

ITEM	ESTIMATED	QUANTITIES		
		QUANTITIES	AS-BUILT	SUPPLIER
8" N.C.900	531 LF			
6" N.C.900	94 LF			
6" VALVE	3 EA.			
8"-1/8" H.B.	1 EA.			
8"-1/16" H.B.	1 EA.			
8"-1/32" H.B.	5 EA.			
8"-1/64" H.B.	1 EA.			
8"x6" TEE	3 EA.			
8" CAP	1 EA.			
6" F.H.	2 EA.			
1" DEFLECTION COUPLING	1 EA.			
2" DEFLECTION COUPLING	5 EA.			
3" DEFLECTION COUPLING	2 EA.			
6" S. SCH 40	18 LF			

DEVELOPER'S CERTIFICATION

I/We certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District.

[Signature] 7-29-20
 Signature of Developer Date
 Print name below signature

ENGINEER'S CERTIFICATION

I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

[Signature] 7-29-20
 Signature of Engineer Date
 Print name below signature

Sediment Control measure for this contract will be implemented in accordance with section 30B of the Howard County design manual - volume IV: Standard specifications and details for construction and as shown on SDP -16-051

SIGNATURE OF DEVELOPER Date

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT APPROVED:

HOWARD SOIL CONSERVATION DISTRICT DATE

SIGNATURE OF DEVELOPER Date

For the Howard Soil Conservation District

This development plan is approved for soil erosion and sediment control by the Howard Soil Conservation District

[Signature] 8/19/20
 Howard Soil Conservation District Date

OWNER

KELLOGG - CCP, LLC
 c/o DAVID P. SCHEFFENACKER, JR.
 MANAGING MEMBER

100 WEST ROAD, SUITE 304, TOWSON, MD 21204
 410-296-3800

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.

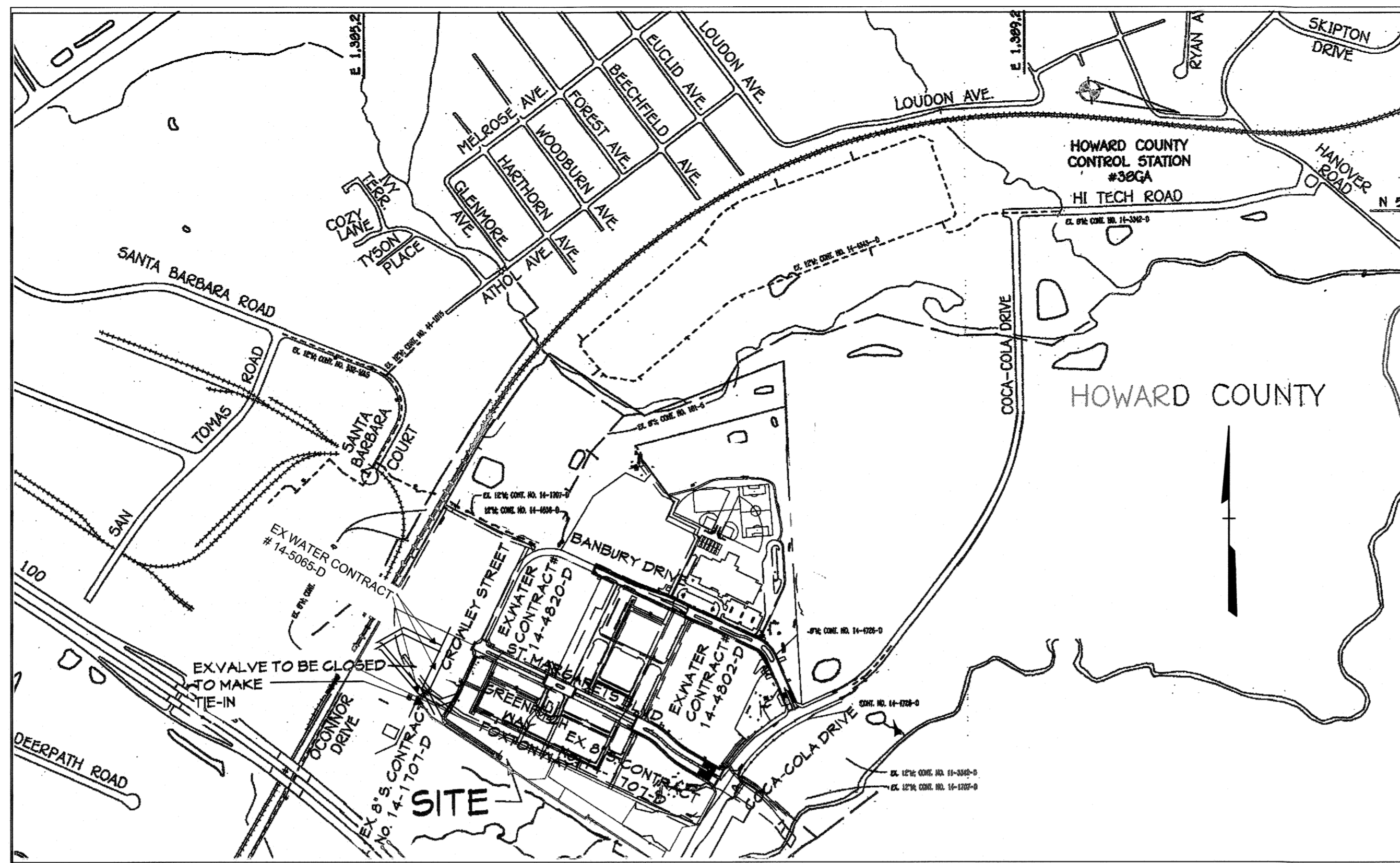
LICENSE NUMBER: 10551 EXPIRATION DATE: 8-28-21

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

[Signature] 8-6-2020
 CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND

[Signature] 8/26/20
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



WATER ZONE: 400	WATER TEST GRADIENT: 550
TYPE OF BUILDING: COMMERCIAL	NUMBER OF PARCELS: 1
NUMBER OF BUILDBLE LOTS: 0	NUMBER OF OPEN SPACE LOTS: 0
No. OF WATER HOUSE CONNECTIONS: 1	No. OF SEWER HOUSE CONNECTIONS: 1
SEWER SHED: PATAPSCO	TREATMENT PLANT: PATAPSCO WASTEWATER TREATMENT PLANT

LOCATION MAP

SCALE: 1"=600'

ADC MAP 40, GRIDS C4 and C5
 PLAN REFERENCE NUMBERS:
 F-16-055

CONTRACT No. 14-5010-D
OXFORD SQUARE
THE ATTIC
PARCEL 'V', 'C-C' & OPEN SPACE 245
WATER and SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

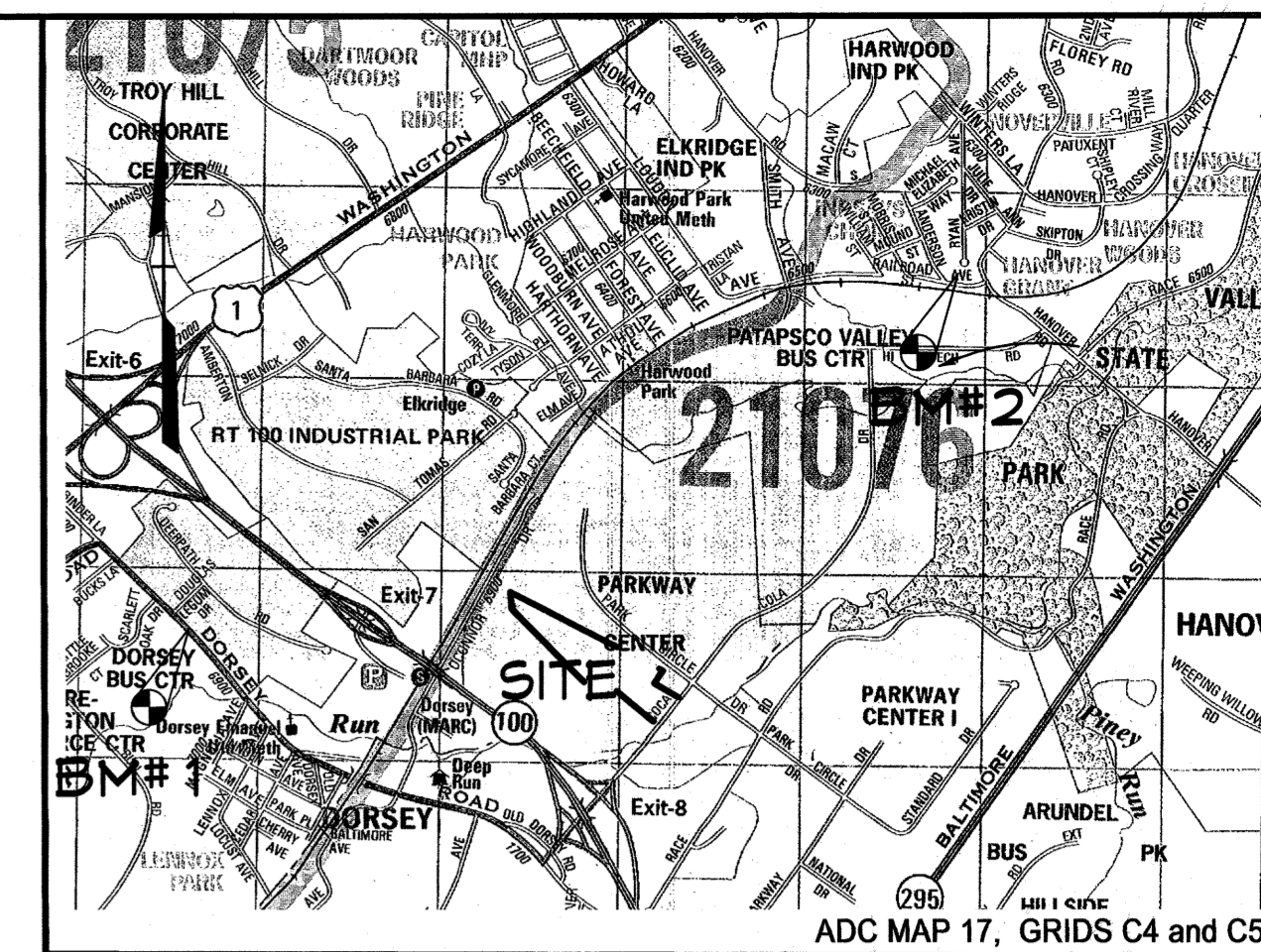
SEWER MAIN GENERAL NOTES

- All sewer mains shall be DIP 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 G.5.52. Where watertight frame and cover is used, set top 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.

BENCHMARK

BM #1-HOWARD COUNTY CONTROL STATION #38A-HORIZONTAL-NAD'83 (LOCATED ALONG RAILROAD AVENUE, JUST SOUTH OF RYAN AVENUE APPROX. 22.6' NORTH FROM THE CENTERLINE OF RAILROAD AVENUE)
 NORTHING: 555,041.9373
 EASTING: 1,940,132.0483
 ELEVATION: 80.163-VERTICAL-NAV'D88

BM #2-HOWARD COUNTY CONTROL STATION #43CB-HORIZONTAL-NAD'83 (LOCATED ALONG SOUTHWEST SIDE OF DORSEY ROAD, APPROX. 2.2' OFF THE EDGE OF PAVING APPROX. 46.1' EAST OF POWER POLE NO. 14)
 NORTHING: 555,084.2466
 EASTING: 1,982,282.4190
 ELEVATION: 144.941-VERTICAL-(NAV'D88)



SCALE: 1"=2000'

DEPARTMENT OF PUBLIC WORKS

**BUREAU OF ENGINEERING
 UTILITY DESIGN DIVISION
 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.
- Topographic field surveys were performed in 2010 by Fisher, Colliaris and Carter Inc., supplementing Aerial, dated 2008.
- The coordinates shown on the drawings are based on Maryland State Reference System NAD '83' as projected by Howard County Geodetic Control Stations No. 38GA, No.43CB. All vertical controls are based on NGVD88.
- All pipe elevations are shown invert elevations unless otherwise noted on the plans.
- Clear all poles 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 by 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, see 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 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 Utilities410-313-4900
 Colonial Pipeline Company410-795-1390
 Miss Utility 1-800-257-7777
 State Highway Administration410-531-5533
 Verizon1-800-743-0033
- 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 DPW requirements per section 18.114(a) of the Howard County Code.

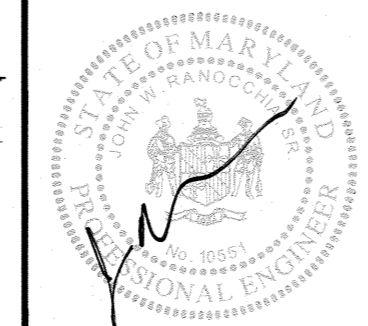
WATER MAIN GENERAL NOTES

- All water mains to be D.I.P. Class 54 unless otherwise noted.
- Tops of all water mains to 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 the 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 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 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 D.I.P. and PVC Water Mains in accordance with 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, 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. Seventeen (17) pounds 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 insert or over home the spigot into the bell of the PVC pipe.
- All changes in horizontal or vertical direction of PVC water pipe shall be made with standard bends, 5-degree sweep 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 on full pipe length (20 foot long) on either side 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 of 3-degrees (1 1/2 Degree on either side of the coupling), shall be rated 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 certified PVC High Deflection (HD) stop couplings or equal.
 Five degree sweeps shall be bell spigot, rated for a minimum 225 PSI, DR-18 meeting the requirements of AWWA C900 and shall be multi fittings (IPEX) 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 AWWA C900 PVC Pipelines, the contractor shall insert 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 approval equal.

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND

CENTURY ENGINEERING
 CONSULTING ENGINEERS - PLANNERS
 10710 Gilroy Road, Hunt Valley, MD 21031
 Phone: 443.589.2400 Fax: 443.589.2401



DESIGN BY: MJP/KAD					
DRAWN BY: KAD/RLH					
CHECKED BY: J.V.A.					
DATE: 7-28-20					
BY	NO.	REVISION	DATE		

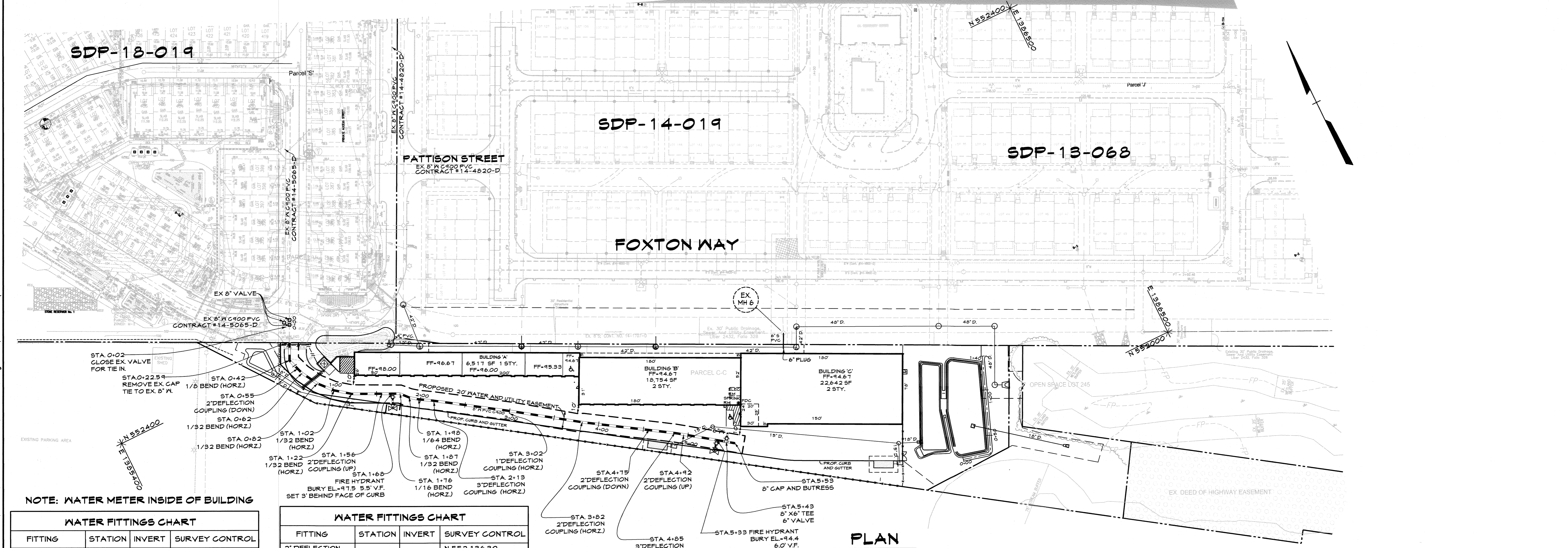
**Water and Sewer Main Extensions
 Title Sheet**

600' SCALE MAP NO. 38 BLOCK NO.
 F.C.C. WORK ORDER NO.
 FILE NAME: WATER AND SEWER MAIN EXTENSION TITLE SHEET

Oxford Square - The Attic
 Parcel 'V', 'C-C' & Open Space 245
 Water and Sewer Extensions
 CONTRACT No. 14-5010-D

TAX MAP: 38 PARCEL: 20 and TAX MAP: 44 PARCEL: 16 GRID: 1
 ZONED: TOD
 FIRST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

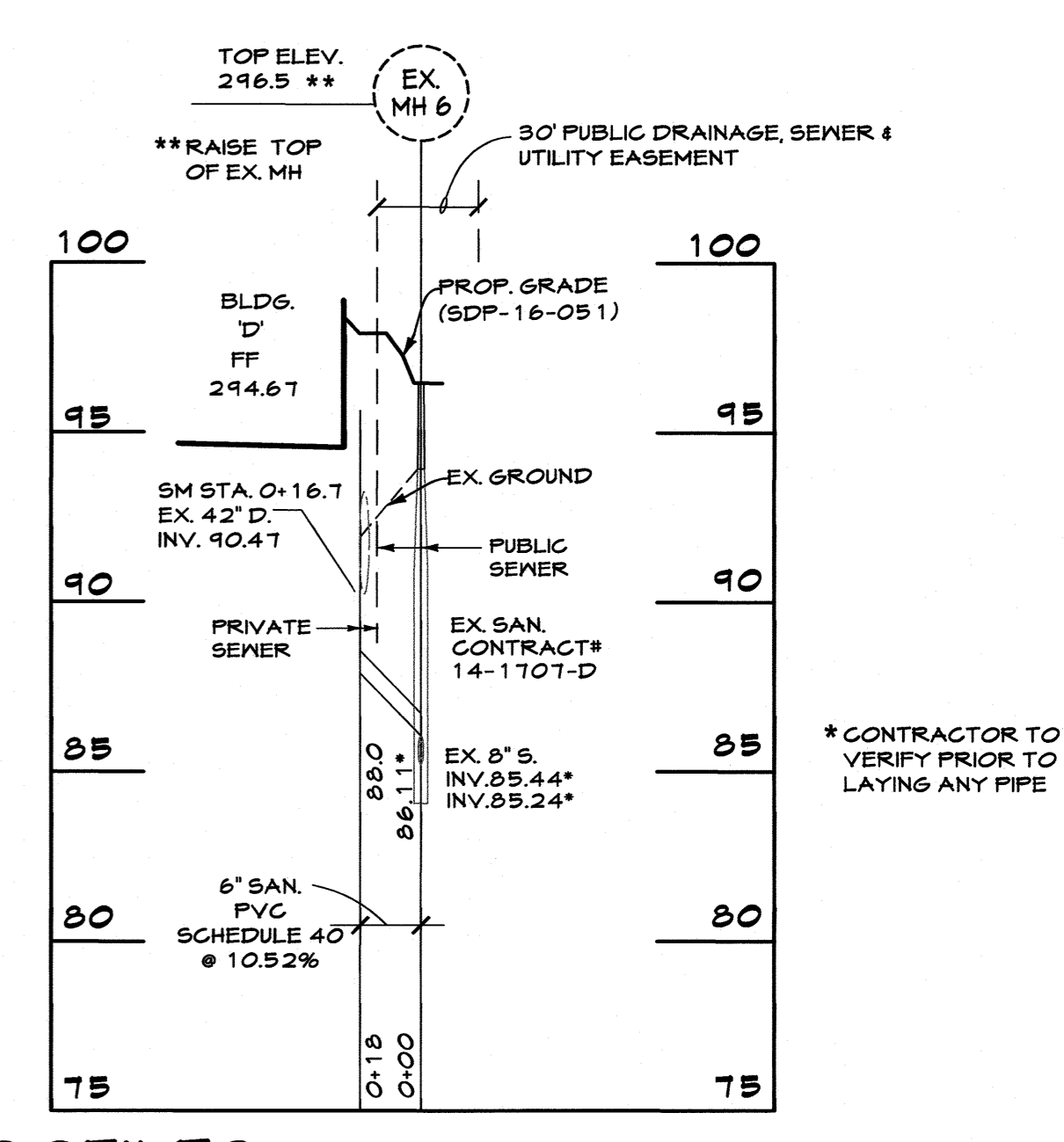
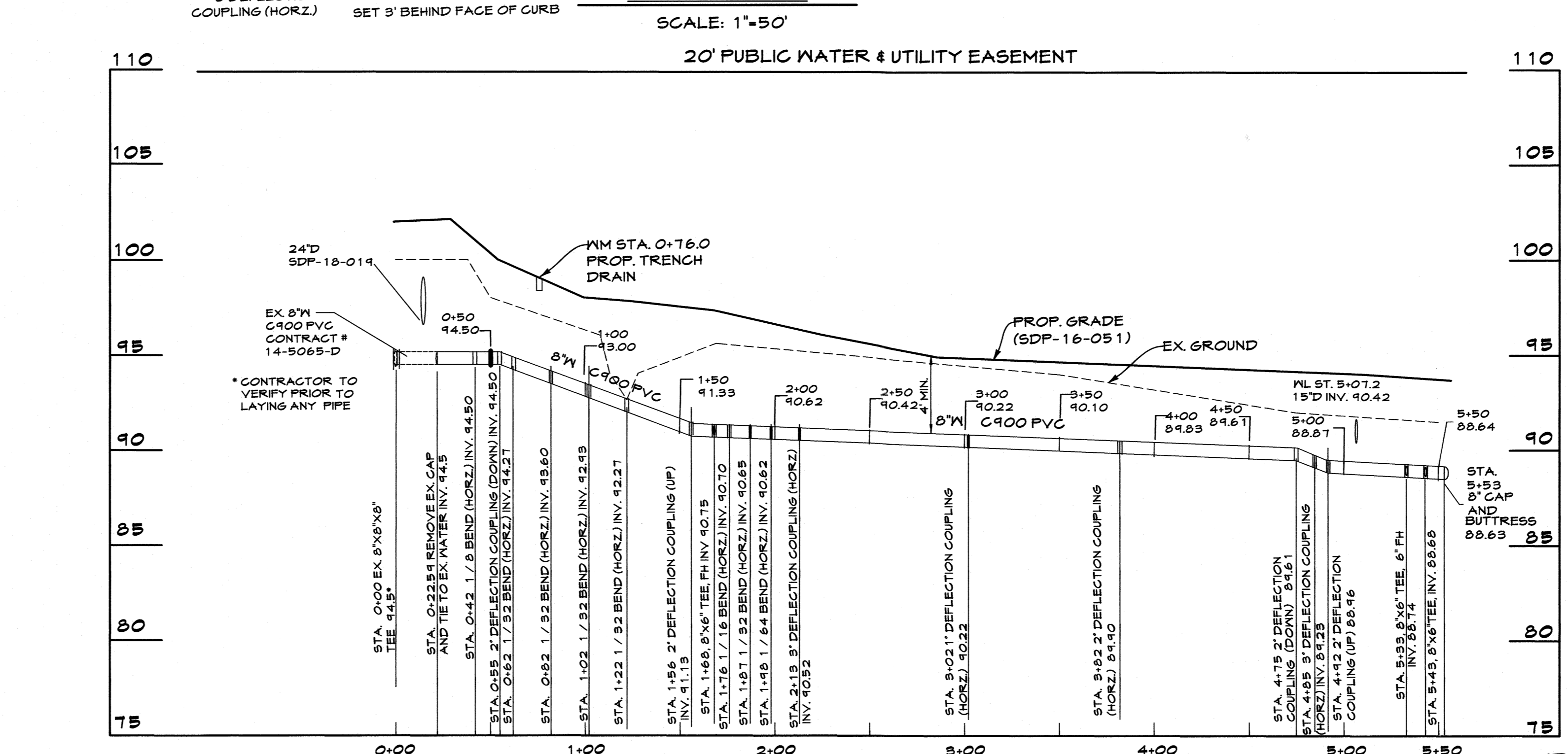
SCALE: As Shown
 SHEET: 1 of 2



NOTE: WATER METER INSIDE OF BUILDING

FITTING	STATION	INVERT	SURVEY CONTROL
REMOVE EX 8" CAP	0+22.59	94.50	N 552,418.45/- E 1,385,616.89+/-
1/8 BEND (HORZ.)	0+42	94.50	N 552,400.76 E 1,385,608.34
2' DEFLECTION COUPLING (DOWN)	0+55	94.50	N 552,386.31 E 1,385,613.14
1/32 BEND (HORZ.)	0+62	94.27	N 552,381.59 E 1,385,614.78
1/32 BEND (HORZ.)	0+82	93.60	N 552,364.35 E 1,385,624.93
1/32 BEND (HORZ.)	1+02	92.93	N 552,349.42 E 1,385,638.23
1/32 BEND (HORZ.)	1+22	92.27	N 552,337.38 E 1,385,654.20
2' DEFLECTION COUPLING (UP)	1+56	91.13	N 552,322.60 E 1,385,684.79
8"x6" TEE, 6" FH	1+68	90.75	N 552,317.49 E 1,385,695.35
1/16 BEND (HORZ.)	1+76	90.70	N 552,314.04 E 1,385,702.50
1/32 BEND (HORZ.)	1+87	90.65	N 552,305.65 E 1,385,710.02
1/64 BEND (HORZ.)	1+98	90.62	N 552,299.10 E 1,385,718.70
3' DEFLECTION COUPLING (HORZ.)	2+13	90.52	N 552,291.07 E 1,385,731.86
1' DEFLECTION COUPLING (HORZ.)	3+02	90.22	N 552,242.00 E 1,385,805.26
2' DEFLECTION COUPLING (HORZ.)	3+82	89.90	N 552,196.12 E 1,385,871.42
2' DEFLECTION COUPLING (DOWN)	4+75	89.61	N 552,140.44 E 1,385,957.98
3' DEFLECTION COUPLING (HORZ.)	4+85	89.23	N 552,140.40 E 1,385,958.04

FITTING	STATION	INVERT	SURVEY CONTROL
2' DEFLECTION COUPLING (UP)	4+92	88.96	N 552,136.30 E 1,385,963.72
8"x6" TEE, 6" FH	5+33	88.74	N 552,112.57 E 1,385,996.69
8"x6" TEE	5+43	88.68	N 552,106.51 E 1,386,005.11
8" CAP	5+53	88.63	N 552,100.66 E 1,386,013.22



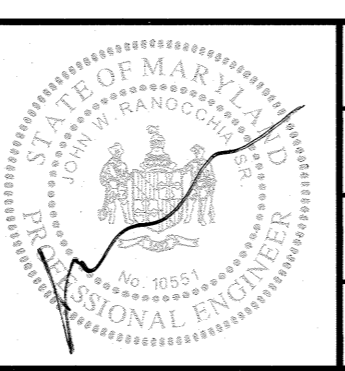
OWNER
KELLOGG - CCP, LLC
 c/o DAVID P. SCHEFFENACKER, JR.
 MANAGING MEMBER
 100 WEST ROAD, SUITE 304, TOWSON, MD 21204
 410-296-3800

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 NUMBER: 10551 EXPIRATION DATE: 8-28-21

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 [Signature] 8-6-2020
 CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND
 [Signature] 8/26/20
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

CENTURY ENGINEERING
 CONSULTING ENGINEERS - PLANNERS
 10710 Glitroy Road, Hunt Valley, MD 21031
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DESIGN BY:	MJP/KAD
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Water and Sewer Main Extensions
 600' SCALE MAP NO. 38 BLOCK NO.
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Oxford Square - The Attic
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 1"=5' (VERT.)
 SHEET: 2 of 2

S:\2013\Facilities\13111700 Oxford Square\CADD\Drawings\SDP - Attic Building A Revisions and Entrance Revisions\13111700 (SM-02) Sewer Main Plan (7-28-20).dwg Jul 29, 2020 1:29pm rharwitz