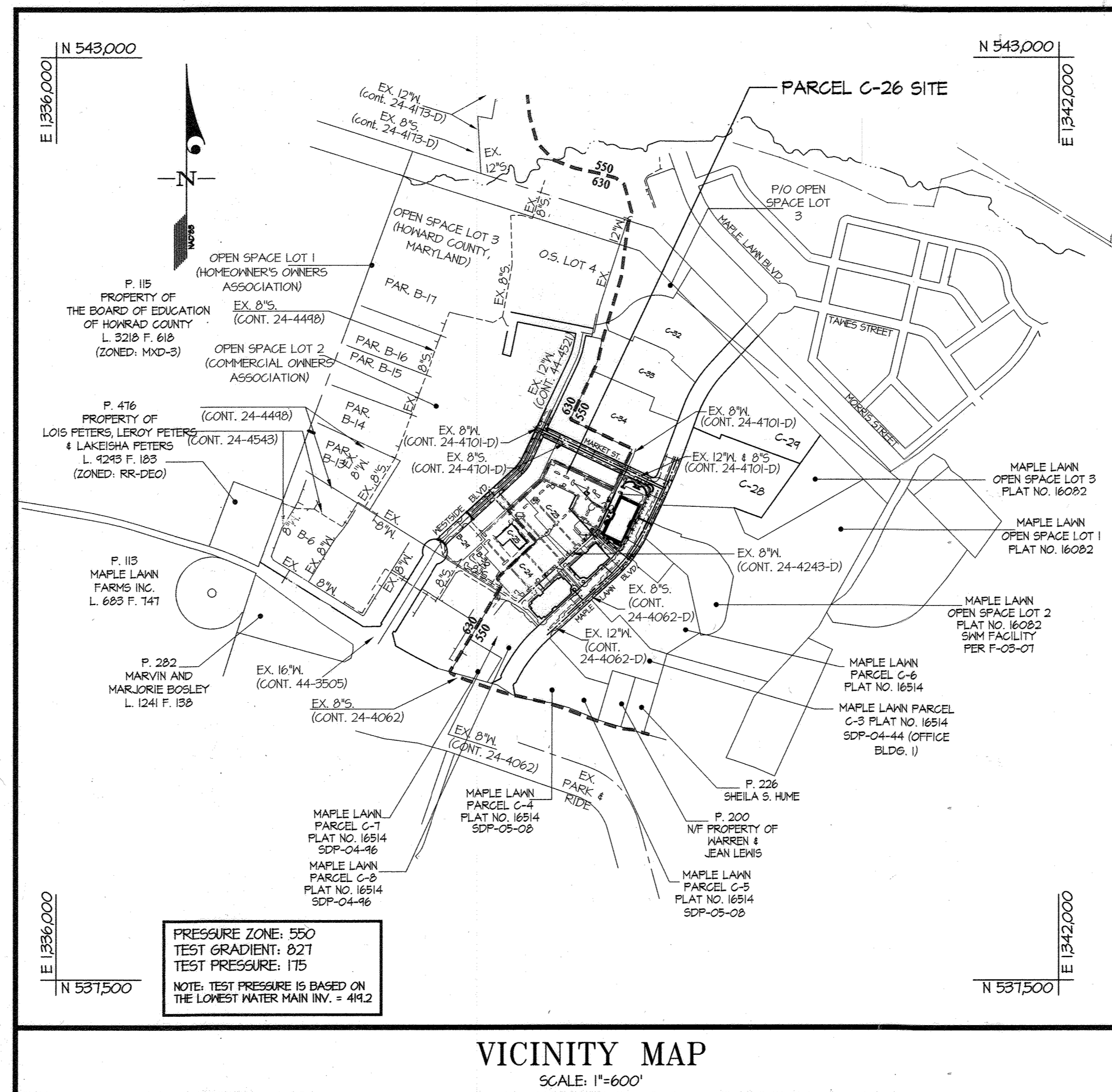


ITEMS	MATERIAL	QUANTITIES ESTIMATED	AS-BUILT		
			QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
8" WATER MAIN C900 DR18	D.I.P. (CL-54)	264 LF.	30' LP	C900 DR18	North American Pipe
6" WATER MAIN C900 DR18	D.I.P. (CL-54)	10 LF.	10' LP	C900 DR18	North American Pipe
8" 1/16 HB.		1 EA.			
8" 1/32 V.B.		2 EA.	4EA	DIP	JCM Industries
8"x8" T.S. 4 V		1 EA.	1EA	Stainless Steel	Star Pipe
8" CAP		1 EA.	1EA	DIP	Star Pipe
8"x6" F.H.T.		1 EA.	1EA	DIP	Mueller
6" V.		1 EA.	1EA	Stainless Steel	Mueller

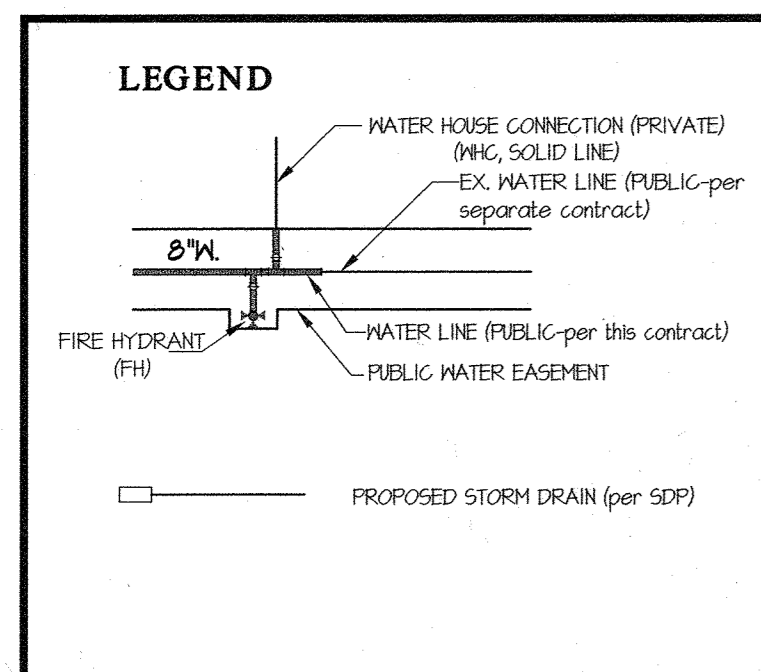
NAME OF UTILITY CONTRACTOR: Cosson/H10

SURVEY AND DRAFTING DIV. CHECKBOX:
AS-BUILT DATE: 8-28-22



VICINITY MAP
SCALE: 1"=600'

PRESSURE ZONE: 350
TEST GRADIENT: 0.27
TEST PRESSURE: 175
NOTE: TEST PRESSURE IS BASED ON THE LOWEST WATER MAIN INV. = 491.2



SHEET INDEX	
1 - COVER SHEET	
2 - WATER PLAN & PROFILE	

TYPE OF BUILDING	OFFICE BUILDING
NUMBER OF UNITS	1
NUMBER OF S.H.C.'s	0
NUMBER OF W.H.C.'s	1
AREA OF COMMERCIAL LOT/PARCEL	352 ACRES
SEWER SHED	LITTLE PATUXENT
PUMPING STATION	LITTLE PATUXENT WWTP

CONTRACT No. 44-5189-D
MAPLE LAWN FARMS
 BUSINESS DISTRICT - AREA 1
 PARCEL 'C-26' (OFFICE BUILDING No. 5)
 PLAT No. 21620
 HOWARD COUNTY, MARYLAND
 DEPARTMENT OF PUBLIC WORKS

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SDP 22-002, SECTION 308 OF THE SPECIFICATIONS AT SITE DEVELOPMENT PLAN STAGE.

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 APPROVED: Alexander Bratchki 02/14/22
 HOWARD S.C.D. Date

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 CHIEF, BUREAU OF UTILITIES
Steve Slag 2-2-22
 DATE

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
Shel Plank 2.24.22
 DATE

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3009 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT. 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186
 DES. DEV DRN. DEV CHK. DEV

DATE JAN., 2022
 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, 2022
2/1/22

BY	NO	REVISION	DATE

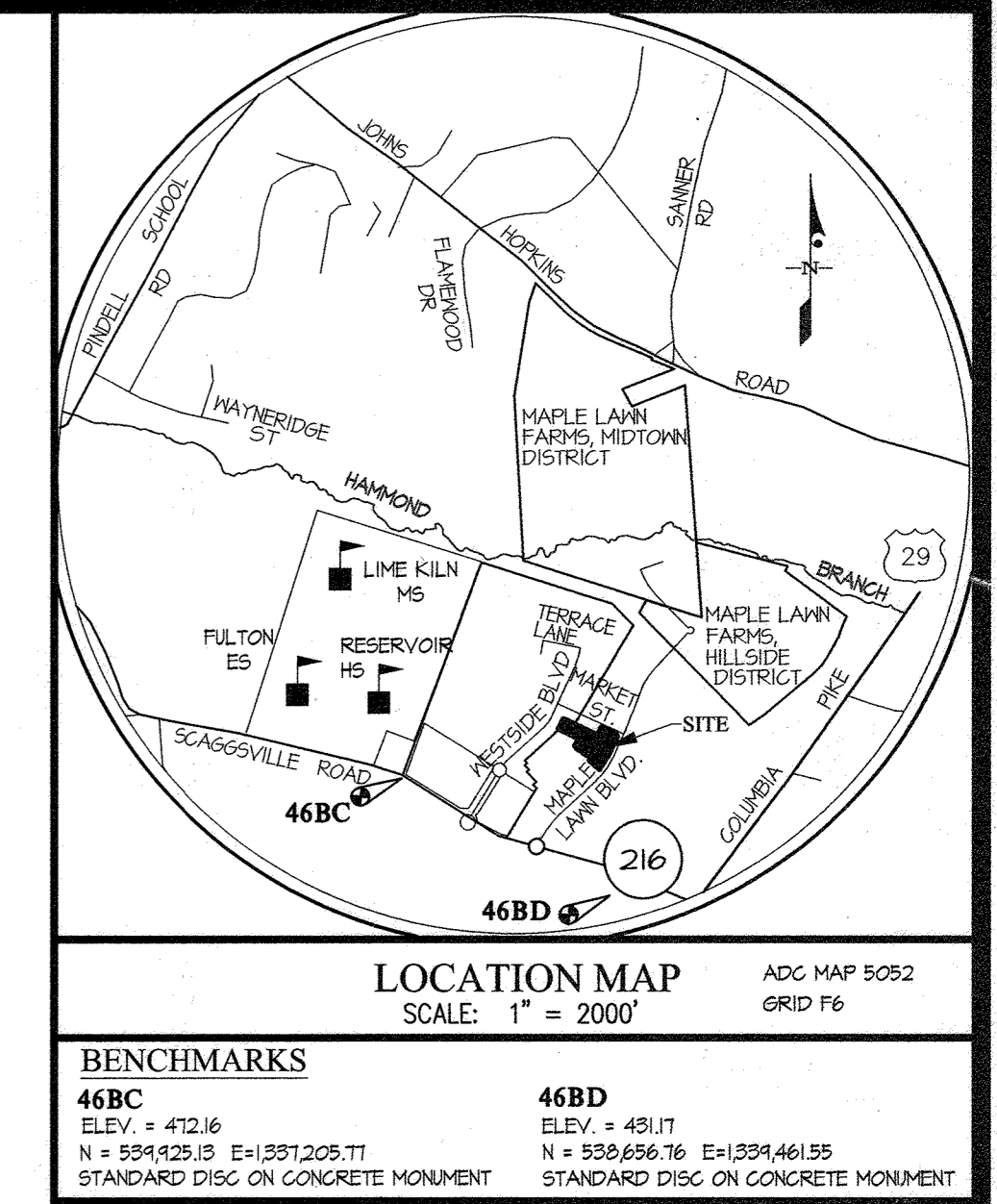
COVER SHEET
 600' SCALE MAP NO. 46 BLOCK NO. 3&4

OWNER:
 MLC PARCEL 5, LLC
 C/O GREENBAUM ENTERPRISES
 1829 REISTERSTOWN ROAD, SUITE 300
 BALTIMORE, MARYLAND 21208
 ATTN: MARK BENNET
 410-484-8400

DEVELOPER:
 ST. JOHN PROPERTIES
 2560 LORD BALTIMORE DRIVE
 BALTIMORE, MARYLAND 21244
 ATTN: KAREN WATSON
 410-788-0100

MAPLE LAWN FARMS
 CONTRACT No. 44-5189-D
 BUSINESS DISTRICT - AREA 1
 PARCEL 'C-26' (OFFICE BUILDING No. 5)
 PLAT No. 21620
 HOWARD COUNTY, MARYLAND
 ELECTION DISTRICT No. 5

SCALE AS SHOWN
 SHEET 1 OF 2



LOCATION MAP
 SCALE: 1" = 2000'
 BENCHMARKS
 46BC ELEV. = 472.16
 46BD ELEV. = 481.17

GENERAL NOTES

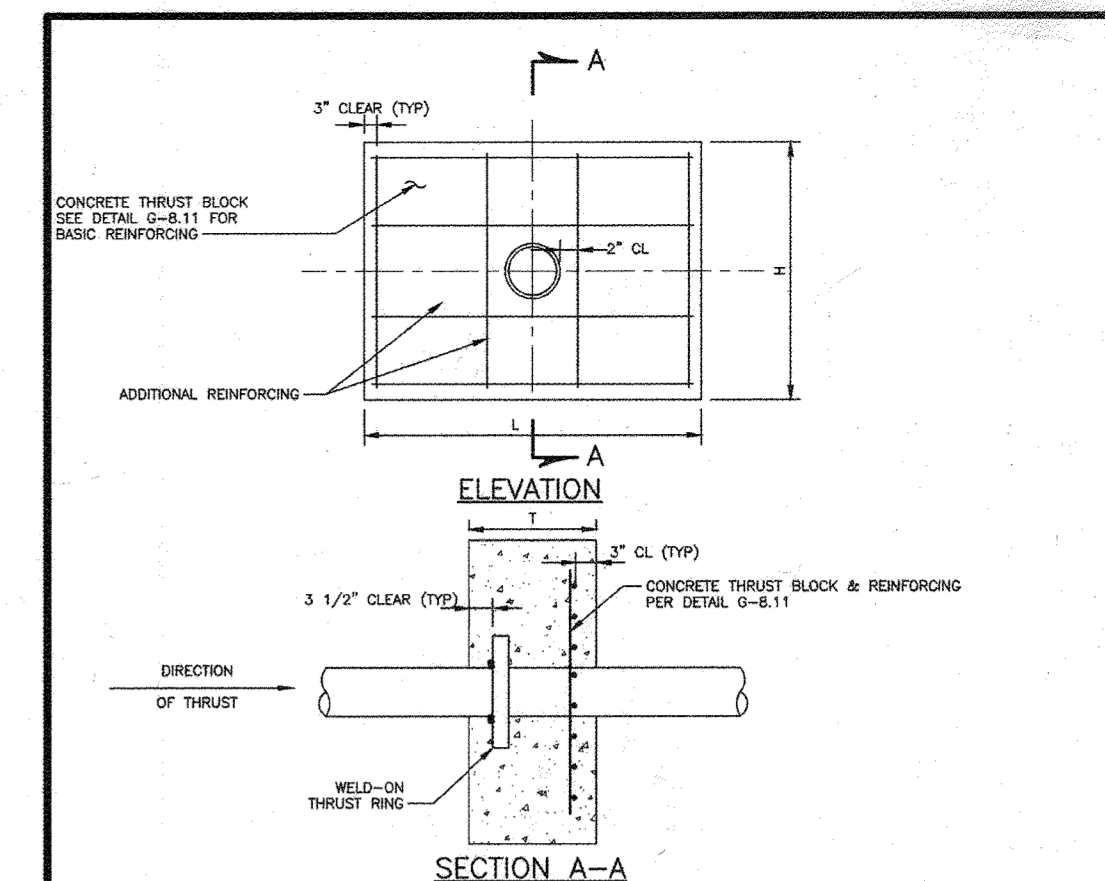
- Part I**
- Approximate locations of existing mains are shown. The contractor shall take all necessary precautions to protect existing mains and services and maintain uninterrupted service. Any damage incurred shall be repaired immediately to the satisfaction of the Engineer at the contractor's expense.
 - Topographic AIR surveys were performed on December, 2008 by McKenzie Snyder and Field Topography was done in July, 2021 by Gutschick, Little & Weber.
 - Horizontal and Vertical Survey Controls:
 The coordinates shown on the drawings are based on Maryland State Reference System NAD 83/11 as projected by Howard County Geodetic Control Stations No. 46BC, and No. 46BD.
 All vertical controls are based on NAVD 88. Vertical controls provided on the drawings are STANDARD DISCS ON CONCRETE MONUMENTS.
 - 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 the 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 to 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 \oplus 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 (Construction Services).....410-637-8713
 BGE (Emergency).....410-685-0123
 Bureau of Utilities.....410-315-4900
 Colonial Pipeline Co.....410-745-1940
 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 or boring/jacking of any County road for laying water/sewer mains or house connections. The approval of these drawings will constitute compliance with DFN requirements per Section 18.11.4(a) of the Howard County Code.
- Part II WATER**
- All water mains shall 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 jury 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 51 of the ANNA Standard C400 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 supporting 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 hangers. 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 compaction equipment directly over the fitting.
 - PVC high deflection couplings shall be limited to a total deflection of 5-degrees (1/2-degree on either end of the coupling), shall be rated for a minimum 200 psi meeting the requirements of ANNA C400, shall have a minimum lay length of 4-inches and shall have center stops. PVC high deflection couplings shall be certified 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 ANNA C400 and shall be Multi Fittings (ipex) Blue Brute DR18 or equal.
 - Five degree sweeps shall be bell by spigot, rated for a minimum 225 psi, DR 18 meeting the requirements of ANNA C400 and shall be Multi Fittings (ipex) 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 ANNA C-400 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 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.

ADJACENT PROPERTY ADDRESSES			
LOT #	ADDRESS	LOT #	ADDRESS
15	814 WESTSIDE BOULEVARD	196	11589 MARKET STREET
16	817 WESTSIDE BOULEVARD	197	11584 MARKET STREET
17	815 WESTSIDE BOULEVARD	198	11582 MARKET STREET
18	811 WESTSIDE BOULEVARD	199	11580 MARKET STREET
19	804 WESTSIDE BOULEVARD	200	11529 MARKET STREET
20	807 WESTSIDE BOULEVARD	201	11526 MARKET STREET
141	11846 MARKET STREET	202	11524 MARKET STREET
142	11846 MARKET STREET	203	11520 MARKET STREET
143	11844 MARKET STREET	204	11518 MARKET STREET
144	11842 MARKET STREET	205	11516 MARKET STREET
145	11840 MARKET STREET	206	11514 MARKET STREET

WATER HOUSE CONNECTION AS-BUILT LOCATION TABLE	
LOCATION #1	LOCATION #2

FITTING INFORMATION		
LOCATION	FITTING	NAD '83 COORDINATES
KM STA. 0+06	8" 1/16 HB	N 540718 E 13994241
KM STA. 0+11	8" 1/32 VB	N 540182 E 13994248
KM STA. 0+14	8" 1/32 VB	N 540185 E 13994245
KM STA. 1+84	8" 1/2 F.H. TEE	N 540348 E 13994242
KM STA. 1+84	FIRE HYDRANT	N 540355 E 13994210
----	8" x 8" T.S. IV	N 540291 E 13994201

- SEQUENCE OF CONSTRUCTION FOR CONNECTION OF 8" W
- INSTALL THE 8" W FROM 0+20 TO 2+40 INCLUDING THE FIRE HYDRANT.
 - CONTRACTOR IS TO TEST AND THEN CHLORINATE THIS PART OF THE INSTALLATION.
 - CONTRACTOR IS TO TEST AND THEN CHLORINATE THIS PART OF THE INSTALLATION. CONSTRUCT THE THRUST BLOCK AT THE MID POINT BETWEEN THE EXISTING VALVE AND CAP & BUTRESS PER HOWARD COUNTY DETAIL G 8.13. ALLOW THRUST BLOCK TO CURE AND ACHIEVE STRENGTH SPECIFIED IN NOTE 2 DETAIL G 8.13.
 - ONCE THE CONCRETE HAS CURED AND THE EXISTING MAIN HAS BEEN SECURED TO THE BLOCK, BACKFILL THE TRENCH.
 - CONTACT HOWARD COUNTY D.P.W. TO CLOSE THE VALVE INDICATED ON THE PLAN.
 - REMOVE THE EXISTING CAP & BUTRESS ON EACH END AND COMPLETE THE CONSTRUCTION OF THE PROPOSED 8" W.
 - PRESSURE TEST AND CHLORINATE ONCE THE WATER MAIN INSTALLATION HAS BEEN COMPLETED.
 - CONTACT HOWARD COUNTY D.P.W. TO REOPEN THE VALVES.

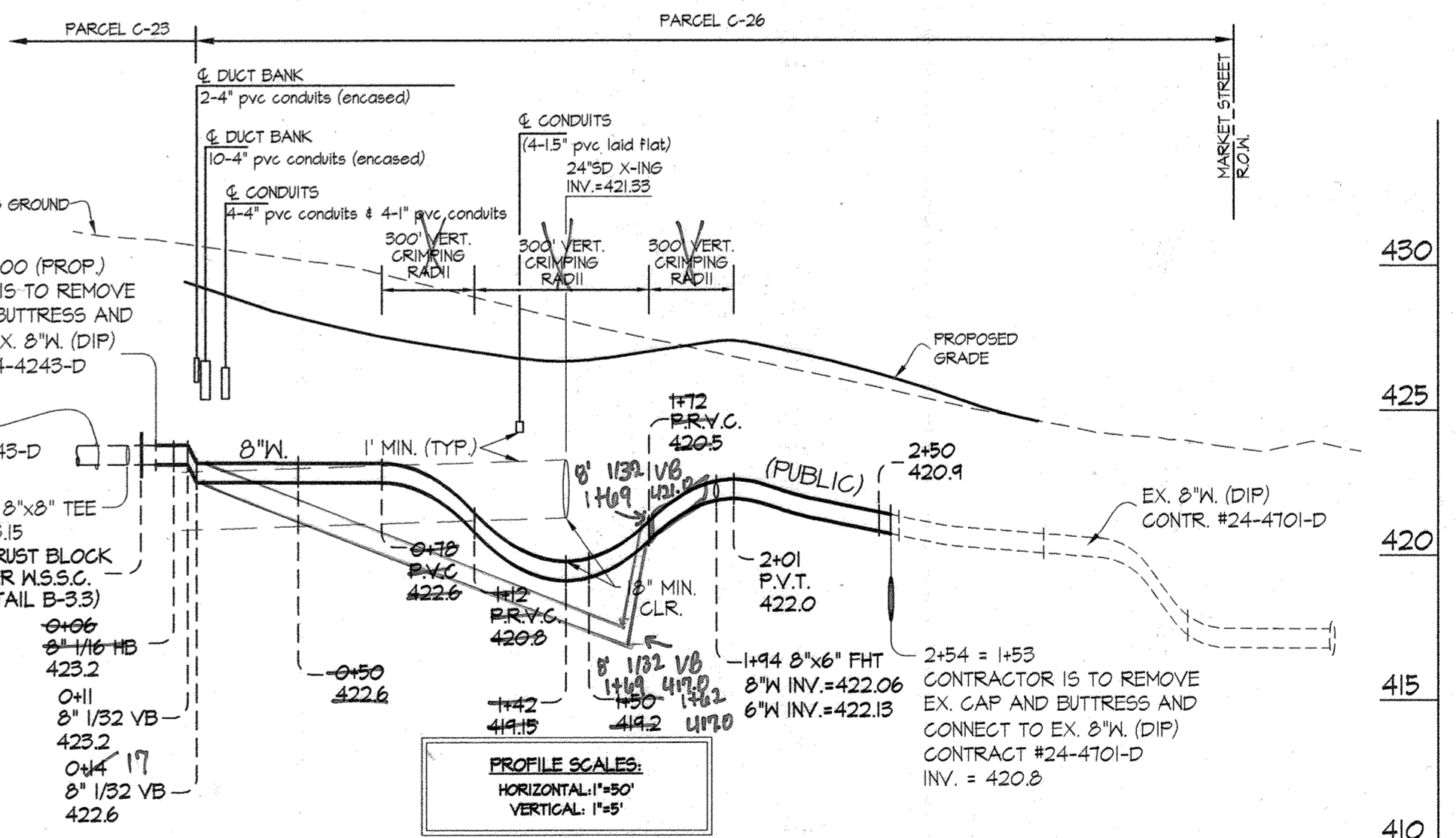
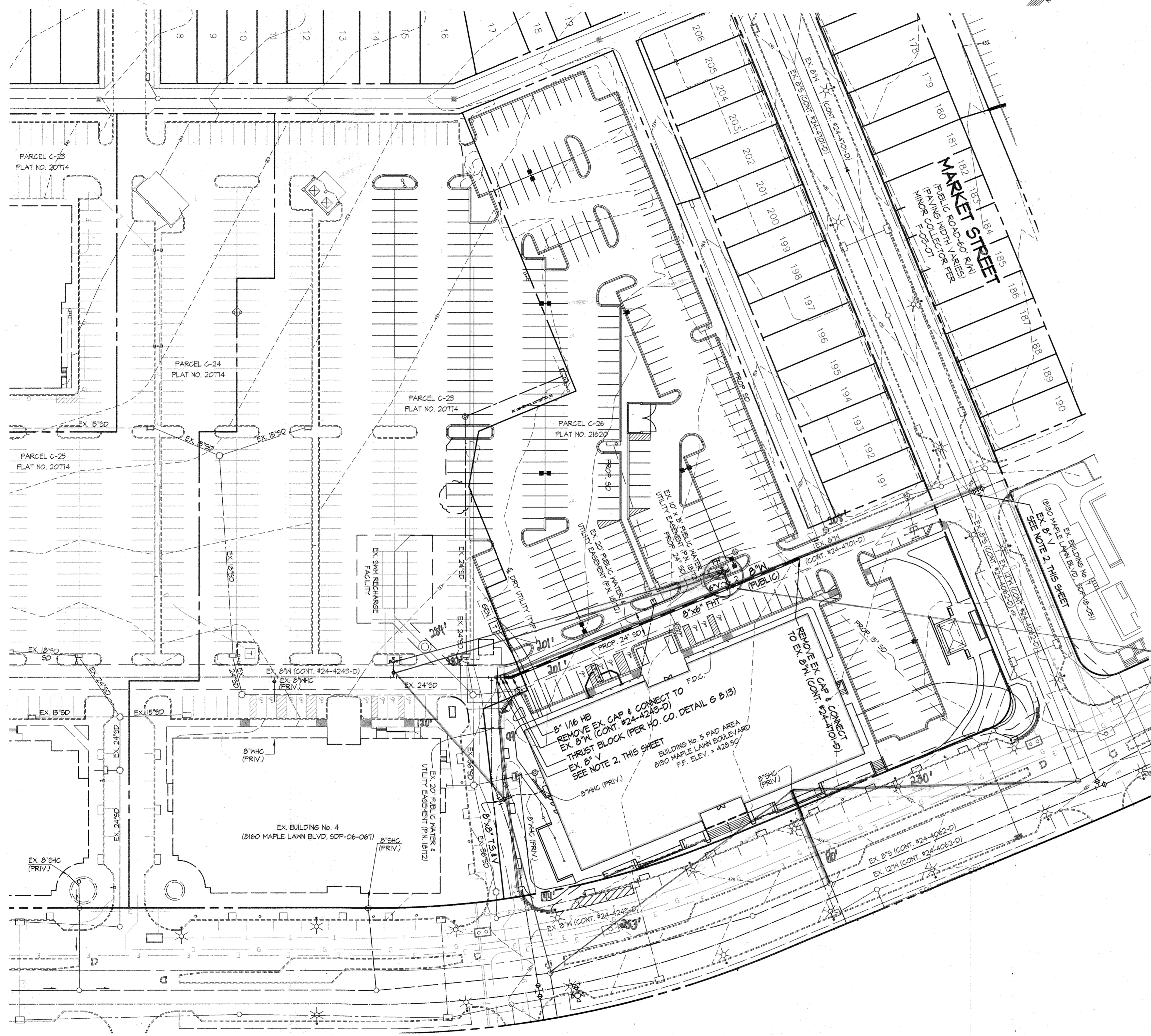
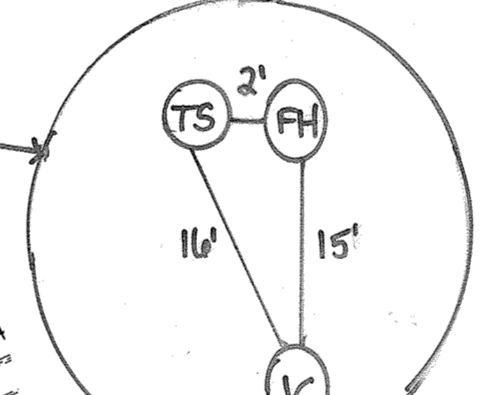


- NOTES:
- SEE DETAIL G-8.11 FOR THRUST BLOCK DETAIL.
 - ALL CONCRETE SHALL BE 4000 PSI. PIPE LINE SHALL NOT BE PRESSURIZED UNTIL CONCRETE STRENGTH REACHES 4000 PSI.
 - ALL REBAR SHALL BE ASTM A615 GRADE 60.
 - MAINTAIN 2" CLEAR BETWEEN ALL REBAR AND PIPE.
 - WELD-ON THRUST RINGS AND PIPE TO WHICH THEY ARE ATTACHED SHALL BE DESIGNED AND SUPPLIED BY THE PIPE MANUFACTURER FOR THE THRUST EQUIPMENT AS SPECIFIED ON THE CONTRACT DOCUMENTS. THE AREA OF THE RING SHALL BE PROPORTIONED SUCH THAT THE BEARING STRESS ON THE CONCRETE DOES NOT EXCEED 1000 PSI.
 - IN THE CASE WHERE THE THRUST FORCE CAN ACT IN EITHER DIRECTION, THE THRUST RING SHALL BE DESIGNED TO ACCOMMODATE A BI-DIRECTIONAL FORCE. IN SUCH CASE, REINFORCING SHALL BE PROVIDED ON BOTH SIDES OF THE BLOCK.
 - REPLACE ALL DISTURBED SOIL ON THE TRUST SIDE OF THE BLOCK WITH CRUSHED STONE COMPACTED AS STRUCTURAL BACKFILL.
 - THIS TYPE OF RESTRAINING SYSTEM SHALL ONLY BE DESIGNED OR INSTALLED IN PLACE OF A RESTRAINED JOINT SYSTEM WITH THE WRITTEN AUTHORIZATION OF THE HOWARD COUNTY D.P.W.

HOWARD COUNTY, MARYLAND Department of Public Works	DIP Weld-on Thrust Ring Concrete Thrust Block (Alternate to restraint joints)	Detail G-8.13
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THRUST BLOCK INFORMATION			
THRUST BLOCK DIMENSIONS			THRUST BLOCK REINFORCEMENT
T	H	L	
1'-2"	3'-0"	4'-0"	15 @ 12" C/C EX + 4 #5 ADD'L REINF.

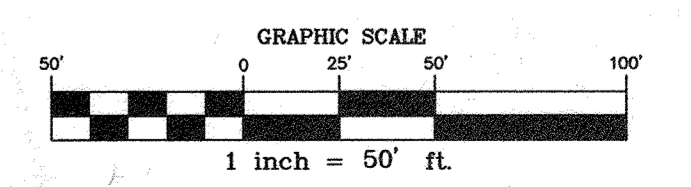
	Location 1	Location 2	Location 3
WHC @ 0+43	EX SMH 144'	EX WMV 99'	EX FHV 130'
ARC @ 0+80	EX SMH 230'	EX SMH 200'	EX SMH 253'
FH @ 2+01	EX FHV 111'	EX WMV 201'	EX FH 294'
FHV @ 2+08	EX FHV 252'	EX WMV 208'	EX WMV 201'



MAPLE LAWN BOULEVARD
(PUBLIC ROAD-100' R/W)
PLAN SCALE: 1"=50'

(FAVING WIDTH VARIES)
MINOR ARTERIAL
(PER F-05-07)

- NOTES:
- THE 8" PVC TO BUILDING NO. 5 IS FOR AN INSIDE COMBINED FIRE/DOMESTIC WATER SUPPLY WITH METERED WATER SERVICE. THE BUILDING SHALL BE EQUIPPED WITH AN AUTOMATIC SPRINKLER SYSTEM.
 - EX. VALVE TO BE CLOSED BY D.P.W. FOR CONSTRUCTION.



DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND 2/3/22 CHIEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND 2/24/22 CHIEF, DEVELOPMENT ENGINEERING DIVISION	GLW GUTSCHICK LITTLE & WEBER, P.A. CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK BURTONSVILLE, MARYLAND 20886 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-969-2524 FAX: 301-421-4186	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, 2022	DATE: JAN., 2022 G.L.W. No. 21067	STATE OF MARYLAND PROFESSIONAL ENGINEER [Signature]	WATER EXTENSION PLAN 600' SCALE MAP NO. BLOCK NO.	MAPLE LAWN FARMS OFFICE BUILDING NO. 5 BUSINESS DISTRICT PARCEL C-26 HOWARD COUNTY, MARYLAND ELECTION DISTRICT No. 5 CONTRACT No. 44 - 5189-D	SCALE AS SHOWN SHEET 2 OF 2
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