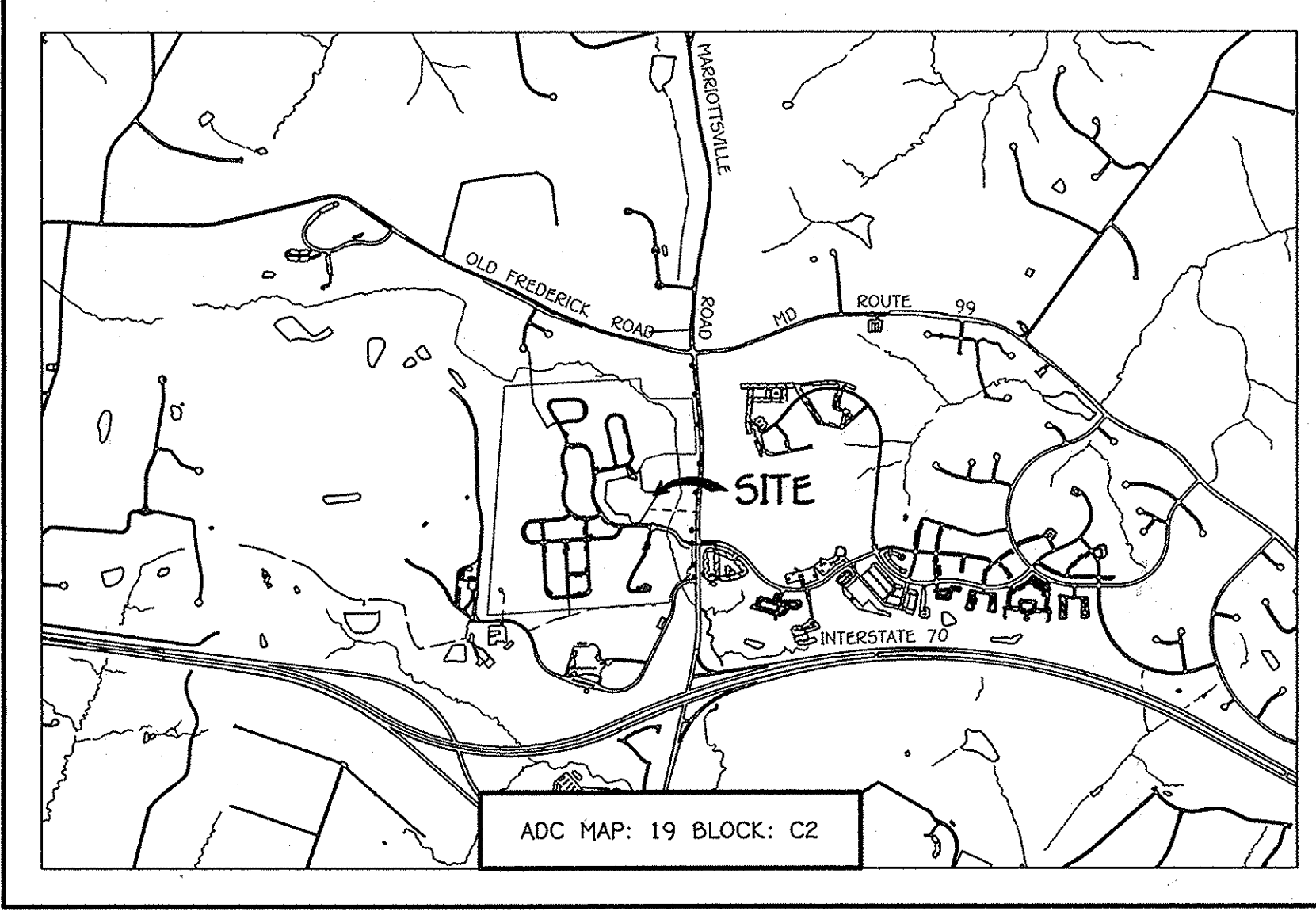
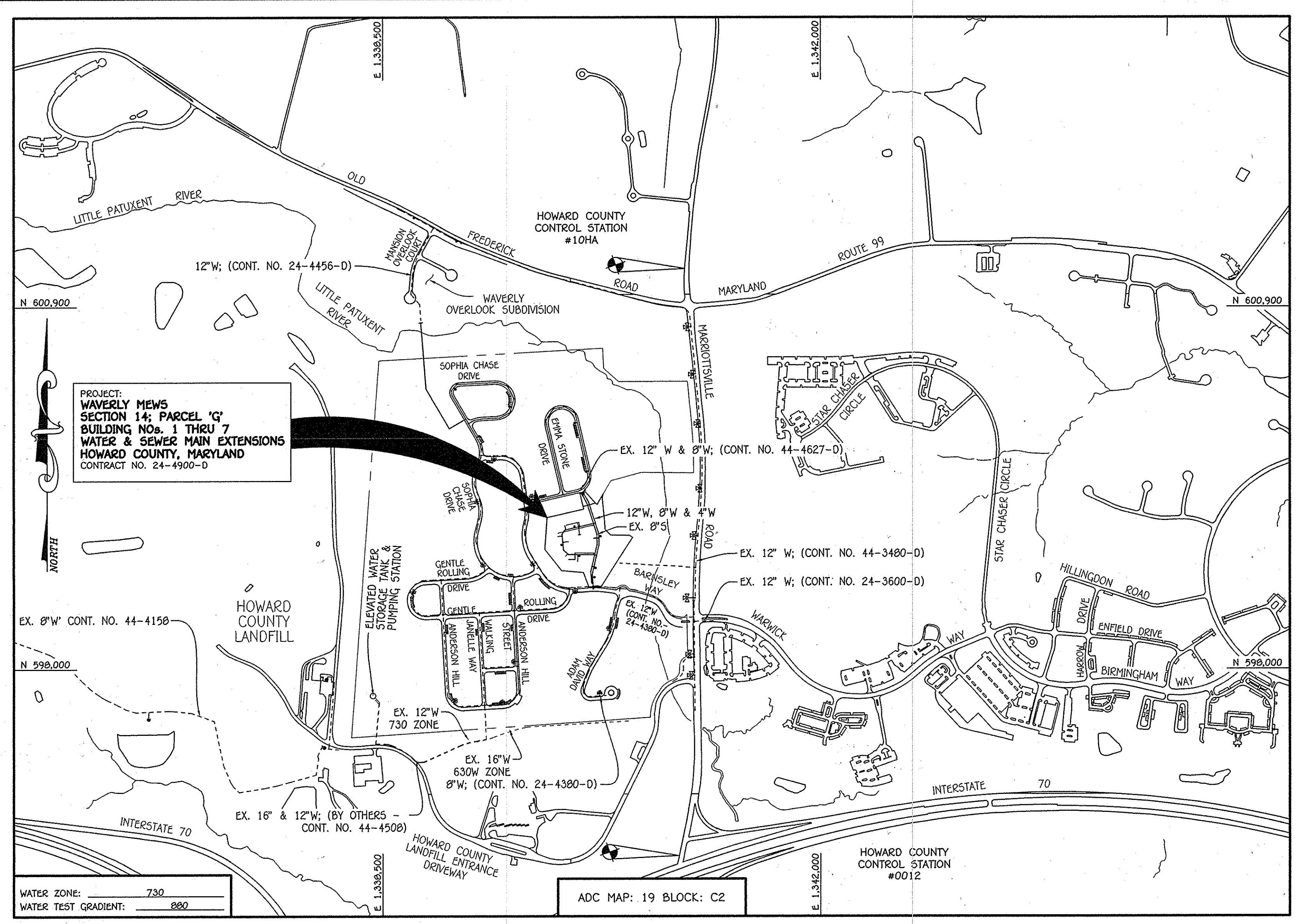


QUANTITIES				
ITEM	ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	SUPPLIER
8" S. PVC	244 L.F.			
MANHOLES	2 EACH			
8" PLUG	3 EACH			
8" W. C900 PVC	1,506 L.F.			
6" W. C900 PVC	65 L.F.			
4" W. C900 PVC	100 L.F.			
3" DEFLECTION COUPLING	3 EACH			
1/8" H.B.	4 EACH			
1/32" H.B.	6 EACH			
12" TAPPING SLEEVE	1 EACH			
8" X 8" TEE	2 EACH			
8" X 6" TEE	5 EACH			
8" X 4" TEE	8 EACH			
8" TAPPING VALVE	1 EACH			
8" VALVE	9 EACH			
6" VALVE	5 EACH			
4" VALVE	8 EACH			
FIRE HYDRANT	5 EACH			
8" PLUG & BUTTRESS	8 EACH			
CONTINUITY TEST STATION	5 EACH			

**BENCHMARK INFORMATION**

B.M.#1 - HOWARD COUNTY CONTROL STATION #0012 (LOCATED ALONG THE WEST SIDE OF MARGOTTSVILLE ROAD; JUST NORTH OF INTERSTATE 70) N 596,502.7804 (HORIZONTAL = NAD '83) E 1,340,864.3654 (HORIZONTAL = NAD '83) ELEVATION = 486,905 (VERTICAL = NGVD '29)

B.M.#2 - HOWARD COUNTY CONTROL STATION #10HA (LOCATED ALONG THE WEST SIDE OF MARGOTTSVILLE ROAD, JUST NORTH OF OLD FREDERICK ROAD, APPROX. 21 WEST OF THE CENTERLINE OF ROAD) N 601,206.59 (HORIZONTAL = NAD '83) E 1,340,912.325 (HORIZONTAL = NAD '83) ELEVATION = 483,800 (VERTICAL = NGVD '29)



**GENERAL NOTES**

SCALE: 1" = 2000'

**PART A:**

- 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 ON OR ABOUT JULY, 2005 BY FISHER, COLLINS & CARTER, INC.
- 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. 10HA & NO. 0012.
- ALL VERTICAL CONTROLS ARE BASED ON NAVD '80 VERTICAL CONTROLS PROVIDED ON THE DRAWINGS.
- 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 OR POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF THE 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 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 SITE.
- WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL (S) 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:
 

ATAI	1-800-252-1133
BCE (CONTRACTOR SERVICES)	410-637-9713
BCE (EMERGENCY)	410-685-0123
BUREAU OF UTILITIES	410-313-4900
COLONIAL PIPELINE CO.	410-755-1390
MESS UTILITY	1-800-257-7777
STATE HIGHWAY ADMINISTRATION	410-535-5555
VERIZON	1-800-743-0033 / 410-224-9210
- 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.
- 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.
- 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 DPM REQUIREMENTS PER SECTION 18.114(a) OF THE HOWARD COUNTY CODE.

**PART B: WATER MAIN GENERAL NOTES**

- ALL WATER MAINS SHALL BE AWWA C900 PVC, DE-18.
- 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 1009 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 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. MAGNESIUM ANODES SHALL BE INSTALLED ON ALL VALVES AND DUCTILE IRON FITTINGS INCLUDING RESTRAINTS AND HARNESSES. 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 MAINS 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 SPECIFIED. THE CONTRACTOR SHALL PROVIDE ONE 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-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 CERTANTINO PVC HIGH DEFLECTION (HD) STOP COUPLINGS OR EQUAL.
- 5-DEGREE SWEEPS SHALL BE BELL BY SPIGOT, RATED FOR A MINIMUM 225 PSI, DR-18 MEETING THE REQUIREMENTS OF AWWA C900 AND SHALL BE MULTI FITTINGS (PEX) BLUE BRUTE DE-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 STOP DEVICES 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 HECA-STOP, AS MANUFACTURED BY EBA IRON, INC. OR APPROVED EQUAL.
- TO ACCOMMODATE A SPRINKLER SYSTEM, ALL RESIDENTIAL DWELLING UNITS SHALL HAVE A 1-1/2" WATER HOUSE CONNECTION WITH A 1" OUTSIDE METER SETTING, STD. DET. W-3-28.

**PART C: SEWER MAIN GENERAL NOTES**

- 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 18" WALLS ARE FOR BRICK MANHOLES ONLY.
- MANHOLES DESIGNATED WITH PLAN AND PROFILE SHALL HAVE WATERPROOF FRAME AND COVER, STANDARD DETAIL G5.52. WHERE WATERPROOF MANHOLE FRAMES AND COVERS ARE USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- HOUSES WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.

**TYPE OF BUILDING: CONDOMINIUM APARTMENTS**

NUMBER OF BUILDINGS: 8

NUMBER OF PARCELS: 1

NO. OF WATER HOUSE CONNECTIONS: 8

NO. OF SEWER HOUSE CONNECTIONS: N/A

SEWER SHED: LITTLE PATUXENT

TREATMENT PLANT: LITTLE PATUXENT WATER RECLAMATION PLANT, SAVAGE, MARYLAND

**LOCATION MAP**

SCALE: 1" = 600'

**PLAN REFERENCE NUMBERS:**

F-13-067 (RECORD PLAT)

SDP-13-031

SDP-09-039

# CONTRACT NO. 24-4900-D

# WAVERLY MEWS

## SECTION 14: PARCEL 'G'

## BUILDING NOS. 1 THRU 7

## WATER & SEWER MAIN EXTENSIONS

## HOWARD COUNTY, MARYLAND

**DEVELOPER'S CERTIFICATION**

I/WE HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT THE 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 OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

*Paul W. Keibel*, FOR:  
**WAVERLY WOODS DEVELOPMENT CORP.** 01-30-15  
 SIGNATURE OF DEVELOPER DATE

**ENGINEER'S CERTIFICATION**

I HEREBY 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.

*Paul W. Keibel*, FOR:  
 SIGNATURE OF ENGINEER 01/30/15  
 DATE

LEGEND	
SYMBOL	DESCRIPTION
---	EX. WATER MAIN
---	EX. SEWER MAIN
o	EX. SEWER MANHOLE
---	EX. WATER, SEWER & UTILITY EASEMENT
+	EX. FIRE HYDRANT
o	EX. VALVE
---	PROP. WATER MAIN
---	PROP. SEWER MAIN
o	PROP. SEWER MANHOLE
---	PROP. WATER, SEWER & UTILITY EASEMENT
---	PROP. WHC
---	PROP. SHC
+	PROP. FIRE HYDRANT
o	PROP. VALVE

5DP-13-031

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

APPROVE: *John K. Roberts* 2/24/15  
 HOWARD SOIL CONSERVATION DISTRICT DATE

**DEVELOPER**

WAVERLY WOODS DEVELOPMENT CORPORATION,  
 HOLE IN THE DOUGHNUT, LLC &  
 C/O LAND DESIGN AND DEVELOPMENT, INC.  
 5300 DORSEY HALL DRIVE, SUITE 102  
 ELLICOTT CITY, MARYLAND 21042  
 (443-367-0422)

CONTRACT NO. 24-4900-D  
 WAVERLY MEWS  
 SECTION 14: PARCEL 'G'  
 BUILDING NOS. 1 THRU 7  
 WATER & SEWER MAIN EXTENSIONS  
 THIRD ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

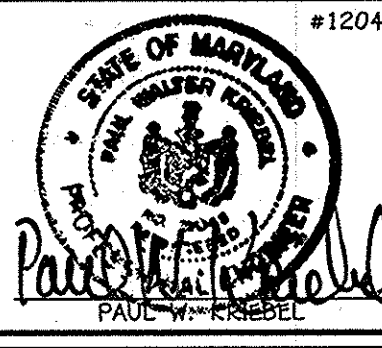
*Steve C. Coome* 2/10/15  
 CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY, MARYLAND

*Chad Chilton* 3-3-15  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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. 12243 EXPIRATION DATE IS 7/16/16.

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PARK  
 ELICOTT CITY, MARYLAND 21042  
 (410) 461 - 2255



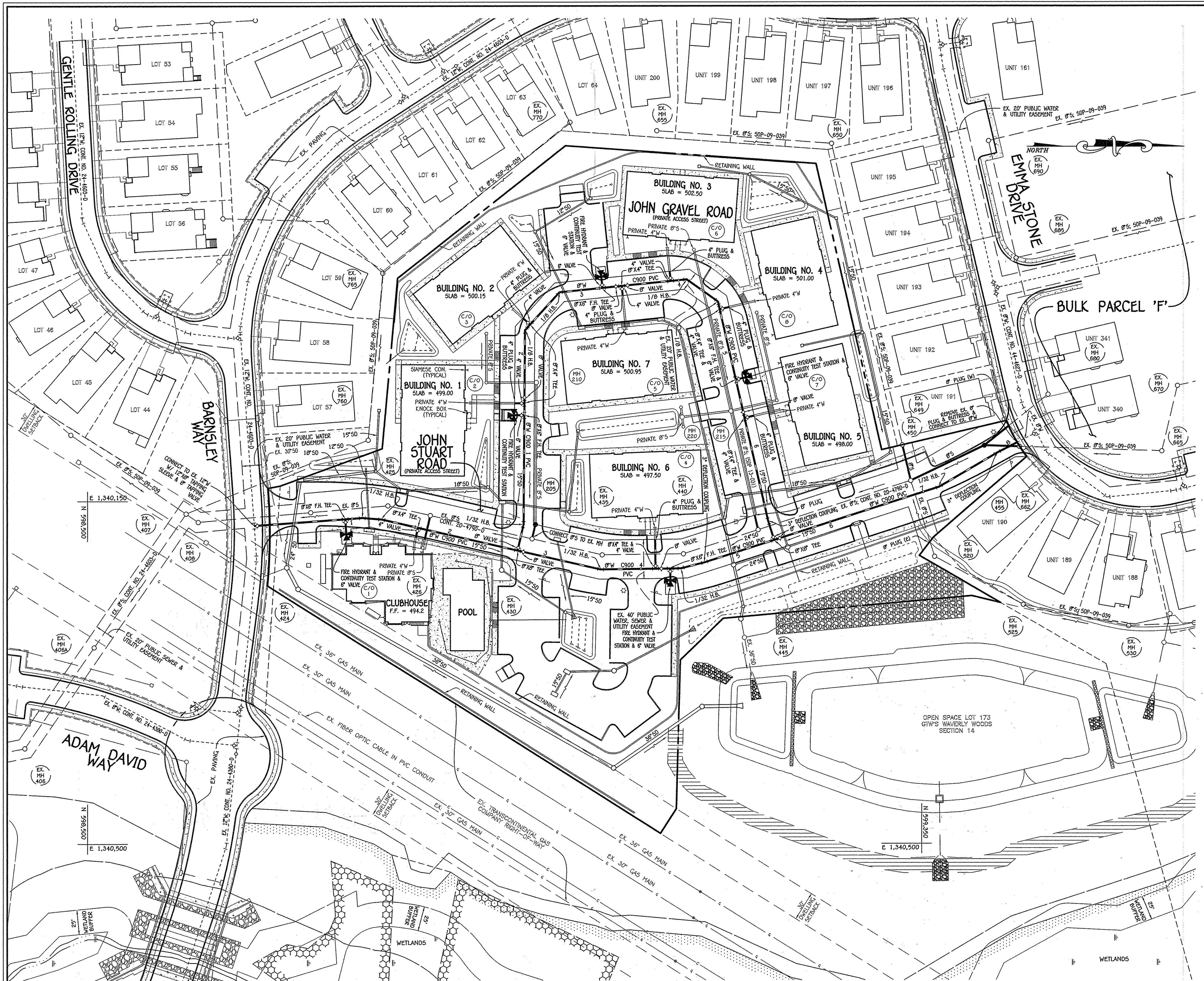
DESIGNED BY:	B.C.R.
DRAWN BY:	B.C.R.
CHECKED BY:	P.W.K.
DATE:	JANUARY, 2015
BY NO.	
REVISION	
DATE	

**WATER & SEWER MAIN EXTENSIONS TITLE SHEET**

600' SCALE MAP NO. 16 BLOCK NO. 3 & 4  
 F.C.C. WORK ORDER NO. 30770-6004  
 FILE NAME: WATER & SEWER MAIN EXTENSION

SCALE: AS SHOWN

SHEET: 1 OF 5

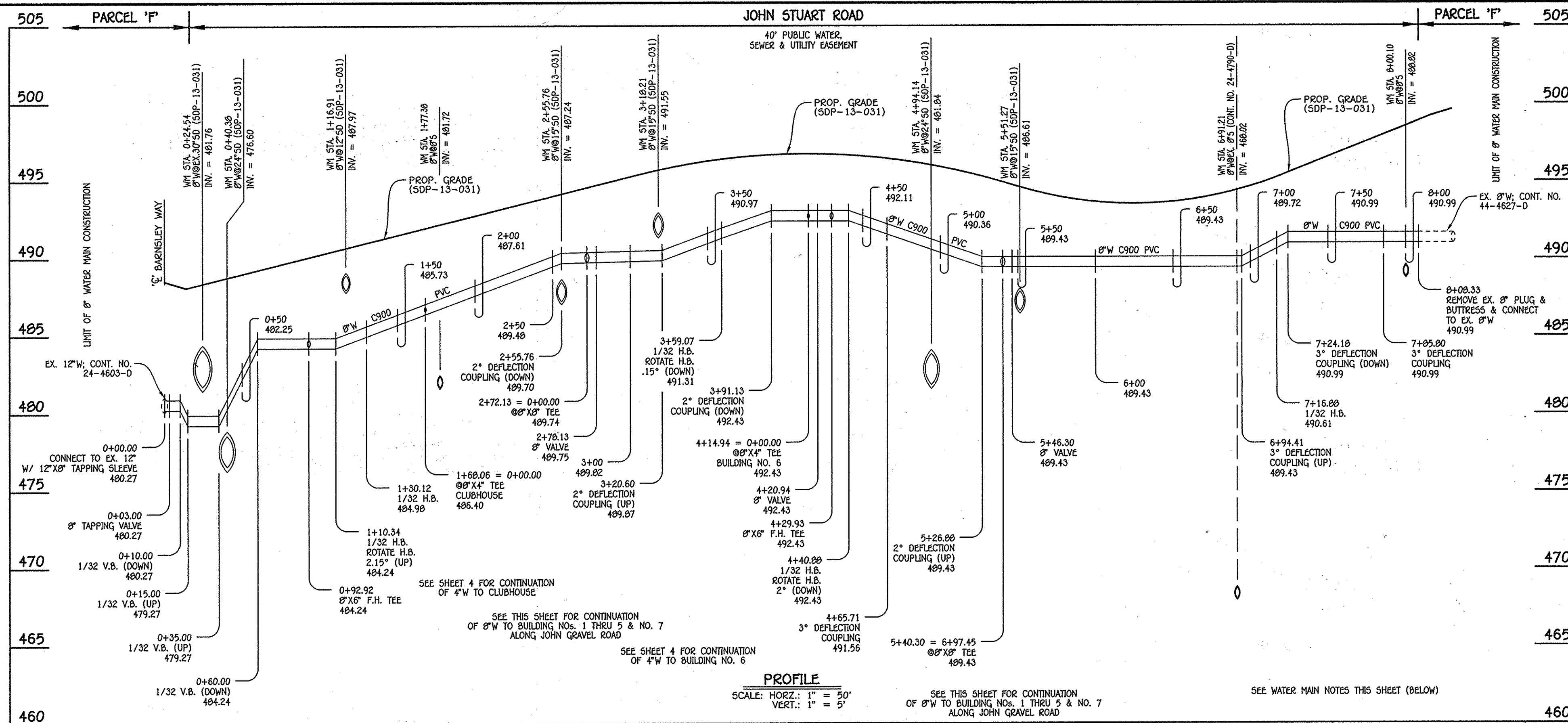


FIRE HYDRANT INFORMATION CHART				
ROAD	W.M. STATION	BURY ELEVATION	V.F.	DESCRIPTION
JOHN STUART ROAD	0+92.92	490.65	6.5	SET FH 2' BEHIND BACK OF SIDEWALK
JOHN STUART ROAD	4+29.93	497.51	5.0	SET FH 3' BEHIND BACK OF CURB
JOHN GRAVEL ROAD	1+38.84	498.75	6.5	SET FH 3' BEHIND BACK OF CURB
JOHN GRAVEL ROAD	3+21.86	502.35	6.0	SET FH 3' BEHIND BACK OF CURB
JOHN GRAVEL ROAD	5+29.01	499.18	5.5	SET FH 3' BEHIND BACK OF CURB

PLAN  
SCALE: 1" = 50'

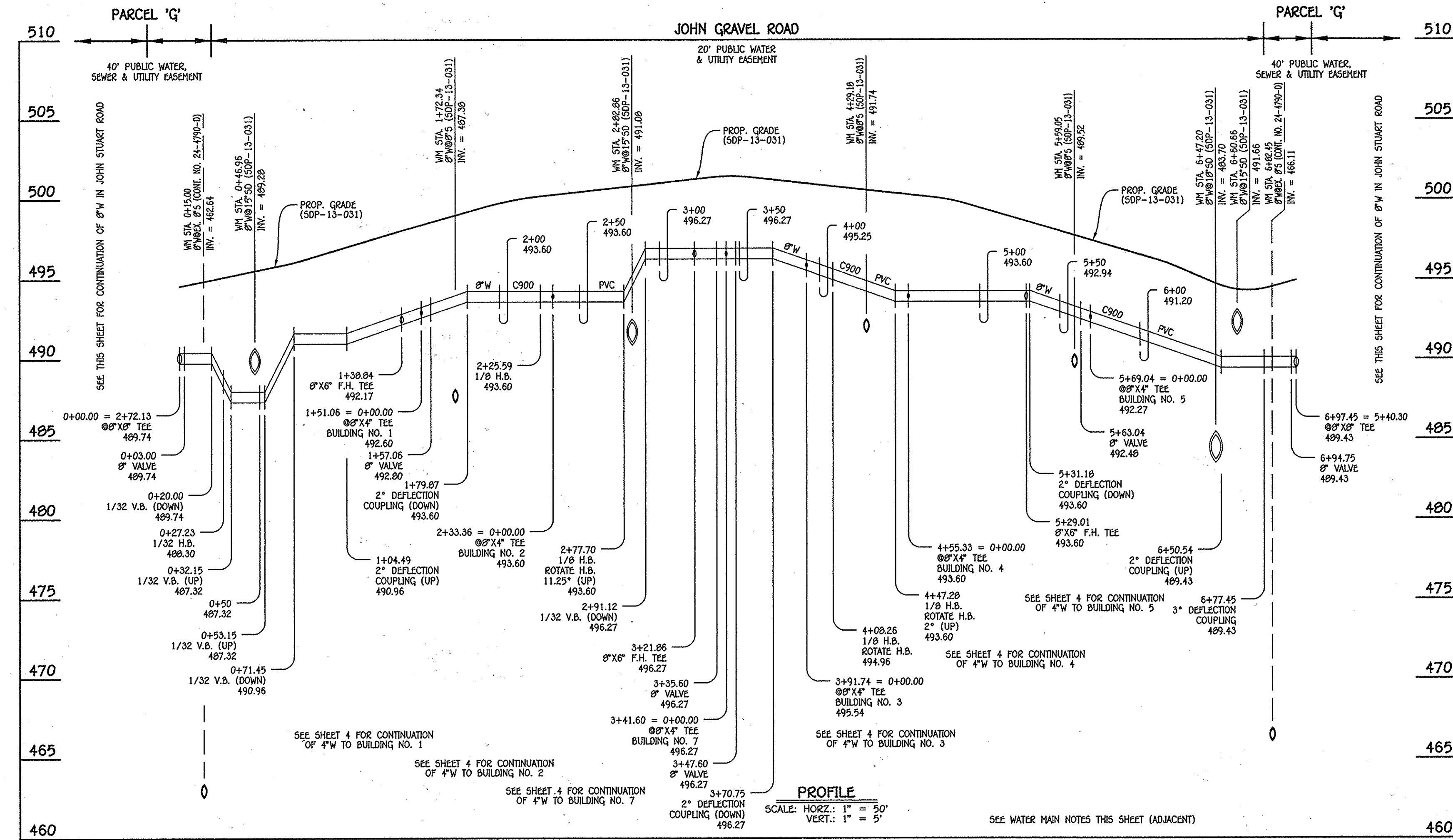
DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Chief, Bureau of Utilities: <i>Steve Green</i> 2/16/15	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND Chief, Development Engineering Division: <i>Chad Clark</i> 3-3-15	I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 12043 EXPIRATION DATE IS 7/16/16. <b>FISHER, COLLINS &amp; CARTER, INC.</b> CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PARK ELLICOTT CITY, MARYLAND 21142 (410) 461-2295	#12043 DESIGNED BY: B.C.R. DRAWN BY: B.C.R. CHECKED BY: P.W.R. DATE: JANUARY, 2015	WATER & SEWER MAIN EXTENSIONS PLAN & CHART 600' SCALE MAP NO. 16 BLOCK NO. 3 & 4 F.C.C. WORK ORDER NO. 30770-6004 FILE NAME: WATER & SEWER MAIN EXTENSION	WEVERLY MEWS SECTION 14; PARCEL 'G' BUILDING NOS. 1 THRU 7 WATER & SEWER MAIN EXTENSIONS CONTRACT NO. 24-4900-D THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND	CONTRACT NO. 24-4900-D WEVERLY MEWS SECTION 14; PARCEL 'G' BUILDING NOS. 1 THRU 7 WATER & SEWER MAIN EXTENSIONS HOWARD COUNTY, MARYLAND	SCALE AS SHOWN
							SHEET 2 OF 5

I:\30000\30770\dwg\Water & Sewer Contract\Water & Sewer Contract\Plan.dwg, 1/28/2015 10:28:42 AM



W.M. STA.	APPURTENANCE	NORTHING	EASTING
8" WATER MAIN: JOHN STUART ROAD			
0+00.00	12" X 8" TAPPING SLEEVE	598669.89	1340174.90
0+03.00	8" TAPPING VALVE	598672.89	1340174.68
0+09.92	8" X 6" F.H. TEE	598762.50	1340168.27
1+10.34	1/32 H.B.	598779.95	1340167.03
1+30.12	1/32 H.B.	598799.67	1340168.56
1+68.06	8" X 4" TEE	598836.65	1340177.07
2+72.13	8" X 8" TEE	598938.06	1340200.40
2+78.13	8" VALVE	598943.91	1340201.75
3+59.07	1/32 H.B.	599022.79	1340219.90
4+14.94	8" X 4" TEE	599078.66	1340219.24
4+20.94	8" VALVE	599084.66	1340219.17
4+29.93	8" X 6" F.H. TEE	599093.64	1340219.07
4+40.88	1/32 H.B.	599104.60	1340218.94
4+65.71	3" DEFLECTION COUPLING	599128.64	1340212.76
5+40.30	8" X 8" TEE	599199.66	1340189.95
5+46.30	8" VALVE	599205.37	1340188.11
7+16.88	1/32 H.B.	599367.78	1340135.94
7+85.80	3" DEFLECTION COUPLING	599427.15	1340100.94
8+08.33	EX. 8" PLUG & BUTTRESS	599447.16	1340090.57

8" WATER MAIN: JOHN STUART ROAD



W.M. STA.	APPURTENANCE	NORTHING	EASTING
8" WATER MAIN: JOHN GRAVEL ROAD			
0+00.00	8" X 8" TEE	598938.06	1340200.40
0+03.00	8" VALVE	598938.74	1340197.48
0+27.23	1/32 H.B.	598944.17	1340173.86
1+38.84	8" X 6" F.H. TEE	598945.00	1340062.26
1+51.06	8" X 4" TEE	598945.09	1340050.04
1+57.06	8" VALVE	598945.13	1340044.04
2+25.59	1/8 H.B.	598945.64	1339975.51
2+33.36	8" X 4" TEE	598950.87	1339969.76
2+77.70	1/8 H.B.	598980.72	1339936.97
3+21.86	8" X 6" F.H. TEE	599024.65	1339932.51
3+35.60	8" VALVE	599038.32	1339931.12
3+41.60	8" X 4" TEE	599044.28	1339930.51
3+47.60	8" VALVE	599050.25	1339929.91
3+91.74	8" X 4" TEE	599094.17	1339925.45
4+08.26	1/8 H.B.	599110.61	1339923.78
4+47.28	1/8 H.B.	599142.33	1339946.50
4+55.33	8" X 4" TEE	599144.12	1339954.35
5+29.01	8" X 6" F.H. TEE	599180.51	1340026.18
5+63.04	8" VALVE	599188.08	1340059.37
5+69.04	8" X 4" TEE	599189.42	1340065.21
6+77.45	3" DEFLECTION COUPLING	599193.54	1340170.90
6+94.45	8" VALVE	599198.74	1340187.09
6+97.45	8" X 8" TEE	599199.66	1340189.95

8" WATER MAIN: JOHN GRAVEL ROAD

- WATER MAIN NOTES:**
1. ALL WATER MAINS SHALL BE AMWA C900 PVC PIPE; DR-18.
  2. ALL PIPE BEDDING, TRACER WIRE, LOCATING TAPE AND OTHER APPURTENANCES SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV - WATER AND SEWER STANDARDS FOR AMWA C900 PVC WATER PIPE INSTALLATION.
  3. DEFLECTION COUPLINGS SHALL BE CERTAIN-TEED PVC HIGH DEFLECTION COUPLINGS.
  4. ALL WATER HOUSE CONNECTIONS AND TAPS SHALL BE PERFORMED USING A SADDLE.

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

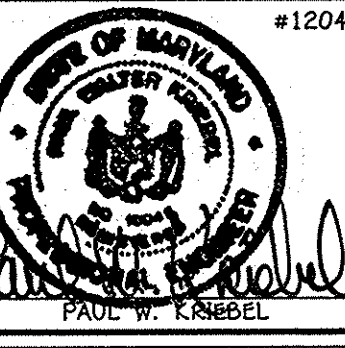
*Steve Gann*  
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

*Chad E. ...*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A ONLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 12043 EXPIRATION DATE IS 7/16/16.

**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SQUARE OFFICE PARK - 10276 BALDORNE NATIONAL PIKE  
ELKLOFT CITY, MARYLAND 21042  
(410) 461-2895



DESIGNED BY: B.C.R.  
DRAWN BY: B.C.R.  
CHECKED BY: P.W.K.  
DATE: JANUARY, 2015

WATER MAIN EXTENSIONS  
PROFILES & CHARTS

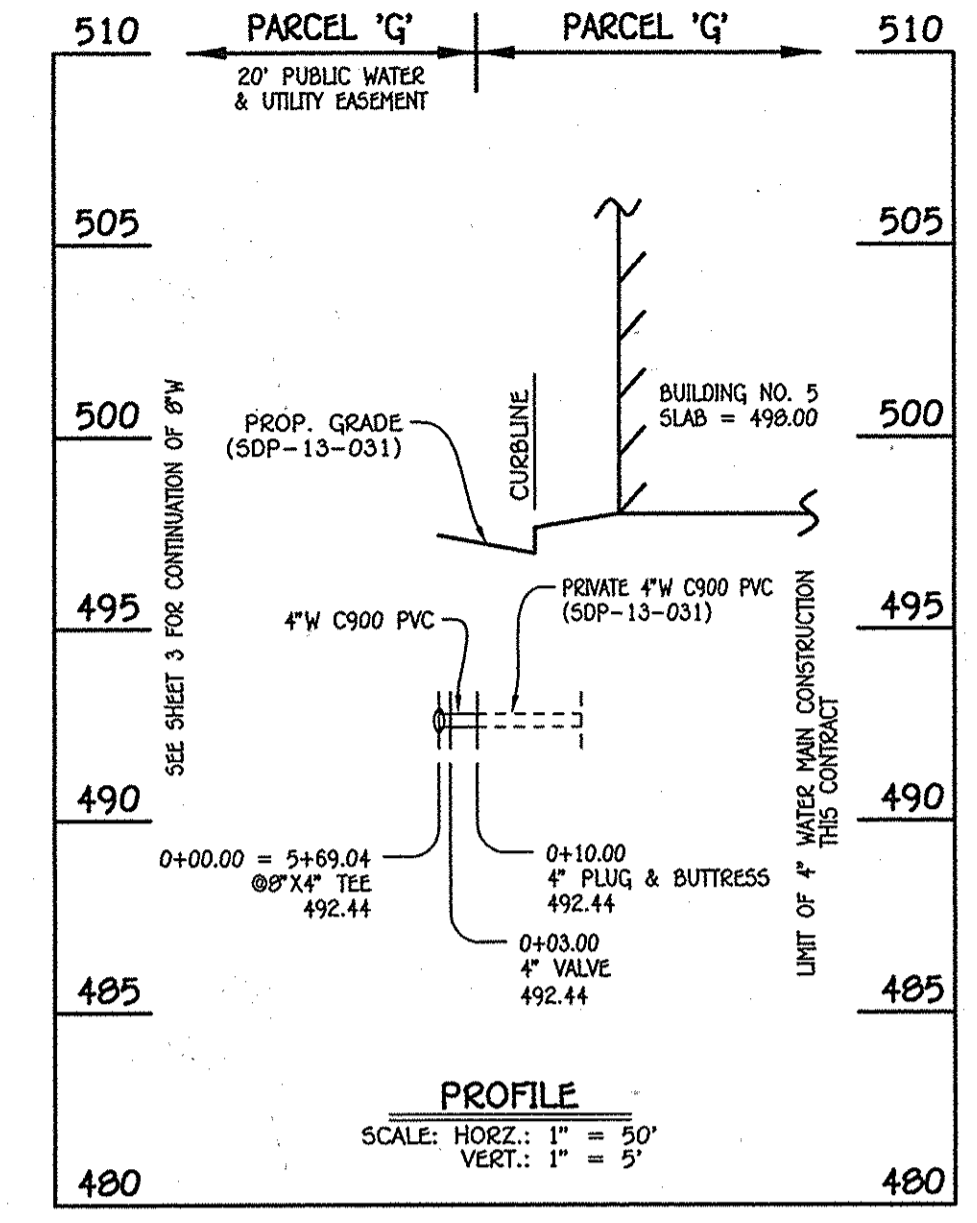
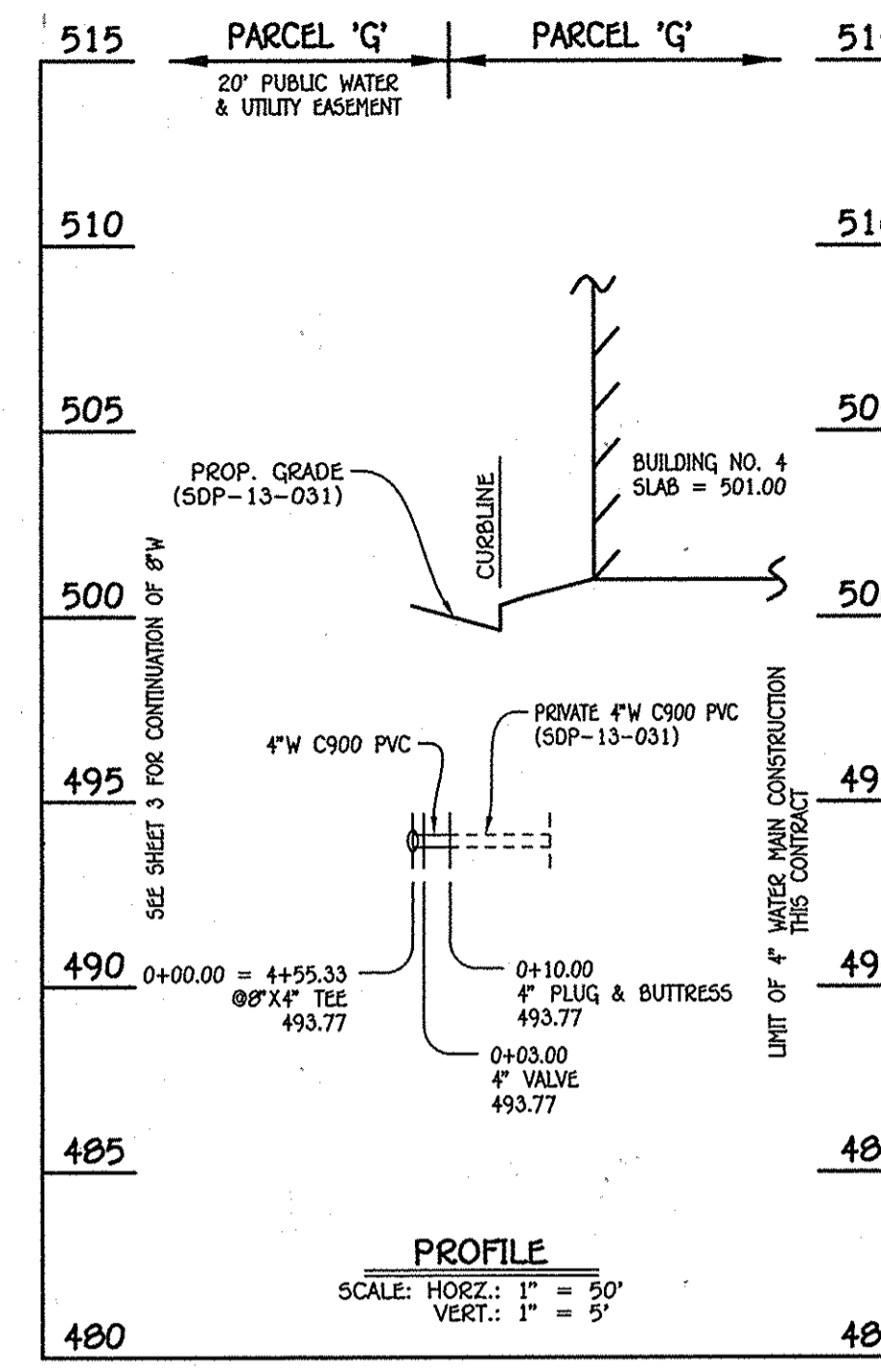
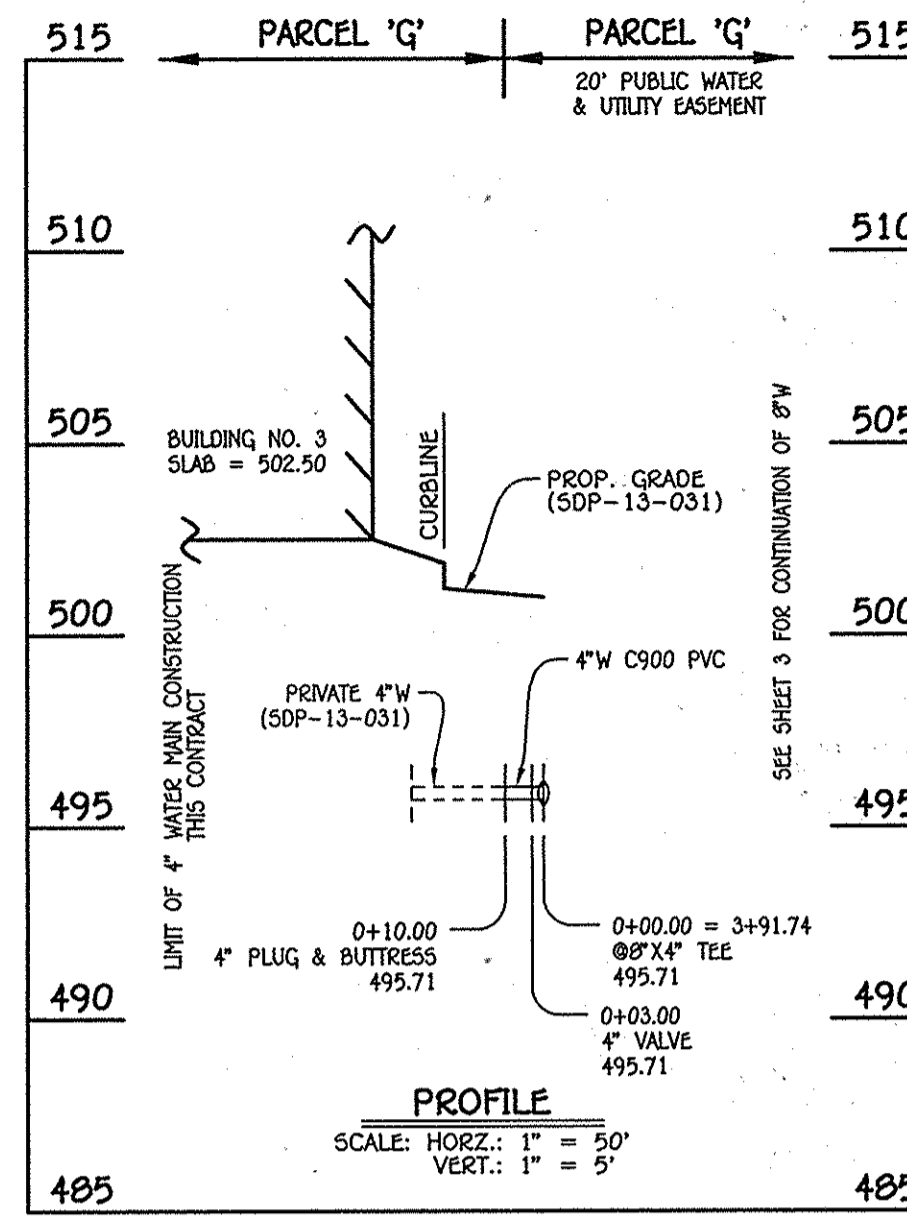
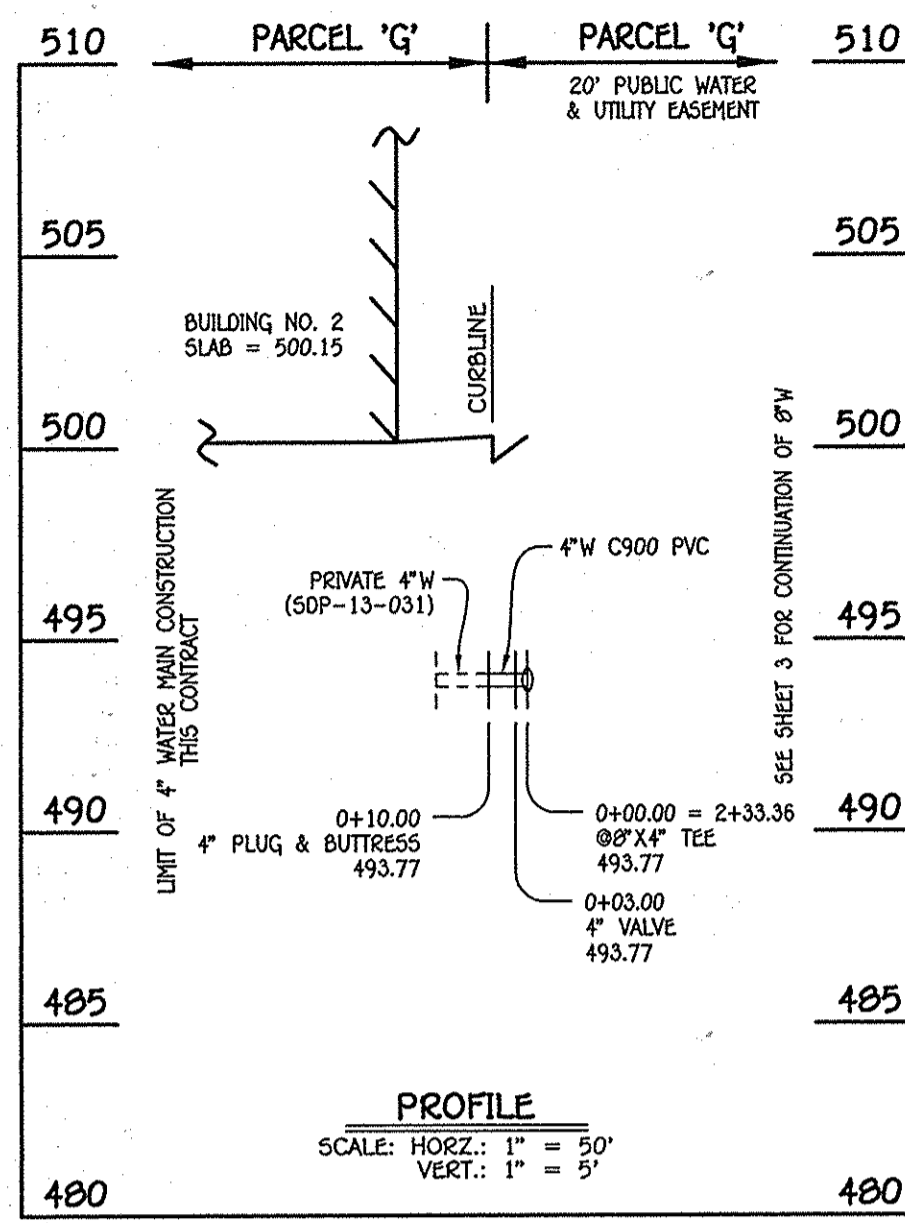
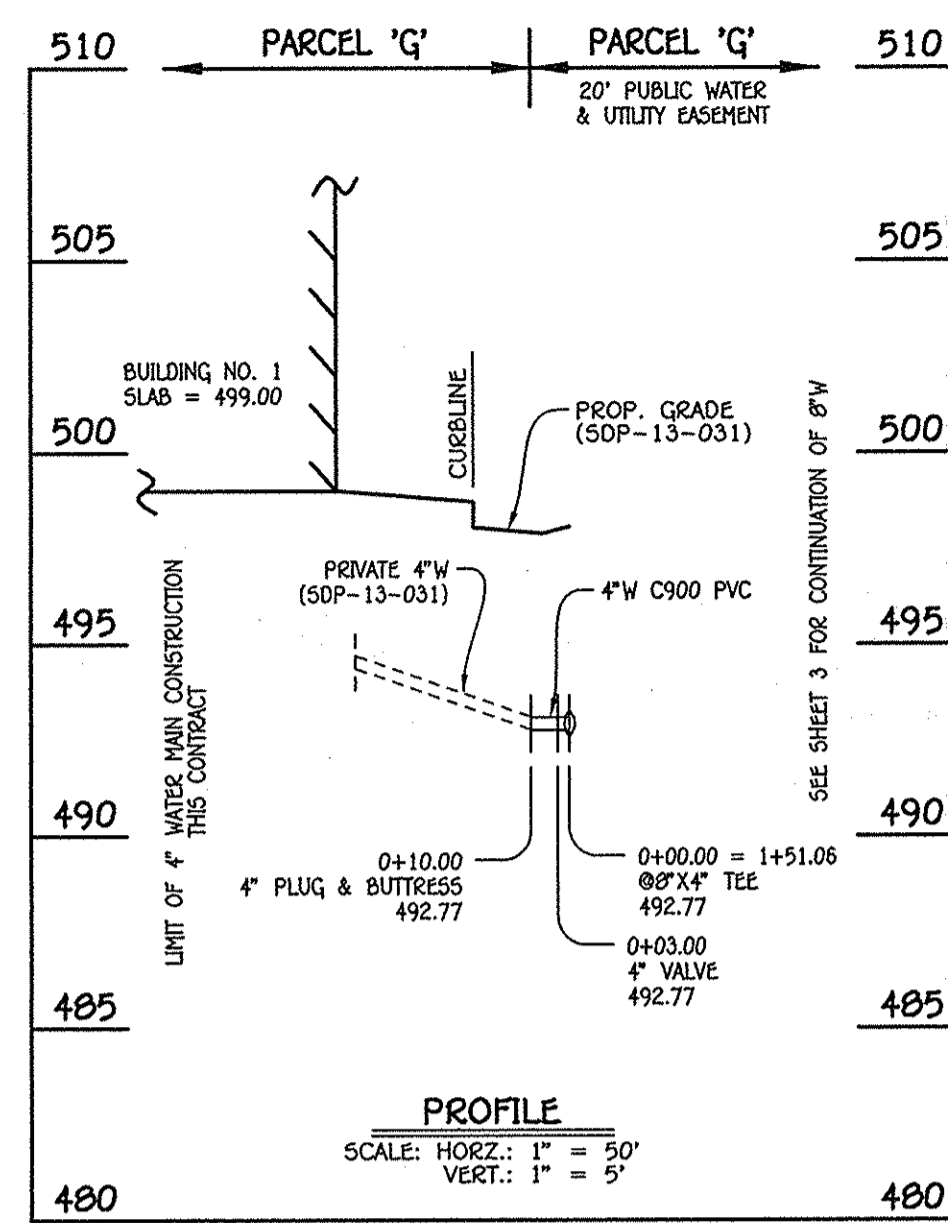
60' SCALE MAP NO. 16 BLOCK NO. 3 & 4  
F.C.C. WORK ORDER NO. 30770-6004  
FILE NAME: WATER & SEWER MAIN EXTENSION

WAVERLY MEWS  
SECTION 14; PARCEL 'G'  
BUILDING NOS. 1 THRU 7  
WATER & SEWER MAIN EXTENSIONS  
CONTRACT NO. 24-4900-D  
THIRD ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE  
AS SHOWN

SHEET  
3 OF 5

CONTRACT NO. 24-4900-D  
WAVERLY MEWS  
SECTION 14; PARCEL 'G'  
BUILDING NOS. 1 THRU 7  
WATER & SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND



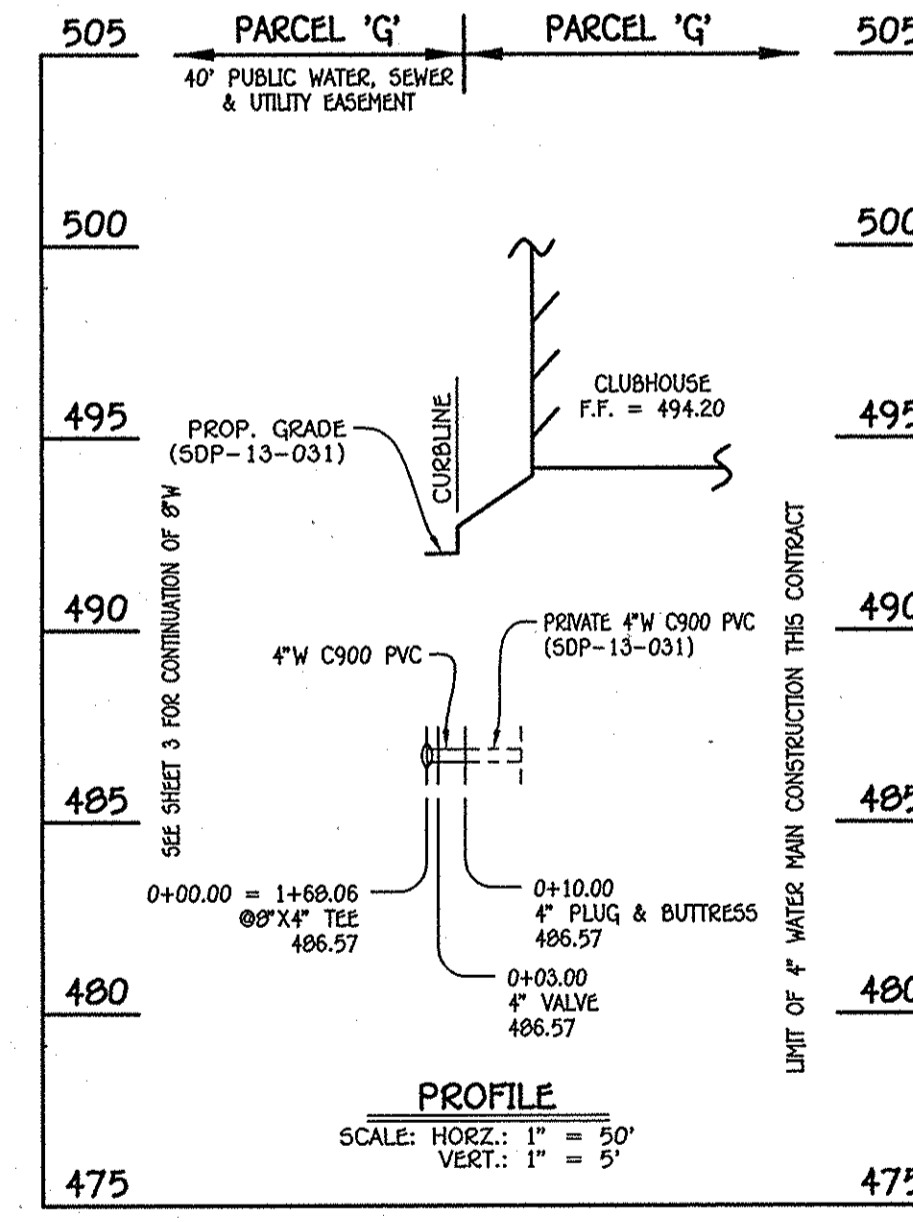
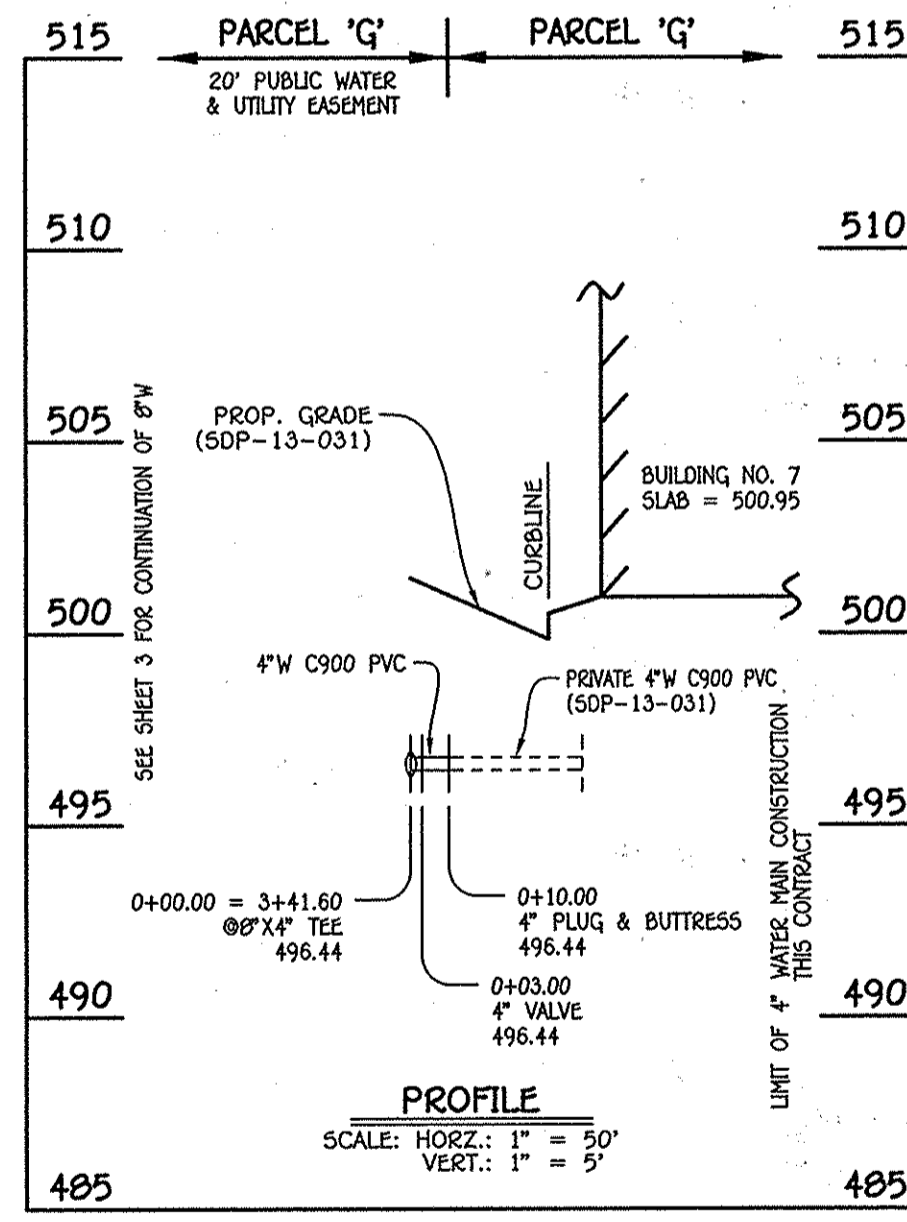
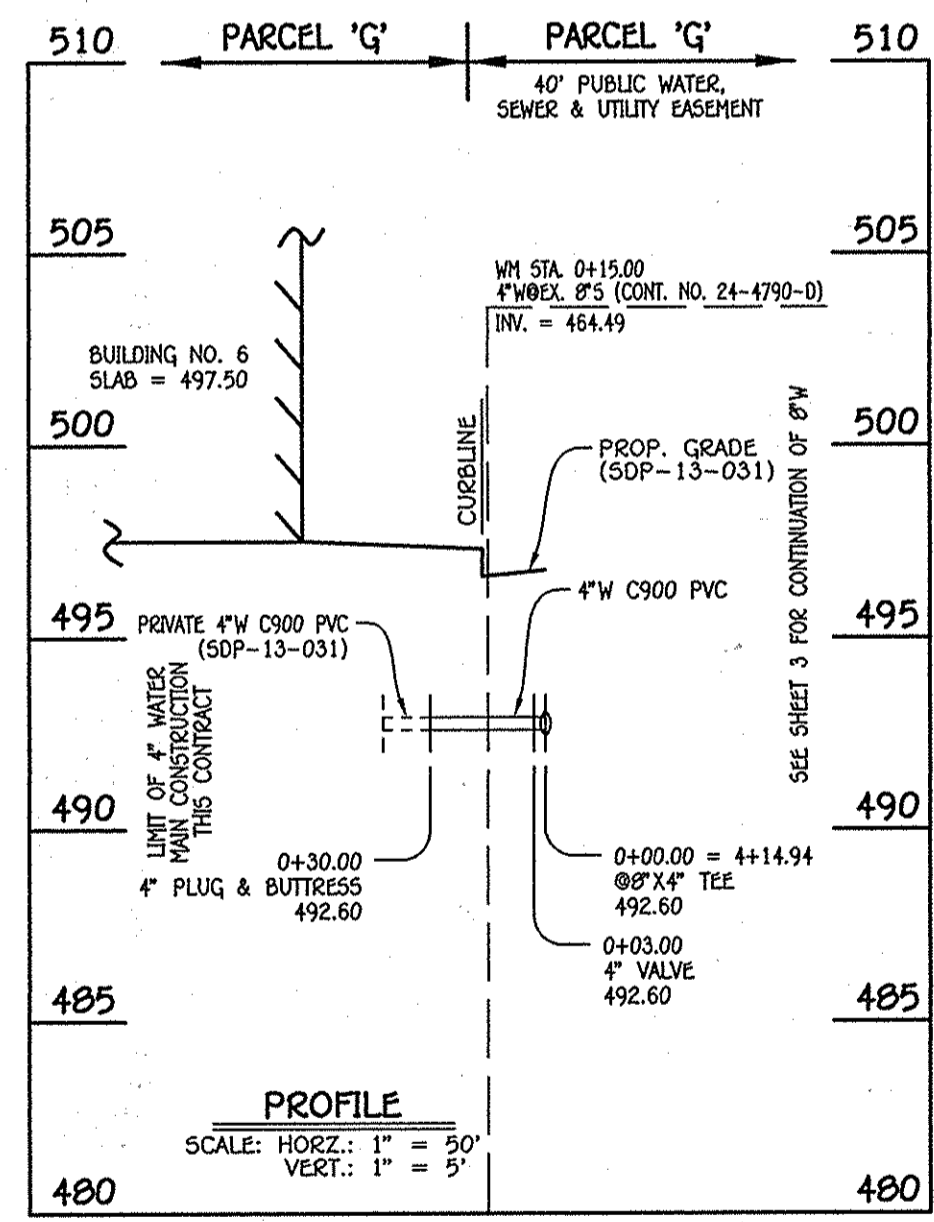
WATER MAIN TABULATION CHART			
W.M. STA.	APPURTENANCE	NORTHING	EASTING
4" WATER MAIN: BUILDING NO. 1			
0+00.00	8"X4" TEE	598945.09	1340050.04
0+03.00	4" VALVE	598942.09	1340050.02
0+10.00	4" PLUG & BUTTRESS	598935.09	1340049.97

WATER MAIN TABULATION CHART			
W.M. STA.	APPURTENANCE	NORTHING	EASTING
4" WATER MAIN: BUILDING NO. 2			
0+00.00	8"X4" TEE	598950.87	1339969.76
0+03.00	4" VALVE	598948.65	1339967.74
0+10.00	4" PLUG & BUTTRESS	598943.48	1339963.03

WATER MAIN TABULATION CHART			
W.M. STA.	APPURTENANCE	NORTHING	EASTING
4" WATER MAIN: BUILDING NO. 3			
0+00.00	8"X4" TEE	599094.17	1339925.45
0+03.00	4" VALVE	599093.87	1339922.46
0+10.00	4" PLUG & BUTTRESS	599093.16	1339915.50

WATER MAIN TABULATION CHART			
W.M. STA.	APPURTENANCE	NORTHING	EASTING
4" WATER MAIN: BUILDING NO. 4			
0+00.00	8"X4" TEE	599144.12	1339954.35
0+03.00	4" VALVE	599147.04	1339953.68
0+10.00	4" PLUG & BUTTRESS	599153.87	1339952.13

WATER MAIN TABULATION CHART			
W.M. STA.	APPURTENANCE	NORTHING	EASTING
4" WATER MAIN: BUILDING NO. 5			
0+00.00	8"X4" TEE	599169.42	1340066.21
0+03.00	4" VALVE	599172.79	1340066.50
0+10.00	4" PLUG & BUTTRESS	599179.62	1340064.94



WATER MAIN TABULATION CHART			
W.M. STA.	APPURTENANCE	NORTHING	EASTING
4" WATER MAIN: BUILDING NO. 6			
0+00.00	8"X4" TEE	599078.66	1340219.24
0+03.00	4" VALVE	599078.63	1340216.24
0+30.00	4" PLUG & BUTTRESS	599078.31	1340189.25

WATER MAIN TABULATION CHART			
W.M. STA.	APPURTENANCE	NORTHING	EASTING
4" WATER MAIN: BUILDING NO. 7			
0+00.00	8"X4" TEE	599044.28	1339930.51
0+03.00	4" VALVE	599044.59	1339933.50
0+10.00	4" PLUG & BUTTRESS	599045.30	1339940.46

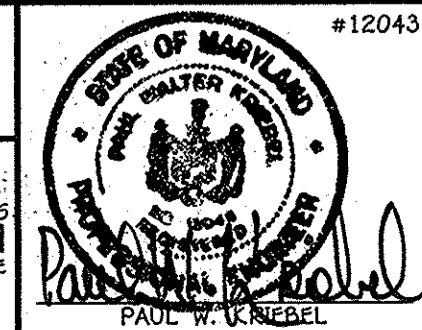
WATER MAIN TABULATION CHART			
W.M. STA.	APPURTENANCE	NORTHING	EASTING
4" WATER MAIN: CLUBHOUSE			
0+00.00	8"X4" TEE	598836.85	1340177.07
0+03.00	4" VALVE	598835.98	1340179.99
0+10.00	4" PLUG & BUTTRESS	598834.41	1340186.81

- WATER MAIN NOTES:**
- ALL WATER MAINS SHALL BE AMWA C900 PVC PIPE, DR-18.
  - ALL PIPE BEDDING, TRACER WIRE, LOCATING TAPE AND OTHER APPURTENANCES SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV - WATER AND SEWER STANDARDS FOR AMWA C900 PVC WATER PIPE INSTALLATION.
  - DEFLECTION COUPLINGS SHALL BE CERTAIN-TEED HIGH DEFLECTION COUPLINGS.
  - ALL WATER HOUSE CONNECTIONS AND TAPS SHALL BE PERFORMED USING A SADDLE.

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

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. 12243 EXPIRATION DATE IS 7/16/16.



DESIGNED BY: B.C.R.  
DRAWN BY: B.C.R.  
CHECKED BY: P.W.K.  
DATE: JANUARY, 2015

WATER MAIN EXTENSIONS  
PROFILES & CHARTS

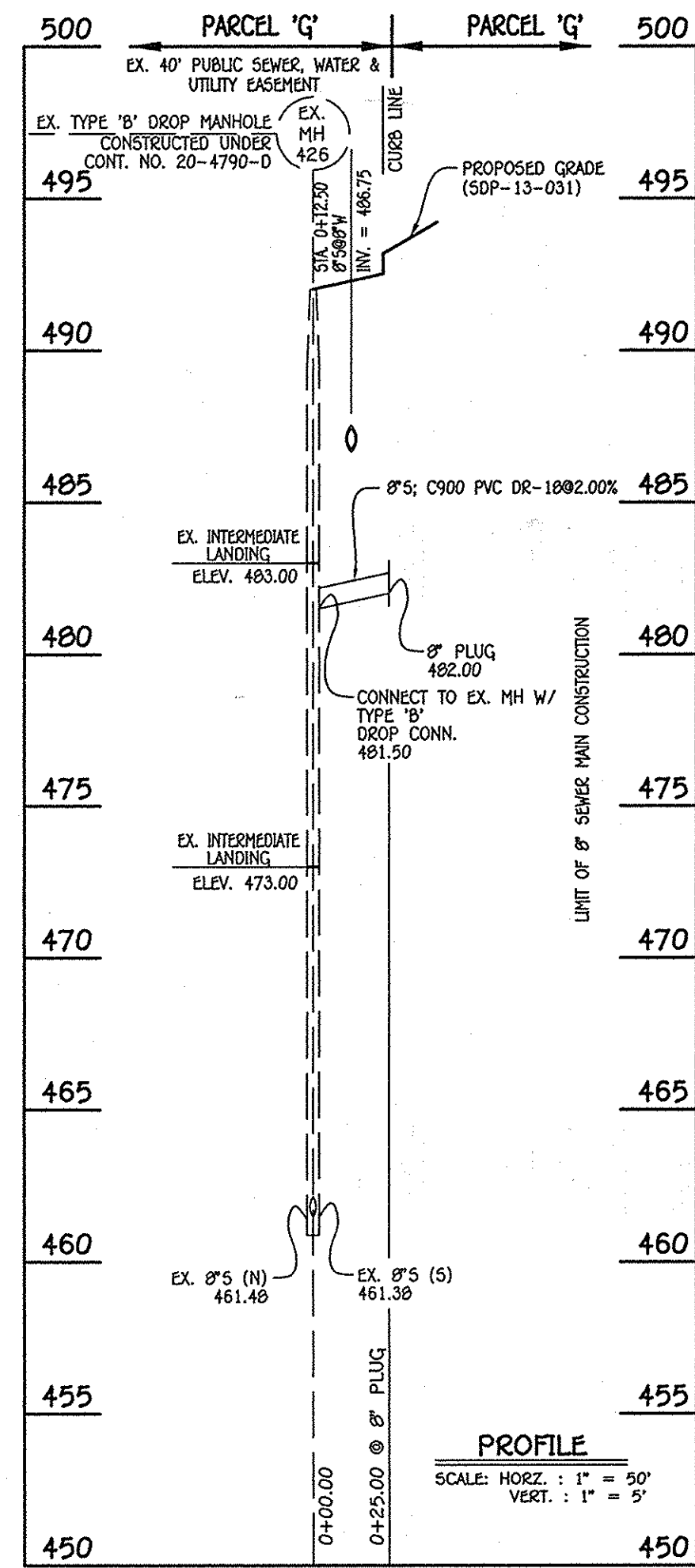
600' SCALE MAP NO. 16 BLOCK NO. 3 & 4  
F.C.C. WORK ORDER NO. 30770-6004  
FILE NAME: WATER & SEWER MAIN EXTENSION

WAVERLY MEWS  
SECTION 14; PARCEL 'G'  
BUILDING NOS. 1 THRU 7  
WATER & SEWER MAIN EXTENSIONS  
CONTRACT NO. 24-4900-0  
THIRD ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

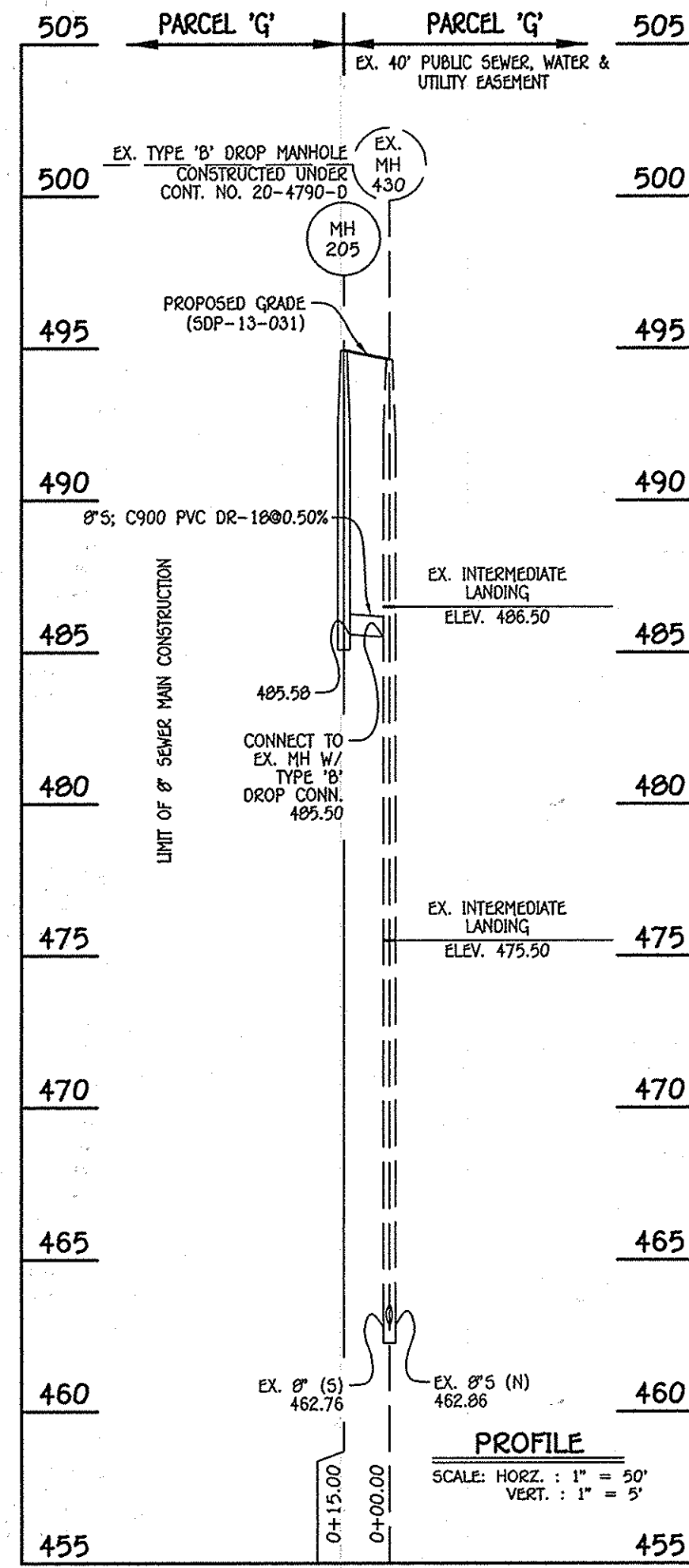
SCALE  
AS  
SHOWN

SHEET  
4 OF 5

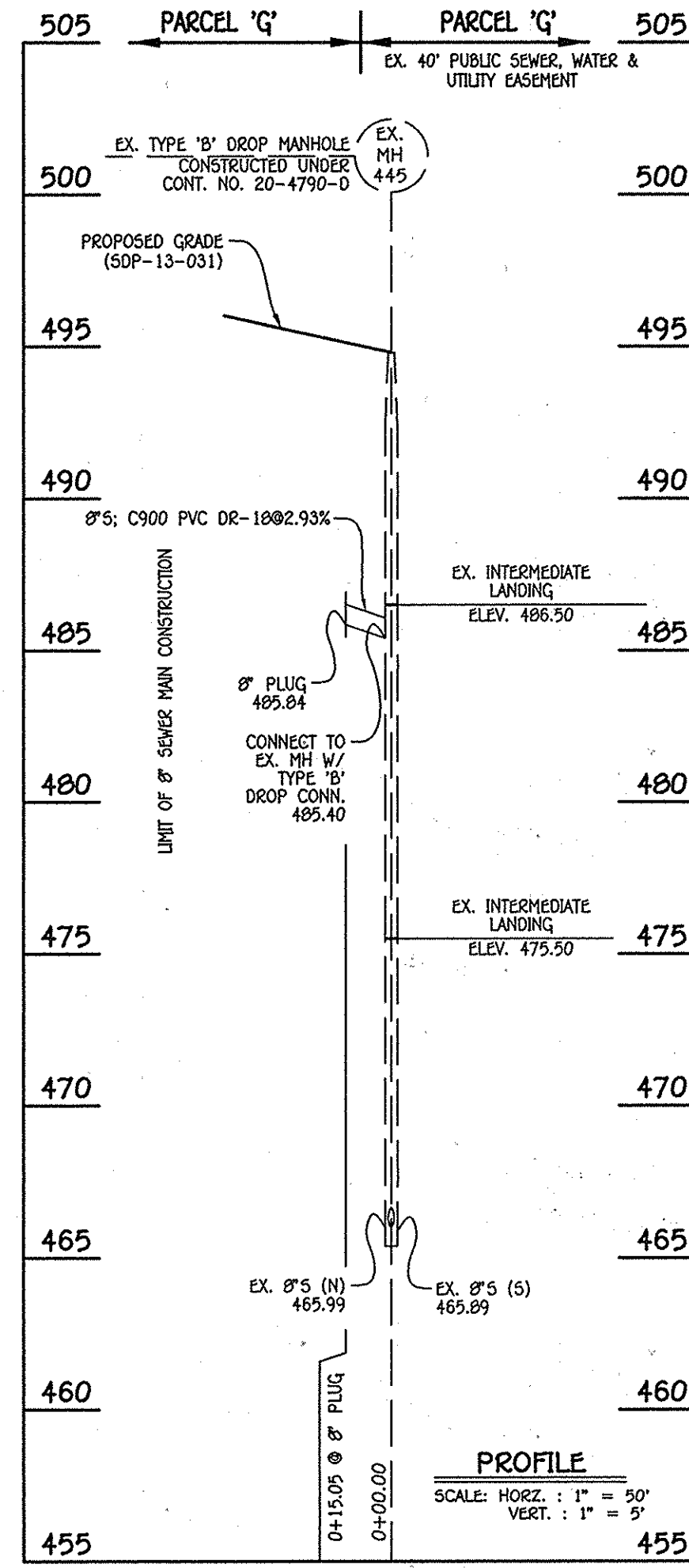
CONTRACT NO. 24-4900-0  
WATERLY MEWS  
SECTION 14; PARCEL 'G'  
BUILDING NOS. 1 THRU 7  
WATER & SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND



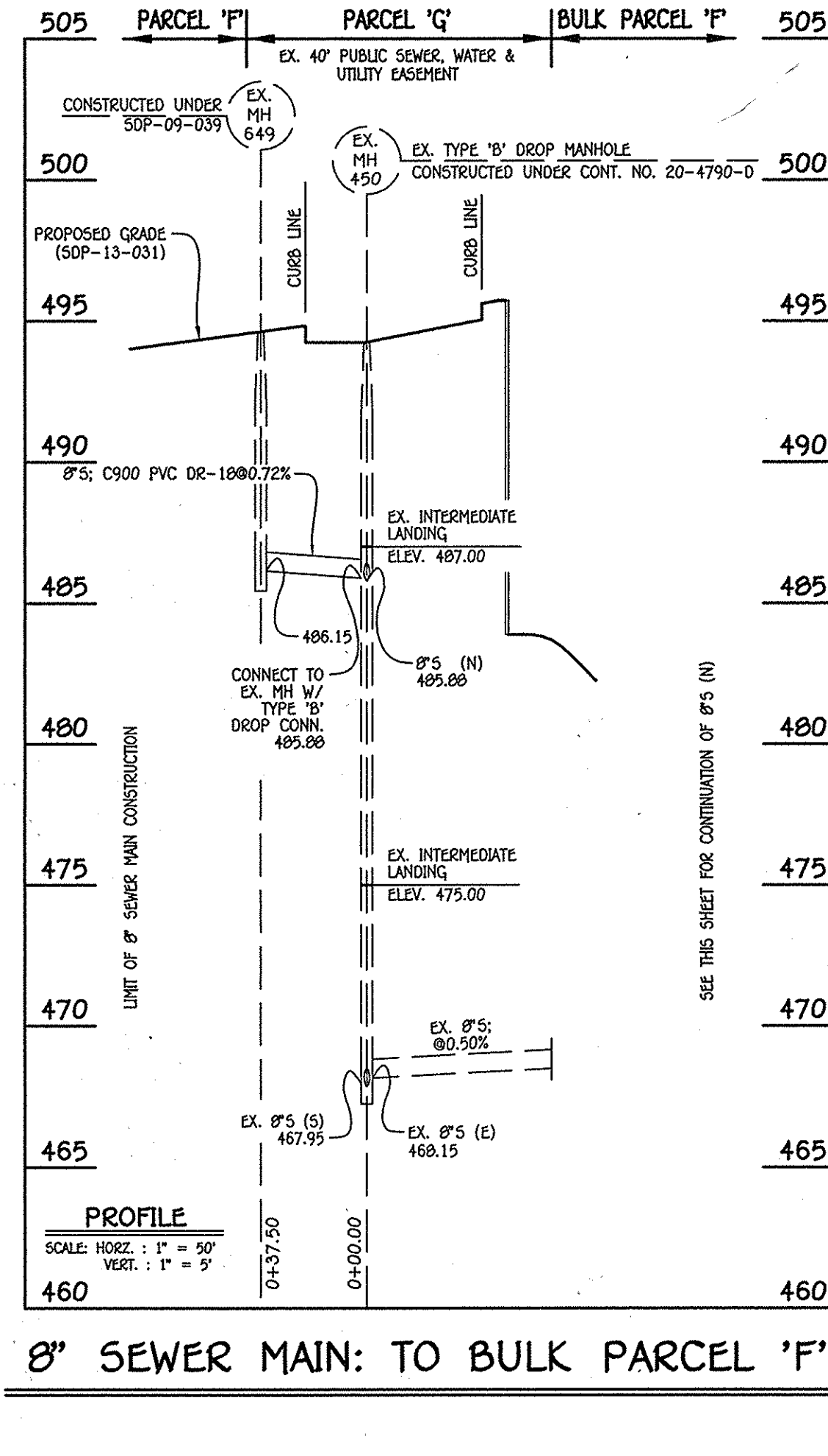
8" SEWER MAIN: TO CLUBHOUSE



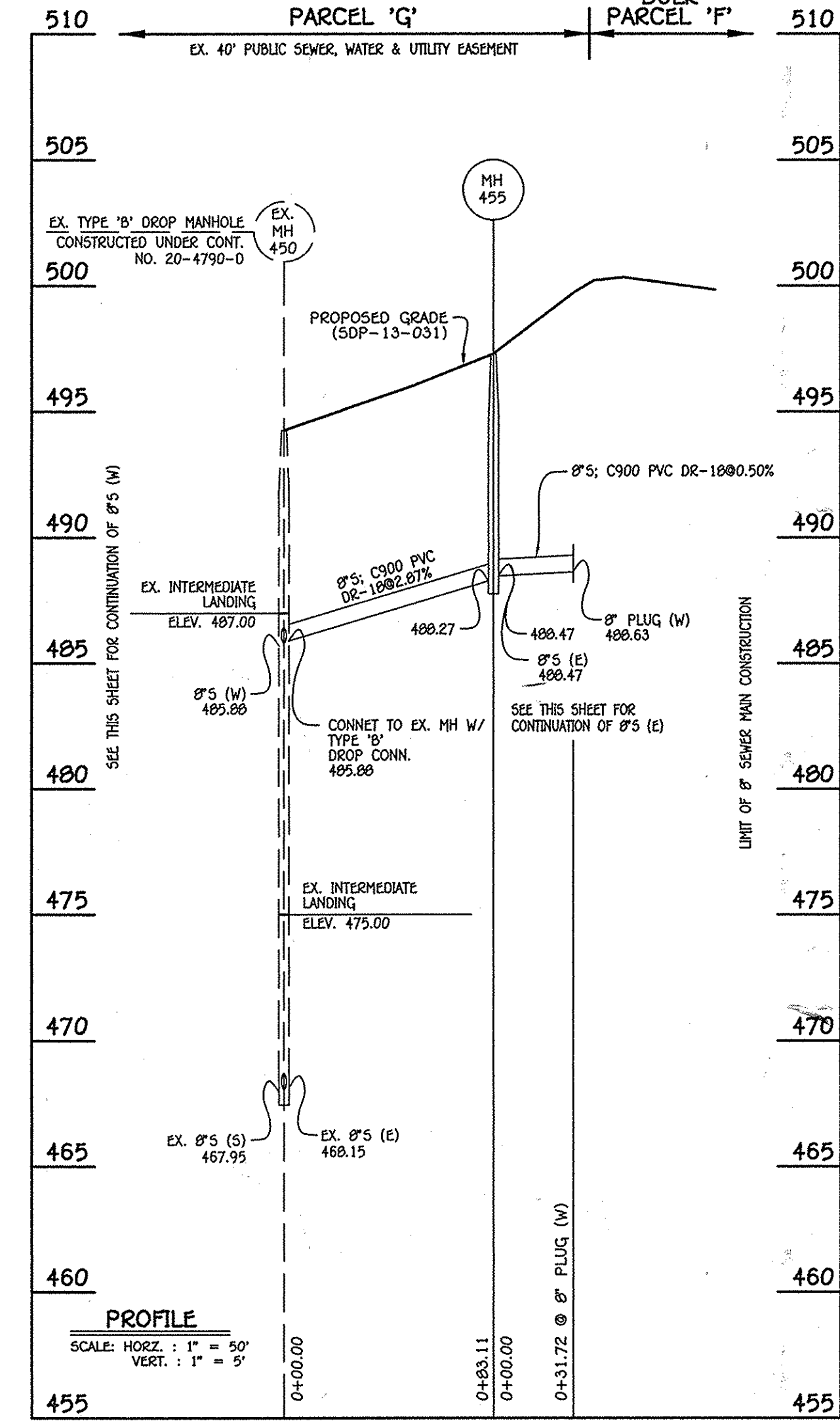
8" SEWER MAIN: TO JOHN GRAVEL ROAD



8" SEWER MAIN: TO JOHN GRAVEL ROAD



8" SEWER MAIN: TO BULK PARCEL 'F'



8" SEWER MAIN: JOHN STUART ROAD

MANHOLE TABULATION CHART			
NO.	NORTHING	EASTING	RIM ELEVATION
8" PLUG	598843.50	1340180.90	---

MANHOLE TABULATION CHART			
NO.	NORTHING	EASTING	RIM ELEVATION
205	598956.21	1340173.80	494.93

NOTE: SET MH RIM FLUSH W/PROPOSED GRADE.

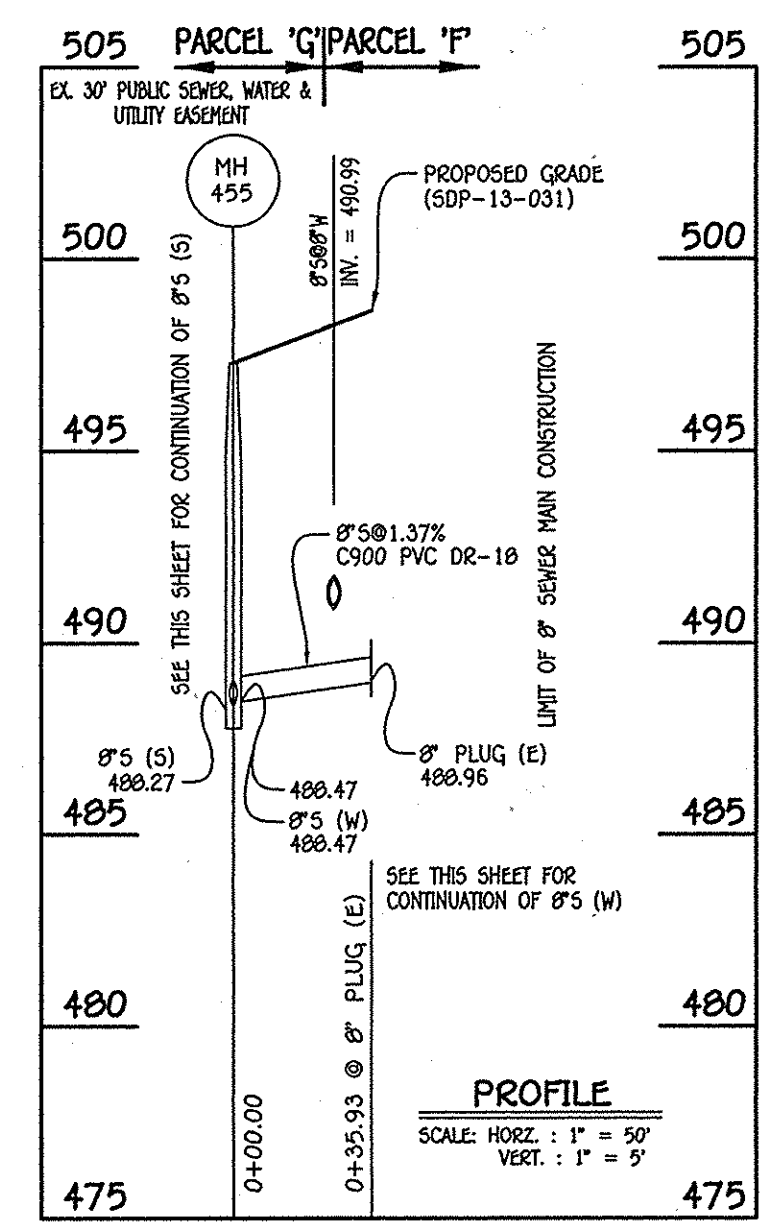
MANHOLE TABULATION CHART			
NO.	NORTHING	EASTING	RIM ELEVATION
8" PLUG	599179.84	1340164.80	---

MANHOLE TABULATION CHART			
NO.	NORTHING	EASTING	RIM ELEVATION
455	599413.76	1340093.53	497.29
8" PLUG (W)	599438.51	1340073.68	---

NOTE: SET MH RIM FLUSH W/PROPOSED GRADE.

MANHOLE TABULATION CHART			
NO.	NORTHING	EASTING	RIM ELEVATION
455	599413.76	1340093.53	497.29
8" PLUG (E)	599449.68	1340094.67	---

NOTE: SET MH RIM FLUSH W/PROPOSED GRADE.



8" SEWER MAIN: TO BULK PARCEL 'F'

SEWER MAIN NOTES:  
 1. ALL DROP CONNECTIONS SHALL BE OUTSIDE DROP CONNECTIONS IN ACCORDANCE W/ STD. DET. 5-1.3E. INSIDE DROP CONNECTIONS SHALL NOT BE ALLOWED.  
 2. ALL PIPE BEDDING SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL VOLUME II - WATER AND SEWER STANDARDS FOR AWWA C900 PVC SEWER PIPE INSTALLATION.

CONTRACT NO. 24-4900-D  
 WAVERLY MEWS  
 SECTION 14: PARCEL 'G'  
 BUILDING NOS. 1 THRU 7  
 WATER & SEWER MAIN EXTENSIONS  
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY, MARYLAND

DATE: 3-3-15

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. 12043 EXPIRATION DATE IS 7/16/16.

FISHER, COLLINS & CARTER, INC.  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTENNIAL SQUARE OFFICE PARK - 10276 BALTIMORE NATIONAL PIKE  
 ELLICOTT CITY, MARYLAND 21142  
 (410) 461-2895

PAUL W. KNEBEL

DESIGNED BY: B.C.R.

DRAWN BY: B.C.R.

CHECKED BY: P.W.K.

DATE: JANUARY, 2015

SEWER MAIN EXTENSIONS  
 PROFILES & CHARTS

600' SCALE MAP NO. 16 BLOCK NO. 3 & 4  
 F.C.C. WORK ORDER NO. 30770-6004

FILE NAME: WATER & SEWER MAIN EXTENSION

WAVERLY MEWS  
 SECTION 14: PARCEL 'G'  
 BUILDING NOS. 1 THRU 7  
 WATER & SEWER MAIN EXTENSIONS  
 CONTRACT NO. 24-4900-D  
 THIRD ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN

SHEET: 5 OF 5

I:\30000\30770\dwg\Water & Sewer Contract No. 24-4900-D\30770-6004 Water and Sewer Contract Plan.dwg, 1/28/2015 10:30:19 AM