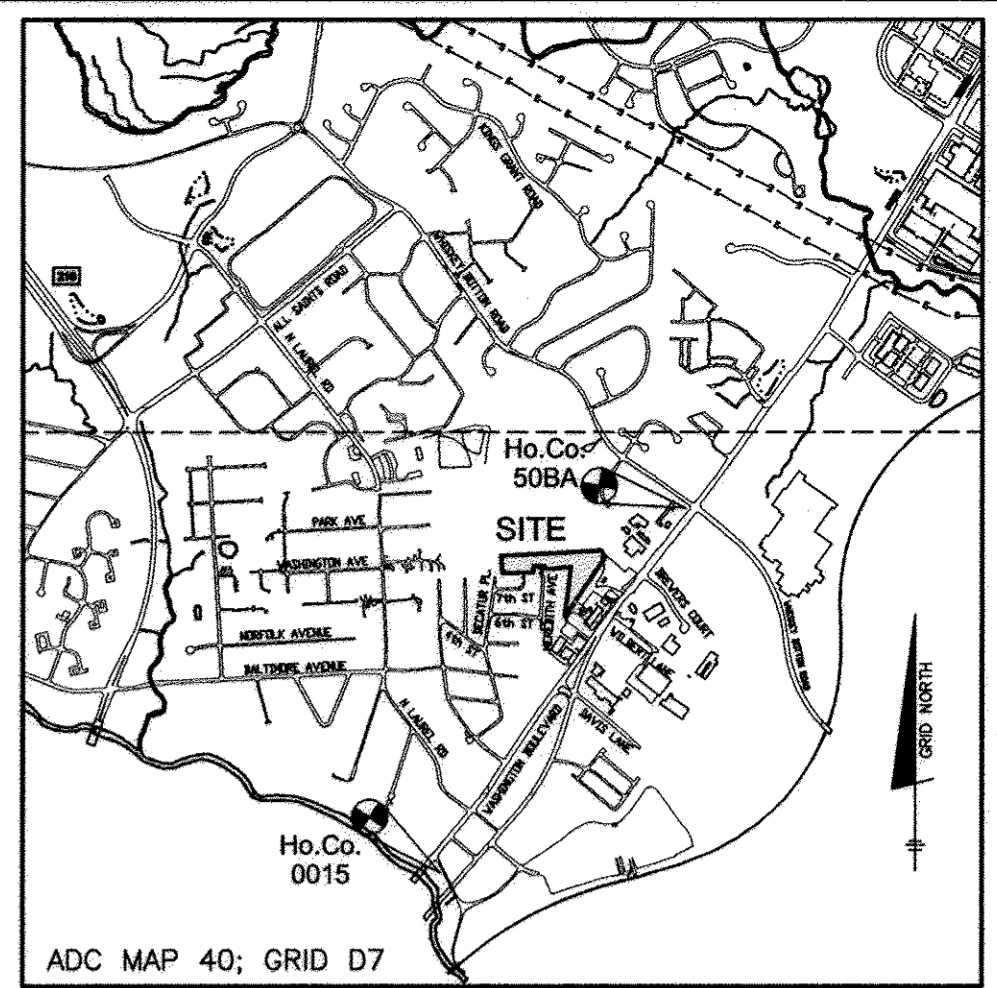


PARK OVERLOOK

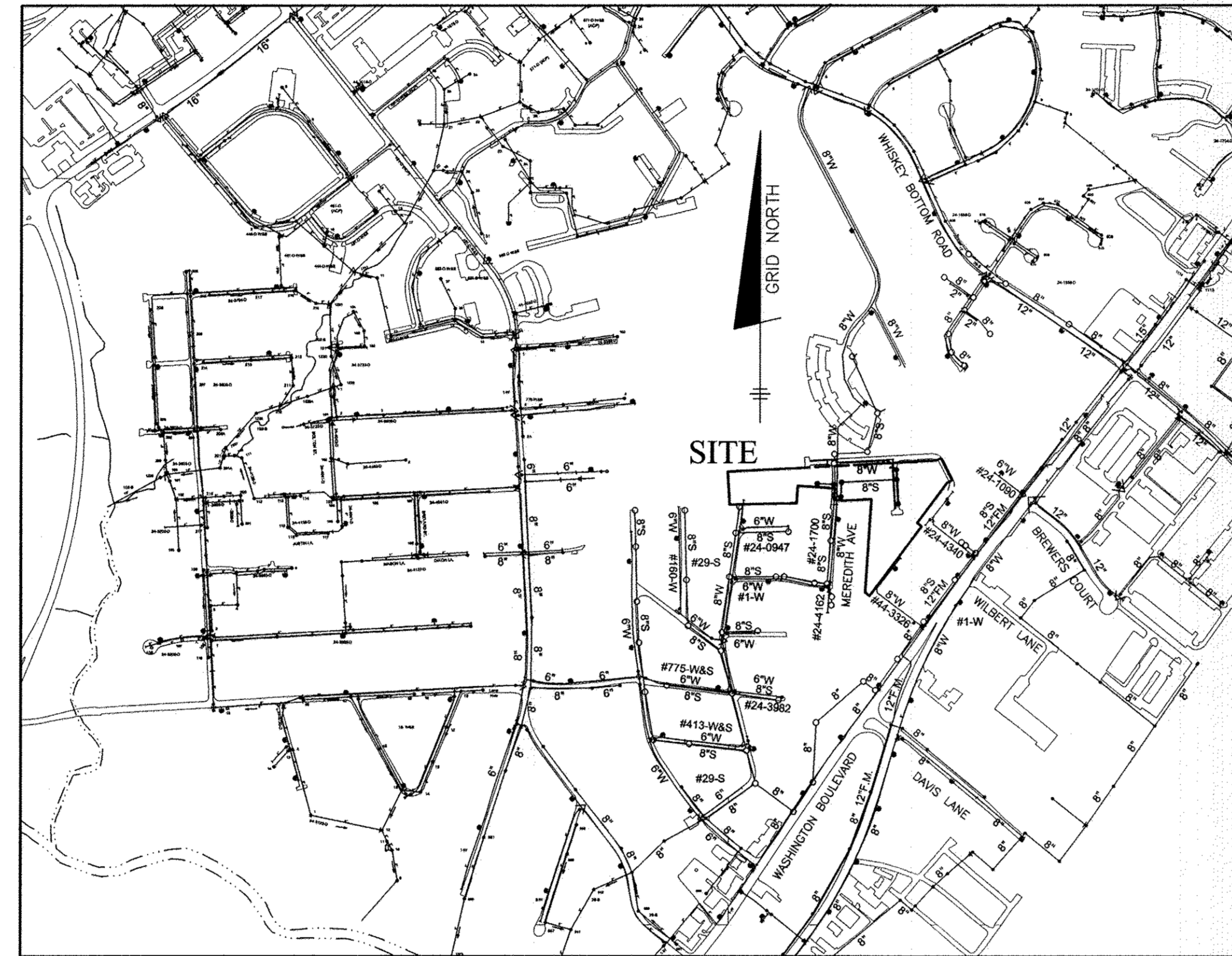
PUBLIC WATER AND PUBLIC SEWER CONSTRUCTION PLANS

CONTRACT NO. 24-4774-D



ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUF./SUPPLIER
8" PVC C900 WATER (DR18)	710 LF	710 LF	NATIONAL	BRS
FIRE HYDRANTS (INCL. 8"x8" TEE & VALVE)	2 EA	2 EA	MAVELLER Co.	BRS
8"x8" TEE & VALVE	2 EA	2 EA	MAVELLER Co.	BRS
1.5" COPPER WHC	432 LF	432 LF	ROSENBERG LOWE	BRS
1.0" OUTSIDE METER	27	27	ROSENBERG LOWE	BRS
8" PVC SEWER (SDR 35)	387 LF	387 LF	NATIONAL	BRS
8" PVC SEWER (C900 DR18)	297 LF	297 LF	NATIONAL	BRS
MANHOLES	7 EA	7 EA	ATLANTIC	BRS
TYPE 'B' DROP MH	1 EA	1 EA	ATLANTIC	BRS
4" PVC SHC	408 LF	408 LF	NATIONAL	BRS

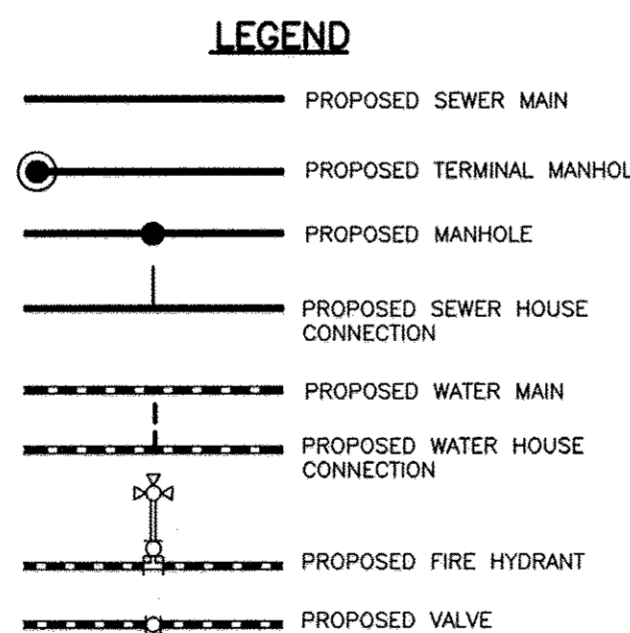
NAME OF UTILITY CONTRACTOR: UTILITIES UNLIMITED
SURVEY AND DRAFTING DIVISION AS-BUILT DATE:



LOT	DIMENSION
1	27.00'
2	22.00'
3	27.00'
4	27.00'
5	22.00'
6	22.00'
7	22.00'
8	27.00'
9	27.00'
10	22.00'
11	22.00'
12	27.00'
13	27.00'
14	22.00'
15	22.00'
16	22.00'
17	22.00'
18	27.00'
19	27.00'
20	22.00'
21	22.00'
22	22.00'
23	27.00'
24	27.00'
25	22.00'
26	22.00'
27	27.00'

LOT	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
1	WASHINGTON AVENUE	15' TO SMH-7	24.5' TO LOT 2 SHC
2	WASHINGTON AVENUE	24.5' TO LOT 2 SHC	15' TO SMH-7
3	WASHINGTON AVENUE	27.5' TO LOT 2 SHC	24.5' TO SMH-7
4	WASHINGTON AVENUE	24.5' TO SMH-4	24.5' TO LOT 5 SHC
5	WASHINGTON AVENUE	24.5' TO LOT 4 SHC	24.5' TO LOT 6 SHC
6	WASHINGTON AVENUE	24.5' TO LOT 5 SHC	21' TO LOT 7 SHC
7	WASHINGTON AVENUE	21' TO LOT 6 SHC	25.5' TO LOT 8 SHC
8	WASHINGTON AVENUE	25.5' TO LOT 7 SHC	24.5' TO LOT 9 SHC
9	WASHINGTON AVENUE	24.5' TO LOT 8 SHC	31.5' TO LOT 10 SHC
10	WASHINGTON AVENUE	31.5' TO LOT 9 SHC	22' TO LOT 11 SHC
11	WASHINGTON AVENUE	22' TO LOT 10 SHC	22.5' TO LOT 12 SHC
12	WASHINGTON AVENUE	20.5' TO LOT 11 SHC	44' TO LOT 13 SHC
13	MAGGIES WAY	45' TO LOT 14 SHC	28' TO LOT 15 SHC
14	MAGGIES WAY	45' TO LOT 13 SHC	5.5' TO LOT 15 SHC
15	MAGGIES WAY	6.5' TO LOT 14 SHC	11.5' TO SMH-6
16	MAGGIES WAY	3.5' TO LOT 17 SHC	28' TO SMH-6
17	MAGGIES WAY	5.5' TO LOT 16 SHC	28' TO SMH-6
18	MAGGIES WAY	22' TO LOT 18 SHC	24.5' TO SMH-6
19	MAGGIES WAY	20' TO LOT 19 SHC	14' TO SMH-6
20	MAGGIES WAY	12' TO LOT 19 SHC	15.5' TO SMH-6
21	MAGGIES WAY	3' TO LOT 20 SHC	4' TO LOT 22 SHC
22	MAGGIES WAY	4' TO LOT 21 SHC	44.5' TO SMH-6
23	MAGGIES WAY	26.5' TO SMH-5	11' TO LOT 24 SHC
24	MAGGIES WAY	11' TO LOT 25 SHC	24.5' TO LOT 24 SHC
25	MAGGIES WAY	22.5' TO SMH-5	4' TO LOT 26 SHC
26	MAGGIES WAY	4' TO LOT 26 SHC	5' TO SMH-7
27	MAGGIES WAY	15' TO SMH-7	24.5' TO LOT 26 SHC

LOT	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
1	WASHINGTON AVENUE	21' TO LOT 2 SHC	58.5' TO LOT 2 SHC
2	WASHINGTON AVENUE	22.5' TO LOT 3 SHC	58.5' TO LOT 3 SHC
3	WASHINGTON AVENUE	22.5' TO LOT 2 SHC	26.5' TO LOT 5 SHC
4	WASHINGTON AVENUE	55.5' TO EX. MH-1	26' TO LOT 5 SHC
5	WASHINGTON AVENUE	26.5' TO LOT 4 SHC	21' TO LOT 6 SHC
6	WASHINGTON AVENUE	22.5' TO LOT 5 SHC	22.5' TO LOT 7 SHC
7	WASHINGTON AVENUE	22.5' TO LOT 6 SHC	28.5' TO LOT 8 SHC
8	WASHINGTON AVENUE	22.5' TO LOT 7 SHC	22.5' TO LOT 9 SHC
9	WASHINGTON AVENUE	24.5' TO LOT 8 SHC	24.5' TO LOT 10 SHC
10	WASHINGTON AVENUE	28' TO LOT 9 SHC	21.5' TO LOT 11 SHC
11	WASHINGTON AVENUE	21.5' TO LOT 10 SHC	21.5' TO LOT 12 SHC
12	WASHINGTON AVENUE	21.5' TO LOT 11 SHC	45' TO LOT 13 SHC
13	MAGGIES WAY	48' TO SMH-7	19' TO LOT 14 SHC
14	MAGGIES WAY	48' TO SMH-7	19' TO LOT 14 SHC
15	MAGGIES WAY	72' TO LOT 15 SHC	75' TO LOT 16 SHC
16	MAGGIES WAY	72' TO LOT 15 SHC	75' TO LOT 16 SHC
17	MAGGIES WAY	26' TO SMH-6	47' TO LOT 18 SHC
18	MAGGIES WAY	26' TO SMH-6	47' TO LOT 18 SHC
19	MAGGIES WAY	17' TO SMH-6	17' TO LOT 19 SHC
20	MAGGIES WAY	72' TO SMH-6	15.5' TO LOT 20 SHC
21	MAGGIES WAY	72' TO SMH-6	15.5' TO LOT 20 SHC
22	MAGGIES WAY	20' TO LOT 21 SHC	24' TO LOT 21 SHC
23	MAGGIES WAY	20' TO LOT 22 SHC	24' TO LOT 21 SHC
24	MAGGIES WAY	14.5' TO SMH-5	25' TO LOT 24 SHC
25	MAGGIES WAY	14.5' TO SMH-5	25' TO LOT 24 SHC
26	MAGGIES WAY	16' TO SMH-5	12' TO LOT 27 SHC
27	MAGGIES WAY	16' TO SMH-5	12' TO LOT 27 SHC

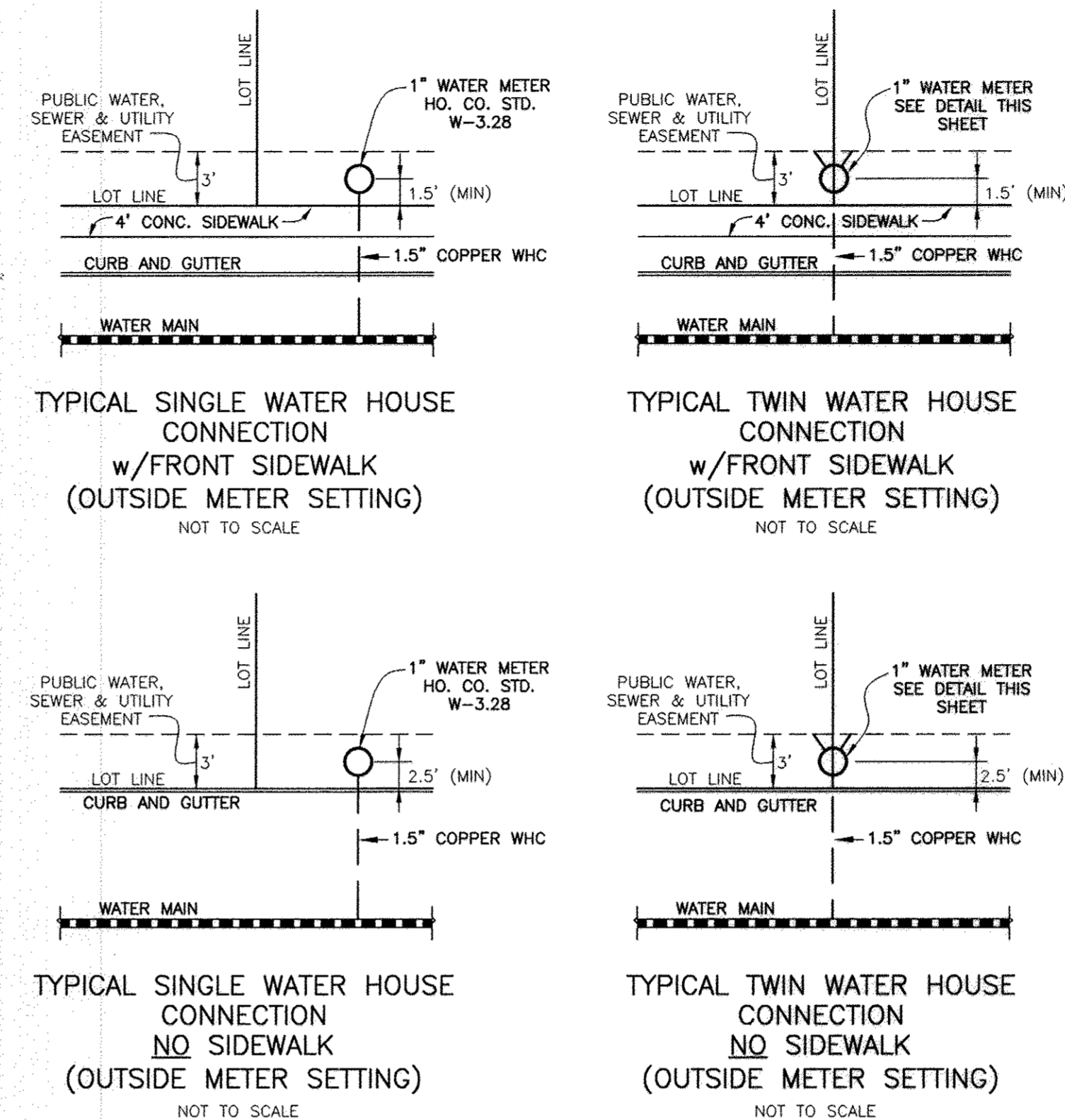


TYPE OF BUILDING:	SFA
NO. OF LOTS/PARCELS/UNITS:	27
NUMBER OF SHC'S:	27
NUMBER OF WHC'S:	27
DRAINAGE AREA:	LITTLE PATUXENT
WATER ZONE:	400
TEST GRADIENT:	550

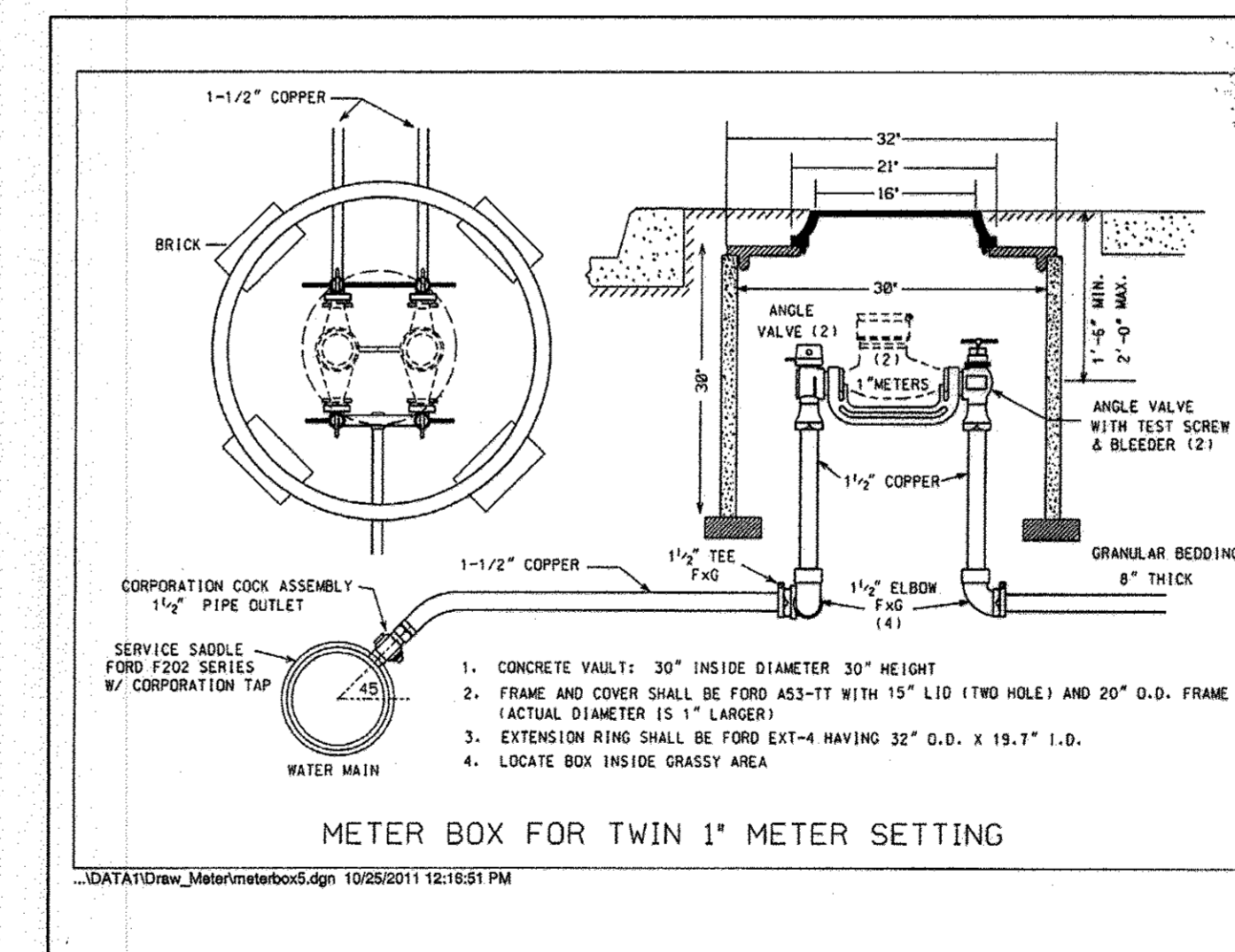
NOTE: ALL JOINTS AND CONNECTIONS LOCATED WITHIN STRUCTURAL FILL AREAS SHALL BE MECHANICALLY RESTRAINED IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION)

OWNER/DEVELOPER:
PARK OVERLOOK, LLC
9695 NORFOLK AVENUE
LAUREL, MARYLAND 20723
410-792-2565

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. 28559, Expiration Date: 7-22-2015.



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



- ### 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 MAY, 2007 BY SILL, ADOCK & ASSOCIATES AND IN FEBRUARY, 2003 BY BENCHMARK ENGINEERING, 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. 508A AND NO. 0015.
ALL VERTICAL CONTROLS ARE BASED ON NAVD '88. VERTICAL CONTROLS PROVIDED ON THE DRAWINGS ARE 508A AND 0015.
 - 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 IN 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 (CONTRACTOR 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	410-531-5233
VERIZON	1-800-743-0033/410-224-9210
 - 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(c) OF THE HOWARD COUNTY CODE.

- ### PART II WATER
- ALL WATER MAINS TO BE D.I.P. CLASS 54 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 RESTRAINED 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 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 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, SEVENTEEN (17) POUND 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. MAGNESIUM ANODES SHALL BE INSTALLED ON ALL VALVES AND DUCTILE IRON FITTINGS INCLUDING RESTRAINTS AND HARNESSSES. 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.

- ### 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 CELLAR CANNOT BE SERVED.

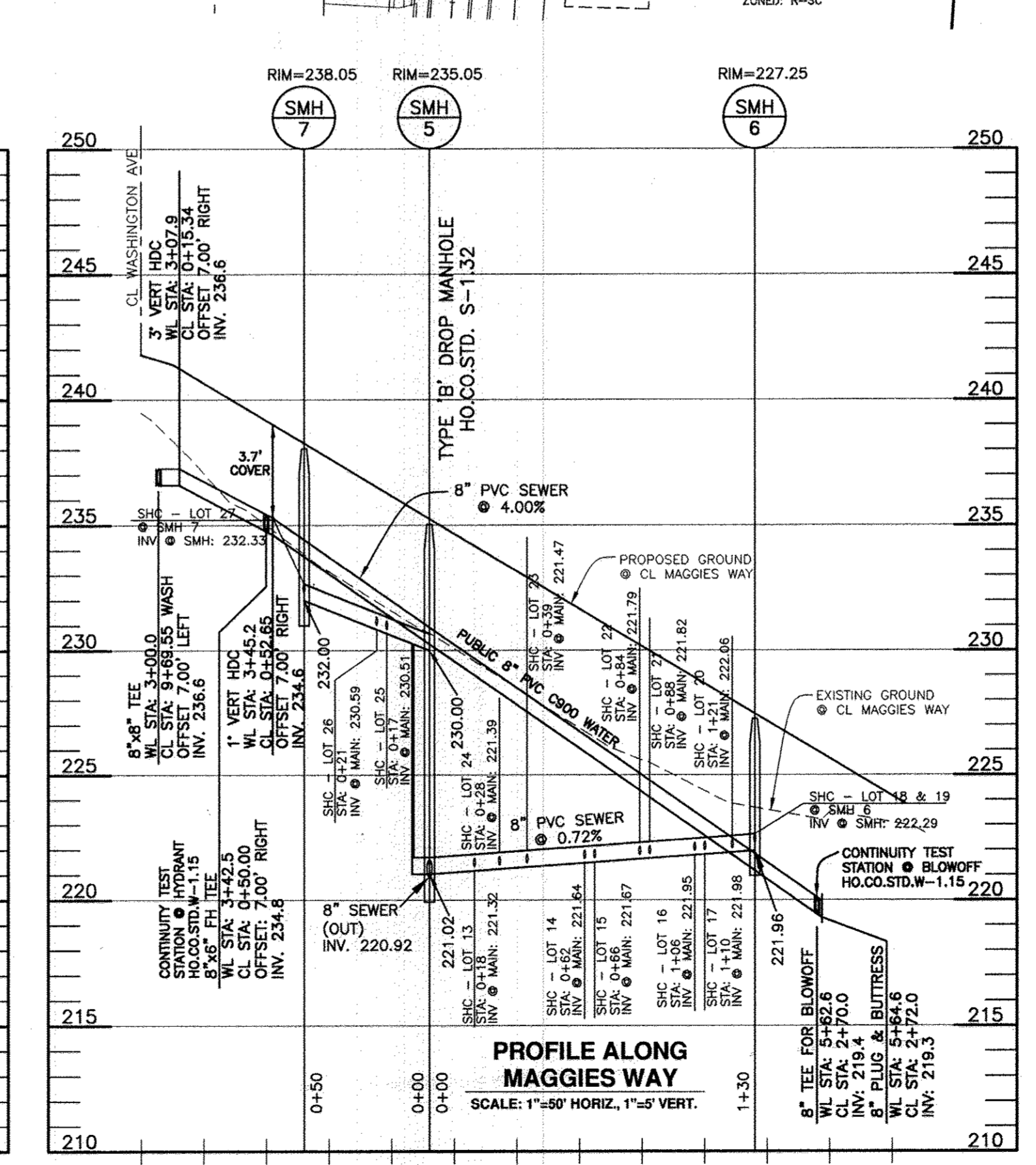
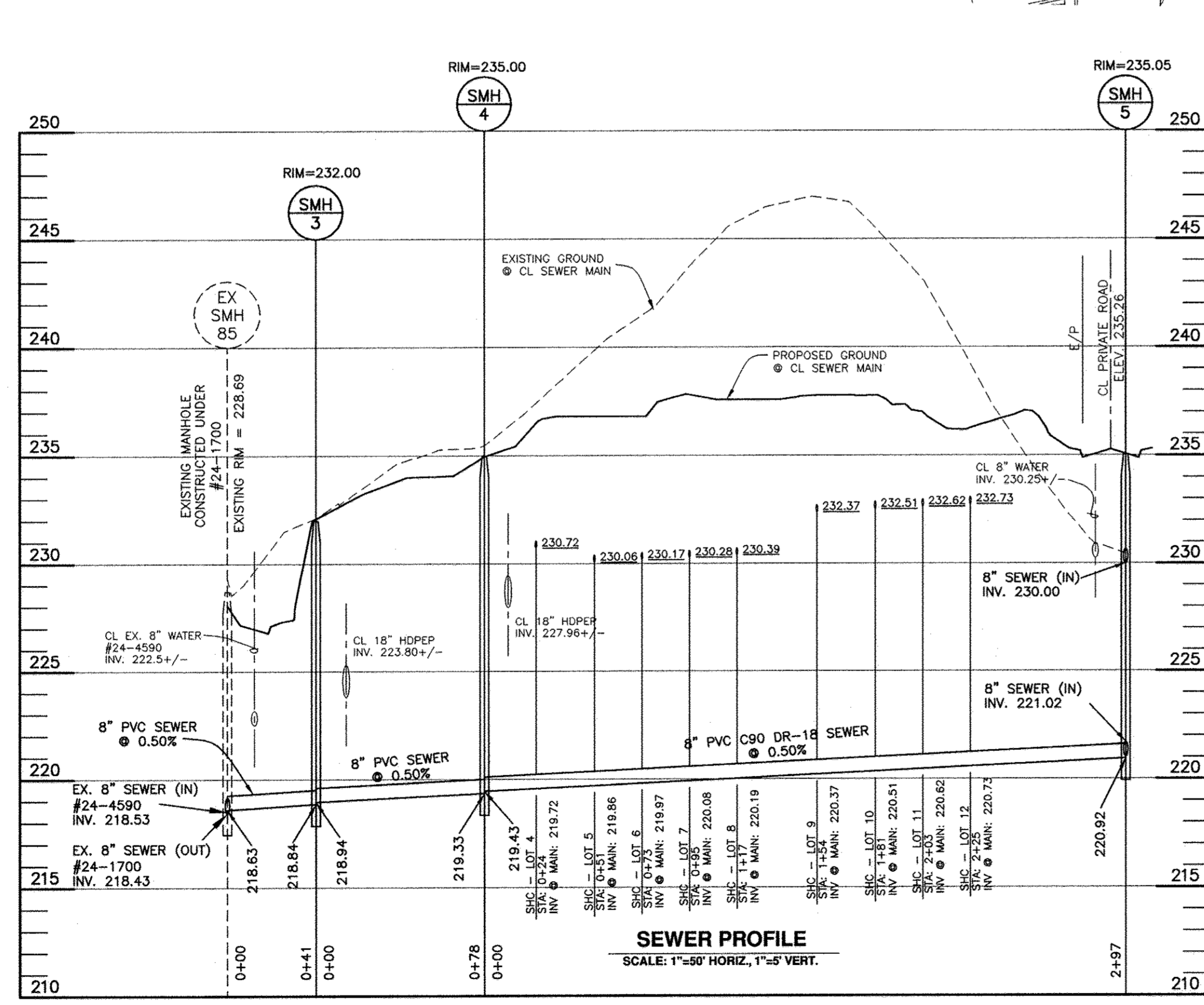
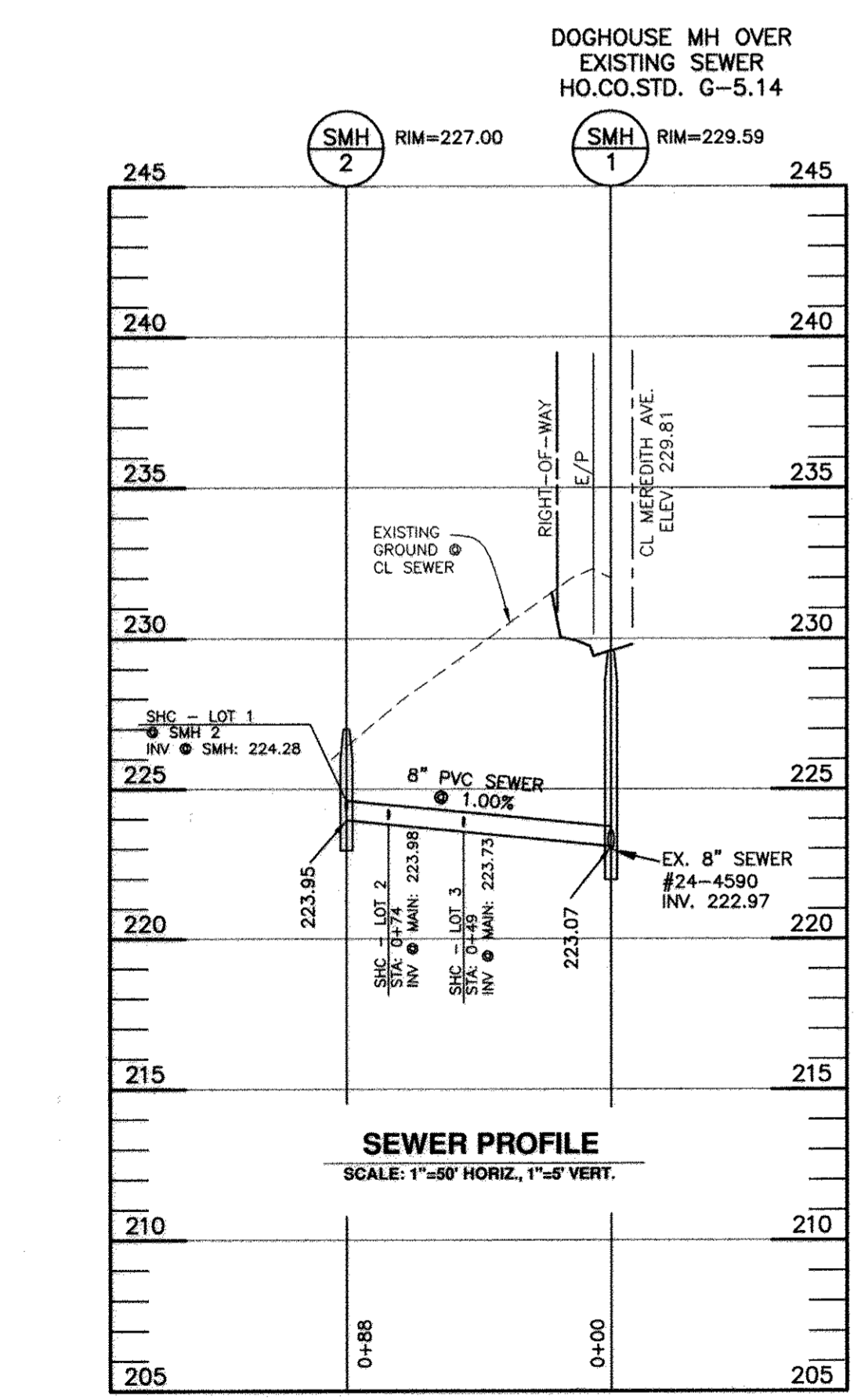
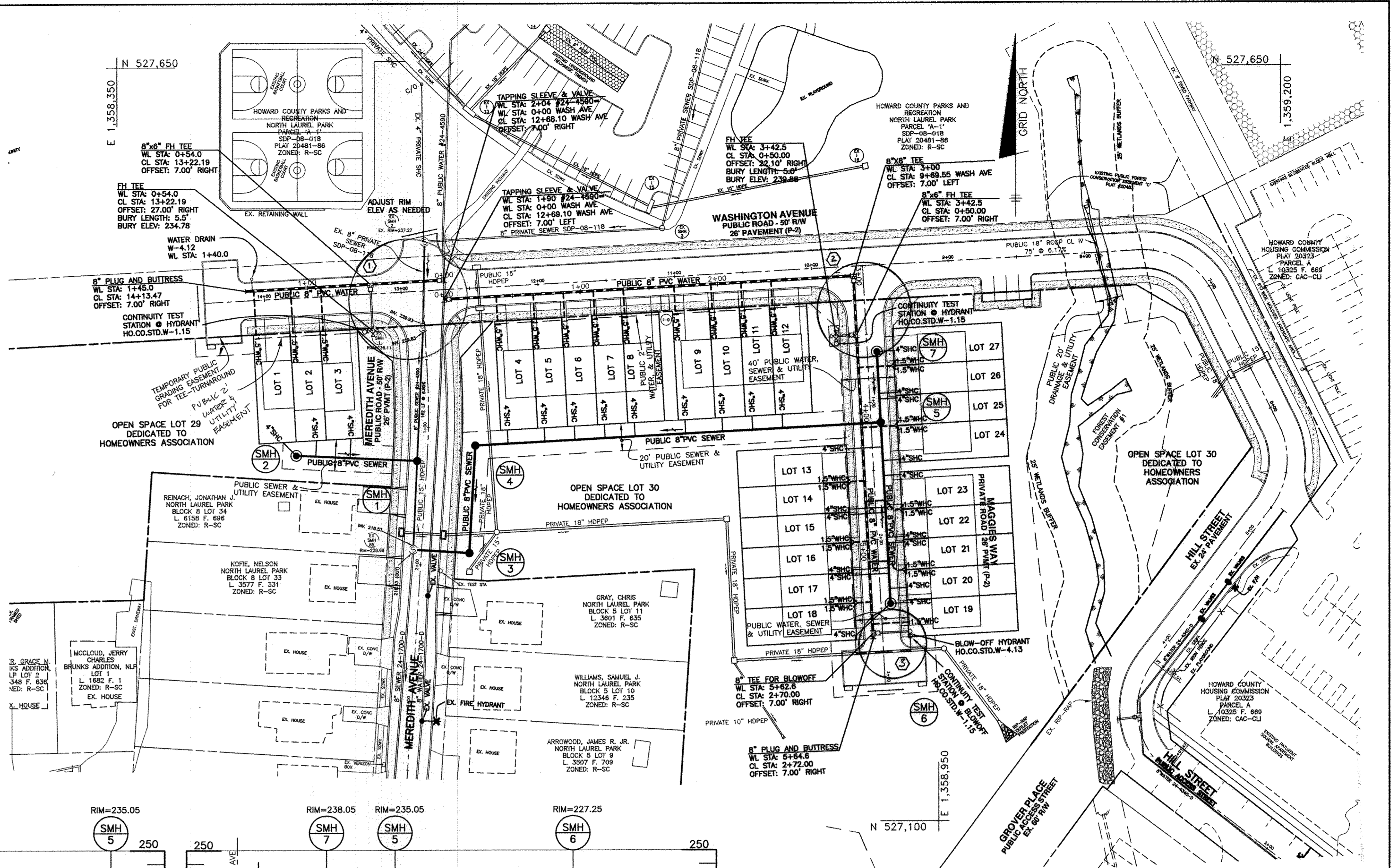
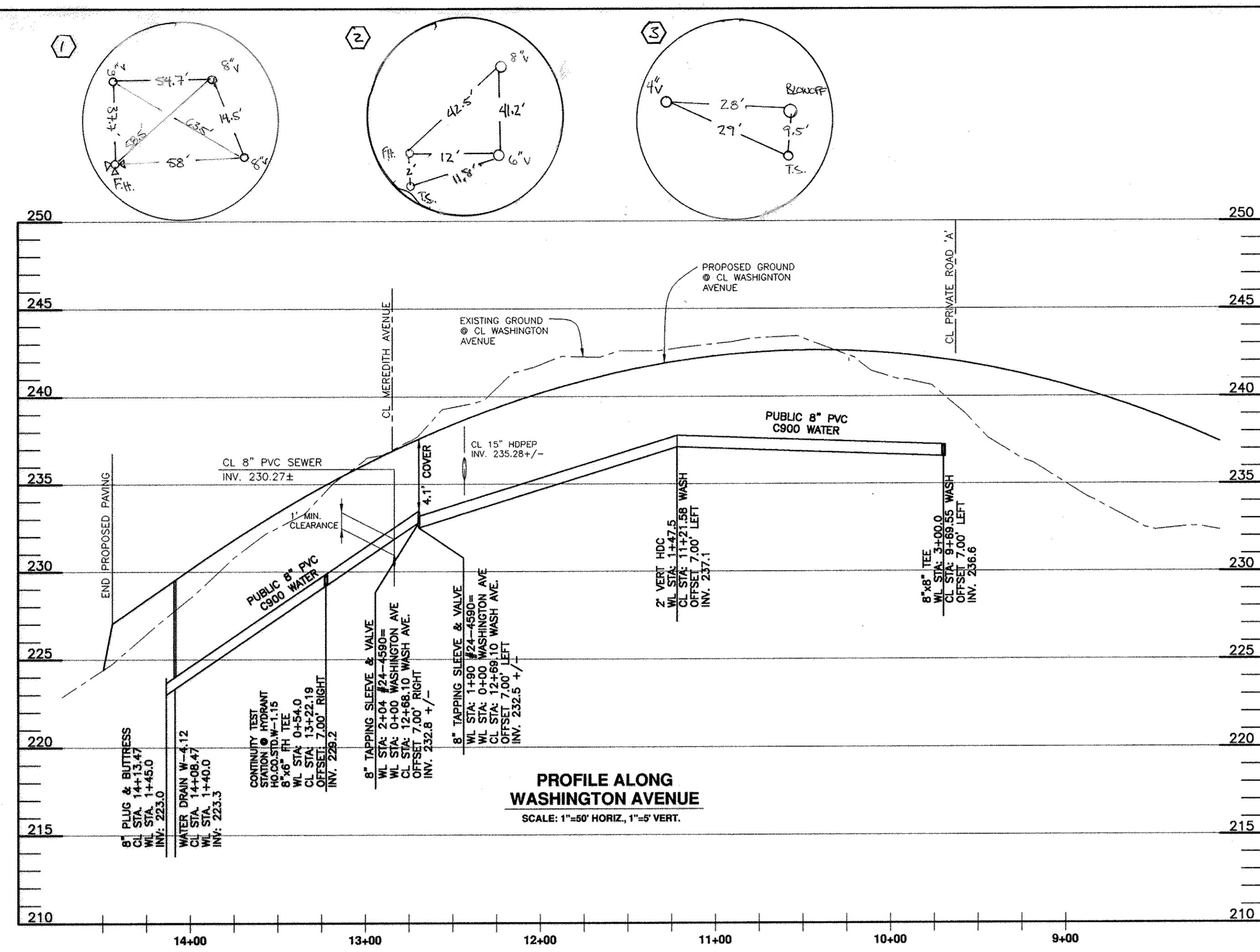
NO.	DESCRIPTION
1	TITLE SHEET PUBLIC WATER & SEWER MAINS
2	PLAN AND PROFILE VIEW PUBLIC WATER & SEWER MAINS

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

John R. [Signature] 9/17/13
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-13-093

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>[Signature]</i> 9/23/13 CHIEF, BUREAU OF UTILITIES DATE	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND <i>[Signature]</i> 9/23/13 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE	BENCHMARK ENGINEERING, INC. 8480 BALTIMORE NATIONAL PIKE & SUITE 418 & ELICOTT CITY, MARYLAND 21043 (P) 410-465-6105 (F) 410-465-6644 60 THOMAS JOHNSON DRIVE & FREDERICK, MARYLAND 21702 (P) 301-371-3026 (F) 301-371-3006 WWW.BE-CIVILENGINEERING.COM		DES: DBT DRAFT: DBT CHK: BFC DATE: 9/2013 BY NO. AS-BUILT DATE: 9/29/13	TITLE SHEET PUBLIC WATER & SEWER MAINS 600 SCALE MAP NO: 50 BLOCK: 4 200 SCALE MAP NO: 66	PARK OVERLOOK LOTS 1 thru 27 AND OPEN SPACE LOTS 28-30 SCALE: AS SHOWN SHEET NO. 1 OF 2 CONTRACT NO. 24-4774-D
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PLAN VIEW
SCALE: 1" = 50'

SHC CHART

Lot Number	Invert @ main	Invert of standpipe @ main	Invert @ R/W or esmt	MCE	DHC?	Standpipe Length
1	224.28	N/A	224.55	228.29	No	N/A
2	223.73	N/A	224.21	227.97	No	N/A
3	223.73	N/A	224.01	227.79	No	N/A
4	219.72	230.72	230.92	234.66	Yes	11
5	219.86	229.86	230.06	233.76	Yes	10
6	219.97	229.97	230.17	233.87	Yes	10
7	220.08	230.08	230.28	233.98	Yes	10
8	220.19	230.19	230.39	234.09	Yes	10
9	220.37	232.37	232.57	236.27	Yes	12
10	220.51	232.51	232.71	236.41	Yes	12
11	220.62	232.62	232.82	236.52	Yes	12
12	220.73	232.73	232.93	236.63	Yes	12
13	221.32	N/A	221.86	226.50	No	N/A
14	221.64	N/A	222.18	226.82	No	N/A
15	221.67	N/A	222.21	226.85	No	N/A
16	221.95	N/A	222.49	226.13	No	N/A
17	221.98	N/A	222.52	226.16	No	N/A
18	222.29	N/A	222.99	226.63	No	N/A
19	222.29	N/A	222.55	226.17	No	N/A
20	221.82	N/A	222.32	226.94	No	N/A
21	221.82	N/A	222.06	226.70	No	N/A
22	221.79	N/A	222.05	226.67	No	N/A
23	221.47	N/A	221.73	225.39	No	N/A
24	221.39	N/A	221.65	225.31	No	N/A
25	230.85	N/A	231.11	234.73	No	N/A
26	231.01	N/A	231.27	234.89	No	N/A
27	232.33	N/A	232.59	236.21	No	N/A

All Drop connections are HoCoStd S-2.12 Type 'A'

SEWER MANHOLE SCHEDULE

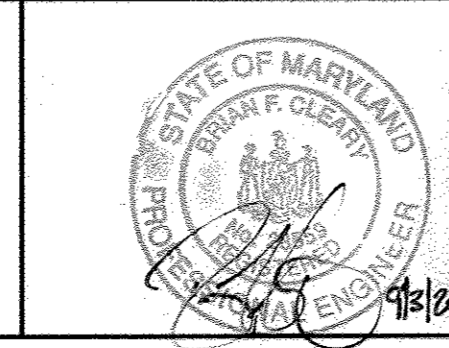
MANHOLE	LOCATION	RIM ELEVATION	HO. CO. STD
1	CL STA. 1+24.86 MEREDITH AVE. OFFSET 7.22' RIGHT	229.59	G-5.14
2	N 527366.74 E 1358480.92	227.00	S-1.31
3	N 527295.71 E 1358607.15	232.00	G-5.11
4	N 527373.93 E 1358611.59	235.00	G-5.11
5	CL STA. 1+15.00 PRIVATE ROAD: OFFSET 7.00' LEFT	235.05	S-1.32 'B'
6	CL STA. 2+46.94 PRIVATE ROAD: OFFSET 7.00' LEFT	227.25	S-1.31
7	CL STA. 0+63.06 PRIVATE ROAD: OFFSET 7.00' LEFT	238.05	S-1.31

OWNER/DEVELOPER:
PARK OVERLOOK, LLC
9695 NORFOLK AVENUE
LAUREL, MARYLAND 20723
410-792-2565

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

BENCHMARK
ENGINEERS AND SURVEYORS PLANNERS
ENGINEERING, INC.
8480 BALTIMORE NATIONAL PIKE & SUITE 418 A ELLICOTT CITY, MARYLAND 21043
(P) 410-488-6105 (F) 410-465-6644
60 THOMAS JOHNSON DRIVE & FREDERICK, MARYLAND 21702
(P) 301-371-3500 (F) 301-371-3506
WWW.BENCHMARKENGINEERING.COM



DES:	DBT
DRAFT:	DBT
CHK:	BFC
DATE:	9/2013
BY:	NO.
NO.:	1
AS-BUILTS:	
DATE:	3/21/17

**PLAN AND PROFILE
PUBLIC WATER & SEWER MAINS**

REVISIONS

DATE: 3/21/17

600 SCALE MAP NO: 50 BLOCK: 4 200 SCALE MAP NO: 66

PARK OVERLOOK
LOTS 1 thru 27 AND OPEN SPACE LOTS 28-30

TAX MAP: 50 - BLOCK: 4 - PARCEL: p/o 414 & 426 - ZONED: R-SC- ELECTION DISTRICT: 6

CONTRACT NO. 24-4774-D

SCALE:
AS SHOWN

SHEET NO.
2 OF 2