GENERAL NOTES

I. STANDARD GENERAL NOTES

- APPROXIMATE LOCATIONS OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE AL 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 FEB. 16, 2012 BY SILL, ADCOCK & ASSOCIATE
- THE COORDINATES ON THE DRAWINGS ARE BASED ON THE MARYLAND STATE REFERENCE SYSTEM NAD '83/91' AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 16IB AND NO.
- DRAWINGS ARE CONCRETE MONUMENTS.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS LINESS OTHERWISE NOTED ON THE PLANS CLEAR ALL UTILITIES BY A MINIMUM OF 12 INCHES. CLEAR ALL POLES BY 5'-0" MINIMUM OR TUNNEL 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
- OR PITS IN 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

BGE (CONSTRUCTION SERVICES) BGE (EMERGENCY) 410-313-4900 COLONIAL PIPELINE COMPANY 800-257-7777 MISS UTILITY 410-531-5533 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
- LEAST 5 WORKING DAYS BEFORE OPEN CUTTING OR BORING/JACKING OF ANY COUNTY ROAD FOR AYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL

STANDARD SEWER MAIN GENERAL NOTES

- a. ALL SEWER MAINS SHALL BE DIP 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 DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS
- STANDARD DETAIL G5.52. WHERE WATERTIGHT FRAME AND COVER IS USED, SET TOP OF FRAME 1"-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON DRAWINGS.
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED

STANDARD WATER MAIN GENERAL NOTES

STANDARD WATER MAIN GENERAL NOTES

ALL WATER MAINS TO BE PVC C900 DR 14 UNLESS OTHERWISE NOTED. TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-6" OF COVER UNLESS

WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS

- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- ALL FITTING SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS LINEESS OTHERWISE PROVIDED FOR ON THE DRAWINGS FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIR HYDRANTS SHALL BE RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS. THE SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM. FRACER WIRE AND CONTINUITY TEST STATIONS SHALL BE INSTALLED ON ALL DI
- MAINS IN ACCORDANCE WITH THE 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 PIPES SHALL BE SUBMITTED WITH THE PIPE MATERIAL CERTIFICATIONS OR SHOP DRAWINGS 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 INSTALLED ON ALL VALVES AND METALLIC FITTINGS USED WITH PVC WATER MAINS IN
- ACCORDANCE WITH VOLUME IV STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, 17 POLIND MAGNESIUM ANODES SHALL BE INSTALLED ON ALL VALVES AND DUCTUE IRON FITTING NCLUDING RESTRAINTS AND HARNESSES. 12 POUND ZINC ANODES SHALL BE INSTALLED ON ALL STAINLESS STEEL FITTINGS AND SADDLES USED WITH PVC MAINS. ALL "TEES" USED WITH PVC MAINS PROPER ASSEMBLY OF 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 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 DEELECTING OF PVC PIPE JOINTS IN PERMITTED, WHERE HIGH DEELECTION COLIFI INGS OR 5-DEGREE SWEEPS ARE PERMITTED. THE CONTRACTOR SHALL PROVIDE ONE FULL PIPE LENGTH. CONTRACTOR SHALL USE A VIBRATORY PLATE COMPACTOR OR OTHER APPROVED MEANS TO
- THOROUGHLY COMPACT THE #57 STONE ON BOTH SIDES OF THE HIGH DEFECTION COUPLING OR 5-DEGREE SWEEP. TAKING CARE NOT TO USE COMPACTION 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 LENGTH OF 9-INCHES AND SHALL HAVE CENTER STOPS. PVC HIGH DEFLECTION COUPLINGS SHALL BE CERTAINTEED PVC HIGH DEFLECTION (HD) STOP COUPLINGS OR EQUAL. FIVE DEGREE SWEEPS SHALL BE BELL BY SPIGOT, RATED FOR 225 PSD, DR 18 MEETING THE REQUIREMENTS OF AWWA C900 AND SHALL BE MULTI
- 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 PIP SPIGOTS OR PLAIN ENDS INTO THE PUSH ON BELL JOINT ON BOTH SIDES OF THE HIGH DEFLECTION COUPLINGS AND 5-DEGRED SWEEPS. BELL STOPS SHALL BE PLACED AT THE PROPER INSERTION LINE FOR THE FITTING. THE BELL STOP SHALL BE MANUFACTURED OF DUCTILE IRON AND INCORPORATES AN EXPANSION RETENTION SPRING TO ALLOW FOR PIPE EXPANSION AND CONTRACTION. THE BELLS STOPS SHALL BE SERIES 5000 MEGA-STOP AS MANUFACTURED BY EBAA IRON, INC., OR APPROVED

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE STANDARD SPECIFICATIONS AND WITH ROAD CONSTRUCTION PLANS F-19-018

FITTINGS (IPEX) BLUE BRUTE DR18 OR FOUAL

THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND

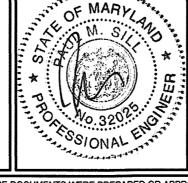
DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND

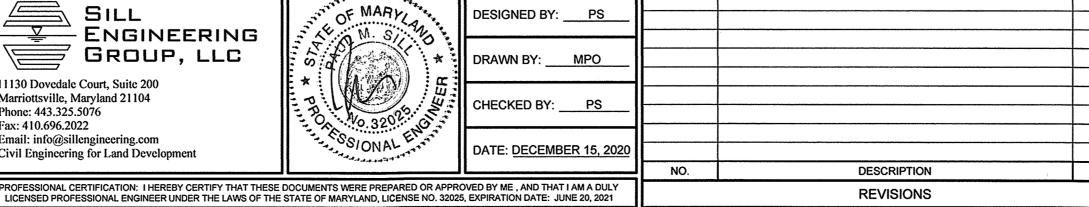
DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND





- Engineering





FINAL PUBLIC WATER & SEWER PLANS **COVER SHEET**

LEGEND

STREAM BANK BUFF

WETLANDS BUFFE

DIRECTION OF FLOW

W/ CLEANOUT

W/ SINGLE METER

W/ TWIN METERS SEWER MANHOLES

PROPOSED AIR RELEASE MANHOLE

SEWER HOUSE CONNECTION

WATER HOUSE CONNECTION

WATER HOUSE CONNECTION

STORM DRAIN STRUCTURES

R.R. APRON

PENKUSKY PROPERTY

LOTS 1, 3 THRU 7, AND OPEN SPACE LOTS 2, 8 THRU 11

TAX MAP 31 GRID 4 **1ST ELECTION DISTRICT**

CONTRACT NO. 14-5000-D

VICINITY MAP

CONTRACT NO. # 14-5000-D

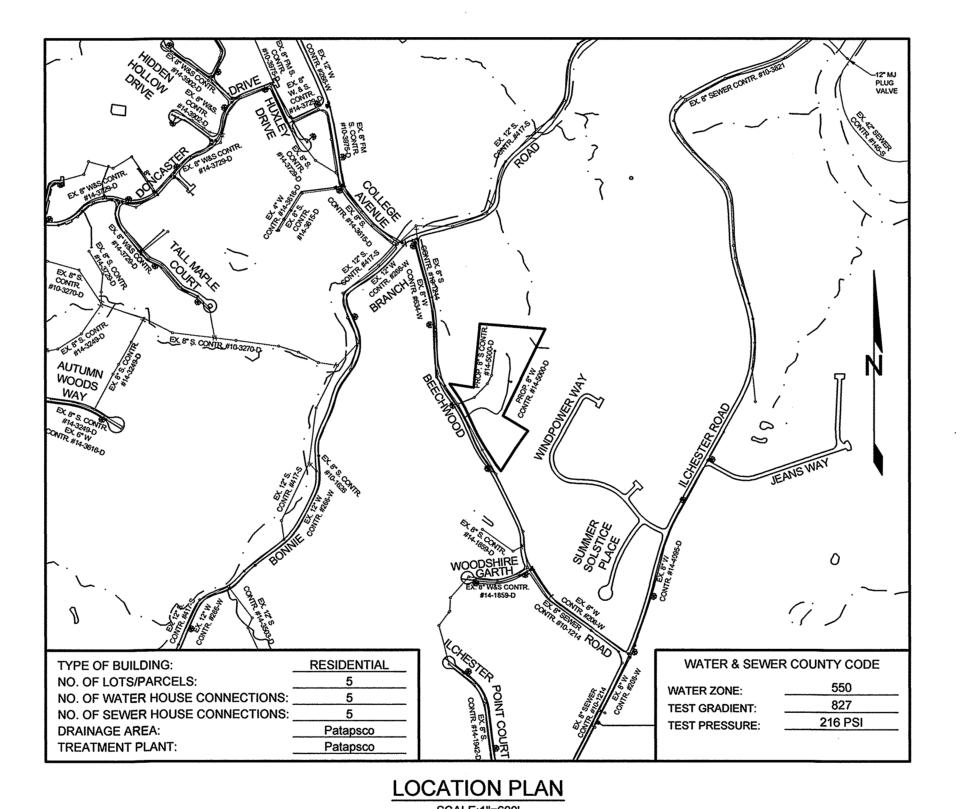
FINAL PUBLIC WATER AND SEWER PLAN

PENKUSKY PROPERTY

LOTS 1, 3 THRU 7 AND

OPEN SPACE

LOTS 2, 8 THRU 11



QUANTITIES NAME OF UTILITY CONTRACTOR: SURVEY AND DRAFTING DIVISION AS-BUILT QUANTITIES TYPE MANUFACTURER/SUPPLIER 6" PVC C900 DR 14 (WATER) 476 LF 4" PVC C900 DR 14 (WATER) 175 LF 6"X4" REDUCER SINGLE 1.5" WATER METER 1.5" WHC 100 LF 1 EA 8"x6" TAPPING SLEEVE & VALVE **6" FIRE HYDRANT** 1 EA 3° HIGH DEFLECTION COUPLING 1 EA 1 EA 8 EA 4 EA 2 EA 4" CAP & BUTTRESS 1 EA 8" DIP CL 54 (SEWER) 200 LF 8" PVC SDR 35 (SEWER) 274 LF 98 LF MANHOLE (SEWER) 3 EA DOGHOUSE MANHOLE (SEWER) 1 EA SEWER CLEANOUT 5 EA

BENCHMARKS					
NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION	
0081	572,335.36	1,377,504.01	477.89	BY OUR LADY OF PERPETUAL HELP, 9' SE SIDE L OF ILCHESTER RD, 250' W OF BEECHWOOD RD	
31EC	570,387.05	1,376,436.70	477.73	NEAR BONNIE BRANCH MIDDLE SCHOOL, E SIDE OF ILCHESTER RD. 61'S OF AN INLET	

SHEET INDEX				
SHEET NO.	DESCRIPTION			
1	COVER SHEET			
2	FINAL PUBLIC WATER AND SEWER PLAN			
3	FINAL PUBLIC SEWER PROFILE			
4	FINAL PUBLIC WATER PROFILE			

OWNER/DEVELOPER JOSEPH C. PENKUSKY & LISA ANN PENKUSKY 4707 BEECHWOOD ROAD **ELLICOTT CITY, MARYLAND 21043**

443-324-4807

SCALE: SHOWN

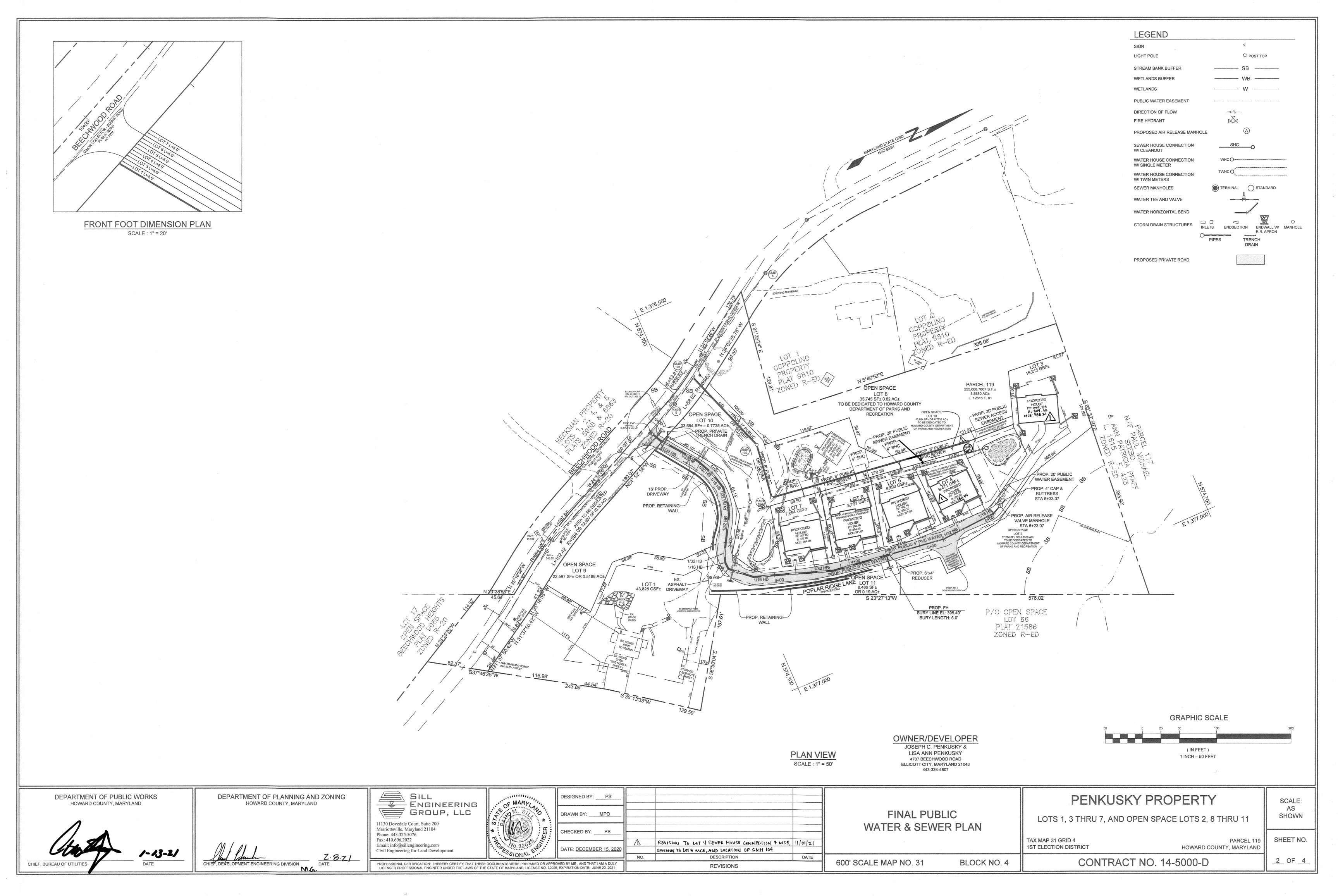
SHEET NO.

HOWARD COUNTY, MARYLAND

BLOCK NO. 4

600' SCALE MAP NO. 31

<u>1</u> OF <u>4</u>



	SEWER HOUSE CONNECTION SCHEDULE										
OT NO.	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2	INVERT OF 8" MAIN	INVERT @ R/W	MIN. CELLAR ELEV.	BASEMENT FLOOR	FIRST FLOOR	SLOPE	DROP DEPTH	REMARKS
3	5025 POPLAR RIDGE LANE			382.86	384.18	388.31	386.60	396.60	2.0%	-	S-2.12
4	5017 POPLAR RIDGE LANE			375.91	376.11	380.59	396.60	406.60	2.0%	4.36'	S-2.12
5	5013 POPLAR RIDGE LANE			372.98	376.25	377.88	392.10	402.10	2.0%	3.07'	S-2.12
6	5009 POPLAR RIDGE LANE			366.84	369.72	371.61	384.10	394.10	2.0%	2.68'	S-2.12
7	5005 POPLAR RIDGE LANE			359.45	360.68	364.00	377.80	387.80	2.0%	-	S-2.12

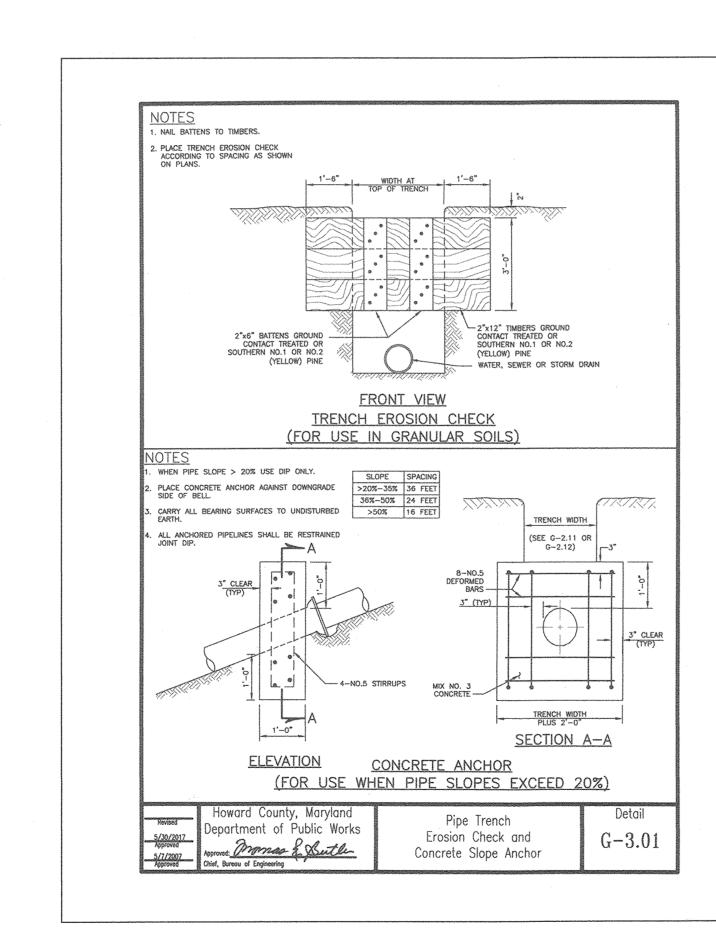


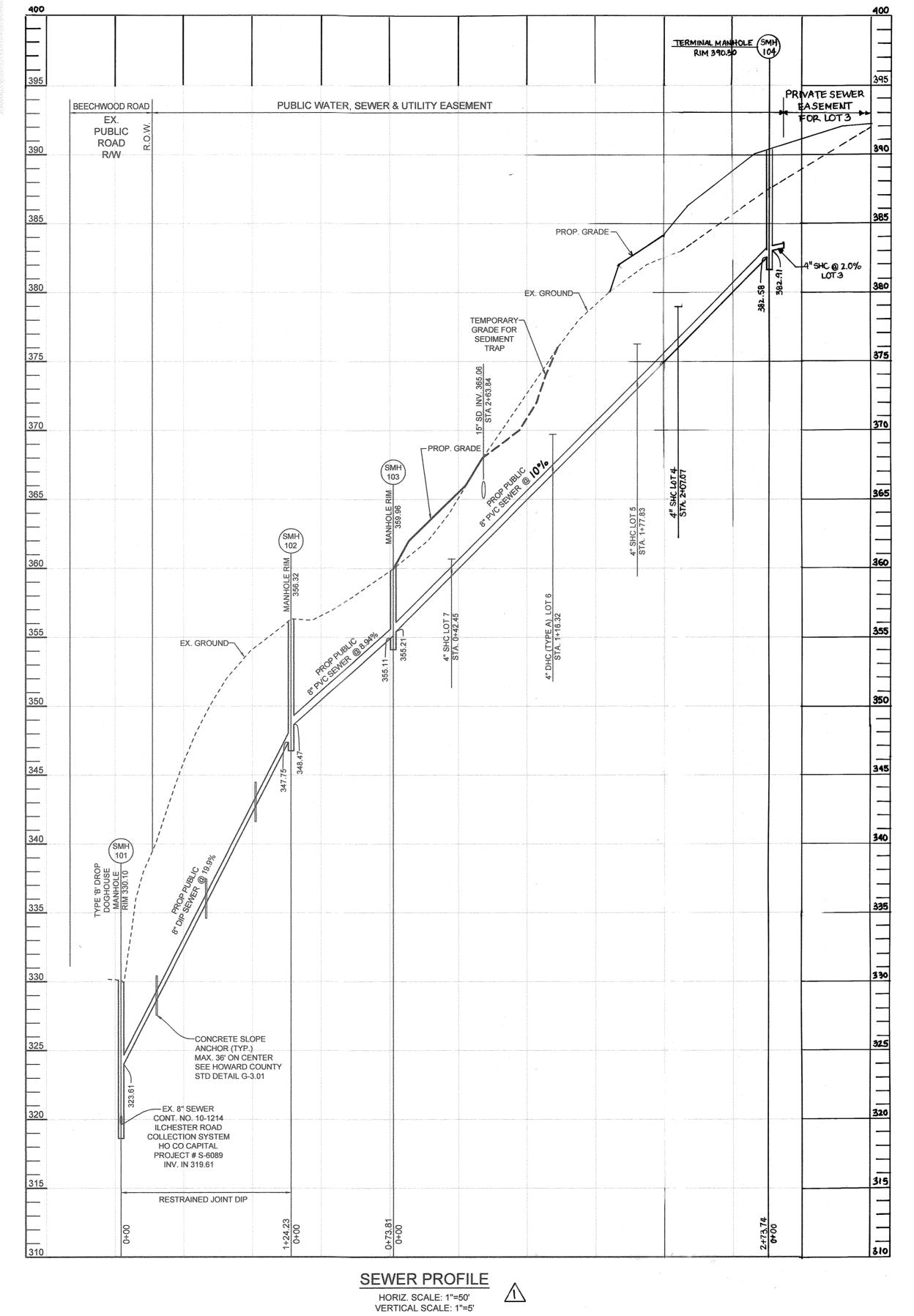
						the base of the second second		
		STRUCTURE SCHEDULE						
	NO.	TYPE	LOCATION	TOP ELEV.	INV. IN	INV. OUT	REMARKS	
	101	4' PRECAST MANHOLE DOGHOUSE	N 574,136.3 E 1,376,561.9	330.10	323.61	319.61	G-5.14	
	102	STD. 4' PRECAST MANHOLE	N 574,178.7 E 1,376,678.6	356.32	348.47	347.75	G-5.12	
\wedge	103	STD. 4' PRECAST MANHOLE	N 574,169.1 E 1,376,751.8	359.96	355.21	355.11	G-5.12	
	104	4' PRECAST MANHOLE TERMINAL	N 574,44058 E 1,376,787.56	390.30	382.91	382.58	G-5.12	

1. TOP ELEVATIONS FOR PRECAST MANHOLES ARE TO THE CENTER TOP OF

MANHOLE COVER.

2. TOP SLOPE OF STRUCTURES TO CONFORM TO SLOPE OF PAVING/GROUND. 3. LOCATION COORDINATES ARE CENTER OF STRUCTURE FOR MANHOLES.





OWNER/DEVELOPER JOSEPH C. PENKUSKY & LISA ANN PENKUSKY 4707 BEECHWOOD ROAD ELLICOTT CITY, MARYLAND 21043 443-324-4807

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND

SILL ENGINEERING GROUP, LLC	OF MARY	DESIGNED BY: PS			
	Z 20	DRAWN BY: MPO			
Marriottsville, Maryland 21104 Phone: 443.325.5076	* 1	CHECKED BY: PS			
Fax: 410.696.2022 Email: info@sillengineering.com Civil Engineering for Land Development	No. 3208	DATE: DECEMBER 15, 2020	NO.	LOT 3 \$4 REVISIONS TO THE SEWER PROFILE, THE SEWER HOUSE CONNECTION SCHEDULE AND THE STRUCTURE SCHEDULE DESCRIPTION	
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE	DOCUMENTS WERE PREPARED OR APPROSTATE OF MARYLAND, LICENSE NO. 32025		REVISIONS		

FINAL PUBLIC WATER **& SEWER PLANS** SEWER PROFILE

PENKUSKY PROPERTY LOTS 1, 3 THRU 7, AND OPEN SPACE LOTS 2, 8 THRU 11

TAX MAP 31 GRID 4 PARCEL 119 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT NO. 14-5000-D

SHEET NO.

SCALE:

AS SHOWN

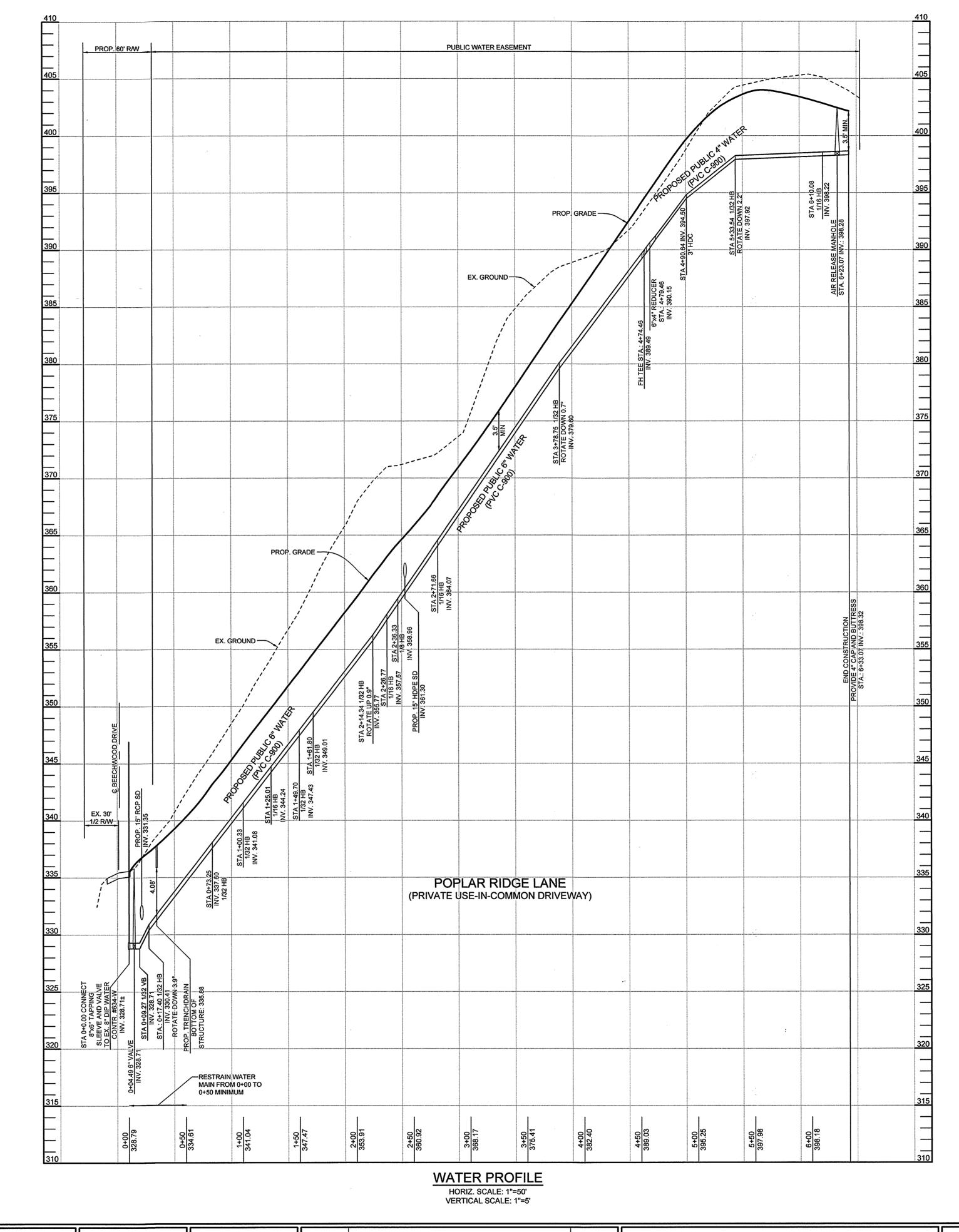
/-/3-2/ DATE

Email: info@sillengineering.com Civil Engineering for Land Development Z.8.21 DATE

600' SCALE MAP NO. 31 BLOCK NO. 4 3 OF 4

	WATER FITTING CHART						
STATION	TYPE	LOCATION	INV.				
0+00	8" X 6" TEE	N 574,054.01 E 1,376,605.78	328.71±				
0+04.49	6" VALVE	N 574,056.04 E 1,376,609.78	328.71				
0+09.27	1/32 VERTICAL BEND	N 574,058.20 E 1,376,614.05	328.71				
0+17.40	1/32 HORIZONTAL BEND	N 574,061.86 E 1,376,621.29	330.41				
0+73.25	1/32 HORIZONTAL BEND	N 574,096.32 E 1,376,665.25	337.60				
1+00.33	1/32 HORIZONTAL BEND	N 574,108.26 E 1,376,689.57	341.08				
1+25.01	1/16 HORIZONTAL BEND	N 574,114.61 E 1,376,713.42	344.24				
1+49.70	1/32 HORIZONTAL BEND	N 574,111.35 E 1,376,737.89	347.43				
1+61.80	1/32 HORIZONTAL BEND	N 574,107.45 E 1,376,749.34	349.01				
2+14.34	1/32 HORIZONTAL BEND	N 574,081.10 E 1,376,794.80	355.77				
2+26.77	1/16 HORIZONTAL BEND	N 574,077.09 E 1,376,806.56	357.57				
2+36.33	1/8 HORIZONTAL BEND	N 574,077.70 E 1,376,816.11	358.96				
2+71.66	1/16 HORIZONTAL BEND	N 574,104.22 E 1,376,839.44	364.07				
3+78.75	1/32 HORIZONTAL BEND	N 574,205.58 E 1,376,874.02	379.60				
4+53.47	6X6 FIRE HYDRANT TEE	N 574,279.64 E 1,376,883.89	389.49				
4+53.47	FIRE HYDRANT	N 574,277.80 E 1,376,900.29	389.49				
4+58.47	6X4 REDUCER	N 574,284.59 E 1,376,884.56	390.15				
4+90.64	3° HIGH DEFLECTION COUPLING	N 574,316.48 E 1,376,888.80	394.50				
5+33.54	1/32 HORIZONTAL BEND	N 574,359.01 E 1,376,894.47	397.92				
6+10.08	1/16 HORIZONTAL BEND	N 574,434.32 E 1,376,889.66	398.22				
6+23.07	AIR RELEASE MANHOLE	N 574,444.95 E 1,376,883.45	398.28				
6+33.07	6" CAP AND BUTTRESS	N 574,455.92 E 1,376,879.05	398.32				

	WATER HOUSE CONNECTION SCHEDULE						
LOT NO.	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2				
1	POPLAR RIDGE LANE						
3	POPLAR RIDGE LANE	- Property and Company of the Compan					
4	POPLAR RIDGE LANE						
5	POPLAR RIDGE LANE						
6	POPLAR RIDGE LANE						
7	POPLAR RIDGE LANE						

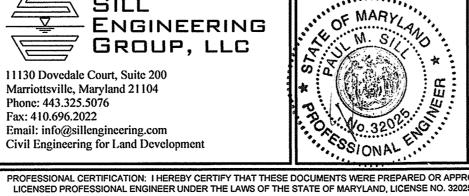


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ELLICOTT CITY, MARYLAND 21043
443-324-4807

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND





- 1	DESIGNED BY: PS			
	DRAWN BY: MPO			
:				
:	CHECKED BY: PS			
	CHECKED BY:PS			
:				
l	DATE: DECEMBER 15, 2020			
		NO.	DESCRIPTION	DATE
	OVED BY ME , AND THAT I AM A DULY , EXPIRATION DATE: JUNE 20, 2021		REVISIONS	

FINAL PUBLIC WATER & SEWER PLANS WATER PROFILE

600' SCALE MAP NO. 31

BLOCK NO. 4

PENKUSKY PROPERTY

LOTS 1, 3 THRU 7, AND OPEN SPACE LOTS 2, 8 THRU 11

TAX MAP 31 GRID 4 1ST ELECTION DISTRICT

SHEET NO. PARCEL 119 HOWARD COUNTY, MARYLAND

CONTRACT NO. 14-5000-D

4 OF _4_

SCALE:

AS SHOWN