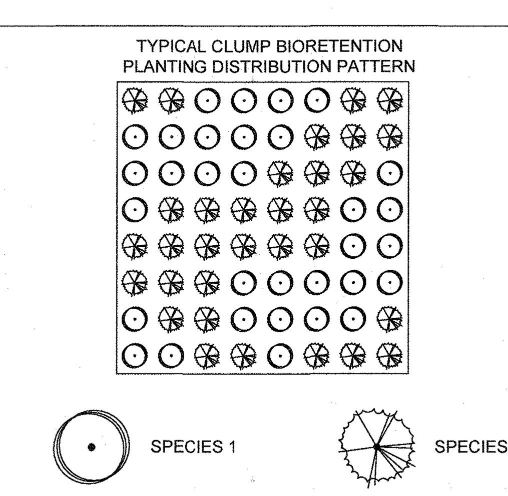
* IN ADDITION TO THE ABOVE REFERENCED MATERIAL 1" CALIPER MATERIAL WILL BE REQUIRED FOR ANY REFORESTATION WITHIN 35' OF THE LOT LINES OF RESIDENTIAL LOT ABUTTING FOREST CONSERVATION REFORESTATION AREAS

LOTS 29 AND 30 (FORMERLY LOTS 38 AND 39) (FCE #4)	30 ADDITIONAL TREES, 2 ROWS OF 1" CALIPER TREES (15' O.C.) (15 PLATNUS OCCIDENTALIS, 15 QUERCUS RUBRA)
LOTS 76 THROUGH 81 (FCE #13)	92 ADDITIONAL TREES, 2 ROWS OF 1" CALIPER TREES (15' O.C.) (50 PLATNUS OCCIDENTALIS, 49 ACER RUBRUM)
LOTS 42 THROUGH 44 (FCE #14)	42 ADDITIONAL TREES, 2 ROWS OF 1" CALIPER TREES (15' O.C.) (21 ACER RUBRUM, 21 QUERCUS PALUSTRIS)
LOT 45 (FCE #1)	20 ADDITIONAL TREES, 2 ROWS OF 1" CALIPER TREES (15' O.C.) (10 PLATNUS OCCIDENTALIS, 10 QUERCUS RUBRA)
LOTS 49 THROUGH 51 (FCE #8)	26 ADDITIONAL TREES, 2 ROWS OF 1" CALIPER TREES (15' O.C.) (13 ACER RUBRUM,13 QUERCUS RUBRA)
LOTS 54 THROUGH 56 (FCE #6)	25 ADDITIONAL TREES, 2 ROWS OF 1" CALIPER TREES (15' O.C.) (12 PLATNUS OCCIDENTALIS, 13 QUERCUS RUBRA)
LOTS 34 AND 35 (FCE #5)	6 ADDITIONAL TREES, 2 ROWS OF 1" CALIPER TREES (15' O.C.) (3 QUERCUS PALUSTRIS, 3 QUERCUS RUBRA)



Notes:

1. *Retention Areas will be set as part of the review process*
2. *Boundaries of Retention Areas/Critical Root Zones should be marked with signage prior to construction.*
3. *Signs should be placed at edge or 1-foot outside the Critical Root Zone.*
4. *Signs should be placed around each specimen tree as indicated on the plan.*



NOTE:
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 MIMIC NATURAL PATTERNS.

PLANTING DISTRIBUTION PATTERN DETAIL

NOT TO SCALE

DEVELOPER'S/OWNER'S LANDSCAPE CERTIFICATE

I/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 ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

[signature] 6-10-21
DEVELOPER'S / OWNER'S NAME — DATE

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

[signature] 6/28/21
PLANNING DIRECTOR — DATE

OWNER:	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

TAX MAP: 17 GRID: 15 ZONED: R-20
PARCEL: 34
2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

SUBDIVISION NAME: TBD SECTION/AREA: N/A DEED # 00226/ 00064	PREVIOUS FILE No. : WP-19-118 ECP-19-041

PROFESSIONAL CERTIFICATION
I, ERIC R. MCWILLIAMS, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 3697, EXPIRATION DATE: 9/20/18

BOHLER ENGINEERING™
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING PROGRAM MANAGEMENT LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN PERMITTING SERVICES TRANSPORTATION SERVICES
UPSTATE NEW YORK ◆ NEW ENGLAND ◆ BOSTON, MA ◆ NEW YORK, NY ◆ NEW YORK METRO ◆ NORTHERN NEW JERSEY ◆ SOUTHERN NEW JERSEY ◆ PHILADELPHIA, PA ◆ PITTSBURGH, PA ◆ LEHIGH VALLEY, PA ◆ SOUTHEASTERN, PA ◆ REHOBOTH BEACH, DE ◆ BALTIMORE, MD ◆ SOUTHERN MARYLAND ◆ NORTHERN VIRGINIA ◆ CENTRAL VIRGINIA ◆ RALEIGH, NC ◆ WASHINGTON, DC ◆ CHARLOTTE, NC ◆ ATLANTA, GA ◆ TAMPA, FL ◆ SOUTH FLORIDA ◆ DALLAS, TX

THE INFORMATION, DESIGN AND CONTENT OF THIS PLAN ARE PROPRIETARY AND SHALL NOT BE COPIED OR USED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM BOHLER ENGINEERING. ONLY APPROVED, SIGNED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES. © 2017 BOHLER ENGINEERING

REVISIONS

REV	DATE	COMMENT	BY

DIG WITH C.A.R.E. CALL BEFORE YOU DIG

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE. IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL - 811
(WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777) (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	MD152018
DRAWN BY:	AVG
CHECKED BY:	BRR
DATE:	05/17/2021
SCALE:	AS SHOWN
CAD I.D.:	FCP5

PROJECT:

PRELIMINARY EQUIVALENT SKETCH PLAN

FOR

BETHANY GLEN

LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100

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

BOHLER ENGINEERING
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
MARYLAND LICENSE No. 3697

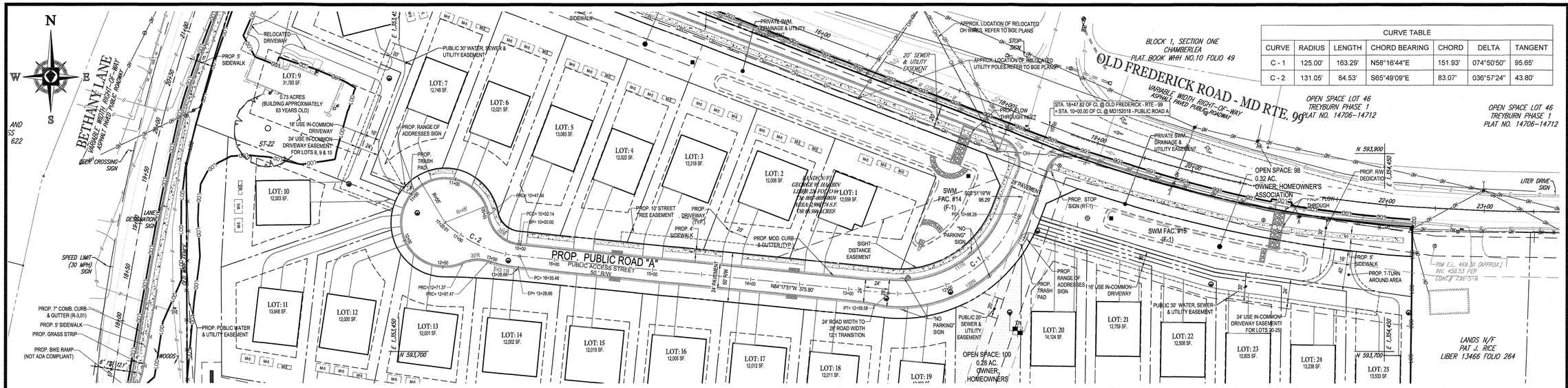
SHEET TITLE:

PRELIMINARY FOREST CONSERVATION NOTES & DETAILS

SHEET NUMBER:

SP-19-005

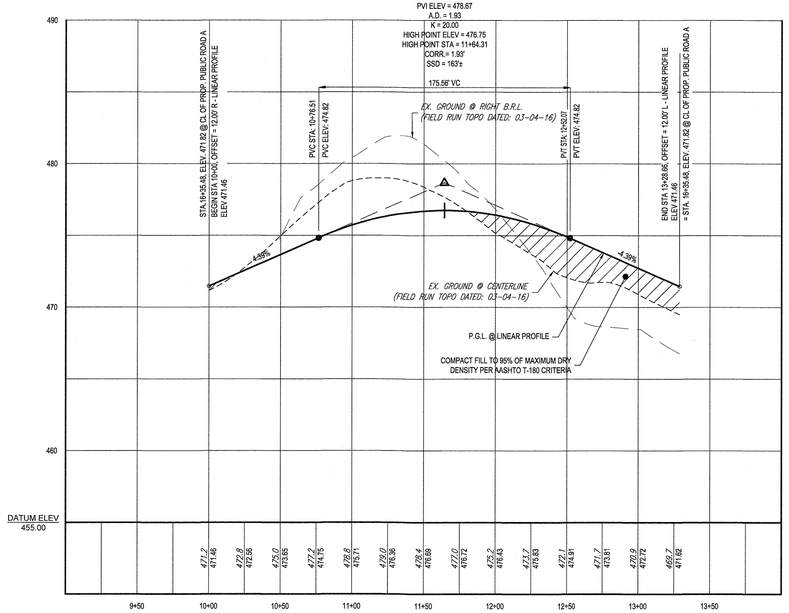
H:\15\MD152018\DRAWINGS\PLAN SETS\PRELIMINARY EQUIVALENT SKETCH PLAN\MD152018-SDP-5.DWG PRINTED BY: AGAMBOA 5.19.21 @ 9:02 AM LAST SAVED BY: AGAMBOA



PROPOSED PUBLIC ROAD A - PLAN

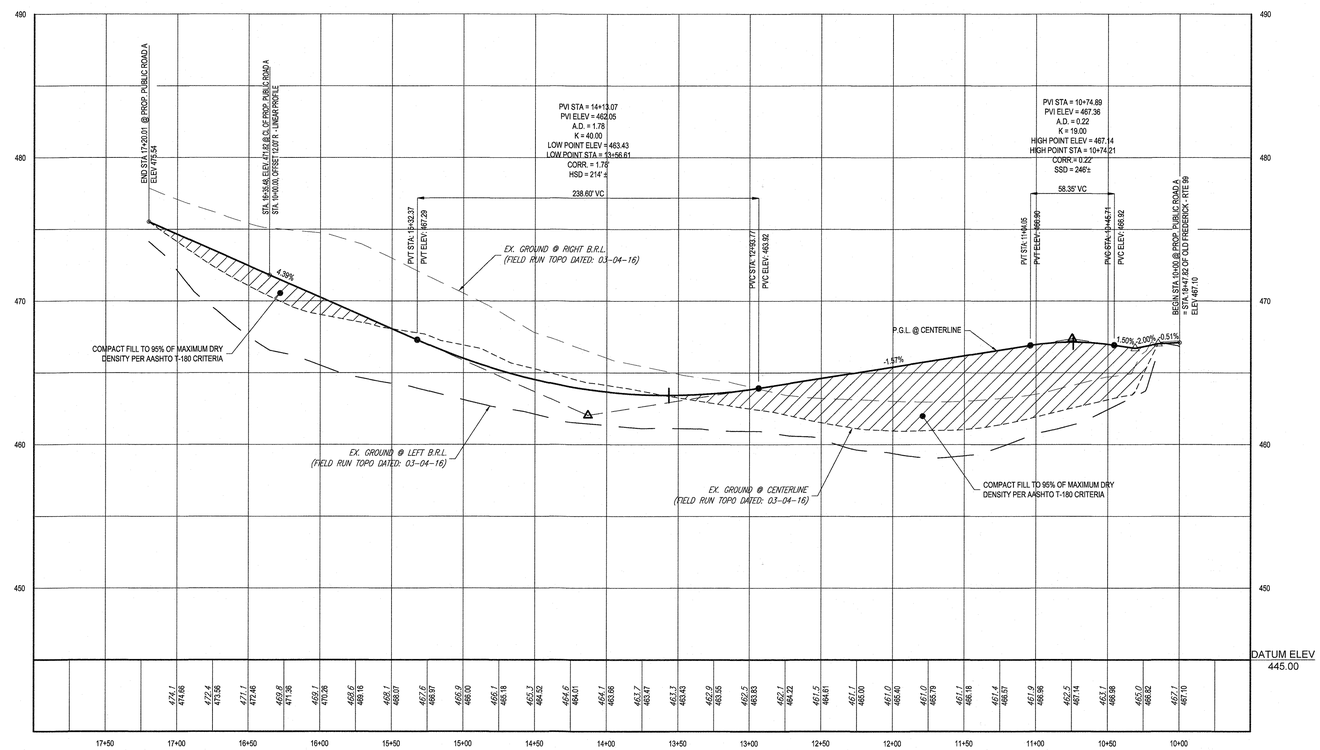
SCALE : 1" = 50

CURVE TABLE						
CURVE	RADIUS	LENGTH	CHORD BEARING	CHORD	DELTA	TANGENT
C - 1	125.00'	163.29'	N58°16'44"E	151.93'	074°50'50"	95.65'
C - 2	131.05'	84.53'	S65°49'09"E	83.07'	036°57'24"	43.80'



PROPOSED PUBLIC ROAD A CUL-DE-SAC - LINEAR PROFILE

SCALE: 1"= 50 ' HORIZONTAL
1"= 5 ' VERTICAL



PUBLIC ACCESS STREET
DESIGN SPEED = 30 MPH
PROPOSED PUBLIC ROAD A - PROFILE

SCALE: 1"= 50 ' HORIZONTAL
1"= 5 ' VERTICAL

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR — DATE 6/28/21

OWNER:	THE ESTATE OF RUTH L. HARBIN H. MARK BOBOYTEK, 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
TAX MAP: 17	GRID: 15 ZONED: R-20 PARCEL: 34 2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

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

PREVIOUS FILE No. :
WP-19-118
ECP-19-041

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: 7/3/2021

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT LANDSCAPE ARCHITECTURE
TRANSPORTATION ENVIRONMENTAL SERVICES
◆ UPSTATE NEW YORK ◆ SOUTHERN NEW JERSEY ◆ BALTIMORE, MD ◆ CHARLOTTE, NC
◆ NEW ENGLAND ◆ PHILADELPHIA, PA ◆ SOUTHERN MARYLAND ◆ ATLANTA, GA
◆ BOSTON, MA ◆ PITTSBURGH, PA ◆ NORTHERN VIRGINIA ◆ TAMPA, FL
◆ LONG ISLAND, NY ◆ HARRISBURG, PA ◆ MIDDLE PENNSYLVANIA ◆ ORLANDO, FL
◆ NEW YORK METRO ◆ SOUTHEASTERN, PA ◆ RALEIGH, NC ◆ DALLAS, TX
◆ NORTHERN NEW JERSEY ◆ REHOBOTH BEACH, DE ◆ WASHINGTON, DC
THE BOHLER ENGINEERING PROFESSIONALS SHOWN HEREON CONSIST PRINCIPALLY OF THOSE PERSONNEL NOTED AS PROFESSIONAL ENGINEERS, PROFESSIONAL LAND SURVEYORS, AND/OR LANDSCAPE ARCHITECTS. OTHER PERSONNEL MAY BE UTILIZED FOR CONSULTATION PURPOSES

REVISIONS

REV	DATE	COMMENT	BY

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE, IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL - 811
(WV: 1-800-245-4848) (PA: 1-800-242-1776) (DC: 1-800-257-7777) (VA: 1-800-552-7001) (MD: 1-800-257-7777) (DE: 1-800-282-8555)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	MD152018
DRAWN BY:	AVG
CHECKED BY:	BRR
DATE:	05/17/2021
SCALE:	AS SHOWN
CAD I.D.:	PPR5

PROJECT:
PRELIMINARY EQUIVALENT SKETCH PLAN
FOR
BETHANY GLEN
LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100
9891 OLD FREDERICK ROAD - ROUTE 99
2ND ELECTION DISTRICT
TAX MAP 17, GRID 15, PARCEL 34
HOWARD COUNTY, MARYLAND

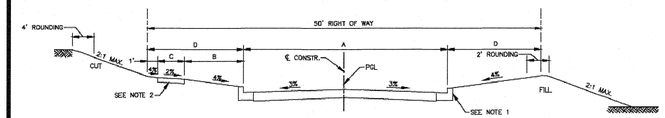
BOHLER ENGINEERING
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

B.R. ROWE
PROFESSIONAL ENGINEER
MARYLAND LICENSE No. 40808
6/4/2021

SHEET TITLE:
ROAD PLAN & PROFILE

SHEET NUMBER:
21 of 30

SP-19-005



CLOSED SECTION △1

NOTES:

1. TYPE OF CURB VARIES (MODIFIED COMBINATION CURB & GUTTER OR COMBINATION CURB & GUTTER – SEE DESIGN MANUAL VOLUME III FOR CRITERIA).
2. 4" CONCRETE SIDEWALK AS REQUIRED BY SUB-DIVISION REGULATIONS.
3. 4'-0" SIDEWALK REQUIRES A PASSING AREA (SEE DETAIL R-4.01).
4. SEE R-3.05 FOR WHERE SIDEWALK IS AGAINST CURB.

CLASSIFICATION	A	B	C	D	PAVING SECTION
MINOR COLLECTOR 2000 ADT	28'	5'	4'	11'	P-3
ACCESS STREET 1000 ADT	24'*	5'	4'	13'	P-2
ACCESS PLACE 200 ADT	24'*	5'	4'	13'	P-2

*TOWNHOUSES, CONDOMINIUM / APARTMENT DEVELOPMENTS REQUIRE 28' MINIMUM PAVING WIDTH (P-2 PAVING SECTION)

Revised △1 5/30/2017 / Revised 1/7/2007 / Approved	Howard County, Maryland Department of Public Works Approved: Chief, Bureau of Engineering	TYPICAL SECTIONS – RESIDENTIAL STREETS Access Place, Access Streets, Minor Collector (Closed Section)	Detail R-1.02

SECTION NUMBER	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR)	3 TO <5	5 TO <7	≥ 7	3 TO <5	5 TO <7	≥ 7
		PAVEMENT MATERIAL (INCHES)	MIN. SUPERPAVE ASPHALT MIX WITH GAB			SUPERPAVE ASPHALT MIX WITH CONSTANT GAB		
P-1	PARKING BAYS: RESIDENTIAL AND NON-RESIDENTIAL; PARKING DRIVE AISLES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 2 HEAVY TRUCKS PER DAY	SUPERPAVE ASPHALT MIX FINAL SURFACE 9.5 MM PG 64-22S, LEVEL 1 (ESAL)	1.5	1.5	1.5	1.5	1.5	1.5
		SUPERPAVE ASPHALT MIX INTERMEDIATE SURFACE 9.5 MM, PG 64-22S, LEVEL 1 (ESAL)	NA	NA	NA	NA	NA	NA
		SUPERPAVE ASPHALT MIX BASE 19.0 MM, PG 64-22S, LEVEL 1 (ESAL)	2.0	2.0	2.0	3.5	3.0	2.5
		GRADED AGGREGATE BASE (GAB)	8.5	7.0	5.0	4.0	4.0	4.0
P-2	PARKING DRIVE AISLES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY; LOCAL ROADS: ACCESS PLACE, ACCESS STREET; CUL-DE-SACS: RESIDENTIAL	SUPERPAVE ASPHALT MIX FINAL SURFACE 9.5 MM, PG 64-22S, LEVEL 1 (ESAL)	1.5	1.5	1.5	1.5	1.5	1.5
		SUPERPAVE ASPHALT MIX INTERMEDIATE SURFACE 9.5 MM, PG 64-22S, LEVEL 1 (ESAL)	1.5△1	1.5△1	1.5△1	1.5△1	1.5△1	1.5△1
		SUPERPAVE ASPHALT MIX BASE 19.0 MM, PG 64-22S, LEVEL 1 (ESAL)	2.0	2.0	2.0	3.5	2.0	2.0
		GRADED AGGREGATE BASE (GAB)	8.0	4.0	3.0	4.0	4.0	4.0
P-3	PARKING DRIVE AISLES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY; LOCAL ROADS: ACCESS PLACE, ACCESS STREET; CUL-DE-SACS: NON-RESIDENTIAL; MINOR COLLECTORS: RESIDENTIAL	SUPERPAVE ASPHALT MIX FINAL SURFACE 9.5 MM, PG 64-22S, LEVEL 1 (ESAL)	1.5	1.5	1.5	1.5	1.5	1.5
		SUPERPAVE ASPHALT MIX INTERMEDIATE SURFACE 9.0 MM, PG 64-22S, LEVEL 1 (ESAL)	1.0	1.0	1.0	1.0	1.0	1.0
		SUPERPAVE ASPHALT MIX BASE 19.0 MM, PG 64-22S, LEVEL 1 (ESAL)	3.0	3.0	3.0	4.5	3.0	2.0
		GRADED AGGREGATE BASE (GAB)	10.0	6.0	3.0	6.0	6.0	6.0
P-4	MINOR COLLECTORS: NON-RESIDENTIAL; MAJOR COLLECTORS	SUPERPAVE ASPHALT MIX FINAL SURFACE 12.5 MM, PG 64-22S, LEVEL 2 (LOW ESAL)	2.0	2.0	2.0	2.0	2.0	2.0
		SUPERPAVE ASPHALT MIX INTERMEDIATE SURFACE 12.5 MM, PG 64-22S, LEVEL 2 (LOW ESAL)	2.0	2.0	2.0	2.0	2.0	2.0
		SUPERPAVE ASPHALT MIX BASE 19.0 MM, PG 64-22S, LEVEL 2 (LOW ESAL)	4.0	4.0	3.0	6.0	5.0	3.0
		GRADED AGGREGATE BASE (GAB)	13.0	7.0	4.0	6.0	6.0	6.0

NOTES

1. HEAVY TRUCKS ARE DEFINED AS THOSE WITH SIX (6) WHEELS OR MORE INCLUDING GARBAGE TRUCKS.
2. SUPERPAVE ASPHALT MIX LAYERS SHALL BE PLACED IN APPROPRIATE COMPACTED LIFT THICKNESS: 19.0 MM BASE (2.0" MIN. TO 4.0" MAX.), 12.5 MM SURFACE (1.5" MIN. TO 3.0" MAX.), AND 9.5 MM SURFACE (1.0" MIN. TO 2.0" MAX.)
3. GRADED AGGREGATE BASE (GAB) TO BE PLACED AND COMPACTED IN 6" MAX. COMPACTED THICKNESS LAYERS.
4. THE INTERMEDIATE SURFACE COURSE LAYER MUST BE PLACED WITHIN 2 WEEKS OF PLACEMENT OF BASE COURSE, AND IS REQUIRED PRIOR TO SUBSTANTIAL COMPLETION INSPECTION AND BOND REDUCTION.
5. IN LIEU OF PLACING THE INTERMEDIATE SURFACE COURSE LAYER FOR COMMERCIAL/INDUSTRIAL ENTRANCE APRONS WITHIN THE COUNTY RIGHT-OF-WAY WHERE AUXILIARY LANES ARE NOT REQUIRED, THE THICKNESS OF THE INTERMEDIATE PAVEMENT LAYER CAN BE ADDED TO THE REQUIRED THICKNESS OF THE BASE ASPHALT LAYER.
6. THE CONSTRUCTION DRAWINGS SHALL SHOW THE PAVING SECTION, ROAD CLASSIFICATION AND CBR VALUE FOR EACH ROADWAY.

SUPERPAVE ASPHALT MIX FINAL SURFACE
SUPERPAVE ASPHALT MIX INTERMEDIATE SURFACE
SUPERPAVE ASPHALT MIX BASE
GRADED AGGREGATE BASE (GAB)

Revised △1 5/30/2017 / Revised 1/7/2007 / Approved	Howard County, Maryland Department of Public Works Approved: Chief, Bureau of Engineering	PAVING SECTIONS P-1 to P-4	Detail R-2.01

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR — DATE 6/28/21

OWNER:	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
TAX MAP: 17	GRID: 15 ZONED: R-20 PARCEL: 34 2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

SUBDIVISION NAME: TBD SECTION/AREA: N/A DEED # 00226/ 00064	PREVIOUS FILE No. : WP-19-115 ECP-19-041

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: 7/3/2021.

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
SITE DEVELOPMENT
◆ UPSTATE NEW YORK ◆ SOUTHERN NEW JERSEY ◆ BALTIMORE, MD ◆ CHARLOTTE, NC
◆ NEW ENGLAND ◆ PHILADELPHIA, PA ◆ SOUTHERN MARYLAND ◆ ATLANTA, GA
◆ NEW JERSEY ◆ LEHIGH VALLEY, PA ◆ CENTRAL VIRGINIA ◆ TAMPA, FL
◆ NEW YORK, NY ◆ SOUTHEASTERN, PA ◆ SOUTH FLORIDA
◆ NEW YORK METRO ◆ WASHINGTON, DC ◆ RALEIGH, NC ◆ DALLAS, TX
THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF BOHLER ENGINEERING AND MUST BE RETURNED UPON REQUEST. REPRODUCTION OR REUSE WITHOUT WRITTEN AUTHORIZATION FROM BOHLER ENGINEERING IS PROHIBITED. DRAWINGS AND SPECIFICATIONS MARKED "NOT APPROVED FOR CONSTRUCTION" OR "PRELIMINARY" ARE NOT TO BE USED FOR CONSTRUCTION PURPOSES.

REVISIONS

REV	DATE	COMMENT	BY

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL - 811
(WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777) (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	MD152018
DRAWN BY:	AVG
CHECKED BY:	BRR
DATE:	05/17/2021
SCALE:	AS SHOWN
CAD I.D.:	PPR5

PROJECT:
PRELIMINARY EQUIVALENT SKETCH PLAN
FOR
BETHANY GLEN
LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100
9891 OLD FREDERICK ROAD - ROUTE 99
2ND ELECTION DISTRICT
TAX MAP 17, GRID 15, PARCEL 34
HOWARD COUNTY, MARYLAND

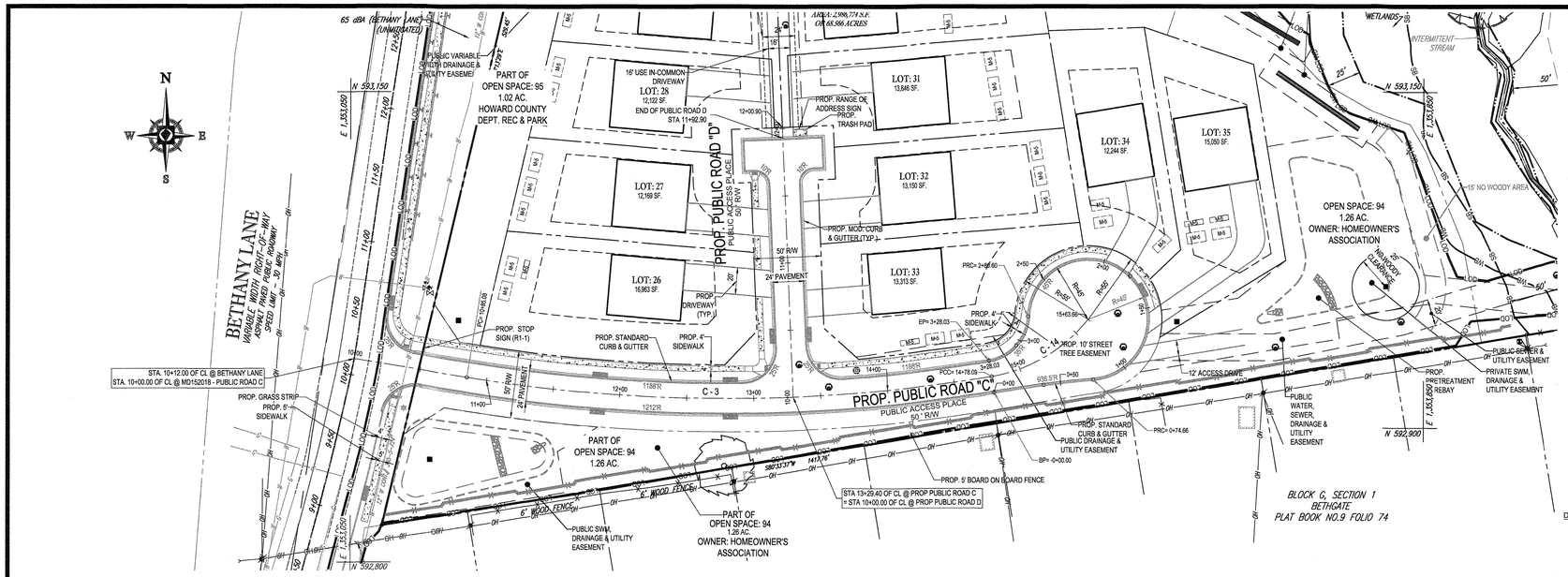
BOHLER ENGINEERING
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

B.R. ROWE
PROFESSIONAL ENGINEER
MARYLAND LICENSE No. 40808
6/4/2021

SHEET TITLE:
ROAD PLAN & PROFILE

SHEET NUMBER:
22 of 30

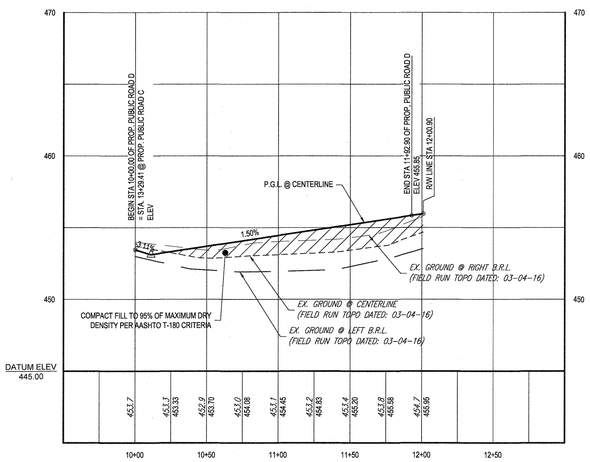
SP-19-005



PROPOSED PUBLIC ROAD C & PUBLIC ROAD D - PLAN

SCALE : 1" = 50

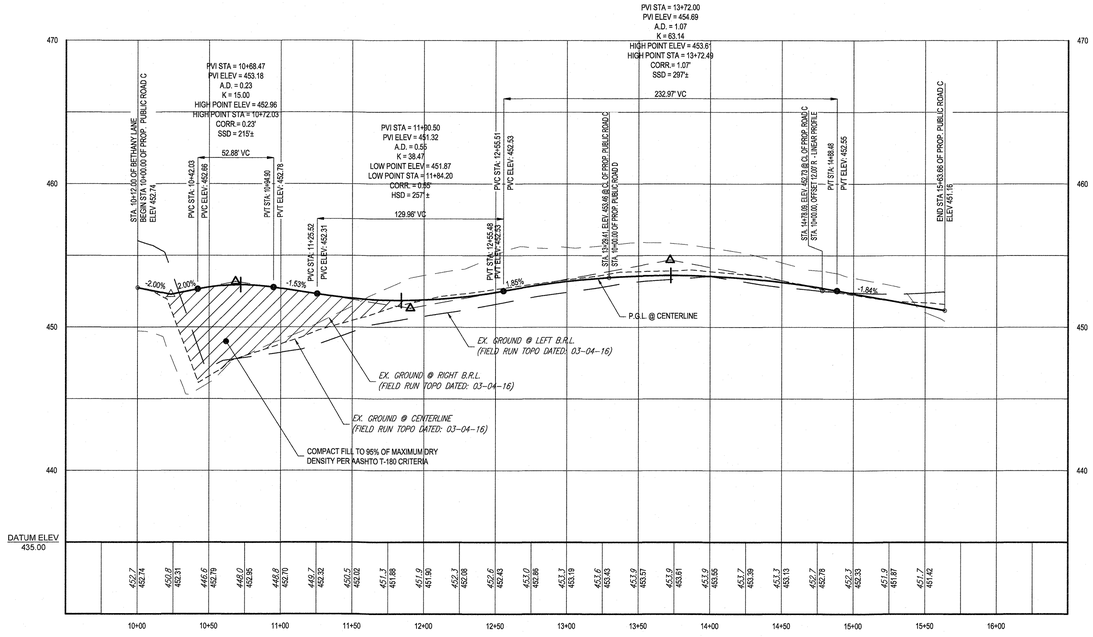
CURVE TABLE						
CURVE	RADIUS	LENGTH	CHORD BEARING	CHORD	DELTA	TANGENT
C - 3	1200.00'	391.08'	N89°53'49"E	389.35'	018°40'22"	197.29'
C - 14	117.13'	85.57'	N59°35'06"E	83.68'	041°51'19"	44.79'



PUBLIC ACCESS PLACE
DESIGN SPEED = 25 MPH

PROPOSED PUBLIC ROAD D - PROFILE

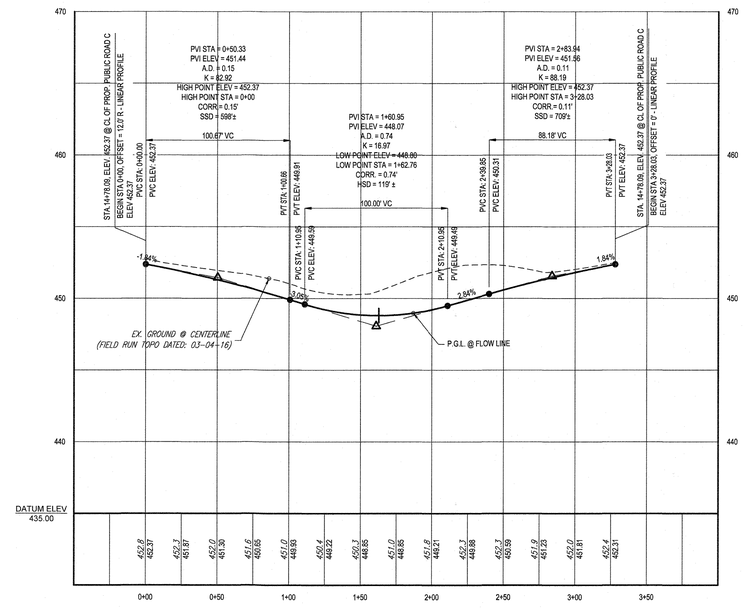
SCALE: 1"= 50 ' HORIZONTAL
1"= 5 ' VERTICAL



PUBLIC ACCESS PLACE
DESIGN SPEED = 25 MPH

PROPOSED PUBLIC ROAD C - PROFILE

SCALE: 1"= 50 ' HORIZONTAL
1"= 5 ' VERTICAL



PROPOSED PUBLIC ROAD C - CUL-DE-SAC - LINEAR PROFILE

SCALE: 1"= 50 ' HORIZONTAL
1"= 5 ' VERTICAL

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR — DATE 6/28/21

OWNER:	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
TAX MAP: 17	GRID: 15 ZONED: R-20
	PARCEL: 34
	2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

SUBDIVISION NAME: TBD SECTION/AREA: N/A DEED # 00226/ 00064	PREVIOUS FILE No.: WP-19-118 ECP-19-041

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: 7/3/2021

BOHLER ENGINEERING

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING PROGRAM MANAGEMENT LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN TRANSPORTATION ENGINEERING

◆ UPSTATE NEW YORK ◆ SOUTHERN NEW JERSEY ◆ BALTIMORE, MD ◆ CHARLOTTE, NC
◆ NEW ENGLAND ◆ PHILADELPHIA, PA ◆ SOUTHERN MARYLAND ◆ ATLANTA, GA
◆ NEW YORK, NY ◆ BISHOPVILLE, PA ◆ NORTHERN VIRGINIA ◆ TAMPA, FL
◆ NEW YORK METRO ◆ LEHIGH VALLEY, PA ◆ RICHMOND, VA ◆ ORLANDO, FL
◆ NORTHERN NEW JERSEY ◆ PERKIOMEN BADGER, PA ◆ SOUTHEASTERN, PA ◆ RALEIGH, NC ◆ DALLAS, TX
◆ WASHINGTON, DC

THE INFORMATION, DESIGNS, DRAWINGS AND SPECIFICATIONS CONTAINED HEREIN ARE THE PROPERTY OF BOHLER ENGINEERING AND MAY NOT BE REPRODUCED OR USED FOR ANY OTHER PROJECT WITHOUT WRITTEN AUTHORIZATION FROM BOHLER ENGINEERING. ONLY APPROVED DESIGNS AND SIGNATURES MAY BE UTILIZED FOR CONSTRUCTION PURPOSES

REVISIONS

REV	DATE	COMMENT	BY

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL - 811
(WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777) (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	MD152018
DRAWN BY:	AVG
CHECKED BY:	BRR
DATE:	05/17/2021
SCALE:	AS SHOWN
CAD I.D.:	PPR5

PROJECT:

PRELIMINARY EQUIVALENT SKETCH PLAN

FOR

BETHANY GLEN

LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100

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

BOHLER ENGINEERING
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

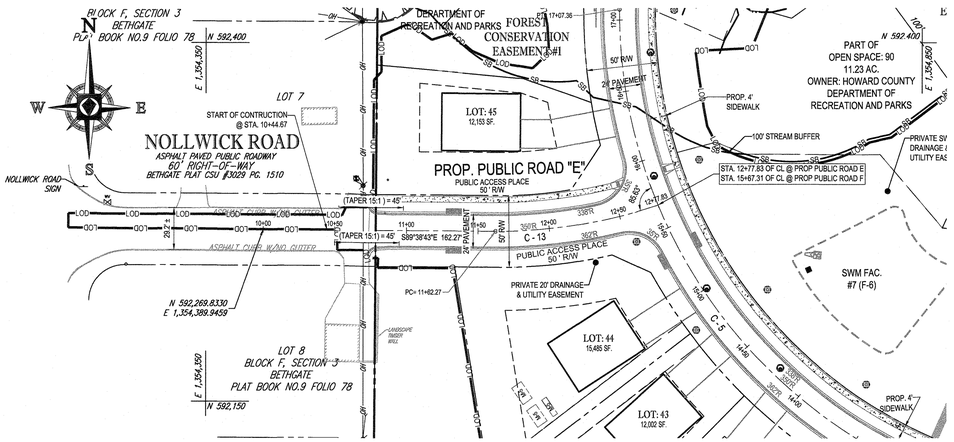
SHEET TITLE:

ROAD PLAN & PROFILE

SHEET NUMBER:

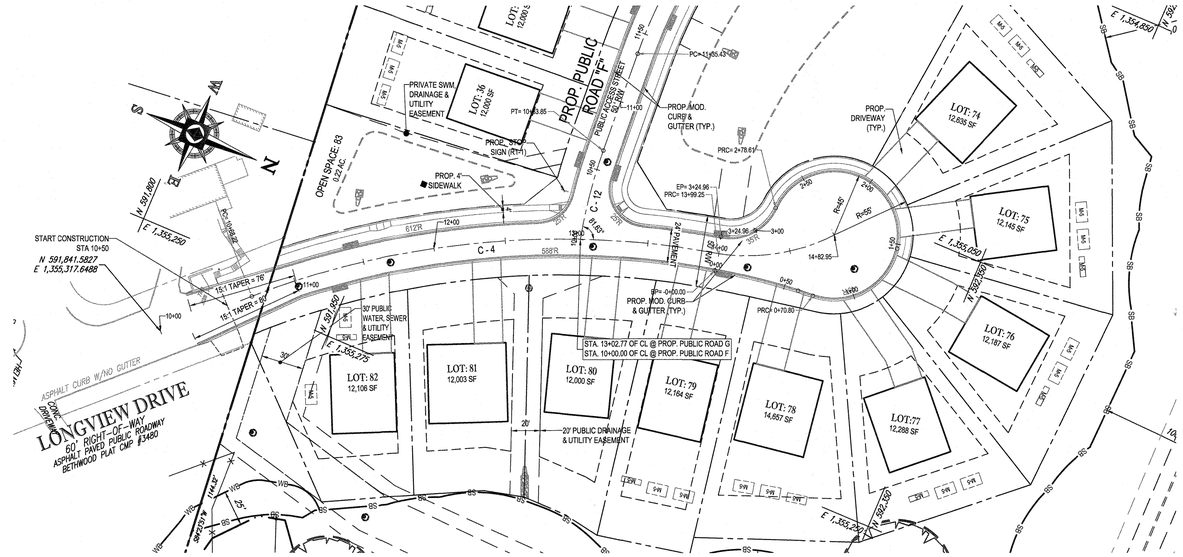
23 of 30

SP-19-005



PROPOSED PUBLIC ROAD E - PLAN

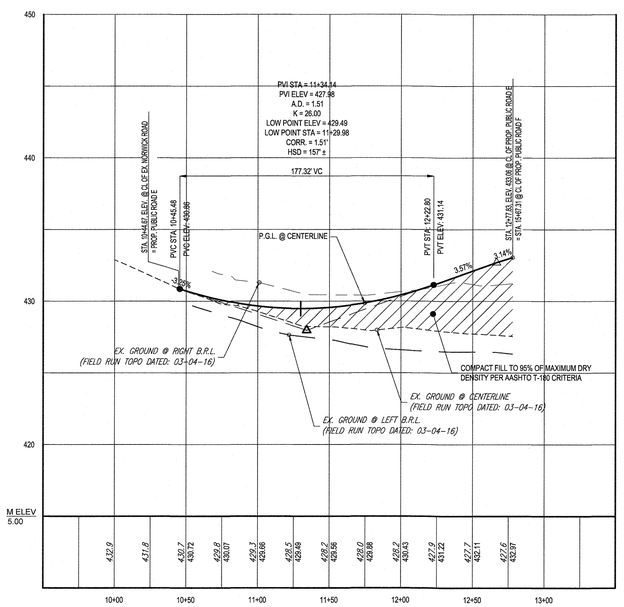
SCALE : 1" = 50



PROPOSED PUBLIC ROAD G - PLAN

SCALE : 1" = 50

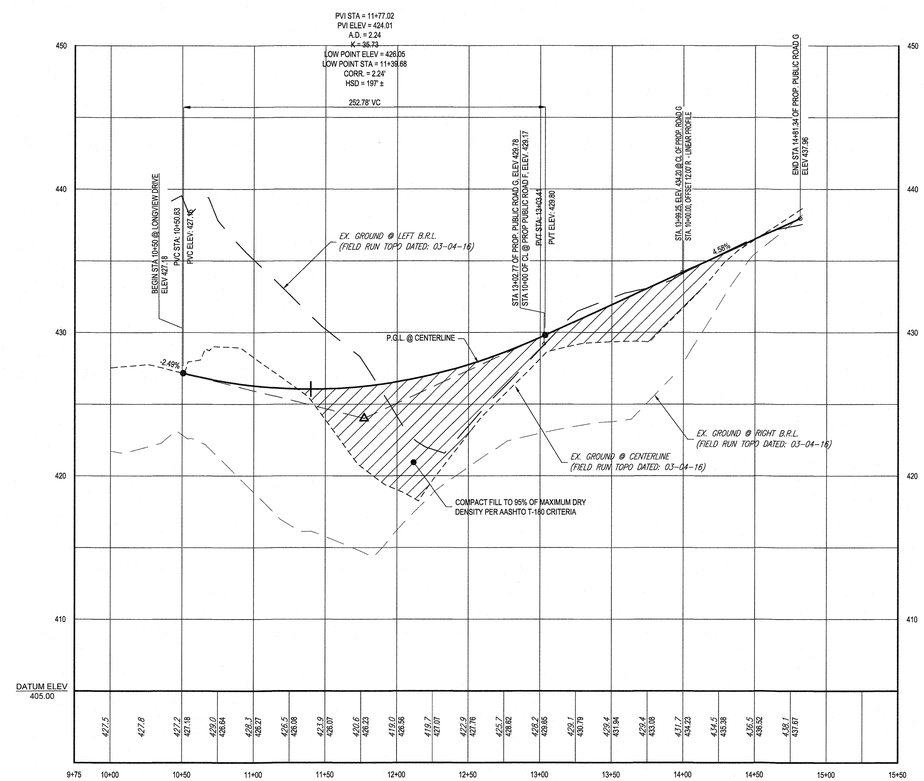
CURVE TABLE						
CURVE	RADIUS	LENGTH	CHORD BEARING	CHORD	DELTA	TANGENT
C - 4	596.89'	331.01'	S28°12'48"E	326.78'	031°46'25"	169.88'
C - 5	350.00'	571.93'	S46°35'03"E	510.39'	093°37'35"	372.88'
C - 12	350.00'	63.85'	N81°22'36"E	63.76'	010°27'07"	32.01'
C - 13	350.00'	115.86'	N80°52'18"E	115.33'	018°57'59"	58.46'



PUBLIC ACCESS PLACE
DESIGN SPEED = 25 MPH

PROPOSED PUBLIC ROAD E - PROFILE

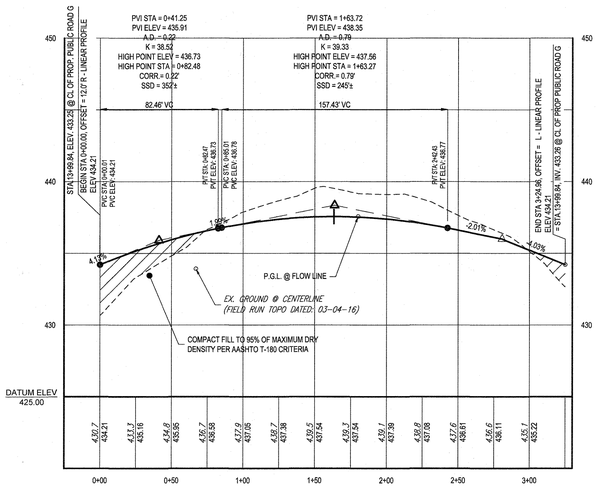
SCALE: 1"= 50 ' HORIZONTAL
1"= 5 ' VERTICAL



PUBLIC ACCESS STREET
DESIGN SPEED = 30 MPH

PROPOSED PUBLIC ROAD G - PROFILE

SCALE: 1"= 50 ' HORIZONTAL
1"= 5 ' VERTICAL



PROPOSED PUBLIC ROAD G - CUL-DE-SAC - LINEAR PROFILE

SCALE: 1"= 50 ' HORIZONTAL
1"= 5 ' VERTICAL

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR — DATE 6/28/21

OWNER:	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
TAX MAP: 17	GRID: 15 ZONED: R-20 PARCEL: 34 2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

SUBDIVISION NAME: TBD SECTION/AREA: N/A DEED # 00225/ 00064	PREVIOUS FILE No. : WP-19-118 ECP-19-041

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: 7/3/2021

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT · LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN · TRANSPORTATION SERVICES
◆ UPSTATE NEW YORK ◆ SOUTHERN NEW JERSEY ◆ BALTIMORE, MD ◆ CHARLOTTE, NC
◆ NEW ENGLAND ◆ PHILADELPHIA, PA ◆ SOUTHERN MARYLAND ◆ ATLANTA, GA
◆ NEW JERSEY ◆ WILMINGTON, DE ◆ NORTHERN VIRGINIA ◆ AUSTIN, TX
◆ NEW YORK, NY ◆ LEHIGH VALLEY, PA ◆ CENTRAL VIRGINIA ◆ SOUTH FLORIDA
◆ NEW YORK METRO ◆ SOUTHEASTERN, PA ◆ RALEIGH, NC ◆ DALLAS, TX
THE INFORMATION, DESIGNS AND SPECIFICATIONS CONTAINED HEREON ARE THE PROPERTY OF BOHLER ENGINEERING AND ARE PROVIDED WITHOUT REPRODUCTION PRIOR TO BOHLER ENGINEERING'S WRITTEN AUTHORIZATION. THESE DESIGNS AND SPECIFICATIONS MAY BE USED FOR CONSTRUCTION PURPOSES ONLY WHEN THE ENTIRE PROJECT HAS BEEN PAID IN FULL.

REVISIONS

REV	DATE	COMMENT	BY

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE, IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL - 811
(WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777) (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	MD152018
DRAWN BY:	AVG
CHECKED BY:	BRR
DATE:	05/17/2021
SCALE:	AS SHOWN
CAD I.D.:	PPR5

PROJECT:
PRELIMINARY EQUIVALENT SKETCH PLAN
FOR
BETHANY GLEN
LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100
9891 OLD FREDERICK ROAD - ROUTE 99
2ND ELECTION DISTRICT
TAX MAP 17, GRID 15, PARCEL 34
HOWARD COUNTY, MARYLAND

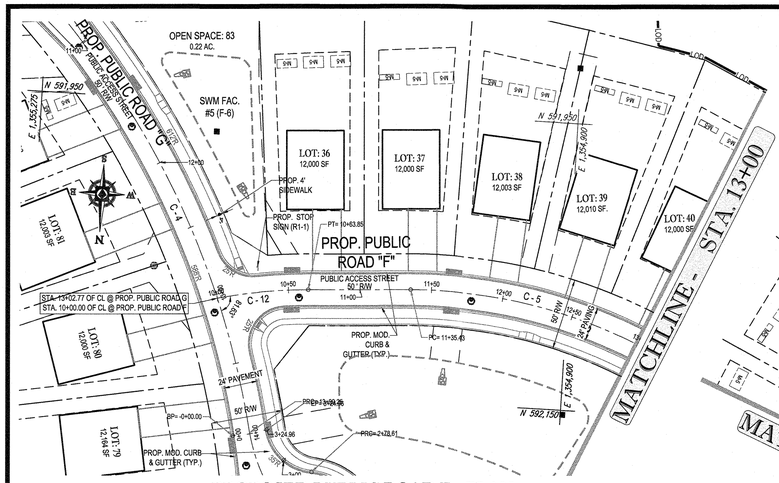
BOHLER ENGINEERING
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

B.R. ROWE
PROFESSIONAL ENGINEER
MARYLAND LICENSE No. 40808
6/14/2021

SHEET TITLE:
ROAD PLAN & PROFILE

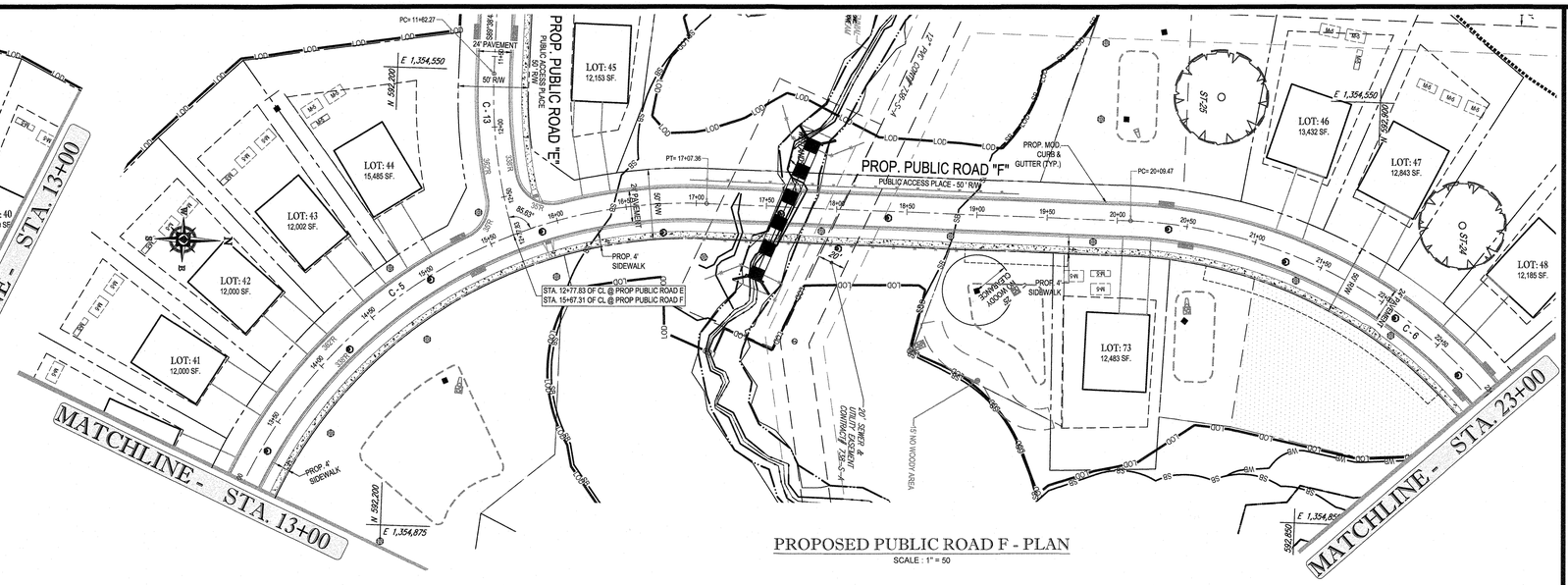
SHEET NUMBER:
24 of 30

SP-19-005



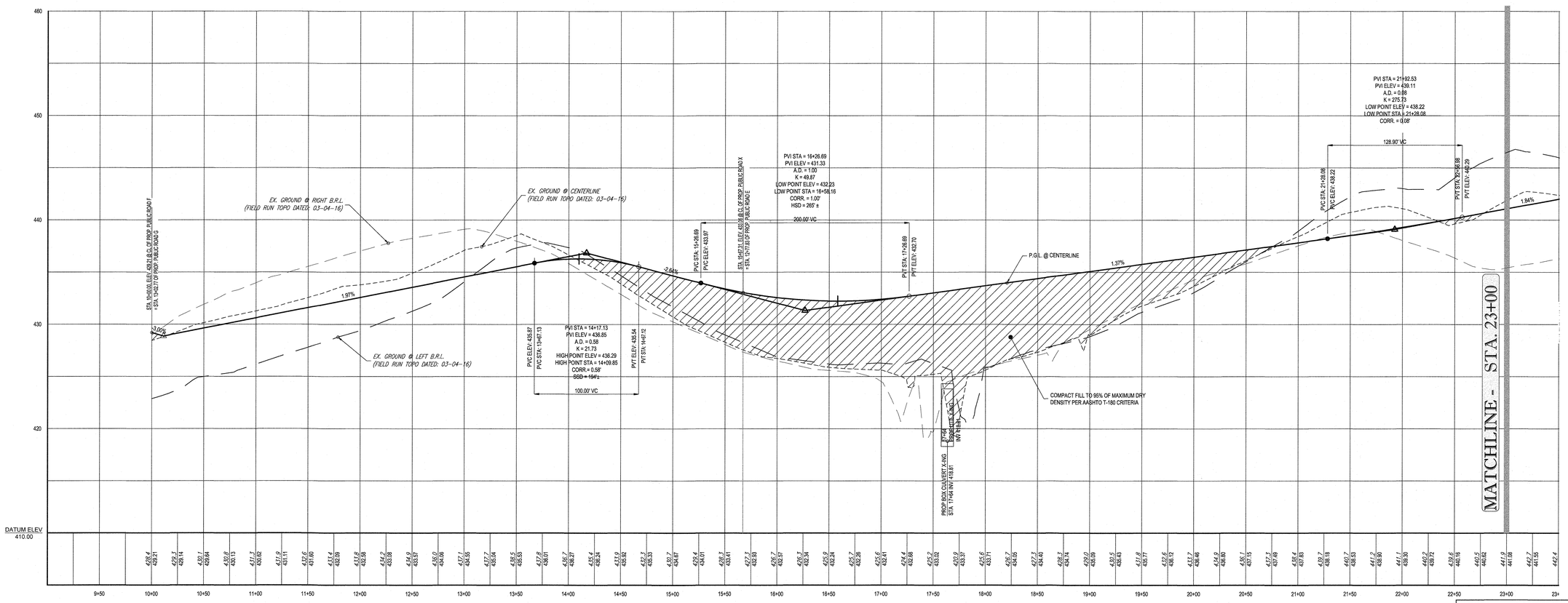
PROPOSED PUBLIC ROAD F - PLAN

SCALE : 1" = 50



PROPOSED PUBLIC ROAD F - PLAN

SCALE : 1" = 50



PUBLIC ACCESS STREET
DESIGN SPEED = 30 MPH

PROPOSED PUBLIC ROAD F - PROFILE

SCALE: 1"=50' HORIZONTAL
1"= 5' VERTICAL

CURVE TABLE						
CURVE	RADIUS	LENGTH	CHORD BEARING	CHORD	DELTA	TANGENT
C - 4	596.89'	331.01'	S28°12'48"E	326.78'	031°46'25"	169.88'
C - 5	350.00'	571.93'	S46°35'03"E	510.39'	093°37'35"	372.88'
C - 6	350.00'	704.02'	S57°51'15"W	591.19'	115°15'01"	552.05'
C - 12	350.00'	63.85'	N81°22'36"E	63.76'	010°27'07"	32.01'

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR — DATE 6/28/21

BOHLER ENGINEERING

SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT LANDSCAPE ARCHITECTURE
LAND SURVEYING TRANSPORTATION ENVIRONMENTAL SERVICES

◆ UPSTATE NEW YORK ◆ SOUTHERN NEW JERSEY ◆ BALTIMORE, MD ◆ CHARLOTTE, NC
◆ NEW ENGLAND ◆ PHILADELPHIA, PA ◆ SOUTHERN MARYLAND ◆ ATLANTA, GA
◆ BOSTON, MA ◆ PITTSBURGH, PA ◆ SOUTHERN VIRGINIA ◆ TAMPA, FL
◆ ALBANY, NY ◆ HARRISBURG, PA ◆ RICHMOND, VA ◆ ORLANDO, FLORIDA
◆ NEW YORK METRO ◆ SOUTHEASTERN, PA ◆ RALEIGH, NC ◆ DALLAS, TX
◆ NORTHERN NEW JERSEY ◆ PENNSBORO BEACH, DE ◆ WASHINGTON, DC

"BEFORE YOU DIG CALL 811" ◆ "BEFORE YOU BUILD CALL US" ◆ "BEFORE YOU DESIGN CALL US" ◆ "BEFORE YOU DEVELOP CALL US" ◆ "BEFORE YOU DREAM CALL US"
FROM EARTH TO ENGINEERING, ONE PATHWAY, SOARING AND BEAUTIFUL WITH SMALL BETWEEN STUDIES FOR CONSTRUCTION PURPOSES

REVISIONS

REV	DATE	COMMENT	BY

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE, IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL - 811
NW: 1-800-245-4848) (PA: 1-800-242-1776) (DC: 1-800-257-7777)
VA 1-800-552-7001) (MD: 1-800-257-7777) (DE: 1-800-282-8555)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	MD152018
DRAWN BY:	AVG
CHECKED BY:	BRR
DATE:	05/17/2021
SCALE:	AS SHOWN
CAD I.D.:	PPR5

PROJECT:

PRELIMINARY EQUIVALENT SKETCH PLAN

FOR

BETHANY GLEN

LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100

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

BOHLER ENGINEERING
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
6/4/2021

SHEET TITLE:

ROAD PLAN & PROFILE

SHEET NUMBER:

25 of 30

SP-19-005

OWNER:	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

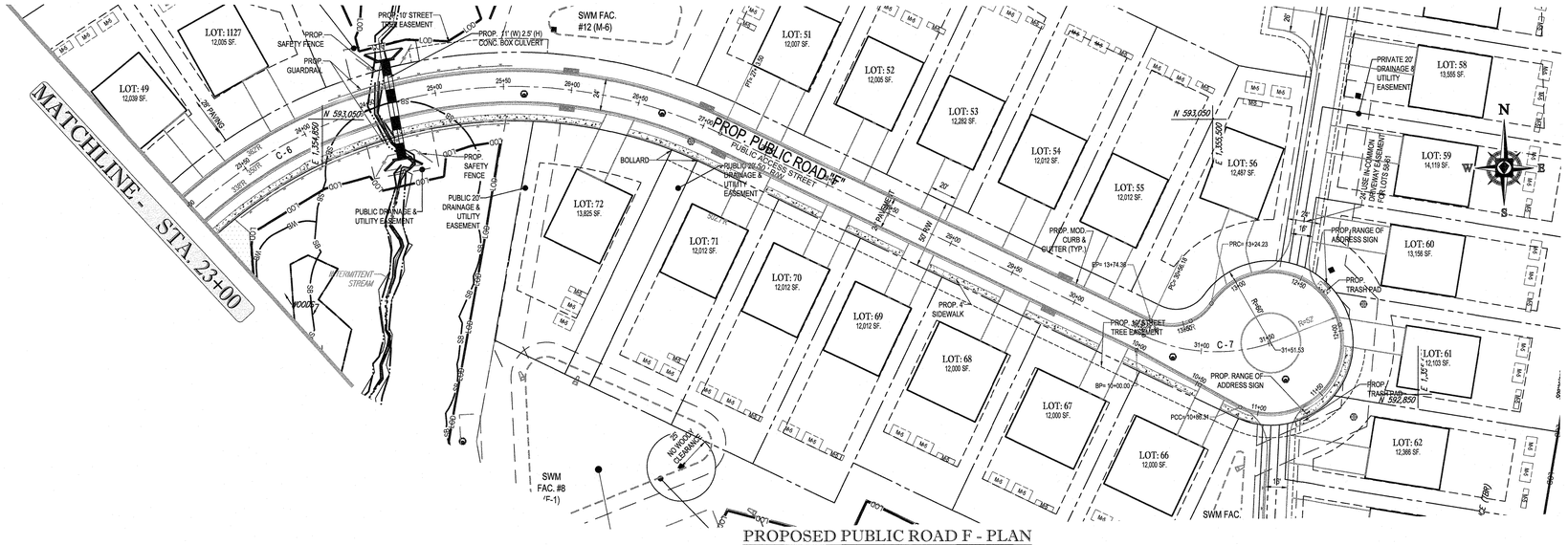
TAX MAP: 17 GRID: 15 ZONED: R-20
PARCEL: 34
2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

SUBDIVISION NAME: TBD
SECTION/AREA: N/A
DEED # 00225/ 00064

PREVIOUS FILE No. :
WP-19-118
ECP-19-041

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: 7/3/2021

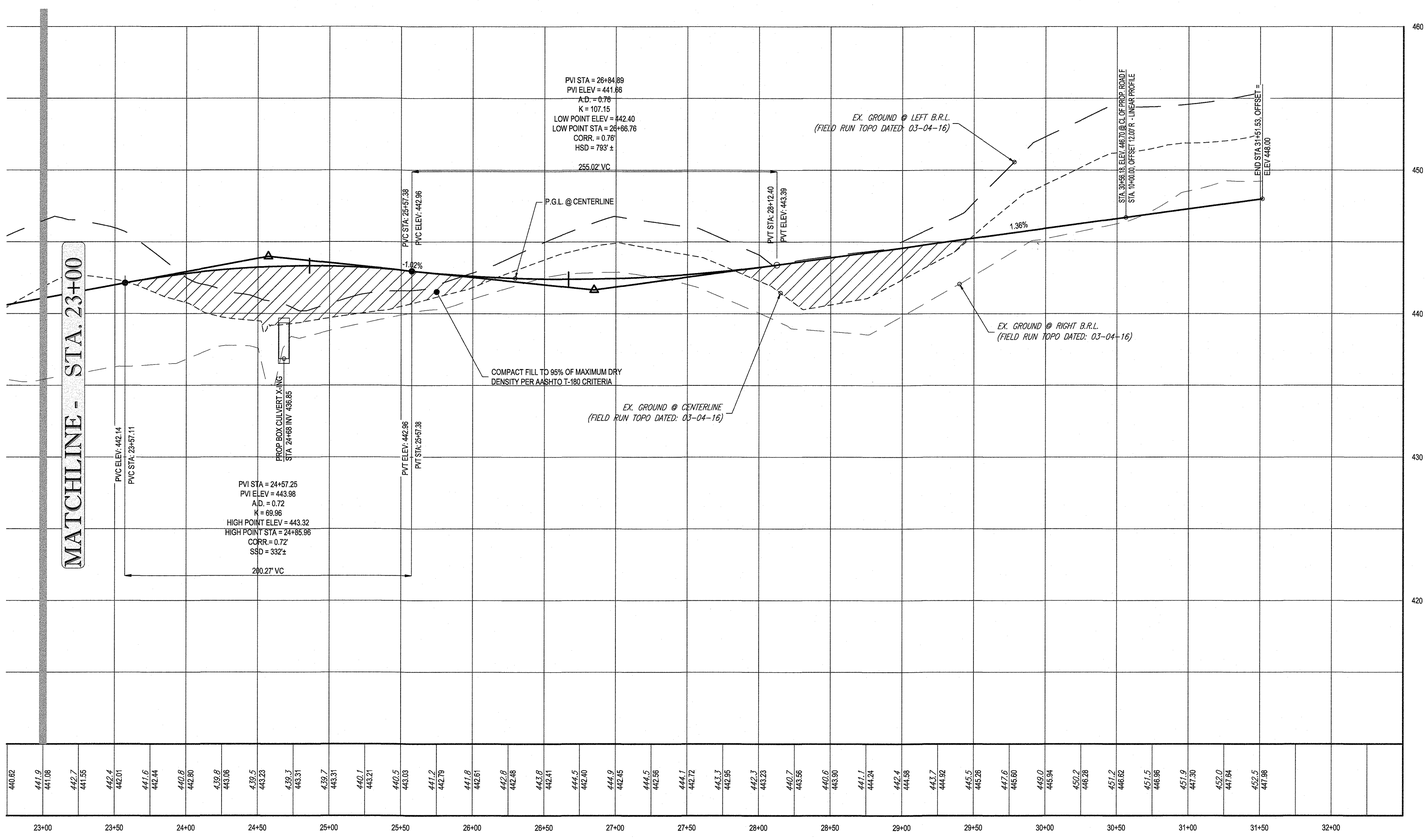
H:\15MD15201\DRAWINGS\PLAN SET\PRELIMINARY EQUIVALENT SKETCH PLAN\MD152018-PPR-5.DWG PRINTED BY: AGAMBOA 5:19:21 @ 9:03 AM LAST SAVED BY: AGAMBOA



PROPOSED PUBLIC ROAD F - PLAN

SCALE : 1" = 50

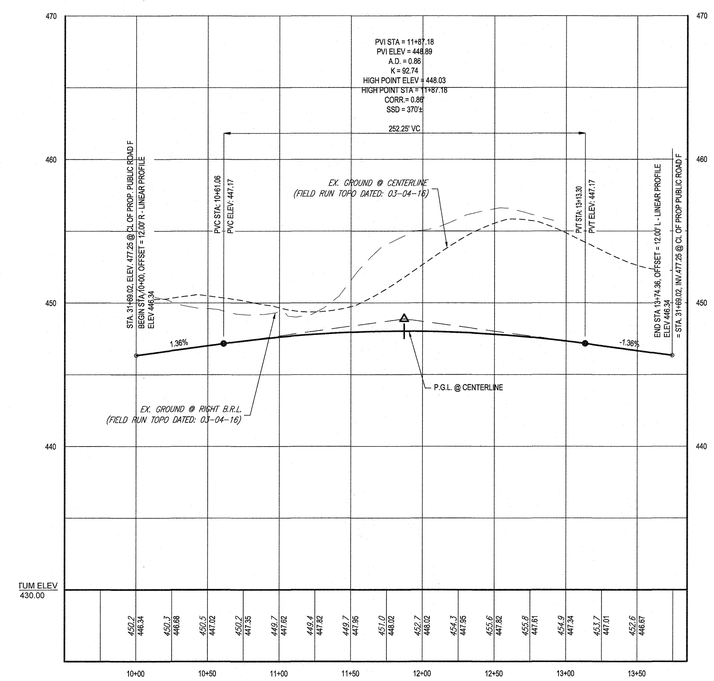
CURVE TABLE						
CURVE	RADIUS	LENGTH	CHORD BEARING	CHORD	DELTA	TANGENT
C - 7	123.57'	95.35'	S86°37'36"E	93.01'	044°12'44"	50.19'



PUBLIC ACCESS STREET
DESIGN SPEED = 30 MPH

PROPOSED PUBLIC ROAD F - PROFILE

SCALE: 1"=50' HORIZONTAL
1"= 5' VERTICAL



PROPOSED PUBLIC ROAD F - CUL-DE-SAC - LINEAR PROFILE

SCALE: 1"= 50' HORIZONTAL
1"= 5' VERTICAL

OWNER:	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
TAX MAP: 17 GRID: 15 ZONED: R-20 PARCEL: 34 2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND	

SUBDIVISION NAME: TBD SECTION/AREA: N/A DEED # 00225/ 00064	PREVIOUS FILE No. : WP-19-118 ECP-19-041

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: 7/3/2021

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR — DATE 6/28/21

BOHLER ENGINEERING

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING · PROGRAM MANAGEMENT · LANDSCAPE ARCHITECTURE
ENVIRONMENTAL · TRANSPORTATION · WATER RESOURCES

◆ UPSTATE NEW YORK ◆ SOUTHERN NEW JERSEY ◆ BALTIMORE, MD ◆ CHARLOTTE, NC
◆ NEW ENGLAND ◆ PHILADELPHIA, PA ◆ SOUTHERN MARYLAND ◆ ATLANTA, GA
◆ NEW YORK, NY ◆ PITTSBURGH, PA ◆ NORTHERN VIRGINIA ◆ TAMPA, FLORIDA
◆ NEW YORK METRO ◆ SOUTHEASTERN, PA ◆ RALEIGH, NC ◆ DALLAS, TX
◆ NORTHERN NEW JERSEY ◆ PERKIOMEN BEACH, MD ◆ WASHINGTON, DC

THE AFOREMENTIONED TRADEMARKS, SERVICE MARKS, AND LOGOS ARE THE PROPERTY OF BOHLER ENGINEERING PC AND MAY BE REGISTERED IN THE UNITED STATES AND OTHER COUNTRIES. PROPRIETARY ENGINEERING, ONLY APPROVED WORKS MAY BE USED FOR CONSTRUCTION PURPOSES.

REVISIONS

REV	DATE	COMMENT	BY

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE, IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL - 811
(WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777) (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	MD152018
DRAWN BY:	AVG
CHECKED BY:	BRR
DATE:	05/17/2021
SCALE:	AS SHOWN
CAD I.D.:	PPR5

PROJECT:

PRELIMINARY EQUIVALENT SKETCH PLAN

FOR

BETHANY GLEN

LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100

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

BOHLER ENGINEERING
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
6/4/2021

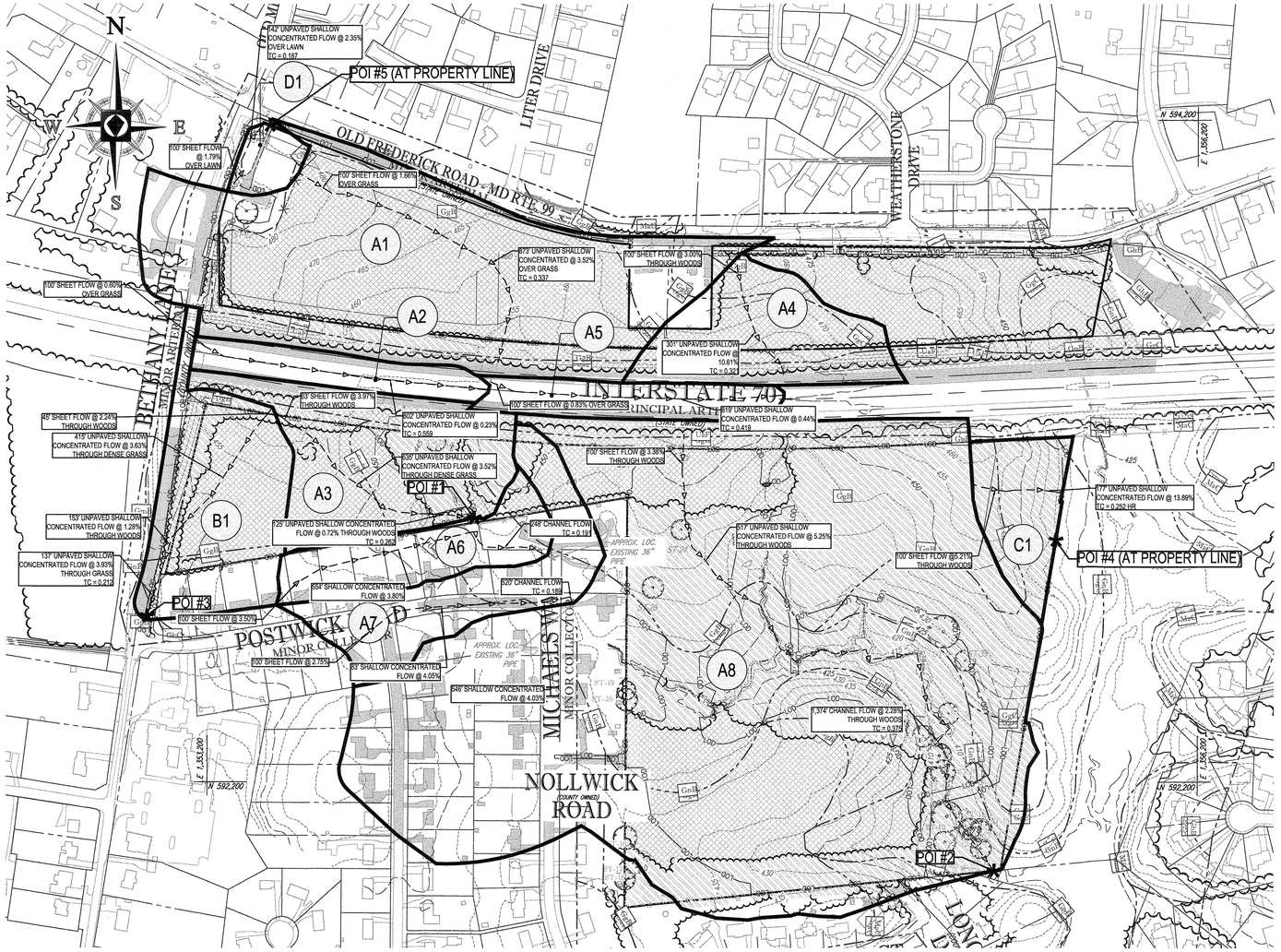
SHEET TITLE:

PLAN & PROFILE

SHEET NUMBER:

26 of 30

SP-19-005



SOILS TABLE

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

Quantity - Coverage Summary Chart
Pre-Development

Project: Bethany Glen (MD152018)
Location: Howard County
By: KO
Date: 4/14/2020

POI	DA	Q (10 Year)	Q (100 Year)	Q(Ho Co 6.6)	Tc (hr)	AREA (ac)	CN	DESCRIPTION
1						2.667	61	B SOILS - OPEN SPACE; GRASS COVER > 75%
						2.025	98	IMPERVIOUS
						12.976	61	B SOILS - PASTURE, GRASSLAND OR RANGE
						1.091	55	B SOILS - WOODS
	A1	33.94	88.51	91.00	0.337	18.759	65	(Total)
						1.403	80	D SOILS - OPEN SPACE; GRASS COVER > 75%
						0.659	98	IMPERVIOUS
	A2	6.01	11.24	13.08	0.559	2.062	86	(Total)
						0.615	98	IMPERVIOUS
						3.27	61	B SOILS - PASTURE, GRASSLAND OR RANGE
						1.115	74	C SOILS - PASTURE, GRASSLAND OR RANGE
						0.614	55	B SOILS - WOODS
						1.282	70	C SOILS - WOODS
	A3	16.17	39.36	42.04	0.262	6.896	68	(Total)
	TOTAL	54.54	135.92	142.09				
2						0.510	61	B SOILS - OPEN SPACE; GRASS COVER > 75%
						0.529	98	IMPERVIOUS
						1.415	61	B SOILS - PASTURE, GRASSLAND OR RANGE
						2.246	55	B SOILS - WOODS
	A4	8.71	22.69	23.41	0.321	4.700	62	(Total)
						1.459	80	D SOILS - OPEN SPACE; GRASS COVER > 75%
						0.831	98	IMPERVIOUS
	A5	8.10	14.94	17.63	0.419	2.29	87	(Total)
						1.669	61	B SOILS - OPEN SPACE; GRASS COVER > 75%
						0.936	74	C SOILS - OPEN SPACE; GRASS COVER > 75%
						0.311	98	IMPERVIOUS
						0.041	98	IMPERVIOUS
						0.194	61	B SOILS - PASTURE, GRASSLAND OR RANGE
						0.054	74	C SOILS - PASTURE, GRASSLAND OR RANGE
						0.076	55	B SOILS - WOODS
	A6	8.90	21.09	22.99	0.191	3.281	69	(Total)
						2.059	61	B SOILS - OPEN SPACE; GRASS COVER > 75%
						0.772	74	C SOILS - OPEN SPACE; GRASS COVER > 75%
						0.903	98	IMPERVIOUS
						0.338	98	IMPERVIOUS
						0.558	61	B SOILS - PASTURE, GRASSLAND OR RANGE
						0.130	55	B SOILS - WOODS
	A7	15.13	33.54	37.42	0.189	4.760	73	(Total)
						8.869	61	B SOILS - OPEN SPACE; GRASS COVER > 75%
						1.605	74	C SOILS - OPEN SPACE; GRASS COVER > 75%
						3.07	98	IMPERVIOUS
						0.372	98	IMPERVIOUS
						10.075	61	B SOILS - PASTURE, GRASSLAND OR RANGE
						2.849	74	C SOILS - PASTURE, GRASSLAND OR RANGE
						18.221	55	B SOILS - WOODS
						7.962	70	C SOILS - WOODS
	A8	83.97	225.29	226.86	0.391	53.023	64	(Total)
	TOTAL (includes flows from POI #1)	171.25	435.85	447.02				
3						1.01	61	B SOILS - OPEN SPACE; GRASS COVER > 75%
						1.078	98	IMPERVIOUS
						2.798	61	B SOILS - PASTURE, GRASSLAND OR RANGE
						1.26	55	B SOILS - WOODS
	B1	14.19	35.69	37.98	0.212	6.146	66	(Total)
4						2.546	55	B SOILS - WOODS
						0.033	70	C SOILS - WOODS
	C1	2.83	9.85	9.45	0.252	2.579	55	(Total)
5						0.747	61	B SOILS - OPEN SPACE; GRASS COVER > 75%
						0.103	98	IMPERVIOUS
	D1	1.94	4.97	5.28	0.187	0.85	65	(Total)

LEGEND

- DRAINAGE AREA DIVIDE
- TIME OF CONCENTRATION PATH
- SOIL BOUNDARY LINE
- DrE — SOIL LABEL
- A — DRAINAGE AREA LABEL
- * — POI LABEL
- IMPERVIOUS AREA
- PASTURE, GRASSLAND, OR RANGE
- WOODS IN (GOOD CONDITION)
- LAWNS IN (GOOD CONDITION)

NOTE:

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

200 100 50 0 200
1"= 200'

OWNER:	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
TAX MAP: 17	GRID: 15 ZONED: R-20 PARCEL: 34 2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

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

PREVIOUS FILE No. :
WP-19-118
ECP-19-041

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: 7/3/2021

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR — DATE 6/29/21

H:\152018\DRAWING\PLAN SETS\PRELIMINARY EQUIVALENT SKETCH PLAN\MD152018-HDP-5.DWG PRINTED BY: AGAMBOA 5:19:21 @ 9:04 AM LAST SAVED BY: AGAMBOA

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING · PROGRAM MANAGEMENT · LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN · TRANSPORTATION · ENVIRONMENTAL SERVICES
◆ UPSTATE NEW YORK ◆ SOUTHERN NEW JERSEY ◆ BALTIMORE, MD ◆ CHARLOTTE, NC
◆ NEW ENGLAND ◆ PHILADELPHIA, PA ◆ SOUTHERN MARYLAND ◆ ATLANTA, GA
◆ BOSTON, MA ◆ PITTSBURGH, PA ◆ NORTHERN VIRGINIA ◆ TAMPA, FL
◆ NEW JERSEY ◆ HARRISBURG, PA ◆ RICHMOND, VA ◆ ORLANDO, FLORIDA
◆ NEW YORK METRO ◆ SOUTHEASTERN, PA ◆ RALEIGH, NC ◆ DALLAS, TX
◆ NORTHERN NEW JERSEY ◆ PERKIOMEN BEACH, PA ◆ WASHINGTON, DC
THE INFORMATION, DESIGNS, DRAWINGS AND SPECIFICATIONS CONTAINED HEREIN ARE THE PROPERTY OF BOHLER ENGINEERING. ANY REPRODUCTION OR USE FOR ANY PURPOSE OTHER THAN THOSE AUTHORIZED BY BOHLER ENGINEERING IS PROHIBITED.

REVISIONS

REV	DATE	COMMENT	BY

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE, IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL - 811
(VV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777) (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.: MD152018
DRAWN BY: AVG
CHECKED BY: BRR
DATE: 05/17/2021
SCALE: 1" = 200'
CAD I.D.: HDP-5

PROJECT:
PRELIMINARY EQUIVALENT SKETCH PLAN
FOR
BETHANY GLEN
LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100
9891 OLD FREDERICK ROAD - ROUTE 99
2ND ELECTION DISTRICT
TAX MAP 17, GRID 15, PARCEL 34
HOWARD COUNTY, MARYLAND

BOHLER ENGINEERING
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

SHEET TITLE:
PRE-DEVELOPMENT QUANTITY DRAINAGE AREA MAP

SHEET NUMBER:
27 of 30

SP-19-005

SOILS TABLE

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

Quantity Management - POI Summary Chart

Project: Bethany Glen (MD152018)
Location: Howard County
By: KO
Date: 4/14/2020

POI #	Q10(pre) (cfs)	Q100(pre) (cfs)	QHoCo6.6(pre)(cfs)	Q10 (post)(cfs)	Q100 (post)(cfs)	QHoCo6.6(post)(cfs)	POI Description	Notes
1	54.54	135.92	142.09	48.13	125.96	126.67	Point within existing stream located to the southeast of Neighborhood 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	171.25	435.85	447.02	166.61	429.48	433.87	Point within existing stream located to the southeast of Neighborhood 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	14.19	35.69	37.98	13.77	30.38	33.75	Existing storm drain inlet located to the southwest of 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	3.40	8.88	9.40	Portion of northeast property boundary of Neighborhood D (Sheet Runoff in pre and post conditions)	Flows have been reduces from pre development to post development by diverting flows to alternative POIs.
5	1.94	4.97	5.28	1.01	2.53	2.71	Portion of northwest property boundary of Neighborhood A (Sheet Runoff in pre and post conditions)	Flows have been reduces from pre development to post development by diverting flows to alternative POIs. Additionally, reduced impervious area in this location aids in flow reduction.

Quantity - Coverage Summary Chart
Post-Development

Project: Bethany Glen (MD152018)
Location: Howard County
By: KO
Date: 4/14/2020

POI	DA	Q (10 Year) (cfs)	Q (100 Year) (cfs)	Q (Ho Co 6.6) (cfs)	Tc (hr)	AREA (ac)	CN	DESCRIPTION
1						7.724	61	B SOILS - OPEN SPACE; GRASS COVER > 75%
						2.218	98	IMPERVIOUS
						1.779	61	B SOILS - PASTURE, GRASSLAND OR RANGE
	A1					0.658	55	B-SOILS - WOODS
	(Bypass)	27.45	68.21	72.15	0.268	12.379	69	(Weighted CN)
						2.789	61	B SOILS - OPEN SPACE; GRASS COVER > 75%
	DA 1	18.41 (uncontrolled)	37.83 (uncontrolled)	43.30 (uncontrolled)		2.263	98	IMPERVIOUS
	(Facility 1)	4.58 (controlled)	18.69 (controlled)	17.09 (controlled)	0.241	5.052	78	(Weighted CN)
						0.574	61	B SOILS - OPEN SPACE; GRASS COVER > 75%
	DA 2	4.77 (uncontrolled)	10.27 (uncontrolled)	11.32 (uncontrolled)		0.926	98	IMPERVIOUS
	(Facility 2)	0.22 (controlled)	0.56 (controlled)	0.54 (controlled)	0.218	1.500	75	(Weighted CN)
						1.403	80	D SOILS - OPEN SPACE; GRASS COVER > 75%
	A2					0.659	98	IMPERVIOUS
	(Bypass)	6.01	11.24	13.08	0.559	2.062	86	(Weighted CN)
						1.089	61	B SOILS - OPEN SPACE; GRASS COVER > 75%
						0.349	74	C SOILS - OPEN SPACE; GRASS COVER > 75%
	DA 3	11.13 (uncontrolled)	22.63 (uncontrolled)	26.11 (uncontrolled)		1.11	98	IMPERVIOUS
	(Facility 3)	0.40 (controlled)	0.71 (controlled)	0.69 (controlled)	0.110	2.548	79	(Weighted CN)
						1.190	61	B SOILS - OPEN SPACE; GRASS COVER > 75%
						0.541	74	C-SOILS - OPEN SPACE; GRASS COVER > 75%
						0.749	98	IMPERVIOUS
						1.290	61	B SOILS - PASTURE, GRASSLAND OR RANGE
						0.257	74	C-SOILS - PASTURE/GRASSLANDS/RANGE
						0.512	55	B-SOILS - WOODS
	A3					1.159	70	C-SOILS - WOODS
	(Bypass)	16.72	39.93	43.31	0.129	5.698	69	(Weighted CN)
	TOTAL CONTROLLED	48.13	125.96	126.67				
2						0.432	61	B SOILS - OPEN SPACE; GRASS COVER > 75%
						0.375	74	C SOILS - OPEN SPACE; GRASS COVER > 75%
	DA 5	7.12 (uncontrolled)	14.09 (uncontrolled)	16.48 (uncontrolled)		0.705	98	IMPERVIOUS
	(Facility 5)	1.98 (controlled)	3.69 (controlled)	3.59 (controlled)	0.100	1.512	81	(Weighted CN)
						2.600	61	B SOILS - OPEN SPACE; GRASS COVER > 75%
						0.002	74	C SOILS - OPEN SPACE; GRASS COVER > 75%
						1.270	98	IMPERVIOUS
	DA 6	9.01 (uncontrolled)	22.66 (uncontrolled)	23.25 (uncontrolled)		1.204	55	B-SOILS - WOODS
	(Facility 6)	1.71 (controlled)	5.58 (controlled)	5.15 (controlled)	0.424	5.076	69	(Weighted CN)
						0.894	61	B SOILS - OPEN SPACE; GRASS COVER > 75%
						0.478	74	C SOILS - OPEN SPACE; GRASS COVER > 75%
						0.828	98	IMPERVIOUS
	DA 7	6.21 (uncontrolled)	13.74 (uncontrolled)	14.87 (uncontrolled)		0.435	55	B-SOILS - WOODS
	(Facility 7)	0.62 (controlled)	1.40 (controlled)	1.34 (controlled)	0.427	2.635	74	(Weighted CN)
						3.475	61	B SOILS - OPEN SPACE; GRASS COVER > 75%
						2.168	98	IMPERVIOUS
	DA 8	18.56 (uncontrolled)	40.54 (uncontrolled)	45.22 (uncontrolled)		0.343	55	B-SOILS - WOODS
	(Facility 8)	2.30 (controlled)	22.71 (controlled)	18.22 (controlled)	0.225	5.986	74	(Weighted CN)
						0.845	61	B SOILS - OPEN SPACE; GRASS COVER > 75%
	DA 9	6.53 (uncontrolled)	13.25 (uncontrolled)	15.25 (uncontrolled)		0.764	98	IMPERVIOUS
	(Facility 9)	0.23 (controlled)	3.05 (controlled)	2.74 (controlled)	0.203	1.609	79	(Weighted CN)
						1.897	61	B SOILS - OPEN SPACE; GRASS COVER > 75%
						0.788	98	IMPERVIOUS
	DA 10	8.37 (uncontrolled)	19.52 (uncontrolled)	21.33 (uncontrolled)		0.341	55	B-SOILS - WOODS
	(Facility 10)	5.34 (controlled)	11.81 (controlled)	11.43 (controlled)	0.203	3.026	79	(Weighted CN)
						0.51	61	B SOILS - OPEN SPACE; GRASS COVER > 75%
						0.529	98	IMPERVIOUS
						1.415	61	B SOILS - PASTURE, GRASSLAND OR RANGE
						2.246	55	B-SOILS - WOODS
	A4	7.43	20.76	20.83	0.321	4.700	68	(Weighted CN)
						1.459	80	D-SOILS - LAWN
						0.831	98	D-SOILS - IMPERVIOUS
	A5	8.10	14.94	17.63	0.419	2.29	87	(Weighted CN)
						1.669	61	B SOILS - OPEN SPACE; GRASS COVER > 75%
						0.936	74	C-SOILS - LAWN
						0.352	98	IMPERVIOUS
						0.194	61	B SOILS - PASTURE, GRASSLAND OR RANGE
						0.054	74	C-SOILS - PASTURE/GRASSLANDS/RANGE
						0.076	55	B-SOILS - WOODS
	A6	8.9	21.09	22.99	0.191	3.281	69	(Weighted CN)
						2.06	61	B-SOILS - LAWN
						0.772	74	C-SOILS - LAWN
						1.241	98	IMPERVIOUS
						0.558	61	B SOILS - PASTURE, GRASSLAND OR RANGE
						0.13	55	B-SOILS - WOODS
	A7	16.86	37.36	41.68	0.189	4.761	73	(Weighted CN)
						8.126	61	B-SOILS - LAWN
						1.904	74	C-SOILS - LAWN
						3.236	98	IMPERVIOUS
						0.877	61	B SOILS - PASTURE, GRASSLAND OR RANGE
						1.015	55	B-SOILS - WOODS
						0.865	70	C-SOILS - WOODS
	A8	41.84	97.87	106.18	0.247	16.023	70	(Weighted CN)
						0.802	61	B SOILS - LAWN
						0.134	98	IMPERVIOUS
						1.37	61	B SOILS - PASTURE, GRASSLAND OR RANGE
						0.449	55	B SOILS - WOODS
	A9	4.98	13.77	14.14	0.239	2.755	62	(Weighted CN)
						3.243	61	B-SOILS - LAWN
						1.007	74	C-SOILS - LAWN
						0.215	98	IMPERVIOUS
						0.104	61	B SOILS - PASTURE, GRASSLAND OR RANGE
						0.456	74	C SOILS - PASTURE, GRASSLAND OR RANGE
						3.317	55	B SOILS - WOODS
						5.887	70	C-SOILS - WOODS
	A10	26.76	69.39	71.51	0.314	14.229	70	(Weighted CN)
						0.073	61	B SOILS - LAWN
						0.327	74	C SOILS - LAWN
						0.191	98	IMPERVIOUS
						0.041	55	B SOILS - WOODS
						0.061	70	C SOILS - WOODS
	A11	2.52	5.19	5.94	0.213	0.693	78	(Weighted CN)
	TOTAL CONTROLLED (INCLUDES POI 1)	171.23	438.32	444.44				
3						2.268	61	B SOILS - OPEN SPACE; GRASS COVER > 75%
						1.366	98	IMPERVIOUS
	B1					0.213	55	B SOILS - WOODS
	(Bypass)	13.77	30.17	33.75	0.129	3.847	74	(Weighted CN)
						0.756	61	B SOILS - OPEN SPACE; GRASS COVER > 75%
	DA 4	2.55 (uncontrolled)	6.18 (uncontrolled)	6.68 (uncontrolled)		0.178	98	IMPERVIOUS
	(Facility 4)	0.12 (controlled)	0.95 (controlled)	0.87 (controlled)	0.147	0.934	68	(Weighted CN)
	TOTAL CONTROLLED	13.77	30.38	33.75				
4						1.140	61	B SOILS - OPEN SPACE; GRASS COVER > 75%
						0.034	74	C SOILS - OPEN SPACE; GRASS COVER > 75%
						0.105	98	IMPERVIOUS
						0.190	55	B SOILS - WOODS
	C1	3.40	8.88	9.40	0.175	1.469	63	(Total)
5						0.362	61	B SOILS - OPEN SPACE; GRASS COVER > 75%
						0.060	98	IMPERVIOUS
	F1	1.01	2.53	2.71	0.187	0.422	66	(Total)

LEGEND

- DRAINAGE AREA DIVIDE
- TIME OF CONCENTRATION PATH
- SOIL BOUNDARY LINE
- DrE — SOIL LABEL
- A — DRAINAGE AREA LABEL
- * — POI LABEL
- IMPERVIOUS AREA
- PASTURE, GRASSLAND, OR RANGE
- WOODS IN (GOOD CONDITION)
- LAWNS IN (GOOD CONDITION)

NOTE:

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

200 100 50 0 200
1"= 200'

OWNER:	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

TAX MAP: 17 GRID: 15 ZONED: R-20
PARCEL: 34
2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

SUBDIVISION NAME: TBD SECTION/AREA: N/A DEED # 00226/ 00064	PREVIOUS FILE No. : WP-19-118 ECP-19-041

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: 7/3/2021

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY
PLANNING DIRECTOR DATE 6/28/21

H:\15\MD152018\DRAWINGS\PLAN SETS\PRELIMINARY EQUIVALENT SKETCH PLAN\MD152018-HDP-5.DWG PRINTED BY: AGAMBOA 5.19.21 @ 9:05 AM LAST SAVED BY: AGAMBOA

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING PROGRAM MANAGEMENT LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN PERMITTING SERVICES TRANSPORTATION SERVICES
UPSTATE NEW YORK • NEW ENGLAND • BOSTON, MA • NEW YORK, NY • NEW YORK METRO • NORTHERN NEW JERSEY • SOUTHERN NEW JERSEY • PHILADELPHIA, PA • PITTSBURGH, PA • LEHIGH VALLEY, PA • SOUTHEASTERN, PA • REHOBOTH BEACH, DE • BALTIMORE, MD • SOUTHERN MARYLAND • NORTHERN VIRGINIA • CENTRAL VIRGINIA • RALEIGH, NC • WASHINGTON, DC • CHARLOTTE, NC • ATLANTA, GA • TAMPA, FL • SOUTH FLORIDA • DALLAS, TX

THE INFORMATION, DESIGN AND CONTENT OF THIS PLAN ARE PROPRIETARY AND SHALL NOT BE COPIED OR USED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM BOHLER ENGINEERING. ONLY APPROVED, SIGNED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES. © 2017 BOHLER ENGINEERING

REVISIONS

REV	DATE	COMMENT	BY

DIG WITH CARE — CALL BEFORE YOU DIG

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE. IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL - 811
(WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777)
(VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	MD152018
DRAWN BY:	AVG
CHECKED BY:	BRR
DATE:	05/17/2021
SCALE:	1" = 200'
CAD I.D.:	HDP-5

PROJECT:

PRELIMINARY EQUIVALENT SKETCH PLAN
FOR
BETHANY GLEN
LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100

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

BOHLER ENGINEERING
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
6/14/2021

SHEET TITLE:
POST-DEVELOPMENT QUANTITY DRAINAGE AREA MAP

SHEET NUMBER:

SP-19-005

BOHLER //

Project	Bethany Glen	By	KLO
		Checked By	TMG
Location	Howard County, MD	Date	4/14/2020
Condition	ESD Volume	Job#	MD152018

ESD Facility Summary

ESD Volume Required =	78905.76 CF
Imp Area to be Treated=	12.42 acres
Recharge Vol Required=	11497.03 CF
Target PE=	1.60 inches

Facility #	Practice	Surface Area	Impervious Area	Pervious Area	PE	Recharge Volume	Treatment Volume
1	(Surface Sandfilter)	3250 SF	1.63 AC	2.54 AC	1.06 Inches	975 CF	6450.00 CF
2	(Surface Sandfilter)	1900 SF	0.40 AC	0.89 AC	2.60 Inches	570 CF	4040.00 CF
3	(Surface Sandfilter)	3000 SF	0.80 AC	0.93 AC	2.55 Inches	900 CF	7500.00 CF
4	(Surface Sandfilter)	900 SF	0.18 AC	0.76 AC	2.60 Inches	270 CF	1940.00 CF
5	(Surface Sandfilter)	2400 SF	0.68 AC	0.81 AC	1.79 Inches	720 CF	4440.00 CF
6	(Surface Sandfilter)	3000 SF	0.62 AC	1.46 AC	2.31 Inches	900 CF	5600.00 CF
7	(Surface Sandfilter)	2500 SF	0.63 AC	1.02 AC	2.06 Inches	750 CF	4800.00 CF
8	(Surface Sandfilter)	3000 SF	0.84 AC	3.80 AC	1.64 Inches	900 CF	5800.00 CF
9	(Surface Sandfilter)	1000 SF	0.24 AC	0.99 AC	1.84 Inches	300 CF	1900.00 CF
11	(Micro-Bioretention)	1320 SF	0.16 AC	0.33 AC	2.49 Inches	264 CF	1514.63 CF
12	(Micro-Bioretention)	1400 SF	0.17 AC	0.34 AC	2.48 Inches	280 CF	1612.63 CF
13	(Micro-Bioretention)	1200 SF	0.23 AC	0.33 AC	1.62 Inches	240 CF	1390.13 CF
14	(Micro-Bioretention)	1200 SF	0.17 AC	0.37 AC	2.18 Inches	240 CF	1390.13 CF
House Envelope A	8 Lots with Drywells 1-4	-	0.56 AC	0.00 AC	2.60 Inches	823 CF	4980.46 CF
House Envelope B	13 Lots with Drywells 1-3	-	0.82 AC	0.00 AC	2.60 Inches	1201 CF	7357.49 CF
House Envelope C	46 Lots with Drywells 1-3	-	2.61 AC	0.00 AC	2.60 Inches	3816 CF	23430.79 CF
House Envelope D	1 Lot with Drywells 1-3	-	0.05 AC	0.00 AC	2.60 Inches	76 CF	463.06 CF
House Envelope E	10 Lots with Drywells 1-3	-	0.51 AC	0.00 AC	2.60 Inches	735 CF	4527.69 CF

Total ESD Treatment Volume Provided =	89136.98 CF
Total Impervious Area Treated=	11.29 acres
PE Treatment Provided=	2.16 inches
Recharge Provided =	13959.70 CF
ESD Req Met	

SOILS TABLE

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

LEGEND

- DRAINAGE AREA DIVIDE
- SOIL BOUNDARY LINE
- DrE — SOIL LABEL
- A — DRAINAGE AREA LABEL
- IMPERVIOUS AREA

150 75 37.5 0 150
1"=150'

OWNER:	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
TAX MAP: 17	GRID: 15 ZONED: R-20 PARCEL: 34 2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

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

PREVIOUS FILE No. :
WP-19-118
ECP-19-041

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: 7/3/2021

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR — DATE 4/28/21

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
LANDSCAPE ARCHITECTURE
PROGRAM MANAGEMENT
TRANSPORTATION SERVICES
◆ UPSTATE NEW YORK ◆ SOUTHERN NEW JERSEY ◆ BALTIMORE MD ◆ CHARLOTTE, NC
◆ NEW ENGLAND ◆ PHILADELPHIA, PA ◆ SOUTHERN MARYLAND ◆ ATLANTA, GA
◆ BOSTON, MA ◆ PITTSBURGH, PA ◆ NORTHERN VIRGINIA ◆ TAMPA, FL
◆ NEW YORK, NY ◆ HARRISBURG, PA ◆ RICHMOND, VA ◆ ORLANDO, FLORIDA
◆ NEW YORK METRO ◆ SOUTHEASTERN, PA ◆ RALEIGH, NC ◆ DALLAS, TX
◆ NORTHERN NEW JERSEY ◆ REHOBOTH BEACH, DE ◆ WASHINGTON, DC
THE INFORMATION, DESIGNS, DRAWINGS AND SPECIFICATIONS CONTAINED HEREON CONSTITUTES PROPRIETARY PROPERTY OF BOHLER ENGINEERING, PA. APPROVED USE(S) AND REPRODUCTION(S) IS LIMITED TO THE NAMED PROJECT ONLY AND WITHOUT PRIOR WRITTEN CONSENT OF BOHLER ENGINEERING, PA. ANY OTHER USE(S) AND REPRODUCTION(S) IS PROHIBITED.

REVISIONS

REV	DATE	COMMENT	BY

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE, IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL - 811
(WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777) (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	MD152018
DRAWN BY:	AVG
CHECKED BY:	BRR
DATE:	05/17/2021
SCALE:	1" = 200'
CAD I.D.:	HDP-5

PROJECT:
PRELIMINARY EQUIVALENT SKETCH PLAN
FOR
BETHANY GLEN
LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100
9891 OLD FREDERICK ROAD - ROUTE 99
2ND ELECTION DISTRICT
TAX MAP 17, GRID 15, PARCEL 34
HOWARD COUNTY, MARYLAND

BOHLER ENGINEERING
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
4/14/2021

SHEET TITLE:
ESD FACILITY DRAINAGE AREA MAP

SHEET NUMBER:
29 of 30

SP-19-005

H:\!SMD152018\DRAWINGS\PLAN SETS\PRELIMINARY EQUIVALENT SKETCH PLAN\MD152018-HDP-5.DWG PRINTED BY: AGAMBOA 5.19.21 @ 9:05 AM LAST SAVED BY: AGAMBOA

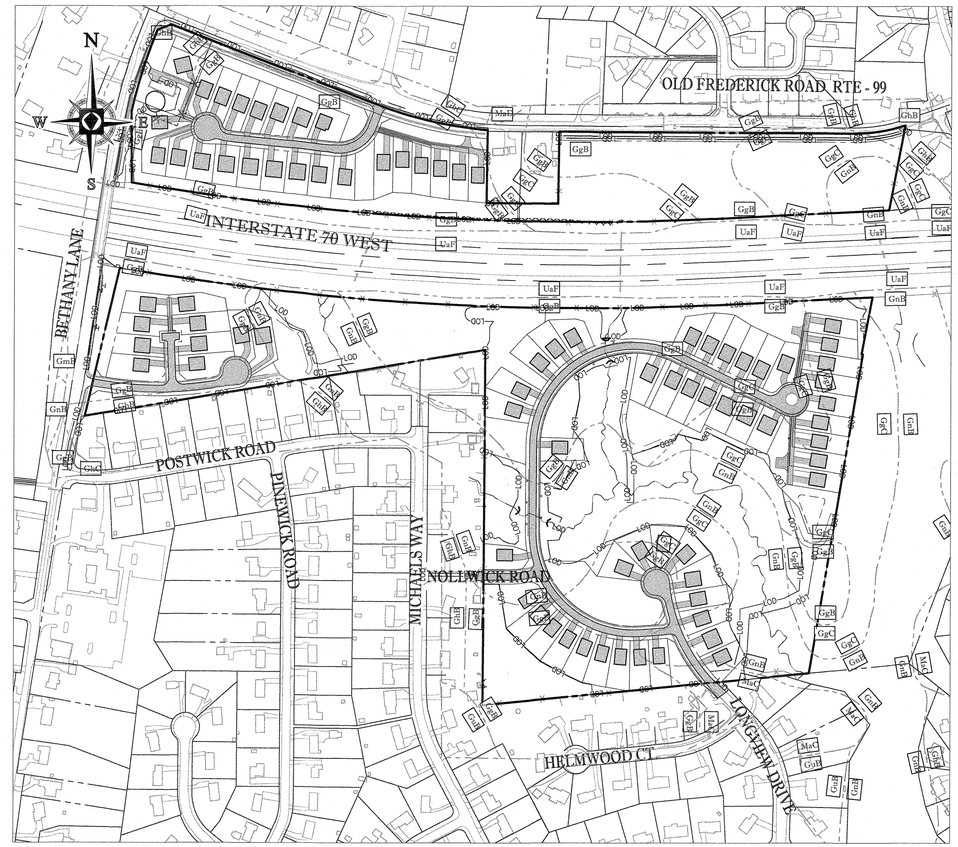
SOILS TABLE

SOILS NAME	SOILS DESCRIPTION	HYDROLOGIC SOILS GROUP	HIGHLY ERODIBLE SOIL	K FACTOR
GgB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	B	YES	0.37
GgC	GLENELG LOAM, 8 TO 15 PERCENT SLOPES	B	YES	0.43
GhB	GLENELG-URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPES	B	YES	0.43
GhC	GLENELG-URBAN LAND COMPLEX, 8 TO 15 PERCENT SLOPES	B	YES	0.43
GnB	GLENVILLE-BAILE SILT LOAMS, 0 TO 8 PERCENT SLOPES	C	YES	0.49
GuB	GLENVILLE-URBAN LAND-UDORTHENTS COMPLEX, 0 TO 8 PERCENT SLOPES	C	YES	0.49
MaC	MANOR LOAM, 8 TO 15 PERCENT SLOPES	B	NO	0.32
MaD	MANOR LOAM, 15 TO 25 PERCENT SLOPES	B	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: 2,085,417 SF OR 47.875 AC.

LIMIT OF DISTURBANCE: 2,095,958 SF OR 48.117 AC.



PROPOSED COVERAGE AREA MAP

IMPERVIOUS AREA: 541,099 SF OR 12.422 AC.
PERVIOUS AREA: 1,554,859 SF OR 35.695 AC.

LIMIT OF DISTURBANCE: 2,095,958 SF OR 48.117 AC.

LEGEND

LOD	LIMITS OF DISTURBANCE
	SOIL BOUNDARY LINE
DrE	SOIL LABEL
	IMPERVIOUS AREA

250 125 62.5 0 250
1"= 250'

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY
PLANNING DIRECTOR DATE 4/28/21

OWNER:	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
TAX MAP: 17	GRID: 15 ZONED: R-20 PARCEL: 34 2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

SUBDIVISION NAME: TBD SECTION/AREA: N/A DEED # 00226/ 00064	PREVIOUS FILE No. : WP-19-118 ECP-19-041

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. 40868, EXPIRATION DATE: 7/3/2021.

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING • LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN • PERMITTING SERVICES • TRANSPORTATION SERVICES
◆ UPSTATE NEW YORK ◆ NEW ENGLAND ◆ NEW JERSEY ◆ NEW YORK, NY ◆ NEW YORK METRO ◆ NORTHERN NEW JERSEY
◆ SOUTHERN NEW JERSEY ◆ PHILADELPHIA, PA ◆ PITTSBURGH, PA ◆ LEHIGH VALLEY, PA ◆ SOUTHEASTERN, PA ◆ HAMPTON ROADS, VA
◆ BALTIMORE, MD ◆ SOUTHERN MARYLAND ◆ NORTHERN VIRGINIA ◆ CENTRAL VIRGINIA ◆ RALEIGH, NC ◆ WASHINGTON, DC
◆ CHARLOTTE, NC ◆ ATLANTA, GA ◆ TAMPA, FL ◆ SOUTH FLORIDA ◆ DALLAS, TX

THE INFORMATION, DESIGNS AND CONTENT OF THIS PLAN ARE PROPRIETARY AND SHALL NOT BE COPIED OR USED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM BOHLER ENGINEERING, INC. APPROVED SIGNATURES ON THE FINAL PLAN SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES

REVISIONS

REV	DATE	COMMENT	BY

STOP WITH CARE
WELL REFORESTED

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE. IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL - 811
(WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777) (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	MD152018
DRAWN BY:	AVG
CHECKED BY:	BRR
DATE:	05/17/2021
SCALE:	1" = 250'
CAD I.D.:	HDP-5

PROJECT:

PRELIMINARY EQUIVALENT SKETCH PLAN

FOR

BETHANY GLEN

LOTS 1 THRU 82 AND OPEN SPACE LOTS 83 THRU 100

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

BOHLER ENGINEERING
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. 40868
4/14/2021

SHEET TITLE:

QUALITY COVERAGE AREA MAPS

SHEET NUMBER:

30 of 30

SP-19-005