

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 FIELD SURVEYS WERE PERFORMED IN JANUARY, 2006 BY WINGS AERIAL MAPPING CO., INC.
 - 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 NO. 0012 AND NO. 16E1.
ALL VERTICAL CONTROLS ARE BASED ON NAVD '88. VERTICAL CONTROLS PROVIDED ON THE DRAWINGS ARE 0012 AND 16E1.
 - 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
BOE (CONTRACTOR SERVICES).....410-637-8713
BOE (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 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 18.114(a) OF THE HOWARD COUNTY CODE.

- PART II WATER**
- ALL WATER MAINS TO BE PVC 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 THE 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 WIRE 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 FOR CONSTRUCTION. SEVENTEEN (17) POUND MAGNESIUM ANODES SHALL BE INSTALLED ON ALL VALVES AND DUCTILE IRON FITTINGS INCLUDING RESTRAINTS AND HARNESSES. 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 AND VERTICAL DIRECTION OF PVC WATER PIPE SHALL BE MADE WITH STANDARD BENDS, 3-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 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 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.
 - 5-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 DEFLECTORS 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 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 EBA IRON, INC. OR APPROVED EQUAL.

- 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 WATER TIGHT FRAME AND COVER, STANDARD DETAIL 05.52. WHERE WATER TIGHT 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 CELLAR CANNOT BE SERVED.

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

HOWARD SOIL CONSERVATION DISTRICT DATE

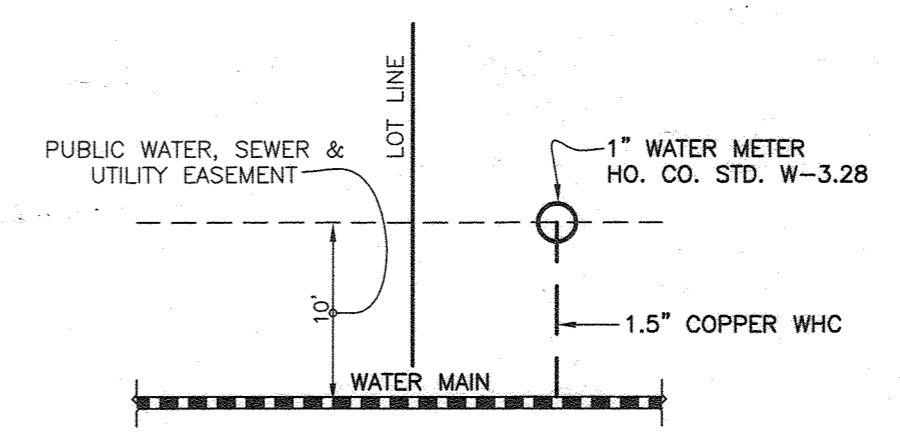
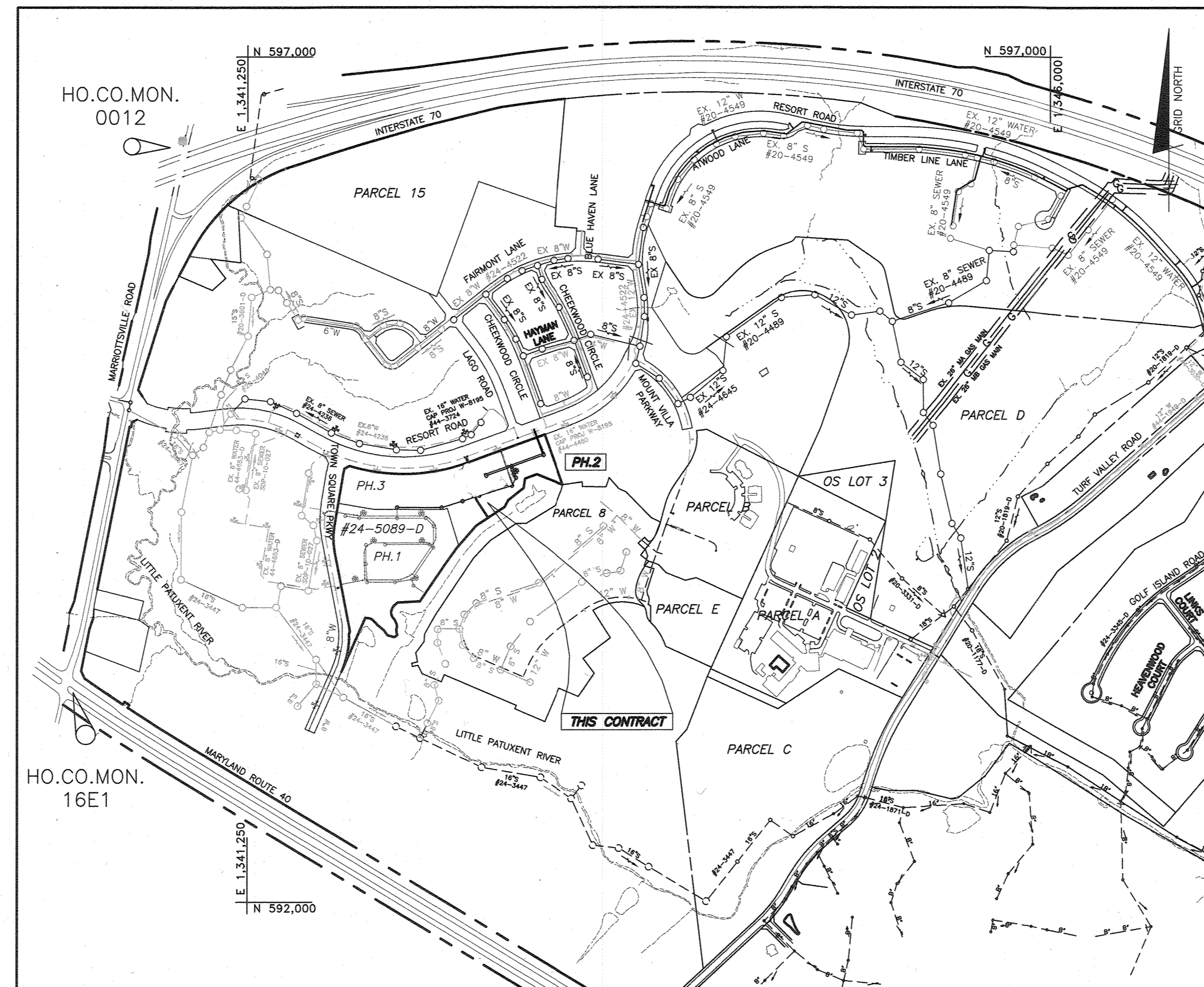
SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE HOWARD COUNTY STANDARD SPECIFICATIONS AND AS PER F-20-072.

FINAL PUBLIC WATER AND SEWER PLAN

VILLAGES AT TOWN SQUARE

PHASE 2

CONTRACT NO.24-5090-D

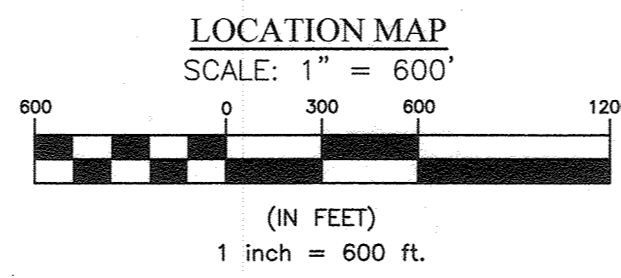


NOTE:
SEE HO. CO. STD. DETAIL W-3.28 FOR SINGLE OUTSIDE METER SETTING

LOT NO.	STREET ADDRESS	LOCATION DIMENSION #1	LOCATION DIMENSION #2
72	11031 RESORT ROAD	FH - 174'	SMH 21 - 25'
73	11029 RESORT ROAD	FH - 154'	SMH 21 - 36'
74	11027 RESORT ROAD	FH - 139'	SMH 21 - 65'
75	11025 RESORT ROAD	FH - 118'	SMH 21 - 71'
76	11023 RESORT ROAD	FH - 101'	SMH 21 - 90'
77	11021 RESORT ROAD	FH - 85'	SMH 21 - 114'
78	11017 RESORT ROAD	FH - 65'	SMH 20 - 24'
79	11015 RESORT ROAD	FH - 62'	SMH 20 - 24'
80	11013 RESORT ROAD	FH - 60'	SMH 20 - 35'
81	11009 RESORT ROAD	FH - 63'	SMH 20 - 50'
82	11007 RESORT ROAD	FH - 72'	SMH 20 - 68'
83	11005 RESORT ROAD	FH - 74'	SMH 22 - 116'
84	11003 RESORT ROAD	FH - 114'	SMH 22 - 93'
85	11001 RESORT ROAD	FH - 131'	SMH 22 - 74'
86	10999 RESORT ROAD	FH - 150'	SMH 22 - 55'
87	10997 RESORT ROAD	FH - 167'	SMH 22 - 36'
88	10995 RESORT ROAD	FH - 186'	SMH 22 - 26'

LOT NO.	STREET ADDRESS	LOCATION DIMENSION #1	LOCATION DIMENSION #2
72	11031 RESORT ROAD	FH - 180'	SMH 21 - 25'
73	11029 RESORT ROAD	FH - 165'	SMH 21 - 36'
74	11027 RESORT ROAD	FH - 145'	SMH 21 - 48'
75	11025 RESORT ROAD	FH - 127'	SMH 21 - 63'
76	11023 RESORT ROAD	FH - 111'	SMH 21 - 80'
77	11021 RESORT ROAD	FH - 94'	SMH 21 - 100'
78	11017 RESORT ROAD	FH - 74'	SMH 20 - 22'
79	11015 RESORT ROAD	FH - 61'	SMH 20 - 24'
80	11013 RESORT ROAD	FH - 60'	SMH 20 - 43'
81	11009 RESORT ROAD	FH - 65'	SMH 20 - 63'
82	11007 RESORT ROAD	FH - 81'	SMH 20 - 80'
83	11005 RESORT ROAD	FH - 101'	SMH 22 - 103'
84	11003 RESORT ROAD	FH - 123'	SMH 22 - 85'
85	11001 RESORT ROAD	FH - 141'	SMH 22 - 65'
86	10999 RESORT ROAD	FH - 159'	SMH 22 - 47'
87	10997 RESORT ROAD	FH - 177'	SMH 22 - 27'
88	10995 RESORT ROAD	FH - 197'	SMH 22 - 26'

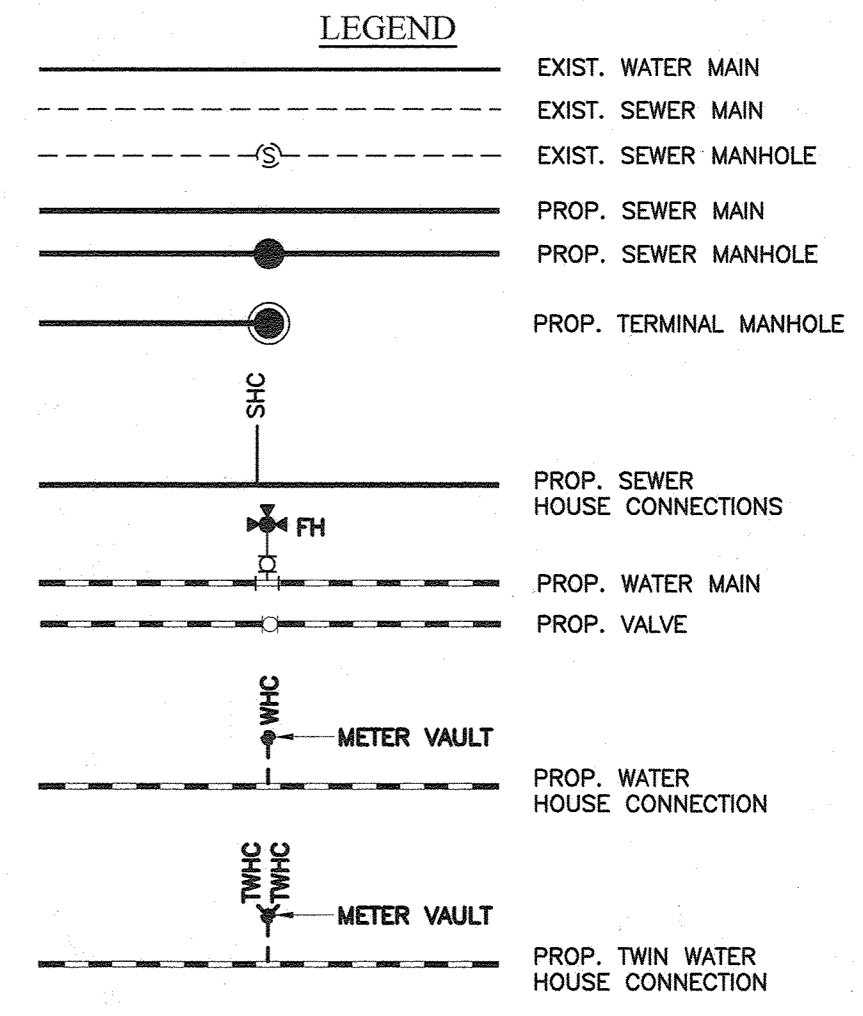
SHEET INDEX	
NO.	DESCRIPTION
1	TITLE SHEET
2	PUBLIC WATER AND SEWER PLAN
3	PUBLIC WATER AND SEWER PROFILES



NOTE: USE TRAFFIC LOAD BEARING COVERS FOR WATER METER VAULTS AND SEWER CLEANOUT CAPS IN PAVED AREAS.

NOTE: USE HO. CO. STD. DETAILS W-3.32 FOR TWIN AND W-3.28 FOR SINGLE OUTSIDE METER SETTINGS

NOTE: ALL JOINTS AND CONNECTIONS LOCATED WITHIN STRUCTURAL FILL AREAS SHALL BE MECHANICALLY RESTRAINED IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION)



DESIGN MANUAL WAIVER DMV2-22-008 WAS APPROVED DECEMBER 8, 2021, TO DMV2 SECTION 5.4.B.4 TO ALLOW CO-STRUCTURES WITHIN 10' OF PUBLIC UTILITY LINES & EASEMENTS AND DMV2 SECTION 5.4.B.5 TO ALLOW PERMANENT STRUCTURES WITHIN 10' OF A PUBLIC UTILITY EASEMENT. REFER TO WAIVER FOR DETAILS

ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUF./SUPPLIER
6" F.H. VALVE	1 EA.	1 EA.	MT	MUELLER/FERGUSEN
8" WATER (PVC C-900 DR18)	526 LF	526 LF	C900 DR18	NAPCO/FERGUSEN
6" FIRE HYDRANT	1 EA	1 EA	CA	AMERICAN OILFIELD/FERGUSEN
1.5" WHIC	272 LF	251 LF	COPPER	MUELLER/FERGUSEN
1" METER VAULT	17 EA	17 EA	CONCRETE	PRISM/FERGUSEN
16"X8" IS&V	1 EA	1 EA	55 TAPPING	SMITH BLAIR/FERGUSEN
8" CAP & BUTTRESS	1 EA	1 EA		TYLER/FERGUSEN
6" WATER	40 LF	40 LF	C900 DR18	NAPCO/FERGUSEN
8" SEWER (DIP AWWA C150)	445 LF	445 LF	CL 52 DIP	ACIPCO/FERGUSEN
8" PVC SDR-35 SEWER	726 LF	726 LF	SDR-35	NAPCO/FERGUSEN
MANHOLES	8 EA	8 EA	PRECAST	CPC
4" SHC	50 LF	28 LF	SDR-35	NAPCO/FERGUSEN
4" DHC	369 LF	282 LF	SDR-35	NAPCO/FERGUSEN

NAME OF UTILITY CONTRACTOR: UTILITIES UNLIMITED
SURVEY AND DRAFTING DIVISION AS-BUILT DATE:

NOTE:
ALL WATER HOUSE CONNECTIONS ARE TO BE 1.5" WITH A 1" METER (OUTSIDE SETTING).
ALL SEWER HOUSE CONNECTIONS SHALL BE 4" PVC.

MANGIONE ENTERPRISES OF TURF VALLEY, LP
1205 YORK ROAD, PENTHOUSE
LUTHERVILLE, MARYLAND 21093
410-825-8400

Professional Certification: 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. 22390, Expiration Date: 6-30-2023.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

[Signature]
CHIEF, BUREAU OF UTILITIES
DATE: 11-22-21

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

[Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 11-22-21

BENCHMARK
ENGINEERS & LAND SURVEYORS - PLANNERS
ENGINEERING, INC.
8480 BALTIMORE NATIONAL PIKE A SUITE 315 ELLICOTT CITY, MARYLAND 21043
(P) 410-465-6105 (F) 410-465-6644
WWW.BEI-CIVILENGINEERING.COM



DES:	MCR			
DRAFT:	MCR			
CHK:	CAM	WRA 2	AS BUILT	2/15/23
DATE:	12/13/21	BEI 1	REVISE PUBLIC UTILITY EASEMENT, ADJUST PLANS & CHARTS ACCORDINGLY	6/2022
BY	NO.		REVISION	DATE

PUBLIC WATER & SEWER
TITLE SHEET
PHASE-2 WATER & SEWER

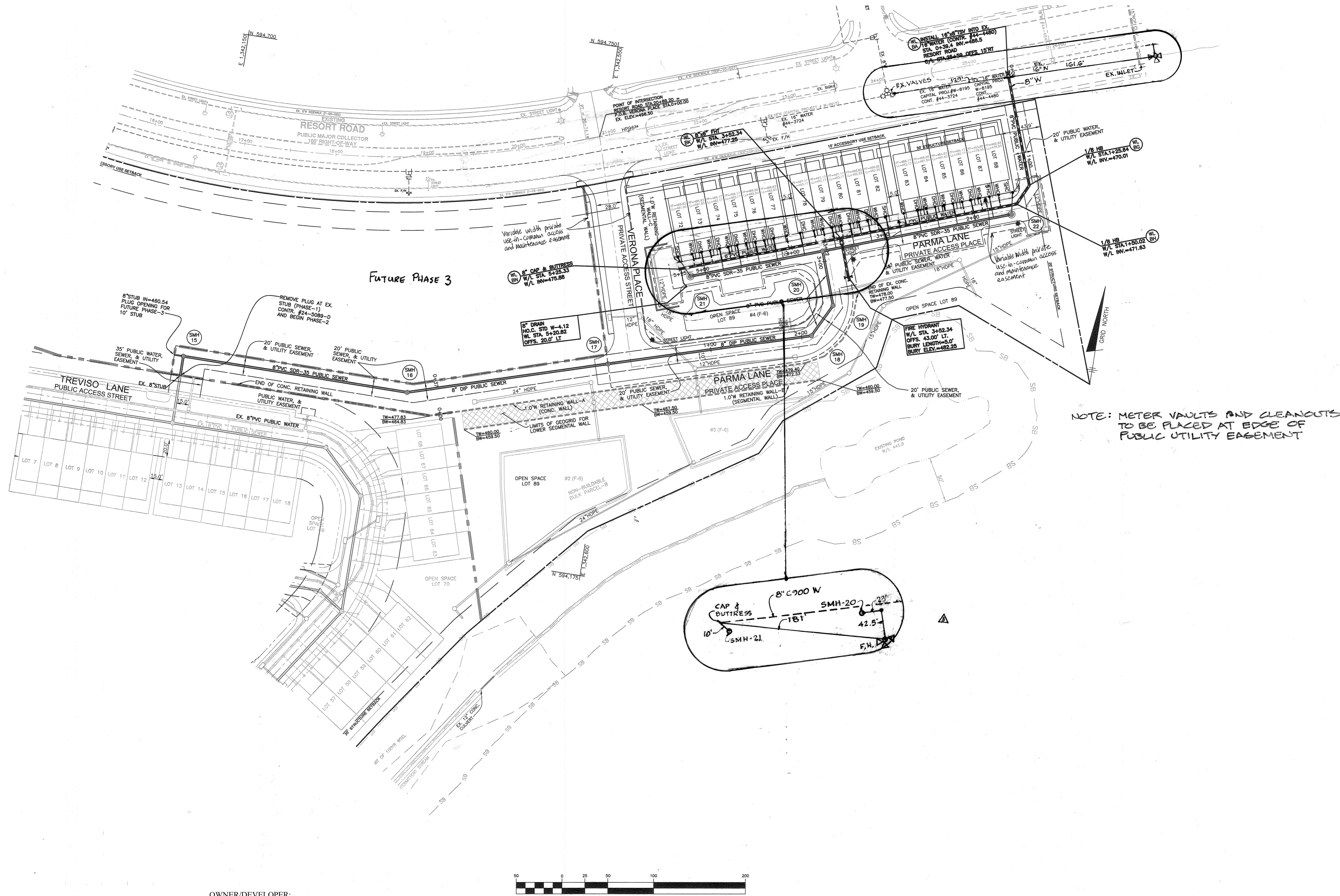
600 SCALE MAP #16 BLOCK: 10

VILLAGES AT TOWN SQUARE
PHASE 2
LOTS 72 - 88
TAX MAP: 16 - GRID: 10 - PARCEL: P10 8
ZONED: PGCC(MULTI-USE SUBDISTRICT) - ELECTION DISTRICT 3

CONTRACT NO.24-5090-D

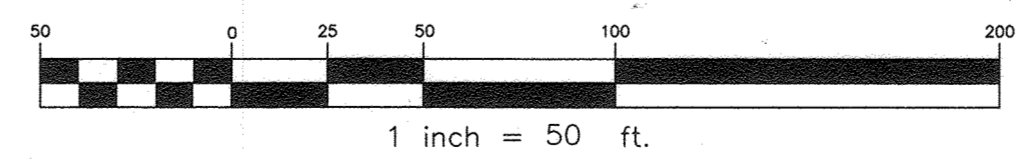
SCALE:
AS SHOWN

SHEET NO.
1 OF 3



OWNER/DEVELOPER:
 MANGIONE ENTERPRISES OF TURF VALLEY, LP
 1205 YORK ROAD, PENTHOUSE
 LUTHERVILLE, MARYLAND 21093
 410-825-8400

Professional Certification: 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. 22390, Expiration Date: 6-30-2023.



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND

BENCHMARK
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ENGINEERING, INC.
 8480 BALTIMORE NATIONAL PIKE & SUITE 315 ELLICOTT CITY, MARYLAND 21043
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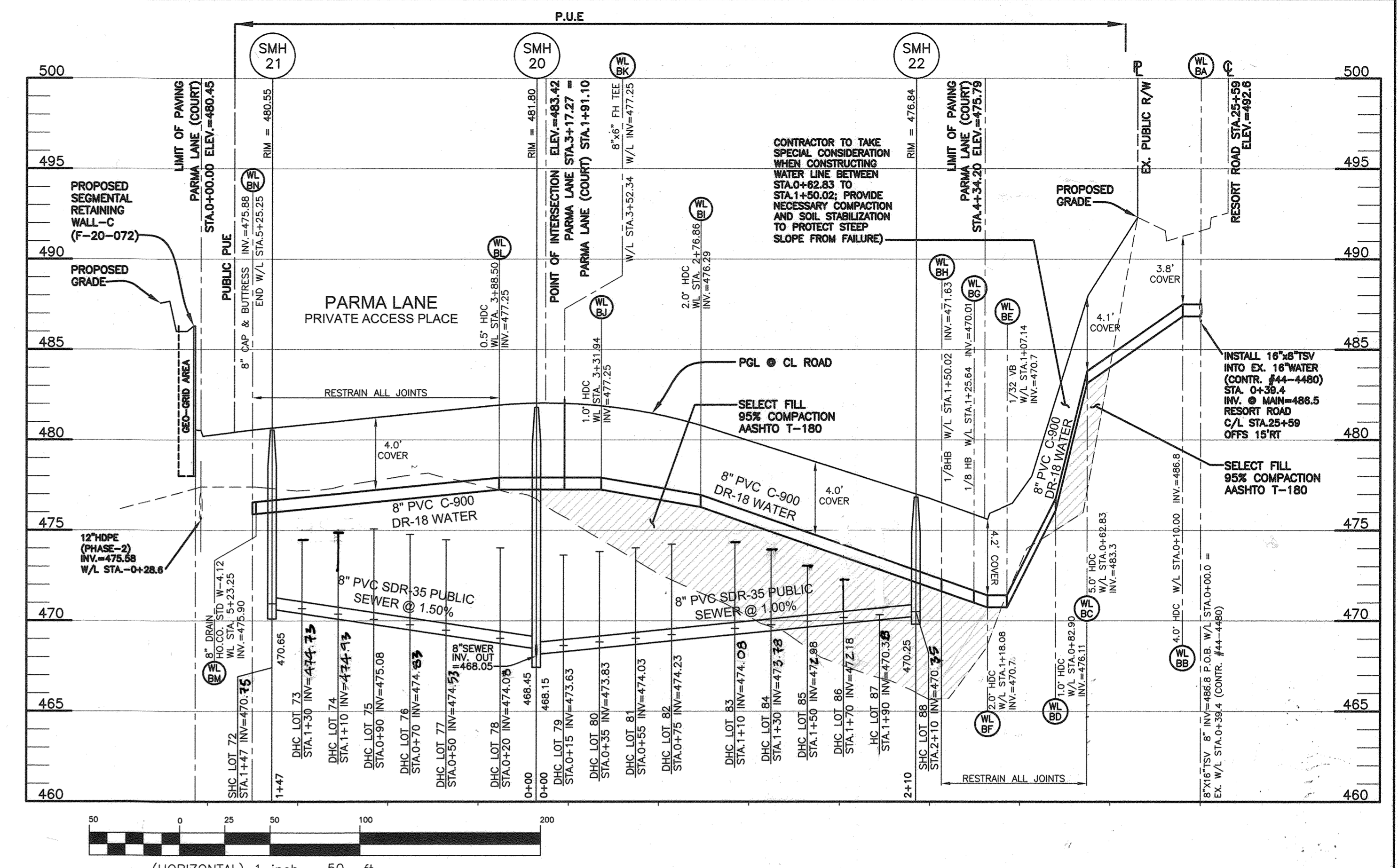
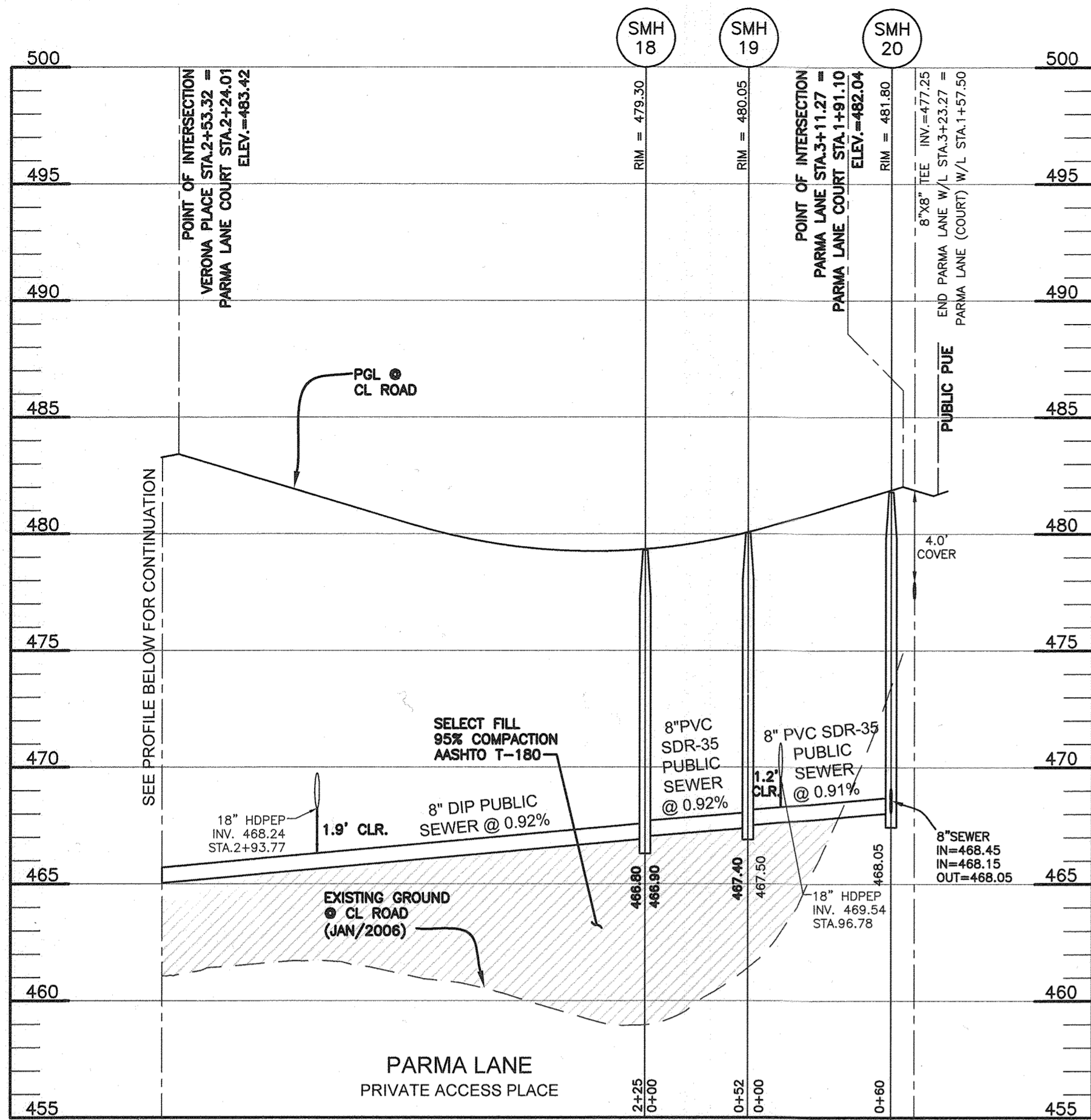
DES:	LDD/MCR				
DRAFT:	LDD/MCR				
CHK:	CAM	WRB	2	AS BUILT	2/15/23
DATE:	12/13/21	BEI	1	REVISE PUBLIC UTILITY EASEMENT ADJUST PLANS & CHARTS ACCORDINGLY	6/2022
BY	NO.			REVISION	DATE

PUBLIC WATER & SEWER
 PLAN VIEW
 PHASE-2 WATER & SEWER
 600 SCALE MAP #16

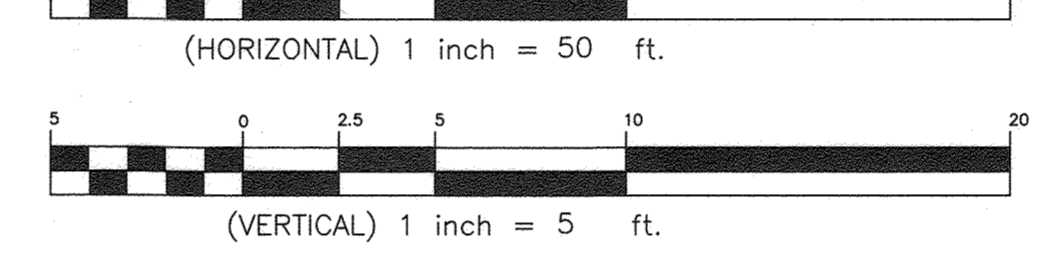
VILLAGES AT TOWN SQUARE
 PHASE 2
 LOTS 72-88
 TAX MAP: 16 - GRID: 10 - PARCEL: P/O 8
 ZONED: PGCC(MULTI-USE SUBDISTRICT) - ELECTION DISTRICT 3
CONTRACT NO.24-5090-D

SCALE:
 AS SHOWN
 SHEET NO.
 2 OF 3

J:\2899 Village at Town Square\dwg\6047.dwg, 12/13/2021 4:45:55 PM, MRiedel



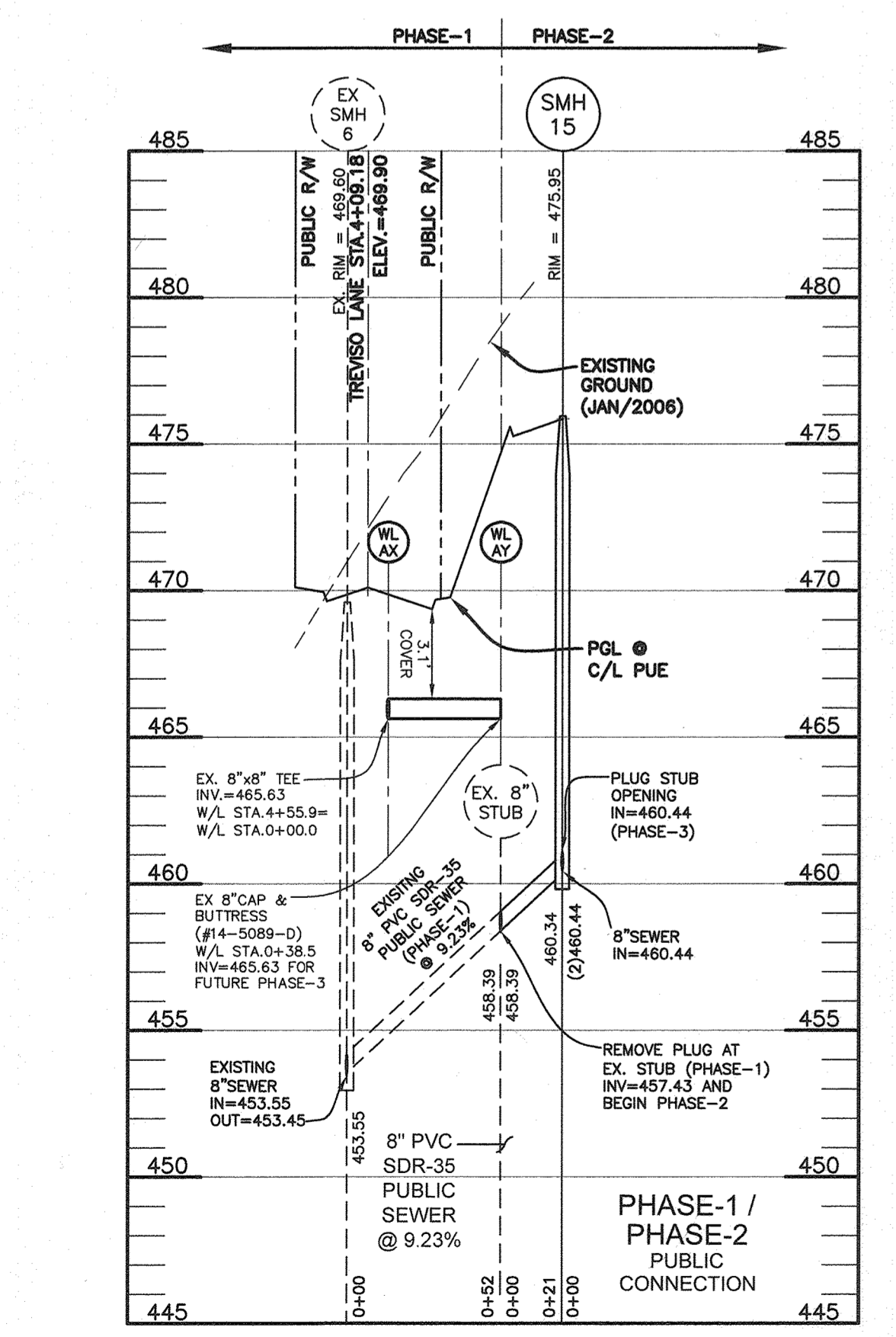
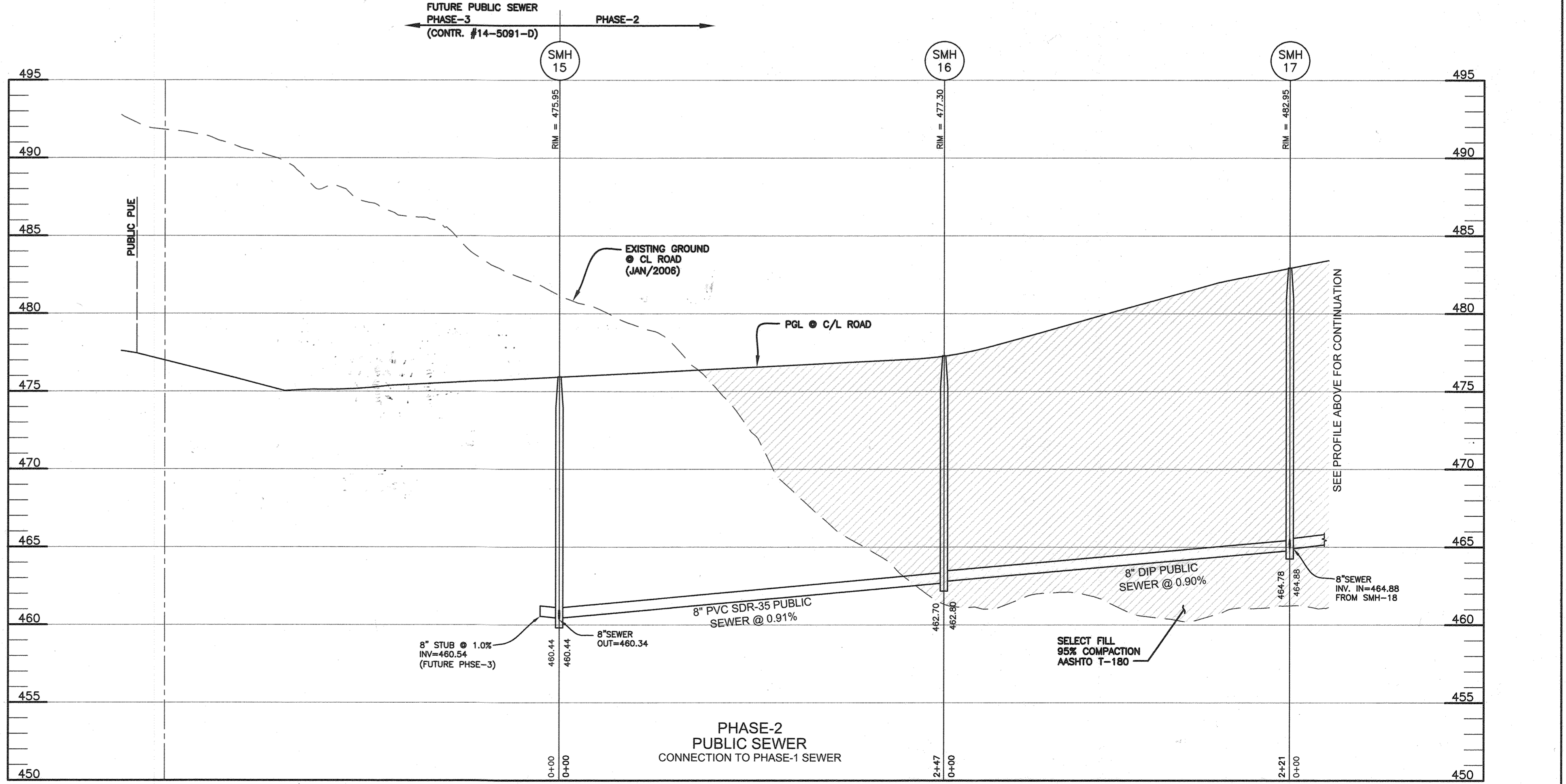
NUMBER	TYPE	NOTHING	EASTING	INVERT IN	INVERT OUT	TOP ELEV.	STD. DETAIL	OWNER	REMARKS
SMH 15	48" MH	594,343.4681	1,342,134.8092	460.44(8")	475.95	481.83	HO. CO. STD. G-5.12	PUBLIC	
SMH 16	48" MH	594,342.8240	1,342,382.1905	462.80(8")	477.30	481.83	HO. CO. STD. G-5.12	PUBLIC	
SMH 17	48" MH	594,407.8577	1,342,593.6637	464.88(8")	482.95	481.83	HO. CO. STD. G-5.12	PUBLIC	
SMH 18	48" MH	594,472.8359	1,342,807.8454	467.03(8")	479.30	481.83	HO. CO. STD. G-5.12	PUBLIC	
SMH 19	48" MH	594,508.9736	1,342,825.8996	467.50(8")	480.05	481.83	HO. CO. STD. G-5.12	PUBLIC	
SMH 20	48" MH	594,565.7242	1,342,805.3310	468.45(8")	481.80	481.83	HO. CO. STD. G-5.12	PUBLIC	
SMH 21	48" MH	594,514.6120	1,342,664.3078	470.65(8")	480.48	481.83	HO. CO. STD. G-5.12	PUBLIC	
SMH 22	48" MH	594,637.2814	1,343,002.7634	470.25(8")	476.84	481.83	HO. CO. STD. G-5.12	PUBLIC	



NAME	APPURTENANCE	WATER LINE STATION	NORTHING	EASTING
WL BA	8"x16" TEE	WL STA 0+00.00	594,789.8376	1,342,974.1350
WL BB	4" HDC	WL STA 0+10.00	594,780.2361	1,342,977.5425
WL BC	5.0" HDC	WL STA 0+62.83	594,730.9677	1,342,995.5442
WL BD	1.0" HDC	WL STA 0+82.90	594,711.9988	1,343,002.3830
WL BE	8" 1/32 VB	WL STA 1+07.14	594,688.9095	1,343,010.8428
WL BF	2.0" HDC	WL STA 1+18.08	594,678.6242	1,343,014.3705
WL BG	8" 1/8 HB	WL STA 1+25.64	594,671.5207	1,343,016.9451
WL BH	8" 1/8 HB	WL STA 1+50.02	594,649.2872	1,343,006.5408
WL BI	2.0" HDC	WL STA 2+76.86	594,449.8875	1,342,732.7131
WL BJ	1.0" HDC	WL STA 3+31.94	594,472.8359	1,342,807.8454
WL BK	8"x8" FH TEE	WL STA 3+52.34	594,582.6949	1,342,822.7746
WL BL	0.5" HDC	WL STA 3+88.50	594,508.9736	1,342,825.8996
WL BM	8" DRAIN (W-4.12)	WL STA 5+23.33	594,522.1480	1,342,655.7167
WL BN	8" CAP & BUTTRESS	WL STA 5+25.33	594,521.4553	1,342,653.8419

LOT NO.	NOTES	* INVERT AT MAIN OR MH	DHC LENGTH/HEIGHT	INVERT AT ESMT./ROW	MCE	BASEMENT FLOOR	REMARKS
72		470.75		471.23	475.0	481.83	SMH-21
73		470.73	4.0	475.21	479.3	481.83	DROP CONNECTION
74		470.73	4.5	475.41	479.5	482.17	DROP CONNECTION
75		475.08	5.0	475.56	479.7	482.17	DROP CONNECTION
76		474.03	5.0	475.31	479.4	482.50	DROP CONNECTION
77		474.53	5.0	475.01	479.1	482.83	DROP CONNECTION
78		474.08	5.0	474.58	478.6	483.17	DROP CONNECTION
79		473.63	5.0	474.11	478.1	483.17	DROP CONNECTION
80		473.03	5.0	474.31	478.4	483.17	DROP CONNECTION
81		474.03	5.0	474.51	478.6	482.83	DROP CONNECTION
82		474.23	5.0	474.71	478.8	482.50	DROP CONNECTION
83		474.08	4.5	474.36	478.7	482.17	DROP CONNECTION
84		473.78	4.0	474.26	478.4	481.50	DROP CONNECTION
85		472.48	3.0	473.46	477.6	480.83	DROP CONNECTION
86		472.18	2.0	472.66	476.8	480.17	DROP CONNECTION
87		470.88		470.80	478.8	479.50	SHC
88		470.35		470.83	478.8	478.83	SMH-22

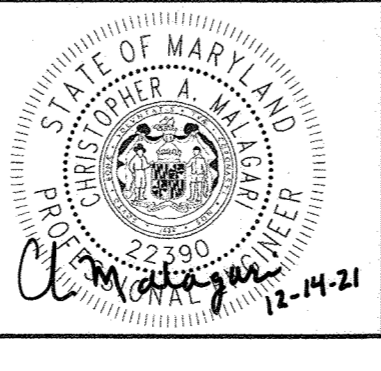
ALL SHC'S ARE AT A 2.0% UNLESS OTHERWISE NOTED. * = INVERTS FOR DHC ARE AT TOP OF DHC AT THE WATER MAIN. ALL DROP CONNECTIONS ARE HO. CO. STD. S-2.12 TYPE 'A'



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
11-22-21

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
1-20-22

BENCHMARK
ENGINEERS, LAND SURVEYORS, PLANNERS
ENGINEERING, INC.
8480 BALTIMORE NATIONAL PIKE SUITE 315 ELLICOTT CITY, MARYLAND 21043
(P) 410-465-6105 (F) 410-465-6644
WWW.BEI-CIVILENGINEERING.COM



DES: LDD/MCR
DRAFT: LDD/MCR
CHK: CAM
DATE: 12/13/21
REVISION: 1/20/22

PUBLIC WATER & SEWER
PROFILES
PHASE-2 WATER & SEWER
600 SCALE MAP #16

VILLAGES AT TOWN SQUARE
PHASE 2
LOTS 72-88
TAX MAP: 16 - GRID: 10 - PARCEL: P/O 8
ZONED: PGCC(MULTI-USE SUBDISTRICT) - ELECTION DISTRICT 3
CONTRACT NO. 24-5090-D

SCALE:
AS SHOWN
SHEET NO.
3 OF 3