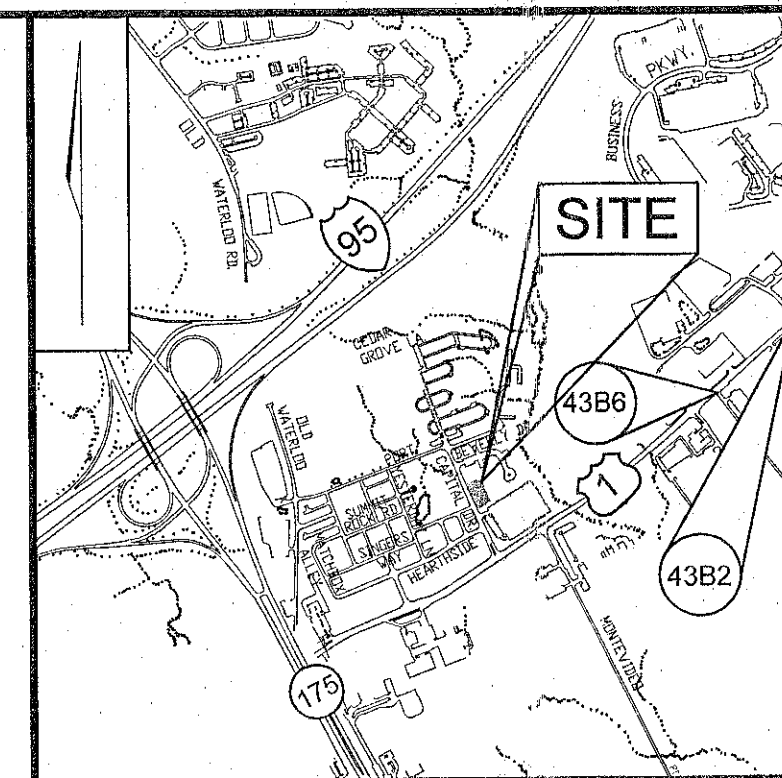


POTTER'S PLACE  
FINAL WATER AND SEWER  
(THE OAKS AT WATERS EDGE PHASE III-PARCEL A)  
CONTRACT NO. 14-5075-D

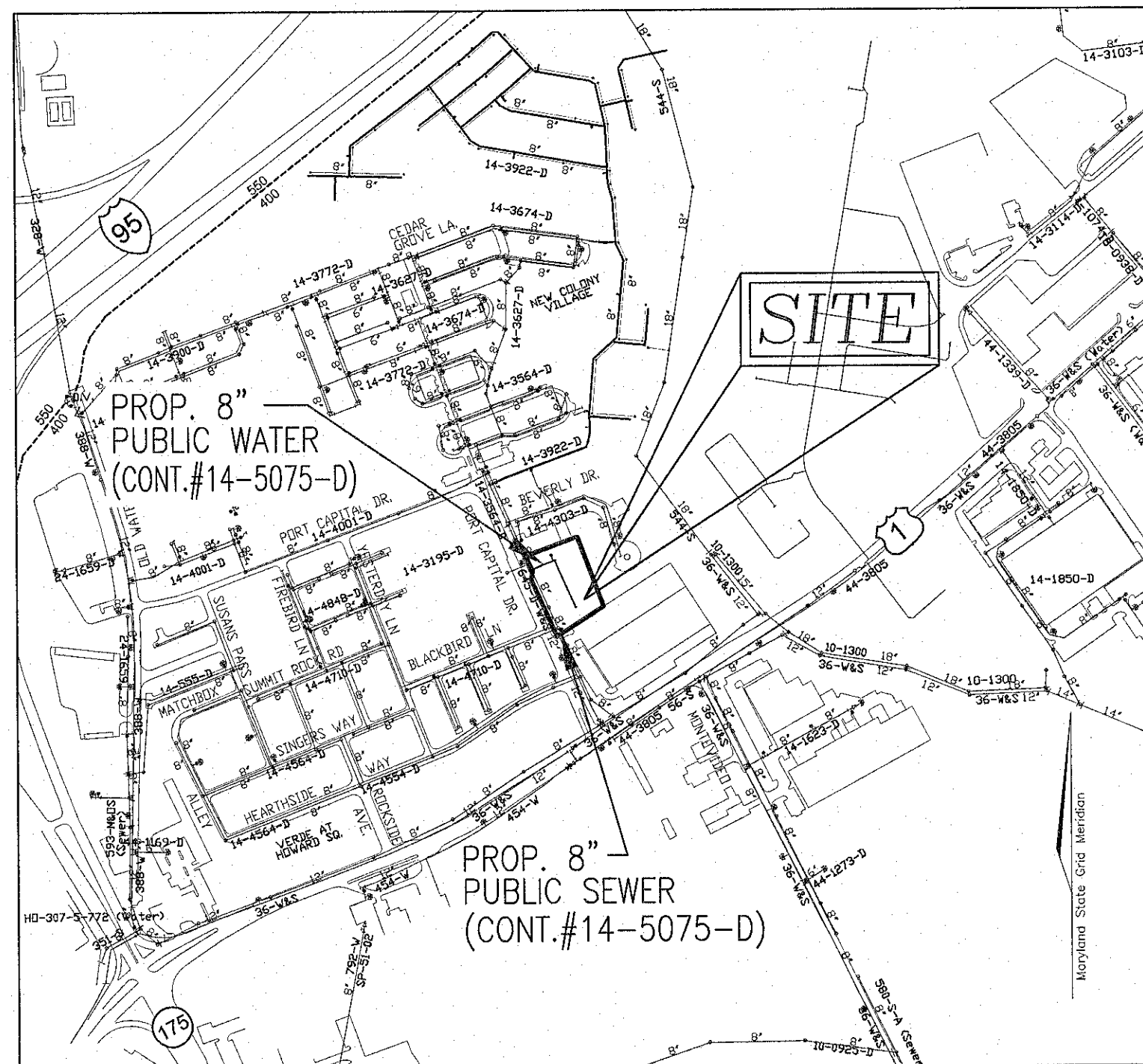
BENCHMARKS			
NO.	NORTHING	EASTING	ELEVATION
43B2	551,655.009	1,378,176.941	209.605'
43B6	550,601.593	1,376,866.047	210.560'



VICINITY MAP  
SCALE: 1"=2000'

LEGEND

EXISTING TREELINE	
PROPOSED TREELINE	
EXISTING WATER MAIN	
PROPOSED WATER MAIN	
FIRE HYDRANT	
PROPOSED VALVE	
PROPOSED TEE	
PROPOSED STORM DRAIN	
EXISTING STORM DRAIN	
EXISTING SEWER	
SEWER MANHOLE	
PRIVATE WATER HOUSE CONNECTION	
PRIVATE SEWER	
PROPOSED SIGN	
PROPOSED LIGHT	



LOCATION PLAN  
SCALE: 1"=600'

WATER ZONE:	400
TEST GRADIENT:	677
TEST PRESSURE:	202.54 PSI

TYPE OF BUILDING :	RESIDENTIAL
NO. OF APARTMENT BUILDING :	—
NO. OF TOWNHOUSE BUILDING :	26 (STACKED)
NO. OF SINGLE SEWER HOUSE CONNECTIONS :	—
NO. OF TWIN SEWER HOUSE CONNECTIONS :	—
NO. OF SINGLE WATER HOUSE CONNECTIONS :	—
NO. OF TWIN WATER HOUSE CONNECTIONS :	13
SEWER SHED :	PATAPSCO
TREATMENT PLANT :	PATAPSCO RIVER

- GENERAL NOTES
1. 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.
2. TOPOGRAPHY FIELD SURVEYS WERE PERFORMED ON MARCH 1998 BY POTOMAC AERIAL SURVEYS.
3. 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 43B2 AND 43B6.  
ALL VERTICAL CONTROLS ARE BASED ON NAVD' 88. VERTICAL CONTROLS PROVIDED ON DRAWINGS ARE:  
GEODETIC SURVEY CONTROL 43B2 (N 551,654.993/E 1,378,176.951)  
BRASS DISC SET ON TOP OF A CONCRETE MONUMENT, GEODETIC SURVEY CONTROL 43B6 (N 550,601.597/E 1,376,866.072)  
BRASS DISC SET ON TOP OF A CONCRETE MONUMENT.
4. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED.
5. 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 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.
6. FOR DETAILS NOT SHOWN ON THE DRAWINGS, 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.
7. 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 OPERATION AT HIS OWN EXPENSE.
8. 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 410-313-4900  
COLONIAL PIPELINE CO 410-795-1390  
MISS UTILITY 1-800-257-7777  
STATE HIGHWAY ADMINISTRATION 410-531-5533  
VERIZON 1-800-743-0033
9. 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.
10. 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 THE CONSTRUCTION OF THE MAIN.
11. 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(g) OF THE HOWARD COUNTY CODE.

- PART II - WATER
1. ALL WATER MAINS SHALL BE C-900 PVC (DR-14) UNLESS OTHERWISE NOTED.
2. TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" OF COVER UNLESS OTHERWISE NOTED.
3. VALVES ADJACENT TO TEES SHALL BE STOPPED TO TEES.
4. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
5. 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.
6. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
7. TRACER WIRE AND CONTINUITY TEST STATIONS SHALL BE INSTALLED ON ALL DIP AND PVC WATER MAINS IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL.
8. 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 REST RECORDS RECEIVED.
9. 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.
10. PROPER ASSEMBLY OF GASKETED PVC PIPE JOINTS: THE MANUFACTURE'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.
11. 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 3-DEGREES 1-1/2- DEGREE ON EITHER END OF THE COUPLING). SHALL BE RATED FOR 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 CERTAINTED 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 AWWA C900 AND SHALL BE MULTI FITTINGS (IPX) BLUE BRUTE DR18 OR EQUAL.
12. WHEN PVC HIGH DEFLECTION COUPLINGS OR PVC 5-DEGREE SWEEPS ARE USED TO FACILITATE CHANGES IN HORIZONTAL OR VERTICAL ALIGNMENTS OF AWWA 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.

- PART III - SEWER
1. ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED.
2. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
3. FORCE MAINS SHALL BE D.I.P. ONLY.
4. MANHOLES SHOWN WITH 12" AND 18" WALLS ARE FOR BRICK MANHOLES ONLY.
5. 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.
6. 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.

SOIL CONSERVATION DISTRICT

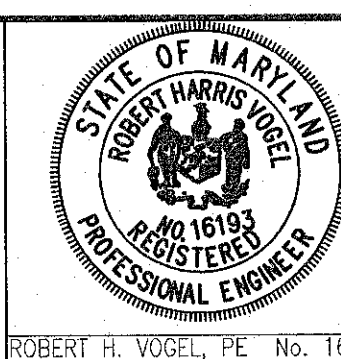
DATE

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE SPECIFICATIONS AND WITH SITE DEVELOPMENT PLAN SDP-20-004

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

**VOGEL ENGINEERING**  
**TIMMONS GROUP**  
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043  
P: 410.461.7666 F: 410.461.8961 www.timmons.com



PROFESSIONAL CERTIFICATE  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE 09-27-2022  
DRN: LRC/KG DES: LRC  
CHK: RHV  
DATE: SEPTEMBER 2020

BY NO. REVISION DATE

**FINAL WATER AND SEWER  
CONSTRUCTION PLAN  
CONTRACT 14-5075-D  
COVER SHEET**

600' SCALE MAP NO. 43

BLOCK NO. 4

TAX MAP 43 GRID 4  
1ST ELECTION DISTRICT

**POTTER'S PLACE**  
(THE OAKS AT WATERS EDGE PHASE III-PARCEL A)

PARCEL 644  
HOWARD COUNTY, MARYLAND

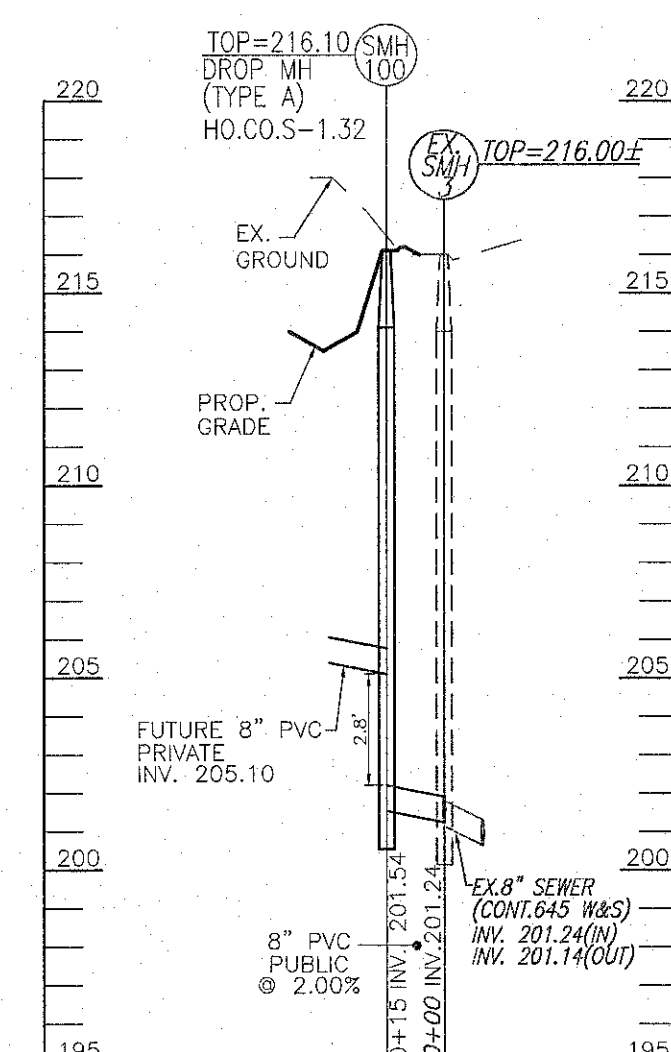
SCALE  
AS  
SHOWN

SHEET  
1 OF 2

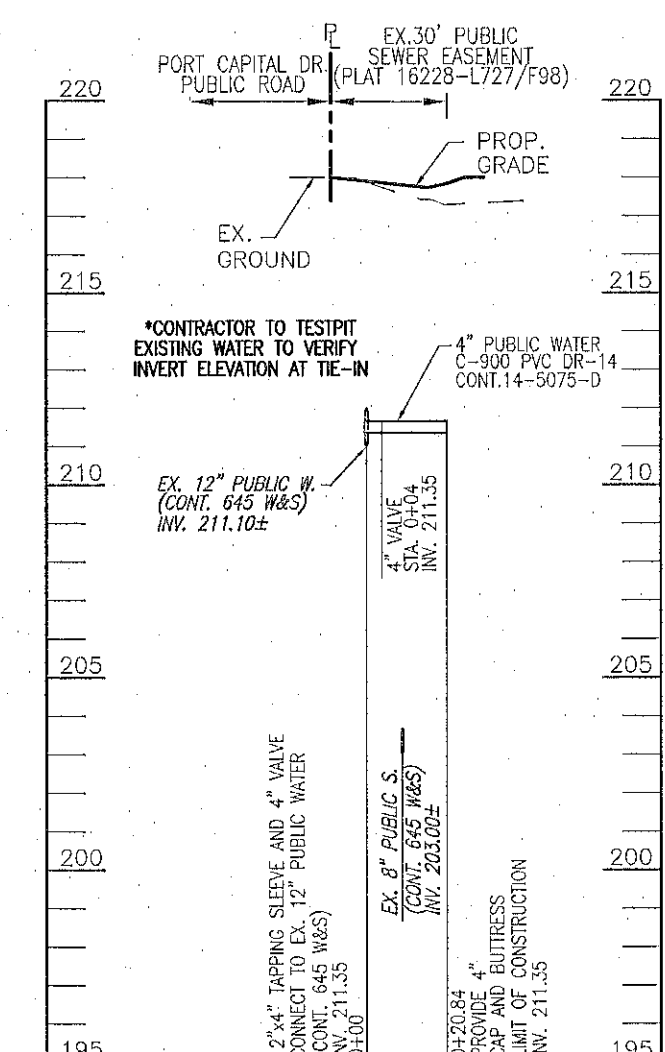
QUANTITIES				
NAME OF UTILITY CONTRACTOR :				
SURVEY AND DRAFTING DIVISION AS-BUILT DATE :				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
WATER				
8" WATER MAIN (C-900 PVC-DR-14)	326 LF			
6" WATER MAIN DIP (FH)	17 LF			
4" WATER MAIN (C-900 PVC-DR-14)	41 LF			
FIRE HYDRANT	1 EACH			
12"x 8" TAPPING SLEEVE & VAVLE	1 EACH			
12"x 4" TAPPING SLEEVE & VAVLE	1 EACH			
8"x 6" TEE	1 EACH			
8"x 4" TEE	2 EACH			
8" VALVE	1 EACH			
6" VALVE	1 EACH			
4" VALVE	2 EACH			
8"-1/8" H. BEND	1 EACH			
8"-1/16" H. BEND	2 EACH			
8"-5" VERT. SWEEP	2 EACH			
8" CAP AND BUTTRESS	1 EACH			
4" CAP AND BUTTRESS	3 EACH			
1" OUTSIDE METER VAULT	13 EACH			
1-1/2" WHC	239 LF			
SEWER				
STANDARD MANHOLE	1 EA			
8" PVC SEWER	15 LF			

**OWNER/DEVELOPER**  
PORT CAPITAL CENTER OF MARYLAND LLC  
PO BOX 416  
ELLICOTT CITY, MD 21041  
C/O: ARNOLD SAGNER  
410-465-2020

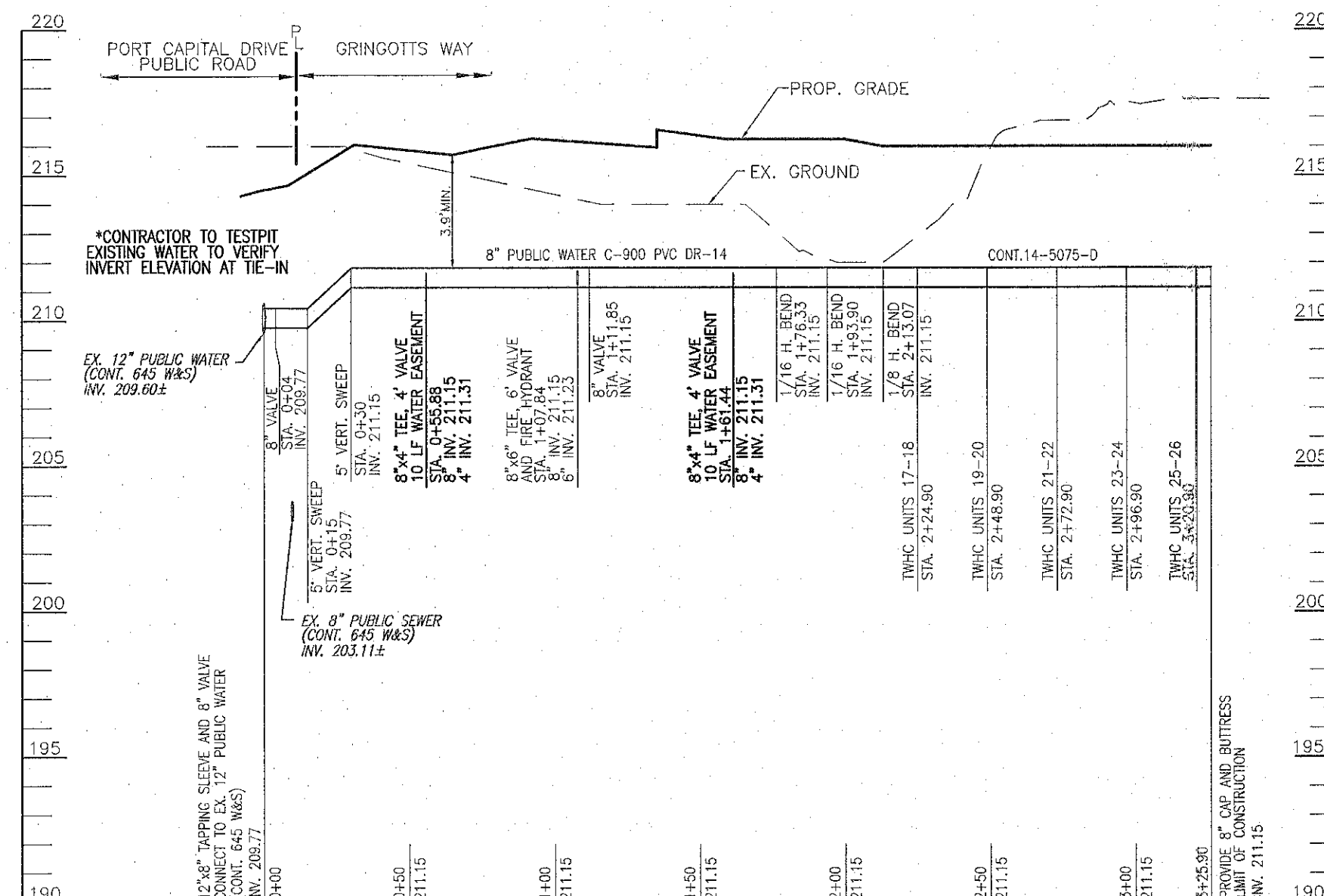




**PUBLIC SEWER PROFILE**  
SCALE : HORIZONTAL - 1"=50'  
VERTICAL - 1"=5'



**PUBLIC WATER PROFILE (BUILDING 2)**  
SCALE : HORIZONTAL - 1"=50'  
VERTICAL - 1"=5'



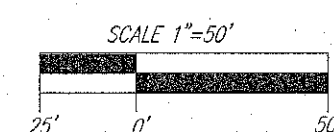
**PUBLIC WATER PROFILE (WATER MAIN 'A')**  
SCALE : HORIZONTAL - 1"=50'  
VERTICAL - 1"=5'

[illegible]

WATER HOUSE CONNECTION AS-BUILT TABLE			
UNIT	STREET ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
BUILDING #1			
1	7738-A	PORT CAPITAL DR.	
2	7738-B	PORT CAPITAL DR.	
3	7736-A	PORT CAPITAL DR.	
4	7736-B	PORT CAPITAL DR.	
5	7738-A	PORT CAPITAL DR.	
6	7734-B	PORT CAPITAL DR.	
7	7732-A	PORT CAPITAL DR.	
8	7732-B	PORT CAPITAL DR.	
SPRINKLER ROOM	7730	PORT CAPITAL DR.	
BUILDING #2			
9	7728-A	PORT CAPITAL DR.	
10	7728-B	PORT CAPITAL DR.	
11	7726-A	PORT CAPITAL DR.	
12	7726-B	PORT CAPITAL DR.	
13	7724-A	PORT CAPITAL DR.	
14	7724-B	PORT CAPITAL DR.	
15	7722-A	PORT CAPITAL DR.	
16	7722-B	PORT CAPITAL DR.	
SPRINKLER ROOM	7720	PORT CAPITAL DR.	
BUILDING #3			
SPRINKLER ROOM	7199	GRINGOTTS WAY	
17	7201-A	GRINGOTTS WAY	
18	7201-B	GRINGOTTS WAY	
19	7203-A	GRINGOTTS WAY	
20	7203-B	GRINGOTTS WAY	
21	7205-A	GRINGOTTS WAY	
22	7205-B	GRINGOTTS WAY	
23	7207-A	GRINGOTTS WAY	
24	7207-B	GRINGOTTS WAY	
25	7209-A	GRINGOTTS WAY	
26	7209-B	GRINGOTTS WAY	

**NOTES:**  
1. ALL WATER CONNECTIONS SHALL BE 1-1/2" WITH 1" OUTSIDE  
WATER SETTINGS, UNLESS OTHERWISE NOTED. REFER TO HOWARD  
COUNTY DETAIL W-3.32 FOR TWIN OUTSIDE METER SETTINGS.

**LAYOUT PLAN**  
SCALE: 1"=50'



PARCEL 644  
HOWARD COUNTY, MARYLAND