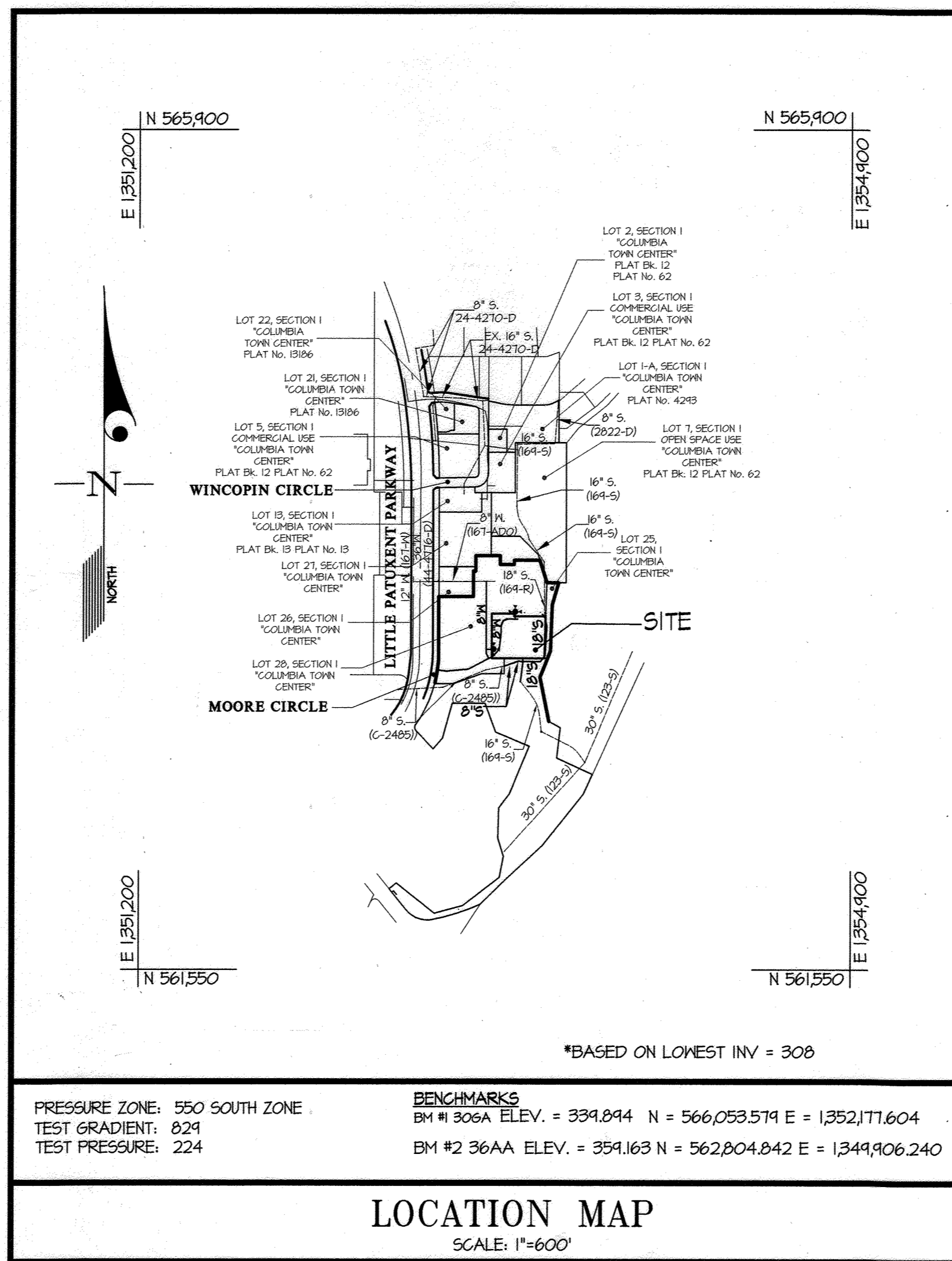


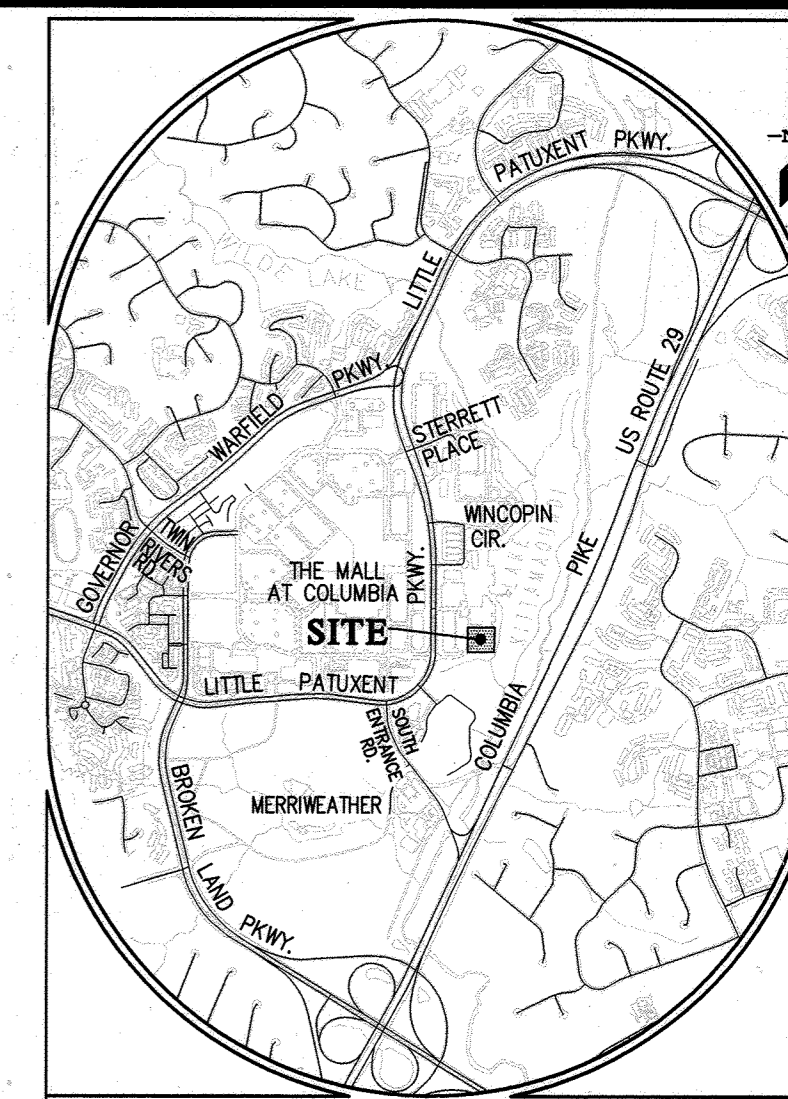
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
8" SEWER MAIN (PVC)	44 LF	44	Plastic	Wat' Pipe / North American
18" SEWER MAIN (DIP) CL. 52	417 LF	417	DIP	Tyton Joint Pipe
8" WATER MAIN C-900 DR 18"	976 LF	1036	Plastic	National Pipe
16" DIP WATER		60	DIP	Tyton Joint Pipe
8" x 8" T.S.&V.	1 EA	1	DIP	Ford Meter Box
8" x 8" T.	1 EA	1	DIP	Star Pipe
8" x 6" F.H.T.	2 EA	2	DIP	Star Pipe
8" VALVE	4 EA	4	DIP	American Flow Control
6" VALVE	2 EA	2	DIP	American Flow Control
8" GAP	1 EA	1	DIP	Star Pipe
8" 1/2 HB.	1 EA	1	DIP	Star Pipe
8" 1/2 HB.	1 EA	1	DIP	Star Pipe
8" 1/2 HB.	6 EA	6	DIP	Star Pipe
8" 1/2 HB.	1 EA	4	DIP	Star Pipe
8" 1/2 U.V.B.	2 EA	2	DIP	Star Pipe
8" 1/2 L.V.B.	2 EA	2	DIP	Star Pipe
8" 1.5" HDC	1 EA	0	Plastic	North American
8" 2" HDC	1 EA	0	Plastic	North American
8" 3" HDC	1 EA	0	Plastic	North American
8" 5" SWEEP	4 EA	5	Plastic	Multi Fittings
FIRE HYDRANT	2 EA	2	DIP	American Darling
4" MANHOLE	6 EA	6	Concrete	Atlantic
5" MANHOLE	1 EA	1	Concrete	Atlantic
7" MANHOLE	1 EA	1	Concrete	Atlantic

NAME OF UTILITY CONTRACTOR: Reliable Contracting Co.

SURVEY AND DRAFTING DIV. CHECKBOX: ..... AS-BUILT DATE: .....



TYPE OF BUILDING	COMMERCIAL
NUMBER OF UNITS	NA
NUMBER OF S.H.C.'s	1
NUMBER OF W.H.C.'s	1
AREA OF COMMERCIAL LOT/PARCEL	1.42 ACRES
SEWER SHED	
PUMPING STATION	NA



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.
- The existing aerial topography performed on May, 2017 by McKenzie-Snyder.
- Horizontal and Vertical Survey Control: 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. 306A and No. 36AA. All vertical controls are based on NAVD 83.
- 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 (2017). 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  $\oplus$  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..... 410-315-4400
  - Colonial Pipeline Co..... 410-195-1390
  - Miss Utility..... 1-800-251-7777
  - State Highway Administration..... 410-531-5533
  - Verizon..... 1-800-143-0033

- 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 roads for laying water/sewer mains or house connections. The approval of these drawings will constitute compliance with DPN requirements per Section 18.114(a) of the Howard County Code.

Part II WATER

- All water mains shall be P.V.C. unless otherwise noted.
- Tops of all water mains shall have a minimum of 3'-6" of cover unless otherwise noted.
- Valves adjacent to trees shall be strapped to trees.
- 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 1003 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 ANWA 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 hammers. 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 #51 stone on both sides of the high deflection coupling or 5-degree sweep, taking care not to use compaction equipment directly over the fitting.

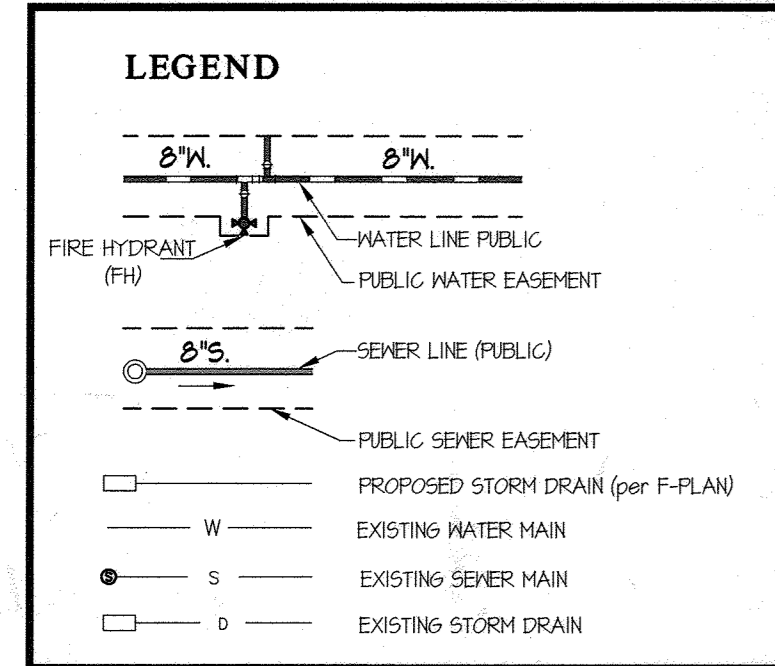
PVC high deflection couplings shall be limited to a total deflection of 3-degrees (1 1/2-degree on either end of the coupling), shall be rated for a minimum 200 psi meeting the requirements of ANWA C900, shall have a minimum lay length of 4-inches and shall have center stops. PVC High deflection couplings shall be CertainTeed PVC High Deflection (HD) Stop Couplings or equal.

Five degree sweeps shall be bell by spigot, rated for a minimum 225 psi, DR 18 meeting the requirements of ANWA C900 and shall be Multi Fittings (pex) Blue Brute DR 18 or equal.

When PVC high deflection couplings or PVC 5-degree sweeps are used to facilitate changes in horizontal or vertical alignments of ANWA 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 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 incorporates an expansion retention spring to allow for pipe expansion and contraction. The bell stops shall be Series 5000 Mega-Stop, as manufactured by EB&A 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 M.T. in plan and profile shall have watertight frame and cover, Standard Detail 65.52. Where watertight manhole frames and covers are used, set top of frame 1'-6" above finished grade unless otherwise noted on the drawings.
- Houses (s) with the symbol C.N.S. indicates that the cellar cannot be served.



SHEET INDEX

- COVER SHEET
- WATER & SEWER PLAN
- WATER & SEWER PROFILES
- WATER PROFILES
- DEMOLITION PLAN

HAVER NOTE: DMV-22-010

ON DECEMBER 22, 2021 DMV-22-010, A HAVER TO HOWARD COUNTY DESIGN MANUAL VOLUME II - WATER AND SEWER WAS APPROVED. THE HAVER APPROVAL WAS SPLIT INTO FOUR SECTIONS.

- A HAVER TO SECTION 3.3.B.2.b.2, MAXIMUM UNLOOPED WATER MAIN FOR COMMERCIAL AREAS WITH FIRE PROTECTION BE 800 FEET WAS APPROVED PROVIDED THAT WATERLINE "B" IS EXTENDED UP TO THE MOORE CIRCLE PROPERTY LINE AT LITTLE PATUXENT PARKWAY TO ALLOW FOR FUTURE REDUNDANCY LOOPING OF THE MAINS.
- A HAVER TO SECTION 5.4.B.5, WHICH REQUIRES 10-FOOT HORIZONTAL CLEARANCE BETWEEN THE WATER EASEMENT AND PERMANENT STRUCTURES WAS APPROVED FOR WATERLINE "B" (STA. 2+71 - 5+60) PROVIDED THAT (1) EXISTING UTILITIES THAT ARE WITHIN THE LIMITS OF THE PUBLIC EASEMENT ARE RELOCATED AND (2) NO NEW OR ADDITIONAL UTILITIES ARE INSTALLED PARALLEL TO THE WATER MAIN CROSSINGS ARE PERMITTED AND SHALL BE SHOWN ON THE WATER AS SEWER CONTRACT DRAWINGS. THIS APPLIES TO WALLS 1 & 2 LABELED ON SHEET 2.
- A HAVER WAS APPROVED TO ALLOW PRIVATE STORM DRAIN TO ENCROACH INTO THE PUBLIC WATER EASEMENT FOR THE 24" STORM DRAIN FROM THE UPPER PARKING LOT.
- A HAVER WAS APPROVED TO SECTION 11E.2 WHICH REQUIRES 18" VERTICAL CLEARANCE PER MDE DESIGN GUIDELINES FOR DRINKING WATER FACILITIES - MINIMUM REQUIREMENTS, AND THE 10-STATE RECOMMENDED STANDARDS FOR WATER WORKS SECTION B.3, FOR THE FIRE HYDRANT BY PIPE. THIS HAVER REQUEST IS APPROVED PROVIDED THAT (1) A MINIMUM OF 6-INCH CLEARANCE IS PROVIDED ABOVE THE ELLIPTICAL STORM PIPE, (2) ALL JOINTS BETWEEN THE FIRE HYDRANT AND THE WATER MAIN ARE RESTRAINED, AND (3) APPROVED PLANS SHALL INCLUDE A NOTE THAT THE CONTRACTOR SHALL MINIMIZE THE NUMBER OF JOINTS NEEDED BY USING FULL LENGTHS OF PIPE TO THE MAXIMUM EXTENT POSSIBLE.

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SDP-22-019, SECTION 308 OF THE SPECIFICATIONS AT THE SITE PLAN STAGE.

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

APPROVED: Alonzo Bratchi 06/27/22  
HOWARD S.C.D. Date

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
6-21-22  
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND  
7.11.22  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

GLW  
PLANNING | ENGINEERING | SURVEYING  
3909 NATIONAL DRIVE | SUITE 250 | BURTONSVILLE, MD 20886 | GLWPA.COM  
PHONE: 301-421-0241 | BALT. 410-880-1820 | DC/VA: 301-989-2524 | FAX: 301-421-4198

DESIGNED BY: Wsj  
DRAWN BY: Wsj  
CHECKED BY: DDS  
DATE: JUNE 2022  
G.L.W. No. 18046  
PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE PLANS 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. 12975  
EXP. DATE: MAY 26, 2024  
6/13/22

BY	NO	REVISION	DATE

COVER SHEET  
600' SCALE MAP NO. 36 BLOCK NO. 2

SOUTHLAKE OFFICE BUILDING  
DOWNTOWN COLUMBIA  
CONTRACT No. 24-5190-D  
LAKEFRONT CORE NEIGHBORHOOD, PHASE 1, PARCEL B  
A RESUBDIVISION OF SECTION 1, LOT 24 (PLAT No. 24707)  
HOWARD COUNTY, MARYLAND  
ELECTION DISTRICT No. 5  
SCALE AS SHOWN  
SHEET 1 OF 5

PREPARED FOR:  
THE HOWARD RESEARCH AND DEVELOPMENT CORP.  
10960 GRANTCHESTER WAY  
SUITE 110  
COLUMBIA, MD 21044  
ATTN: GABRIEL CHUNG  
410-964-4800

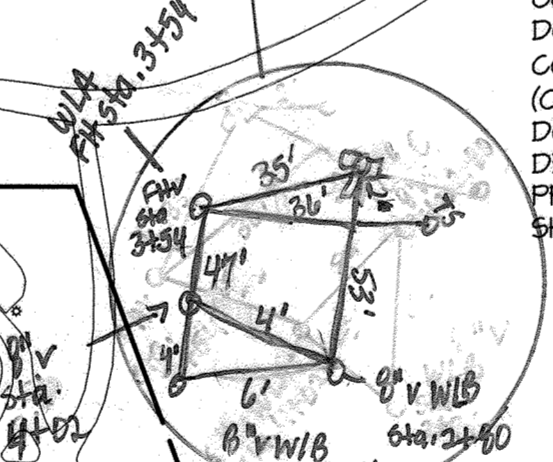
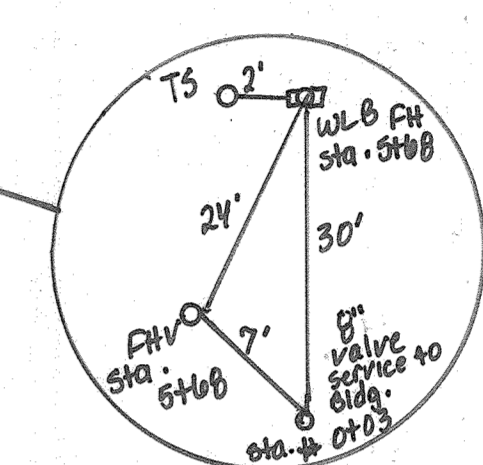
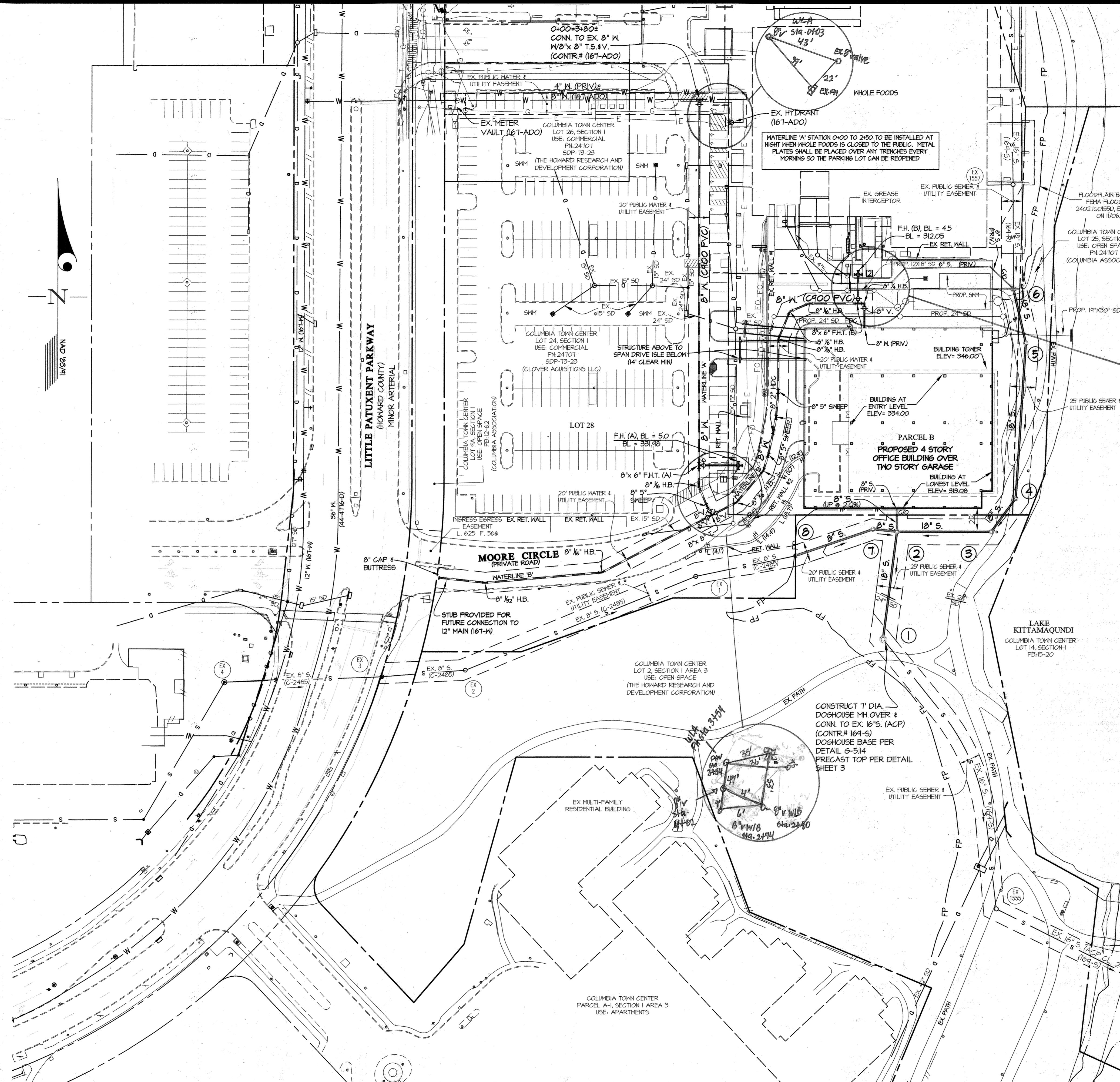
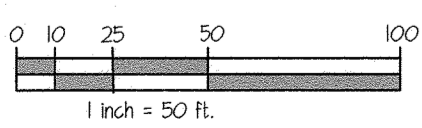
SEWER MH CHART		
MH	NAD '83/'91 COORDINATES	
1	N 563042.14	E 1353183.20
2	N 563145.38	E 1353146.46
3	N 563145.30	E 1353281.18
4	N 563171.31	E 1353310.78
5	N 563326.62	E 1353320.31
6	N 563378.44	E 1353308.32
7	N 563147.81	E 1353173.35
8	N 563122.29	E 1353048.64

FITTING CHART		
STATION	FITTING	NAD '83/'91 COORDINATES
WATER MAIN 'A'		
0+00	8" x 8" T.S.&V.	N 563560.14 E 1353005.34
3+51	8" x 6" F.H.T.	N 563208.74 E 1353005.37
3+72	8" x 1/2" H.B.	N 563188.90 E 1353005.37
3+42	8" x 5" SWEEP	N 563164.84 E 1353013.27
4+02	8" x 8" T.	N 563160.41 E 1353017.88
WATER MAIN 'B'		
0+00	8" CAP	N 563100.88 E 1352754.98
0+45	8" x 1/2" H.B.	N 563046.02 E 1352749.37
1+58	8" x 1/2" H.B.	N 563105.88 E 1352912.06
2+77	8" x 8" T.	N 563160.41 E 1353017.88
3+04	8" x 1/2" H.B.	N 563173.32 E 1353041.61
3+44	8" x 1/2" H.B.	N 563203.97 E 1353067.33
3+60	8" x 5" SWEEP	N 563214.15 E 1353072.12
3+83	8" x 2" HDC	N 563241.43 E 1353077.05
3+47	8" x 5" SWEEP	N 563255.47 E 1353074.54
4+22	8" x 5" SWEEP	N 563280.11 E 1353081.70
4+73	8" x 1/2" H.B.	N 563330.54 E 1353081.72
5+01	8" x 1/2" H.B.	N 563356.98 E 1353042.67
5+21	8" x 1/2" H.B.	N 563364.65 E 1353111.23
5+68	8" x 6" F.H.T.	N 563364.65 E 1353158.53
5+74	8" x 1/2" H.B.	N 563364.65 E 1353164.53

FIRE HYDRANT CHART		
FH	NAD '83/'91 COORDINATES	
A	N 563208.74	E 1353043.34
B	N 563342.40	E 1353158.54

CABLE TEST STATION CHART			
STR.	STATION	OFFSET	REMARKS
WATERMAIN 'A'			
1	3+53	38" LEFT	HO. CO. STD. DETAIL W-115
WATERMAIN 'B'			
2	5+70	28" LEFT	HO. CO. STD. DETAIL W-115

FOR WATER AND SEWER PROFILES SEE SHEET 3 & 4



PREPARED FOR:  
THE HOWARD RESEARCH  
AND DEVELOPMENT CORP.  
10960 GRANTCHESTER WAY  
SUITE 110  
COLUMBIA, MD 21044  
ATTN: GABRIEL CHUNG  
410-964-4800

DEPARTMENT OF  
PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
*[Signature]*  
6-21-22  
CHIEF, BUREAU OF UTILITIES

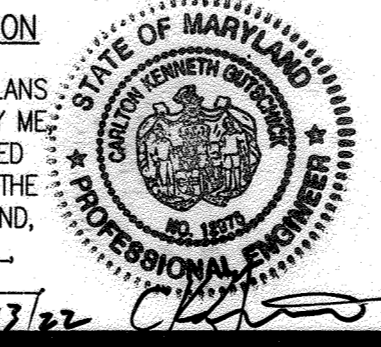
DEPARTMENT OF  
PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND  
*[Signature]*  
7.11.22  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

**GLW**  
PLANNING | ENGINEERING | SURVEYING  
3109 NATIONAL DRIVE | SUITE 250 | BURTONSVILLE, MD 20886 | GLWPA.COM  
PHONE: 301-421-4024 | BALT.: 410-689-1820 | DC&VA: 301-689-2524 | FAX: 301-421-4186

DESIGNED BY:  
**DDS**  
DRAWN BY:  
**WJ**  
CHECKED BY:  
**CKG**

DATE  
JUNE  
2022  
G.L.W. No.  
18046

PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE PLANS  
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. 12975  
EXP. DATE: MAY 26, 2024



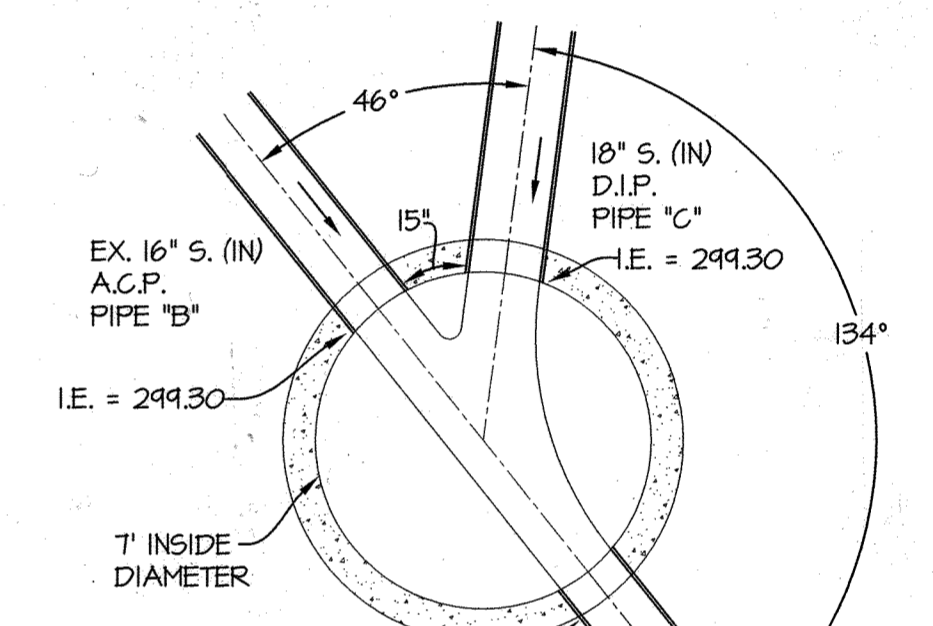
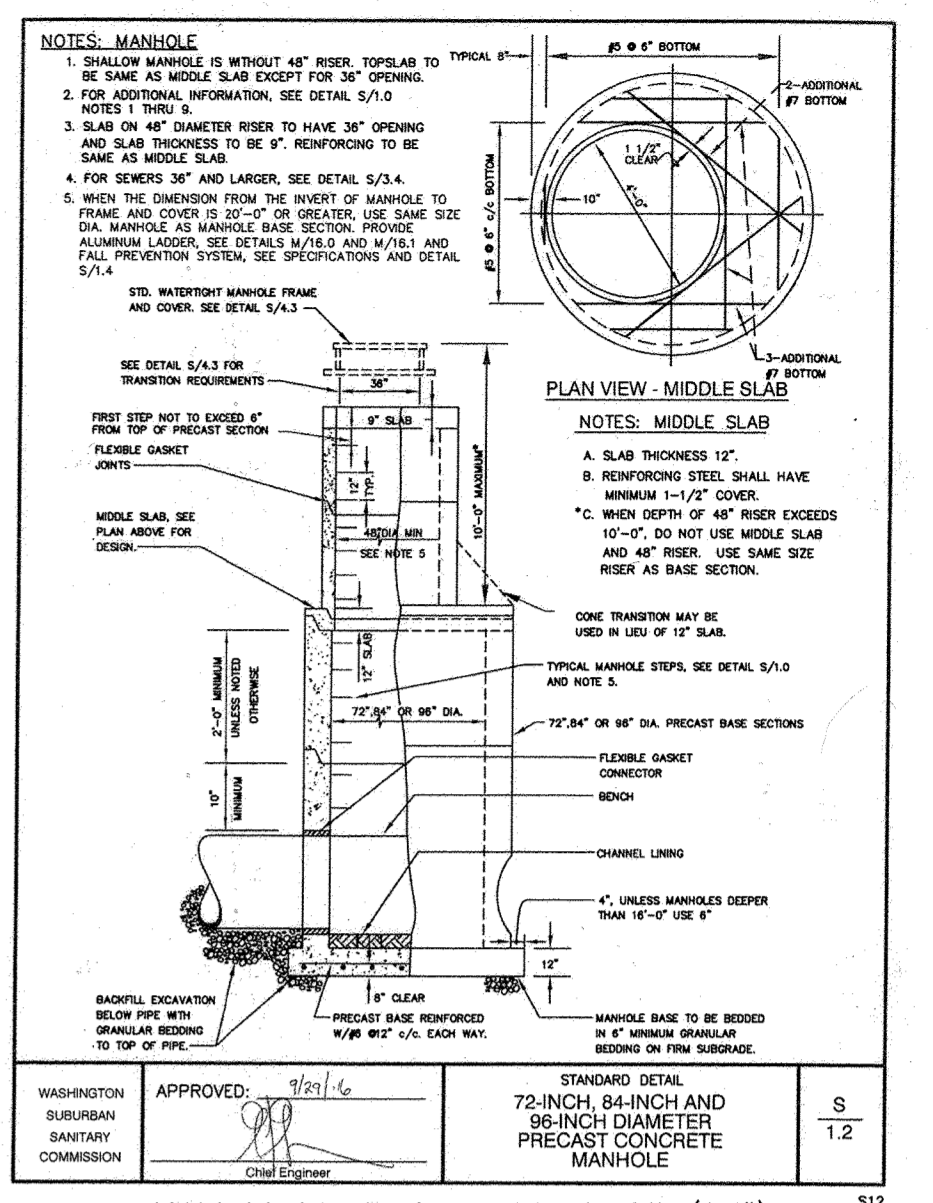
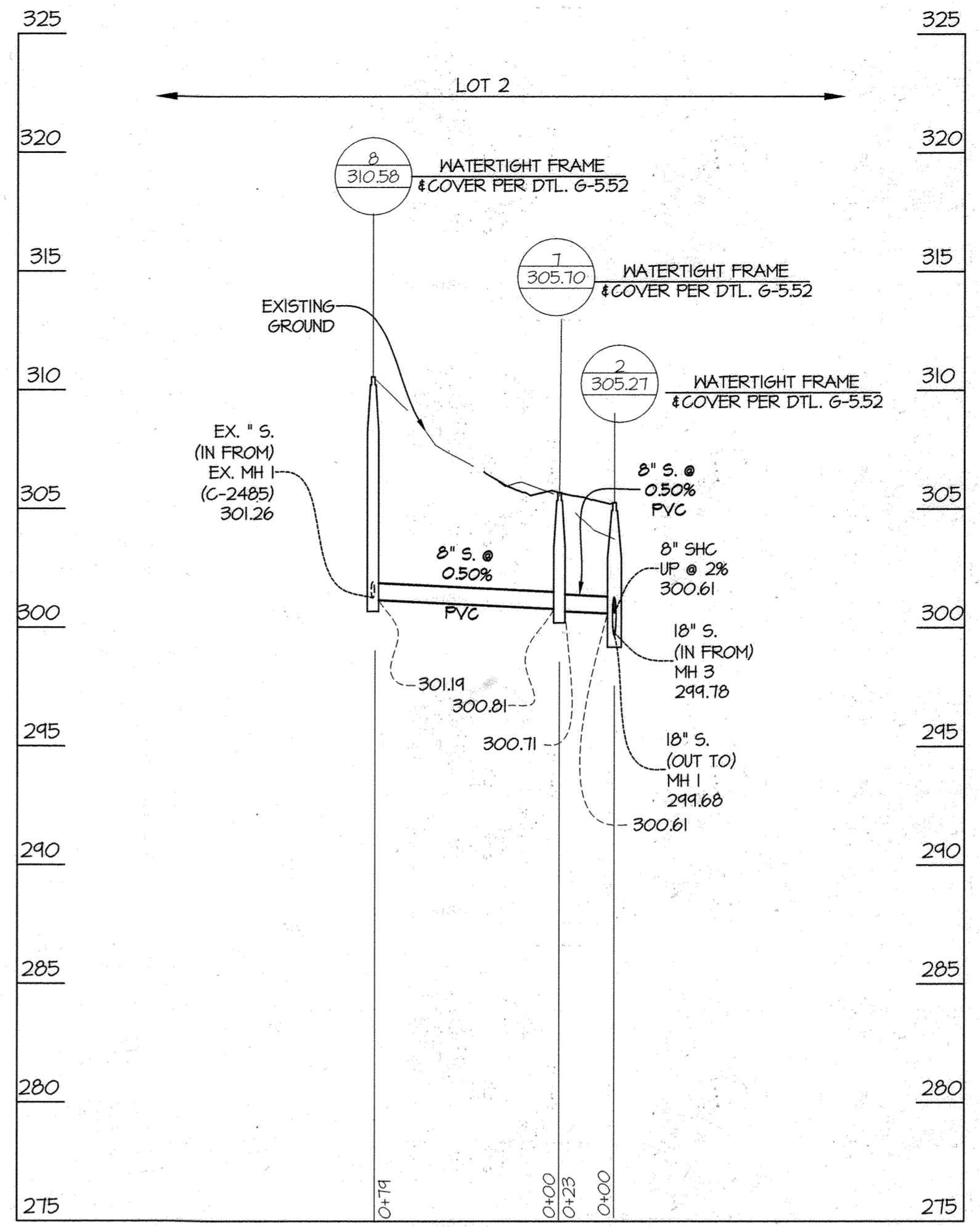
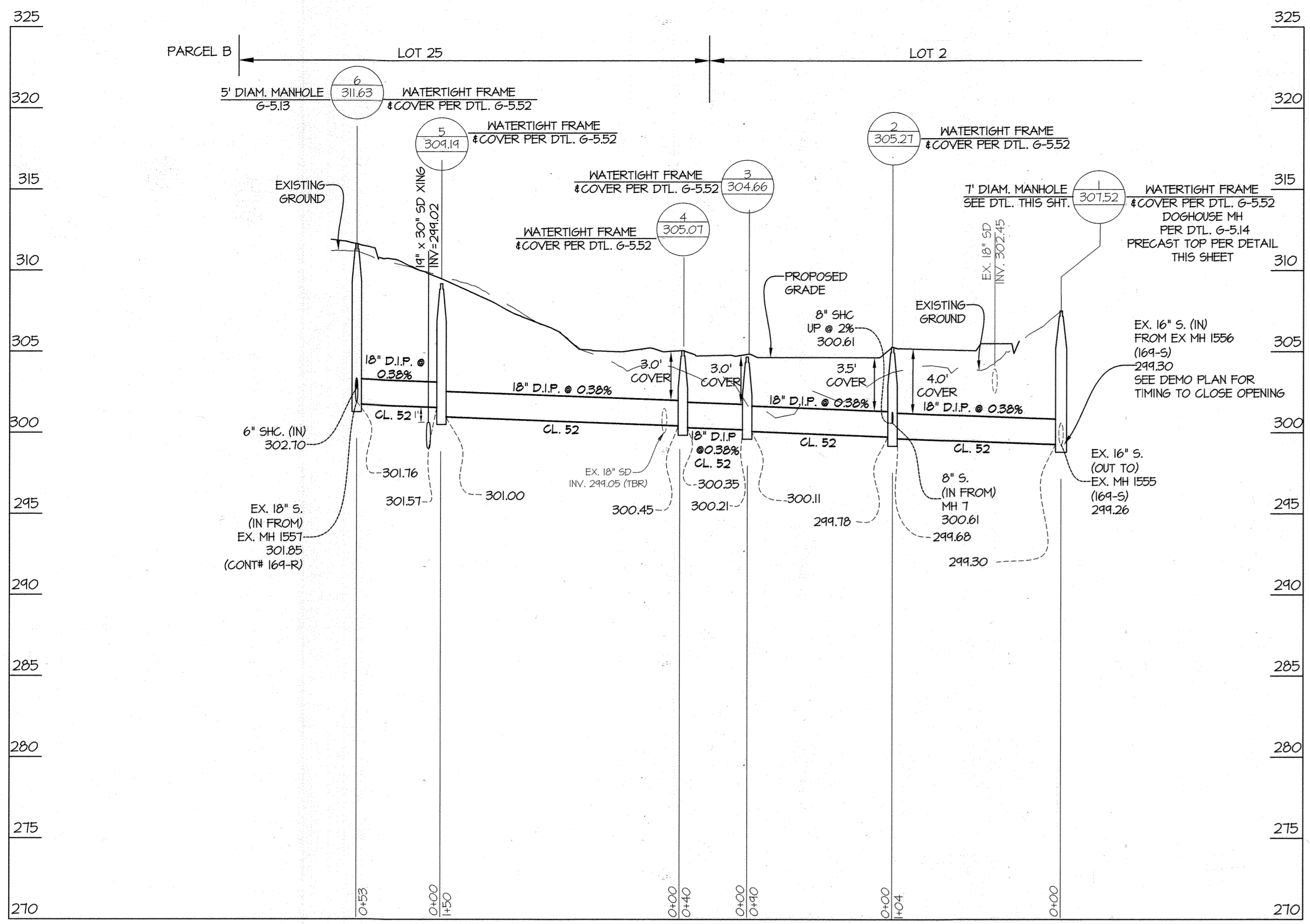
BY	NO	REVISION	DATE

FINAL  
WATER AND SEWER  
PLAN  
600' SCALE MAP NO. 36  
BLOCK NO. 2

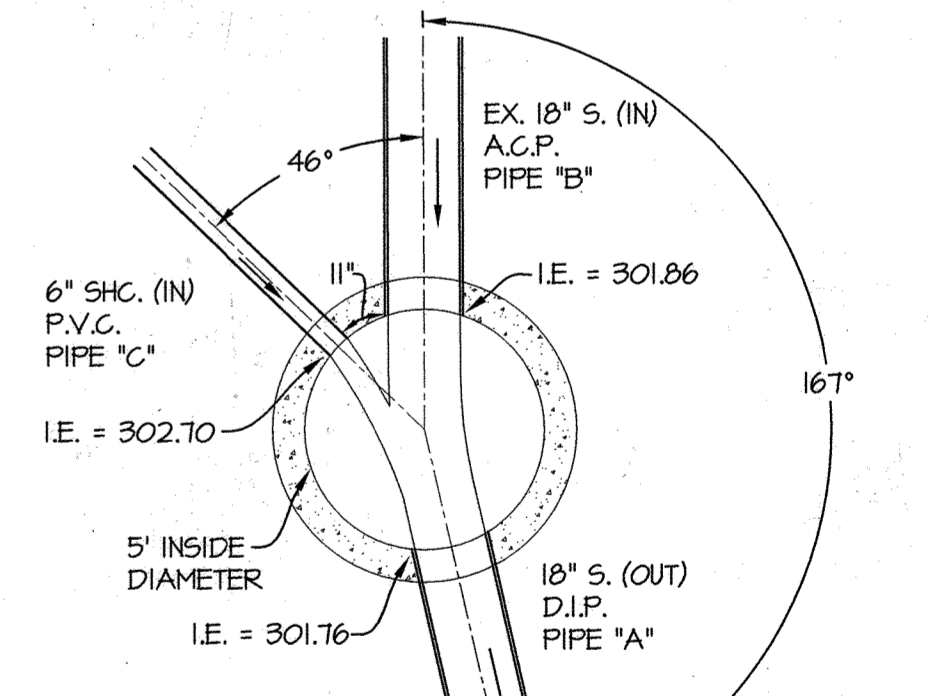
**SOUTHLAKE OFFICE BUILDING**  
DOWNTOWN COLUMBIA  
CONTRACT No. 24-5190-D  
LAKEFRONT CORE NEIGHBORHOOD, PHASE 1, PARCEL B  
A RESUBDIVISION OF SECTION 1, LOT 24 (PLAT No. 24727)  
HOWARD COUNTY, MARYLAND  
ELECTION DISTRICT No. 5

SCALE  
AS SHOWN  
SHEET  
2 OF 5

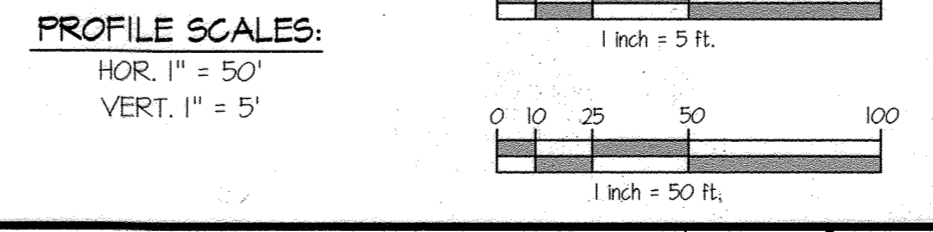
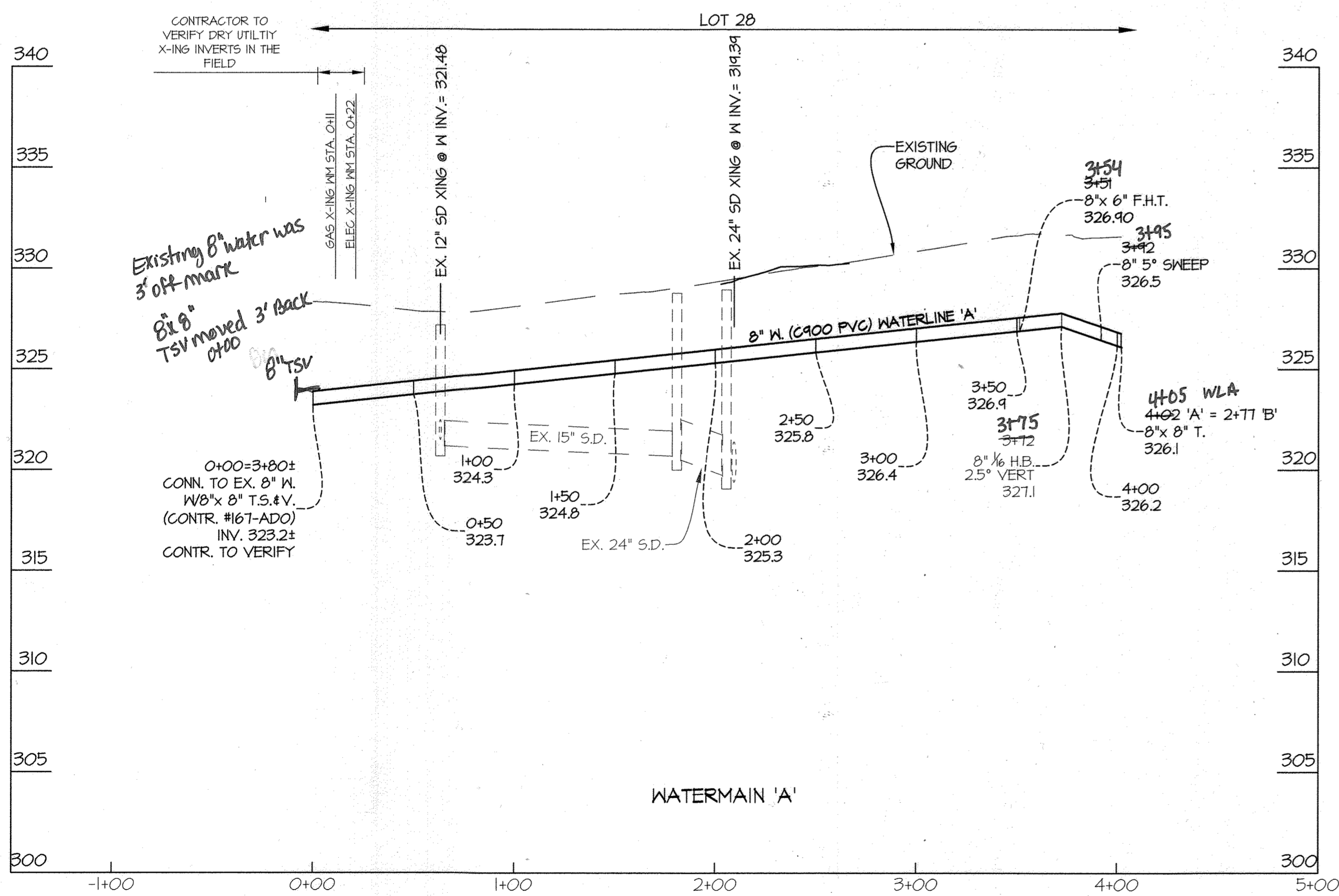
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MANHOLE #1 DETAIL  
DOGHOUSE MANHOLE  
BASE PER 6-514  
PRECAST TOP PER 84\"/>



MANHOLE #6 DETAIL  
(6-513)  
1\"/>



PREPARED FOR:  
THE HOWARD RESEARCH  
AND DEVELOPMENT CORP.  
10960 GRANTCHESTER WAY  
SUITE 110  
COLUMBIA, MD 21044  
ATTN: GABRIEL CHUNG  
410-964-4800

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DEPARTMENT OF  
PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
*[Signature]*  
6-21-22  
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF  
PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND  
*[Signature]*  
7-11-22  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

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DESIGNED BY:  
**Wj**  
DRAWN BY:  
**Wj**  
CHECKED BY:  
**DDS**

DATE  
JUNE  
2022  
G.L.W. No.  
18046

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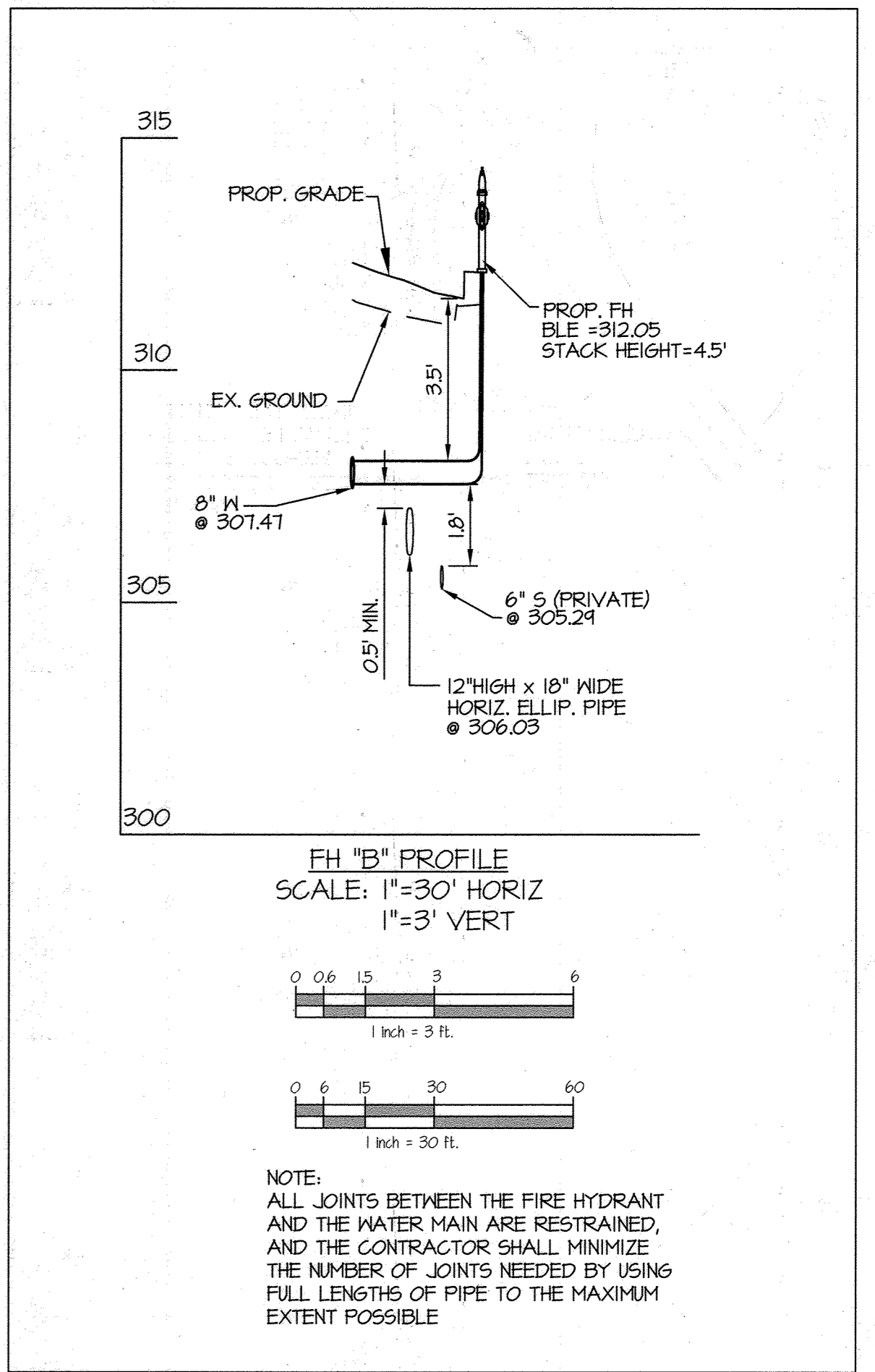
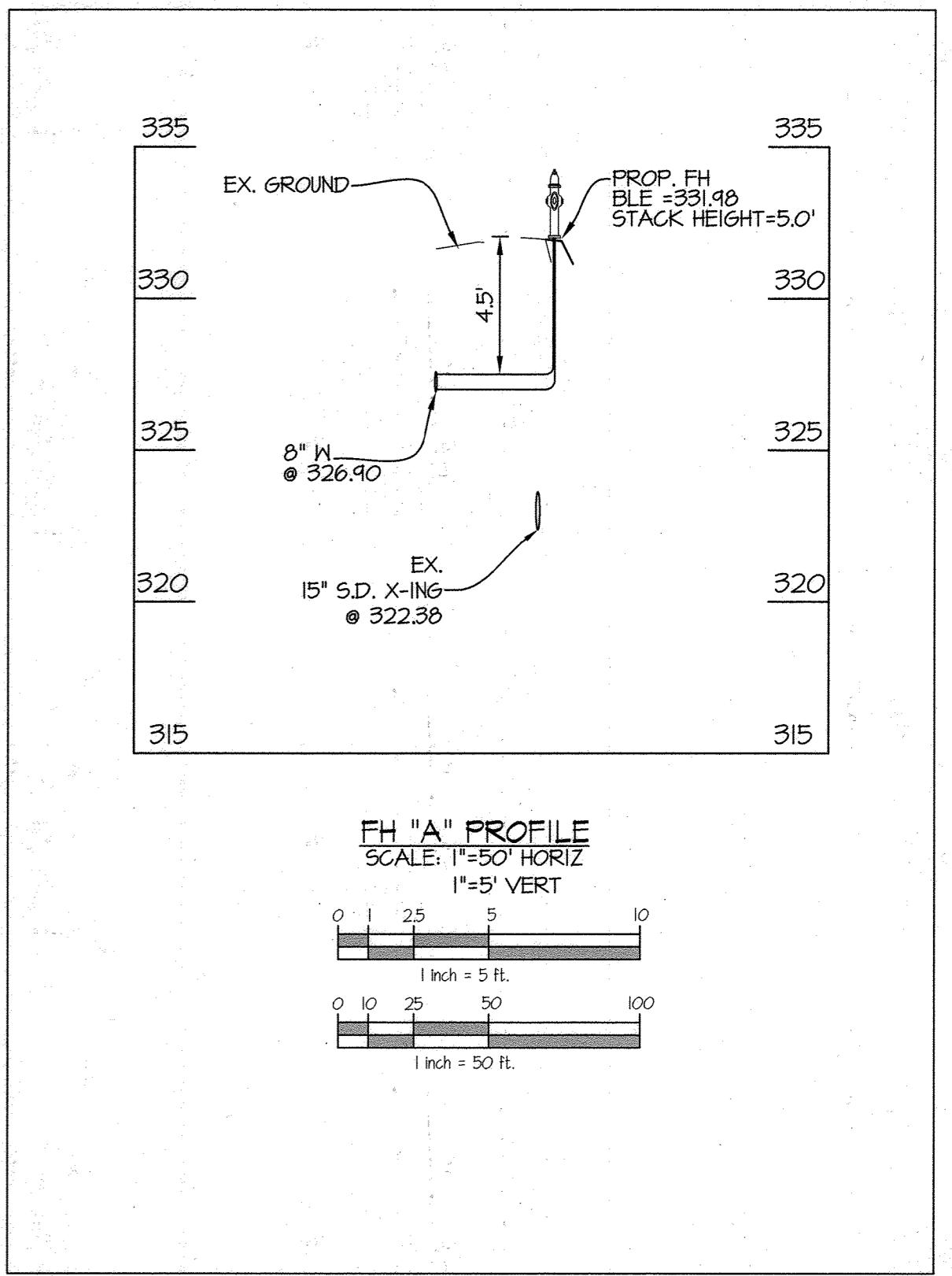
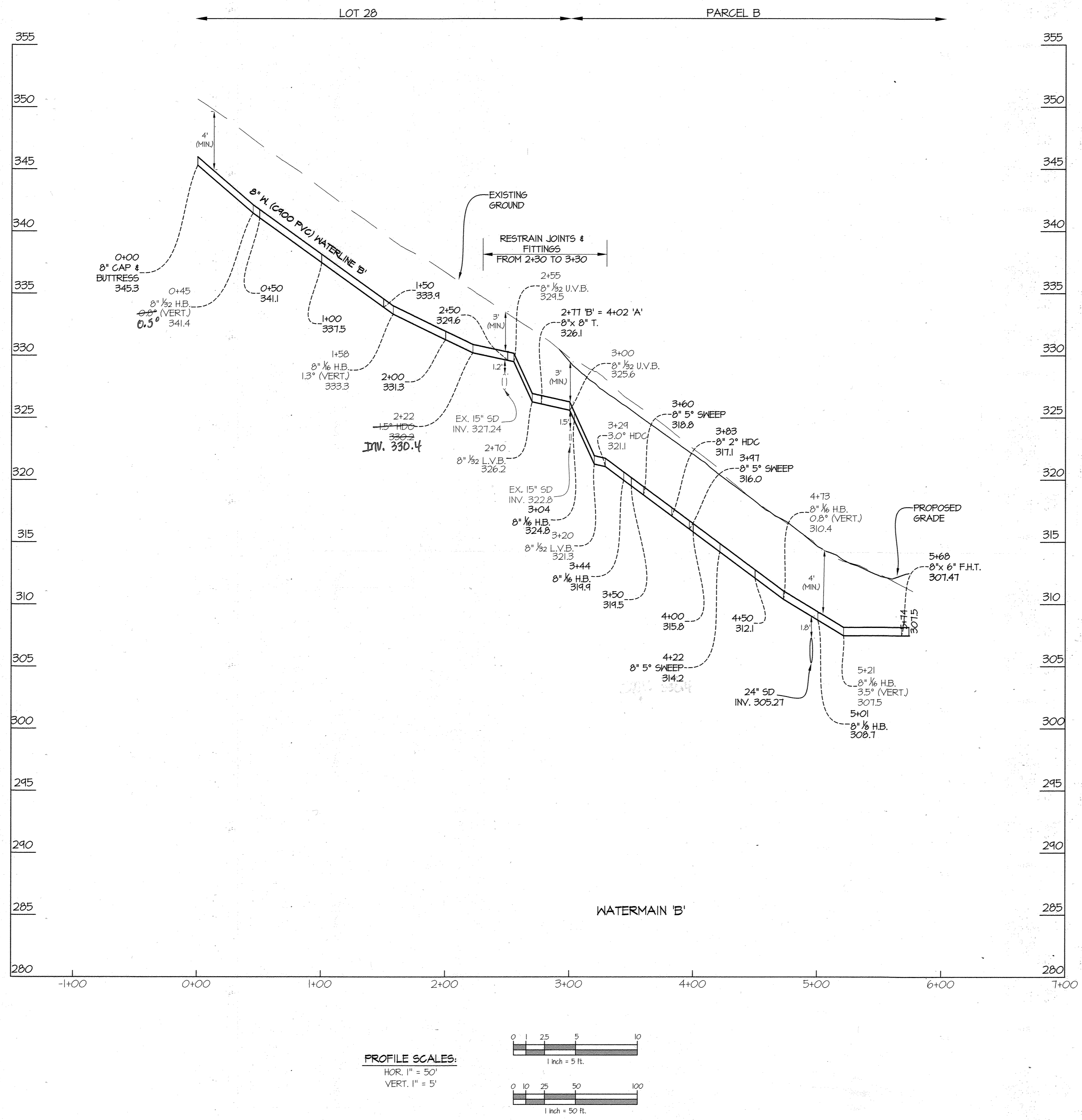


BY	NO	REVISION	DATE

FINAL  
WATER AND SEWER PROFILES  
600' SCALE MAP NO. 36 BLOCK NO. 2

SOUTHLAKE OFFICE BUILDING  
DOWNTOWN COLUMBIA  
CONTRACT No. 24-5190-D  
LAKEFRONT CORE NEIGHBORHOOD, PHASE 1, PARCEL B  
A RESUBDIVISION OF SECTION 1, LOT 24 (PLAT No. 247027)  
HOWARD COUNTY, MARYLAND  
ELECTION DISTRICT No. 5

SCALE  
AS SHOWN  
SHEET  
3 OF 5



L:\CADD\DRAWINGS\18046\PLANS BY GLW\WAT-SEW\FINAL-MS\18046-FWS-3-4.dwg  
 PLOTTED: 6/13/22 10:57 AM, LAST SAVE: 6/13/22 10:56 AM, PLOT: 6/13/22 10:57 AM, User: Surveyor

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 [Signature]  
 CHIEF, BUREAU OF UTILITIES  
 DATE: 6-21-22

DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY, MARYLAND  
 [Signature]  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 7-11-22

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 PHONE: 301-421-4024 | BALT: 410-889-1820 | DC/VA: 301-988-2524 | FAX: 301-421-4188

DESIGNED BY: WJ  
 DRAWN BY: WJ  
 CHECKED BY: DDS  
 DATE: JUNE 2022  
 G.L.W. No. 18046

PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS 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. 12975  
 EXP. DATE: MAY 26, 2024  
 [Professional Engineer Seal]

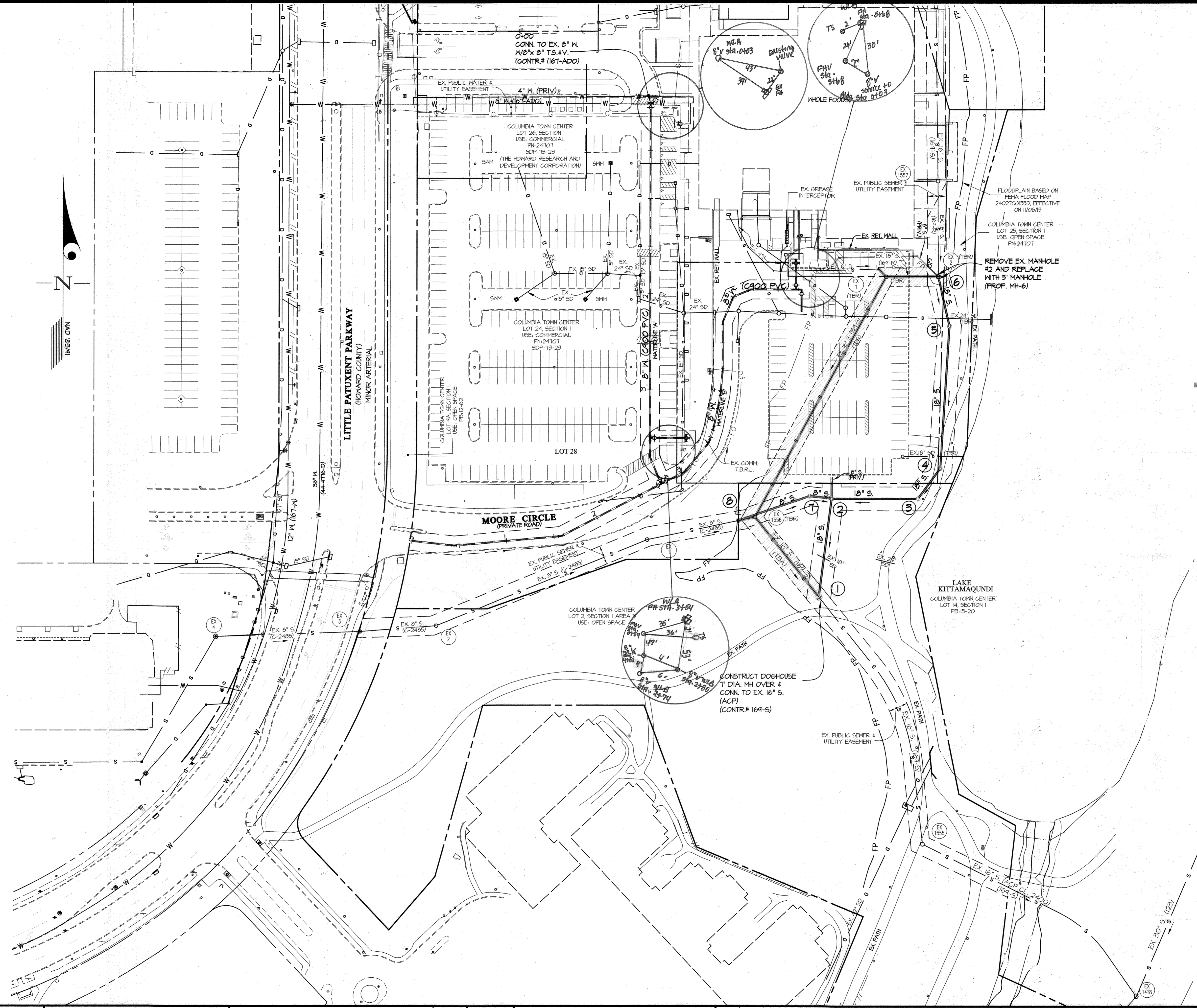
BY	NO	REVISION	DATE

FINAL WATER PROFILES  
 600' SCALE MAP NO. 36 BLOCK NO. 2

SOUTHLAKE OFFICE BUILDING  
 DOWNTOWN COLUMBIA  
 CONTRACT No. 24-5190-D  
 LAKEFRONT CORE NEIGHBORHOOD, PHASE I, PARCEL B  
 A RESUBDIVISION OF SECTION 1, LOT 24 (PLAT No. 24727)  
 HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT No. 5

SCALE AS SHOWN  
 SHEET 4 OF 5

PREPARED FOR:  
 THE HOWARD RESEARCH AND DEVELOPMENT CORP.  
 10960 GRANTCHESTER WAY  
 SUITE 110  
 COLUMBIA, MD 21044  
 ATTN: GABRIEL CHUNG  
 410-964-4800



**NOTES:**  
 1. CONTRACTOR TO PROVIDE SEWER BYPASS PER HOWARD COUNTY STANDARD SPECIFICATIONS 1013.03.03  
 2. EXISTING PUBLIC SEWER THAT IS NOT REMOVED SHALL BE ABANDONED PER HOWARD COUNTY DESIGN MANUAL, VOLUME 2, SECTION 5.6.B, WHICH STATES "ALL SEWERS 15-INCHES AND SMALLER SHALL BE ABANDONED BY INSERTING A MECHANICAL PLUG A MINIMUM OF 12-INCHES INTO THE ABANDONED PIPELINE. ALL SPACE AROUND THE PIPELINE BEHIND THE PLUG SHALL BE FILLED/SURROUNDED BY NON-SHRINK GROUT OR 2500 PSI CONCRETE. FOR SEWERS LARGER THAN 15-INCHES, A MASONRY PLUG SHALL BE INSTALLED IN LIEU OF A MECHANICAL PLUG AND THE PIPELINE ABANDONED, AS PREVIOUSLY DESCRIBED."

**LEGEND**

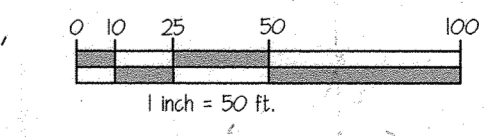
EASEMENTS (TO BE VACATED)

EXISTING SEWER MAIN (TO BE REMOVED/ABANDONED)

(TBR) TO BE REMOVED  
 (TBL) TO BE RELOCATED  
 (TBA) TO BE ABANDONED (SEE NOTE 2)

**SEQUENCE OF CONSTRUCTION:**  
 (SEE SDP-22-019 FOR ADDITIONAL INFORMATION)

1. INSTALL SEWER FROM MH-1 TO MH-3 AND MH-2 TO MH-1
2. CLOSE LAKE KITTAMAQUONDI TRAIL, REMOVE EXISTING 18" STORM DRAIN AT SOUTHEAST CORNER OF PARKING LOT AND INSTALL SEWER FROM MH-3 TO MH-5
3. REMOVE EXISTING 24" STORM DRAIN BETWEEN STORM MANHOLE M-102 AND EXISTING HEADWALL 100. INSTALL PROPOSED 14"x30" SD AND M-102. TEMPORARY CONNECT EXISTING 24" STORM DRAIN INTO STORM MANHOLE 102.
4. REBUILD ASPHALT TRAIL OVERTOP OF SEWER. REOPEN LAKE KITTAMAQUONDI TRAIL TO THE PUBLIC.
5. INSTALL TEMPORARY SEWER BYPASS BETWEEN EXISTING SEWER MANHOLE 1557 (164-5) AND EXISTING SEWER MANHOLE 1 (167-ADO).
6. REMOVE EXISTING SEWER MANHOLE 2 (167-ADO), INSTALL SEWER MH-6 AND SEWER FROM MH-6 TO MH-5. (1 DAY)
7. INSTALL 6" SEWER FROM SEWER MH-6 TO TIE IN LOCATION WITH THE EXISTING 6" SHC SERVING THE WHOLE FOODS BUILDING
8. REMOVE SEWER PUMP AROUND AT SEWER MANHOLE 1557
9. INSTALL TEMPORARY SEWER BYPASS BETWEEN EXISTING SEWER MANHOLE 1 (C-2485) AND SEWER MANHOLE 7 (24-5190-D)
10. REMOVE MANHOLE 1556. INSTALL MANHOLE 8 (24-5190) AND SEWER FROM MH-8 TO MH-1
11. REMOVE TEMPORARY SEWER BYPASS AT EX MH 1 (C-2485) AND REMOVE ANY REMAINING SEWER WITHIN PARKING LOT CALLED OUT TO BE REMOVED ON THIS PLAN. CLOSE OPENING IN SEWER MANHOLE 1 FROM 16" PIPE THAT HAS BEEN REMOVED.



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 410-964-4800

L:\CADD\DRAWINGS\18046\PLANS BY GLW\WAT-SEW\FINAL-MS\18046-FWS-5.dwg  
 PLOTTED: 07/2022 11:18 PM, PLOTTED BY: Tom Swamy

DEPARTMENT OF  
 PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

*[Signature]* 6-21-22  
 CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF  
 PLANNING AND ZONING  
 HOWARD COUNTY, MARYLAND

*[Signature]* 6/21/22  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**GLW**  
 PLANNING | ENGINEERING | SURVEYING

3909 NATIONAL DRIVE | SUITE 250 | BURTONSVILLE, MD 20886 | OLWPA.COM  
 PHONE: 301-421-6024 | BALT: 410-689-1820 | DCRAV: 301-889-2824 | FAX: 301-421-6188

DESIGNED BY:  
**DDS**

DRAWN BY:  
**WJ**

CHECKED BY:  
**CKG**

DATE  
 JUNE 2022

G.L.W. No.  
 18046

PROFESSIONAL CERTIFICATION

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LICENSE NO. 12975  
 EXP. DATE: MAY 26, 2024

*[Signature]* 6/16/22



BY	NO	REVISION	DATE

WATER and SEWER  
 DEMOLITION PLAN

600' SCALE MAP NO. 36 BLOCK NO. 2

**SOUTHLAKE OFFICE BUILDING**  
 DOWNTOWN COLUMBIA  
 CONTRACT No. 24-5190-D

LAKEFRONT CORE NEIGHBORHOOD, PHASE I, PARCEL B  
 A RESUBDIVISION OF SECTION 1, LOT 29 (PLAT No. 24727)

HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT No. 5

SCALE  
 AS SHOWN

SHEET  
 5 OF 5