

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.
 - TOPOGRAPHIC FIELD SURVEYS WERE PERFORMED ON JANUARY 2007 BY GEORGE W. STEPHENS, JR. AND ASSOC.
 - 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. J 109 AND NO. U 25.
ALL VERTICAL CONTROLS ARE BASED ON NAVD '88 VERTICAL CONTROLS PROVIDED ON THE DRAWINGS ARE (J 109) THE DISK IS SET IN A CONCRETE MONUMENT PROJECTING TEN CENTIMETERS AND THE DISK IS STAMPED J 109 1965 USC AND GS. (U-25) THE DISK IS SET IN A ROUND CONCRETE POST PROJECTING SIX INCHES AND IS STAMPED U 25 1957.
 - 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 THE BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONIES OWED TO 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 ON THESE PLANS:

AT&T	1-800-252-5133
BGE (CONSTRUCTION SERVICES)	410-687-8713
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	410-533-5533
VERIZON	1-800-743-0033
 - TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
 - THE CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
 - THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410) 313-7450 AT LEAST FIVE WORKING DAYS BEFORE OPEN CUTTINGS 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.

- PART II WATER**
- ALL WATER MAINS SHALL BE D.I.P. CLASS 54 UNLESS OTHERWISE NOTED.
 - TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-6" COVER UNLESS OTHERWISE NOTED.
 - VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
 - ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
 - FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. THE SOIL AROUND THE FIRE HYDRANTS 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 WIRES AND CONTINUITY TEST STATIONS SHALL BE INSTALLED ON ALL DIP 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 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 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 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 C-900. 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.
5-DEGREE SWEEPS SHALL BE BELL BY SPIGOT, RATED FOR A MINIMUM 225 PSI DR18 MEETING THE REQUIREMENTS OF AWWA C-900 AND SHALL BE MULTI FITTINGS (DPEX) 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 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 THE 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**
- 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 WATER-TIGHT FRAME AND COVER. STANDARD DETAIL G5.52. WHERE WATER-TIGHT 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 THE CELLAR CANNOT BE SERVED.

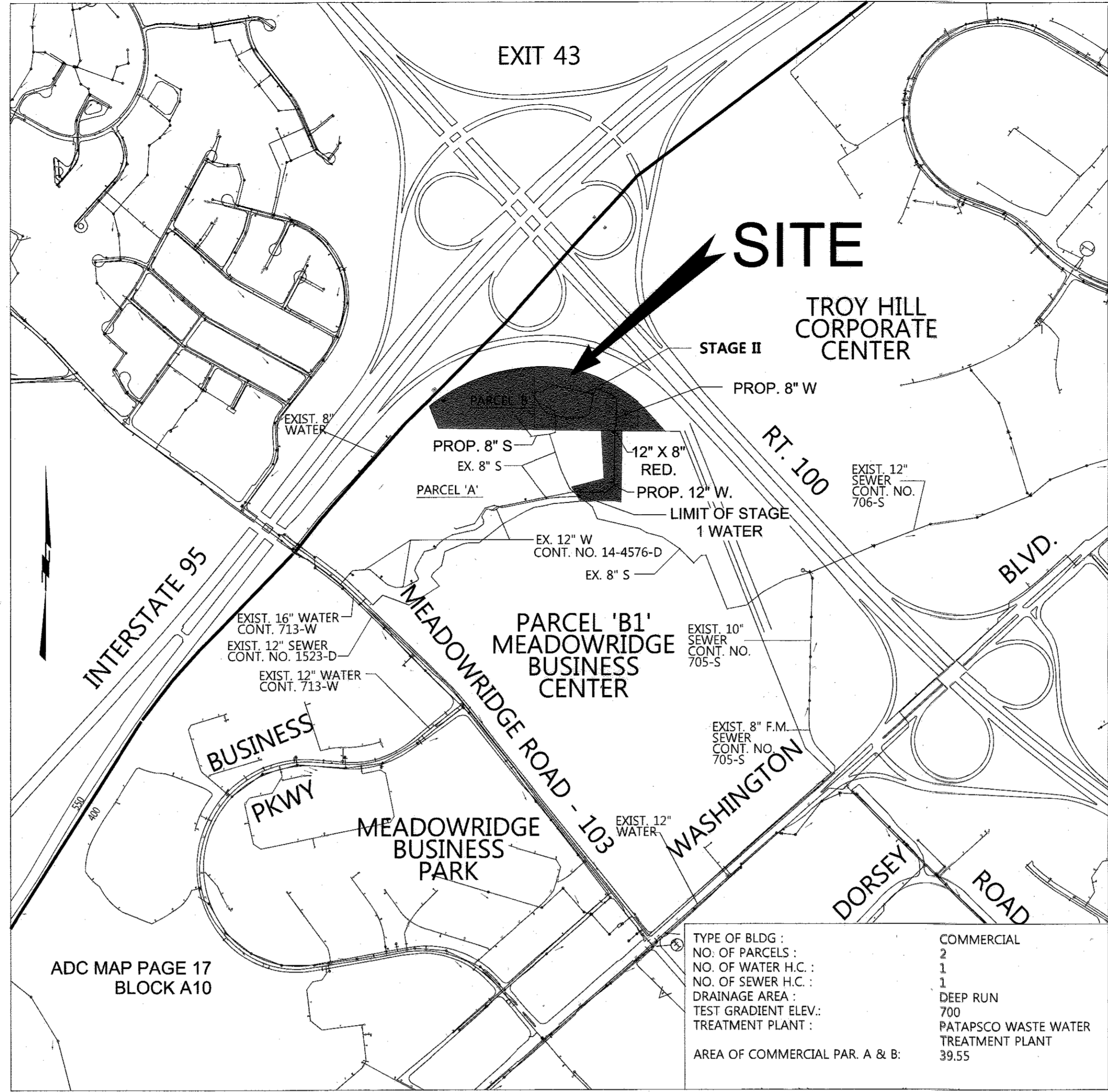
- FIRE HYDRANT
- WATER VALVE
- INLETS
- STORM DRAIN MH
- SANITARY MH
- UTILITY BOX
- TRANSFORMER

LEGEND

	PROPERTY LINE
	BUILDING SETBACK LINE
	EASEMENT LINE
	BUILDING LINE
	EX. WATERLINE
	EX. SANITARY LINE
	EX. STORM DRAIN LINE
	EX. PAVING

LEGEND (Con't.)

	PROP. CURB & GUTTER
	PROP. WATER LINE
	PROP. STORM DRAIN
	PROP. SAN. SEWER
	PROP. 8" W
	PROP. 8" SAN.

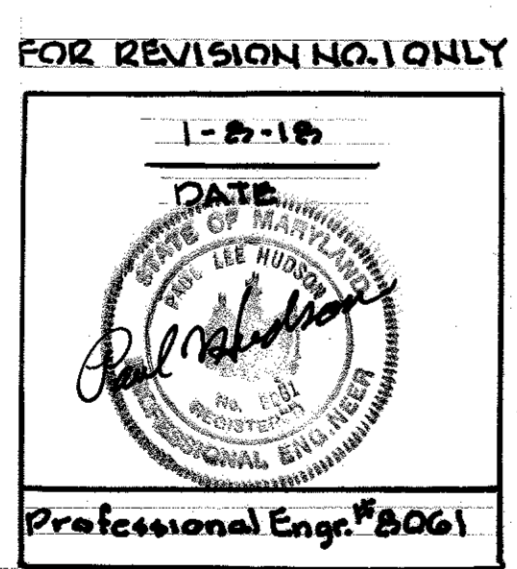


LOCATION MAP
SCALE: 1" = 600'

PUBLIC WATER & SEWER CONSTRUCTION PLANS
CORRIDOR 95 BUSINESS PARK - STAGE II
1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
CONTRACT NO. 14-5004-D

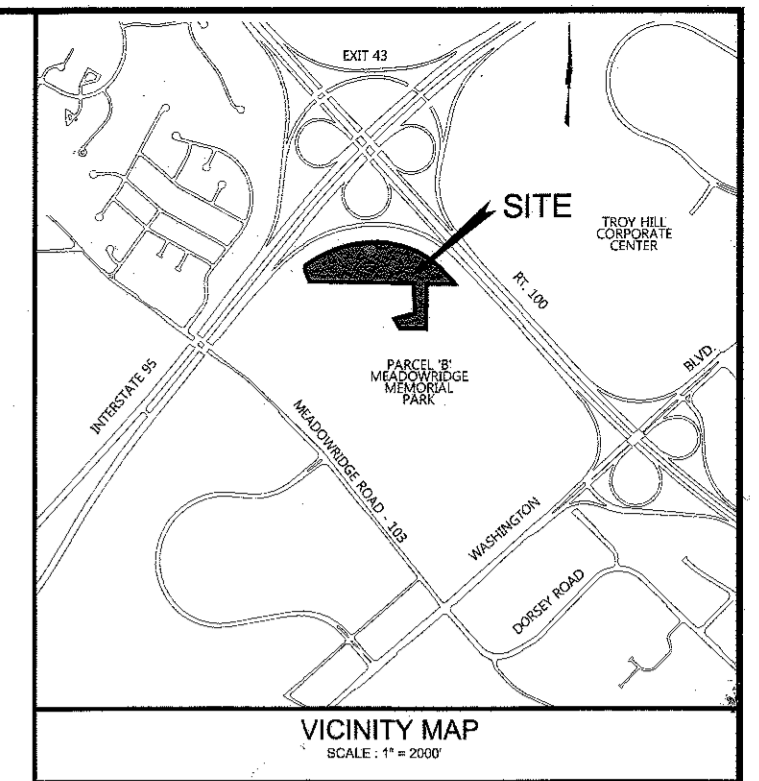
PURPOSE STATEMENT
THE PURPOSE OF THIS REVISION (REVISION NO. 1) IS TO REMOVE THE PORTION OF PROPOSED SANITARY SEWER FROM SMH 18 TO SMH 20.

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License No. 8061, Expiration Date: 8-26-17



BENCHMARKS

NOTE: HORIZONTAL AND VERTICAL DATUMS BASED ON (NAD 83) MARYLAND STATE COORDINATE SYSTEM AS PROJECTED BY NATIONAL GEODETIC SURVEY MONUMENT CONTROL STATIONS.
 BM # J 109 ELEVATION 348.04
 NAD 83
 THE DISK IS SET IN A CONCRETE MONUMENT PROJECTING TEN CENTIMETERS AND THE DISK IS STAMPED J 109 1965 USC AND GS
 N 557,526.35 E 1,370,661.99
 BM # U 25 ELEVATION 215.39
 NAD 83
 THE DISK IS SET IN A ROUND CONCRETE POST PROJECTING SIX INCHES AND THE DISK IS STAMPED U 25 1957
 N 554,701.88 E 1,377,647.62



QUANTITIES

ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
12" W C-900 (DR-18)	662 L.F.			
8" W C-900 (DR-18)	1,418 L.F.			
6" W C-900 (DR-18)	79 L.F.			
FIRE HYDRANTS	7 EA.			
16" X 12" TAPPING SLEEVE & 12" VALVE	0 EA.			
12" X 6" TEE	3 EA.			
8" X 8" TEE	1 EA.			
8" X 6" TEE	5 EA.			
12" VALVE & ROADWAY BOX	1 EA.			
8" VALVE & ROADWAY BOX	3 EA.			
6" VALVE & ROADWAY BOX	8 EA.			
12" X 1/8 HORIZONTAL BEND	1 EA.			
12" X 1/16 HORIZONTAL BEND	0 EA.			
12" X 1/32 HORIZONTAL BEND	0 EA.			
8" X 1/8 HORIZONTAL BEND	8 EA.			
8" X 1/32 HORIZONTAL BEND	10 EA.			
12" X 1/16 VERTICAL BEND	0 EA.			
8" X 1/16 VERTICAL BEND	2 EA.			
12" X 1/32 VERTICAL BEND	4 EA.			
8" X 1/32 VERTICAL BEND	9 EA.			
12" X 1/8 BEND ROTATION	1 EA.			
12" X 1/16 BEND ROTATION	0 EA.			
12" X 1/32 BEND ROTATION	1 EA.			
8" X 1/8 BEND ROTATION	1 EA.			
8" X 1/16 BEND ROTATION	2 EA.			
12" X 8" REDUCER	1 EA.			
12" COUPLING	0 EA.			
8" COUPLING	2 EA.			
8" P.V.C. SANITARY SEWER MAIN	482 L.F.			
6" P.V.C. SANITARY SEWER MAIN	10 L.F.			
* 4" STD. PRECAST SANITARY MANHOLE (G5.12)	1 EA.			
4" STD. PRECAST SANITARY MANHOLE (G5.12)	1 EA.			
* 4" STD. PRECAST SANITARY MANHOLE (G5.12)	0 EA.			
TYPE 'A' DROP (S1.32)				
4" STD. PRECAST SANITARY MANHOLE (G5.12)	1 EA.			
TYPE 'A' DROP (S1.32)				
* 4" STD. PRECAST SANITARY MANHOLE (G5.12)	1 EA.			
TYPE 'B' DROP (S1.32)				
4" STD. PRECAST SANITARY MANHOLE (G5.12)	0 EA.			
TYPE 'B' DROP (S1.32)				
36" STEEL CASING PIPE (BORING / JACKING) G7.31				
NAME OF UTILITY CONTRACTOR :				
SURVEY AND DRAFTING DIVISION AS-BUILT DATE				

* TOP ON MANHOLE TO BE SET 1.5' ABOVE GRADE PER DET. G-5.41. CONTRACTOR TO USE WATER-TIGHT FRAME AND COVER PER DET. G-5.52

"PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 8061, EXPIRATION DATE: 8/28/17."

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE HOWARD COUNTY DESIGN MANUAL VOL. IV

OWNER / DEVELOPER
SHEPPARD PRATT HEALTH SYSTEM, INC.
5501 N. CHARLES STREET
BALTIMORE, MARYLAND 21285-6815
410-938-3242

THE DEVELOPMENT PLAN (SDP 08-082) IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
APPROVED: 8/1/17
HOWARD SOIL CONSERVATION DISTRICT DATE

INDEX OF SHEETS

SHEET NO.	TITLES
1	COVER SHEET, GENERAL NOTES & LOCATION MAP
2	WATER & SEWER PLAN
3	WATER PROFILE - STA. 19+00 TO 32+00
4	FIRE HYDRANT PROFILES & WATER PROFILE 32+00 TO 39+95.86
5	SEWER PROFILES

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
 7/19/17
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
 8-10-17
CHIEF, DEVELOPMENT ENGINEERING DIVISION M.G. DATE

DAFT MCCUNE WALKER INC.
801 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410.296.5333 F: 410.296.4705 WWW.DMW.COM

DESIGNED: EAS/KE
DRAFTED: MCJ/GMO
CHECKED: PLH
DATE 7-9-17
P.E.# 8061

COVER SHEET, GENERAL NOTES & LOCATION MAP
SANITARY SEWER AND WATER MAIN
CONTRACT NO. 14-5004-D
600 SCALE MAP NO. 37 BLOCK NO. 8

WATER AND SEWER PLAN
CORRIDOR 95 BUSINESS PARK
STAGE II
CONTRACT NO. 14-5004-D
ELECTION DISTRICT : 1st HOWARD CO., MARYLAND
SCALE: As Shown
DATE : JULY 5, 2017
SHT. 1 OF 5

FUTURE DEVELOPMENT
SHEPPARD PRATT HEALTH SYSTEMS, INC
L 12945 F 099

PARCEL B

FUTURE DEVELOPMENT
SHEPPARD PRATT HEALTH SYSTEMS, INC
L 12945 F 093

PARCEL A

FUTURE DEVELOPMENT
SHEPPARD PRATT HEALTH SYSTEMS, INC
L 12945 F 093

PLAN
SCALE: 1" = 50'

- UTILITY NOTES:**
1. CONTRACTOR SHOULD OPEN ONLY THAT SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED EACH DAY. IF TRENCH MUST REMAIN OPEN LONGER THAN ONE DAY, SILT FENCE SHALL BE PLACED BELOW (DOWNSLOPE) THE TRENCH.
 2. PLACE ALL EXCAVATED MATERIAL ON THE UPHILL SIDE OF THE TRENCH.
 3. ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.
 4. WATER PRESSURE ZONE 400

SANITARY MANHOLE COORDINATE TABLE

MANHOLE NO.	N COORDINATE	E COORDINATE
21	556,031.36	1,378,682.70
22	556,110.31	1,378,685.44

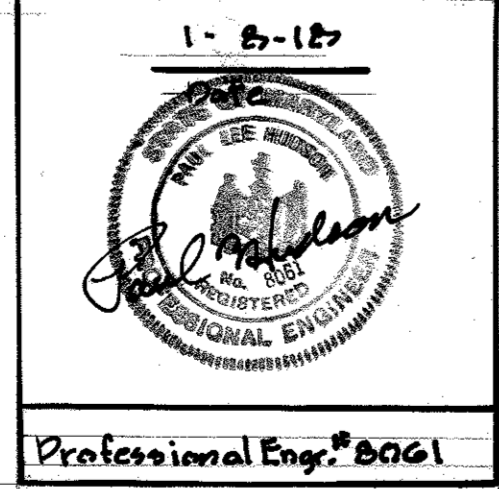
HORIZONTAL BEND SCHEDULE

BEND NO.	BEND TYPE	W.L. STATION	COORDINATE
19	1/32 H.B./BR# 9	19+30.31	N555,637.05 E1,378,800.00
20	1/8 H.B.	21+50.98	N555,633.90 E1,379,021.80
21	1/8 H.B./BR# 10	22+21.13	N556,682.80 E1,379,072.11
22	1/32 H.B.	25+86.41	N556,046.88 E1,379,077.27
23	1/32 H.B.	26+28.36	N556,087.91 E1,379,086.04
24	1/8 H.B.	27+90.72	N556,250.25 E1,379,088.34
25	1/16 H.B.	28+24.66	N556,274.59 E1,379,064.69
26	1/8 H.B.	29+35.06	N556,318.28 E1,378,963.30
27	1/8 H.B./BR# 11	29+46.90	N556,313.90 E1,378,952.30
28	1/32 H.B.	29+90.84	N556,273.55 E1,378,934.91
29	1/8 H.B.	31+13.93	N556,153.18 E1,378,909.18
30	1/16 H.B.	31+56.91	N556,129.81 E1,378,873.11
31	1/32 H.B.	32+01.16	N556,122.07 E1,378,829.54
32	1/32 H.B.	32+47.43	N556,123.02 E1,378,783.28
33	1/32 H.B.	33+84.92	N556,152.62 E1,378,649.01
34	1/32 H.B.	34+04.15	N556,160.34 E1,378,631.40
35	1/32 H.B.	34+36.61	N556,178.93 E1,378,604.79
36	1/32 H.B.	34+54.71	N556,191.98 E1,378,592.26
37	1/8 H.B.	35+62.41	N556,282.75 E1,378,534.27
38	1/8 H.B.	35+65.92	N556,286.17 E1,378,535.03
39	1/8 H.B.	35+95.07	N556,301.86 E1,378,559.60
40	1/8 H.B.	36+16.22	N556,294.75 E1,378,591.90
41	1/8 H.B.	37+18.75	N556,343.52 E1,378,668.25
42	1/32 H.B.	39+71.23	N556,289.18 E1,378,914.82

H.B. = HORIZONTAL BEND
BR# = BEND ROTATION

PURPOSE STATEMENT
THE PURPOSE OF THIS REVISION (REVISION NO. 1) IS TO REMOVE THE PORTION OF PROPOSED SANITARY SEWER FROM SMH 18 TO SMH 20.

FOR REVISION NO. 1 ONLY



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License No. 8061, Expiration Date: 8-26-19

"PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 8061, EXPIRATION DATE: 8/28/17."

OWNER / DEVELOPER
SHEPPARD PRATT HEALTH SYSTEM, INC.
6501 N. CHARLES STREET
BALTIMORE, MARYLAND 21285-6815
410-938-3242

BY	NO.	REVISION	DATE
DMW	1	DELETE SANITARY SEWER SMH 18 TO SMH 20	01-09-18

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Christopher J. Slagter 7/19/17
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

Chad Edick 8/10/17
CHIEF, DEVELOPMENT ENGINEERING DIVISION M.G. DATE

7-6-17
DATE

DMW
DAFT MCCLINE WALKER INC

301 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

7-6-17
DATE

Paul J. Anderson
PROFESSIONAL ENGINEER
P.E.# 8061

DESIGNED: EAS/KE
DRAFTED: MCI/GMO
CHECKED: PLH

WATER & SEWER PLAN
SANITARY SEWER AND WATER MAIN

CONTRACT NO. 14-5004-D
600 SCALE MAP NO. 37

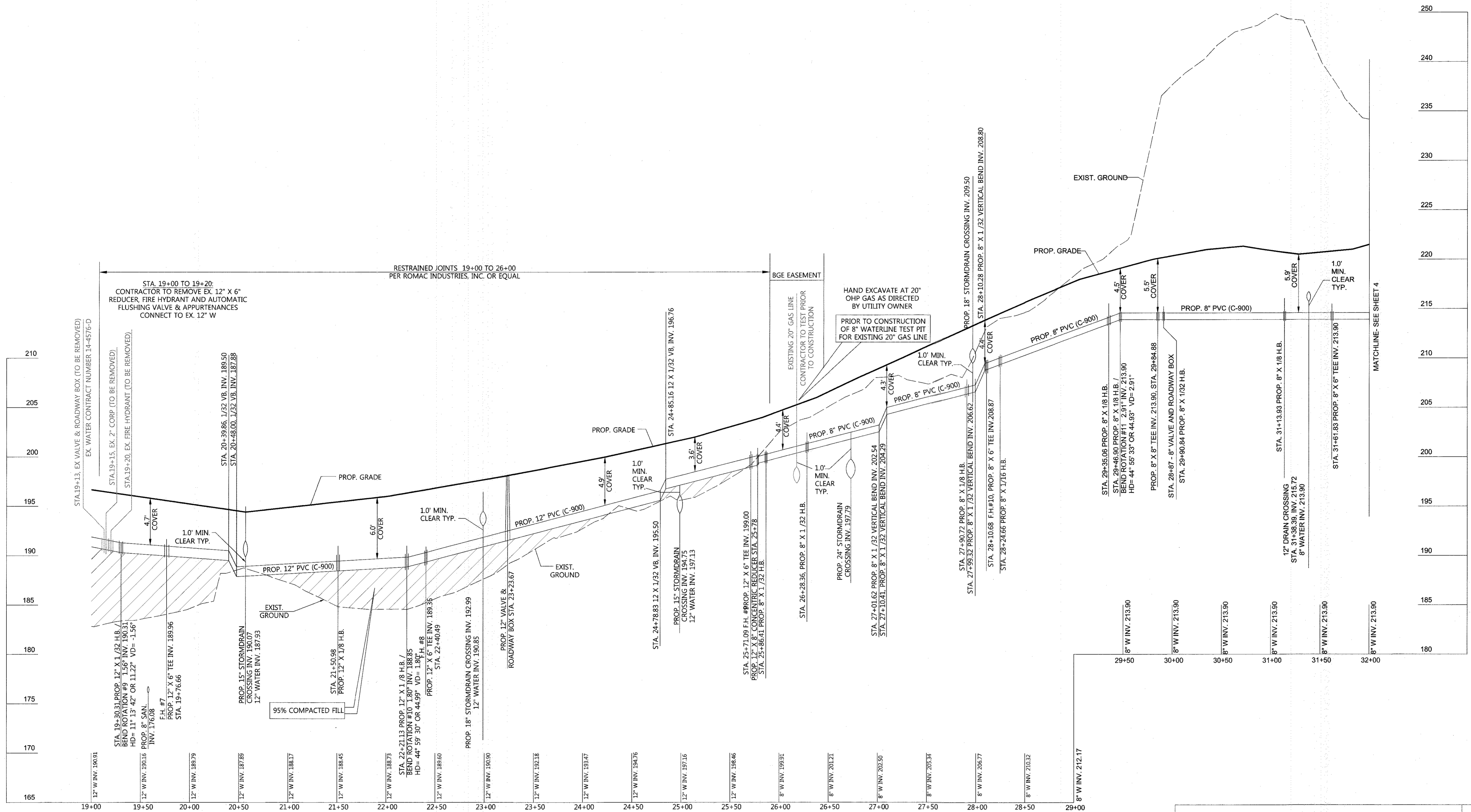
BLOCK NO. 8

WATER AND SEWER PLAN
CORRIDOR 95 BUSINESS PARK
STAGE II

CONTRACT NO. 14-5004-D

ELECTION DISTRICT: 1st
HOWARD CO., MARYLAND

SCALE: As Shown
DATE: JULY 5, 2017
SHT. 2 OF 5



WATERLINE STATION PROFILE 19+00 TO 32+00

SCALE: 1" = 50' HORZ.
1" = 5' VERT.

"PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 8061, EXPIRATION DATE: 8/28/17."

OWNER / DEVELOPER
SHEPPARD PRATT HEALTH SYSTEM, INC.
6501 N. CHARLES STREET
BALTIMORE, MARYLAND 21285-6815
410-938-3242

BY	NO.	REVISION	DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Commodore
CHIEF, BUREAU OF UTILITIES

7/19/17
DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

Chick
CHIEF, DEVELOPMENT ENGINEERING DIVISION

8-10-17
DATE

DMW
DAFT MCCUNE WALKER INC.

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 298 3333 F: 410 298 4705 WWW.DMW.COM

7-6-17
DATE

Paul
PROFESSIONAL ENGINEER

P.E.# 8061

DESIGNED: EAS/KE
DRAFTED: MCJ/GMO
CHECKED: PLH

WATER PROFILE -
STA 19+00 TO 32+00
SANITARY SEWER AND WATER MAIN

CONTRACT NO. 14-5004-D

600 SCALE MAP NO. 37

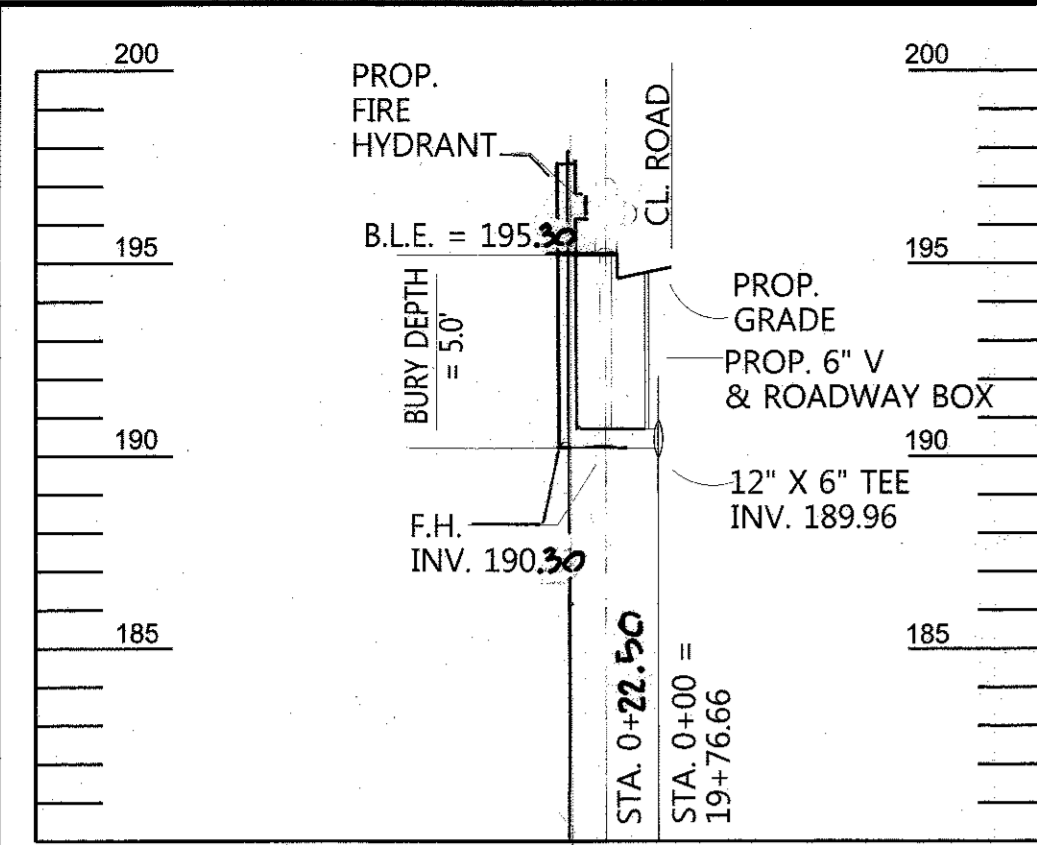
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WATER AND SEWER PLAN
CORRIDOR 95 BUSINESS PARK
STAGE II

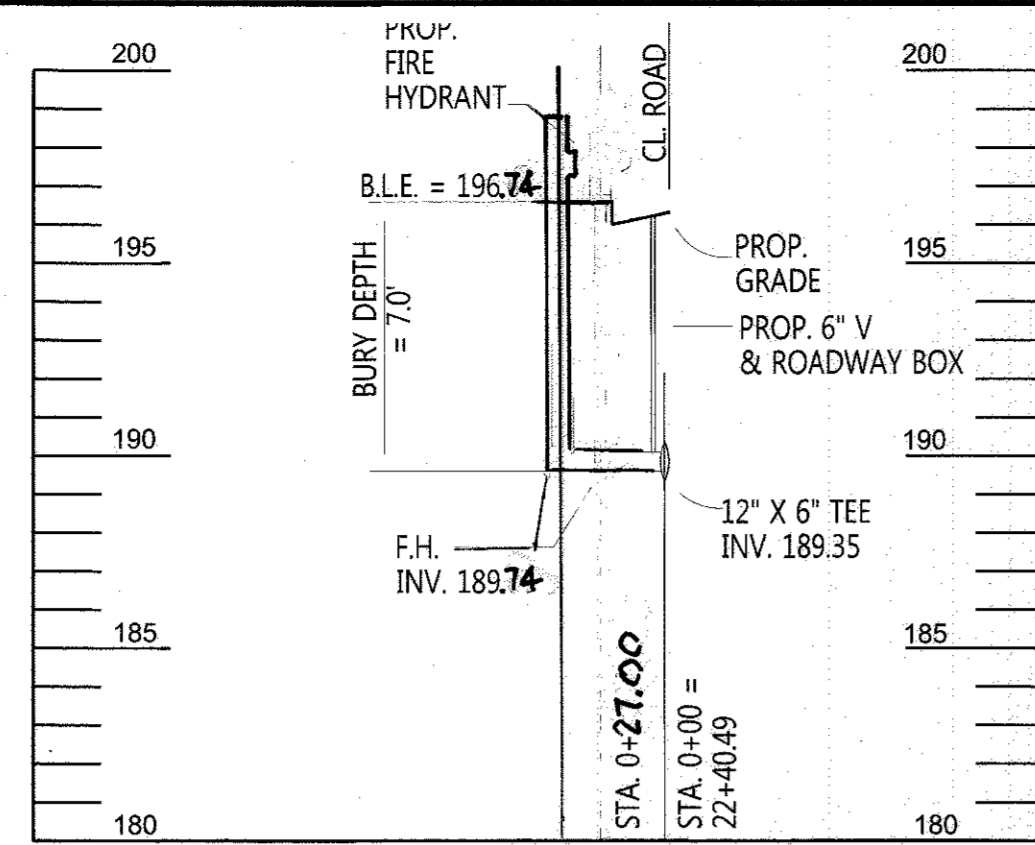
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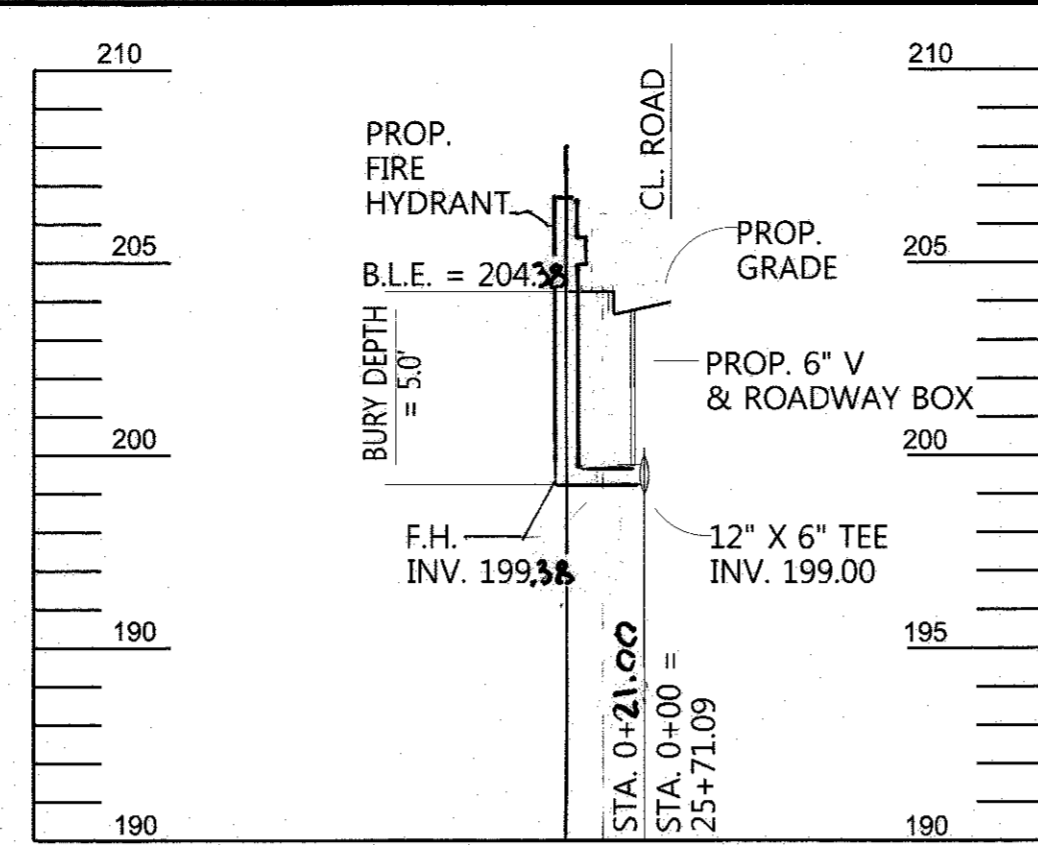
SCALE: As Shown
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SHT. 3 OF 5



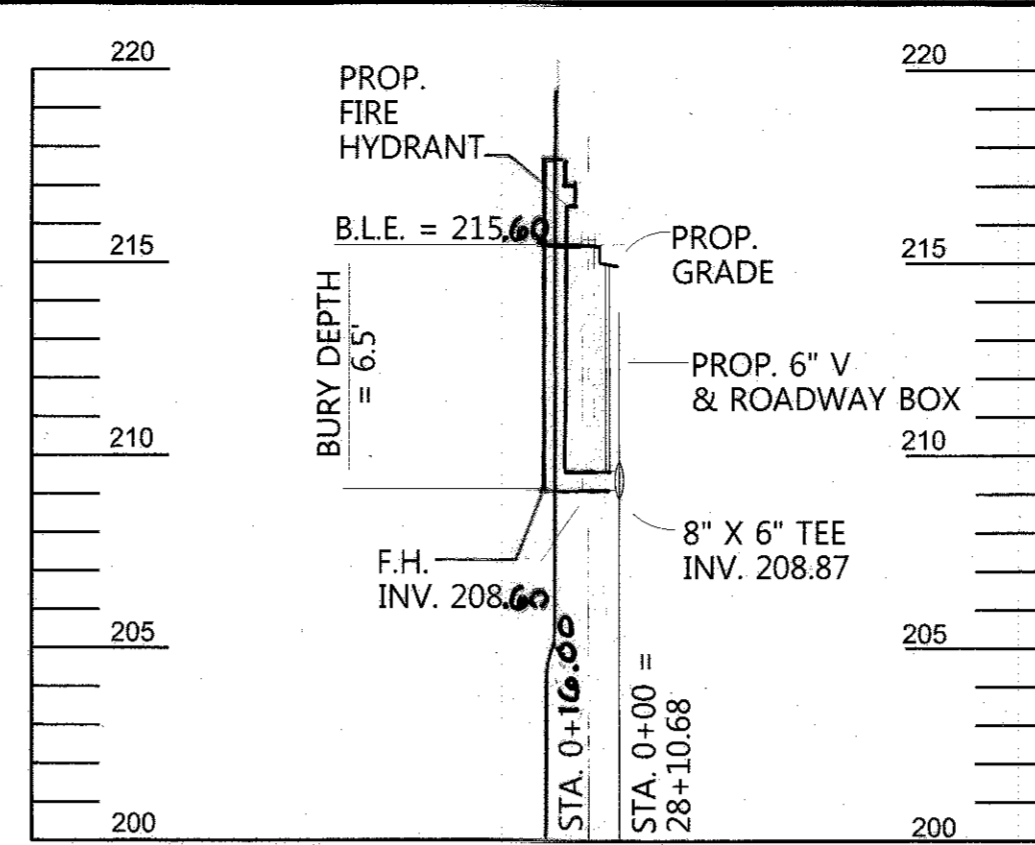
PUBLIC 6" FIRE HYDRANT NO. 7
SCALE: HORZ. 1" = 50'
VERT. 1" = 5'



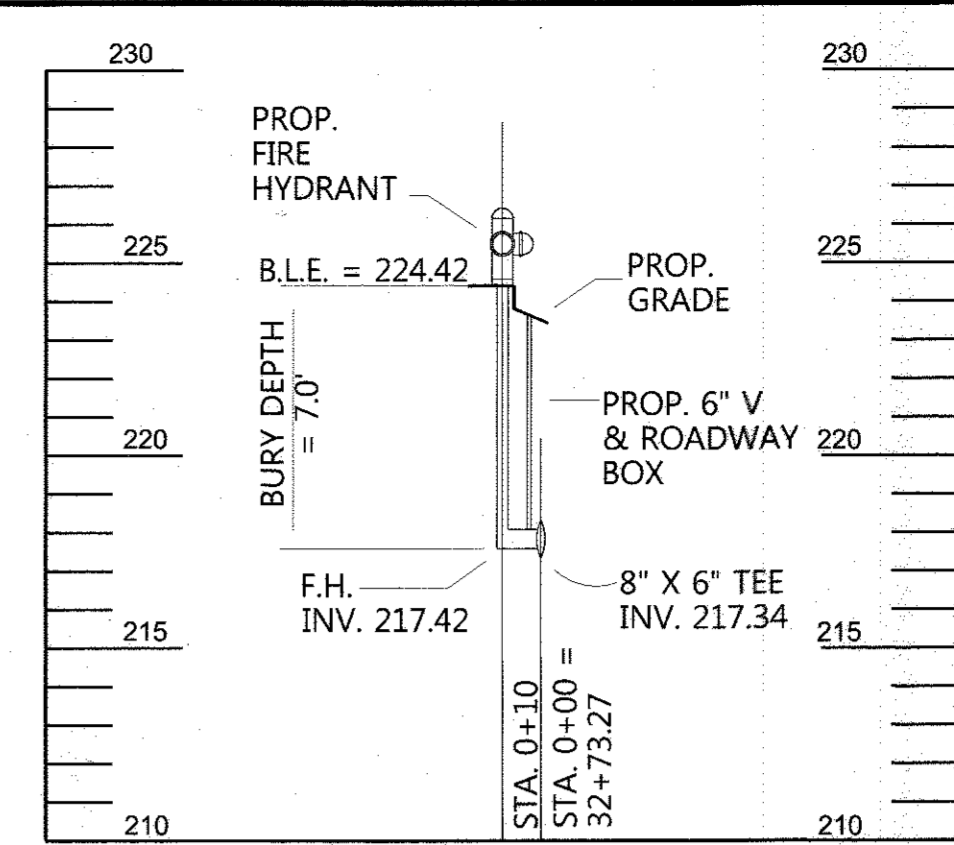
PUBLIC 6" FIRE HYDRANT NO. 8
SCALE: HORZ. 1" = 50'
VERT. 1" = 5'



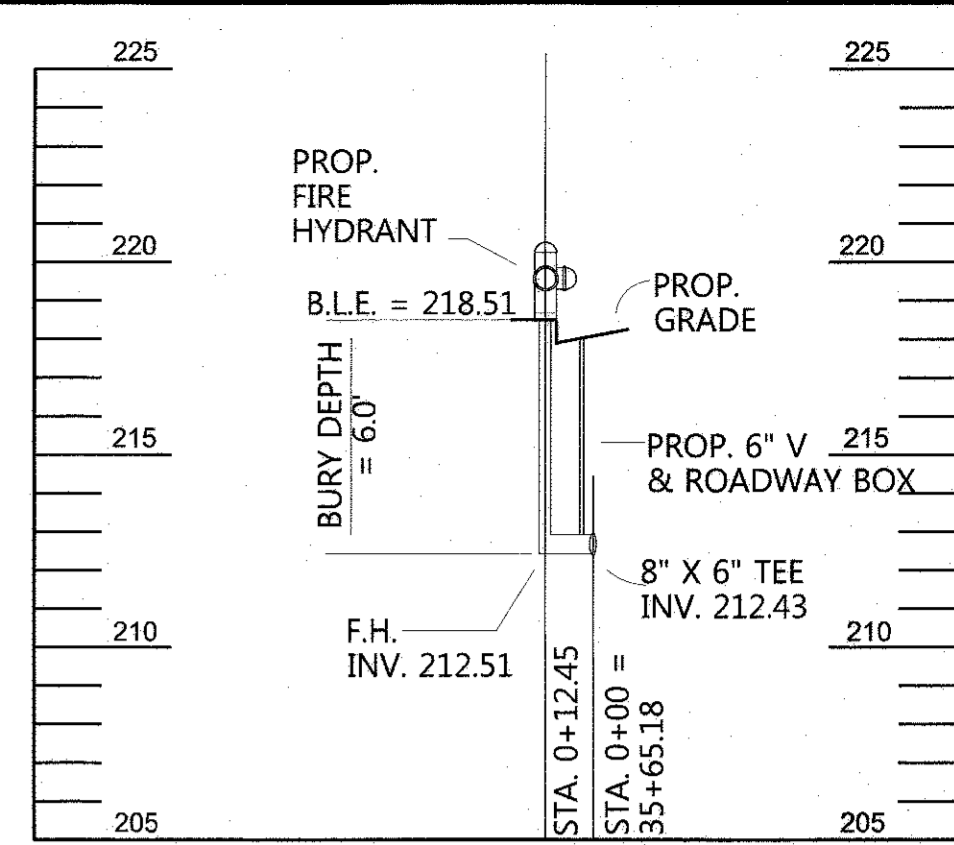
PUBLIC 6" FIRE HYDRANT NO. 9
SCALE: HORZ. 1" = 50'
VERT. 1" = 5'



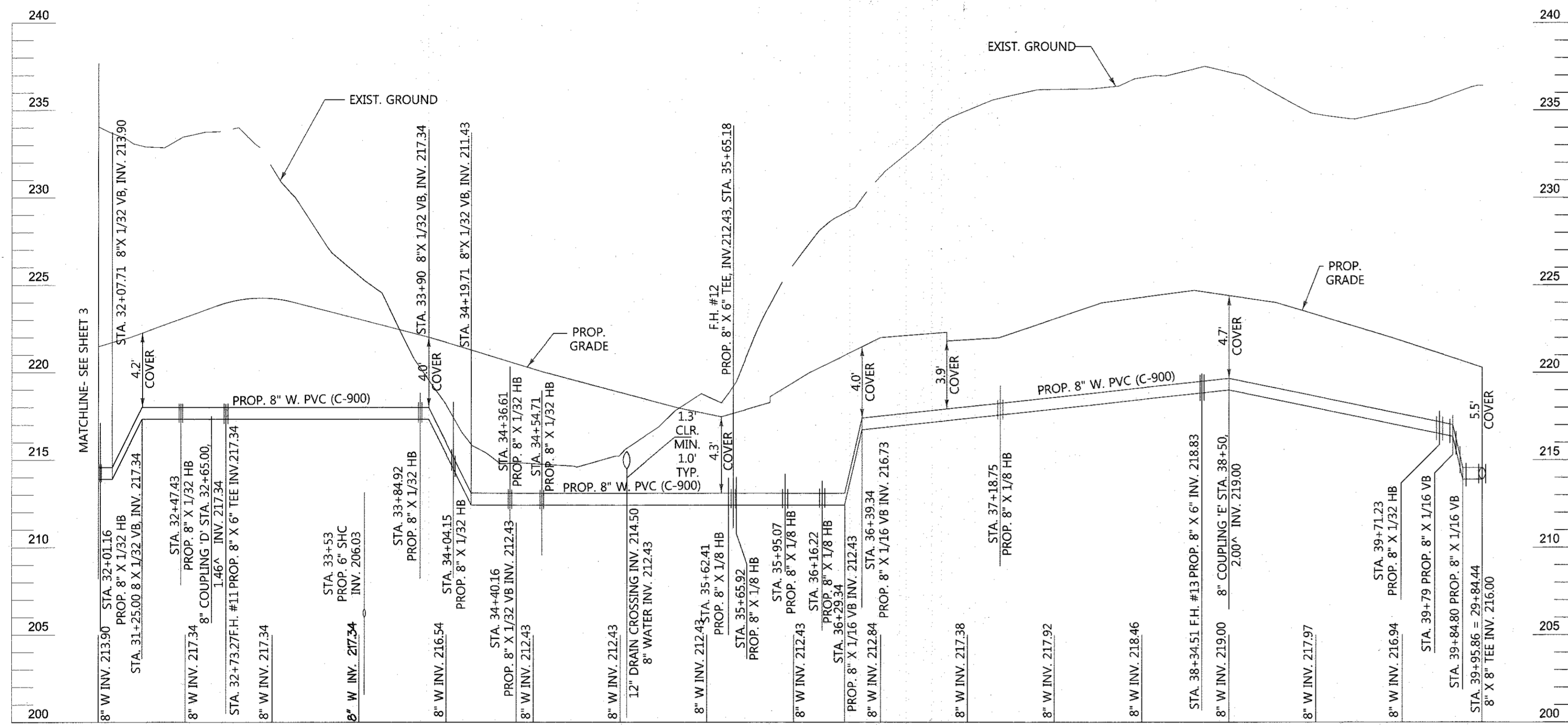
PUBLIC 6" FIRE HYDRANT NO. 10
SCALE: HORZ. 1" = 50'
VERT. 1" = 5'



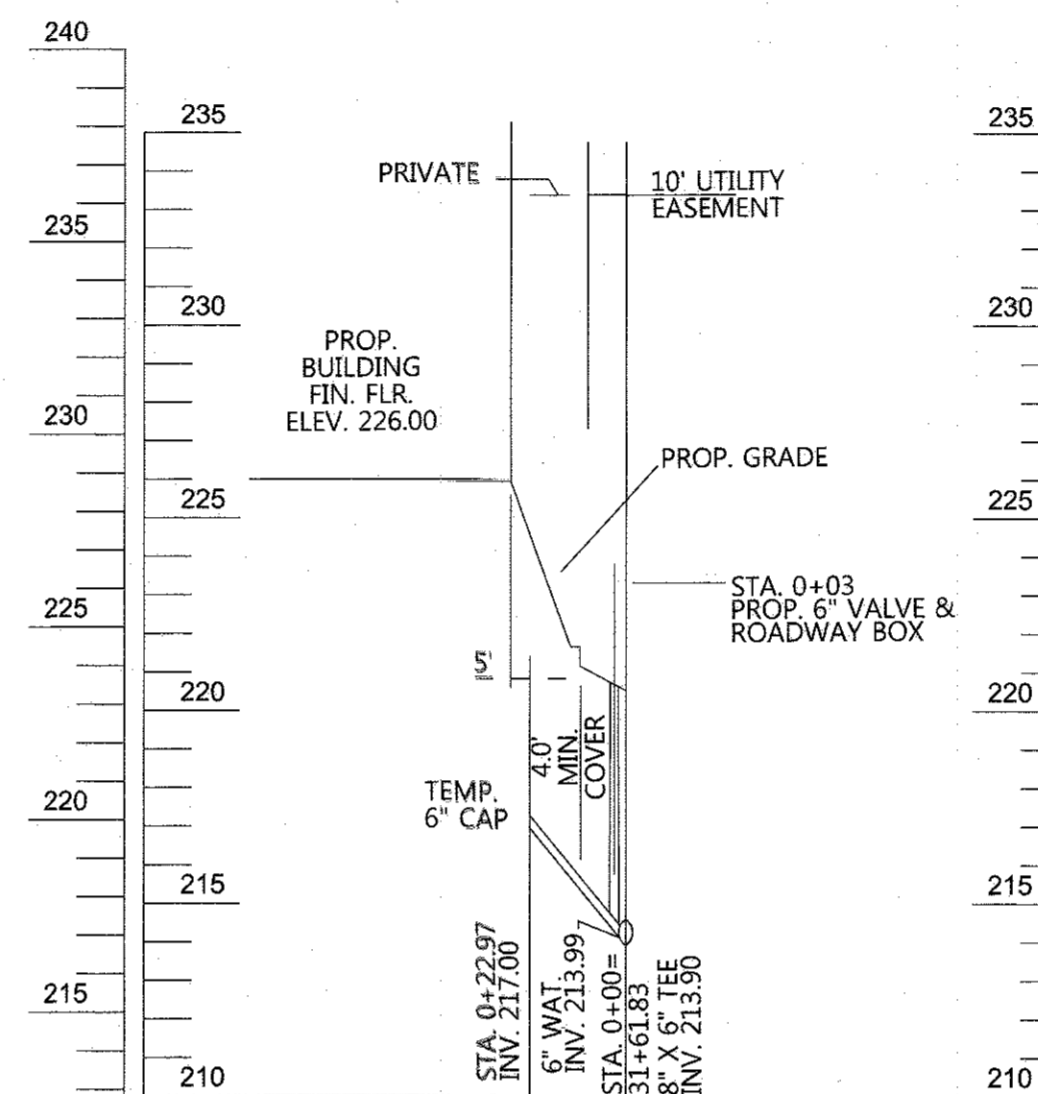
PUBLIC 6" FIRE HYDRANT NO. 11
SCALE: HORZ. 1" = 50'
VERT. 1" = 5'



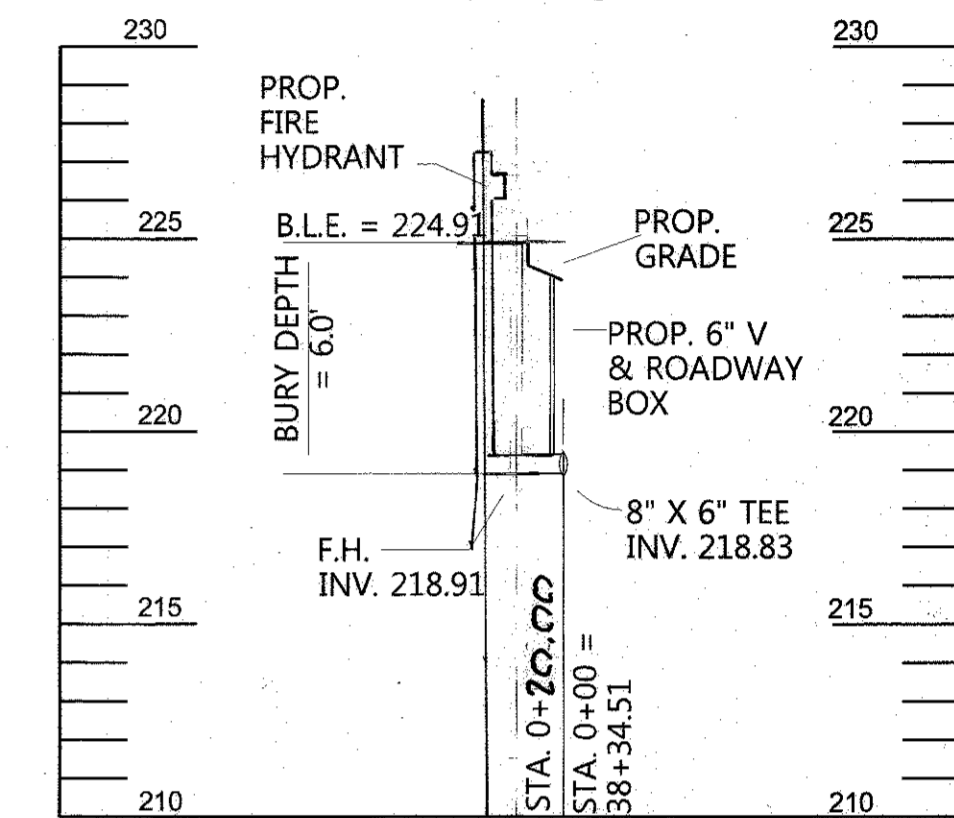
PUBLIC 6" FIRE HYDRANT NO. 12
SCALE: HORZ. 1" = 50'
VERT. 1" = 5'



WATERLINE STATION PROFILE 32+00 TO 39+97.09
SCALE: HORZ. 1" = 50', VERT. 1" = 5'



WHC PROFILE BUILDING NO. 1
SCALE: HORZ. 1" = 50', VERT. 1" = 5'



PUBLIC 6" FIRE HYDRANT NO. 13
SCALE: HORZ. 1" = 50'
VERT. 1" = 5'

"PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 8061, EXPIRATION DATE: 8/28/17."

OWNER / DEVELOPER
SHEPPARD PRATT HEALTH SYSTEM, INC.
3501 N. CHARLES STREET
BALTIMORE, MARYLAND 21285-6815
410-938-3242

BY	NO.	REVISION	DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Conrad A. [Signature]
CHIEF, BUREAU OF UTILITIES
DATE: 7/19/17

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
Phil [Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION M.G.
DATE: 8.10.17

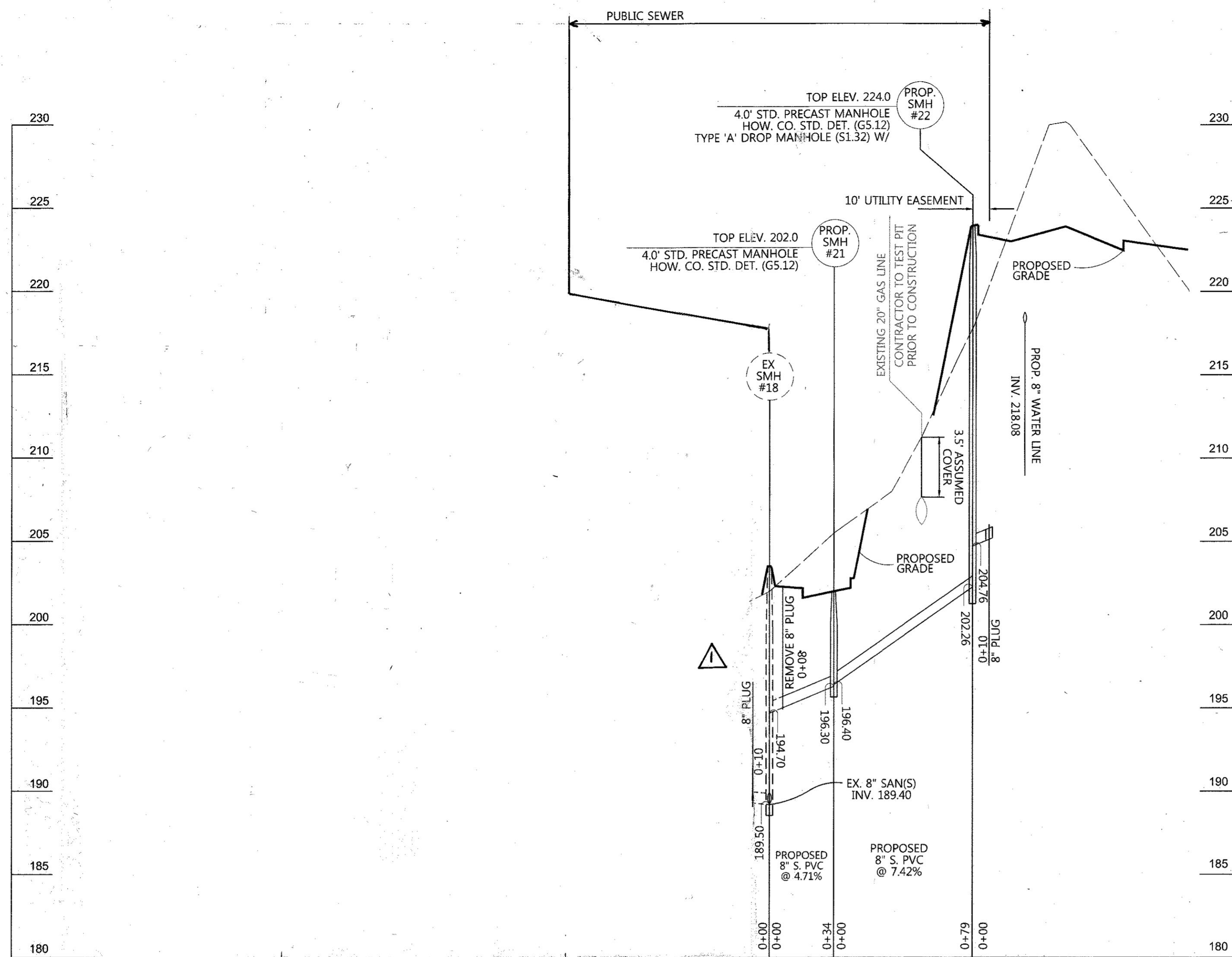
DMW
DAFT MCCUNE WALKER INC.
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

7-6-17
DATE
Paul [Signature]
REGISTERED PROFESSIONAL ENGINEER
M.D. 8061
P.E.# 8061

DESIGNED: EAS/KE
DRAFTED: MCJ/GMO
CHECKED: PLH

FIRE HYDRANT PROFILES & WATER PROFILE 32+00 TO 39.95.6
SANITARY SEWER AND WATER MAIN
CONTRACT NO. 14-5004-D
600 SCALE MAP NO. 37
BLOCK NO. 8

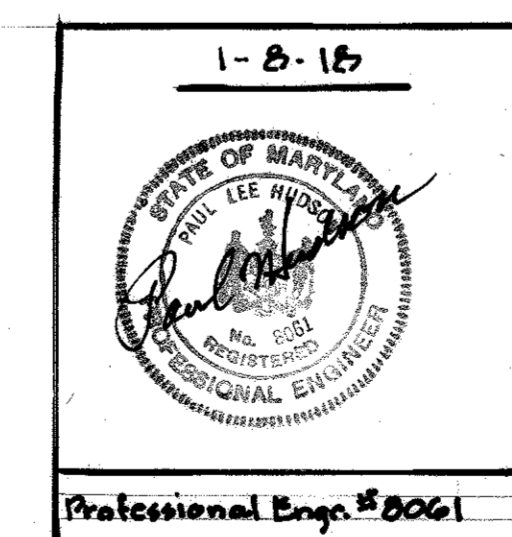
WATER AND SEWER PLAN CORRIDOR 95 BUSINESS PARK
STAGE II
CONTRACT NO. 14-5004-D
ELECTION DISTRICT: 1st HOWARD CO., MARYLAND
SCALE: As Shown
DATE: JULY 5, 2017
SHT. 4 OF 5



SANITARY SEWER PROFILE
 SCALE HORZ. 1" = 50'
 VERT. 1" = 5'

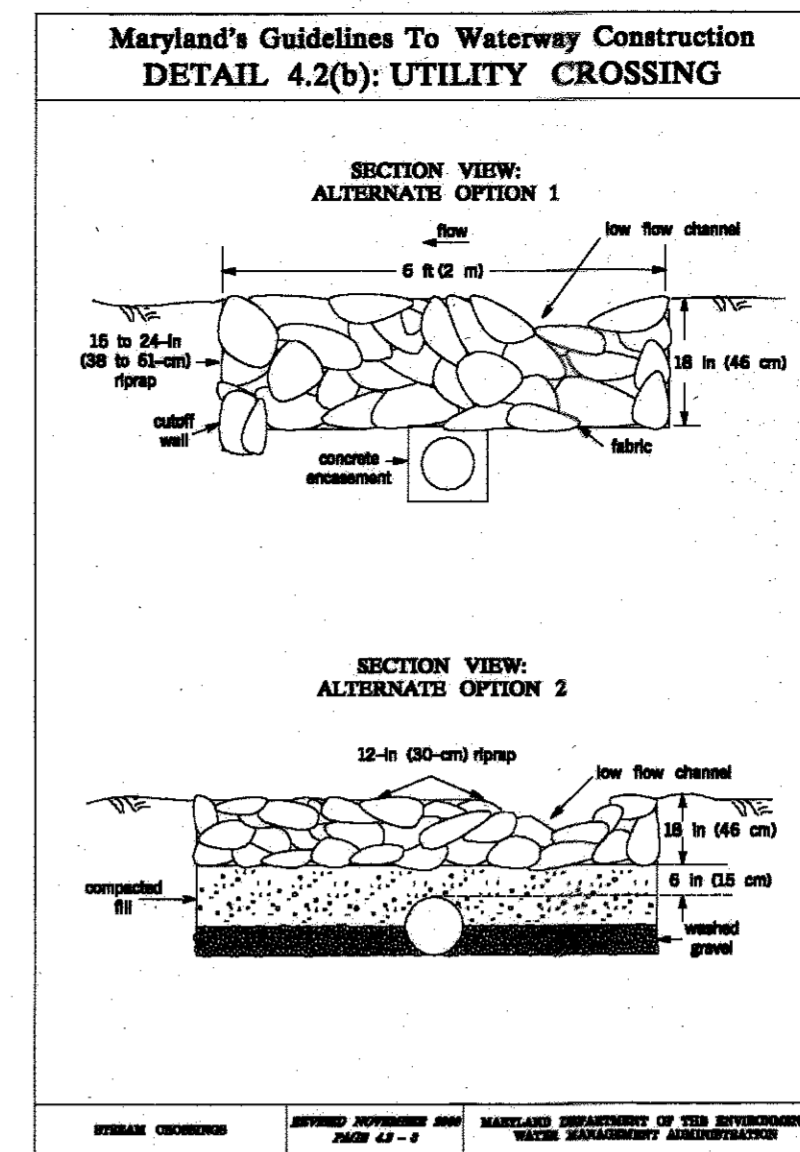
▲ PURPOSE STATEMENT
 THE PURPOSE OF THIS REVISION (REVISION NO.1) IS TO REMOVE THE PORTION OF PROPOSED SANITARY SEWER FROM SMH18 TO SMH20.

FOR REVISION #1 ONLY



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
 License No. 8061, Expiration Date: 8-26-17

"PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 8061, EXPIRATION DATE: 8/28/17."		OWNER / DEVELOPER SHEPPARD PRATT HEALTH SYSTEM, INC. 6501 N. CHARLES STREET BALTIMORE, MARYLAND 21285-6815 410-938-3242	
BY	NO.	REVISION	DATE
DMW	▲	DELETE SANITARY SEWER SMH18 TO SMH 20	01-03-18



MGWC 4.2: UTILITY CROSSING
Temporary in-stream construction

DESCRIPTION
 The work should consist of installing erosion control devices in and adjacent to the construction of utility crossings.

INSTALLATION GUIDELINES

- The installation should occur first at a location proximal to the stream to reduce the amount of sediment entering the stream. A diversion pipe as shown in MGWC 1.6 Diversion Pipe or other measure should be installed and tested or flow tested as shown in MGWC 1.3 Sealing/Flow Diversion should be constructed according to specifications to divert the stream flow.
- Reinforced riprap and subsoil should be kept separate, placed on the upland side of the excavation, and replaced in that order.
- All construction should take place during stream low flows. The length of construction time should be limited to a maximum of 3 consecutive days for each crossing.
- All utility crossings should be placed a minimum of 3 feet (1 meter) beneath the stream bed unless an alternate method is specifically approved by the WSA. For streams where a 3-foot cover is not viable, two channels stabilization options are given in the Detail 4.2. A low flow channel shall be constructed through all open placements across the stream bed.
- The stream should be diverted by an approved temporary stream diversion, the construction area should be dewatered, and any disturbed banks should be stabilized. The contractor may elect to construct the utility crossing in two stages. In this case, a WSA approved flow barrier may be constructed to keep the construction area dry.
- Once the crossing is completed, the diversion should be removed from upstream to downstream. Sediment control devices, including pre-erosion controls, are to remain in place until all disturbed areas are stabilized to meet standards with an approved sediment and erosion control plan and the inspection authority approves their removal.

