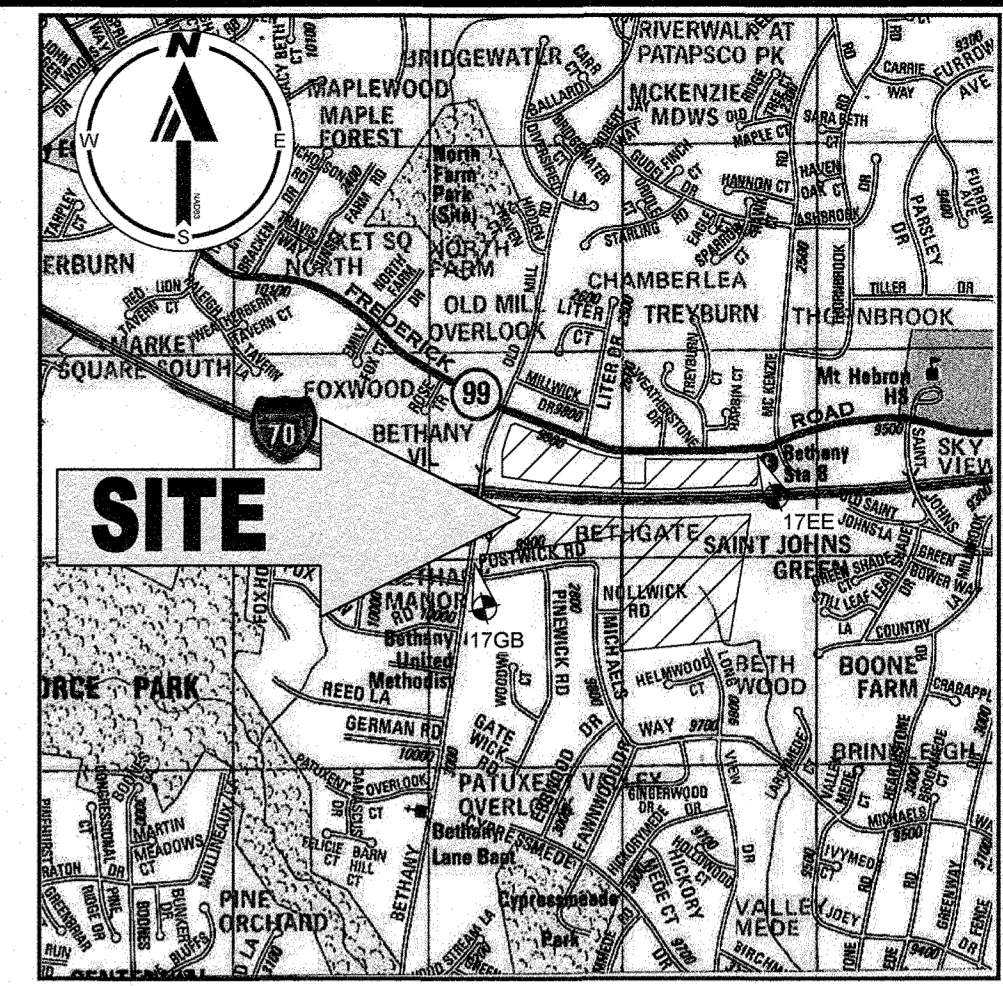


# BETHANY GLEN ARAH - PHASE III PUBLIC WATER & PUBLIC SEWER PLANS

LOTS 117-155, LOT 156, COMMUNITY CENTER  
AND OPEN SPACE LOT 156  
LOCATION OF SITE

9891 OLD FREDERICK ROAD - ROUTE 99  
TAX MAP 17, GRID 15, PARCEL 34  
2ND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
CONTRACT No. 24-5237-D



BENCHMARK	
GEODETIC SURVEY CONTROL - 17GB	ELEV. 441.515'
	N 652,656.774
	E 1,253,019.981
GEODETIC SURVEY CONTROL - 17EE	ELEV. 453.949'
	N 593,815.262
	E 1,355,774.821

### GENERAL NOTES

- APPROXIMATE LOCATIONS OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- TOPOGRAPHIC FIELD SURVEYS WERE PERFORMED ON MARCH 04, 2016 BY BOHLER ENGINEERING.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HORIZONTAL AND VERTICAL CONTROL DATUM ARE BASED ON HOWARD COUNTY MONUMENT NOS. 17EE AND 17GB WHICH WERE USED FOR THIS PROJECT.  
HOWARD COUNTY MONUMENT NO. 17EE ELEV. = 453.949'  
HOWARD COUNTY MONUMENT NO. 17GB ELEV. = 441.515'
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 12 INCHES. CLEAR ALL POLES BY 5'-0" MINIMUM OR TUNNEL AS REQUIRED UNLESS OTHERWISE NOTED. THE OWNER HAS CONTACTED THE UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES THE BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONIES OWED BY THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
- FOR DETAILS NOT SHOWN ON THE DRAWING, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
- WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL AT THE LOCATIONS OF THE TEST PITS. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:  
AT & T 1-800-252-1133  
BGE (CONSTRUCTION SERVICES) 410-637-8713  
BGE (EMERGENCY) 410-685-0123  
BUREAU OF UTILITIES 410-313-4900  
COLONIAL PIPELINE COMPANY 410-795-1390  
MISS UTILITY 1-800-257-7777  
STATE HIGHWAY ADMINISTRATION 410-531-5533  
VERIZON 1-800-743-0033
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL REMOVE TREES, STUMPS, AND ROOTS ALONG THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410)313-7450 AT LEAST FIVE WORKING DAYS BEFORE OPEN CUTTING OR BORING/JACKING OF ANY COUNTY ROAD FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.11(A) OF THE HOWARD COUNTY CODE.
- A WAIVER REQUEST HAS BEEN SUBMITTED PENDING APPROVAL FOR THE FOLLOWING:  
a. ALTERNATIVE PIPE MATERIAL SUBSTITUTION OF C900 TO BE USED IN LIEU OF DIP FOR SEWER DEPTHS MORE THAN 16 FEET  
b. MINIMUM VERTICAL CLEARANCES OF LESS THAN 1-FOOT FROM OTHER UTILITIES OR LESS THAN 2' FROM STREAM TO CASING PIPE.
- A WAIVER REQUEST HAS BEEN SUBMITTED PENDING APPROVAL FOR THE FOLLOWING:  
a. MAXIMUM COVER PERMITTED OVER DISTRIBUTION MAINS GREATER THAN 8'-0"

### WATER NOTES

- ALL WATER MAINS TO BE P.V.C. CLASS (DR-14) C900 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-6" OF COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE REINFORCED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS. THE SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- TRACER WIRES AND CONTINUITY TEST STATION SHALL BE INSTALLED ON ALL DIP AND PVC WATER MAINS IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL.
- FOR PVC WATER MAINS, ALL RECORDS FOR THE QUALITY CONTROL AND QUALIFICATIONS TEST REQUIREMENTS NOTED IN SECTION 5.1 OF THE AWWA STANDARD C900 FOR PVC PRESSURE PIPE SHALL BE SUBMITTED WITH PIPE MATERIALS CERTIFICATIONS OR SHOP DRAWING PRIOR TO APPROVAL OF THE MATERIAL FOR USE. THE TEST RECORDS SHALL BE FOR THE PIPE TO BE INSTALLED UNDER THIS CONTRACT. ALL PVC PIPE SHALL CONTAIN MARKINGS TO ALLOW CROSS REFERENCING OF THE PIPE SUPPLIED TO THE TEST RECORDS RECEIVED.
- UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS SACRIFICIAL ANODES SHALL BE ON ALL VALVES AND METALLIC FITTINGS USED WITH PVC WATER MAINS IN ACCORDANCE WITH VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION. SEVENTEEN (17) POUND MAGNESIUM ANODES SHALL BE INSTALLED ON ALL VALVES AND DUCTILE IRON FITTINGS INCLUDING RESTRAINS AND HARNESSSES. TWELVE (12) POUND ZINC ANODES SHALL BE INSTALLED ON ALL STAINLESS STEEL FITTINGS AND SADDLES USED WITH PVC MAINS. ALL TUBES USED WITH PVC MAINS SHALL BE DUCTILE IRON.
- PROPER ASSEMBLY OF GASKETED PVC PIPE JOINTS: THE MANUFACTURER'S INSERTION LINE OF GASKETED PVC PIPE JOINTS INDICATES THE MAXIMUM DEPTH OF INSERTION OF THE SPIGOT INTO THE BELL. AFTER ASSEMBLY OF THE JOINT, THE INSERTION LINE SHALL REMAIN VISIBLE. DUAL INSERTION LINES ON GASKETED PVC PIPE INDICATE THE MAXIMUM AND MINIMUM DEPTH OF INSERTION OF THE SPIGOT INTO THE BELL. THE CONTRACTOR SHALL NOT OVER INSERT OR OVER HOME THE SPIGOT INTO THE BELL OF PVC PIPE.
- ALL CHANGES IN HORIZONTAL OR VERTICAL DIRECTION OF PVC WATER PIPE SHALL BE MADE WITH STANDARD BENDS, 5-DEGREE SWEEPS OR HIGH DEFLECTION (HD) COUPLINGS. NO BENDING OF THE PIPE OR DEFLECTING OF PVC PIPE JOINTS IS PERMITTED. WHERE HIGH DEFLECTION COUPLINGS OR 5-DEGREE SWEEPS ARE PERMITTED, THE CONTRACTOR SHALL PROVIDE ONE FULL PIPE LENGTH (20-FOOT LONG) ON EITHER SIDE OF THE HIGH DEFLECTION COUPLING OR 5-DEGREE SWEEP. THE CONTRACTOR SHALL USE A VIBRATORY PLATE COMPACTOR OR OTHER APPROVED MEANS TO THOROUGHLY COMPACT THE #57 STONE ON BOTH SIDES OF THE HIGH DEFLECTION COUPLING OR 5-DEGREE SWEEP, TAKING CARE NOT TO USE COMPACTOR EQUIPMENT DIRECTLY OVER THE FITTING.
- PVC HIGH DEFLECTION COUPLINGS SHALL BE LIMITED TO A TOTAL DEFLECTION OF 3-DEGREES (1 1/2-DEGREE ON EITHER END OF THE COUPLING), SHALL BE RATED FOR A MINIMUM 200 PSI MEETING THE REQUIREMENTS OF AWWA C900. SHALL HAVE A MINIMUM LAY LENGTH OF 8-INCHES AND SHALL HAVE CENTER STOPS. PVC HIGH DEFLECTION COUPLINGS SHALL BE CERTAINTY PVC HIGH DEFLECTION (HD) STOP COUPLINGS OR EQUAL.
- FIVE DEGREE SWEEPS SHALL BE BELL BY SPIGOT, RATED FOR A MINIMUM 225 PSI, DR18 MEETING THE REQUIREMENTS OF AWWA C900 AND SHALL BE MULTI FITTINGS (RFX) BLUE SPIGOTE DR18 OR EQUAL.
- WHEN PVC HIGH DEFLECTION COUPLINGS OR PVC 5-DEGREE SWEEPS ARE USED TO FACILITATE CHANGES IN HORIZONTAL OR VERTICAL ALIGNMENTS OF AWWA C-900 PVC PIPELINES, THE CONTRACTOR SHALL INSTALL DEVICES FOR THE PREVENTION OF OVER-INSERTION OF THE PVC PIPE SPIGOTS OR PLAIN ENDS INTO THE PUSH ON BELL ON BOTH SIDES OF THE HIGH DEFLECTION COUPLINGS AND 5 DEGREE SWEEPS. BELL STOPS SHALL BE PLACED AT THE PROPER INSERTION LINE FOR THE FITTING. THE BELL STOP SHALL BE MANUFACTURED OF DUCTILE IRON AND INCORPORATE AN EXPANSION RETENTION SPRING TO ALLOW FOR PIPE EXPANSION AND CONTRACTION. THE BELL STOPS SHALL BE SERIES 5000 MEGA-STOP, AS MANUFACTURED BY EBAA IRON, INC. OR APPROVED EQUAL.
- EACH DWELLING WILL BE SERVED BY A 1-1/2" DIAMETER M/C, WITH A 1" METER WHICH WILL BE LOCATED AT THE PROPERTY LINE. THE PREFERRED LOCATION OF THE OUTSIDE WATER METER SETTING IS IN A GRASS AREA WITH THE ROAD RIGHT-OF-WAY AND OUTSIDE OF TRAFFIC BEARING AREAS.

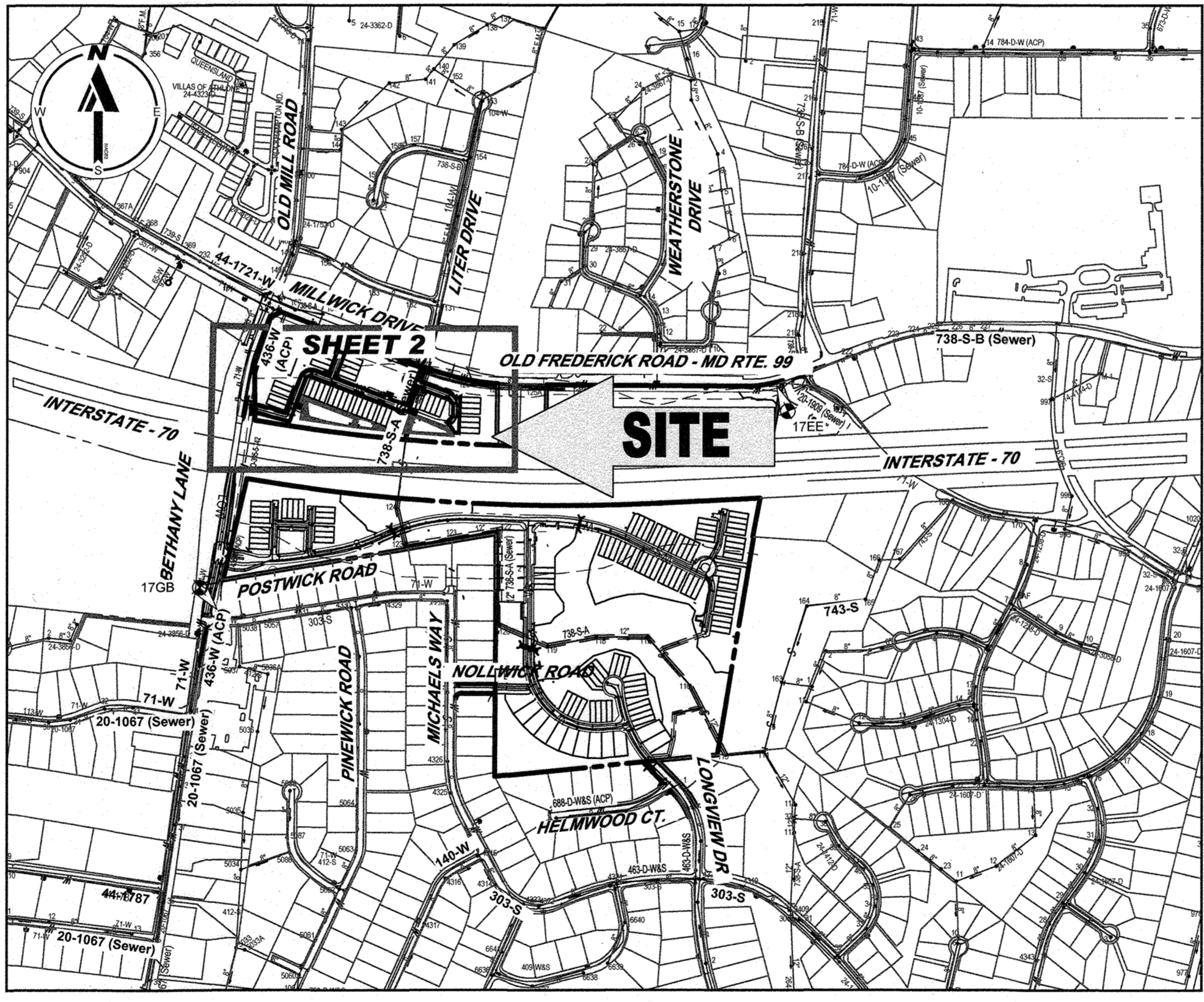
### SEWER NOTES:

- ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED
- FORCE MAINS SHALL BE D.I.P. ONLY
- MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVER. STANDARD DETAIL G5.52 WHERE WATERTIGHT MANHOLE FRAMES AND COVERS ARE USED. SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THE CELLAR CANNOT BE SERVED

SHEET INDEX	
SHEET TITLE	SHEET NUMBER
TITLE SHEET	1
PUBLIC 8" WATER MAIN & 8" SEWER MAIN PLAN	2
PUBLIC 8" WATER MAIN & 8" SEWER MAIN PROFILES	3
PUBLIC WATER & SEWER STRUCTURE CHARTS	4

QUANTITIES TABLE				
ITEMS	QUANTITIES ESTIMATED	QUANTITIES	AS-BUILT TYPE	MANUFACTURER / SUPPLIER
1/8 BEND	4			
1/16 BEND	6			
1/32 BEND	7			
1 1/2" WHC	1,039 L.F.			
2" WHC	0			
8" DR 14 C900 PVC WATER (235 PSI)	1,688 L.F.			
6" DR 14 C900 PVC WATER (235 PSI)	89			
8" VALVE	6			
6" VALVE	4			
4" VALVE	1			
FIRE HYDRANTS	4			
8"x8" TEE	2			
12"x8" TAPPING SLEEVE	2			
8"x8" TEE	4			
8"x4" TEE	1			
8" 3" HIGH DEFLECTION COUPLING	7			
CLEANOUT	38			
6" SDR 35 PVC SHC	0			
4" SDR 35 PVC SHC	951			
8" DIP CL 52 (SEWER MAIN)	0			
8" SDR 35 PVC (SEWER MAIN)	1,202 L.F.			
SEWER MANHOLE (PUBLIC SEWER SYSTEM EXTENSION)	11			
AIR RELEASE VALVE	1			
CAP & BUTTRSS	2			
BLOW-OFF BOX	2			
8" COUPLING	0			
24" STEEL CASING	0			
36" STEEL CASING	0			
NAME OF UTILITY CONTRACTOR			CHECK BOX	
			AS-BUILT DATE	
			SURVEY AND DRAFTING DIVISION	

**DMV2-24-013**  
REQUESTING APPROVAL TO WAIVE THE HOWARD COUNTY DESIGN MANUAL VOLUME II - WATER AND SEWER (DMV2) FOR THE PROPOSED PROJECT, ALLOWING AN APPROXIMATELY 700-FOOT LONG, 8-FOOT TALL PRIVACY SCREEN FENCE TO BE PLACED 5 FEET WITHIN THE EXISTING PUBLIC SEWER AND UTILITY EASEMENT FROM CONTRACT NO. 738-SA, THEREBY WAIVING DMV2 SECTION 5.4.5 WHICH REQUIRES A MINIMUM 10 FEET OF HORIZONTAL CLEARANCE BETWEEN ANY PERMANENT STRUCTURE AND THE EDGE OF THE UTILITY EASEMENT.  
JUSTIFICATION FOR THE PROPOSED WAIVER INCLUDES THAT THE PROPOSED FENCE IS REQUIRED FOR THE DEVELOPMENT, TO PROVIDE A PRIVACY BUFFER BETWEEN THE PROPOSED DEVELOPMENT AND EXISTING HOMES ALONG POSTWICK ROAD AND MICHAELS WAY. DPW NOTES THAT IT IS HIGHLY UNCOMMON TO PERMIT PERMANENT STRUCTURES WITHIN EASEMENTS SUCH AS IS PROPOSED. WITHOUT MITIGATION MEASURES THE PROPOSED FENCE WOULD BE APPROXIMATELY 5 FEET HORIZONTAL FROM THE EXISTING 12-INCH SEWER CONSTRUCTED UNDER CONTRACT NO. 738-SA AND SIGNIFICANTLY IMPACT DPW'S ABILITY TO ACCESS AND MAINTAIN THIS SEWER AND ASSOCIATED EASEMENT. IN CONSIDERATION OF THIS AND PREVIOUS CORRESPONDENCE WITH BOHLER DPW CONDITIONALLY APPROVES THIS WAIVER PROVIDED THE FOLLOWING:  
1. AN ADDITIONAL 10 FEET WIDTH BE ADDED TO THE EXISTING EASEMENT ON THE SIDE OPPOSITE THE FENCE TO THE NORTH BETWEEN EXISTING SEWER MH #738A-122 AND #738A-122; AND TO THE EAST BETWEEN MH #738A-122 AND #738A-120, THEREBY CREATING A 30-FOOT WIDE EASEMENT AS SHOWN ON THE EXHIBIT ATTACHED TO THIS WAIVER REQUEST.  
2. THIS DEVELOPMENT'S HOMEOWNER'S ASSOCIATION (HOA) IS SOLELY RESPONSIBLE FOR THE FENCE IN PERPETUITY. INCLUDING ITS REMOVAL AND REPLACEMENT IF NEEDED IN THE FUTURE BY DPW FOR WORK ON THE SEWER EASEMENT, OR RELATED NEED.



LOCATION MAP  
SCALE: 1"=600'

TYPE OF BUILDING: AGE-RESTRICTED ADULT HOUSING  
DRAINAGE AREA: PATUXENT  
NUMBER OF LOTS/PARCELS/UNITS: 38  
AREA OF RESIDENTIAL LOT/PARCEL: 1.94 AC  
NUMBER OF W.H.C.: 39 (PROPOSED)  
NUMBER OF S.H.C.: 39 (PROPOSED)  
WATER ZONE: 607 W  
TEST GRADIENT: 607  
TEST PRESSURE: 254 PSI  
TREATMENT PLANT: LITTLE PATUXENT WRP

**DMV2-23-005**  
WAIVER REQUEST 1  
IN ADDITION TO DMV2 SECTION 4.3.E.2.8.1, DMV 4 STANDARD DETAIL G-2.14 SHOWS THE PERMISSIBLE DEPTHS OF COVER FOR VARIOUS PIPE MATERIALS. THIS DETAIL ALLOWS A MAXIMUM COVER OF 20' OVER C900 FOR DEPTHS GREATER THAN 20'. DIP IS REQUIRED. IN DISCUSSIONS WITH BOHLER AND UTILITIES UNLIMITED, THE COUNTY HAS BEEN INFORMED THAT AVAILABILITY OF DIP IS NO LONGER AN ISSUE. AS SUCH, THE WAIVER REQUEST IS RESCINDED AND PIPE MATERIAL AS SPECIFIED UNDER STANDARD DETAIL G-2.14 SHALL BE PROVIDED.  
WAIVER REQUEST 2  
A CLEARANCE LESS THAN 1' BETWEEN TOP OF THE CASING AND THE BOX CULVERT BOTTOM BETWEEN MANHOLES S-27 AND S-23 IS ACCEPTABLE, WITH THE CONDITION THAT THE GAP BETWEEN TOP OF THE CASING AND THE BOTTOM OF THE BOX CULVERT IS FILLED WITH CONSTRUCTION SAND. THE EXTENT OF THE FILL SHALL BE MINIMUM THREE (3) FEET BEYOND THE OUTER EDGES OF THE PIPE AND CULVERT, IN BOTH DIRECTIONS.  
WAIVER REQUEST 2 IS APPROVED, PROVIDED ABOVE CONDITION IS MET AND DENOTED ON THE PLANS AND PROFILES.  
WAIVER REQUEST 3  
BASED ON THE INFORMATION PROVIDED, USE OF 24" CASING AT FIVE STATIONS NOTED EARLIER IS APPROVED.

**DMV2-23-011**  
THE UPDATED SUBMITTAL REQUESTS WAIVER FROM THE DESIGN MANUAL II SECTION 3.3.8.5 REQUIREMENT THAT LIMITS MAXIMUM COVER OVER THE DISTRIBUTION MAINS TO 8.0 FEET. FOLLOWING STATIONS HAVE BEEN IDENTIFIED FOR THIS WAIVER REQUEST:  
CONTRACT 1 - WATER MAIN C-1 STA 19+20 TO STA 11+40 - THE MAXIMUM COVER OVER THE MAIN WILL BE ABOUT 12.0'  
CONTRACT 1 - WATER MAIN C-1 STA 27+95, STA 28+80 - THE MAXIMUM COVER OVER THE MAIN WILL BE ABOUT 10.0'  
THE UPDATED SUBMITTAL ALSO HAS AN ADDED REQUEST, WHICH SEEKS WAIVER FROM DMV2 SECTION 3.3.8.5, WHICH ALSO REQUIRES A MINIMUM COVER OVER DISTRIBUTION COVER OF 3.5'. THE REQUEST IS MADE FOR THE FOLLOWING STATION:  
CONTRACT 1 - WATER MAIN C-1 STA 19+88 - STA 19+39 THE COVER OVER THE MAIN WILL BE ABOUT 2.3'.  
BASED ON OUR UNDERSTANDING AND THE DISCUSSIONS HELD AT PREVIOUS MEETINGS, FOLLOWING DECISIONS ARE MADE:  
1. WATER MAIN C-1 STA 19+20 TO STA 11+40 AND STA 27+95 TO STA 28+80 - THIS IS A CONNECTION POINT TO THE EXISTING MAIN - BASED ON THE INFORMATION PROVIDED, THIS WAIVER REQUEST IS APPROVED.  
2. WATER MAIN C-1 STA 19+88 TO STA 19+39 - THIS IS WAIVER REQUEST IS APPROVED SUBJECT TO FOLLOWING CONDITION:  
PROVIDE A LAYER OF TRIAXIAL GEOTEXTILE SIMILAR TO T-1310 AS MANUFACTURED BY TENSAR CORPORATION, AS RECOMMENDED BY HILLIS-CARNES ENGINEERING ASSOCIATES IN THEIR LETTER TO BOHLER AND DATED SEPTEMBER 15, 2023, INCLUDE ALL DETAILS FROM THE LETTER REQUIRED FOR CONSTRUCTION ON WATER AND SEWER DRAWINGS.  
IN ADDITION TO ABOVE DECISIONS, BELOW POINTS WERE DISCUSSED AND AGREED TO IN PREVIOUS MEETINGS AND SHALL BE PROVIDED AS APPLICABLE:  
1. FROM STA 10+00, THE STANDARD 20" EASEMENT WILL BE WIDENED UP TO THE ROAD RIGHT OF WAY  
2. BETWEEN STA 27+95 AND STA 28+80, FIRE HYDRANTS AND ISOLATION VALVES SHALL BE PROVIDED FOR ISOLATING SECTION OF THE WATER MAIN CROSSING THE CULVERT AND TO PROVIDE TEMPORARY BYPASS WATER  
3. WATER MAIN C-1 BETWEEN STA 27+95 AND STA 28+80 SHALL BE DESIGNED TO PASS OVER THE CULVERT WITH A CLEARANCE OF MINIMUM 8'6" (81 INCHES). THIS CLEARANCE SHALL BE FILLED WITH CONSTRUCTION SAND EXTENDING THREE FEET ALL AROUND OF THE CROSSING BORDERS. NOTE - BOHLER HAS RESPONDED THAT IT IS NOT POSSIBLE TO HAVE THE WATER MAIN ABOVE THE BOX CULVERT DUE TO INSUFFICIENT COVER.  
4. THE STREAM CROSSING PROFILES SHALL BE DEPICTED CORRECTLY IN ACCORDANCE WITH STANDARD DETAILS.  
5. THE SEWER MANHOLE DEPTHS EXCEED 20'. A 30" EASEMENT SHALL BE PROVIDED.  
APPROVED SEPT. 22, 2023.

SEDMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE SPECIFICATIONS AND AS SHOWN ON SDP-22-021

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

OWNER/DEVELOPER:  
BETHANY GLEN DEVELOPMENT, INC  
5074 DORSEY HALL ROAD, SUITE 205  
ELLCOTT CITY, MD 21042  
CONTACT: JASON VAN KIRK  
PHONE: (410) 720-3021

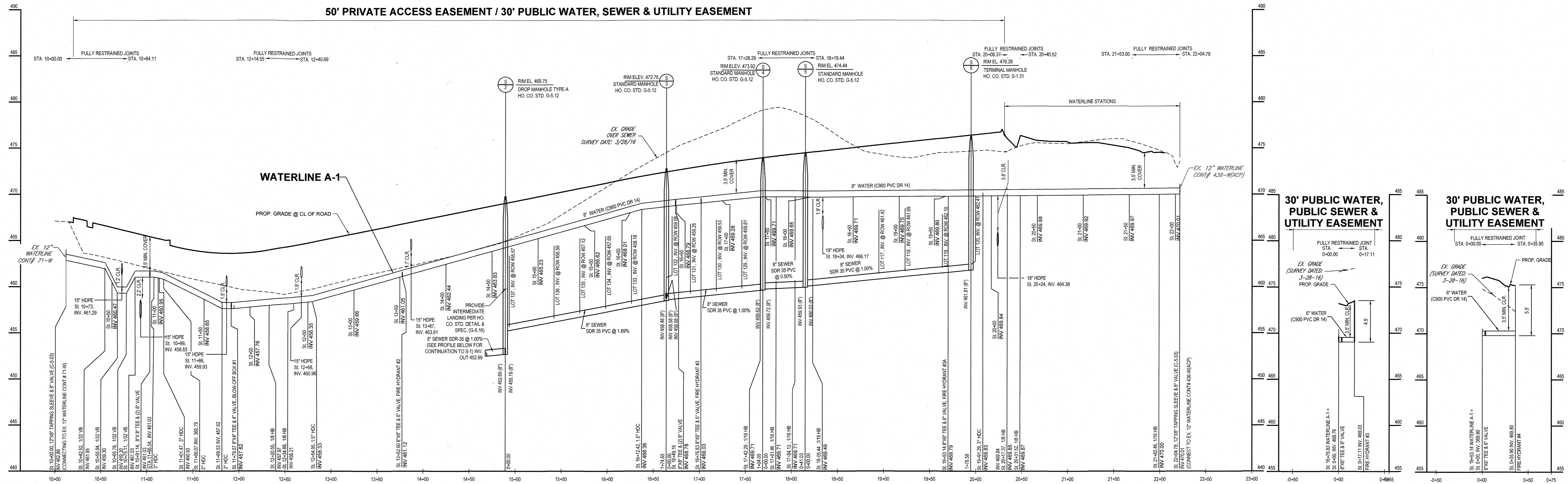
3/13/2024 DATE

CHIEF, BUREAU OF UTILITIES

CHIEF, DEVELOPMENT ENGINEERING DIVISION

<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p>3/13/2024 DATE</p>	<p>DEPARTMENT OF PLANNING &amp; ZONING HOWARD COUNTY, MARYLAND</p> <p>4/3/24 DATE</p>	<p><b>BOHLER</b> 901 DULANEY VALLEY ROAD, SUITE 801 TOWSON, MARYLAND 21284 Phone: (410) 821-7900 Fax: (410) 821-7987 MD@BohlerEng.com</p>	<p><b>B.R. ROWE</b> PROFESSIONAL ENGINEER MARYLAND LICENSE NO. 10098 1600 WASHINGTON BLVD, SUITE 100 LARGO, MARYLAND 20775 PHONE: (301) 781-1111 WWW.BRROWE.COM</p>	<p>DES: _____</p> <p>DRN: _____</p> <p>CK: B.R.R.</p> <p>DATE: 03/01/24</p>	<p>REV. DATE DESCRIPTION</p>	<p><b>TITLE SHEET</b></p> <p>PARCEL NO. 34</p> <p>600' SCALE MAP NO. 30 BLOCK NO. 9</p>	<p><b>BETHANY GLEN - PHASE III</b> LOTS 117-154, LOT 155, COMMUNITY CENTER AND OPEN SPACE LOT 156 9891 OLD FREDERICK ROAD - RTE. 99, ELLICOTT CITY, MD TAX MAP 17, GRID 15, PARCEL 34 2ND ELECTION DISTRICT HOWARD COUNTY CONTRACT NO.: 24-5237-D</p>	<p>SCALE AS SHOWN</p> <p>SHEET 1 of 4</p>
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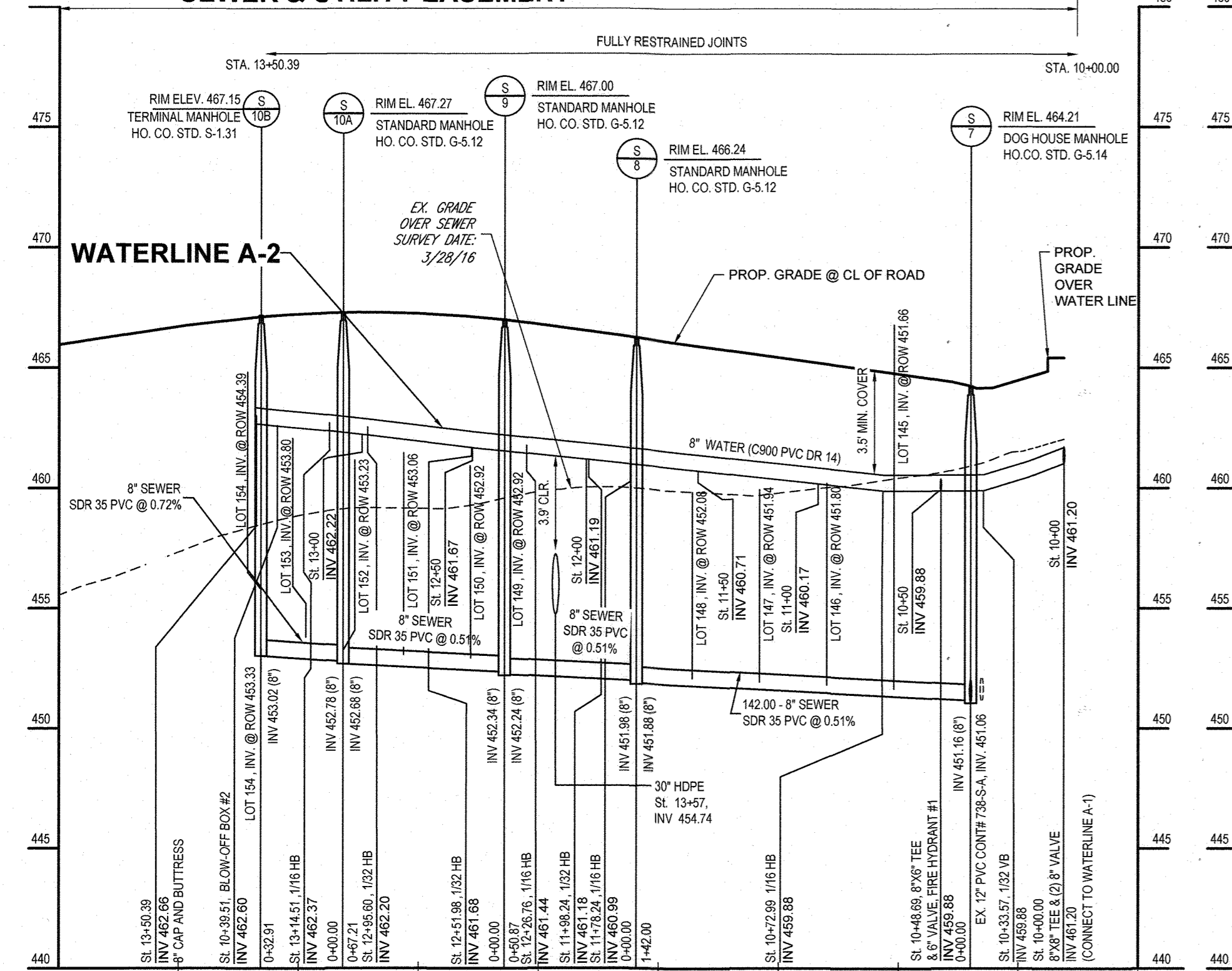


**PUBLIC SEWER FROM S-2 TO S-6 AND PUBLIC WATERLINE A-1**

**FH #3 - PROFILE**

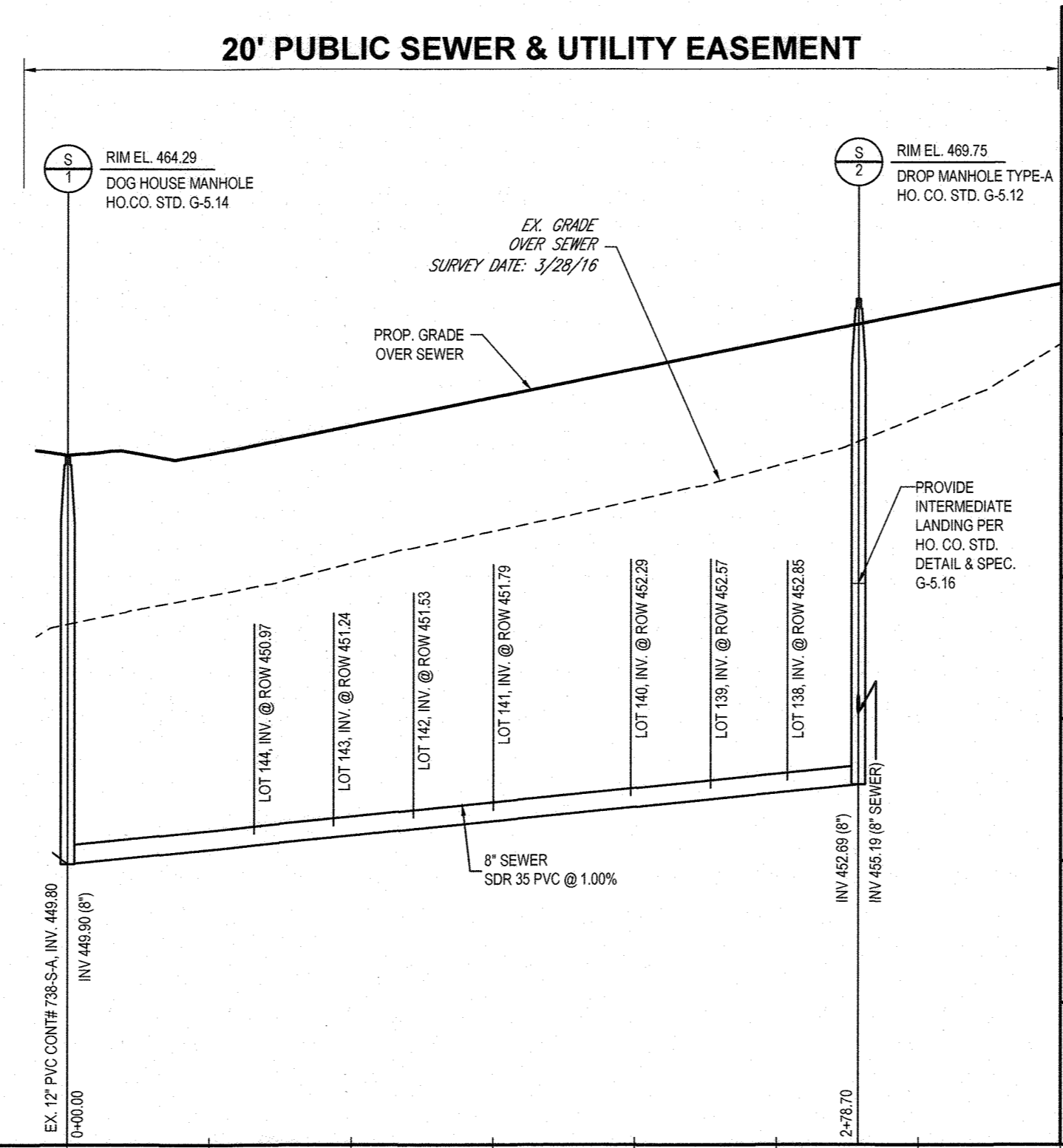
**FH#3A - PROFILE**

**50' PRIVATE ACCESS EASEMENT / 30' PUBLIC WATER, SEWER & UTILITY EASEMENT**



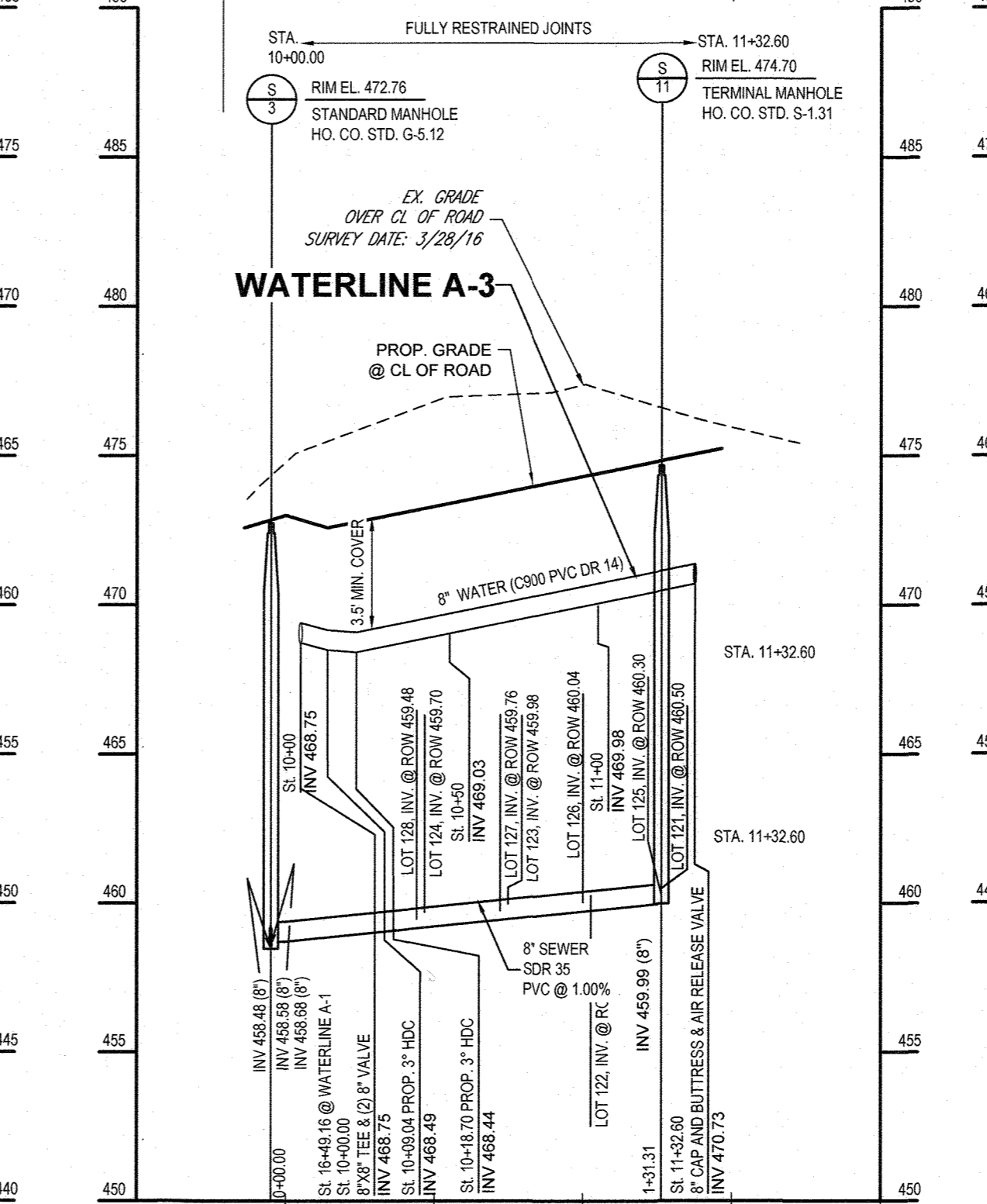
**PUBLIC SEWER FROM S-7 TO S-10B AND PUBLIC WATER A-2**

**20' PUBLIC SEWER & UTILITY EASEMENT**



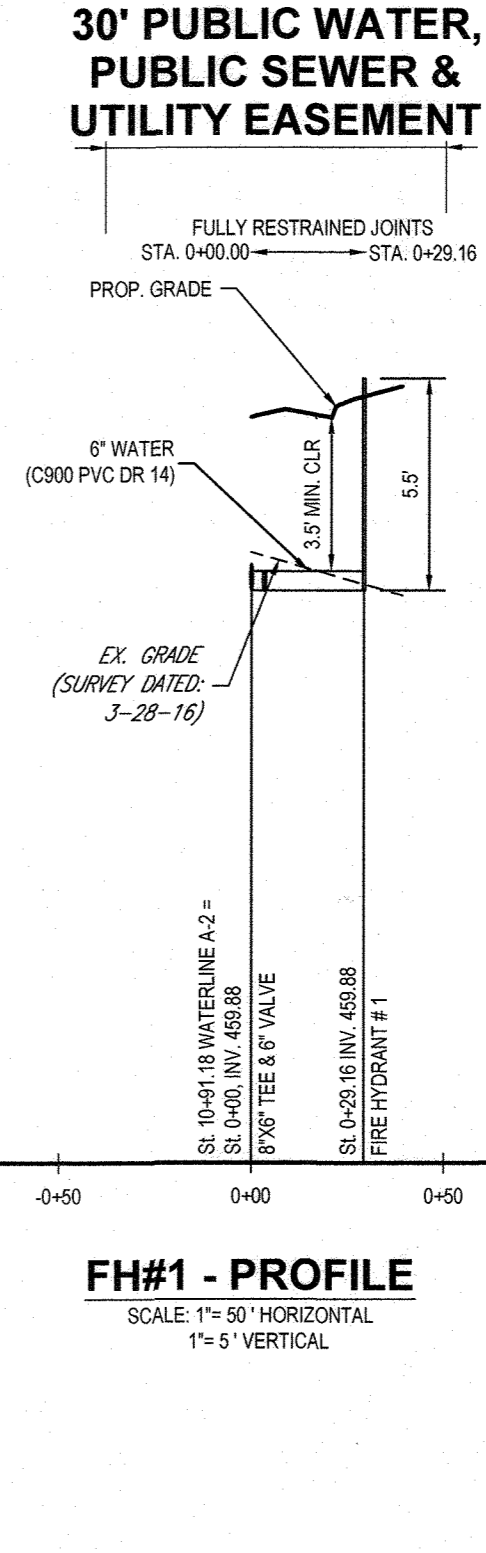
**PUBLIC SEWER FROM S-1 TO S-2**

**50' PRIVATE ACCESS EASEMENT / 30' PUBLIC WATER, SEWER & UTILITY EASEMENT**



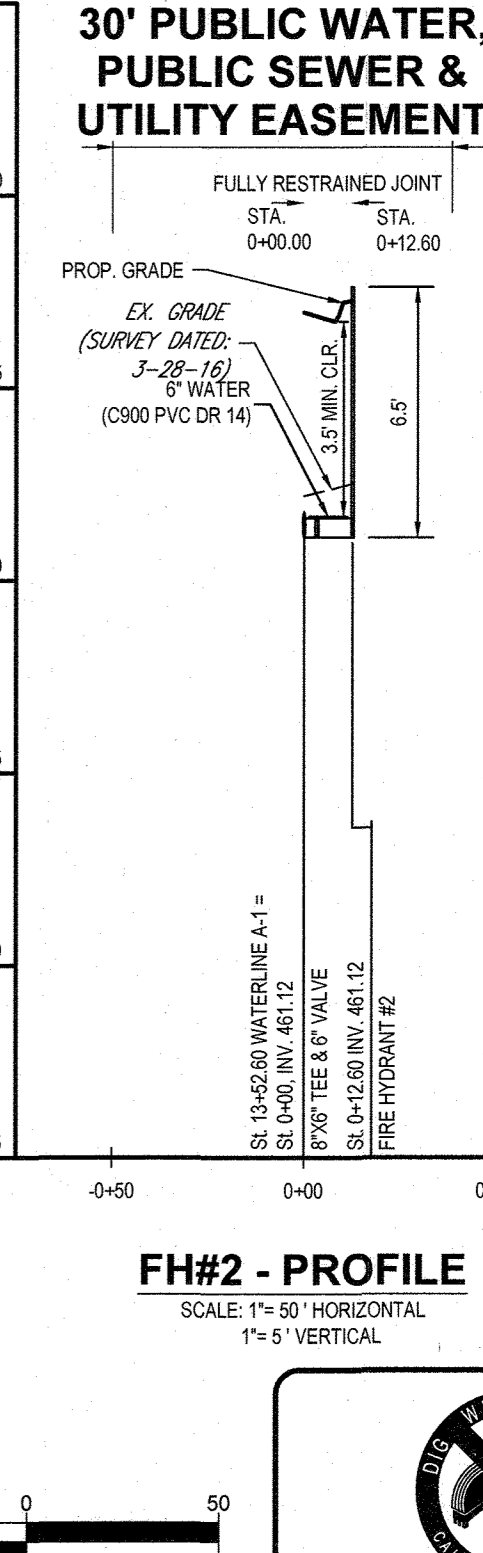
**PUBLIC SEWER FROM S-3 TO S-11 AND PUBLIC WATERLINE A-3**

**30' PUBLIC WATER, PUBLIC SEWER & UTILITY EASEMENT**

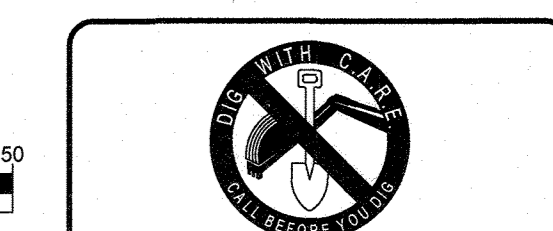
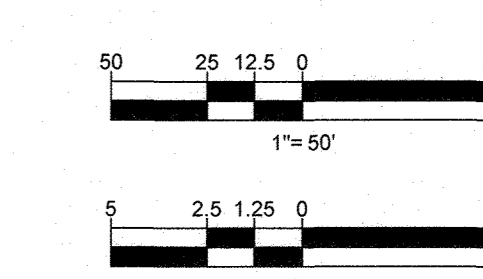


**FH#1 - PROFILE**

**30' PUBLIC WATER, PUBLIC SEWER & UTILITY EASEMENT**



**FH#2 - PROFILE**



THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATES OF VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL 411

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND  
*[Signature]*  
 CHIEF, BUREAU OF UTILITIES  
 DATE 3/13/2024

DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND  
*[Signature]*  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE 4-3-24

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

**B.R. ROWE**  
*[Signature]*  
 PROFESSIONAL ENGINEER  
 LICENSE NO. 10000  
 STATE OF MARYLAND  
 DATE: 03/01/24

REV.	DATE	DESCRIPTION

**FINAL PUBLIC 8" WATER MAIN & 8" SEWER MAIN PROFILES**

PARCEL NO. 34  
 600' SCALE MAP NO. 30 BLOCK NO. 9

**BETHANY GLEN - PHASE III**  
 LOTS 117-154, LOT 155, COMMUNITY CENTER AND OPEN SPACE LOT 156  
 9891 OLD FREDERICK ROAD - RTE. 99, ELLICOTT CITY, MD  
 TAX MAP 17, GRID 15, PARCEL 34  
 2ND ELECTION DISTRICT  
 HOWARD COUNTY  
 CONTRACT NO.: 24-5237-D

SCALE  
 H=1"=50'  
 V=1"=5'  
 SHEET  
 3 of 4

