

FINAL PUBLIC WATER AND SEWER PLAN

BURGESS MILL STATION - PHASE II APARTMENTS

CONTRACT 14-4961-D HOWARD COUNTY, MARYLAND

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.
- AERIAL PHOTODIAGRAM MAPPING PROVIDED BY THE CLIENT, DATED MARCH 11, 1991; AND BY FIELD RUN SURVEYS BY ROBERT H. VOGEL ENGINEERING, INC., AND WERE PERFORMED ON 07/02/09, 04/06/12, 08/17/12, AND 12/30/14.
- 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. 25A1 AND 25A2.
ALL VERTICAL CONTROLS ARE BASED ON (NAVD'88).
VERTICAL CONTROLS PROVIDED ON DRAWINGS ARE:
GEODETIC SURVEY CONTROL 25A1 (N 586,557.55, E 1,366,847.10)
ELEVATION: 396.54
CONCRETE MONUMENT
GEODETIC SURVEY CONTROL 25A2 (N 587502.73, E 1,366556.38)
ELEVATION: 348.14
CONCRETE MONUMENT
- 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 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 THESE PLANS:

ART	800-252-1133
BCE (CONSTRUCTION SERVICES)	410-637-8713
BCE (EMERGENCY)	410-685-0123
BUREAU OF UTILITIES	410-313-4900
COLONIAL PIPELINE CO.	410-795-1390
MSIS UTILITY	800-257-7777
STATE HIGHWAY ADMINISTRATION	410-531-5533
VERIZON	800-743-0033
- TREES AND SHRUBS LOCATED 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 ANY 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.
- THIS PLAN IS SUBJECT TO A DESIGN MANUAL WALKER TO SECTION 5.4.2.5 OF THE HOWARD COUNTY DESIGN MANUAL VOLUME II (WATER AND SEWER) REQUIRING A MINIMUM 10-FOOT HORIZONTAL CLEARANCE BETWEEN ANY PERMANENT STRUCTURE AND THE EDGE OF A PUBLIC UTILITY EASEMENT AT THE FOLLOWING IMPACT AREAS:
 - THE PROPOSED ENCROACHMENT INTO THE EASEMENT SETBACK BY THE CONCRETE SECTIONS OF RETAINING WALL 2B, APPROVED 02/10/17.
 - THE PROPOSED ENCROACHMENT INTO THE EASEMENT SETBACK BY THE MODULAR BLOCK SECTIONS OF RETAINING WALL 2B, APPROVED 01/18/17.
 - THE PROPOSED ENCROACHMENT INTO THE EASEMENT SETBACK BY THE MODULAR BLOCK SECTIONS OF RETAINING WALL 2A, APPROVED 01/18/17.
 - THE PROPOSED ENCROACHMENT INTO THE EASEMENT SETBACK BY RETAINING WALL 1; APPROVED 01/18/17.
 - THE PROPOSED ENCROACHMENT INTO THE EASEMENT SETBACK BY RETAINING WALL 3; APPROVED 01/18/17.
 - THE PROPOSED ENCROACHMENT INTO THE EASEMENT SETBACK BY RETAINING WALL 4; APPROVED 02/10/17.

PART II - WATER

- ALL WATER MAINS SHALL BE C900 PVC-DR-18 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 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 ANNA 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 HARNESSSES. 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 COMPACTOR 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 ANNA C900, SHALL HAVE A MINIMUM LAY LENGTH OF 9-INCHES AND SHALL HAVE CENTER STOPS. PVC HIGH DEFLECTION COUPLINGS SHALL BE CERTAINTIED 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 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 ANNA 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 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.
- SPRINKLER SYSTEM FOR SINGLE RESIDENTIAL DWELLING UNITS SHALL HAVE WATER HOUSE CONNECTIONS AND WATER METERS THAT ARE SIZED IN ACCORDANCE WITH THE DESIGN OF THE SPRINKLER SYSTEMS. SPRINKLER SYSTEMS FOR SINGLE RESIDENTIAL DWELLINGS SHALL HAVE A MINIMUM OF 1.5" SERVICE CONNECTION WITH A 1" OUTSIDE METER SETTING.

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 05.52. 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 THE CELLAR CANNOT BE SERVED.

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

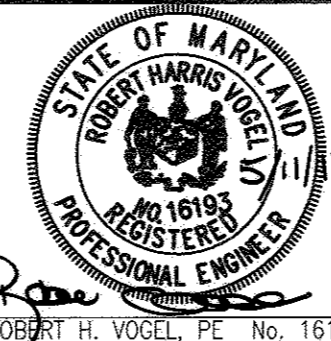
[Signature] 8/14/17
SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE SPECIFICATIONS AND WITH SITE DEVELOPMENT PLAN SDP-16-016.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
[Signature] 6-13-17
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
[Signature] 6-13-17
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET ELLICOTT CITY, MD 21043 TEL: 410-461-7666 FAX: 410-461-8964



PROFESSIONAL CERTIFICATE
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. 16193, EXPIRATION DATE: 08-27-2018
DRN: KG DES: DZL
CHK: RHW
DATE: MAY 2017

BY	NO.	REVISION	DATE

FINAL PUBLIC WATER AND SEWER PLAN
CONTRACT #14-4961-D
COVER SHEET

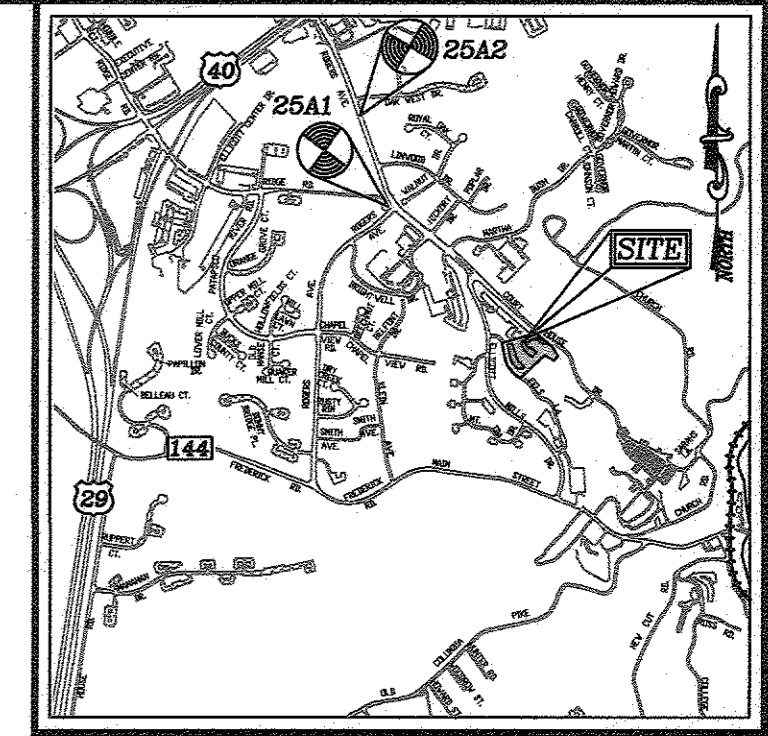
600' SCALE MAP NO. 25 BLOCK NO. 7

TAX MAP: 25 GRID: 07
2ND ELECTION DISTRICT

BURGESS MILL STATION PH II
APARTMENTS
A REDEVELOPMENT OF THE ELLICOTT CITY TERRACE APARTMENTS
ZONED: R-A-15
L117021-63
SCALE AS SHOWN
SHEET 1 OF 3

BENCHMARKS

HOWARD COUNTY BENCHMARK 25A1
N 586,557.546 E 1,366,847.098 ELEV.: 396.345'
HOWARD COUNTY BENCHMARK 25A2
N 587502.729 E 1,366556.377 ELEV.: 348.145'



VICINITY MAP
SCALE: 1"=2000'
ADC MAP COORDINATES: 4816 / B7

LEGEND

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROPERTY LINE
- EXISTING CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- EXISTING STORM DRAIN
- EXISTING FENCE
- CENTERLINE OF EXISTING STREAM
- EXISTING TREELINE
- PROPOSED TREELINE
- PROPOSED WATER MAIN
- FIRE HYDRANT
- PROPOSED VALVE
- PROPOSED TEE
- PROPOSED STORM DRAIN
- WATER HOUSE CONNECTION
- SEWER HOUSE CONNECTION
- PROPOSED SIGN
- PROPOSED LIGHT
- PROPOSED STORM DRAIN INLET
- PROPOSED SIDEWALK
- PROPOSED CURB

VICINITY MAP
SCALE: 1"=600'

WATER ZONE: 400
TEST GRADIENT: 550
SDP-16-016

TYPE OF BUILDINGS:	MULTI-FAMILY APARTMENTS
NO. OF LOTS/PARCELS:	1
NO. OF SINGLE WATER HOUSE CONNECTIONS:	3
NO. OF SEWER HOUSE CONNECTIONS:	0
DRAINAGE AREA:	PATAPSCO RIVER
TREATMENT PLANT:	PATAPSCO RIVER

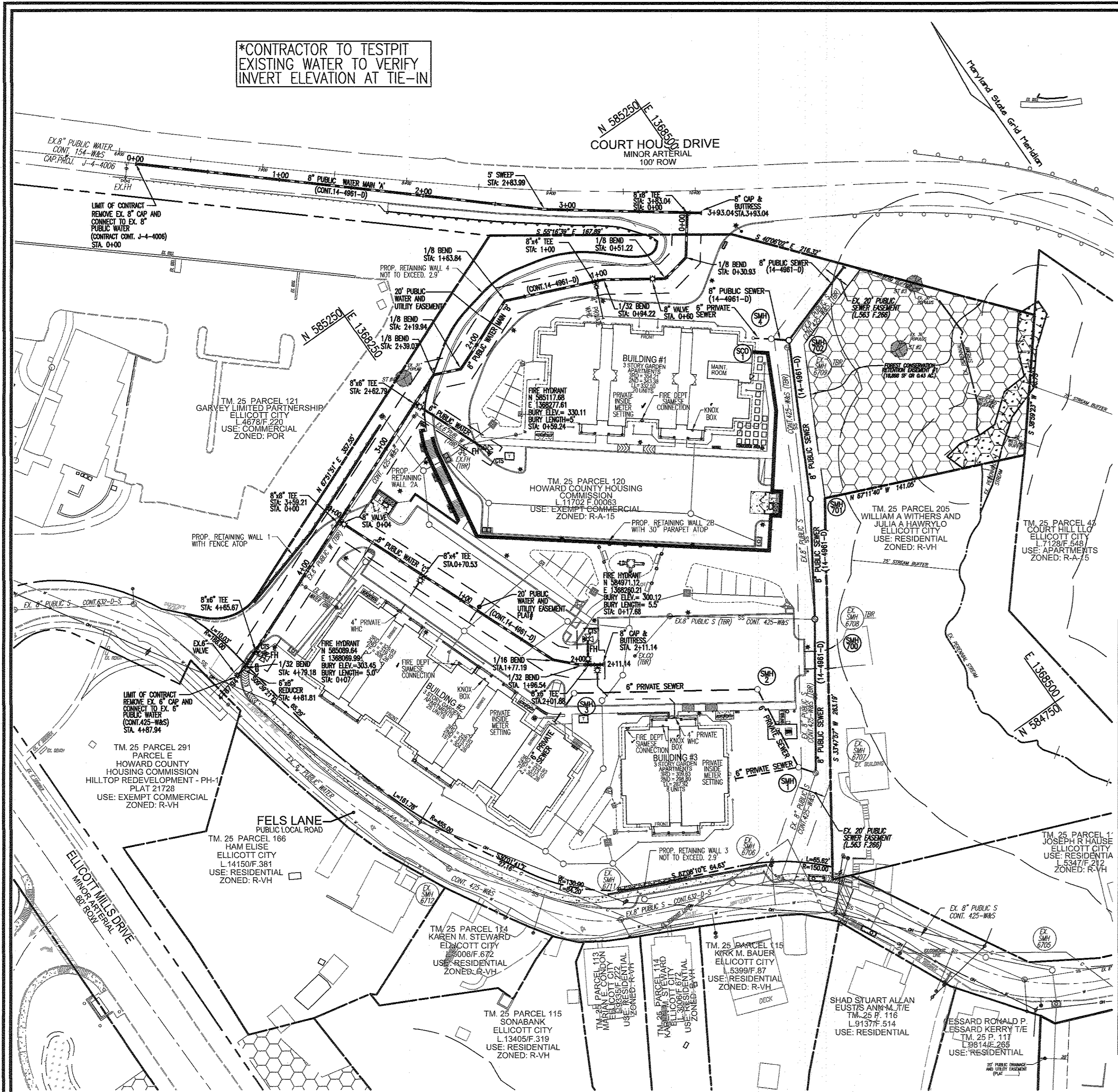
QUANTITIES

NAME OF UTILITY CONTRACTOR :				
SURVEY AND DRAFTING DIVISION AS-BUILT DATE :				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
WATER				
8" WATER (DIP-CLASS 52)	363 LF			
6" WATER (DIP-CLASS 52)	59 LF			
8" WATER (PVC C-900) (DR-18)	729 LF			
8" WATER (PVC C-900) (DR-18)	8 LF			
4" WATER (PVC C-900) (DR-18)	30 LF			
8"x8" TEE	2 EA			
8"x6" TEE	3 EA			
8"x4" TEE	3 EA			
8" VALVE	2 EA			
6" VALVE	3 EA			
4" VALVE	3 EA			
FIRE HYDRANT	3 EA			
6"x8" REDUCER	1 EA			
8"-1/32 HORIZ. BEND	3 EA			
8"-1/16 HORIZ. BEND	1 EA			
8"-1/8 HORIZ. BEND	5 EA			
8"-5" HORIZ. SWEEP	1 EA			
8" CAP AND BUTTRESS	2 EA			
SEWER				
4' PRECAST MANHOLE	3 EA			
8" PVC SEWER	386 LF			

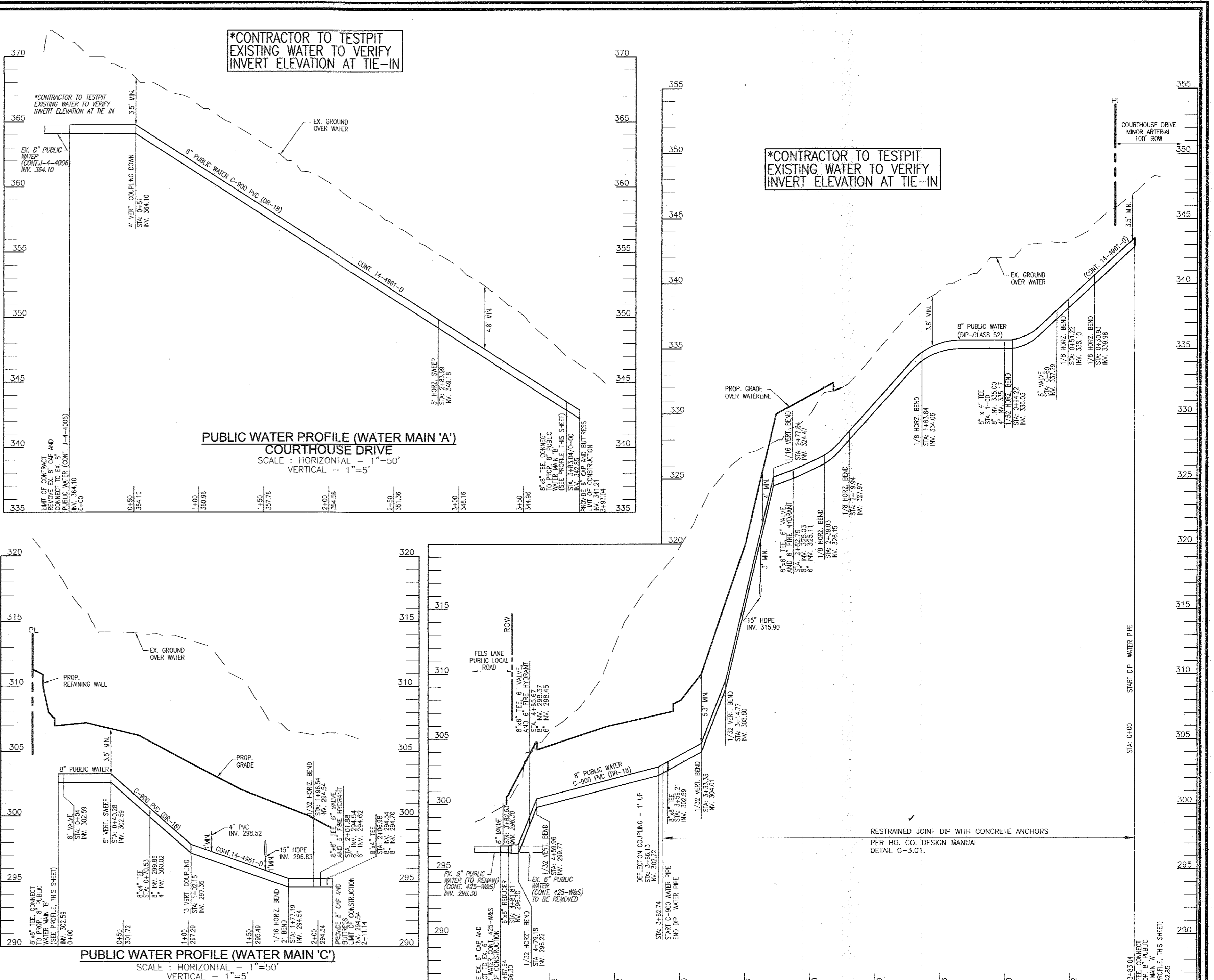
*CONTRACTOR TO TESTPIT EXISTING WATER TO VERIFY INVERT ELEVATION AT TIE-IN

*CONTRACTOR TO TESTPIT EXISTING WATER TO VERIFY INVERT ELEVATION AT TIE-IN

*CONTRACTOR TO TESTPIT EXISTING WATER TO VERIFY INVERT ELEVATION AT TIE-IN



LAYOUT PLAN
SCALE: 1"=50'



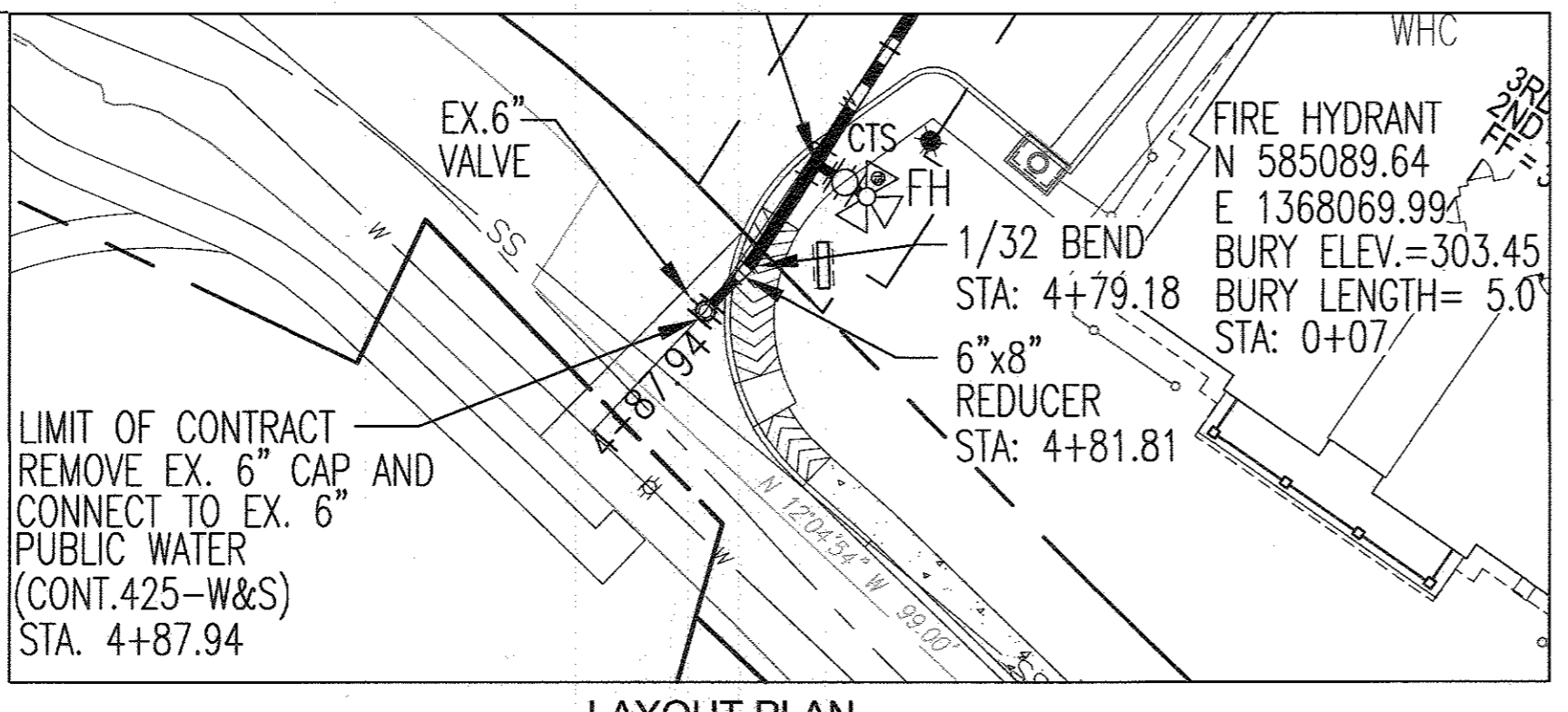
PUBLIC WATER PROFILE (WATER MAIN 'A')
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'

PUBLIC WATER PROFILE (WATER MAIN 'C')
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'

PUBLIC WATER PROFILE (WATER MAIN 'B')
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'

LEGEND

PROPERTY LINE	EXISTING TREELINE
RIGHT-OF-WAY LINE	PROPOSED TREELINE
ADJACENT PROPERTY LINE	PROPOSED WATER MAIN
EXISTING CURB AND GUTTER	FIRE HYDRANT
EXISTING UTILITY POLE	PROPOSED VALVE
EXISTING LIGHT POLE	PROPOSED TEE
EXISTING MAILBOX	PROPOSED STORM DRAIN
EXISTING SIGN	WATER HOUSE CONNECTION
EXISTING SANITARY MANHOLE	SEWER HOUSE CONNECTION
EXISTING SANITARY LINE	PROPOSED STORMDRAIN INLET
EXISTING CLEANOUT	PROPOSED CURB
EXISTING FIRE HYDRANT	FOREST CONSERVATION RETENTION EASEMENT
EXISTING WATER LINE	
EXISTING STORM DRAIN	
EXISTING FENCE	
CENTERLINE OF STREAM	



LAYOUT PLAN
SCALE: 1"=20'

WATER MAIN LOCATION CHART

PROP. WATER MAIN 'A'		PROP. WATER MAIN 'B'		PROP. WATER MAIN 'C'	
WL STA.	APPURTENANCE	WL STA.	APPURTENANCE	WL STA.	APPURTENANCE
WL STA. 0+00.00	CONNECT TO EX. 8" WATER	WL STA. 0+00.00	8"x8" TEE, CONNECT 8" WATER MAIN 'B'	WL STA. 0+00.00	8"x8" TEE, CONNECT 8" WATER MAIN 'B'
WL STA. 0+51.00	4" VERT. COUPLING	WL STA. 0+30.83	1/8" HORIZ. BEND	WL STA. 0+04.00	8" VALVE
WL STA. 2+83.99	5" HORIZ. SWEEP	WL STA. 0+51.22	1/8" HORIZ. BEND	WL STA. 0+40.28	5" VERTICAL SWEEP
WL STA. 3+83.04	8" x 8" TEE	WL STA. 0+60.00	8" VALVE	WL STA. 0+70.53	8"x4" TEE
WL STA. 3+93.04	8" CAP AND BUTTRESS	WL STA. 0+94.22	1/32" HORIZ. BEND	WL STA. 1+02.15	3" VERTICAL COUPLING
		WL STA. 1+00.00	8"x4" TEE	WL STA. 1+77.19	1/16" HORIZONTAL BEND
		WL STA. 1+43.84	1/8" HORIZ. BEND	WL STA. 1+98.54	1/32" HORIZONTAL BEND
		WL STA. 2+19.94	1/8" HORIZ. BEND	WL STA. 2+01.88	8"x8" FHT & 6" VALVE
		WL STA. 2+39.03	1/8" HORIZ. BEND	WL STA. 2+06.98	8"x4" TEE
		WL STA. 2+62.79	8"x8" FHT & 6" VALVE	WL STA. 2+11.14	8" CAP AND BUTTRESS
		WL STA. 2+77.74	1/16" VERT. BEND		
		WL STA. 3+14.77	1/32" VERT. BEND		
		WL STA. 3+33.33	1/32" VERT. BEND		
		WL STA. 3+59.21	8"x8" TEE		
		WL STA. 3+66.13	DEFLECTION COUPLING - 1" UP		
		WL STA. 4+59.96	1/32" VERT. BEND		

WATERHOUSE CONNECTION AS-BUILT LOCATION TABLE

LOT NUMBER	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
1			
2			
3			

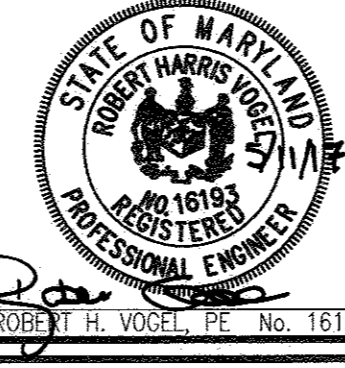
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

6.13.17

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

6.13.17

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELlicott CITY, MD 21043 TEL: 410.461.7666
FAX: 410.461.8961



PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME OR THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 08-27-2018

DRN: KG DES: DZE
CHK: RHW
DATE: MAY 2017

BY	NO.	REVISION	DATE

FINAL PUBLIC WATER AND SEWER PLAN CONTRACT #14-4961-D
LAYOUT AND WATER PROFILES

60" SCALE MAP NO. 25 BLOCK NO. 7

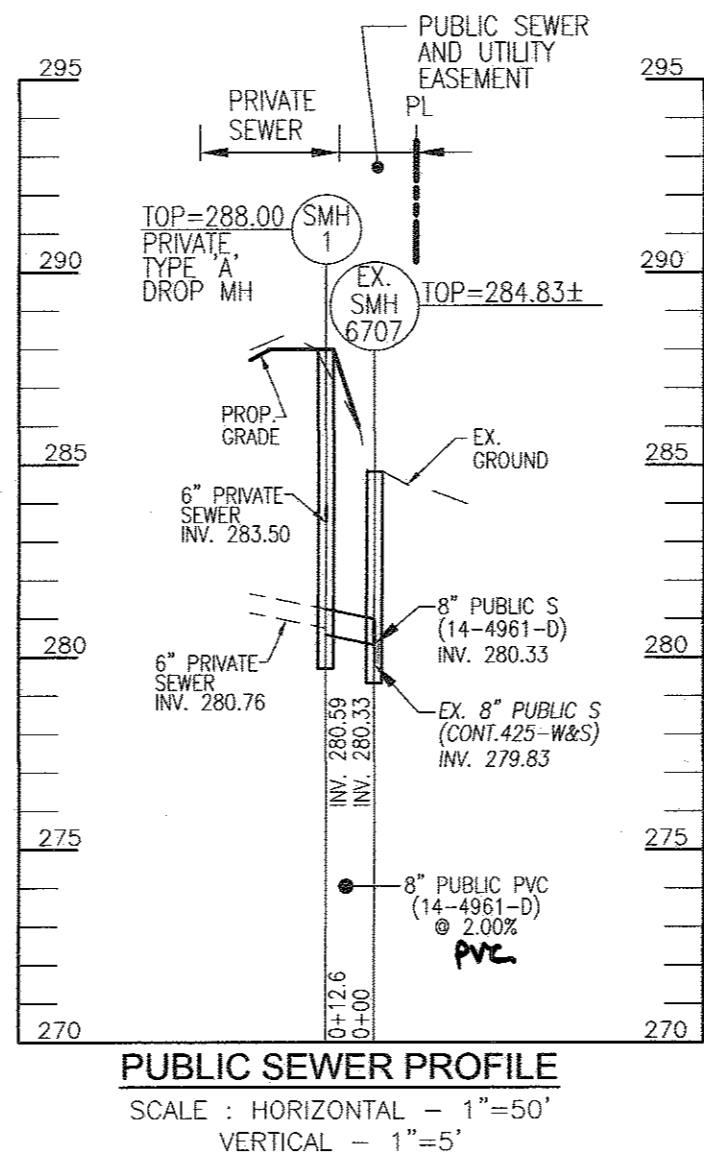
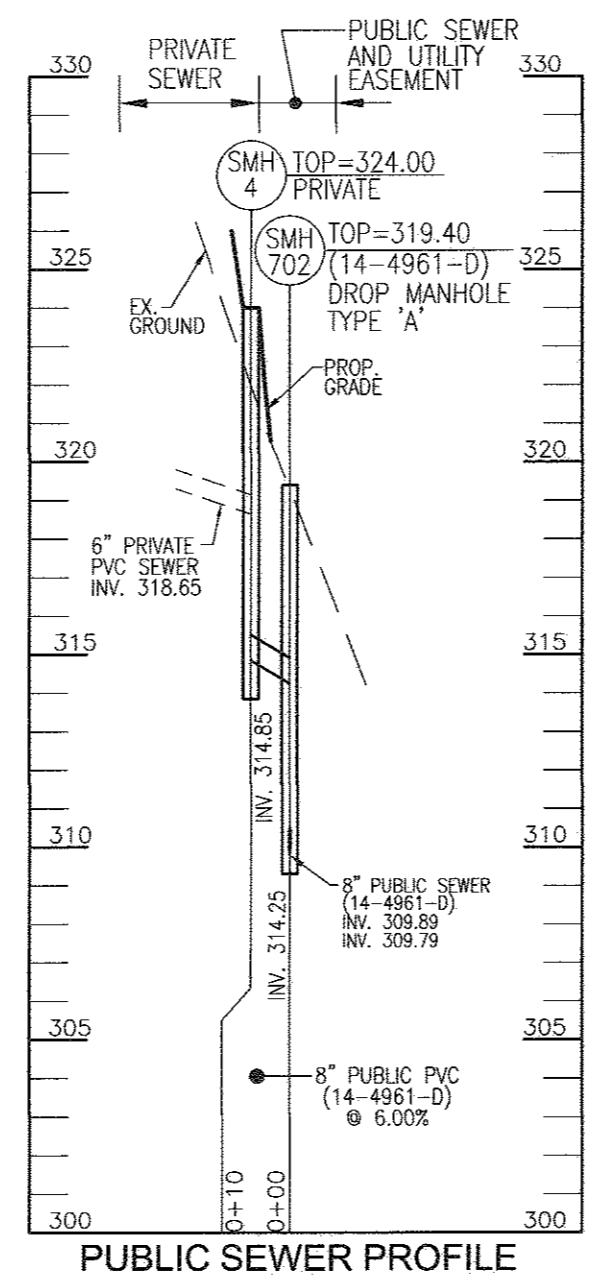
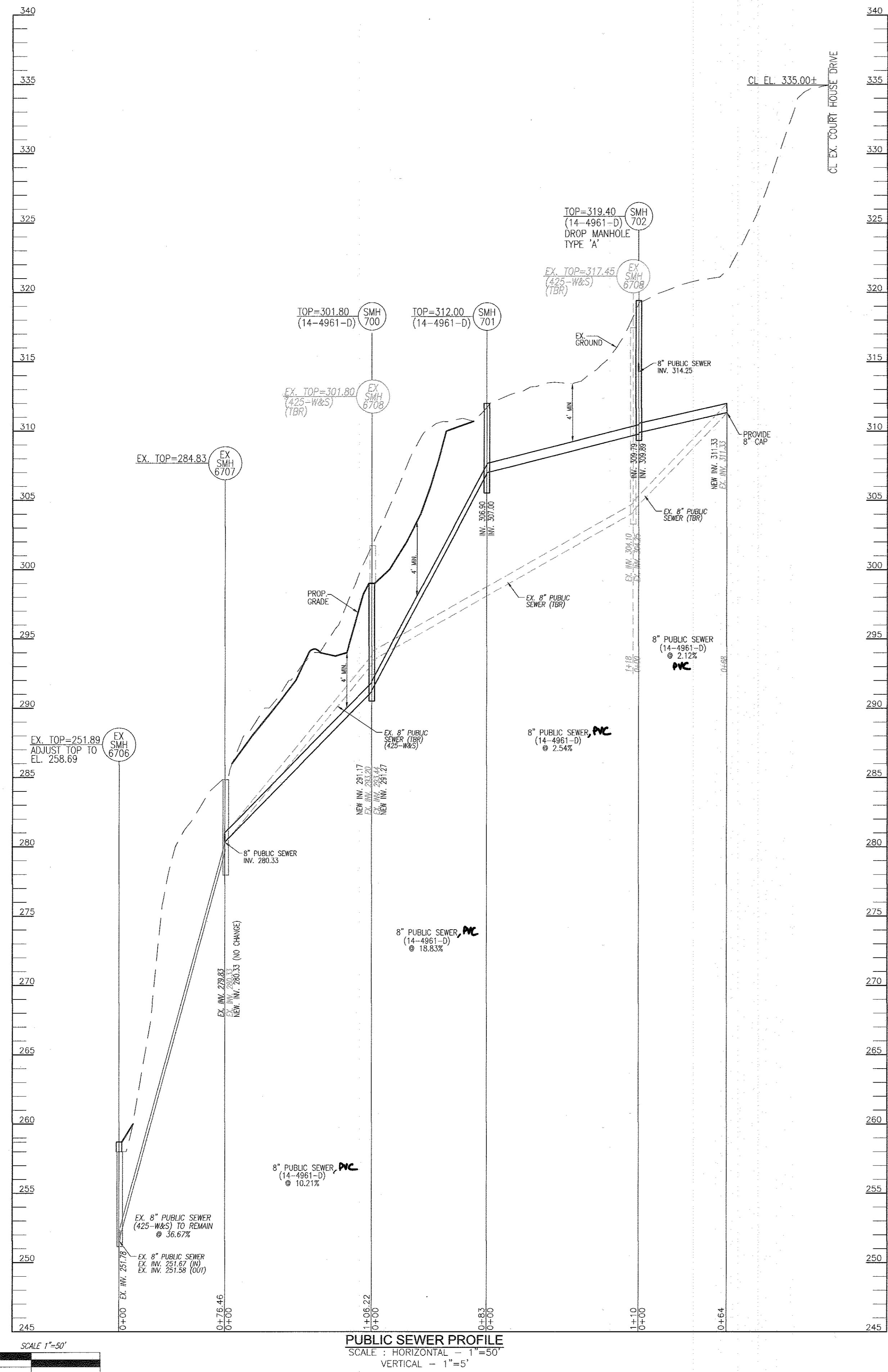
OWNER
HOWARD COUNTY HOUSING COMMISSION
2861 IRVA ROAD
ANNAPOLIS, MD 21401
3RD FLOOR
COLUMBIA, MD 21046
(410) 313-6320

DEVELOPER
STAVROU ASSOCIATES, INC.
2861 IRVA ROAD
ANNAPOLIS, MD 21401
SUITE 320
C/O SCOTT N. LINK
(410) 571-6610

BURGESS MILL STATION PH II APARTMENTS
A REDEVELOPMENT OF THE ELLICOTT CITY TERRACE APARTMENTS
ZONED: R-A-15
L11702F-63

ZONING: R-A-15
PARCEL 120
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 2 OF 3



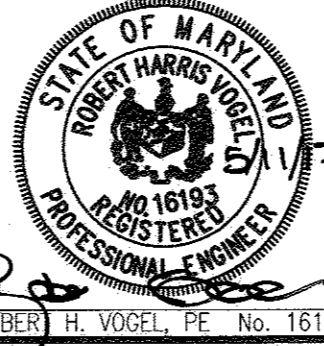
PUBLIC SEWER STRUCTURE SCHEDULE							
NO.	TYPE	LOCATION		TOP	INV. IN	INV. OUT	COMMENTS
		NORTHING	EASTING				
EX. SMH 6707	EX. PRECAST MANHOLE	584804.76	1368336.49	284.83	280.33	279.83	
SMH-700	STANDARD 4\"/>						

SEWERHOUSE CONNECTION AS-BUILT LOCATION TABLE			
LOT NUMBER	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
1			
2			
3			

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
5/23/17

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
6-13-17

ROBERT H. VOGEL
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELICOTT CITY, MD 21043
TEL: 410-461-7666
FAX: 410-461-8561



PROFESSIONAL CERTIFICATE
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. 16193
EXPIRATION DATE: 09-27-2018
DRN: KG DES: DZE
CHK: RHV
DATE: MAY 2017

BY	NO.	REVISION	DATE

FINAL PUBLIC WATER AND SEWER PLAN
CONTRACT #14-4961-D
SEWER PROFILES

BURGESS MILL STATION PH II
APARTMENTS
A REDEVELOPMENT OF THE ELLICOTT CITY TERRACE APARTMENTS
ZONED: R-A-15
L11702F.63
ZONING: R-A-15
PARCEL 120
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 3 OF 3

OWNER
HOWARD COUNTY HOUSING COMMISSION
6751 COLUMBIA GATEWAY DR.
3RD FLOOR
COLUMBIA, MD 21046
(410) 313-6320

DEVELOPER
STAVROU ASSOCIATES, INC.
2861 RIVA ROAD
ANNAPOLIS, MD 21401
SUITE 320
C/O SCOTT N. LINK
(410) 571-6610

TAX MAP: 25 GRID: 07
2ND ELECTION DISTRICT

600' SCALE MAP NO. 25 BLOCK NO. 7