

QUANTITY TABLE

ITEMS	QUANTITIES ESTIMATED	QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
STANDARD MH (HO. CO. STD.G-5.12)	3	3		
STANDARD MH (HO. CO. STD.S-1.31)	1	1		
8" SEWER MAIN (PVC)	205 LF	205 LF	SDR-35	National
8" SEWER MAIN (DIP)	423 LF	423 LF		US Pipe
8" WATER MAIN (C900, DR-14)	75 LF	6 LF		J M Eagle
6" WATER MAIN (C900, DR-14)	261 LF	270.5 LF		J M Eagle
4" SEWER HOUSE CONNECTION	75 LF	56.5 LF	SDR-35	National
4" SHC DIP	6	27 LF	DIP	U.S. Pipe
1.5" WATER HOUSE CONNECTION	119 LF	128.5 LF	COPPER	Cambridge Lee
# 1.5" WHC VAULT	6	6		Bingham & Taylor
6" CAP AND BUTTRESS	1 EACH	1 EACH		Star Pipe
6" FIRE HYDRANT	1 EACH	1 EACH		Mueffer
6" VALVE	1 EACH	1 EACH		Capital
8"x6" REDUCER	1 EACH	1 EACH		Star Pipe
NAME OF UTILITY CONTRACTOR:	UTILITIES	UNLIMITED		
SURVEY AND DRAFTING DIVISION AS-BUILT DATE	3-14-23			

SHEET INDEX

NO.	DESCRIPTION
1	COVER SHEET
2	FINAL PLAN & PROFILES

**WATER SERVICE INTERRUPTION CHART
ROSEMONT SUBDIVISION**

LOT NO.	ADDRESS
25	10435 ROSEMONT DR.
26	10406 N LESLIE DR.
27	10410 LESLIE DR.
28	10409 LESLIE DR.
29	10405 SW LESLIE DR.
30	10421 W ROSEMONT DR.

ALL RESIDENTS TO BE NOTIFIED OF SERVICE INTERRUPTION PRIOR TO START OF CONSTRUCTION.

LEGEND

- 8" S PROPOSED 8" SEWER
- 6" W PROPOSED 6" WATER
- FIRE HYDRANT
- SEWER MANHOLE
- EXISTING SEWER MAIN
- EXISTING WATER MAIN
- 4" SHC PROPOSED 4" SEWER HOUSE CONNECTION
- 1.5" WHC PROPOSED 1.5" WATER HOUSE CONNECTION
- HDC HIGH DEFLECTION COUPLING

EROSION AND SEDIMENT CONTROL FOR THIS CONTRACT IS PROVIDED UNDER : F-21-039

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

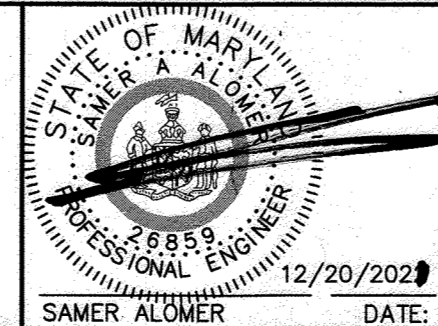
Alexandra Butcher 01/25/22
HOWARD SOIL CONSERVATION DISTRICT DATE

DEVELOPER/OWNER
TRACT 1
HOWARD LAND INVESTORS LLC.
8318 FORREST STREET - SUITE 200
ELLCOTT CITY, MD 21043
PHONE 410-707-7054

DEVELOPER/OWNER
TRACT 2
CLARKSVILLE RIDGE PROFESSIONAL CENTER LLC.
8318 FORREST STREET - SUITE 200
ELLCOTT CITY, MD 21043
PHONE 410-707-7054

I 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. 26859, EXP DATE 08/08/23

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
8318 FORREST ST. ELLCOTT CITY, MD 21043
(410) 397-0296 Tel. (410) 397-0298 Fax.



engineering SAA	illustration SAA	approval SAA	project	date	BY	NO.	REVISION	DATE
			19-004	DEC. 2021				

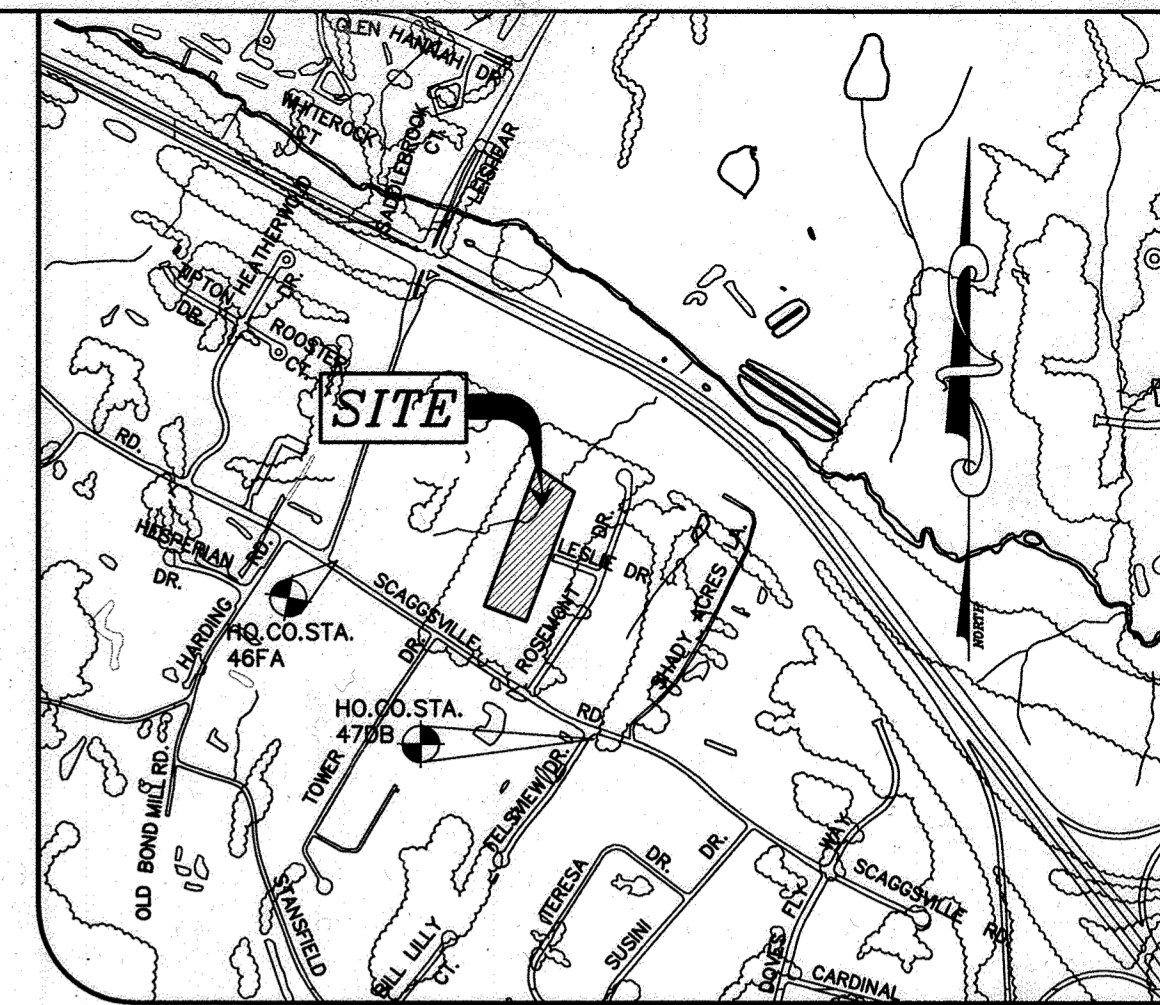
COVER SHEET

600' SCALE MAP NO. 46 BLOCK NO. 12

PIERCE PROPERTY
LOT 1 AND FUTURE LOTS 3 THRU 7
CONTRACT NO.: 24-5158-D
6TH ELECTION DISTRICT
HOWARD COUNTY

scale AS SHOWN
1 of 2

**CONTRACT NO.: 24-5158-D
PIERCE PROPERTY
FINAL
WATER & SEWER
CONSTRUCTION PLANS
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS**



VICINITY MAP
ADC MAP: 39, GRID F-4
SCALE: 1"=1000'

GENERAL NOTES

- PART I**
- 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 INFORMATION IS BASED ON AERIAL TOPOGRAPHIC SURVEY BY WINGS AERIAL MAPPING CO., INC. DATED APRIL 10, 2006, VERIFIED BY MILDENBERG, BOENDER & ASSOC. INC. ON OR ABOUT MAY 2019.
 - HORIZONTAL AND VERTICAL SURVEY CONTROLS: THE COORDINATES SHOWN ON THE DRAWINGS ARE BASED ON MARYLAND STATE REFERENCE SYSTEM NAD 83/91 AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS 46FA & 470B. ALL VERTICAL CONTROLS ARE BASED ON NAVD 88. MILDENBERG, BOENDER & ASSOCIATES, INC. SHALL PROVIDE DESCRIPTION OF VERTICAL CONTROL POINTS, I.E., IRON BARS, CROSS CUTS ON CONCRETE STRUCTURES, ETC.
 - 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 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 CO.....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/BORING/JACKING OF ANY COUNTY ROAD FOR LAYING OF WATER, SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 8.114(A) OF THE HOWARD COUNTY CODE.

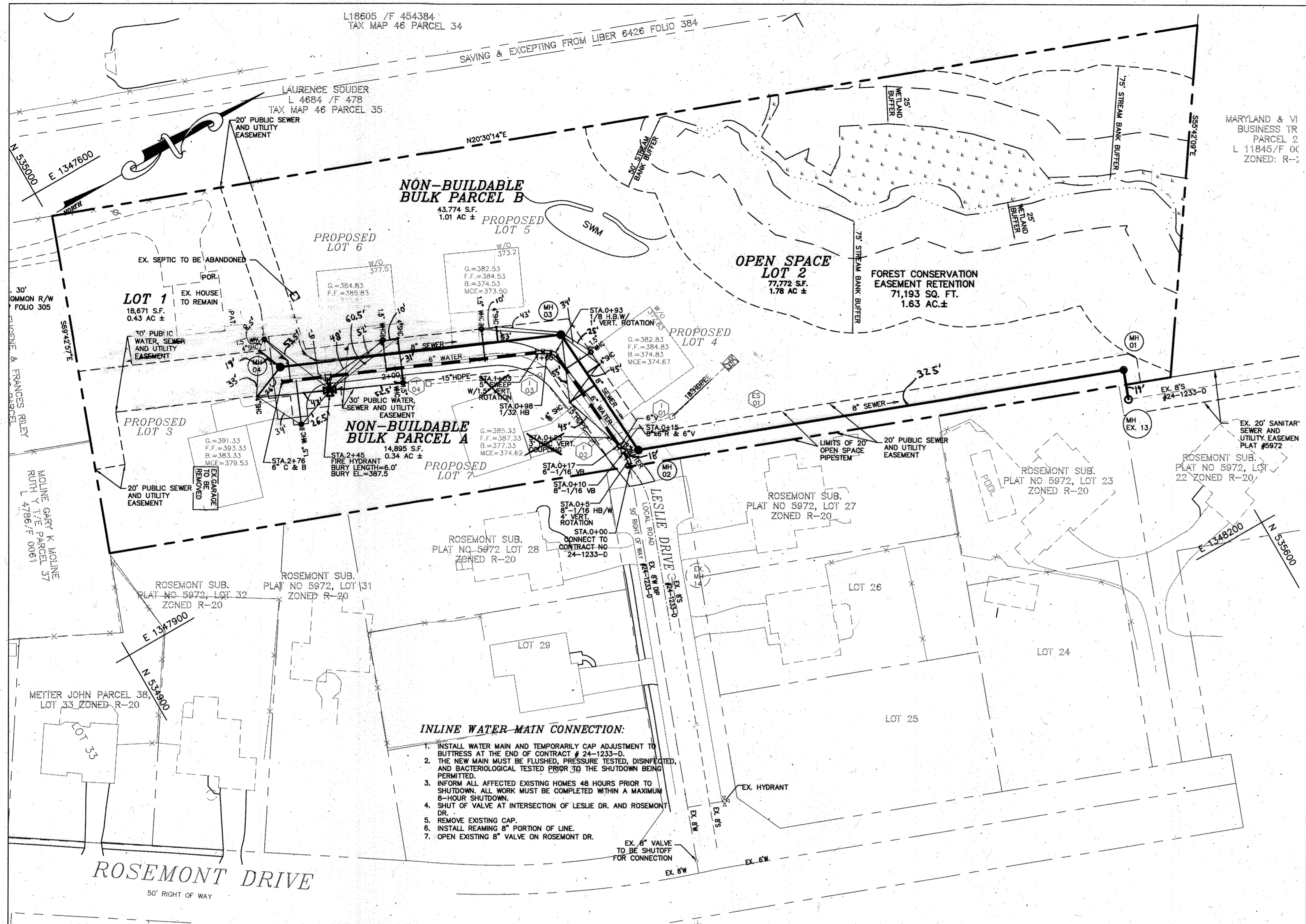
PART II WATER

- ALL WATER MAINS SHALL BE PVC C900 (DR-14) UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS SHALL 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 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 INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. THE SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND SECTION 1005 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- TRACER WIRES AND CONTINUITY TEST STATIONS SHALL BE INSTALLED ON ALL DIP AND PVC WATER MAINS IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL.
- FOR PVC WATER MAINS, ALL RECORDS FOR THE QUALITY CONTROL AND QUALIFICATION TEST REQUIREMENTS NOTED IN SECTION 5.1 OF THE AWWA STANDARD C900 FOR PVC PRESSURE PIPE 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. SEVENTEEN (17) POUND MAGNESIUM ANODES SHALL BE INSTALLED ON ALL VALVES AND DUCTILE IRON FITTINGS INCLUDING RESTRAINTS AND HARNESES. TWELVE (12) POUND ZINC ANODES SHALL BE INSTALLED ON ALL STAINLESS STEEL FITTINGS AND SADDLES USED WITH PVC MAINS. ALL "TEES" 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 FITTINGS. PVC HIGH DEFLECTION COUPLINGS SHALL BE LIMITED TO A TOTAL DEFLECTION OF 3-DEGREES (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 9-INCHES AND SHALL HAVE CENTER STOPS. PVC HIGH DEFLECTION COUPLINGS SHALL BE CERTAINTED 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 (PEX) BLUE BRUTE 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 DEGES FOR THE PREVENTION OF OVER-INSERTION OF THE PVC PIPE SPIGOTS OR PLAIN ENDS INTO THE PUSH ON BELL JOINT ON BOTH SIDES OF THE HIGH DEFLECTION COUPLINGS AND 5 DEGREE SWEEPS. BELL STOPS SHALL BE PLACED AT THE PROPER INSERTION LINE FOR THE FITTINGS. 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.
- FOR A MINIMUM 1.5" WHC FOR SINGLE FAMILY DWELLINGS OUTSIDE METER SETTINGS FOR 1" METERS SHALL BE USED.

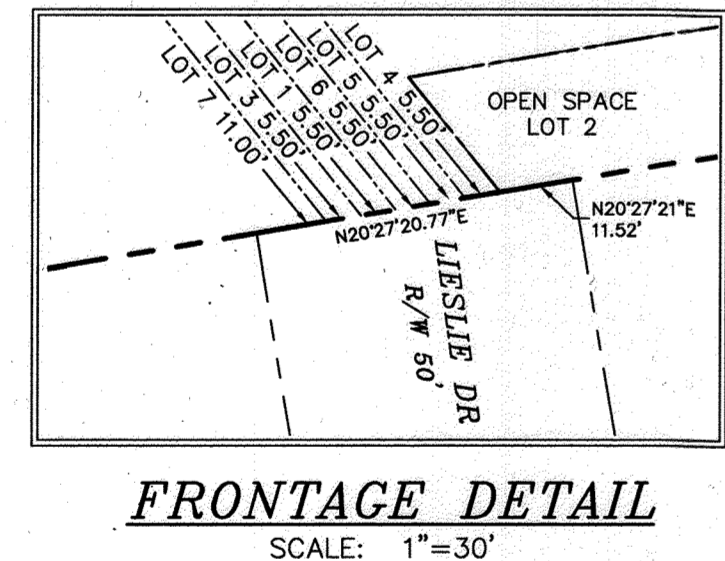
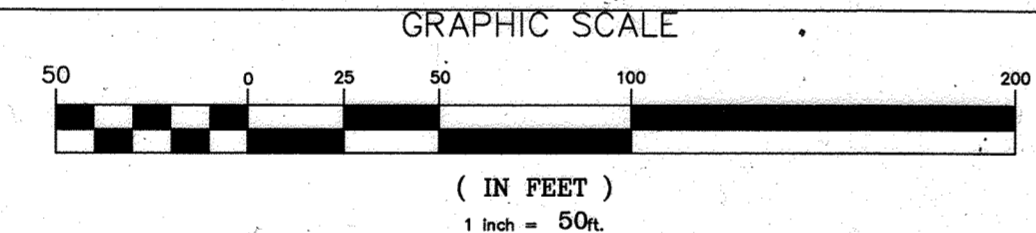
PART III SEWER

- 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 THAT THE CELLAR CANNOT BE SERVED.

MA201919-004 PIERCE PROPERTY MINOR SUBDIVISION DWG19-004-PIERCE-MINOR SUBDIVISION-LOT 1-dwg, 12/28/2021 10:35:48 AM, salcm



- INLINE WATER MAIN CONNECTION:**
- INSTALL WATER MAIN AND TEMPORARILY CAP ADJUSTMENT TO BUTTRISS AT THE END OF CONTRACT # 24-1233-D.
 - THE NEW MAIN MUST BE FLUSHED, PRESSURE TESTED, DISINFECTED, AND BACTERIOLOGICAL TESTED PRIOR TO THE SHUTDOWN BEING PERMITTED.
 - INFORM ALL AFFECTED EXISTING HOMES 48 HOURS PRIOR TO SHUTDOWN. ALL WORK MUST BE COMPLETED WITHIN A MAXIMUM 8-HOUR SHUTDOWN.
 - CUT OFF VALVE AT INTERSECTION OF LESLIE DR. AND ROSEMONT DR.
 - REMOVE EXISTING CAP.
 - INSTALL REMAINING PORTION OF LINE.
 - OPEN EXISTING 8" VALVE ON ROSEMONT DR.



SEWER HOUSE CONNECTION TABLE

LOT #	INV. @ 8" S	INV. @ R.O.W.	% SLOPE	MCE	BASEMENT EL.	FIRST FLOOR EL.
1	375.46	375.83	2.0%	379.53	-	390.10
3	375.46	375.83	2.0%	379.53	383.33	393.33
4	366.77	367.17	5.0%	374.67	374.83	384.33
5	368.80	369.90	2.0%	373.50	374.53	384.53
6	371.72	371.92	1.0%	375.42	375.83	385.83
7	366.60	367.12	5.0%	374.62	377.33	387.33

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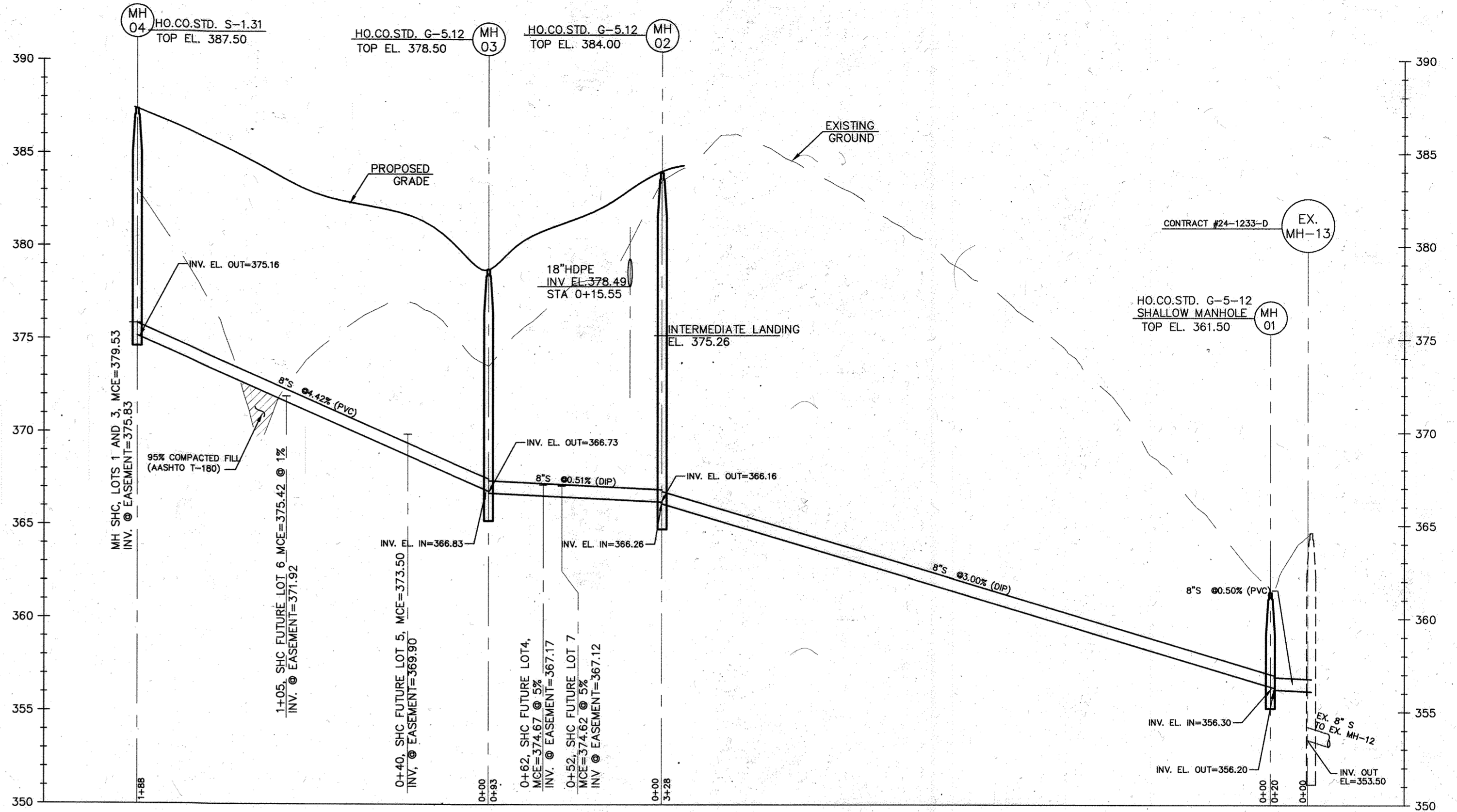
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6" WATER MAIN TABULATION CHART

APPURTENANCE	NORTHING	EASTING	STATION
NOT INSTALLED	535,245.53	1,347,948.89	0+10
NOT INSTALLED	535,254.03	1,347,943.93	0+14
NOT INSTALLED	535,253.85	1,347,941.34	0+17
NOT INSTALLED	535,243.18	1,347,863.05	0+98
NOT INSTALLED	535,108.32	1,347,804.58	2+45
NOT INSTALLED	535,079.76	1,347,792.24	2+76

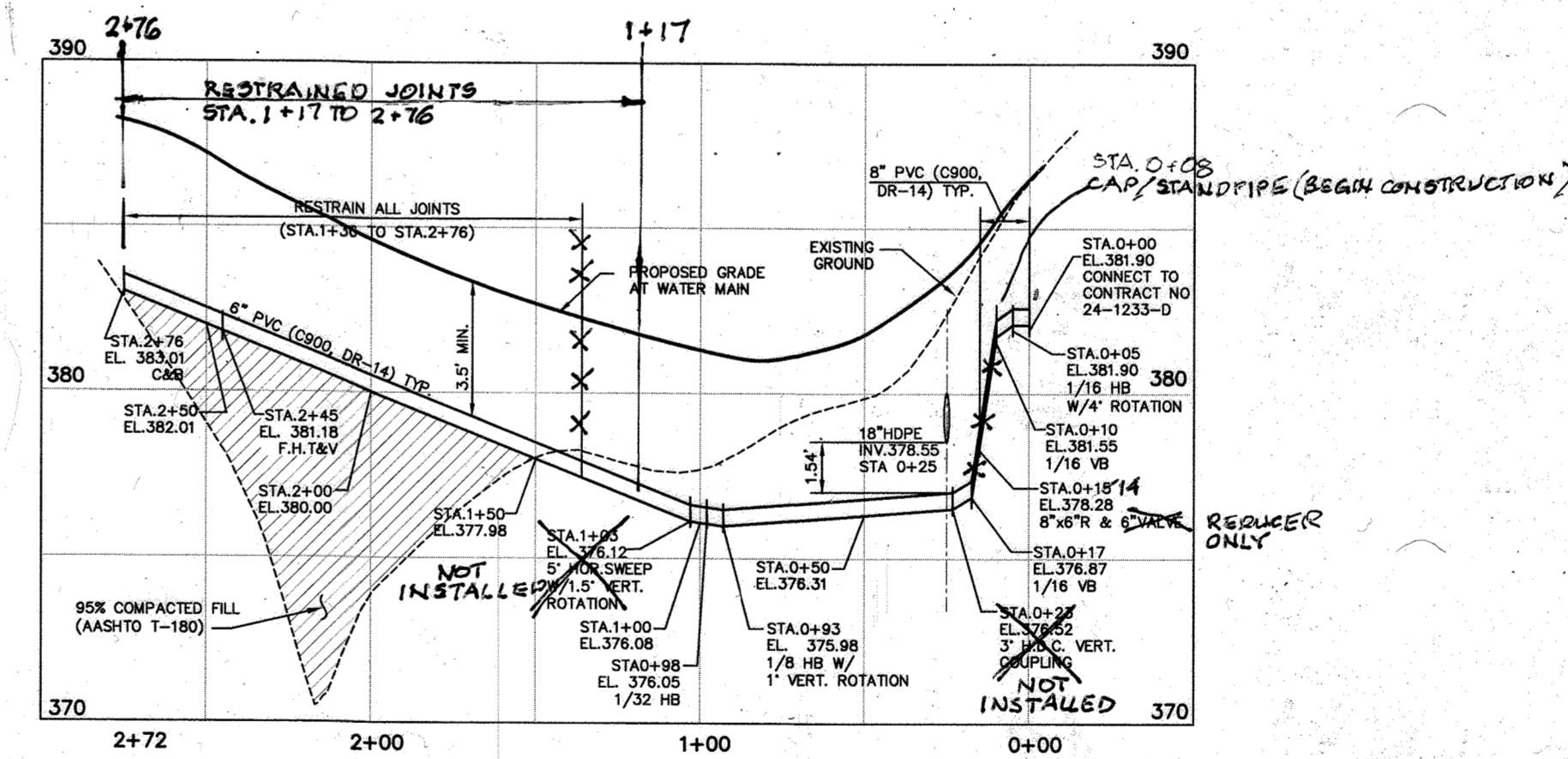
MANHOLE LOCATION CHART

STRUCTURE NAME	RIM EL.	NORTHING	EASTING
EX. 13	364.61	535,563.97	1,348,084.15
01	361.42	535,570.96	1,348,065.41
02	383.97	535,263.25	1,347,950.63
03	378.76	535,256.99	1,347,857.66
04	387.38	535,083.77	1,347,783.08



8" SEWER PROFILE

SCALE: HOR. 1"=50'
VER. 1"=5'



6" WATER PROFILE

SCALE: HOR. 1"=50'
VER. 1"=5'

WATER HOUSE CONNECTION AS-BUILT LOCATION TABLE

LOT	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
1		53.5'	8.5'
3		26.5'	34.0'
4		25.0'	10.0'
5		53.0'	10.0'
6		52.0'	10.0'
7		52.5'	31.0'

SEWER HOUSE CONNECTION AS-BUILT LOCATION TABLE

LOT	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
1		19.0'	33.0'
3		26.0'	45.0'
4		34.0'	10.0'
5		43.0'	10.0'
6		60.5'	31.0'
7		55.0'	45.0'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
DATE: 1-12-22

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
DATE: 1/12/22

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. 26859, EXP DATE 08/08/23

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illustration SAA
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FINAL PLAN AND PROFILES

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LOT 1 AND FUTURE LOTS 3 THRU 7
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HOWARD COUNTY

scale AS SHOWN
2 OF 2