

QUANTITIES				
ITEM	ESTIMATED	QUANTITIES	AS-BUILT	SUPPLIER
8" SDR-35	1,246 L.F.	1,240 L.F.	PVC SDR-35	NORTH AMERICAN PIPE
6" SDR-35	286 L.F.	285 L.F.	PVC SDR-35	NORTH AMERICAN PIPE
4" SDR-35	1,038 L.F.	1,100 L.F.	PVC SDR-35	NORTH AMERICAN PIPE
CLEAN-OUTS	72 EACH	72	---	MORNS CONCRETE
MANHOLE	10 EACH	10	---	CONTRACTORS PREFERRED
6" W. C900 PVC, DR-10	1,750 L.F.	1,760 L.F.	C 900	NORTH AMERICAN PIPE
6" W. C900 PVC, DR-10	63 L.F.	63 L.F.	C 900	NORTH AMERICAN PIPE
1-1/2" W.H.C.	974 L.F.	1,000 L.F.	TYPE K	CERRO FLOW PRODUCTS
8" VALVE	10 EACH	10	A 236 023	MUELLER COMPANY
6" VALVE	3 EACH	3	A 236 023	MUELLER COMPANY
1/8" H.B.	1 EACH	1	C 900	MULTI-FITTINGS
1/16" H.B.	2 EACH	2	C 900	MULTI-FITTINGS
1/32" H.B.	2 EACH	2	C 900	MULTI-FITTINGS
2" HDC	1 EACH	1	---	NORTH AMERICAN PIPE
3" HDC	2 EACH	2	---	NORTH AMERICAN PIPE
8" X 8" CROSS	1 EACH	1	C 153	TYLER UNION
8" X 8" TEE	2 EACH	2	C 153	TYLER UNION
8" X 6" TEE	3 EACH	3	C 153	TYLER UNION
FIRE HYDRANT	3 EACH	3	A 423	MUELLER COMPANY
SINGLE OUTSIDE METER SETTING	22 EACH	22	---	A Y Mc DONALD
TWIN OUTSIDE METER SETTING	29 EACH	29	---	A Y Mc DONALD
CONTINUITY TEST STATION	3 EACH	3	---	VESTAL MANUFACTURING

BENCHMARK INFORMATION

B.M.#1 - HOWARD COUNTY CONTROL STATION #438A - HORIZONTAL - (NAD '83)
(LOCATED IN FRONT F #7561 OLD WASHINGTON ROAD, APPROX. 4.2' BEHIND FIRE HYDRANT & APPROX. 2.9' BEHIND EDGE OF PAVING)
N 552,534.2018
E 1,376,905.2050
ELEVATION = 209,296 - VERTICAL - (NAVD '88)

B.M.#2 - HOWARD COUNTY CONTROL STATION #438B - HORIZONTAL - (NAD '83)
(LOCATED ALONG OLD WASHINGTON ROAD, APPROX. 350' SOUTH OF KIT KAT ROAD, ALONG EAST BOUND PAVING EDGE)
N 551,676.4075
E 1,378,108.3982
ELEVATION = 209,431 - VERTICAL - (NAVD '88)

DEVELOPER'S CERTIFICATION

I/WE HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND CONSTRUCTION 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. Kriebel; FOR:
BEAZER HOMES, INC. 04-30-15
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. Kriebel 04/30/15
SIGNATURE OF ENGINEER DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE HOWARD COUNTY DESIGN MANUAL - VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION AND AS SHOWN ON THE FINAL ROAD CONSTRUCTION PLANS, F-14-028.

Paul W. Kriebel; FOR:
BEAZER HOMES, INC. 04-30-15
SIGNATURE OF DEVELOPER DATE

F-14-028

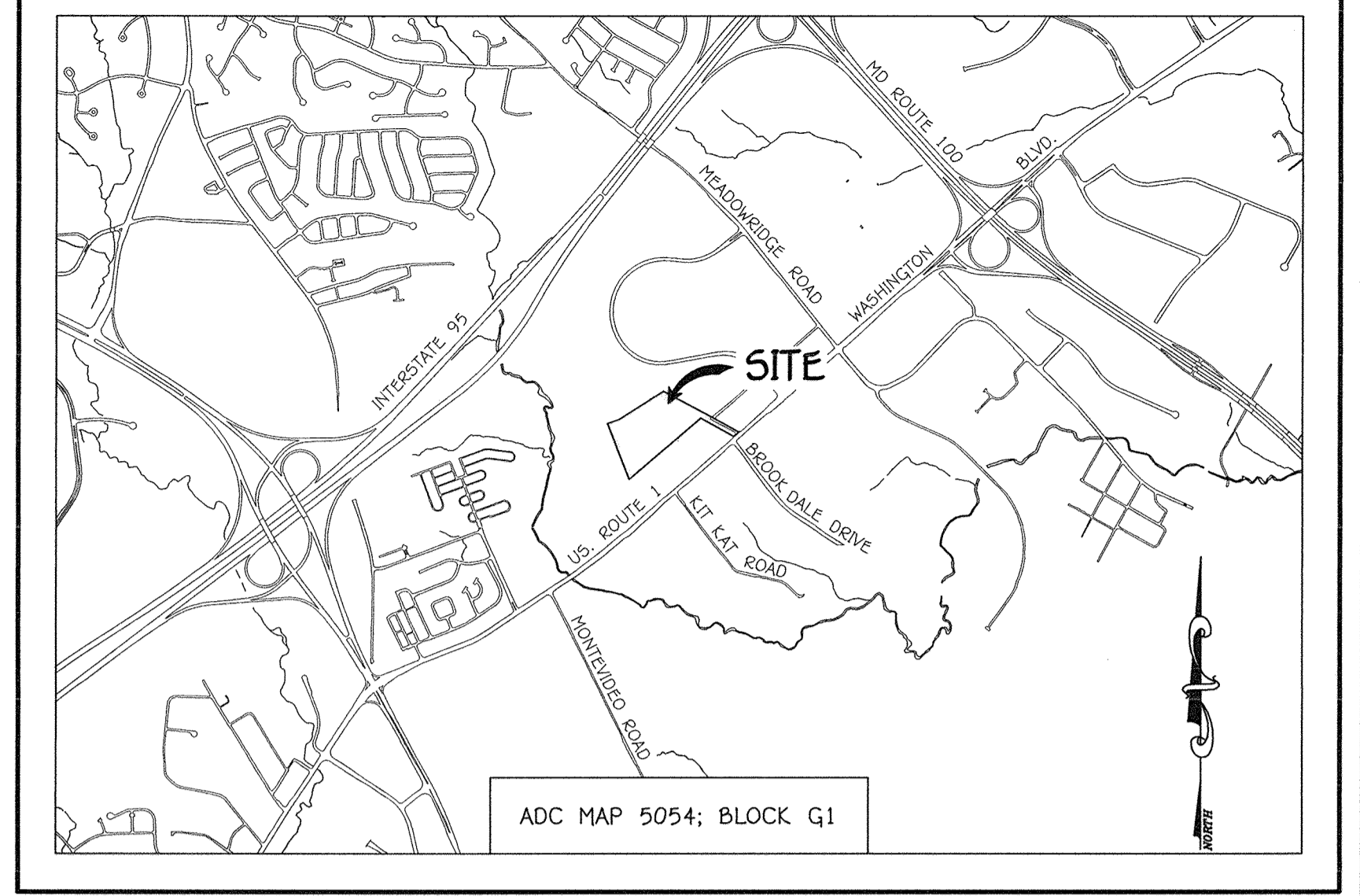
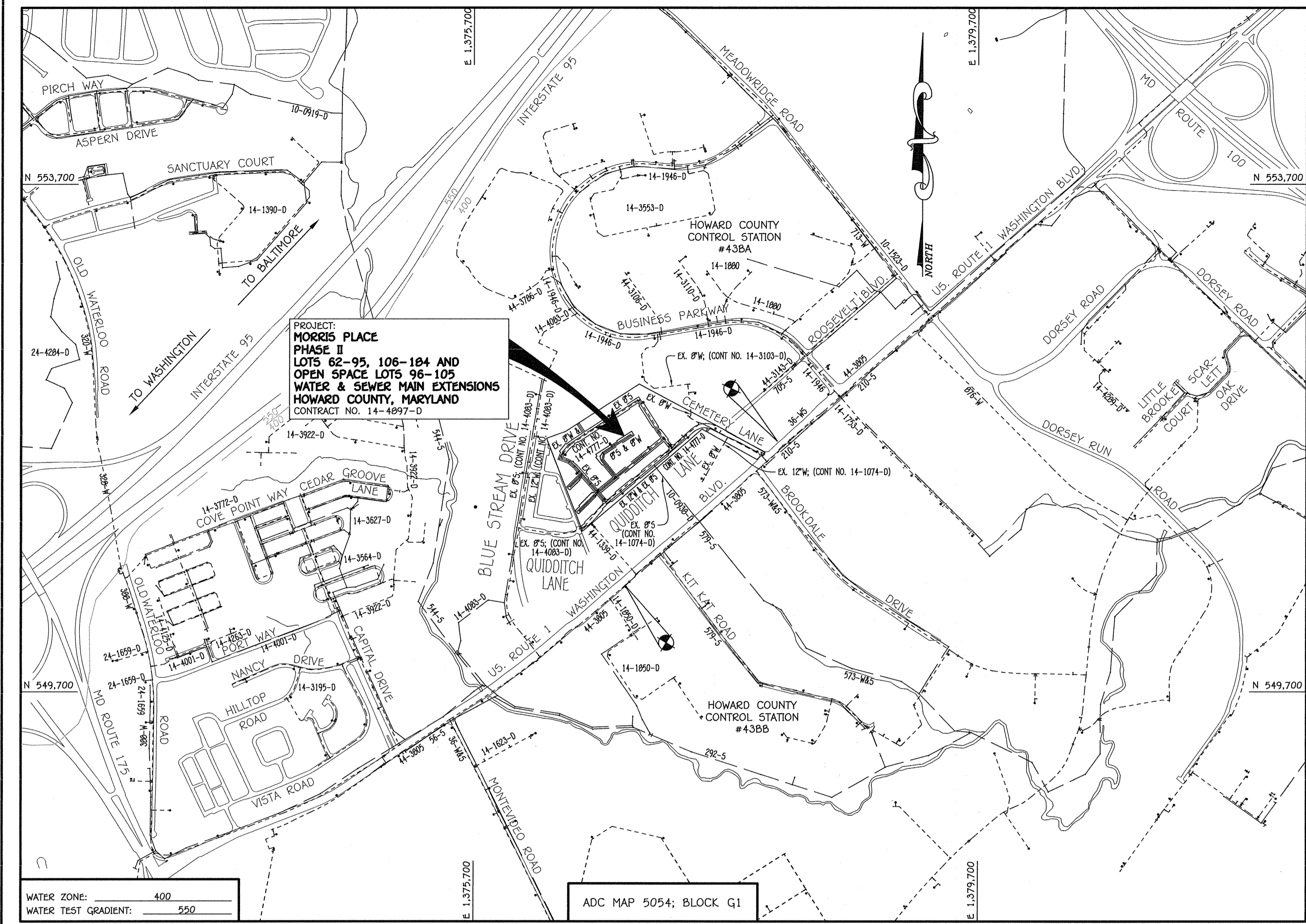
THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT.

APPROVED:
John L. Roberts 5/19/15
HOWARD SOIL CONSERVATION DISTRICT DATE

LEGEND	
SYMBOL	DESCRIPTION
---	EX. WATER MAIN
---	EX. SEWER MAIN
○	EX. SEWER MANHOLE
---	EX. WATER, SEWER & UTILITY EASEMENT
○	EX. FIRE HYDRANT
○	EX. VALVE
---	PROP. WATER MAIN
---	PROP. SEWER MAIN
○	PROP. SEWER MANHOLE
---	PROP. WATER, SEWER & UTILITY EASEMENT
---	PROP. WIC
---	PROP. SHC
○	PROP. FIRE HYDRANT
○	PROP. VALVE

TYPE OF BUILDING: RESIDENTIAL	
NUMBER OF LOTS:	113 (BUILDABLE)
NO. OF SINGLE WATER HOUSE CONNECTIONS:	25
NO. OF TWIN WATER HOUSE CONNECTIONS:	26
NO. OF SINGLE SEWER HOUSE CONNECTIONS:	6
NO. OF TWIN SEWER HOUSE CONNECTIONS:	33
SEWER SHED:	PATAPSCO
TREATMENT PLANT:	PATAPSCO WASTEWATER TREATMENT PLANT, CITY OF BALTIMORE

LOCATION MAP
SCALE: 1" = 600'



GENERAL NOTES

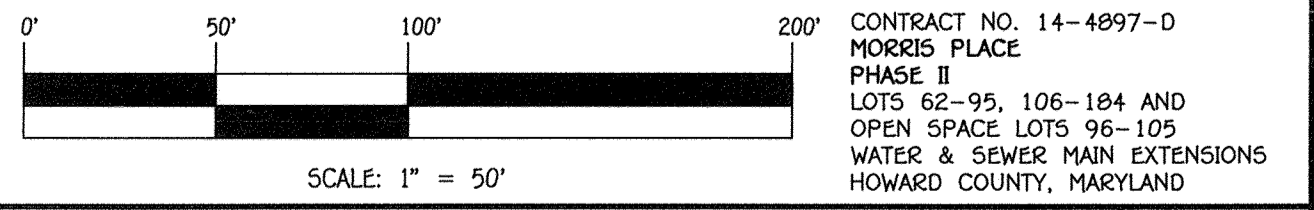
VICINITY MAP
SCALE: 1" = 2000'

- 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 OCTOBER, 2007 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. 438A & NO. 438B. ALL VERTICAL CONTROLS ARE BASED ON NAVD '88. VERTICAL CONTROLS PROVIDED ON THE DRAWINGS.
 - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
 - BEFORE ANY WORK IS BEGUN, THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF 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 FITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL (S) AT THE LOCATIONS OF THE TEST FITS. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST FIT OR FITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST FITS HAVE NOT BEEN MADE SHALL BE LOCATED BY THE CONTRACTOR TO MEET 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	1-800-292-1133
BGE (CONTRACTOR SERVICES)	410-637-8713
BGE (EMERGENCIES)	410-689-0123
BUREAU OF UTILITIES	410-313-4900
COLONIAL PIPELINE CO.	410-799-1390
MESS UTILITY	1-800-287-7777
STATE HIGHWAY ADMINISTRATION	410-531-5533
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 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/BACKING 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.
- PART B: WATER MAIN GENERAL NOTES**
- ALL WATER MAINS SHALL BE AWWA C900 PVC, DR-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 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 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 HANGESSES. ZINC ANODES SHALL BE INSTALLED ON ALL STAINLESS STEEL FITTINGS AND SADDLES USING 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 HOLE 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, 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 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 CERTAINTIFIED 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 (EPI) 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 PLAN 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 HIGH DEFLECTION STOP MANUFACTURED BY BEAZER HOMES, INC. OR APPROVED EQUAL.
 - TO ACCOMMODATE A SPRINKLER SYSTEM, ALL RESIDENTIAL DWELLING UNITS SHALL HAVE A 1-1/2" CONNECTION WITH A 1" OUTSIDE METER SETTING, STD. DET. W-3.28 OR W-3.32.
- 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 W.I.T. IN PLAN AND PROFILE SHALL HAVE WATERIGHT FRAME AND COVER, STANDARD DETAIL G5.52. WHERE WATERIGHT MANHOLE FRAMES AND COVERS ARE USED, SET TOP OF FRAME 1'-0" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
 - HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.

AS-BUILT
Paul W. Kriebel 5/19/15

OWNER / DEVELOPER
BEAZER HOMES, INC.
8965 GUILFORD ROAD
COLUMBIA, MD 21046
SUITE 290
PHONE: 443-539-9249
ATTN: MR. BRIAN KNAUFF



DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>Stella C. Carr</i> CHIEF, BUREAU OF UTILITIES DATE: 5/19/15	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND <i>Paul W. Kriebel</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE: 5/19/15	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 CENTRAL SQUARE OFFICE PARK - 10672 BALTIMORE NATIONAL PIKE ELLIOTT CITY, MARYLAND 21042 (410) 461 - 2899 	DESIGNED BY: B.C.R. DRAWN BY: B.C.R. CHECKED BY: P.W.K. DATE: MAY, 2015 BY NO. 100 REVISION: REVISE ESTIMATED QUANTITY AS REQUIRED DATE: 5/19/15	WATER & SEWER MAIN EXTENSIONS TITLE SHEET 600' SCALE MAP NO. 43 BLOCK NO. 4 F.C.C. WORK ORDER NO. 07053-3001 FILE NAME: WATER & SEWER MAIN EXTENSION PLAN	MORRIS PLACE PHASE II LOTS 62-95, 106-184 AND OPEN SPACE LOTS 96-105 WATER & SEWER MAIN EXTENSIONS CONTRACT NO. 14-4897-D FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE AS SHOWN SHEET 1 OF 6
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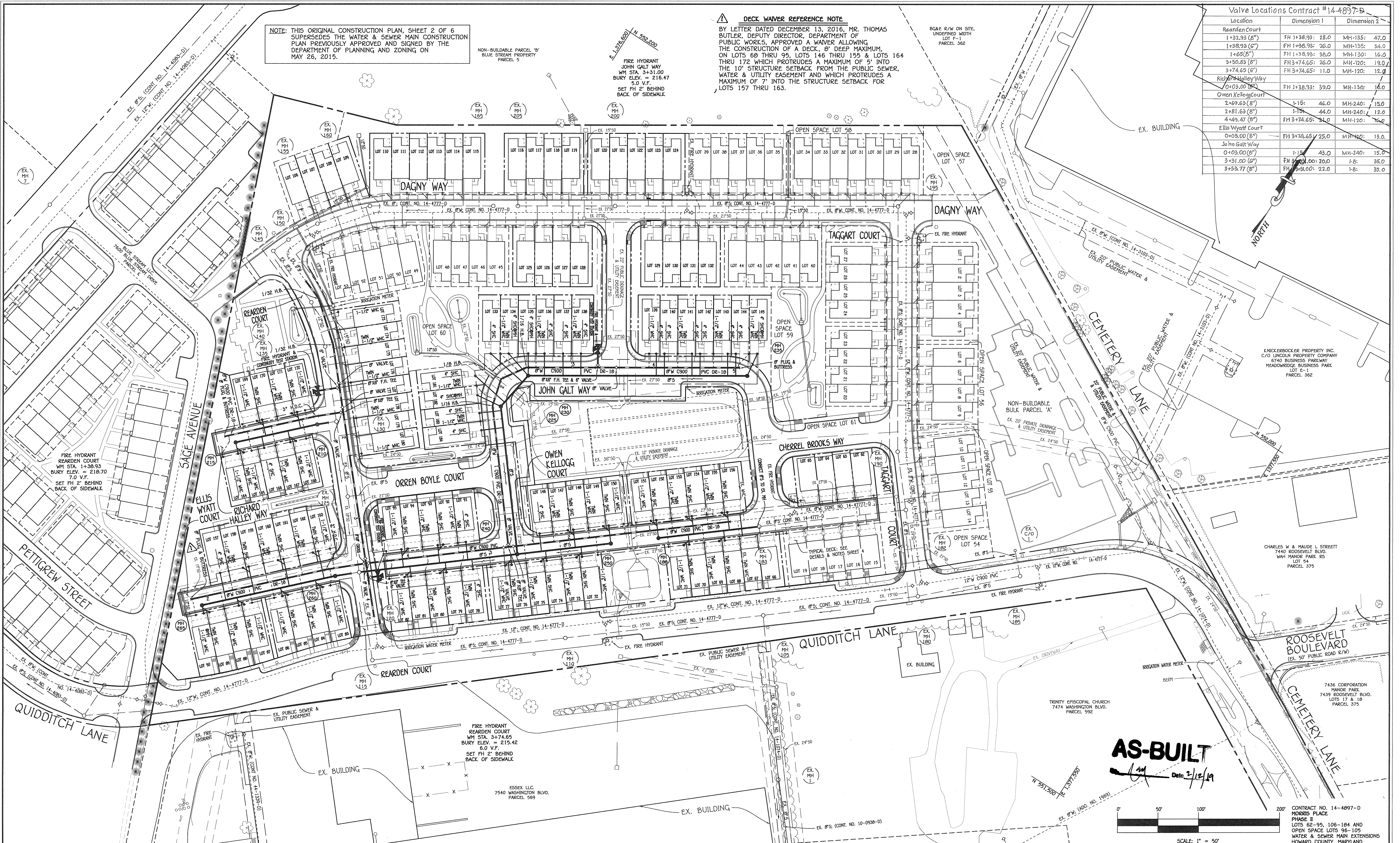
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NOTE: THIS ORIGINAL CONSTRUCTION PLAN, SHEET 2 OF 6 SUPERSEDES THE WATER & SEWER MAIN CONSTRUCTION PLAN PREVIOUSLY APPROVED AND SIGNED BY THE DEPARTMENT OF PLANNING AND ZONING ON MAY 26, 2015.

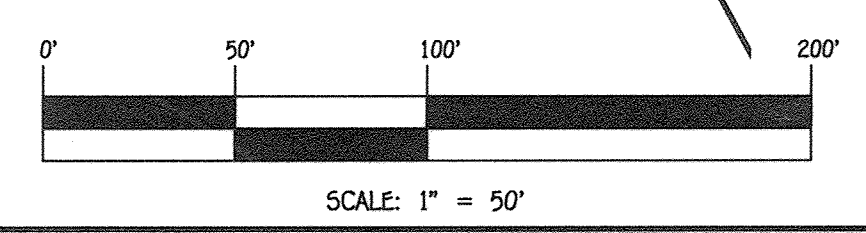
DECK WAIVER REFERENCE NOTE
 BY LETTER DATED DECEMBER 13, 2016, MR. THOMAS BUTLER, DEPUTY DIRECTOR, DEPARTMENT OF PUBLIC WORKS, APPROVED A WAIVER ALLOWING THE CONSTRUCTION OF A DECK, 8" DEEP MAXIMUM, ON LOTS 69 THRU 95, LOTS 148 THRU 155 & LOTS 164 THRU 172 WHICH PROTRUDES A MAXIMUM OF 9" INTO THE 10' STRUCTURE SETBACK FROM THE PUBLIC SEWER, WATER & UTILITY EASEMENT AND WHICH PROTRUDES A MAXIMUM OF 7" INTO THE STRUCTURE SETBACK FOR LOTS 157 THRU 163.

Valve Locations Contract #14-4897-D

Location	Dimension 1	Dimension 2
Rearden Court		
1+38.93 (8")	FH 1+38.93: 28.0	MH-135: 47.0
1+38.93 (8")	FH 1+38.93: 26.0	MH-135: 54.0
1+69 (8")	FH 1+9.8.93: 38.0	MH-130: 16.0
3+50.83 (8")	FH 3+74.65: 26.0	MH-120: 19.0
3+74.65 (8")	FH 3+74.65: 11.0	MH-120: 12.0
Rio Valley Way		
0+03.00 (8")	FH 1+38.93: 39.0	MH-130: 16.0
Owen Kellogg Court		
2+69.63 (8")	1-15: 46.0	MH-240: 13.0
2+81.63 (8")	1-15: 44.0	MH-240: 12.0
4+49.47 (8")	FH 3+74.65: 24.0	MH-120: 16.0
Ellis Wyatt Court		
0+03.00 (8")	FH 3+74.65: 25.0	MH-120: 13.0
John Galt Way		
0+03.00 (8")	1-15: 43.0	MH-240: 15.0
3+31.00 (8")	FH 3+74.65: 22.0	1-8: 35.0
3+53.77 (8")	FH 3+91.00: 22.0	1-8: 35.0



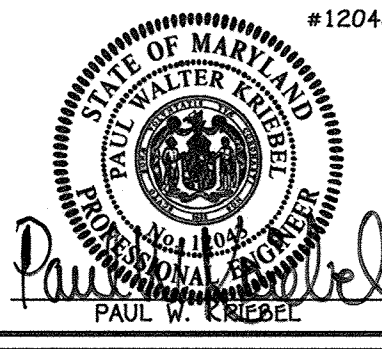
AS-BUILT
 Date: 2/12/19



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

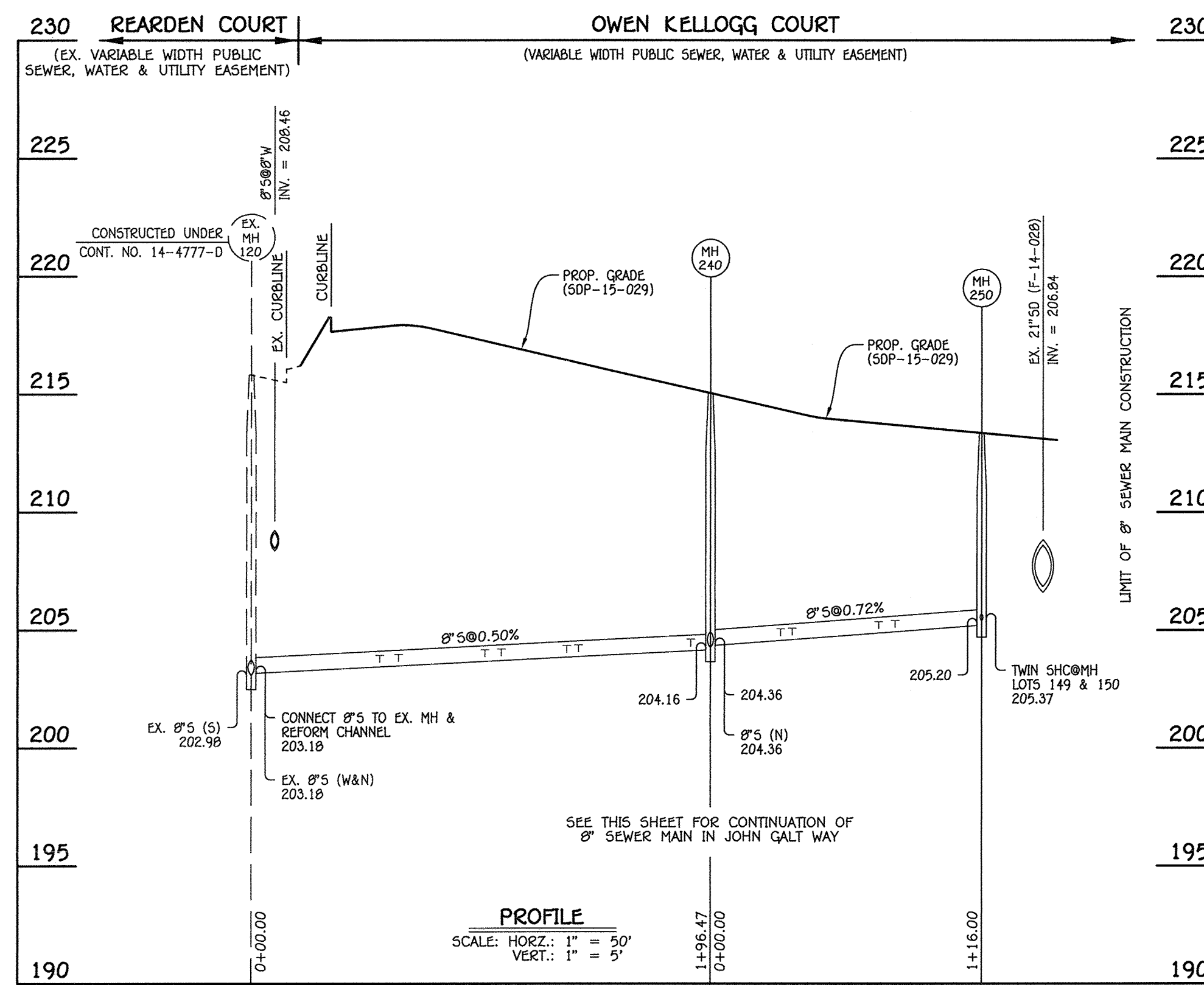
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE NO. 12043 EXPIRATION DATE 5/7/16/18.
FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTONIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21042
 (410) 461-2995



DESIGNED BY: B.C.R.
 DRAWN BY: B.C.R.
 CHECKED BY: P.W.K.
 DATE: FEBRUARY, 2017
 REVISION: CHANGE LOCATION OF UNITS 167-169, ADD DECKS & DECK NOTES

WATER & SEWER MAIN EXTENSIONS PLAN
 600' SCALE MAP NO. 43 BLOCK NO. 4
 F.C.C. WORK ORDER NO. 07053-3001
 FILE NAME: WATER & SEWER MAIN EXTENSION PLAN

MORRIS PLACE PHASE II
 LOTS 62-95, 106-184 AND OPEN SPACE LOTS 96-105
 WATER & SEWER MAIN EXTENSIONS
 CONTRACT NO. 14-4897-D
 FIRST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 SCALE AS SHOWN
 SHEET 2 OF 6

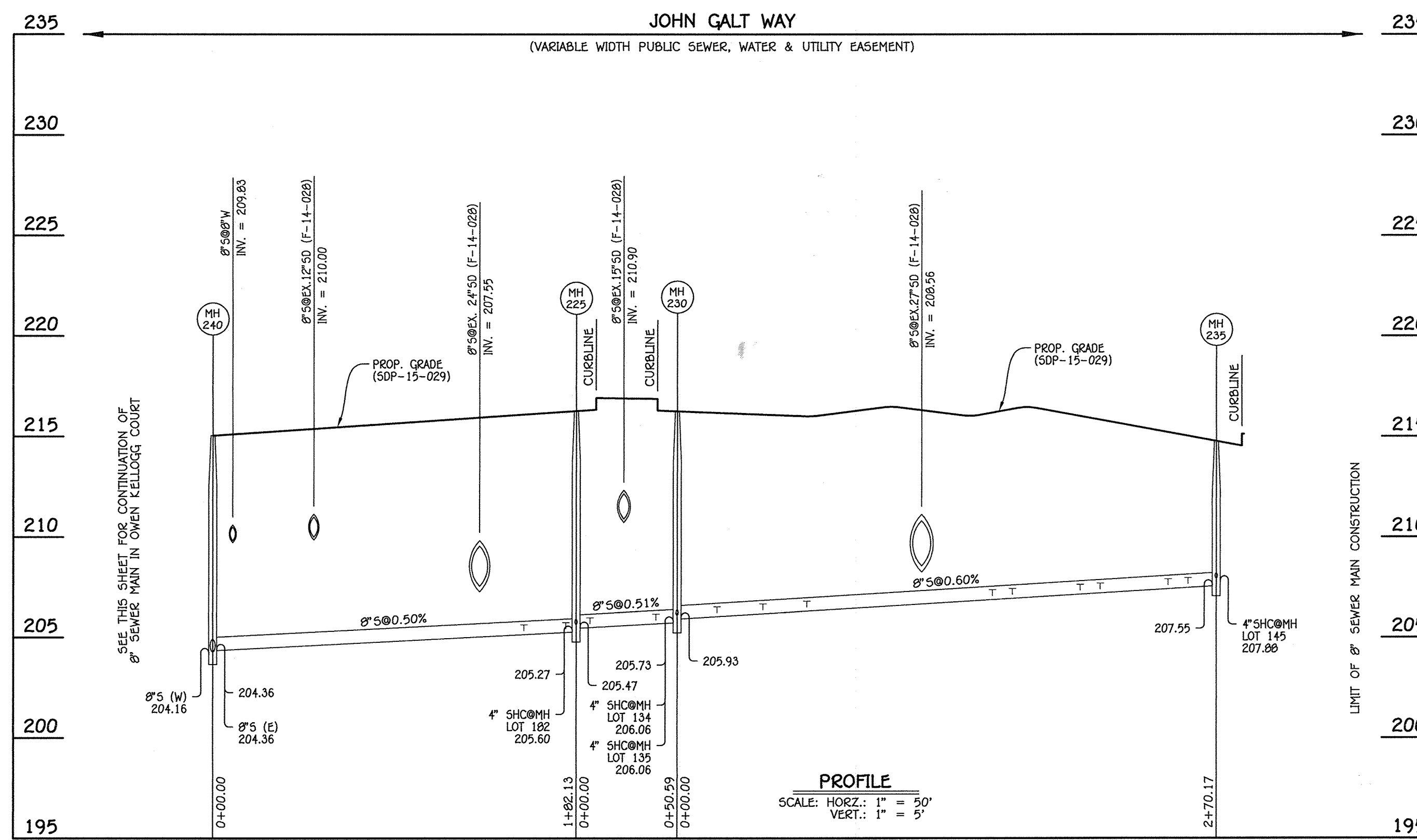


8" SEWER MAIN: OWEN KELLOGG COURT

MANHOLE TABULATION CHART			
NO.	NORTHING	EASTING	RIM ELEVATION
240	551306.06	1376802.14	215.05
250	551460.02	1376910.16	213.35

NOTE: SET MH RIMS FLUSH W/PROPOSED GRADE.

SEWER HOUSE CONNECTION CHART					
STATION	LOT	ELEVATION AT MAIN	ELEVATION AT R/W	M.C.E.	SLAB
EX. MH 120 TO MH 240					
0+55 LT.	95	203.54	203.90	207.96	
0+55 RT.	94	203.54	204.04	208.02	
0+63 RT.	82	203.50	203.80	207.86	
0+63 RT.	81	203.50	203.82	207.80	
1+00 LT.	93	203.76	204.20	208.10	
1+00 LT.	92	203.76	204.26	208.24	
1+07 RT.	80	203.80	204.10	208.08	
1+07 RT.	79	203.80	204.04	208.02	
1+35 LT.	91	204.03	204.47	208.45	
1+40 RT.	78	204.05	204.29	208.27	
1+80 RT.	77	204.20	204.50	208.40	
1+80 RT.	76	204.20	204.44	208.42	
MH 240 TO MH 250					
0+30 LT.	146	204.75	205.19	209.17	
0+35 RT.	75	204.69	204.99	208.97	
0+35 RT.	74	204.69	204.93	208.91	
0+72 LT.	147	204.96	205.46	209.44	
0+72 LT.	148	204.96	205.40	209.38	
0+79 RT.	73	205.01	205.31	209.29	
0+79 RT.	72	205.01	205.25	209.23	
●MH 250 LT.	149	205.37	205.87	209.85	
●MH 250 LT.	150	205.37	205.81	209.79	

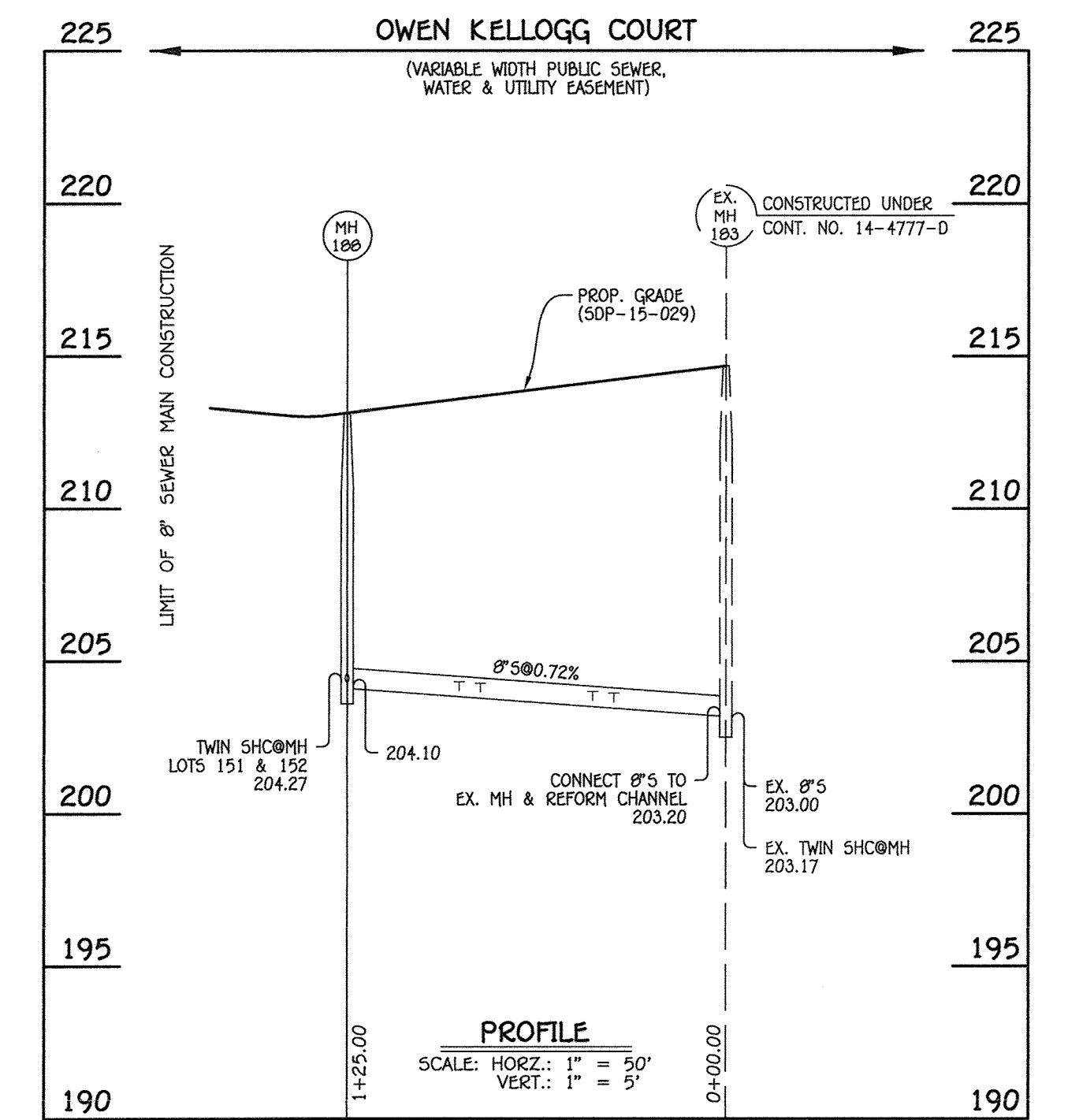


8" SEWER MAIN: JOHN GALT WAY

MANHOLE TABULATION CHART			
NO.	NORTHING	EASTING	RIM ELEVATION
225	551520.19	1376713.26	216.27
230	551570.14	1376721.30	216.26
235	551723.71	1376948.90	214.77

NOTE: SET MH RIMS FLUSH W/PROPOSED GRADE.

SEWER HOUSE CONNECTION CHART					
STATION	LOT	ELEVATION AT MAIN	ELEVATION AT R/W	M.C.E.	SLAB
MH 240 TO MH 225					
1+56 LT.	184	205.31	205.05	209.91	
1+77 LT.	183	205.42	205.96	210.02	
●MH 225 LT.	182	205.60	206.14	210.20	
MH 225 TO MH 230					
0+07 LT.	181	205.60	206.64	210.70	
0+40 LT.	133	205.84	206.90	210.96	
●MH 230 LT.	134	206.06	206.78	210.84	
●MH 230 LT.	135	206.06	206.60	210.66	
MH 230 TO MH 235					
0+20 LT.	136	206.22	206.76	210.82	
0+43 LT.	137	206.36	206.90	210.96	
0+65 LT.	138	206.49	207.03	211.09	
1+50 LT.	139	207.05	207.59	211.65	
1+60 LT.	140	207.11	207.65	211.71	
2+02 LT.	141	207.31	207.85	211.91	
2+12 LT.	142	207.37	207.91	211.97	
2+46 LT.	143	207.50	208.12	212.10	
2+56 LT.	144	207.64	208.10	212.24	
●MH 235 LT.	145	207.80	208.40	212.54	

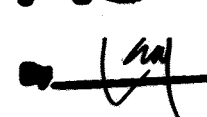


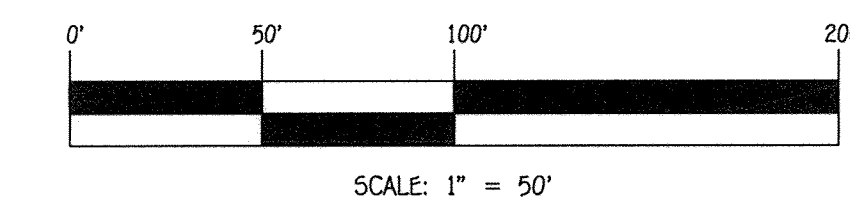
8" SEWER MAIN: OWEN KELLOGG COURT

MANHOLE TABULATION CHART			
NO.	NORTHING	EASTING	RIM ELEVATION
180	551497.30	1376964.02	213.15


NOTE: SET MH RIM FLUSH W/PROPOSED GRADE.


SEWER HOUSE CONNECTION CHART					
STATION	LOT	ELEVATION AT MAIN	ELEVATION AT R/W	M.C.E.	SLAB
EX. MH 183 TO MH 180					
0+37 RT.	156	203.55	204.05	208.03	
0+37 RT.	155	203.55	203.99	207.97	
0+44 LT.	68	203.60	203.90	207.80	
0+44 LT.	69	203.60	203.84	207.82	
0+81 RT.	154	203.86	204.36	208.34	
0+81 RT.	153	203.86	204.30	208.28	
0+80 LT.	70	203.91	204.41	208.39	
0+80 LT.	71	203.91	204.35	208.33	
●MH 180 RT.	152	204.27	204.77	208.75	
●MH 180 RT.	151	204.27	204.71	208.69	

AS-BUILT

 2/22/19

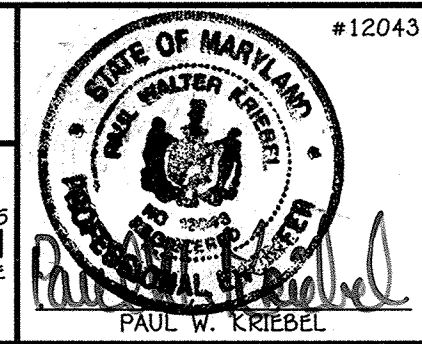


CONTRACT NO. 14-4097-D
 MORRIS PLACE
 PHASE II
 LOTS 62-95, 106-184 AND
 OPEN SPACE LOTS 96-105
 WATER & SEWER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 CHIEF, BUREAU OF UTILITIES

 DATE

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND
 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. 12043 EXPIRATION DATE IS 7/16/16.
FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL FILE
 ELLICOTT CITY, MARYLAND 21042
 (410) 461-2999



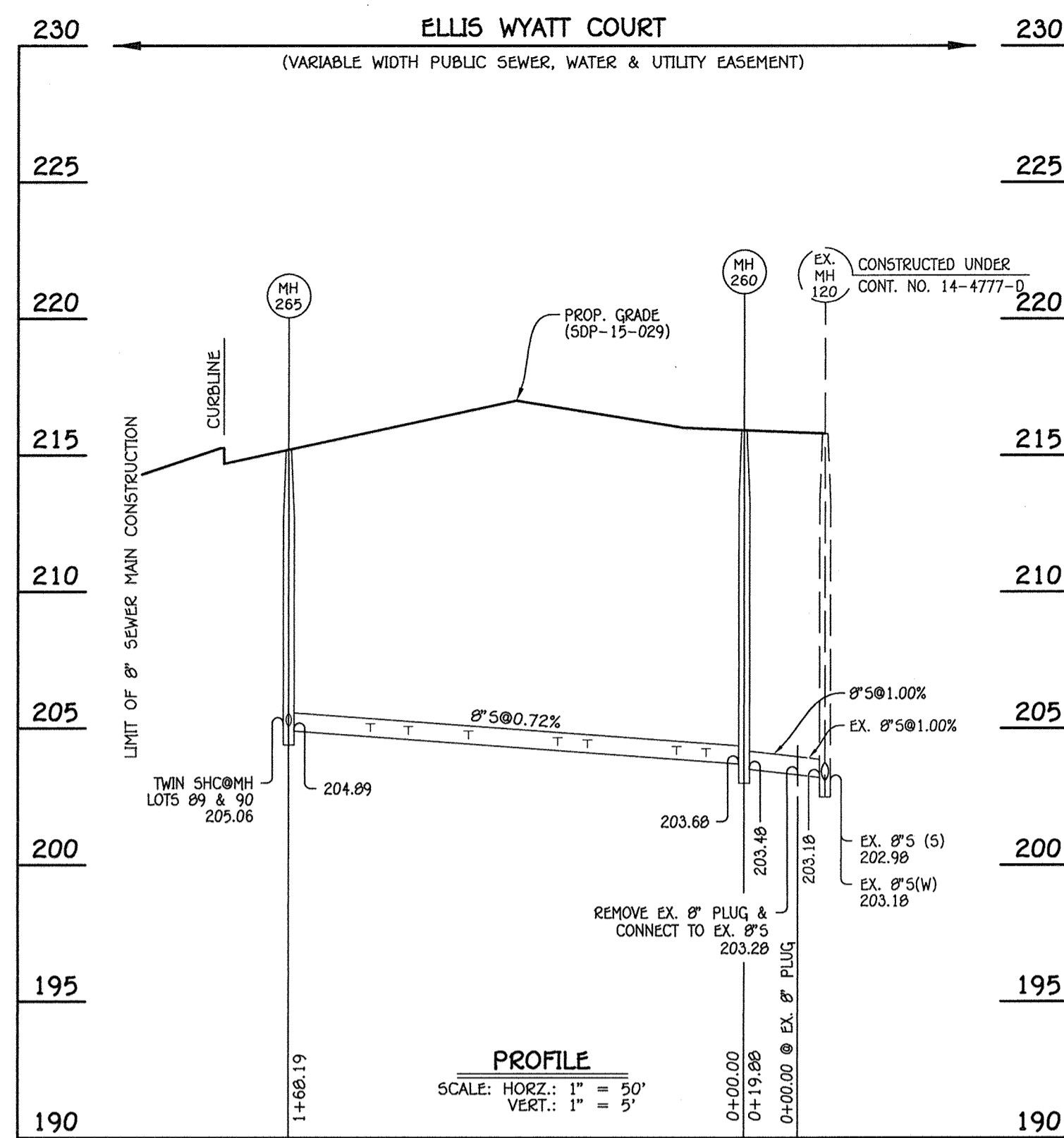
DESIGNED BY: B.C.R.
 DRAWN BY: B.C.R.
 CHECKED BY: P.W.K.
 DATE: MAY, 2015
 BY NO. REVISION DATE

SEWER MAIN EXTENSIONS
 PROFILES & CHARTS
 600' SCALE MAP NO. 43 BLOCK NO. 4
 F.C.C. WORK ORDER NO. 07053-3001
 FILE NAME: WATER & SEWER MAIN EXTENSION PLAN

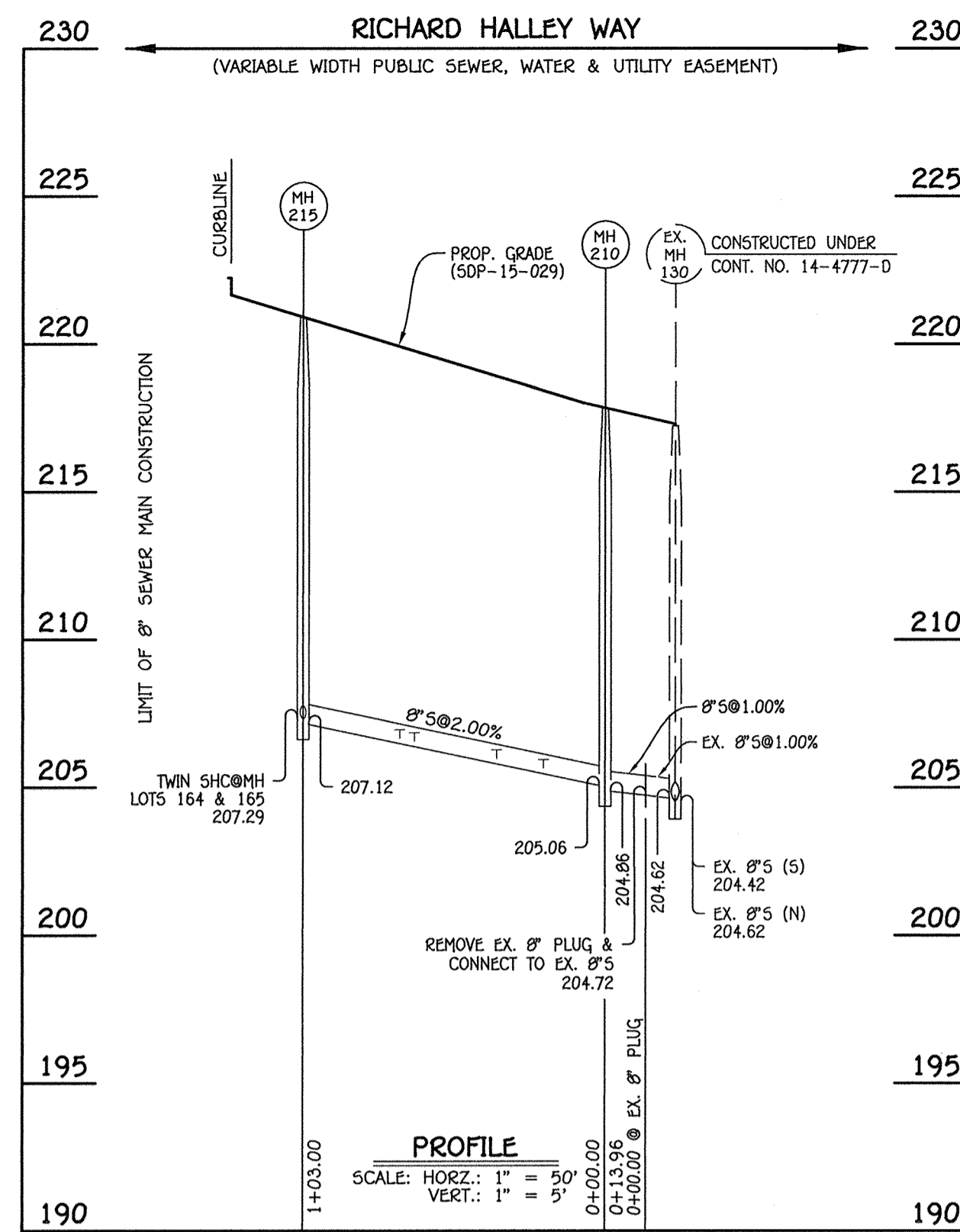
MORRIS PLACE
 PHASE II
 LOTS 62-95, 106-184 AND OPEN SPACE LOTS 96-105
 WATER & SEWER MAIN EXTENSIONS
 CONTRACT NO. 14-4097-D
 FIRST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE
 AS
 SHOWN
 SHEET
 3 OF 6

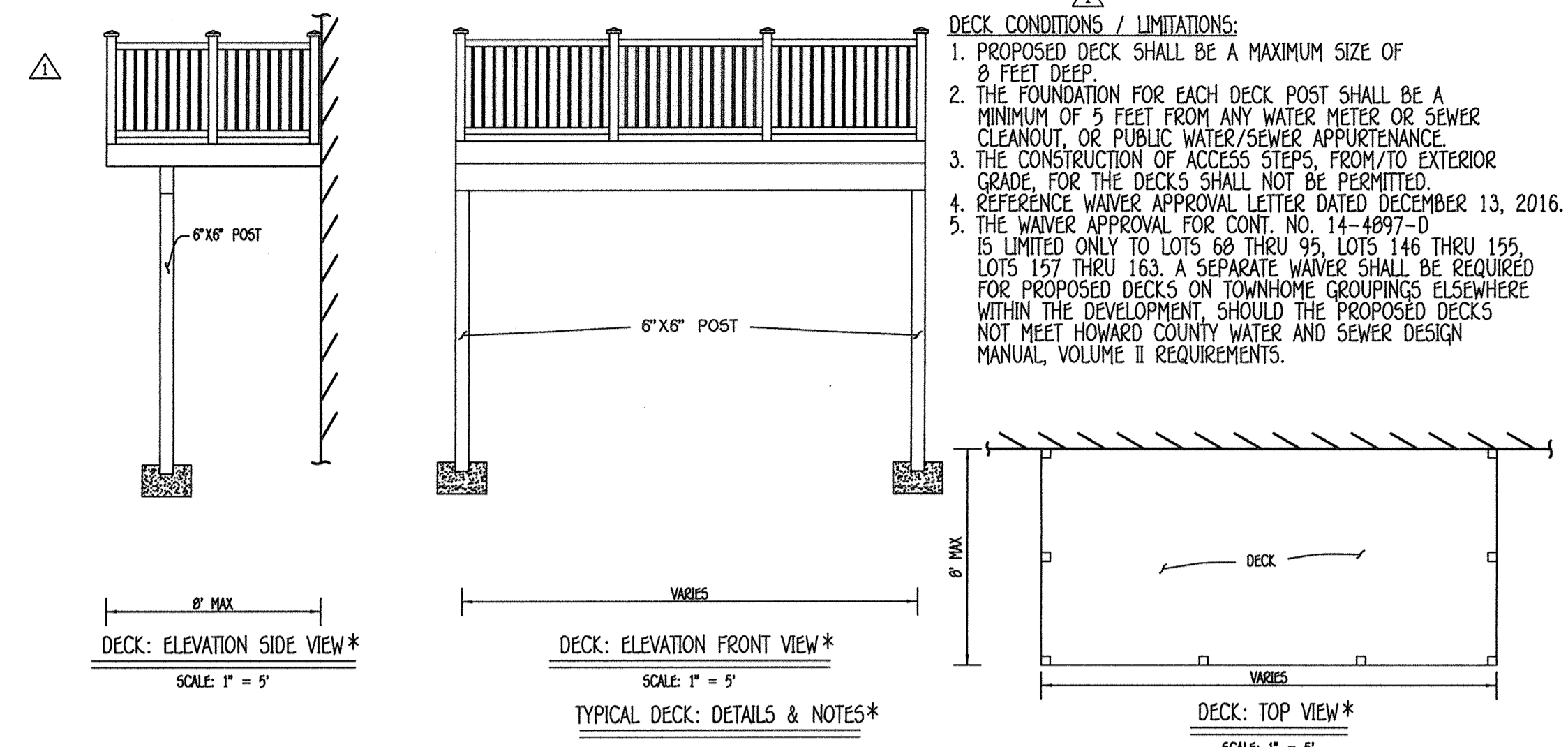
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8" SEWER MAIN: ELLIS WYATT COURT



8" SEWER MAIN: RICHARD HALLEY WAY



MANHOLE TABULATION CHART			
NO.	NORTHING	EASTING	RIM ELEVATION
260	551243.37	1376653.11	215.91
265	551124.65	1376533.97	215.20

NOTE: SET MH RIMS FLUSH W/PROPOSED GRADE.

MANHOLE TABULATION CHART			
NO.	NORTHING	EASTING	RIM ELEVATION
210	551387.64	1376534.25	217.84
215	551314.90	1376461.33	220.91

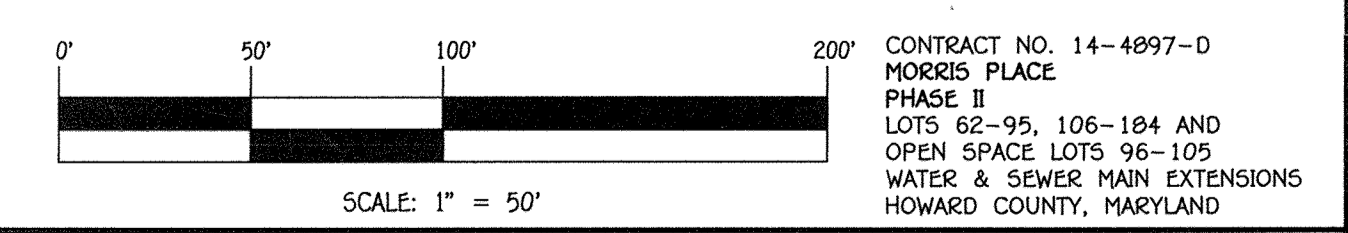
NOTE: SET MH RIMS FLUSH W/PROPOSED GRADE.

SEWER HOUSE CONNECTION CHART					
STATION	LOT	ELEVATION AT MAIN	ELEVATION AT R/W	M.C.E.	SLAB
MH 260 TO MH 265					
0+14 RT.	163	203.86	204.54	208.34	
0+14 RT.	162	203.86	204.60	208.40	
0+25 LT.	83	203.94	204.20	208.20	
0+25 LT.	84	203.94	204.14	208.14	
0+58 RT.	161	204.18	204.86	208.66	
0+58 RT.	160	204.18	204.92	208.72	
0+69 LT.	85	204.26	204.52	208.52	
0+69 LT.	86	204.26	204.46	208.46	
1+02 RT.	159	204.49	205.17	208.97	
1+02 RT.	158	204.49	205.23	209.03	
1+24 LT.	87	204.65	204.91	208.91	
1+24 LT.	88	204.65	204.85	208.85	
1+38 RT.	157	204.84	205.52	209.32	
0+MH 265 RT.	89	205.06	205.32	209.32	
0+MH 265 RT.	90	205.06	205.26	209.26	

SEWER HOUSE CONNECTION CHART					
STATION	LOT	ELEVATION AT MAIN	ELEVATION AT R/W	M.C.E.	SLAB
MH 210 TO MH 215					
0+21 RT.	172	205.56	205.96	209.96	
0+21 RT.	171	205.56	206.02	210.02	
0+37 LT.	168	205.88	206.22	210.22	
0+37 LT.	167	205.88	206.16	210.16	
0+65 RT.	170	206.44	206.84	210.84	
0+65 RT.	169	206.44	206.90	210.90	
0+70 LT.	166	206.63	206.91	210.91	
1+03 LT.	165	207.29	207.63	211.63	
1+03 LT.	164	207.29	207.57	211.57	

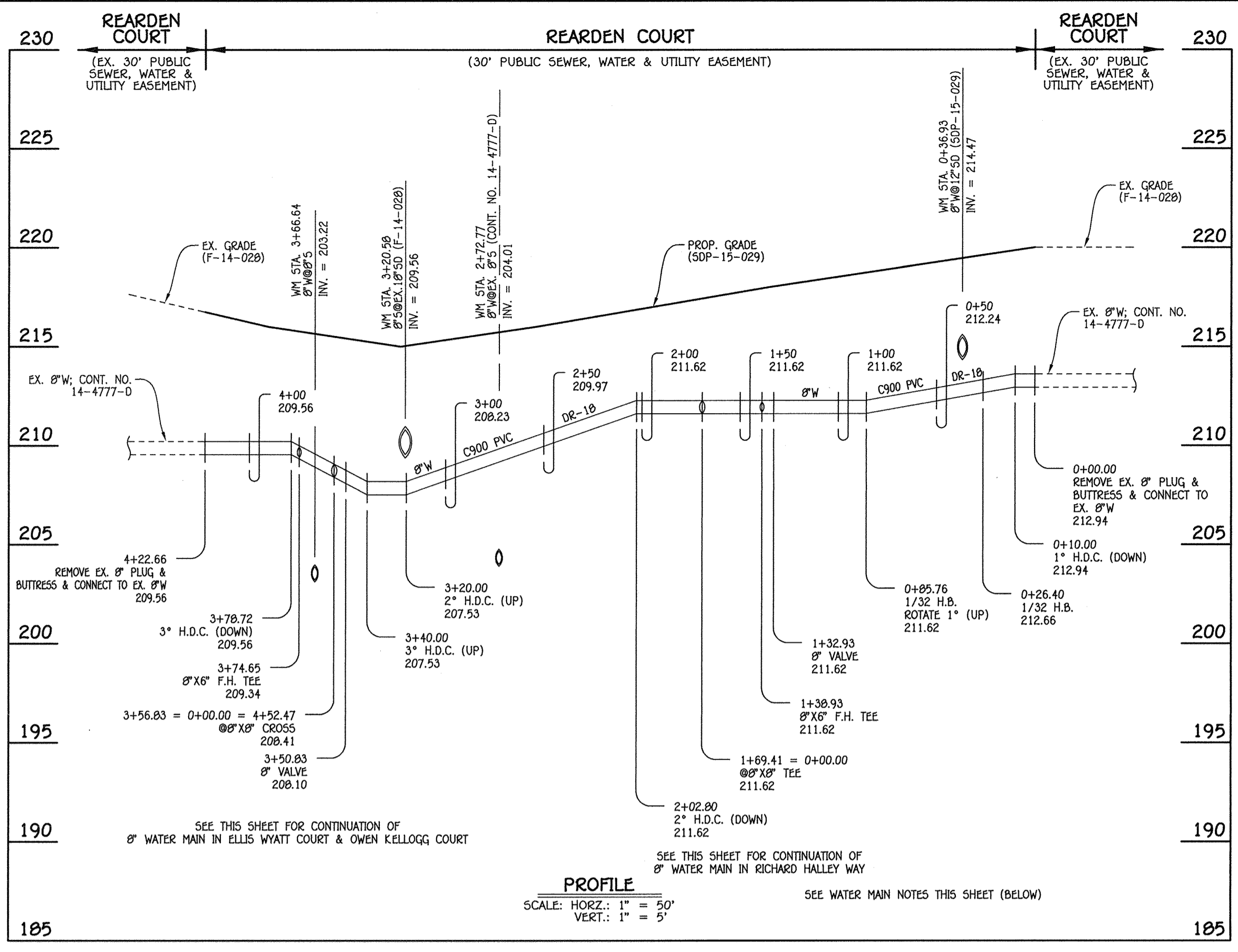
AS-BUILT

By *[Signature]* Date *2/12/19*



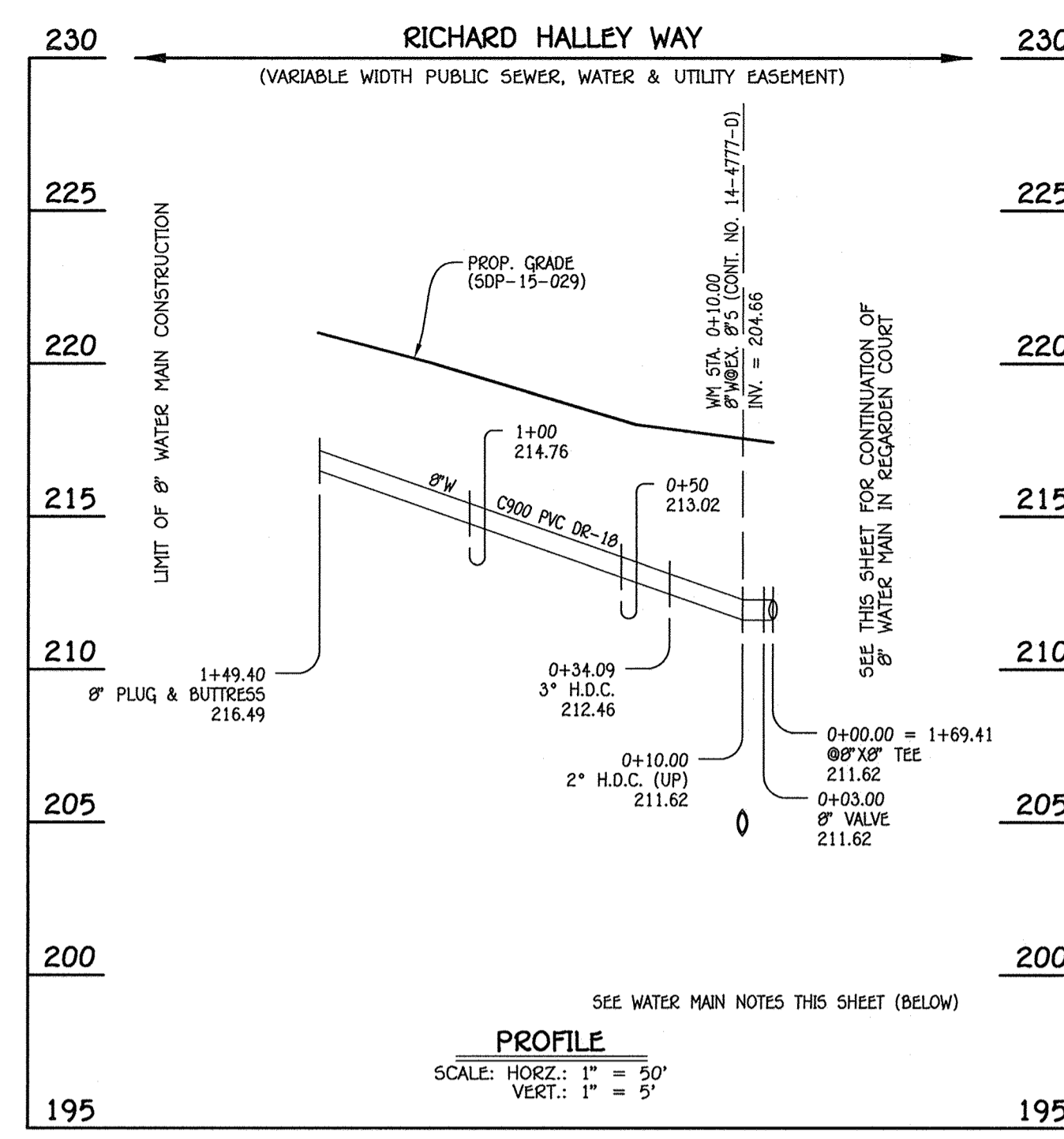
DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>[Signature]</i> CHIEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND <i>[Signature]</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 12043 EXPIRATION DATE IS 7/15/16. FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS CENTENNIAL SQUARE OFFICE PARK - 18272 BALTIMORE NATIONAL PIKE ELLIOTT CITY, MARYLAND 21042 (410) 461 - 2895	#12043 DESIGNED BY : B.C.R. DRAWN BY : B.C.R. CHECKED BY : P.W.K. DATE : MAY, 2015	#12043 DESIGNED BY : B.C.R. DRAWN BY : B.C.R. CHECKED BY : P.W.K. DATE : MAY, 2015	ADD DECK DETAILS, NOTES & LIMITATIONS DATE : 2/12/19	600' SCALE MAP NO. 43 BLOCK NO. 4 F.C.C. WORK ORDER NO. 07053-3001 FILE NAME : WATER & SEWER MAIN EXTENSION PLAN	MORRIS PLACE PHASE II LOTS 62-95, 106-184 AND OPEN SPACE LOTS 96-105 WATER & SEWER MAIN EXTENSIONS CONTRACT NO. 14-4897-D FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE AS SHOWN
								SHEET 4 OF 6

I:\2007\07053.dwg Water & Sewer Contract\Water & Sewer Contract\Plan Phase 2.dwg 4/30/2015 9:36:20 AM



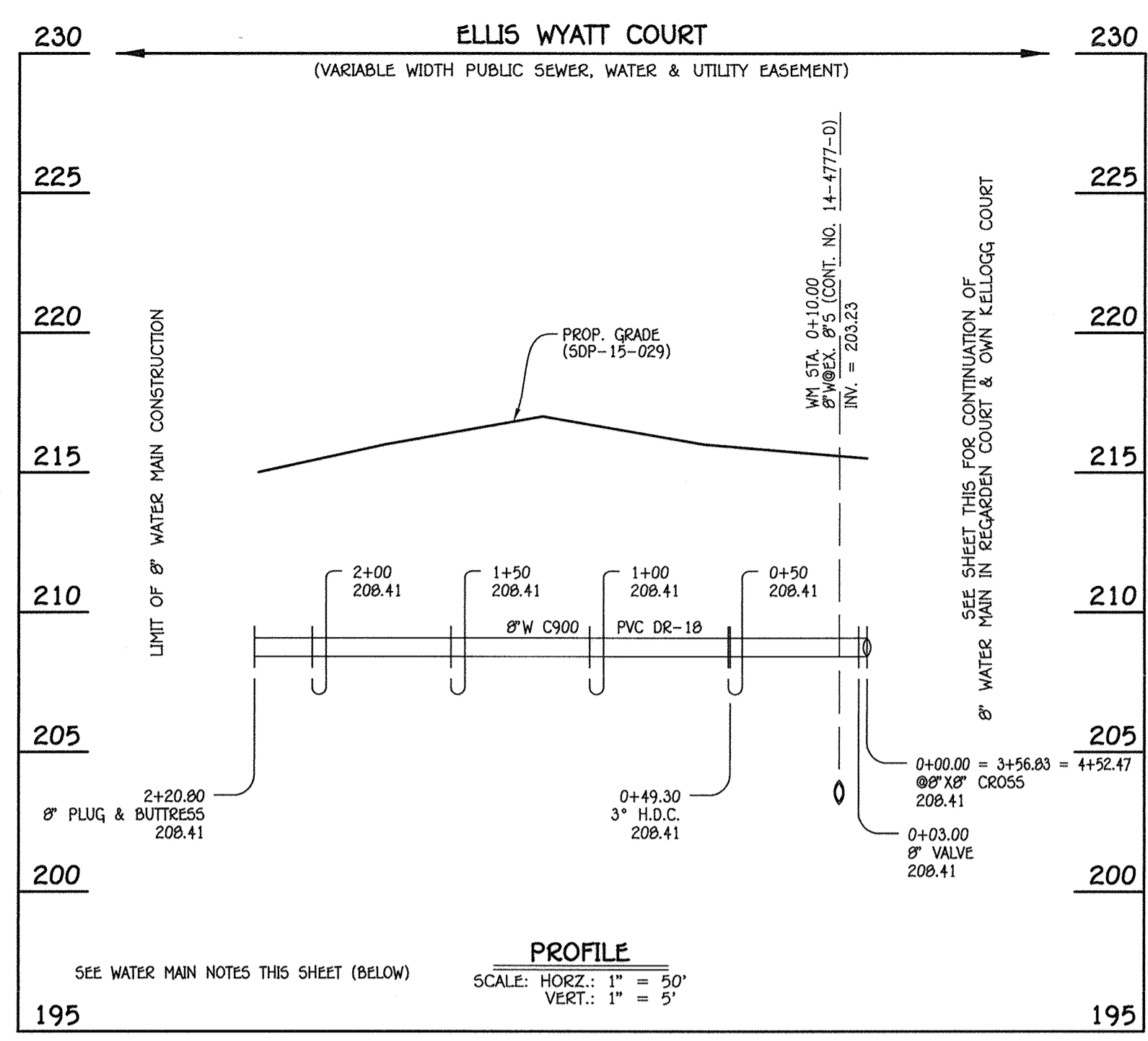
8" WATER MAIN: REARDEN COURT

W.M. STA.	APPURTENANCE	NORTHING	EASTING
8" WATER MAIN: REARDEN COURT			
0+00.00	EX. 8" PLUG & BUTTRESS	551527.70	1376427.64
0+26.40	1/32 H.B.	551518.44	1376452.37
0+95.76	1/32 H.B.	551480.43	1376497.96
1+32.93	8" VALVE	551444.98	1376529.09
1+38.93	8" X 6" F.H. TEE	551440.40	1376533.05
1+69.41 = 0+00.00	8" X 8" TEE	551417.58	1376553.16
3+50.83	8" VALVE	551281.28	1376672.89
3+56.83 = 0+00.00 + 4+52.47	8" X 8" CROSS	551276.77	1376676.85
3+74.65	8" X 6" F.H. TEE	551263.38	1376688.61
4+22.66	EX. 8" PLUG & BUTTRESS	551227.31	1376720.29



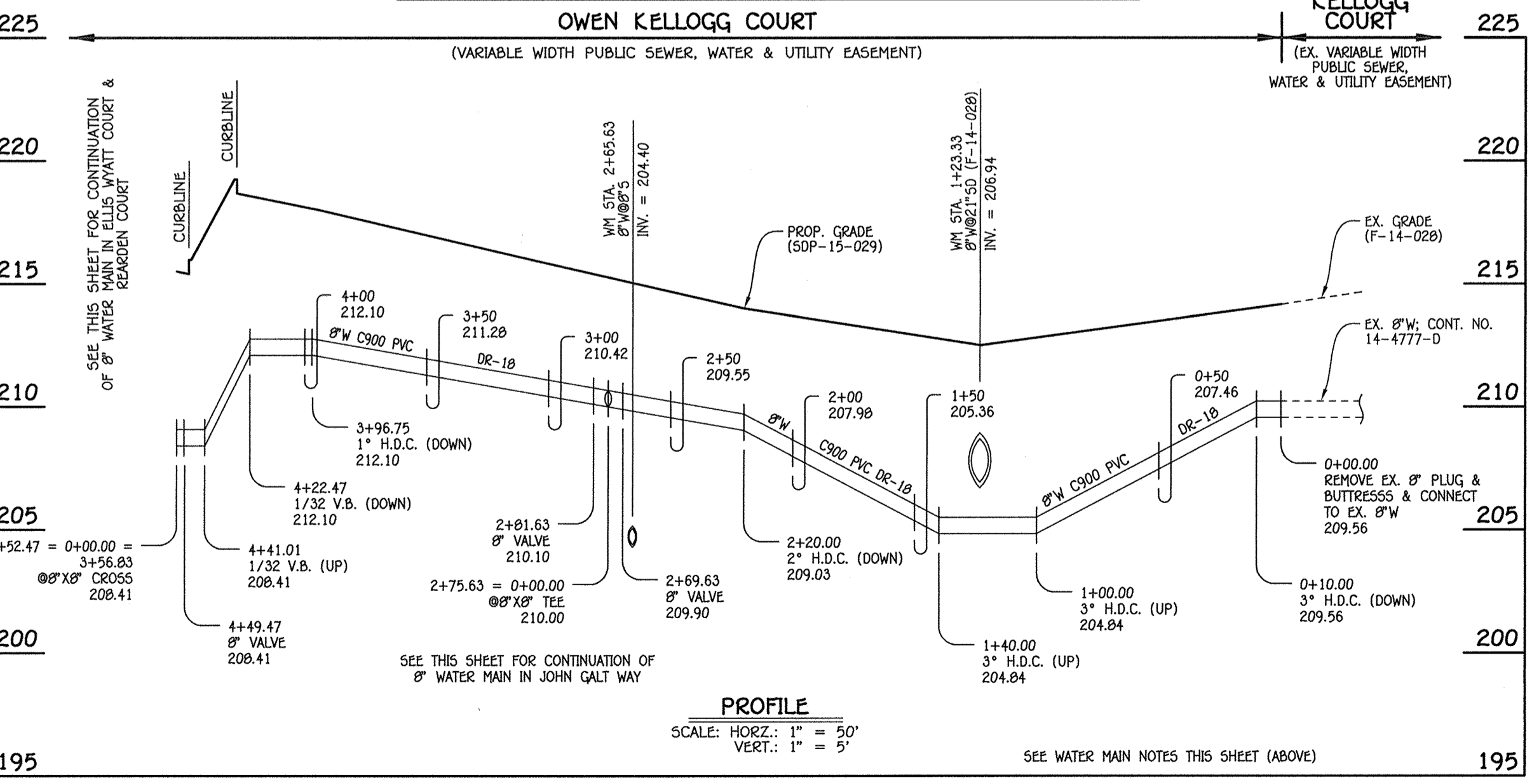
8" WATER MAIN: RICHARD HALLEY WAY

W.M. STA.	APPURTENANCE	NORTHING	EASTING
8" WATER MAIN: RICHARD HALLEY WAY			
0+00.00 = 1+69.41	8" X 8" TEE	551417.58	1376553.16
0+03.00	8" VALVE	551415.60	1376550.91
0+34.09	3" H.D.C.	551395.08	1376527.95
1+49.40	8" PLUG & BUTTRESS	551313.85	1376445.91



8" WATER MAIN: ELLIS WYATT COURT

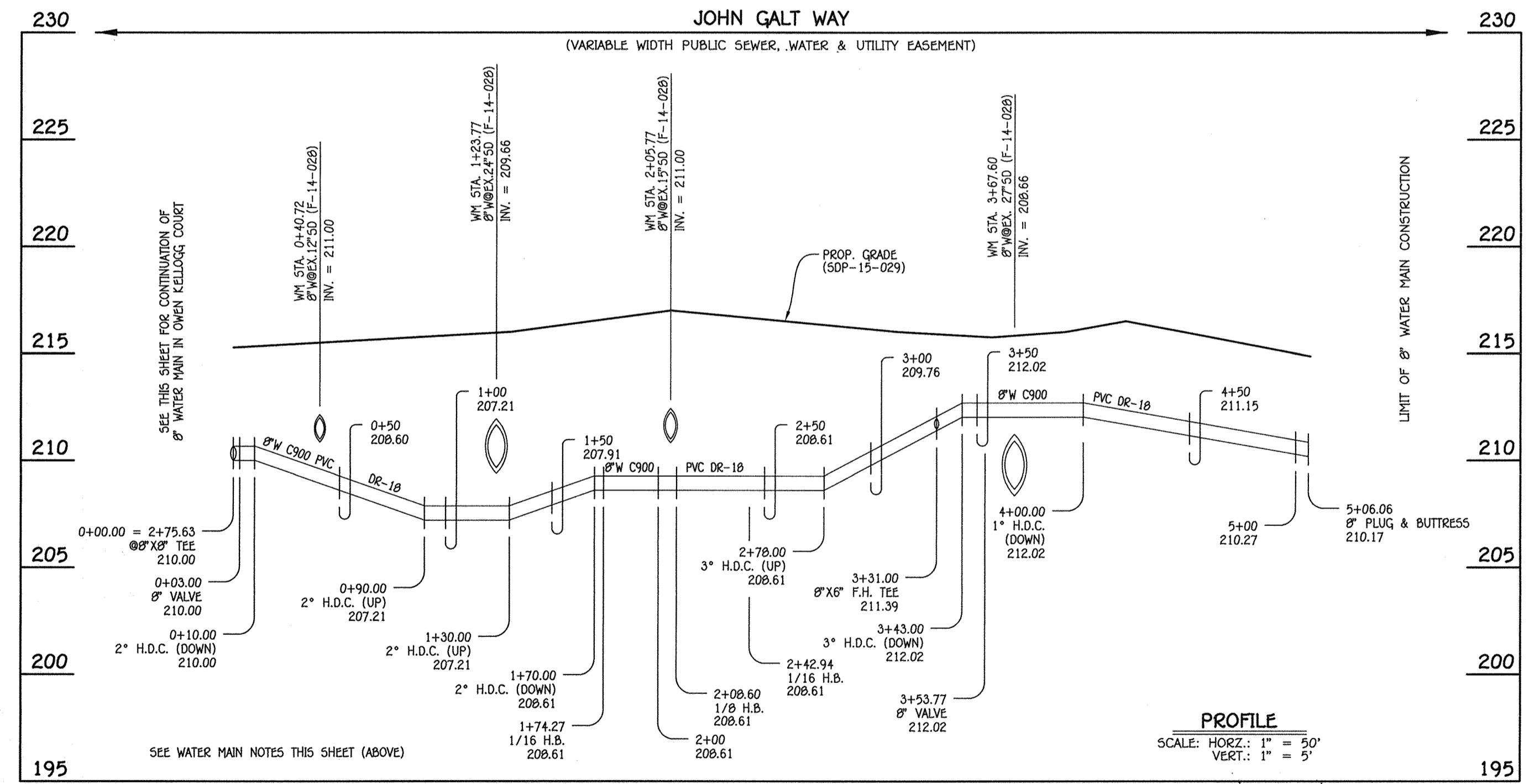
W.M. STA.	APPURTENANCE	NORTHING	EASTING
8" WATER MAIN: ELLIS WYATT COURT			
0+00.00 = 3+56.83 + 4+52.47	8" X 8" CROSS	551276.77	1376676.85
0+03.00	8" VALVE	551274.79	1376674.60
0+49.30	3" H.D.C.	551244.24	1376639.81
2+20.78	8" PLUG & BUTTRESS	551123.19	1376518.34



8" WATER MAIN: OWEN KELLOGG COURT

W.M. STA.	APPURTENANCE	NORTHING	EASTING
8" WATER MAIN: OWEN KELLOGG COURT			
0+00.00	EX. 8" PLUG & BUTTRESS	551562.16	1377027.96
2+69.63	8" VALVE	551392.09	1376818.73
2+75.63 = 0+00.00	8" X 8" TEE	551388.31	1376814.07
2+81.63	8" VALVE	551384.52	1376809.42
4+49.47	8" VALVE	551276.66	1376679.18
4+52.47 = 0+00.00 + 3+56.83	8" X 8" CROSS	551276.77	1376676.85

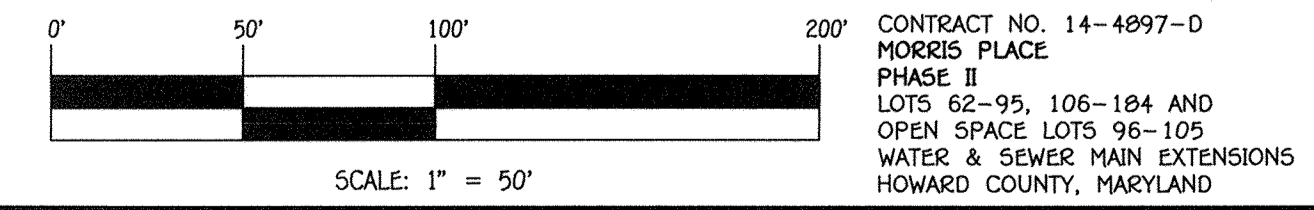
W.M. STA.	APPURTENANCE	NORTHING	EASTING
8" WATER MAIN: JOHN GALT WAY			
0+00.00 = 2+75.63	8" X 8" TEE	551388.31	1376814.07
0+03.00	8" VALVE	551390.64	1376812.18
1+74.27	1/16 H.B.	551523.54	1376704.15
2+08.60	1/8 H.B.	551556.71	1376695.28
2+42.94	1/16 H.B.	551585.41	1376714.12
3+31.00	8" X 6" F.H. TEE	551632.86	1376788.30
3+53.77	8" VALVE	551645.13	1376807.48
5+06.06	8" PLUG & BUTTRESS	551727.18	1376935.78



8" WATER MAIN: JOHN GALT WAY

- WATER MAIN NOTES:**
1. ALL WATER MAINS SHALL BE AWWA 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 AWWA C900 PVC WATER PIPE INSTALLATION.
 3. DEFLECTION COUPLINGS SHALL BE CERTAIN-TIED PVC HIGH DEFLECTION COUPLINGS.
 4. ALL WATER HOUSE CONNECTIONS AND TAPS SHALL BE PERFORMED USING A SADDLE.

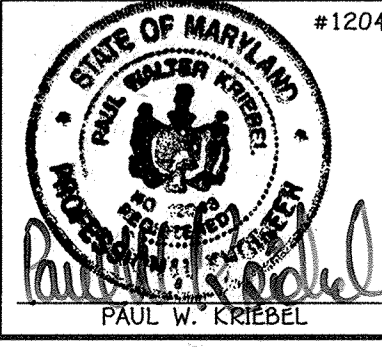
AS-BUILT
By *[Signature]* Date 2/12/19



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
CHIEF, BUREAU OF UTILITIES
[Signature]
DATE 5/10/15

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
CHIEF, DEVELOPMENT ENGINEERING DIVISION
[Signature]
DATE 5/10/15

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LICENSE NO. 12043 EXPIRATION DATE IS 7/16/16.
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CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALDWIN NATIONAL PIKE
ELLCOTT CITY, MARYLAND 21042
(410) 461-2899



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

**WATER MAIN EXTENSIONS
PROFILES, CHARTS & NOTES**
600' SCALE MAP NO. 43 BLOCK NO. 4
F.C.C. WORK ORDER NO. 07053-3001
FILE NAME: WATER & SEWER MAIN EXTENSION PLAN

**MORRIS PLACE
PHASE II**
LOTS 62-95, 106-184 AND OPEN SPACE LOTS 96-105
WATER & SEWER MAIN EXTENSIONS
CONTRACT NO. 14-4897-D
FIRST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE AS SHOWN
SHEET 5 OF 6

WATER HOUSE CONNECTION AS-BUILT LOCATION TABLE

Table with 4 columns: LOT NUMBER, ADDRESS, LOCATION DIMENSION 1, LOCATION DIMENSION 2. Lists lots 62 through 167 with their respective addresses and dimensions.

WATER HOUSE CONNECTION AS-BUILT LOCATION TABLE

Table with 4 columns: LOT NUMBER, ADDRESS, LOCATION DIMENSION 1, LOCATION DIMENSION 2. Lists lots 169 through 184 with their respective addresses and dimensions.

SEWER HOUSE CONNECTION AS-BUILT LOCATION TABLE

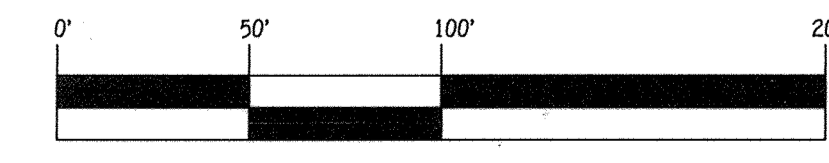
Table with 4 columns: LOT NUMBER, ADDRESS, LOCATION DIMENSION 1, LOCATION DIMENSION 2. Lists lots 62 through 167 with their respective addresses and dimensions.

SEWER HOUSE CONNECTION AS-BUILT LOCATION TABLE

Table with 4 columns: LOT NUMBER, ADDRESS, LOCATION DIMENSION 1, LOCATION DIMENSION 2. Lists lots 169 through 184 with their respective addresses and dimensions.

AS-BUILT

By [Signature] Date 5/12/14



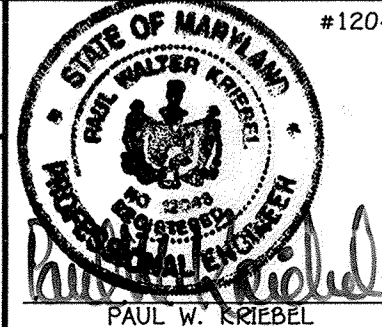
SCALE: 1" = 50'

CONTRACT NO. 14-4897-D MORRIS PLACE PHASE II LOTS 62-95, 106-184 AND OPEN SPACE LOTS 96-105 WATER & SEWER MAIN EXTENSIONS HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND

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

SHC & WHC "AS-BUILT" LOCATION TABLES

600' SCALE MAP NO. 43 BLOCK NO. 4 F.C.C. WORK ORDER NO. 07053-3001 FILE NAME: WATER & SEWER MAIN EXTENSION PLAN

MORRIS PLACE PHASE II LOTS 62-95, 106-184 AND OPEN SPACE LOTS 96-105 WATER & SEWER MAIN EXTENSIONS CONTRACT NO. 14-4897-D FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE AS SHOWN SHEET 6 OF 6