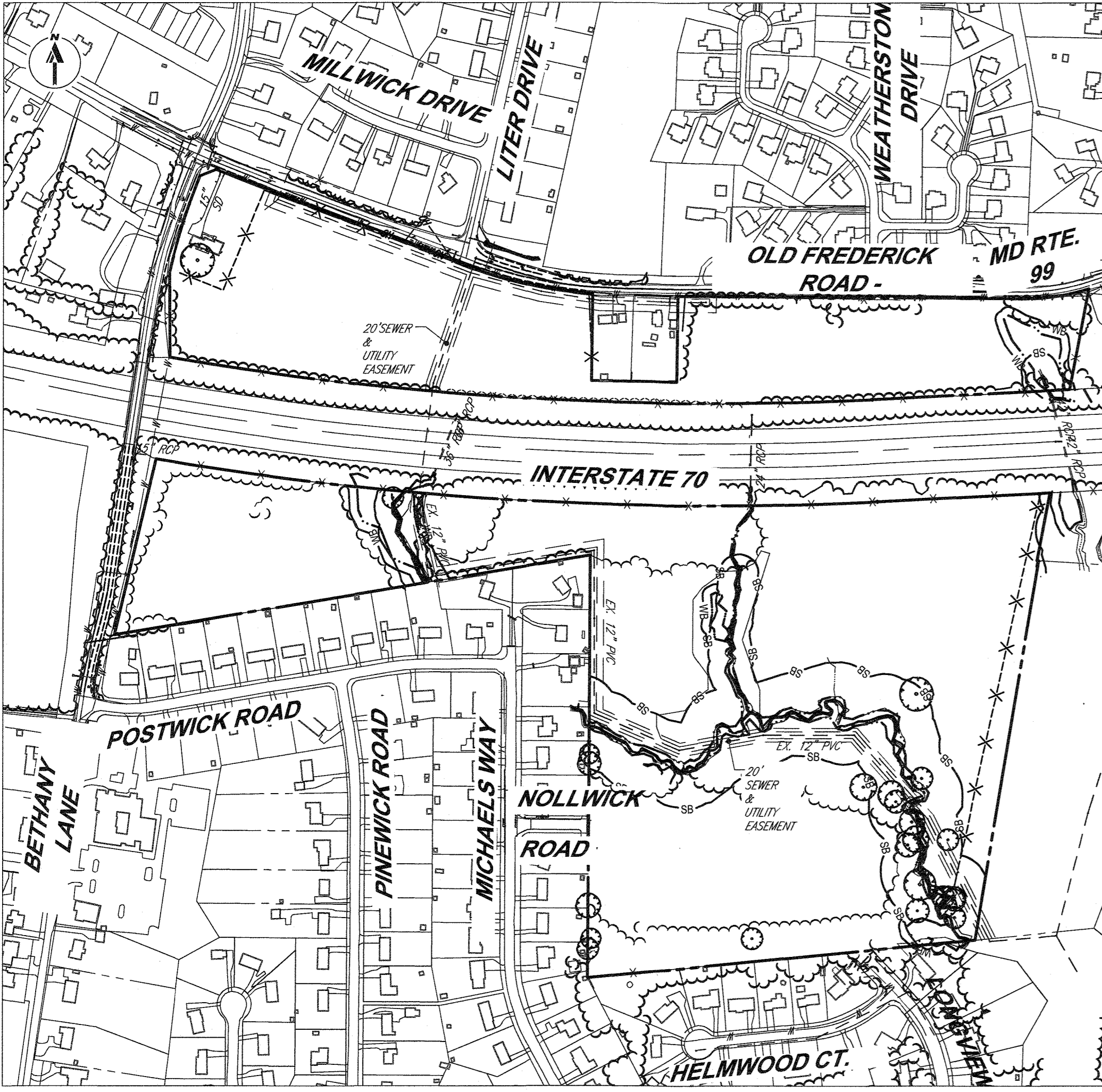


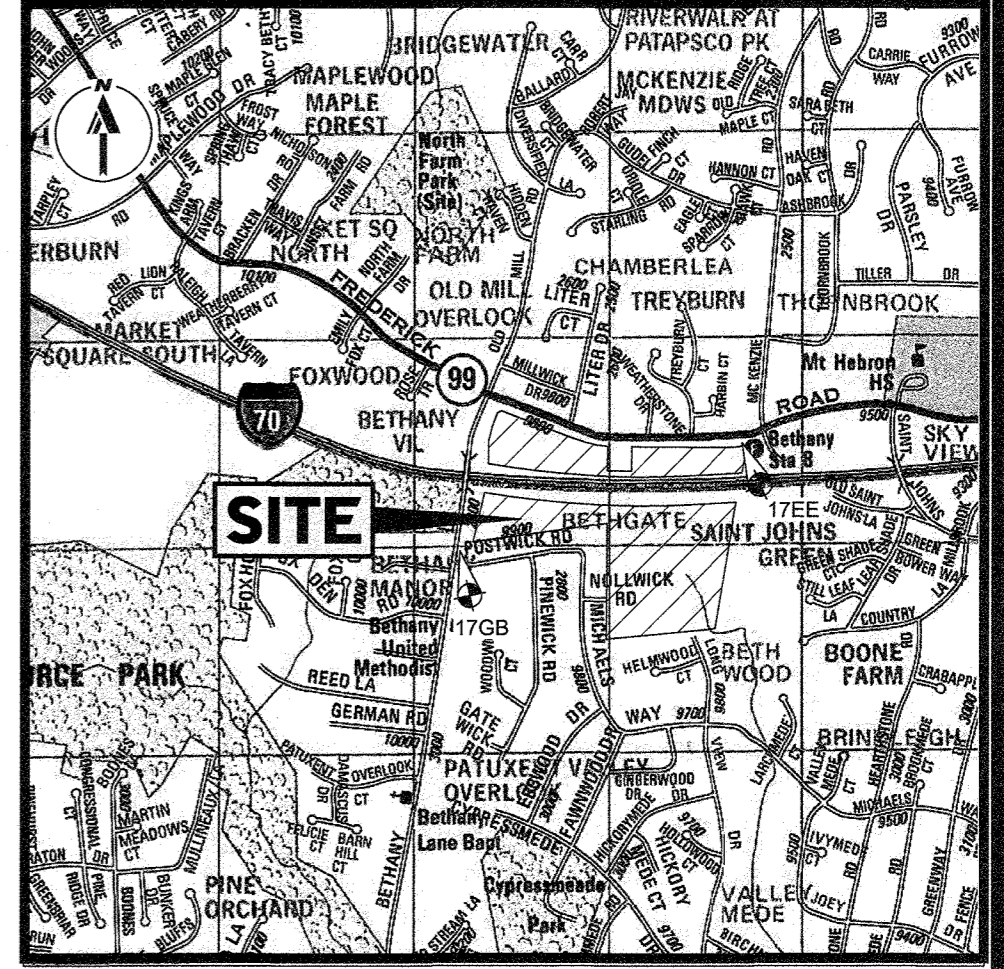
ENVIRONMENTAL CONCEPT PLANS

FOR BETHANY GLEN - ARAH LOTS 1 THRU 155, AND OPEN SPACE LOTS 156 THRU 167

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



EXISTING CONDITIONS PLAN VIEW
 SCALE: 1" = 300'



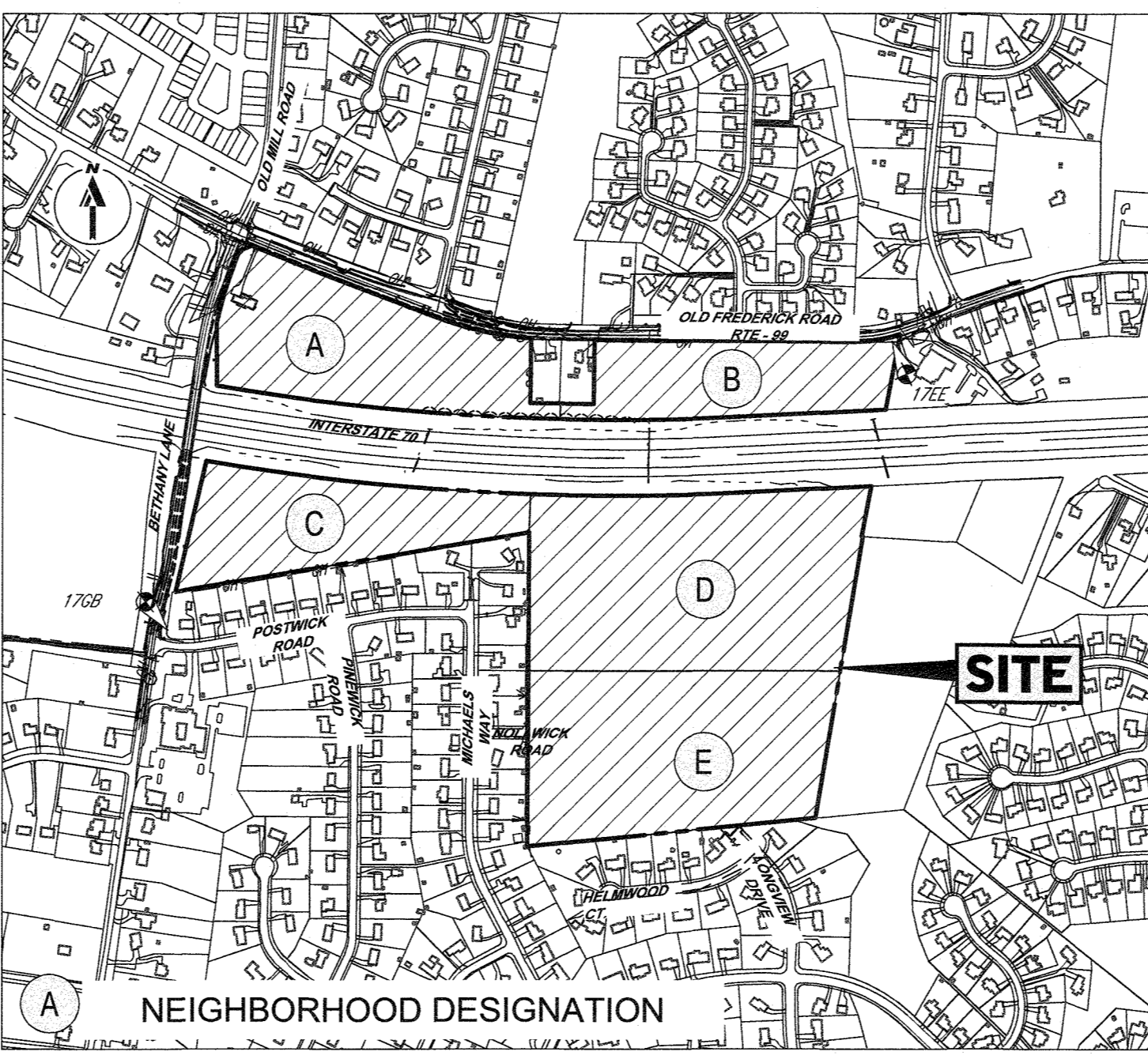
LOCATION MAP
 COPYRIGHT ADC THE MAP PEOPLE
 PERMIT USE NO. 2002153-5
 SCALE: 1" = 2000'
 ADC MAP COORDINATES: 24/85

BENCHMARK

GEODETIC SURVEY CONTROL - 17GB ELEV. 441.515' N 592,656.774 E 1,353,019.961 GEODETIC SURVEY CONTROL - 17EE ELEV. 453.949' N 593,815.262 E 1,353,774.821
--

GENERAL NOTES

- THE SUBJECT PROPERTY IS ZONED R-20 PER THE 10/6/2013 COMPREHENSIVE ZONING PLAN.
- THE PROPERTY BOUNDARY AND ON-SITE EXISTING TOPOGRAPHY IS BASED ON A BOUNDARY & TOPOGRAPHIC SURVEY BY BOHLER ENGINEERING, TITLED "HARBIN PROPERTY, 9891 OLD FREDERICK RD., ROUTE 99, 2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND, PROJECT NO. SD152018, DATED: 3/04/16, LAST REVISED 03/28/16.
- EXISTING OFFSITE TOPOGRAPHY SHOWN HEREON IS BASED ON HOWARD COUNTY GIS.
- 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 01/29/20.
- A CRITICAL FLOODPLAIN REPORT WAS COMPLETED FOR THIS PROJECT BY BOHLER ENGINEERING DATED NOVEMBER, 2020.
- DISTURBANCE TO ENVIRONMENTALLY SENSITIVE AREAS SHALL BE LIMITED TO THE INSTALLATION OF PUBLIC ROADS AND UTILITIES. REFER TO APPROVED ALTERNATIVE COMPLIANCE AND NECESSARY DISTURBANCE WAIVERS FOR AREAS IMPACTED.
- THERE ARE NO KNOWN CEMETERIES OR HISTORICAL FEATURES KNOWN ON-SITE.
- PLAN FILE NUMBERS ASSOCIATED WITH THIS ECP IS: SP-21-064, WP-21-064, BA-17-18c, SP-19-005, WP-21-127
- APPROVAL OF THE ECP DOES NOT CONSTITUTE APPROVAL OF SUBSEQUENT OR ASSOCIATED SUBDIVISION PLANS, SITE DEVELOPMENT PLANS OR RED-LINE REVISIONS. REVIEW OF THIS PROJECT FOR COMPLIANCE WITH THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY ZONING REGULATIONS SHALL OCCUR AT THE SUBDIVISION PLAN, SITE DEVELOPMENT PLAN OR RED-LINE REVISION REVIEW STAGE. THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED REVIEW COMMENTS (INCLUDING COMMENTS THAT MAY ALTER THE OVERALL SITE DESIGN) AS THIS PROJECT PROGRESSES THROUGH THE PLAN REVIEW PROCESS.
- ALL DRAINAGE AREAS GREATER THAN 2.0 ACRES WILL BE REQUIRED TO PROVIDE TEMPORARY STORMWATER MANAGEMENT DURING CONSTRUCTION.
- THE SITE IS LOCATED WITHIN THE METROPOLITAN DISTRICT. WATER AND SEWER WILL BE PROVIDED BY PUBLIC WATER CONTR #11W, & PUBLIC SEWAGE SYSTEM CONT # 2738-A & 409 W&S.
- DESIGN MANUAL WAIVER:
 A DESIGN MANUAL WAIVER REQUESTS FOR THE FOLLOWING HAS BEEN SUBMITTED (PENDING):
 - 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:
 - 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.
 - A DESIGN MANUAL WAIVER REQUEST FOR THE FOLLOWING HAS BEEN SUBMITTED (PENDING)
 - SIDEWALK ON ONE SIDE OF A STREET
 - MINIMUM CURVE RADIUS REDUCTION.
 - NUMBERS OF USERS ON A USE IN COMMON DRIVE AND MINIMUM CURVE RADIUS (90 DEGREE), ROTATING UNITS 145 - 148 TO FACE WEST WILL BE FURTHER DISCUSSED WITH DPZ AND DPW WITH THE FINAL PLAN.
 - WATER MAIN SERVING MORE THAN 50 UNITS.
- ALTERNATIVE COMPLIANCE REQUEST WP-21-064 FOR THE FOLLOWING, APPROVED 2-11-21
 - SECTION 16.1205(A)(7); FOR SPECIMEN TREE REMOVAL
 - SECTION 16.116; FOR ENVIRONMENTAL IMPACTS FOR THE INSTALLATION OF THE CULVERT AND ROAD CROSSING IN NEIGHBORHOODS C, D AND E. GRADING NOT PERMITTED WITHIN FIFTY FEET OF AN INTERMITTENT STREAM BANK.
- WP-21-127 FOR THE FOLLOWING, APPROVED 8-4-2021
 - SECTION 16.119(F); FOR ACCESS RESTRICTIONS
 - SECTION 16.1202(C); FOR MINIMUM FRONTAGES
 - SECTION 16.134 (A); FOR SIDEWALKS AND WALKWAYS
 - SECTION 16.120(C)(3); FOR MINIMUM FRONTAGES
- NECESSARY DISTURBANCE FOR THE FOLLOWING, APPROVED 2-11-21, 8-3-21, 2-1-21
 - SECTION 16.116; FOR ENVIRONMENTAL IMPACTS FOR THE INSTALLATION OF SANITARY SEWER OUTFALL CONNECTIONS, AND WATERLINE CONSTRUCTION.
- LOT 155 IS BEING CREATED FOR THE EXISTING STRUCTURE THAT IS TO REMAIN. THIS LOT AND STRUCTURE IS NOT A PART OF THE APPROVED CONDITIONAL USE AND WILL NOT BE AN AGE RESTRICTED ADULT HOUSING UNIT.
- THE SITE, IN ITS CURRENT CONDITIONS, HAS EXISTING ENVIRONMENTAL FEATURES INCLUDING STREAMS, WETLANDS AND THEIR ASSOCIATED BUFFERS AS WELL AS EXISTING FLOODPLAINS AND SPECIMEN TREES.



NEIGHBORHOOD DESIGNATION
 SCALE: 1" = 600'

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	NO
ST-25	SCARLET OAK	31.9"	GOOD	NO

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 BOLE HAZARD	NO
ST-28	SCARLET OAK	41.7"	DEAD	NO
ST-29	TULIP POPLAR	32.1"	FAIR, LIMB BREAKAGE	NO
ST-30	TULIP POPLAR	30.8"	FAIR, LIMB BREAKAGE	NO
ST-31	TULIP POPLAR	31.5"	GOOD	YES
ST-32	TULIP POPLAR	33.7"	POOR, ROTTEN CORE	NO
ST-33	BLACK OAK	39.0"	FAIR, DOUBLE BOLE, BELOW 4.3 FL.	NO
ST-34	TULIP POPLAR	36.0"	GOOD	NO
ST-35	RED MAPLE	32.9"	POOR, DIEBACK, LIMB BREAKAGE	YES
ST-41	RED OAK	30.4"	GOOD	YES
ST-42	TULIP POPLAR	30.0"	GOOD	YES
ST-43	RED MAPLE	47.4"	POOR, MULT. BOLE, DIEBACK	NO
ST-44	TULIP POPLAR	30.4"	GOOD	YES
ST-45	BLACK GUM	30.0"	FAIR, SOME DIEBACK	NO
ST-46	TULIP POPLAR	33.6"	GOOD	YES
ST-47	TULIP POPLAR	30.2"	FAIR, SOME BREAKAGE	NO

COORDINATE TABLE

Point #	North	East	Point #	North	East
1	594172.6867	1353204.5108	39	592423.3983	1354663.6996
2	594190.0730	1353209.4753	40	593081.2355	1354666.3302
3	594191.6435	1353210.3969	41	593108.0097	1354669.5958
4	594122.1068	1353256.4262	42	593010.7452	1355144.0798
5	593987.4430	1354136.1383	43	592833.1083	1355516.8535
6	593827.5186	1354465.1373	44	592922.2352	1355493.9052
7	593825.9080	1354478.4097	45	592914.2352	1355462.8341
8	593819.7748	1354728.4133	46	593055.8822	1355165.5887
9	593818.5738	1354878.8219	47	593155.5295	1354734.8942
10	593813.1268	1355749.8783	48	593166.3855	1354355.2867
11	593841.4489	1355936.3101	49	593072.3203	1353874.8288
12	593838.2093	1355929.9655	50	592994.4290	1353820.9682
13	593783.1260	1355749.9154	51	592970.1243	1353271.9604
14	593785.8743	1354878.3081	52	592955.3470	1353249.8021
15	593789.7768	1354728.0461	53	592973.7812	1353181.8612
16	593568.4336	1354725.3363	54	592979.1091	1353132.9697
17	593571.4940	1354475.3550	55	593004.5606	1353115.2944
18	593795.8621	1354478.1018	56	592887.1099	1353087.7046
19	593797.6153	1354462.7022	57	592906.2097	1353115.4309
20	593869.2708	1354125.8224	58	592899.3666	1353176.6136
21	594094.1301	1353035.8811	59	592865.2123	1353251.3870
22	594167.5821	1353349.4015	60	592920.7761	1353480.9072
23	594161.1444	1353377.9184	61	592940.0777	1353509.2407
24	593889.6054	1353234.0871	62	593028.5656	1353856.5774
25	593940.3071	1353235.4953	63	593116.4433	1354352.8932
26	593511.1576	1353296.5672	64	593107.8548	1354592.2485
27	593545.1080	1353880.2770	65	593083.0550	1354616.5370
28	593435.2788	1353822.6408	66	592423.5863	1354613.7000
29	593045.1448	1353784.9096	67	592047.7458	1355010.9186
30	593044.8429	1353789.7077	68	592051.9876	1355082.3731
31	591932.7595	1355804.8227	69	592054.7454	1355110.6589
32	591902.2700	1355293.8087	70	592040.3799	1355136.6170
33	592298.9681	1355127.8896	71	591996.1933	1355231.2464
34	592228.9710	1355263.8026	72	591821.0439	1354465.7890
35	592298.2380	1355094.6444	73	592090.0287	1354672.2637
36	592133.7335	1355101.3705	74	592827.4972	1353073.6838
37	592101.8656	1355078.8379	75	593242.9108	1353194.8088
38	592007.6570	1355007.8558	76	593217.5418	1353314.7481

SITE ANALYSIS DATA / TABULATION

TOTAL PROJECT AREA	68.56 AC.
AREA OF WETLANDS AND BUFFER	2.56 AC.
AREA OF 100-YR FLOODPLAIN	2.10 AC.
AREA OF FOREST	27.80 AC.
AREA OF STEEP SLOPES (25% OR GREATER)	0.44 AC.
AREA OF DEDICATION (ROAD RW)	7.09 AC.
INTERMITTENT STREAM & 50' BUFFER	11.44 AC.
HIGHLY ERODIBLE SOILS (K > 0.35)	14.37 AC.
NUMBER OF RESIDENTIAL UNITS TO REMAIN	1
NUMBER OF RESIDENTIAL UNITS PROPOSED	154
LIMIT OF DISTURBED AREA	48.77 AC.
PRESENT ZONING DESIGNATION	R-20
PROPOSED USE:	AGE RESTRICTED ADULT HOUSING
IMPERVIOUS COVER	17.24 AC.

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

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
GgB	GLENELG-URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPES	B	YES	0.28
GhC	GLENELG-URBAN LAND COMPLEX, 8 TO 15 PERCENT SLOPES	B	YES	0.28
GnB	GLENVILLE-BALE 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	-	-

SHEET INDEX

SHEET TITLE	SHEET NUMBER
COVER SHEET	1
SCHEMATIC GRADING, EROSION & SEDIMENT CONTROL PLAN	2-6

PREPARED BY

BOHLER //

CONTACT: BRANDON ROWE

ESD SUMMARY TABLE

"SITE AREA"	48.77 AC.
ESDv	114,827.51 C.F. (REQUIRED), 114,947.80 C.F. (PROVIDED)
Rev	15,195.10 C.F. (REQUIRED), 18,920.80 C.F. (PROVIDED)
CPV	INCLUDED IN ESDv
QP(10)	EX: 175.53 CFS, PROP: 171.55 CFS
QP(100)	EX: 460.83 CFS, PROP: 430.87 CFS
QP(6)	EX: 467.39 CFS, PROP: 444.02 CFS

SUBDIVISION NAME: TBD	PREVIOUS FILE NO.:
SECTION/AREA: N/A	WP-19-118, WP-21-127
DEED # 00226/00064	BA-CASE NO. 17-018C
	SP-21-002, WP-21-064
	SP-19-005

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

COVER SHEET

SHEET NUMBER: 1

ORG. DATE - 08/13/21

BOHLER //

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

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY

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PROJECT NO.: MD152018
 DRAWN BY: RLB
 CHECKED BY: TC
 DATE: 08/13/21
 CAD ID.: SDP-2

ENVIRONMENTAL CONCEPT PLAN

FOR

BETHANY GLEN - ARAH

LOTS 1 THRU 155, AND OPEN SPACE LOTS 155 THRU 167

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

BOHLER //

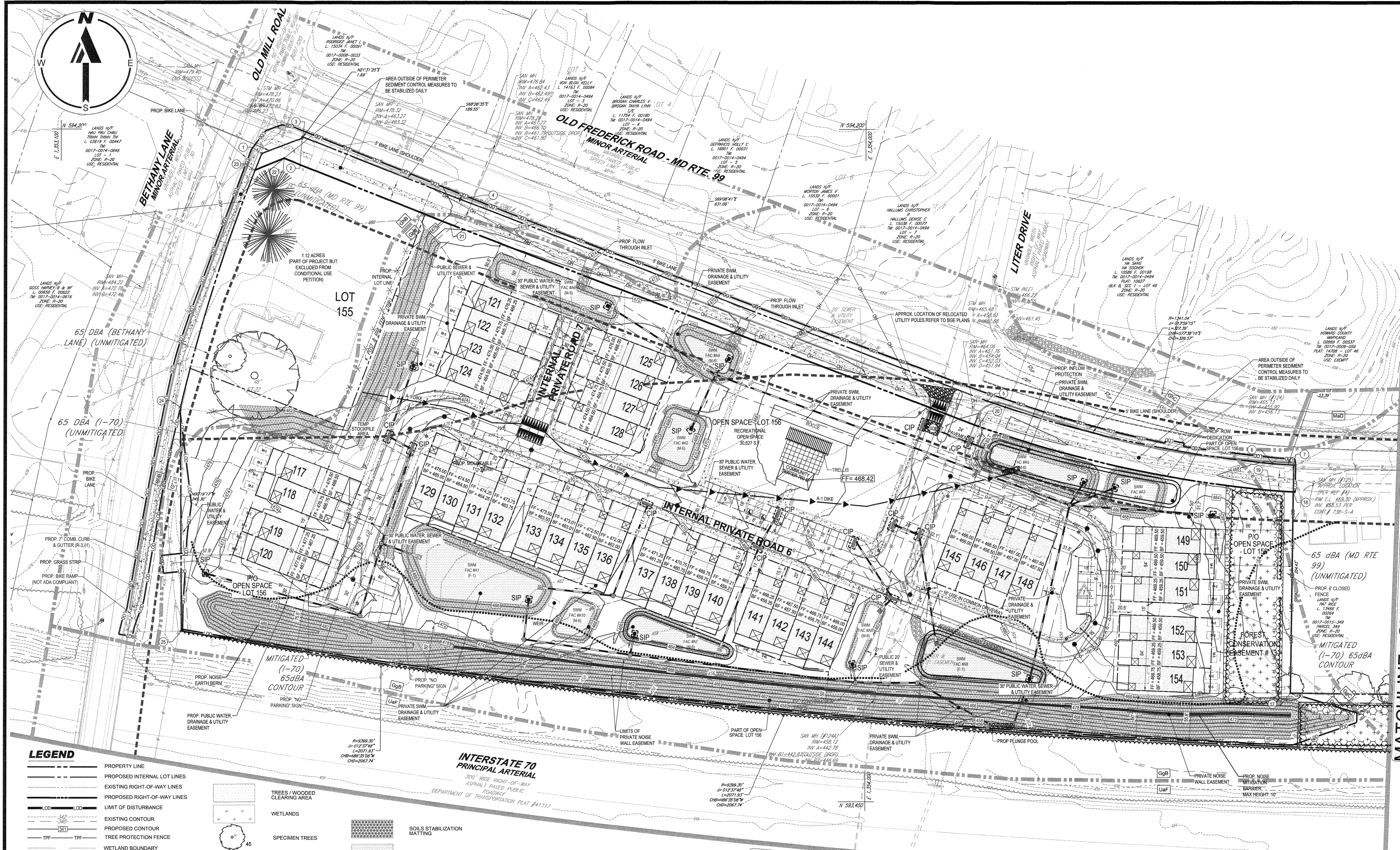
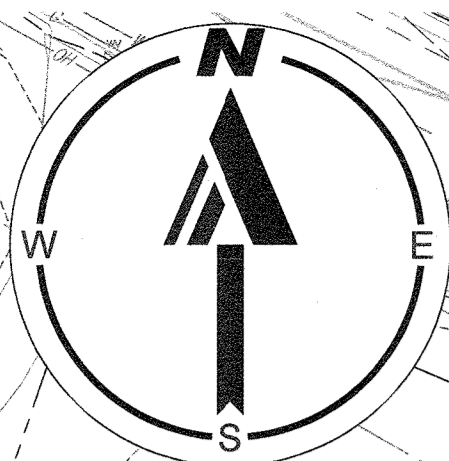
901 DULANEY VALLEY ROAD, SUITE 801
 TOWSON, MARYLAND 21284
 Phone: (410) 821-7900
 Fax: (410) 821-7987
 MD@BohlerEng.com

B.R. ROWE
 PROFESSIONAL ENGINEER
 MARYLAND LICENSE NO. 4008
 PROFESSIONAL CERTIFICATION
 I, BRANDON ROWE, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A QUALIFIED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 4008, EXPIRATION DATE: 7/3/2023

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 CHIEF, DIVISION OF LAND DEVELOPMENT

10-22-21
 DATE

08/13/21
 DATE



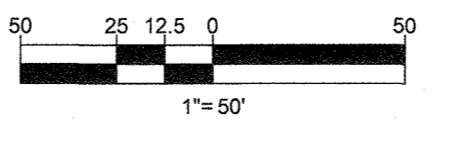
- LEGEND**
- PROPERTY LINE
 - - - PROPOSED INTERNAL LOT LINES
 - - - EXISTING RIGHT-OF-WAY LINES
 - - - PROPOSED RIGHT-OF-WAY LINES
 - LOD — LOD — LIMIT OF DISTURBANCE
 - - - EXISTING CONTOUR
 - - - PROPOSED CONTOUR
 - TPF — TPF — TREE PROTECTION FENCE
 - WB — WB — WETLAND BOUNDARY
 - WS — WS — WETLAND BUFFER
 - SB — SB — STREAM BUFFER
 - SB — SB — SOILS BOUNDARY
 - — — EXISTING TREE LINE
 - — — PROPOSED TREE LINE
 - — — EXISTING FLOODPLAIN
 - — — PROPOSED FLOODPLAIN
 - — — PROPOSED 18" HDPE STORMDRAIN
 - — — PROPOSED 8" SANITARY LINE
 - — — PROPOSED 8" WATER LINE
 - — — PROPOSED 4" SEWER HOUSE CONNECTION
 - — — PROPOSED 1 1/2" WATER HOUSE CONNECTION
 - — — PROPOSED 18" HDPE STORMDRAIN
 - — — PROPOSED 8" SANITARY LINE
 - — — PROPOSED 8" WATER LINE
 - — — PROPOSED 4" SEWER HOUSE CONNECTION
 - — — PROPOSED 1 1/2" WATER HOUSE CONNECTION

- TREES / WOODED CLEARING AREA
- WETLANDS
- SPECIMEN TREES
- SPECIMEN TREE TO BE REMOVED
- STEEP SLOPES 15-24.99%
- STEEP SLOPES 25% +
- FOREST CONSERVATION EASEMENT
- UNMITIGATED NOISE LINE
- MITIGATED NOISE LINE
- FIRE HYDRANT
- STREET LIGHT
- PROPOSED BENCH
- SUPER SILT FENCE
- SEDIMENT TRAP
- EARTH DIKE
- SOILS STABILIZATION MATTING
- SWM FACILITIES

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
GhB	GLENVILLE-BAILE SILT LOAMS, 0 TO 8 PERCENT SLOPES	C	YES	0.43
GhB	GLENVILLE-URBAN LAND-UDORTHTENTS 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	UDORTHTENTS, HIGHWAY, 0 TO 65 PERCENT SLOPES	N/A		

MATCHLINE - SHEET 4



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

PREVIOUS FILE NO.:
WP-19-118
ECP-19-041
BA-CASE NO. 17-019C
SP-21-002, WP-21-064
SP-19-005

OWNER: THE ESTATE OF RUTH L. HARBIN
MARK BOBOTEK, ESQ.
P.O. BOX 66
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410-964-9700

DEVELOPER: ELM STREET DEVELOPMENT
5074 DORSEY HALL ROAD, SUITE 205
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PHONE: (410) 720-3021

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

APPROVED: [Signature] DEPARTMENT OF PLANNING AND ZONING
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE: [Date]
CHIEF, DIVISION OF LAND DEVELOPMENT DATE: [Date]

BOHLER //

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

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY

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NOT APPROVED FOR CONSTRUCTION

PROJECT NO.: MD152018
DRAWN BY: RLB
CHECKED BY: TCG
DATE: 08/13/21
CAD ID.: ECP-2

PROJECT: ENVIRONMENTAL CONCEPT PLAN FOR BETHANY GLEN - ARAH
LOTS 1 THRU 155, AND OPEN SPACE LOTS 155 THRU 167

8991 OLD FREDERICK ROAD - ROUTE 99
2ND ELECTION DISTRICT
TAX MAP 17, GRID 15, PARCEL 34
HOWARD COUNTY, MARYLAND

BOHLER //

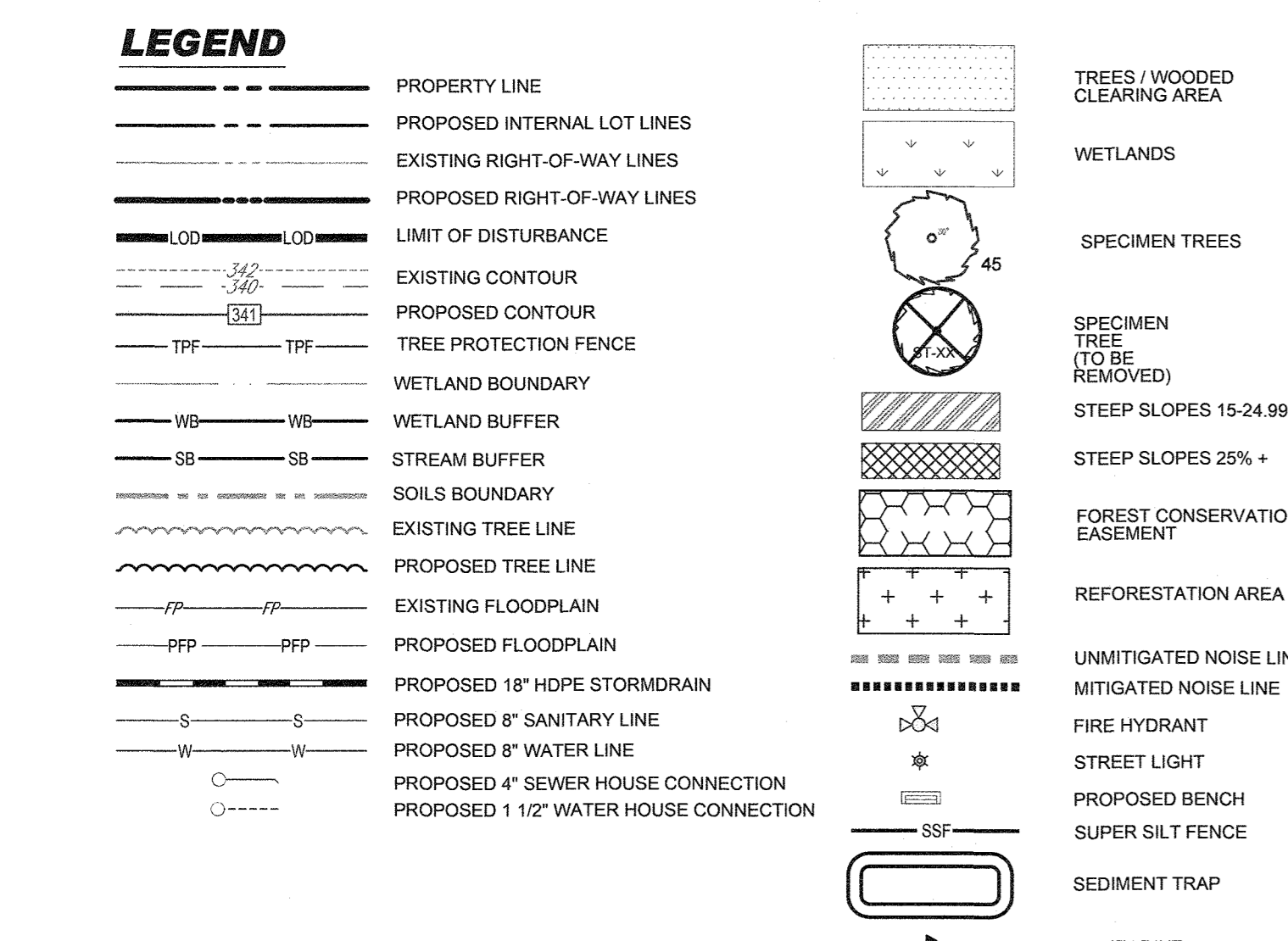
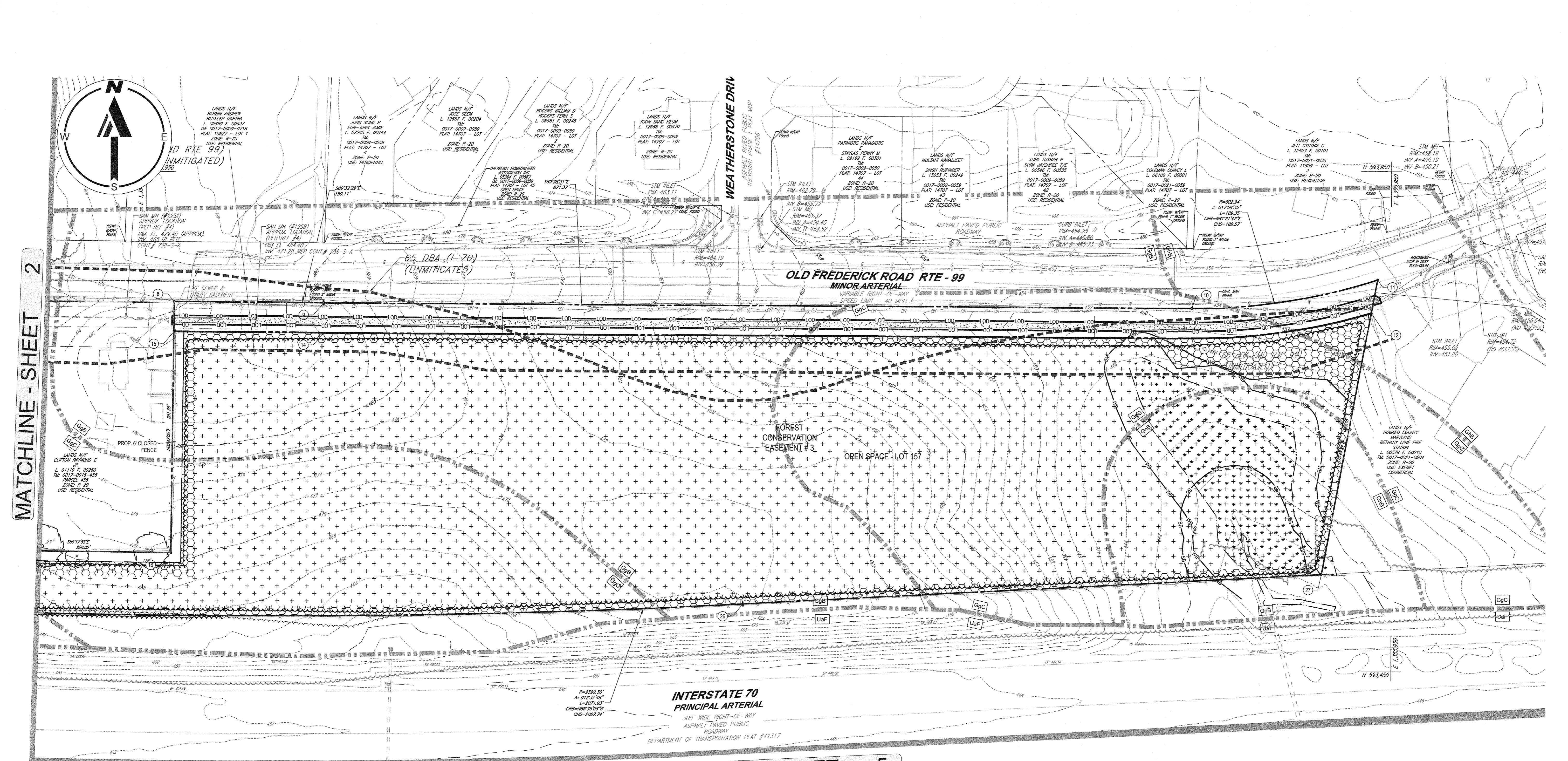
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21284
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

B.B. ROWE

PROFESSIONAL ENGINEER
MARYLAND LICENSE NO. 4098
PROFESSIONAL CERTIFICATION
I, BRANSON B. ROWE, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 4098, EXPIRATION DATE: 7/3/2023

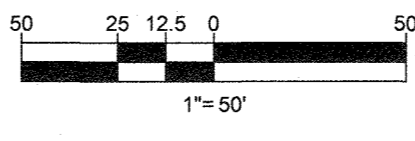
SHEET TITLE: SCHEMATIC GRADING, EROSION & SEDIMENT CONTROL PLAN NEIGHBORHOOD - A
SHEET NUMBER: 2

ORG. DATE: 08/13/21



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
GnD	GLENVILLE-URBAN LAND-UDORTHENTS COMPLEX, 0 TO 8 PERCENT SLOPES	C	YES	0.43
MuB	MANOR LOAM, 8 TO 15 PERCENT SLOPES	B	NO	0.28
MuD	MANOR LOAM, 15 TO 25 PERCENT SLOPES	B	NO	0.28
UAF	UDORTHENTS, HIGHWAY, 0 TO 65 PERCENT SLOPES	N/A	-	-

APPROVED: [Signature] DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 10-22-21
 CHIEF, DIVISION OF LAND DEVELOPMENT



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

PREVIOUS FILE NO.:
 WP-19-118
 ECP-19-041
 BA-CASE NO. 17-018C
 SP-21-002, WP-21-064
 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

BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 LAND SURVEYING
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 LANDSCAPE ARCHITECTURE
 ARCHITECTURE
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS			
REV	DATE	COMMENT	DRAWN BY / CHECKED BY

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PROJECT No.: MD152018
 DRAWN BY: RLB
 CHECKED BY: TCB
 DATE: 08/13/21
 CAD I.D.: ECP-2

ENVIRONMENTAL CONCEPT PLAN

FOR

BETHANY GLEN - ARAH

LOTS 1 THRU 155, AND
 OPEN SPACE LOTS 155 THRU 167

8981 OLD FREDERICK ROAD - ROUTE 99
 2ND ELECTION DISTRICT
 TAX MAP 17, GRID 15, PARCEL 34
 HOWARD COUNTY, MARYLAND

BOHLER

901 DULANEY VALLEY ROAD, SUITE 801
 TOWSON, MARYLAND 21284
 Phone: (410) 821-7900
 Fax: (410) 821-7987
 MD@BohlerEng.com

B.R. ROWE
 PROFESSIONAL ENGINEER
 MARYLAND LICENSE NO. 4006
 PROFESSIONAL CERTIFICATION
 I, BRANDON J. 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. 90806, EXPIRATION DATE: 7/30/23

SHEET TITLE:
SCHEMATIC GRADING, EROSION & SEDIMENT CONTROL PLAN NEIGHBORHOOD - B

SHEET NUMBER:
3

ORG. DATE - 08/13/21

MATCHLINE - SHEET 3

INTERSTATE 70
PRINCIPAL ARTERIAL
300' WIDE RIGHT-OF-WAY
ASPHALT PAVED PUBLIC
ROADWAY
DEPARTMENT OF TRANSPORTATION PLAN #11317



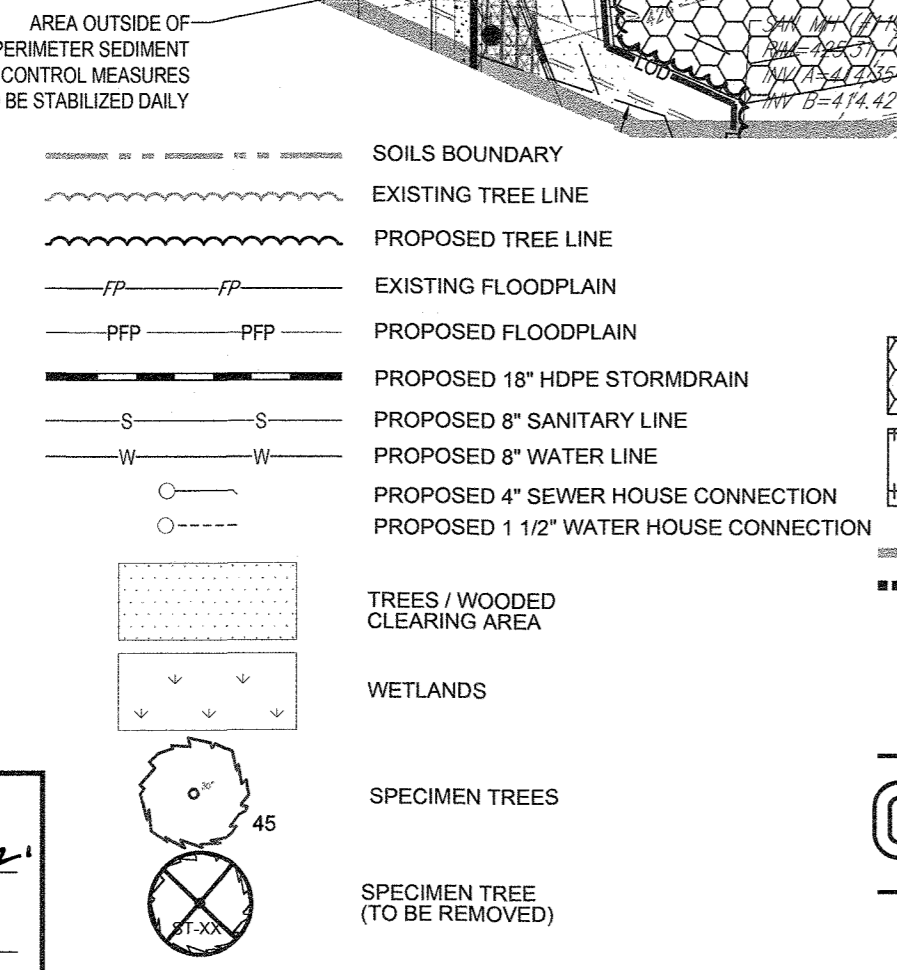
MATCHLINE - SHEET 4



MATCHLINE - SHEET 6

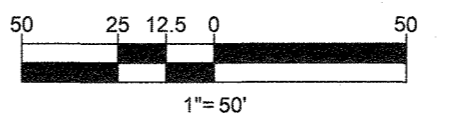
LEGEND

—	PROPERTY LINE	---	SOILS BOUNDARY
- - -	PROPOSED INTERNAL LOT LINES	---	EXISTING TREE LINE
---	EXISTING RIGHT-OF-WAY LINES	---	PROPOSED TREE LINE
---	PROPOSED RIGHT-OF-WAY LINES	---	EXISTING FLOODPLAIN
---	LIMIT OF DISTURBANCE	---	PROPOSED FLOODPLAIN
---	EXISTING CONTOUR	---	PROPOSED 18" HDPE STORMDRAIN
---	PROPOSED CONTOUR	---	PROPOSED 8" SANITARY LINE
---	TREE PROTECTION FENCE	---	PROPOSED 8" WATER LINE
---	WETLAND BOUNDARY	---	PROPOSED 4" SEWER HOUSE CONNECTION
---	WETLAND BUFFER	---	PROPOSED 1 1/2" WATER HOUSE CONNECTION
---	STREAM BUFFER	---	TREES / WOODED CLEARING AREA
---		---	WETLANDS
---		---	SPECIMEN TREES
---		---	SPECIMEN TREE (TO BE REMOVED)



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
GnB	GLENVILLE-URBAN LAND ULDORTHENTS 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
UJAF	UDORTHENTS, HIGHWAY, 0 TO 65 PERCENT SLOPES	N/A	-	-



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

PREVIOUS FILE NO.:
WP-19-118
ECP-19-041
BA-CASE NO. 17-019C
SP-21-002, WP-21-054
SP-19-055

OWNER: THE ESTATE OF RUTH L. HARBIN
H. MARK BOBOTEK, ESQ.
P.O. BOX 66
ELICOTT CITY, MD 21041
410-984-9700

DEVELOPER: ELM STREET DEVELOPMENT
5074 DORSEY HALL ROAD, SUITE 205
ELICOTT 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//
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY

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PROJECT NO.: MD152018
DRAWN BY: RLB
CHECKED BY: TCS
DATE: 08/13/21
CAD ID.: ECP-2

ENVIRONMENTAL CONCEPT PLAN

FOR

BETHANY GLEN - ARAH

LOTS 1 THRU 155, AND OPEN SPACE LOTS 155 THRU 167

8981 OLD FREDERICK ROAD - ROUTE 99
2ND ELECTION DISTRICT
TAX MAP 17, GRID 15, PARCEL 34
HOWARD COUNTY, MARYLAND

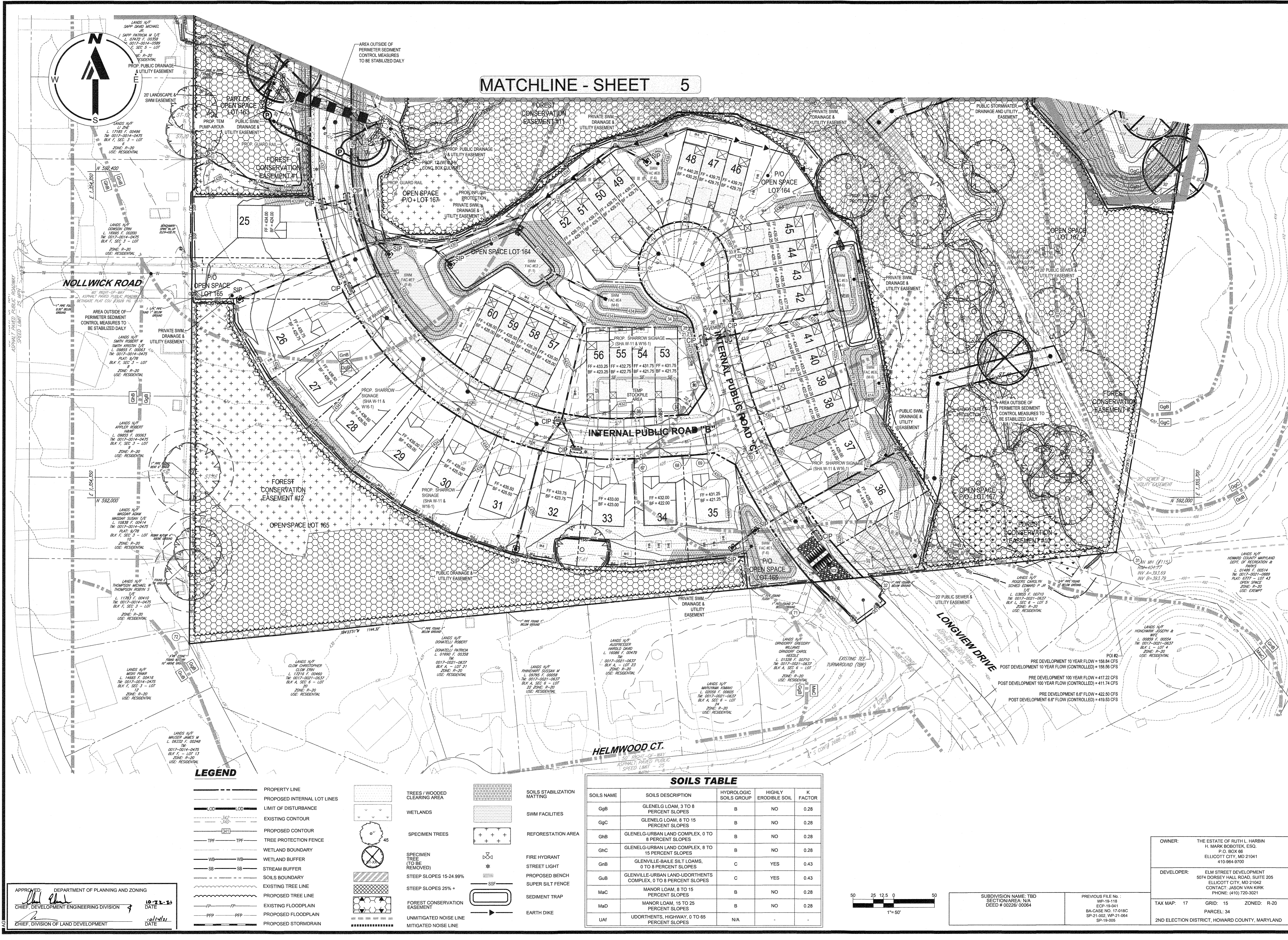
BOHLER//
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21284
PHONE: (410) 821-7900
FAX: (410) 821-7987
MD@BohlerEng.com

B.P. ROWE
PROFESSIONAL ENGINEER
MARYLAND LICENSE NO. 4808
PROFESSIONAL CERTIFICATION
L. BRADY W. ROWE; HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 4808, EXPIRATION DATE: 7/31/23

SHEET TITLE:
SCHEMATIC GRADING, EROSION & SEDIMENT CONTROL PLAN NEIGHBORHOOD - D

SHEET NUMBER:
5

ORG. DATE: 08/13/21



MATCHLINE - SHEET 5

BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 LAND SURVEYING
 PROJECT MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY

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PROJECT No.: MD152018
 DRAWN BY: RLB
 CHECKED BY: TG
 DATE: 08/13/21
 CAD I.D.: ECP-2

PROJECT:
ENVIRONMENTAL CONCEPT PLAN
 FOR
BETHANY GLEN - ARAH
 LOTS 1 THRU 155, AND OPEN SPACE LOTS 155 THRU 167
 9891 OLD FREDERICK ROAD - ROUTE 99
 2ND ELECTION DISTRICT
 TAX MAP 17, GRID 15, PARCEL 34
 HOWARD COUNTY, MARYLAND

BOHLER
 901 DULANEY VALLEY ROAD, SUITE 801
 TOWSON, MARYLAND 21284
 Phone: (410) 621-7900
 Fax: (410) 621-7987
 MD@BohlerEng.com

B.F. ROWE
 PROFESSIONAL ENGINEER
 MARYLAND LICENSE NO. 4808
 PROFESSIONAL CERTIFICATION
 I, BRANDON E. ROWE, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 4808B, EXPIRATION DATE: 7/31/23

SHEET TITLE:
SCHEMATIC GRADING, EROSION & SEDIMENT CONTROL PLAN NEIGHBORHOOD - E

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
 2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

SHEET NUMBER:
6
 ORG. DATE - 08/13/21

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 CHIEF, DIVISION OF LAND DEVELOPMENT

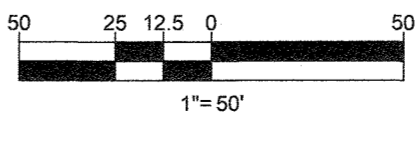
DATE: 10-21-21

LEGEND

---	PROPERTY LINE	---	TREES / WOODED CLEARING AREA	---	SOILS STABILIZATION MATTING
---	PROPOSED INTERNAL LOT LINES	---	WETLANDS	---	SWM FACILITIES
---	LIMIT OF DISTURBANCE	---	SPECIMEN TREES	---	REFORESTATION AREA
---	EXISTING CONTOUR	---	SPECIMEN TREE (TO BE REMOVED)	---	FIRE HYDRANT
---	PROPOSED CONTOUR	---	STEEP SLOPES 15-24.99%	---	STREET LIGHT
---	TREE PROTECTION FENCE	---	STEEP SLOPES 25% +	---	PROPOSED BENCH SUPER SILT FENCE
---	WETLAND BOUNDARY	---	FOREST CONSERVATION EASEMENT	---	SEDIMENT TRAP
---	WETLAND BUFFER	---	UNMITIGATED NOISE LINE	---	EARTH DIKE
---	STREAM BUFFER	---	MITIGATED NOISE LINE	---	
---	SOILS BOUNDARY	---			
---	EXISTING TREE LINE	---			
---	PROPOSED TREE LINE	---			
---	EXISTING FLOODPLAIN	---			
---	PROPOSED FLOODPLAIN	---			
---	PROPOSED STORMDRAIN	---			

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
GhB	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 85 PERCENT SLOPES	N/A		



SUBDIVISION NAME: TBD
 SECTION/AREA: N/A
 DEED #: 00226/00084

PREVIOUS FILE NO.:
 WP-19-118
 ECP-19-041
 BA-CASE NO. 17-018C
 SP-21-002, WP-21-054
 SP-19-005