

GENERAL NOTES

PART I

- 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. TOPOGRAPHIC FIELD SURVEYS WERE PERFORMED ON JANUARY 2007 BY GEORGE W. STEPHENS, JR. AND ASSOC.
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 NO. J 109 AND NO. U 25.
ALL VERTICAL CONTROLS ARE BASED ON NAVD '88. VERTICAL CONTROLS PROVIDED ON THE DRAWINGS ARE (U 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.
4. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
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 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.
6. 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.
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 OPERATIONS 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 410-313-9000
COLONIAL PIPELINE CO. 410-795-1390
MISS UTILITY 1-800-257-7777
STATE HIGHWAY ADMINISTRATION 410-531-5533
VERIZON 1-800-745-0033
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 LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR 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 DWP REQUIREMENTS PER SECTION 18.114(a) OF THE HOWARD COUNTY CODE.
12. A MDE WETLAND PERMIT IS REQUIRED FOR THE DISTURBANCE SHOWN ON THIS PLAN. MDE TRACKING NUMBER 2008060826 / 08-N1-3066. NO IN-STREAM CONSTRUCTION MAY OCCUR FROM MARCH 1 - JUNE 15.

PART II WATER

- 1. ALL WATER MAINS SHALL BE D.I.P. CLASS 54 UNLESS OTHERWISE NOTED.
2. TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-6" COVER UNLESS OTHERWISE NOTED.
3. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
4. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE 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 HYDRANTS 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 WIRES AND CONTINUITY TEST STATIONS SHALL BE INSTALLED ON ALL DIP AND PVC WATER MAINS IN ACCORDANCE WITH 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 C300 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.
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 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.
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 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 8-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.
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 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

- 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 16" 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. HOUSES WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.

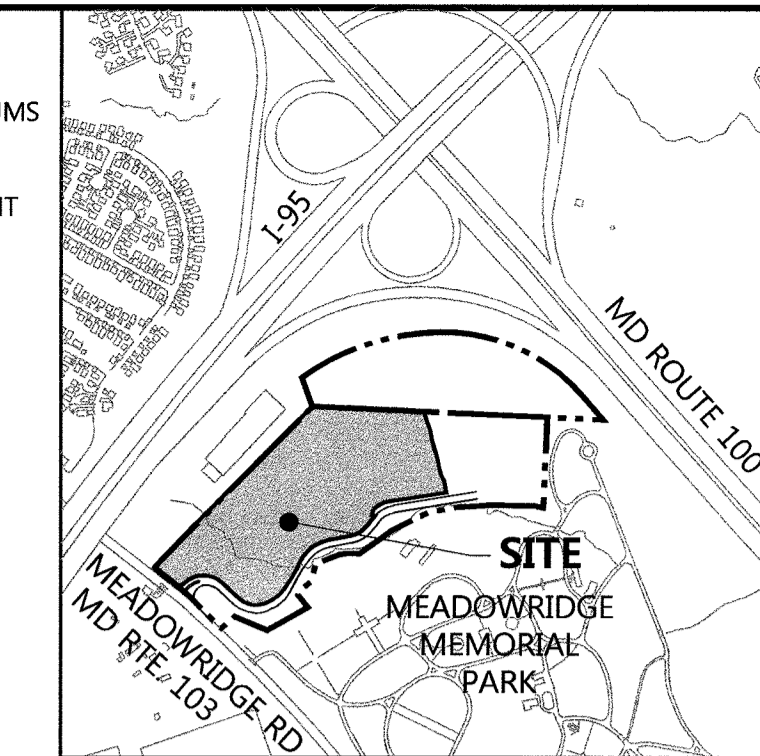
PUBLIC WATER & SEWER CONSTRUCTION PLANS
CORRIDOR 95 BUSINESS PARK
1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
CONTRACT NO. 14-4576-D

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

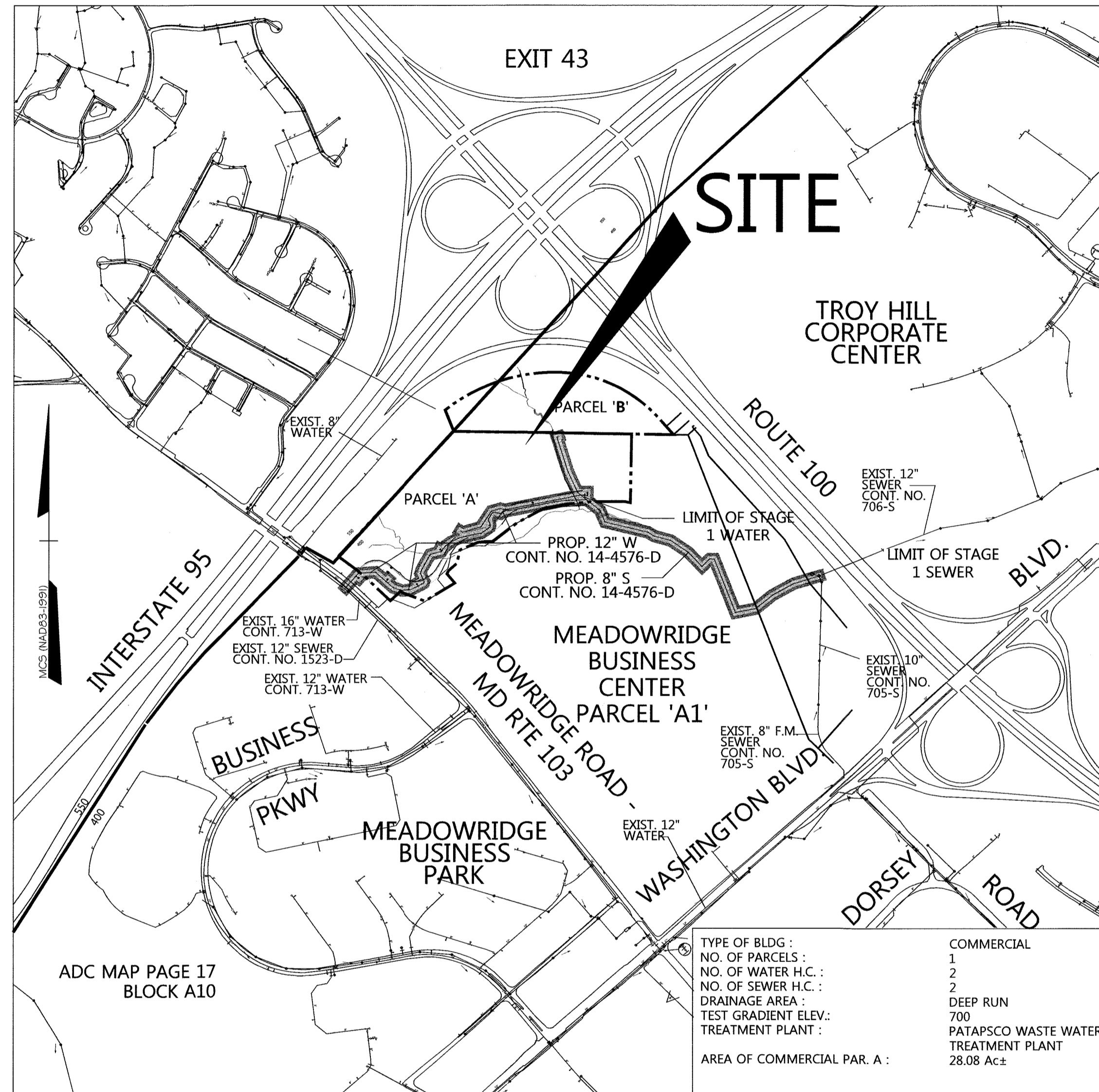
BM # U 25 ELEVATION 215.39 NAD 83 THE DISK IS SET IN A ROUND CONCRETE POST PROJECTING SIX INCHES AND THE DISK IS STAMPED U 25 1957 N 554,701.88 E 1,377,647.62



VICINITY MAP SCALE: 1"=1000' HOWARD COUNTY ADC MAP NUMBER 17, GRID NO. A10

QUANTITIES

Table with columns: ITEMS, QUANTITIES ESTIMATED, AS-BUILT (QUANTITIES, TYPE), MANUFACTURER/SUPPLIER. Lists various pipe materials, valves, manholes, and fittings with their respective quantities.



LOCATION MAP SCALE: 1" = 600'

LEGEND

- FIRE HYDRANT
WATER VALVE
INLETS
STORM DRAIN MH
SANITARY MH
UTILITY BOX
TRANSFORMER
PROPERTY LINE
BUILDING SETBACK LINE
EASEMENT LINE
BUILDING LINE
EX. WATERLINE
EX. SANITARY LINE
EX. STORM DRAIN LINE
EX. PAVING

LEGEND (Cont')

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

INDEX OF SHEETS

Table with columns: SHEET NO., TITLES. Lists sheets 1 through 9, including cover sheet, water & sewer plan, water profile, and sewer profiles.

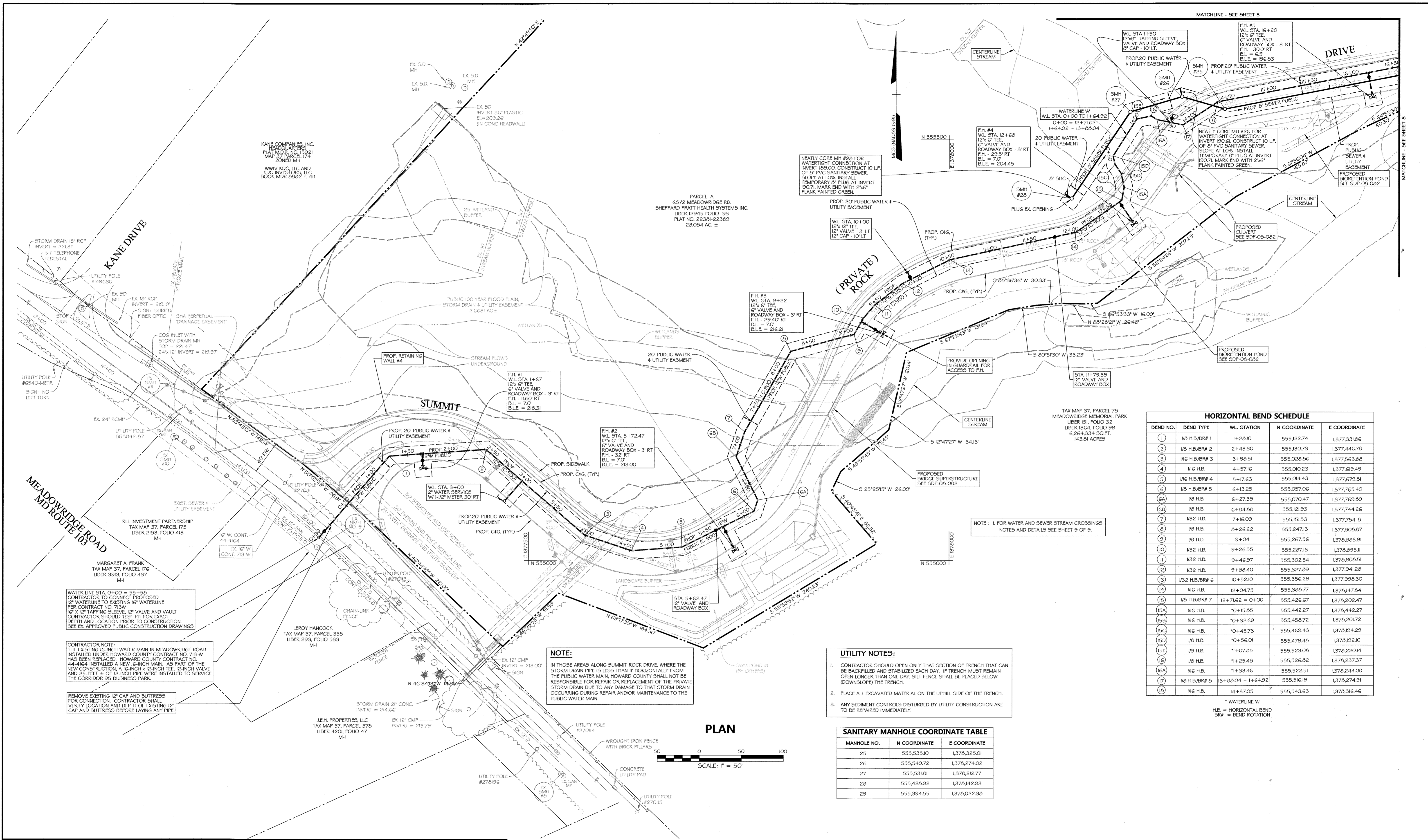
Approval and certification stamps from the Department of Public Works and Department of Planning & Zoning, Howard County, Maryland. Includes signatures and dates for approval.

Professional certification stamp for DMW (Daft McCune Walker Inc) and a revision table with columns for revision number, description, and date.

Professional Engineer seal for George W. Stephens, Jr. and a revision table with columns for revision number, description, and date.

COVER SHEET, GENERAL NOTES & LOCATION MAP

Project title block for 'WATER AND SEWER PLAN CORRIDOR 95 BUSINESS PARK STAGE I' including contract number, scale, and sheet information.



HORIZONTAL BEND SCHEDULE

BEND NO.	BEND TYPE	WL. STATION	N COORDINATE	E COORDINATE
1	W6 H.B./BR# 1	+120.10	555,122.74	1,377,331.06
2	W6 H.B./BR# 2	+243.30	555,130.73	1,377,446.70
3	W6 H.B./BR# 3	+349.51	555,028.86	1,377,563.88
4	W6 H.B.	+457.16	555,002.23	1,377,619.49
5	W6 H.B./BR# 4	+517.63	555,014.43	1,377,679.21
6	W6 H.B./BR# 5	+613.25	555,057.06	1,377,765.40
6A	W6 H.B.	+627.39	555,070.47	1,377,769.89
6B	W6 H.B.	+684.88	555,121.93	1,377,744.26
7	W32 H.B.	+716.09	555,151.53	1,377,754.10
8	W6 H.B.	+826.22	555,247.13	1,377,808.87
9	W6 H.B.	+9+04	555,267.56	1,378,863.91
10	W32 H.B.	+9+26.55	555,287.13	1,378,895.11
11	W32 H.B.	+9+46.97	555,302.54	1,378,908.51
12	W32 H.B.	+9+88.40	555,327.89	1,377,941.28
13	W32 H.B./BR# 6	+10+52.10	555,356.29	1,377,998.30
14	W6 H.B.	+12+04.75	555,388.77	1,378,478.84
15	W6 H.B./BR# 7	+12+71.62 = 0+00	555,426.67	1,378,202.47
15A	W6 H.B.	+0+15.85	555,442.27	1,378,442.27
15B	W6 H.B.	+0+32.69	555,458.72	1,378,201.72
15C	W6 H.B.	+0+45.73	555,469.43	1,378,194.29
15D	W6 H.B.	+0+56.01	555,479.48	1,378,192.10
15E	W6 H.B.	+1+07.85	555,523.08	1,378,220.14
15F	W6 H.B.	+1+25.48	555,526.82	1,378,237.37
16	W6 H.B.	+1+33.46	555,522.51	1,378,244.08
17	W6 H.B./BR# 8	+3+88.04 = +1+64.92	555,516.19	1,378,274.91
18	W6 H.B.	+4+37.05	555,543.63	1,378,316.46

* WATERLINE 'W'
H.B. = HORIZONTAL BEND
BR# = BEND ROTATION

UTILITY NOTES:

- 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.
- PLACE ALL EXCAVATED MATERIAL ON THE UPHILL SIDE OF THE TRENCH.
- ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.

SANITARY MANHOLE COORDINATE TABLE

MANHOLE NO.	N COORDINATE	E COORDINATE
25	555,535.10	1,378,325.01
26	555,549.72	1,378,274.02
27	555,531.81	1,378,212.77
28	555,428.92	1,378,142.93
29	555,394.55	1,378,022.38

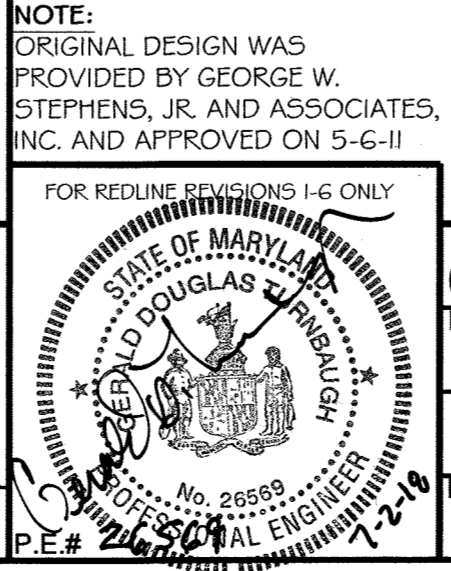
NOTE:
IN THOSE AREAS ALONG SUMMIT ROCK DRIVE, WHERE THE STORM DRAIN PIPE IS LESS THAN 10 HORIZONTAL FEET FROM THE PUBLIC WATER MAIN, HOWARD COUNTY SHALL NOT BE RESPONSIBLE FOR REPAIR OR REPLACEMENT OF THE PRIVATE STORM DRAIN DUE TO ANY DAMAGE TO THAT STORM DRAIN OCCURRING DURING REPAIR AND/OR MAINTENANCE TO THE PUBLIC WATER MAIN.

WATER LINE STA. 0+00 = 95+50
CONTRACTOR TO CONNECT PROPOSED 12" WATERLINE TO EXISTING 16" WATERLINE PER CONTRACT NO. 715W
12" X 12" TAPPING SLEEVE, 12" VALVE AND VAULT CONTRACTOR SHOULD TEST FIT FOR EXACT DEPTH AND LOCATION PRIOR TO CONSTRUCTION. SEE EX. APPROVED PUBLIC CONSTRUCTION DRAWINGS.

CONTRACTOR NOTE:
THE EXISTING 16-INCH WATER MAIN IN MEADOWRIDGE ROAD INSTALLED UNDER HOWARD COUNTY CONTRACT NO. 713-W HAS BEEN REPLACED. HOWARD COUNTY CONTRACT NO. 44-4164 INSTALLED A NEW 16-INCH MAIN. AS PART OF THE NEW CONSTRUCTION, A 16-INCH X 12-INCH TEE, 12-INCH VALVE AND 25-FEET ± OF 12-INCH PIPE WERE INSTALLED TO SERVICE THE CORRIDOR 95 BUSINESS PARK.

REMOVE EXISTING 12" CAP AND BUTTRESS FOR CONNECTION. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF EXISTING 12" CAP AND BUTTRESS BEFORE LAYING ANY PIPE.

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. 26569, EXPIRATION DATE: 07/31/19.



FOR REDLINE REVISIONS 1-6 ONLY

NO.	REVISION	DATE
1	PROVIDE A CLEAN SET OF PLANS. REMOVE ANY MENTION OF STAGE II	5-10-18
2	ADD HOSPITAL WATER AND SANITARY SEWER CONNECTIONS	3-11-18
3	TO INCREASE 1" WATER SERVICE TO 2" SERVICE	2-2-16
4	RELOCATE FIRE HYDRANTS/ 12" CONNECTION IRRIGATION METER,	3-16-15
5	DELETE FIRE HYDRANT	
6	SHOW STAGES 1 AND 2 FOR COORDINATION WITH SDP-08-082 REV. 1,	5-21-14
7	AND QUANTITIES FOR AUTOMATIC FLUSHING DEVICE	

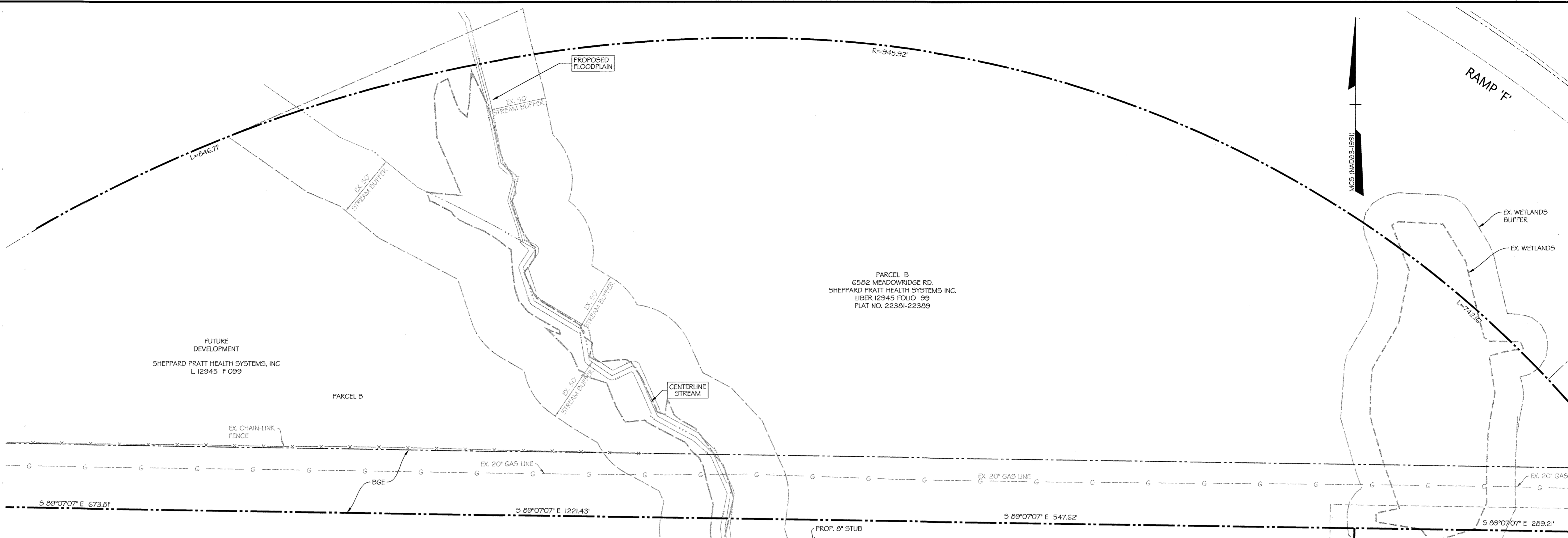
PLAN SHEET - WATER & SAN. SEWER

WATER AND SEWER PLAN CORRIDOR 95 BUSINESS PARK STAGE I

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND CHIEF - BUREAU OF UTILITIES - DATE: 7/10/18	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE: 7/10/18	DAFT MCCUNE WALKER, INC. 301 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286 P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM	SHEPPARD PRATT HEALTH SYSTEM INC. 6501 N. CHARLES ST BALTIMORE, MD 21285-6815 410-936-3242	REPLACEMENT SHEET	SCALE: AS SHOWN
				CONTRACT NO. 14-4576-D	ELECTION DISTRICT: 1ST HOWARD CO., MARYLAND

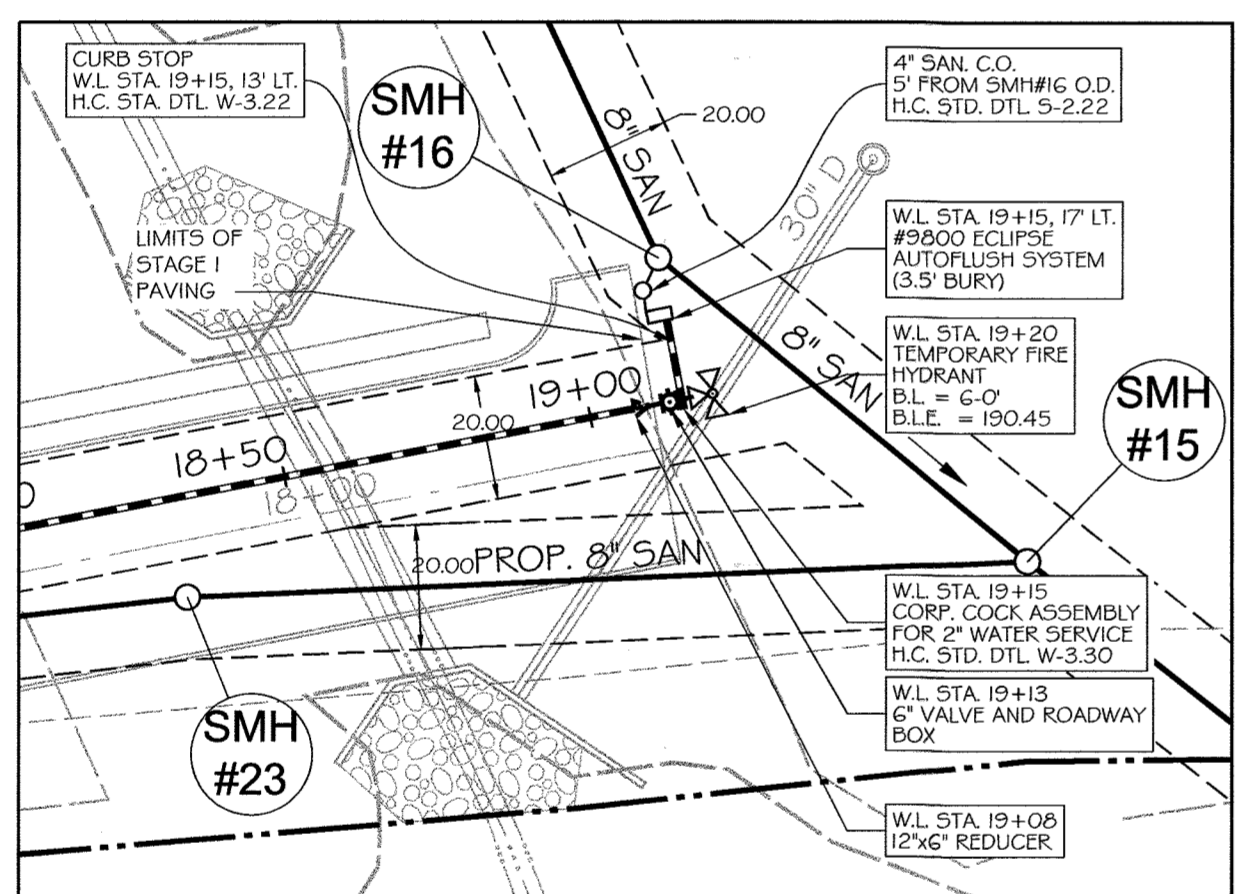
FOR DETAIL OF #9800 ECLIPSE AUTOMATIC FLUSHING DEVICE GO TO: www.hydrants.com

NOTE:
THE AUTOMATIC FLUSHING DEVICE SHALL BE OWNED AND MAINTAINED BY THE DEVELOPER, BUT SHALL BE OPERATED BY HOWARD COUNTY.
THE COUNTY'S OWNERSHIP AND THE CONTRACTOR'S ONE YEAR WARRANTY PERIOD ON THE MAIN SHALL NOT BEGIN UNTIL THE HOSPITAL OR AN OFFICE BUILDING IS CONNECTED AND THE WATERMAIN IS IN USEFUL SERVICE. THE AUTOMATIC FLUSHING DEVICE SHALL BE REMOVED AND THE 2" TAP AND 6" DRAIN LINE AND CLEANOUT SHALL BE ABANDONED (BY THE DEVELOPER) AT THIS TIME.



UTILITY NOTES:

- 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.
- PLACE ALL EXCAVATED MATERIAL ON THE UPHILL SIDE OF THE TRENCH.
- ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.

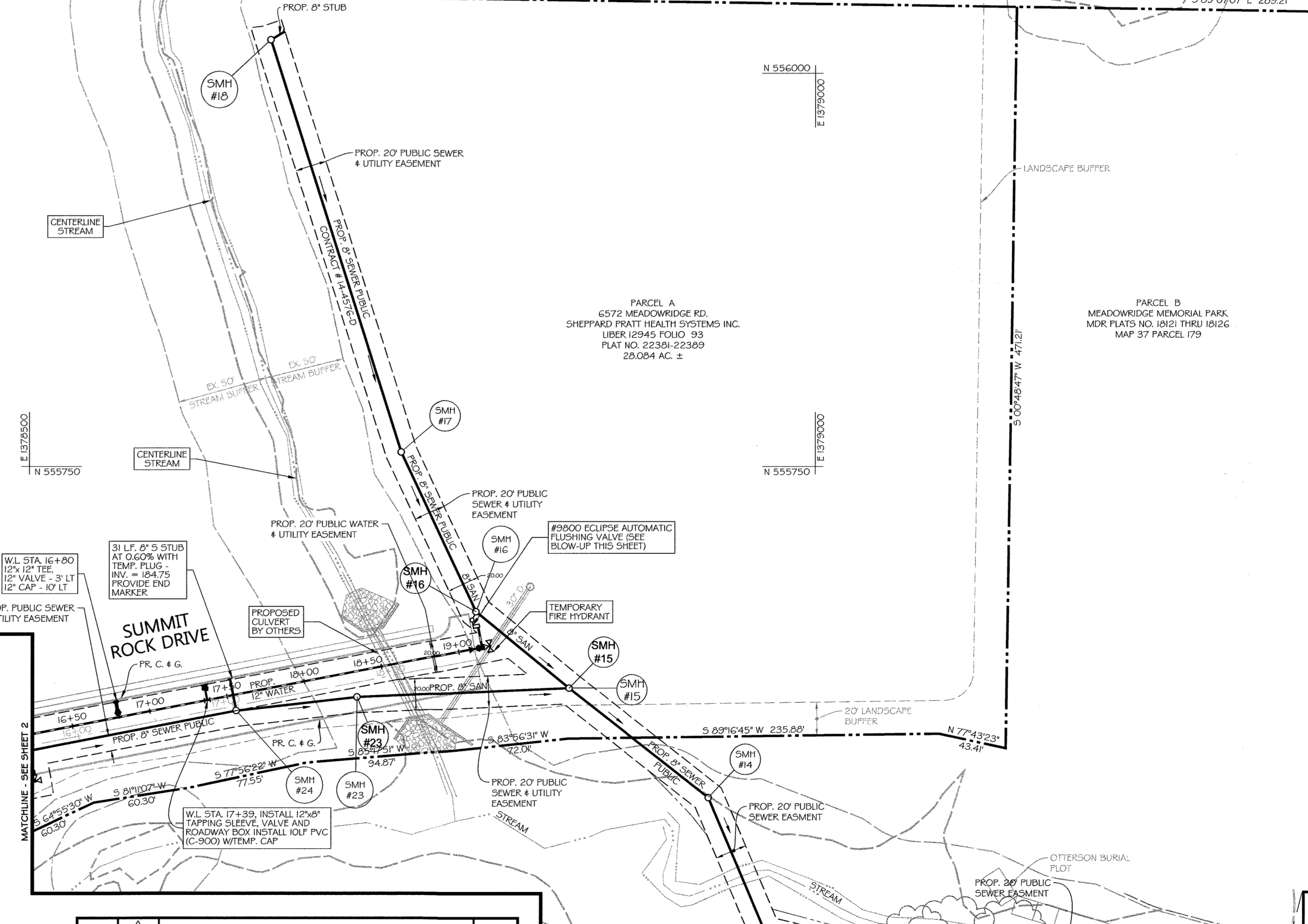
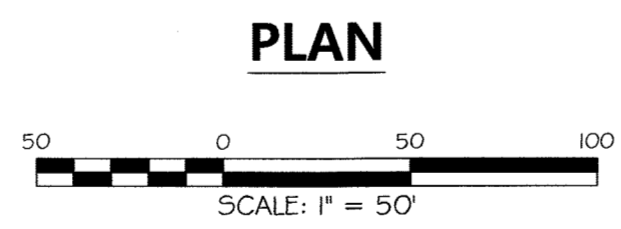


STAGE 1 TEMPORARY FLUSHING VALVE & FIRE HYDRANT BLOW-UP

SANITARY MANHOLE COORDINATE TABLE

MANHOLE NO.	N COORDINATE	E COORDINATE
14	555,527.41	1,378,915.50
15	555,608.32	1,378,840.40
16	555,656.00	1,378,781.19
17	555,758.13	1,378,733.58
18	556,020.10	1,378,650.61
23	555,602.47	1,378,705.58
24	555,593.78	1,378,628.77

NOTES:
VALVES ON NEW WATER STUBS TO REMAIN CLOSED UNTIL FUTURE MAINS ARE INSTALLED AND READY FOR IN-SERVICE INSPECTION.



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

[Signature]
CHIEF - BUREAU OF UTILITIES - DATE: 7/16/18

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

[Signature]
CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE: 7/16/18

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. 26569, EXPIRATION DATE: 07/20/19.

DMW
DAFT MCCUNE WALKER INC.

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

NOTE:
ORIGINAL DESIGN WAS PROVIDED BY GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC. AND APPROVED ON 5-6-11.

FOR REDLINE REVISIONS 1-6 ONLY

STATE OF MARYLAND
DOUGLAS TIRRELL
Professional Engineer
No. 28989
P.E. # 28989

BY	NO.	REVISION	DATE
DMW	1	PROVIDE A CLEAN SET OF PLANS. REMOVE ANY MENTION OF STAGE II	5-10-18
DMW	2	ADD HDSP, WATER AND SANITARY SEWER SERVICE CONNECTION	1-11-18
DMW	3	REMOVE STAGE 2 FROM STAGE 1 SET	7-20-16
DMW	4	INSTALL SMH #19 FROM STAGE 1 TO STAGE 2	2-2-16
DMW	5	STUB @ SMH #24 12" WATER CONNECTION	3-16-15
DMW	6	SHOW STAGES 1 AND 2 FOR COORDINATION SDP-08-082 REV.1, ADD #9800 ECLIPSE AUTO FLUSHING SYSTEM, TEMP FIRE HYDRANT, SAN. CLEANOUT AND 30 SCALE BLOWUP AND DETAIL REFERENCE	5-21-14

DESIGN BY: GOT, PLH
DRAWN BY: GMD
CHECKED BY: PLH
DATE: 6/25/18

PLAN SHEET - SAN. SEWER & WATER MAIN

600 SCALE MAP NO. 37 BLOCK NO. 8

**WATER AND SEWER PLAN
CORRIDOR 95 BUSINESS PARK
STAGE I**

CONTRACT NO. 14-4576-D

ELECTION DISTRICT: 1ST
HOWARD CO., MARYLAND

OWNER / DEVELOPER:
SHEPPARD PRATT HEALTH SYSTEMS INC
6501 N. CHARLES ST
BALTIMORE, MD 21285-6815
410-938-3242

SCALE:
AS SHOWN

SHEET
3 of 9

DATE: 6/25/2018

PARCEL 'B'
MEADOWRIDGE BUSINESS CENTER
PARCELS 'A' AND 'B'
A RESUBDIVISION OF
MEADOWRIDGE BUSINESS CENTER
MDR PLATS NO. 21333 THRU 21336
F II-029
MAP 37 PARCEL 179
SCI FUNERAL SERVICES OF MD, INC
MEADOWRIDGE MEMORIAL PARK
LIBER B.M., JR. 151 FOLIO 52

TAX MAP 37, PARCEL 134
STATE OF MARYLAND
LIBER 325, FOLIO 160
M-1

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
STATE ROADS COMMISSION
PLAT NO. 57325

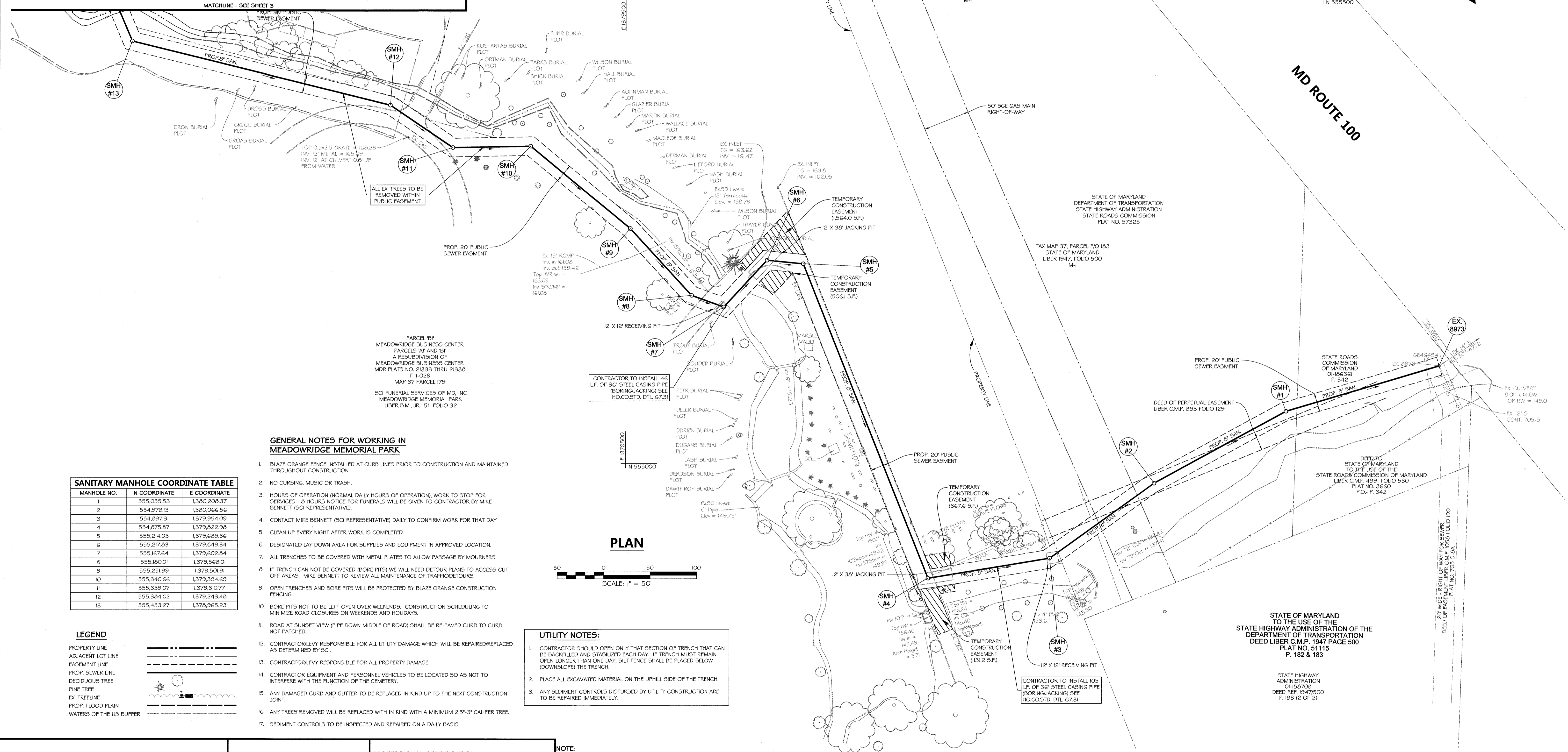
TAX MAP 37, PARCEL 103
STATE OF MARYLAND
LIBER 1947, FOLIO 500
M-1

STATE OF MARYLAND
TO THE USE OF THE
STATE HIGHWAY ADMINISTRATION OF MARYLAND
LIBER C.M.P. 489 FOLIO 530
PLAT NO. 3660
P. 342

STATE OF MARYLAND
TO THE USE OF THE
STATE HIGHWAY ADMINISTRATION OF MARYLAND
LIBER C.M.P. 1947 PAGE 500
PLAT NO. 51115
P. 182 & 183

STATE HIGHWAY
ADMINISTRATION
01-15-0708
DEED REF. 1947500
P. 183 (2 OF 2)

OWNER / DEVELOPER:
SHEPPARD PRATT HEALTH SYSTEM INC
6501 N. CHARLES ST
BALTIMORE, MD 21285-6815
410-936-3242



GENERAL NOTES FOR WORKING IN MEADOWRIDGE MEMORIAL PARK

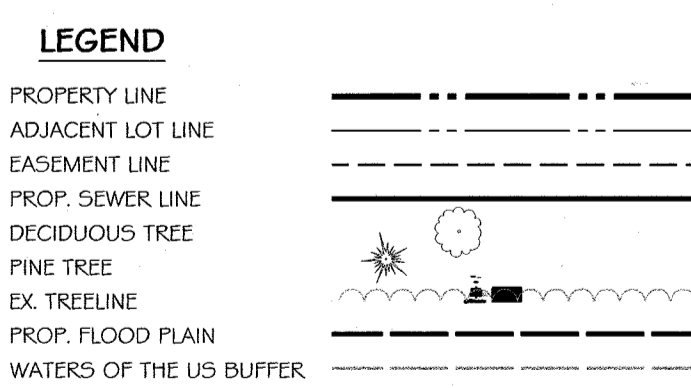
- BLAZE ORANGE FENCE INSTALLED AT CURB LINES PRIOR TO CONSTRUCTION AND MAINTAINED THROUGHOUT CONSTRUCTION.
- NO CURSING, MUSIC OR TRASH.
- HOURS OF OPERATION (NORMAL DAILY HOURS OF OPERATION), WORK TO STOP FOR SERVICES - 8 HOURS NOTICE FOR FUNERALS WILL BE GIVEN TO CONTRACTOR BY MIKE BENNETT (SCI REPRESENTATIVE).
- CONTACT MIKE BENNETT (SCI REPRESENTATIVE) DAILY TO CONFIRM WORK FOR THAT DAY.
- CLEAN UP EVERY NIGHT AFTER WORK IS COMPLETED.
- DESIGNATED LAY DOWN AREA FOR SUPPLIES AND EQUIPMENT IN APPROVED LOCATION.
- ALL TRENCHES TO BE COVERED WITH METAL PLATES TO ALLOW PASSAGE BY MOURNERS.
- IF TRENCH CAN NOT BE COVERED (BORE PITS) WE WILL NEED DETOUR PLANS TO ACCESS CUT OFF AREAS. MIKE BENNETT TO REVIEW ALL MAINTENANCE OF TRAFFIC DETOURS.
- OPEN TRENCHES AND BORE PITS WILL BE PROTECTED BY BLAZE ORANGE CONSTRUCTION FENCING.
- BORE PITS NOT TO BE LEFT OPEN OVER WEEKENDS. CONSTRUCTION SCHEDULING TO MINIMIZE ROAD CLOSURES ON WEEKENDS AND HOLIDAYS.
- ROAD AT SUNSET VIEW (PIPE DOWN MIDDLE OF ROAD) SHALL BE RE-PAVED CURB TO CURB, NOT PATCHED.
- CONTRACTOR/LEVY RESPONSIBLE FOR ALL UTILITY DAMAGE WHICH WILL BE REPAIRED/REPLACED AS DETERMINED BY SCI.
- CONTRACTOR/LEVY RESPONSIBLE FOR ALL PROPERTY DAMAGE.
- CONTRACTOR EQUIPMENT AND PERSONNEL VEHICLES TO BE LOCATED SO AS NOT TO INTERFERE WITH THE FUNCTION OF THE CEMETERY.
- ANY DAMAGED CURB AND GUTTER TO BE REPLACED IN KIND UP TO THE NEXT CONSTRUCTION JOINT.
- ANY TREES REMOVED WILL BE REPLACED WITH IN KIND WITH A MINIMUM 2.5"-3" CALIPER TREE.
- SEDIMENT CONTROLS TO BE INSPECTED AND REPAIRED ON A DAILY BASIS.

UTILITY NOTES:

- 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.
- PLACE ALL EXCAVATED MATERIAL ON THE UPHILL SIDE OF THE TRENCH.
- ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.

SANITARY MANHOLE COORDINATE TABLE

MANHOLE NO.	N COORDINATE	E COORDINATE
1	555,055.53	1,380,206.37
2	554,976.13	1,380,066.56
3	554,897.31	1,379,954.09
4	554,875.67	1,379,822.98
5	555,214.03	1,379,686.36
6	555,217.03	1,379,649.34
7	555,167.64	1,379,602.84
8	555,160.01	1,379,566.01
9	555,251.99	1,379,501.91
10	555,340.66	1,379,394.69
11	555,339.07	1,379,310.77
12	555,384.62	1,379,243.48
13	555,453.27	1,378,965.23

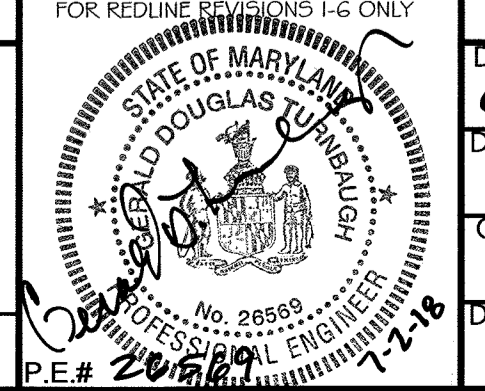


SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE HOWARD COUNTY DESIGN MANUAL VOL. IV

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. 26563, EXPIRATION DATE 07/18/19.

NOTE:
ORIGINAL DESIGN WAS PROVIDED BY GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC. AND APPROVED ON 5-6-11



DESIGN BY:	GWT, PLH
DRAWN BY:	GMO
CHECKED BY:	PLH
DATE:	6/25/18
DATE:	6/25/18
BY:	NO.
REVISION	DATE
PROVIDE A CLEAN SET OF PLANS. REMOVE ANY MENTION OF STAGE II	5-10-18
SHOW STAGES 1 AND 2 FOR COORDINATION WITH SDP-08-082 REV1	5-21-14

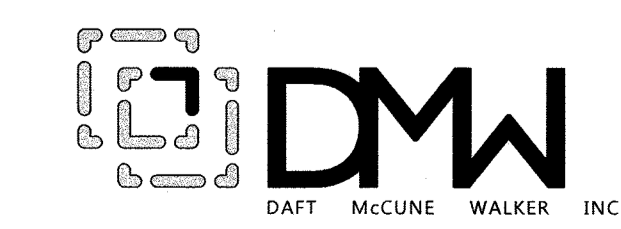
PLAN SHEET - PUBLIC SEWER

WATER AND SEWER PLAN CORRIDOR 95 BUSINESS PARK STAGE I

CONTRACT NO. 14-4576-D

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND



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

CHIEF - BUREAU OF UTILITIES - DATE

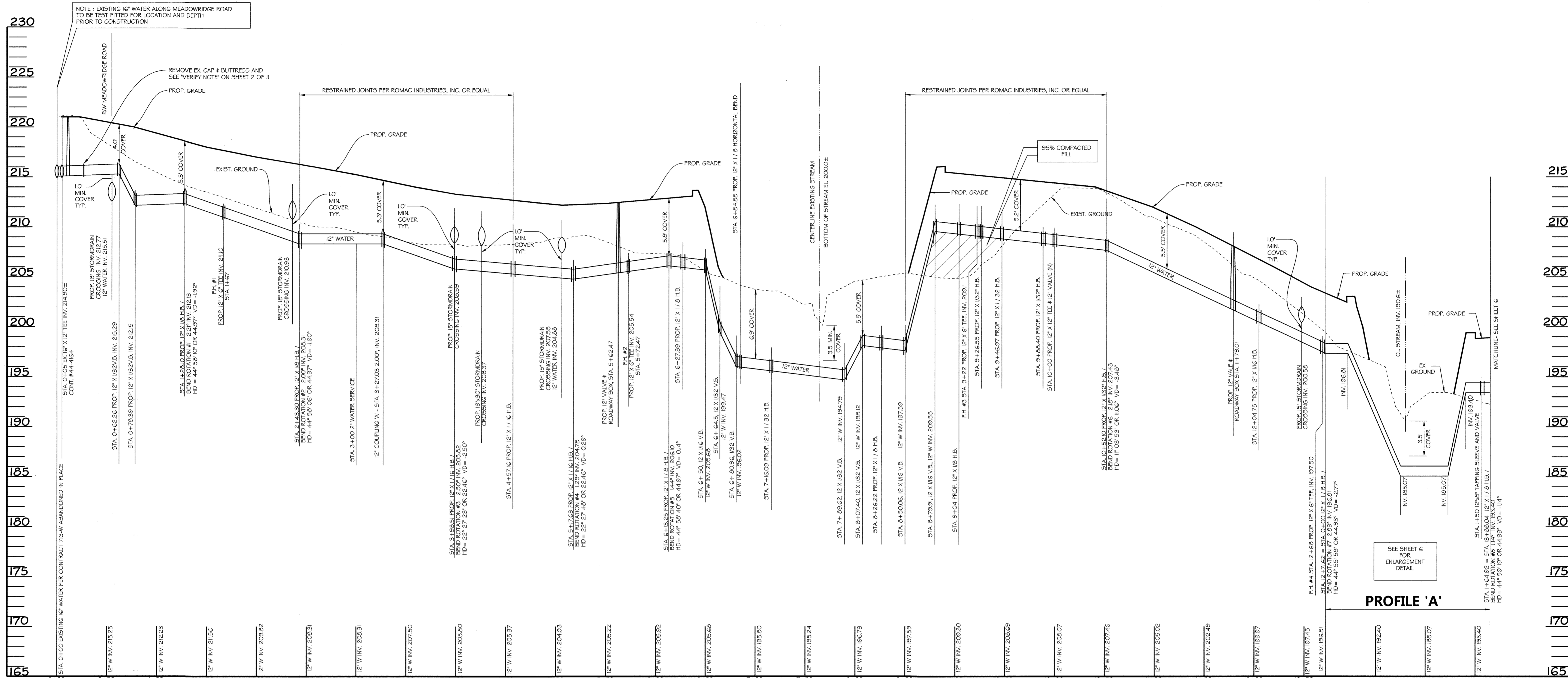
CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE

ELECTION DISTRICT: 1ST
HOWARD CO., MARYLAND

DATE: 6/25/2018

SCALE: AS SHOWN
SHEET 4 of 9

P:\01050105\050105\CADD\HESS\SLITTING STAGE AND 1 WATER AND SEWER PLANS\STAGE 1\DWG_1448_SHEET 04.DWG FRI JUN 29, 2018



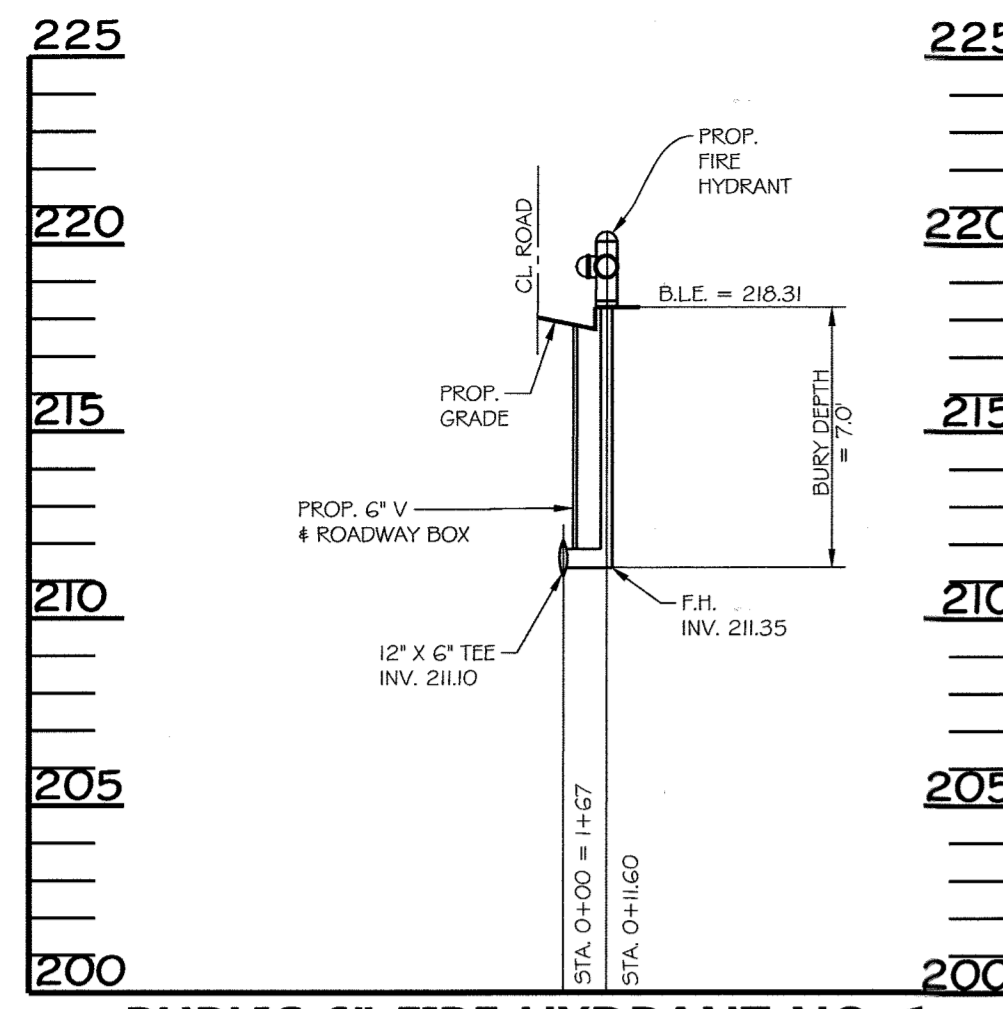
WATERLINE PROFILE FROM STA. 0+00 TO 12+71.62, PROFILE 'A' - STA. 0+00 TO STA. 1+64.92

BEND	ROTATION	SCHEDULE			
BEND ROTATION NO.	STATION	INVERT ELEVATION	HORIZONTAL BEND	HORIZONTAL DEFLECTION	VERTICAL DEFLECTION
1	1 + 28.10	212.13	45.00°	44° 58' 10" or 44.97°	-1.92'
2	2 + 43.30	208.31	45.00°	44° 58' 06" or 44.97°	-1.90'
3	3 + 98.51	205.82	22.50°	22° 27' 23" or 22.46°	-2.50'
4	5 + 17.63	204.78	22.50°	22° 27' 48" or 22.46°	0.29'
5	6 + 13.25	206.10	45.00°	44° 58' 40" or 44.98°	0.14'
6	10 + 52.10	207.43	11.25°	11° 03' 53" or 11.06°	-3.48'
7	12 + 71.62	196.81	45.00°	44° 55' 58" or 44.93°	-2.77'
8	13 + 88.04	193.40	45.00°	44° 59' 19" or 44.99°	-1.14'
9	19 + 30.31	190.31	11.25°	11° 13' 42" or 11.23°	-1.56'
10	22 + 21.13	188.85	45.00°	44° 59' 30" or 44.99°	1.80'
11	29 + 46.90	213.90	45.00°	44° 57' 39" or 44.96°	2.12'

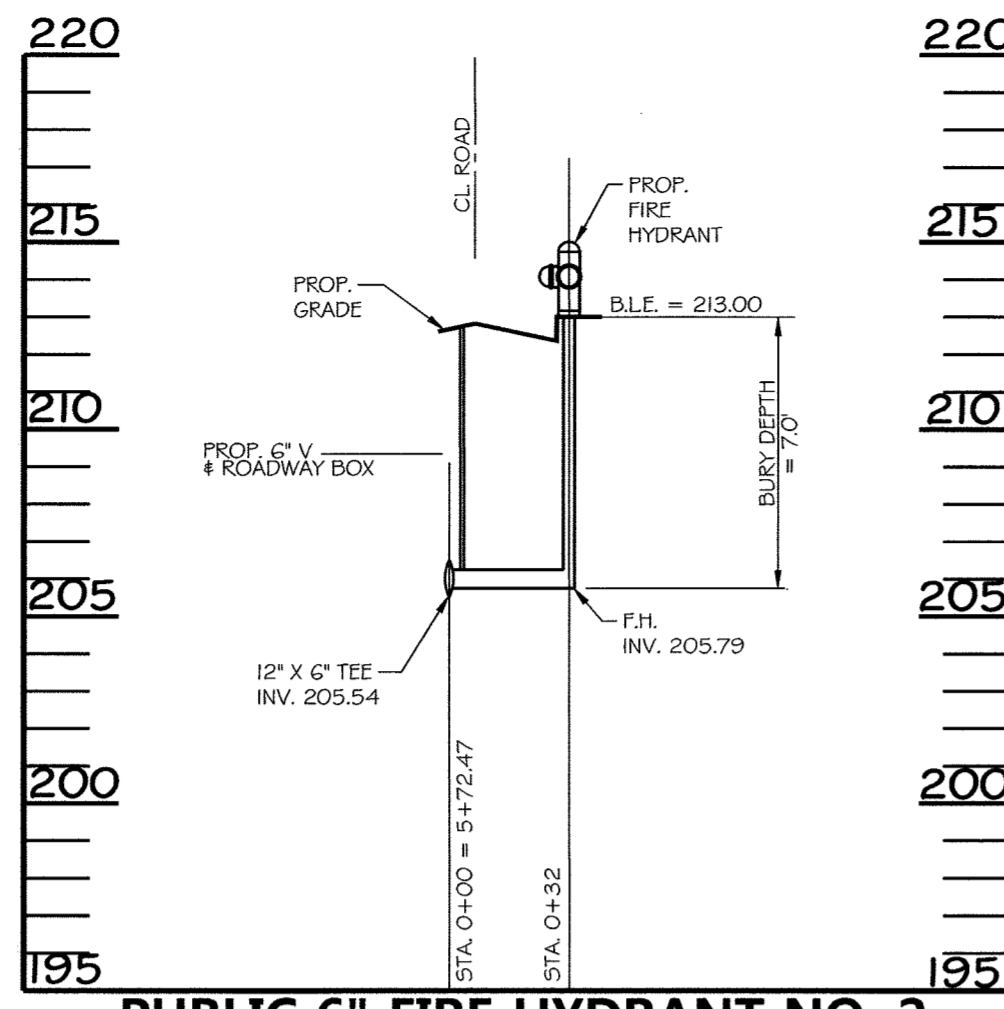
SCALE: HORIZ. 1"=50'
VERT. 1"=5'

PHOTOGRAPHICALLY ENLARGED FROM ORIGINAL DRAWING. SHEET 1 OF 2. DATE: JUN 29, 2018

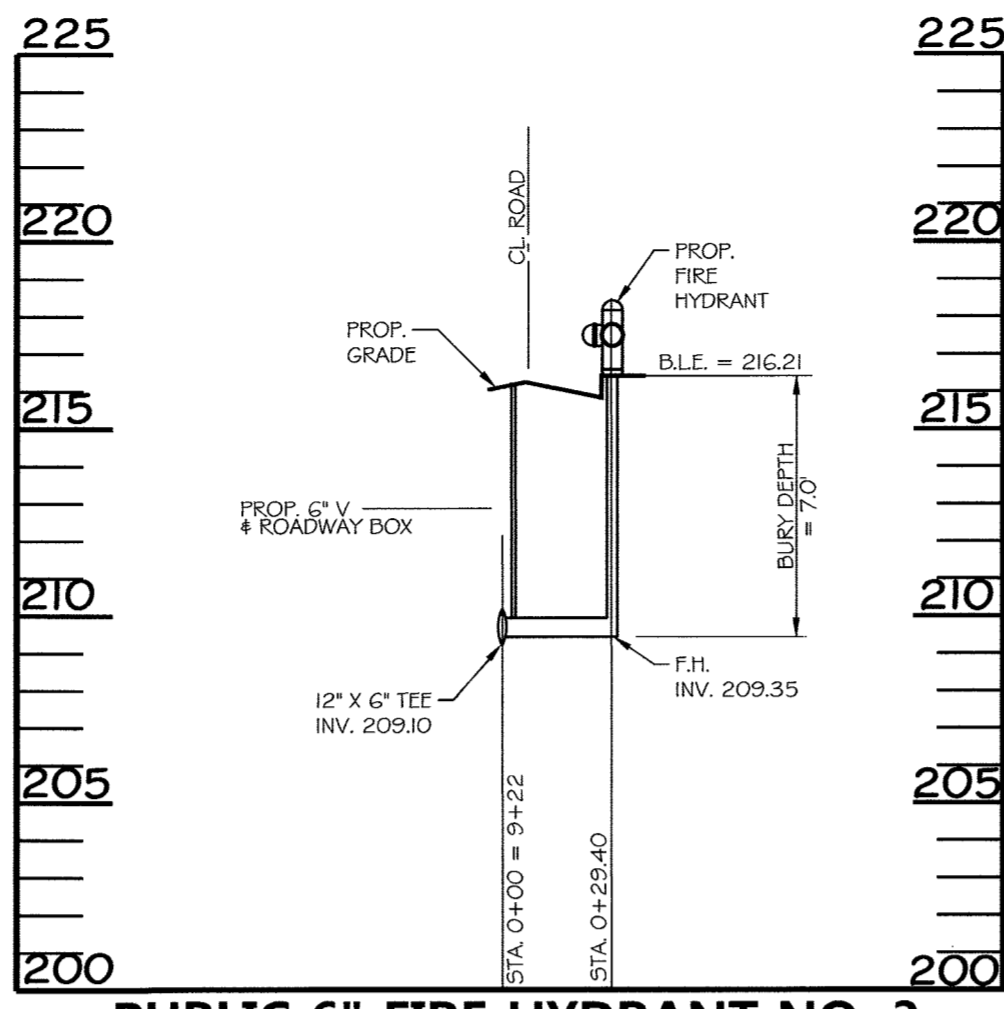
<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>[Signature]</i> CHIEF - BUREAU UTILITIES - DATE</p>	<p>DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND</p> <p><i>[Signature]</i> CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE</p>	<p>PROFESSIONAL CERTIFICATION</p> <p>I HEREBY CERTIFY 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. 26563, EXPIRATION DATE: 07/31/2019.</p>	<p>NOTE: ORIGINAL DESIGN WAS PROVIDED BY GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC. AND APPROVED ON 5-6-11</p> <p>FOR REDLINE REVISIONS 1-6 ONLY</p> <p><i>[Professional Seal]</i></p>	<p>DESIGN BY: G07, PLM DRAWN BY: GMD CHECKED BY: PLM DATE: 6/25/18</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>BY</th> <th>NO.</th> <th>REVISION</th> <th>DATE</th> </tr> <tr> <td>DMW</td> <td>1</td> <td>PROVIDE A CLEAN SET OF PLANS. REMOVE ANY MENTION OF STAGE II</td> <td>5-10-18</td> </tr> <tr> <td>DMW</td> <td>2</td> <td>ADD HOSPITAL WATER AND SANITARY SEWER SERVICE CONNECTION</td> <td>1-11-18</td> </tr> <tr> <td>DMW</td> <td>3</td> <td>INCREASE 1" WATER SERVICE TO 2" SERVICE</td> <td>2-02-16</td> </tr> <tr> <td>DMW</td> <td>4</td> <td>RELOCATE 12" 6" F.H. TEE, 2" WATER SERVICE</td> <td>3-16-15</td> </tr> <tr> <td>DMW</td> <td>5</td> <td>SHOW STAGES 1 AND 2 FOR COORDINATION WITH SDP-08-082 REV1</td> <td>5-21-14</td> </tr> </table>	BY	NO.	REVISION	DATE	DMW	1	PROVIDE A CLEAN SET OF PLANS. REMOVE ANY MENTION OF STAGE II	5-10-18	DMW	2	ADD HOSPITAL WATER AND SANITARY SEWER SERVICE CONNECTION	1-11-18	DMW	3	INCREASE 1" WATER SERVICE TO 2" SERVICE	2-02-16	DMW	4	RELOCATE 12" 6" F.H. TEE, 2" WATER SERVICE	3-16-15	DMW	5	SHOW STAGES 1 AND 2 FOR COORDINATION WITH SDP-08-082 REV1	5-21-14	<p style="text-align: center; font-size: 2em; font-weight: bold;">WATER PROFILE</p>	<p style="text-align: center; font-weight: bold;">REPLACEMENT SHEET</p> <p style="text-align: center; font-weight: bold;">WATER AND SEWER PLAN CORRIDOR 95 BUSINESS PARK STAGE I</p> <p style="text-align: center;">CONTRACT NO. 14-4576-D</p> <p style="text-align: center;">ELECTION DISTRICT: 1ST HOWARD CO., MARYLAND</p>	<p>OWNER / DEVELOPER: SHEPPARD PRATT HEALTH SYSTEM INC 6501 N. CHARLES ST BALTIMORE, MD 21285-6815 410-938-3242</p>	<p>SCALE: AS SHOWN</p> <p>SHEET 5 of 9</p>
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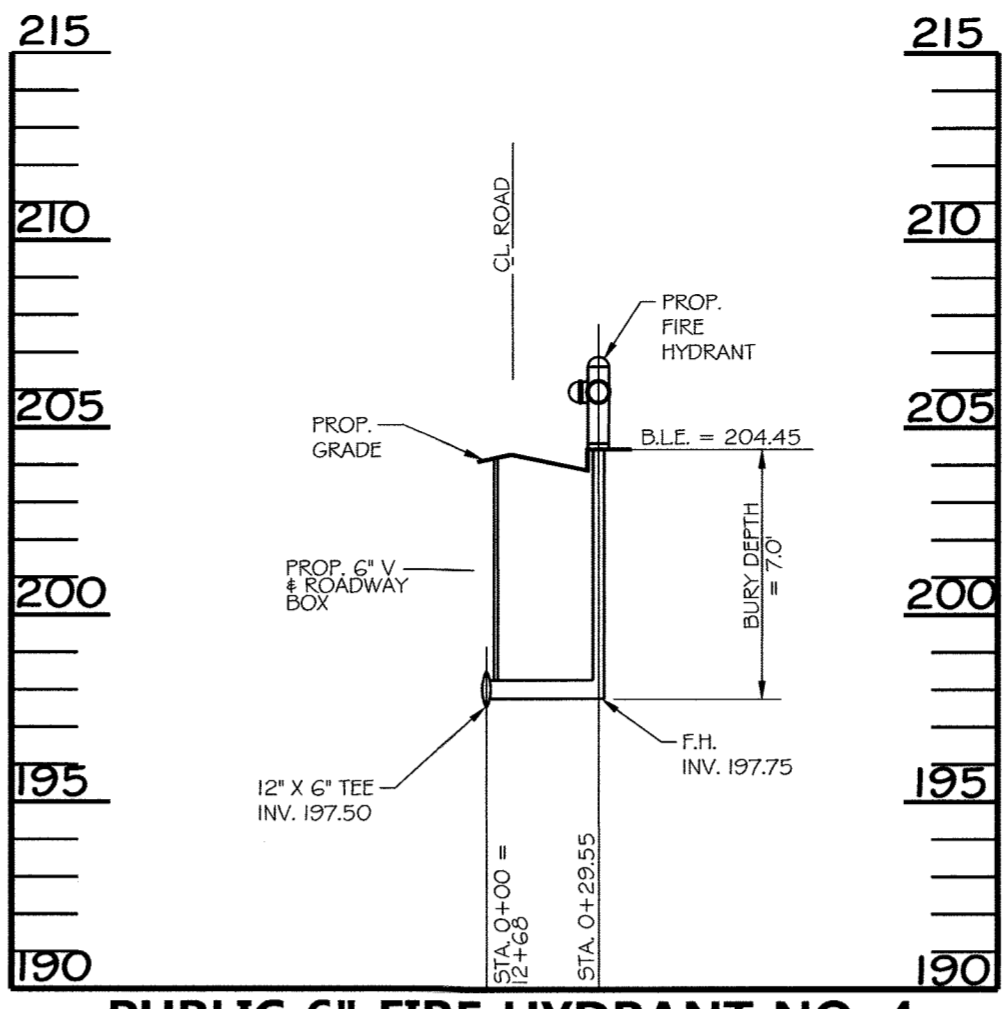
PUBLIC 6" FIRE HYDRANT NO. 1
SCALE: HORIZ. 1" = 50'
VERT. 1" = 5'



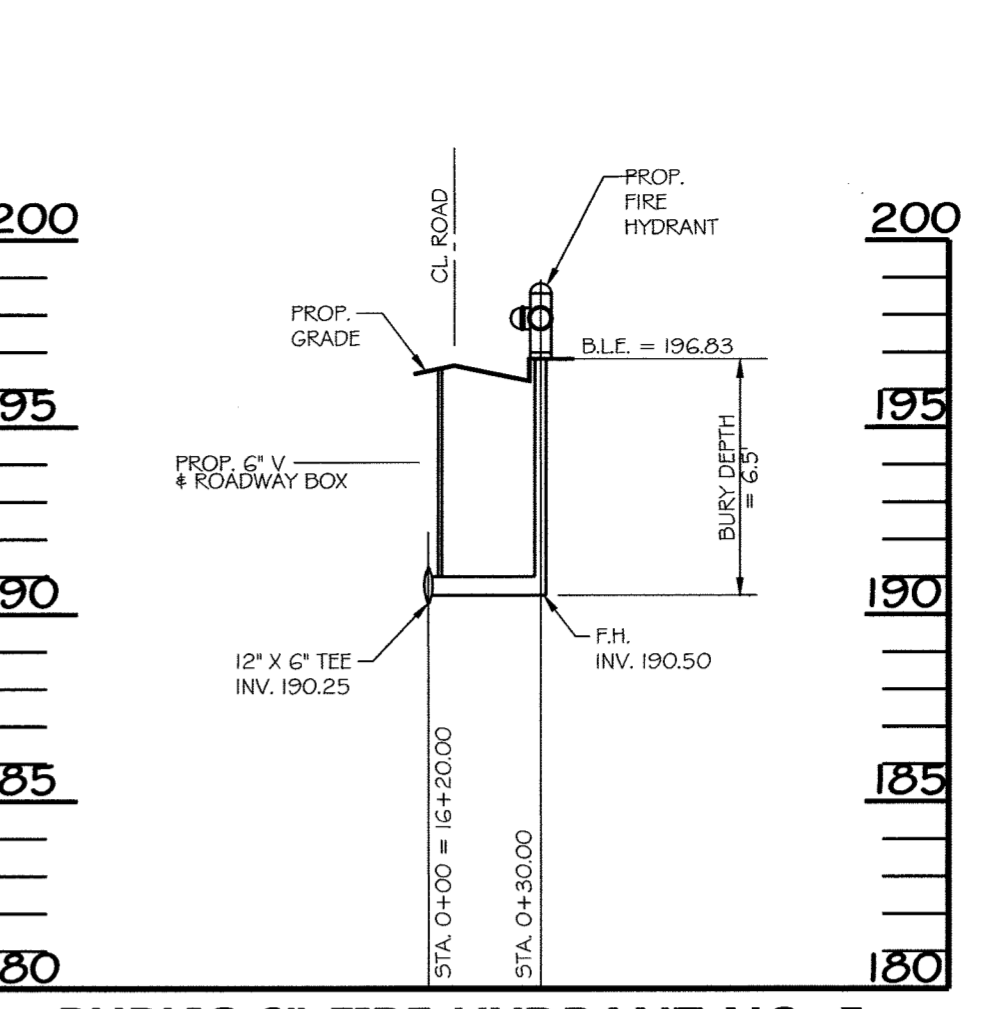
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SCALE: HORIZ. 1" = 50'
VERT. 1" = 5'



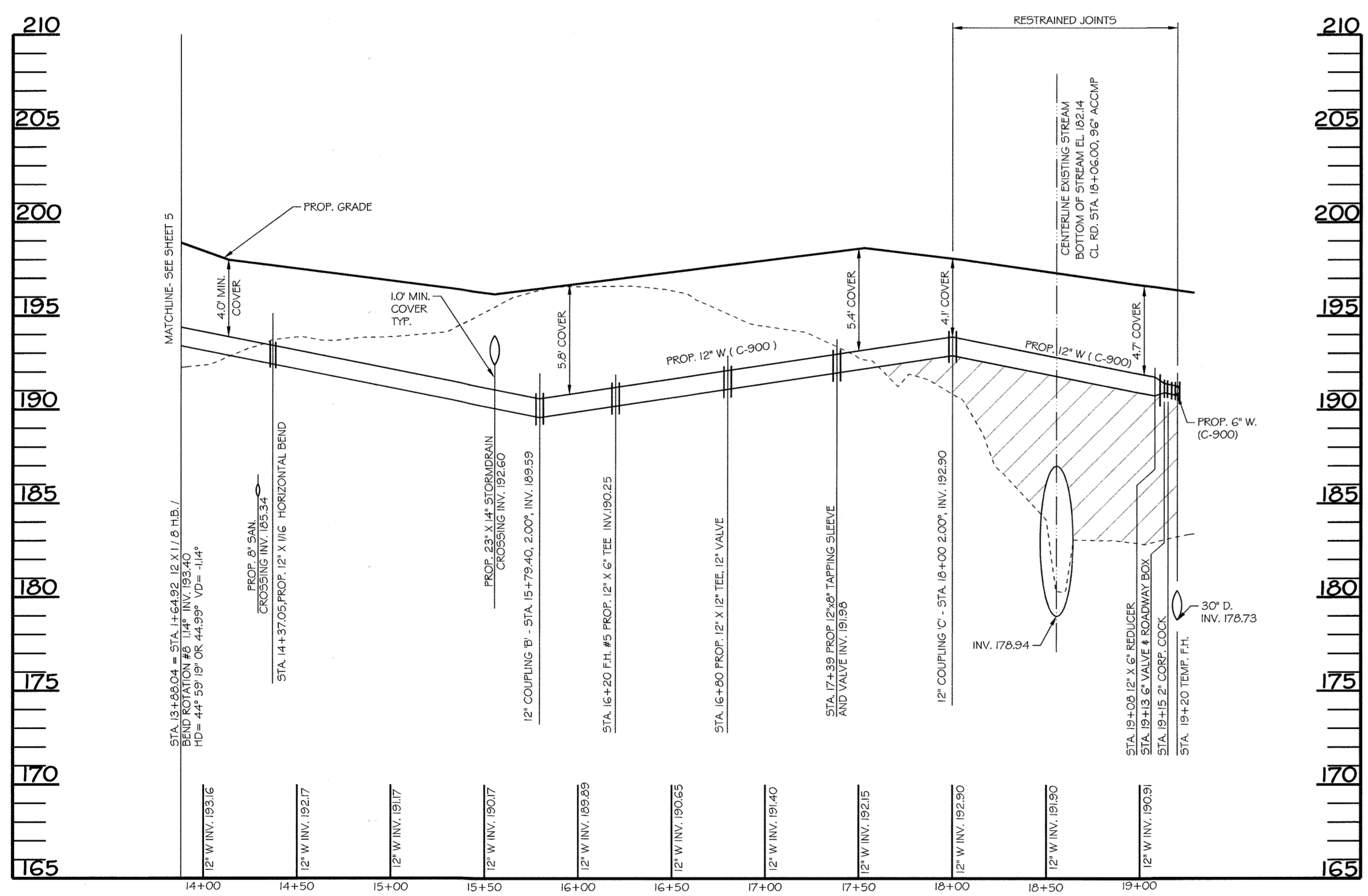
PUBLIC 6" FIRE HYDRANT NO. 3
SCALE: HORIZ. 1" = 50'
VERT. 1" = 5'



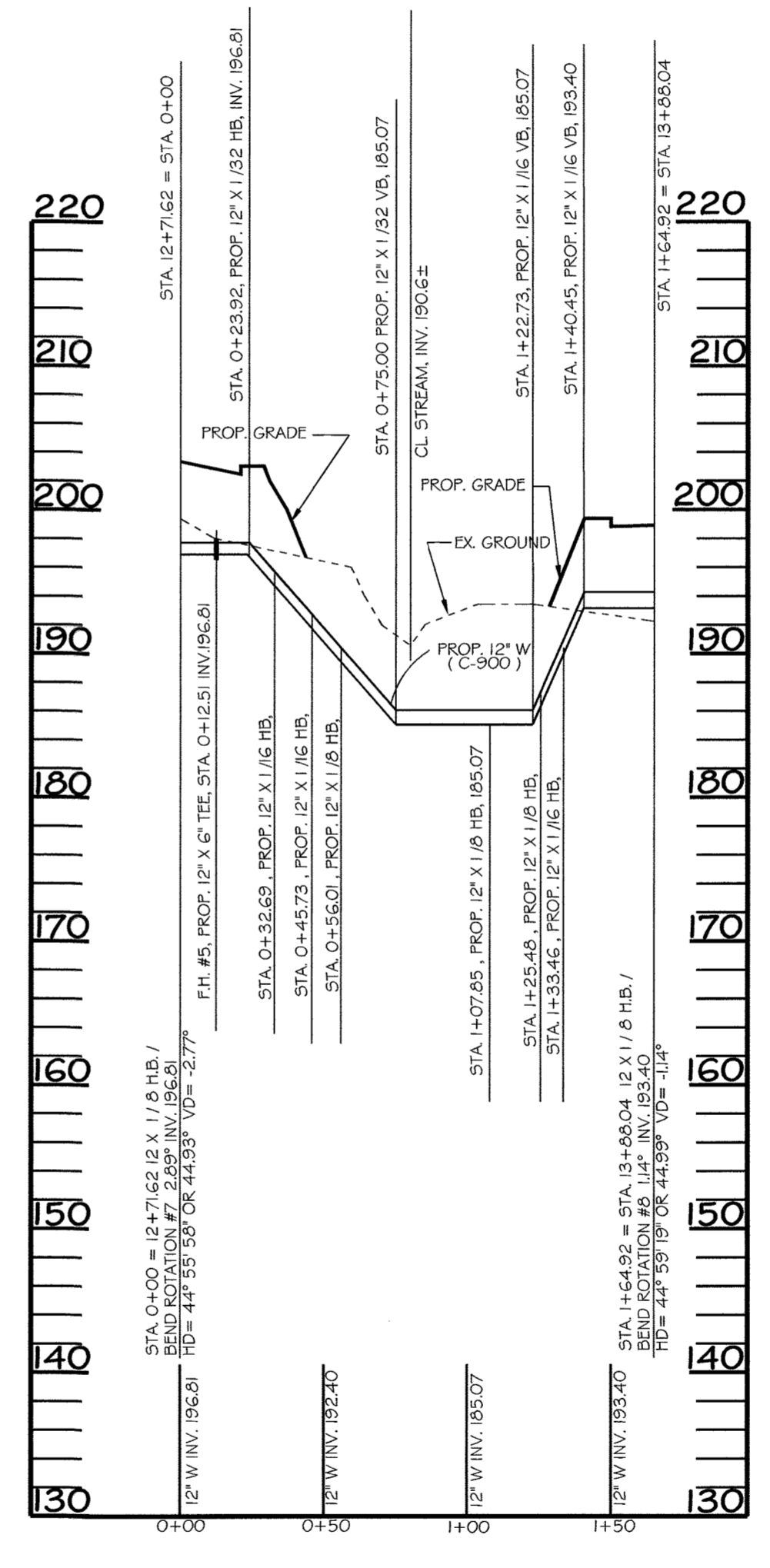
PUBLIC 6" FIRE HYDRANT NO. 4
SCALE: HORIZ. 1" = 50'
VERT. 1" = 5'



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



WATERLINE STATION PROFILE 13+88.04 TO 19+20
SCALE: HORIZ. 1" = 50'
VERT. 1" = 5'

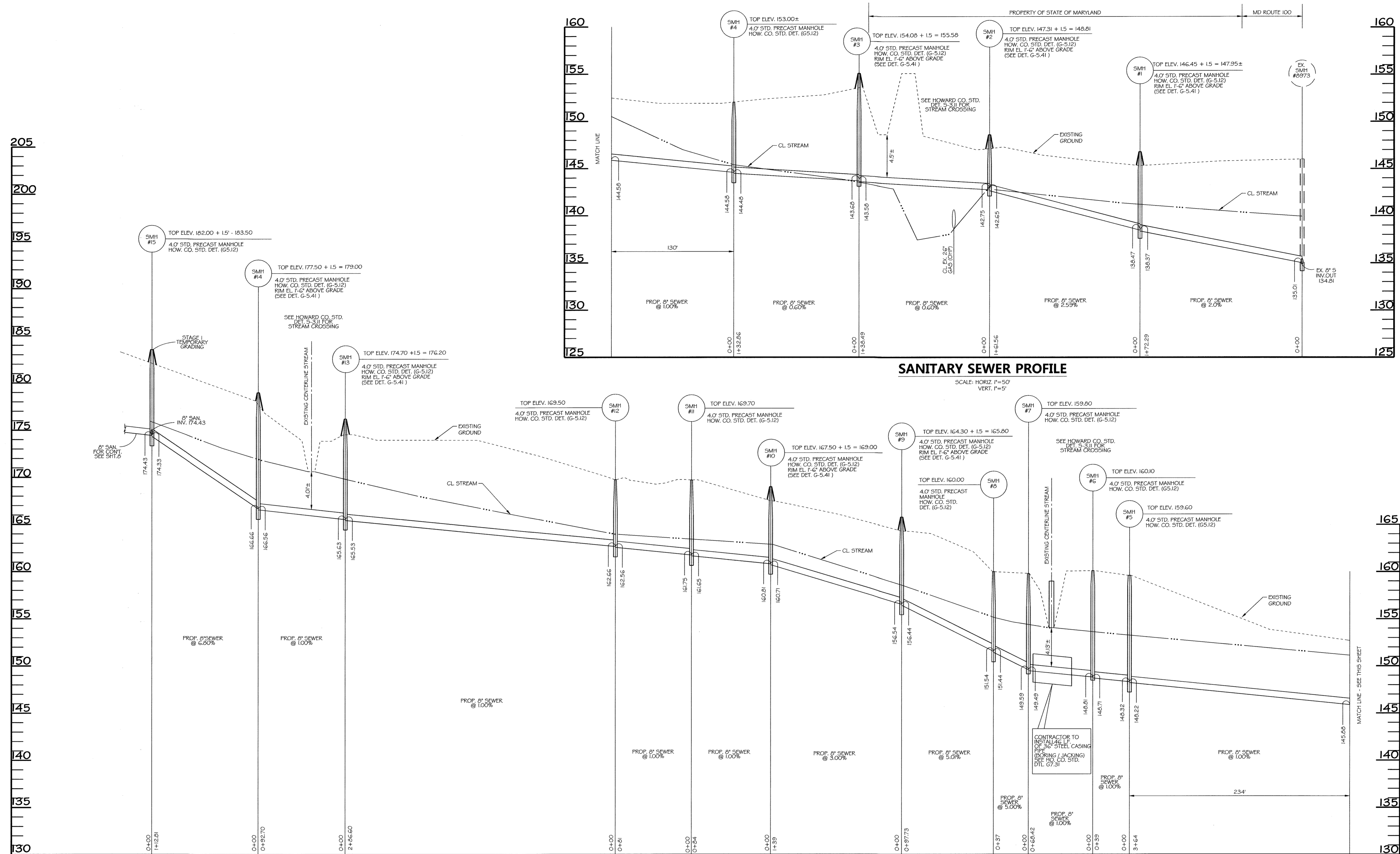


WATERLINE 'A'
WATERLINE STATION PROFILE 0+00 TO 1+64.92
SCALE: HORIZ. 1" = 50'
VERT. 1" = 10'

PHOTOGRAPHIC/CAD REVISION SHEET FOR STAGE 1 WATER AND SEWER PLANS/STAGE WORKSHEET DURING: FR. JUN. 29, 2018

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND CHIEF - BUREAU OF UTILITIES - DATE	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE	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. 26563, EXPIRATION DATE: 07/18/19.	NOTE: ORIGINAL DESIGN WAS PROVIDED BY GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC. AND APPROVED ON 5-6-11.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">DMW</td> <td style="width: 70%;">PROVIDE A CLEAN SET OF PLANS. REMOVE ANY MENTION OF STAGE II</td> <td style="width: 25%;">5-10-18</td> </tr> <tr> <td>DMW</td> <td>ADD HOSPITAL WATER AND SANITARY SEWER SERVICE CONNECTIONS</td> <td>1-11-18</td> </tr> <tr> <td>DMW</td> <td>REMOVE STAGE 2 FROM STAGE 1</td> <td>7-20-16</td> </tr> <tr> <td>DMW</td> <td>F.H. TEE, 12" TEE</td> <td>3-16-15</td> </tr> <tr> <td>DMW</td> <td>SHOW STAGES 1 AND 2 FOR COORDINATION WITH SDP-08-082 REV.1</td> <td>5-21-14</td> </tr> <tr> <td></td> <td>AND STAGE 1 W.L. END APPURTENANCES ALSO SHOW 30" S.D. @</td> <td></td> </tr> <tr> <td></td> <td>STA 19+20</td> <td></td> </tr> </table>	DMW	PROVIDE A CLEAN SET OF PLANS. REMOVE ANY MENTION OF STAGE II	5-10-18	DMW	ADD HOSPITAL WATER AND SANITARY SEWER SERVICE CONNECTIONS	1-11-18	DMW	REMOVE STAGE 2 FROM STAGE 1	7-20-16	DMW	F.H. TEE, 12" TEE	3-16-15	DMW	SHOW STAGES 1 AND 2 FOR COORDINATION WITH SDP-08-082 REV.1	5-21-14		AND STAGE 1 W.L. END APPURTENANCES ALSO SHOW 30" S.D. @			STA 19+20		OWNER / DEVELOPER: SHEPPARD PRATT HEALTH SYSTEM INC 6501 N. CHARLES ST BALTIMORE, MD 21285-6815 410-338-3242
DMW	PROVIDE A CLEAN SET OF PLANS. REMOVE ANY MENTION OF STAGE II	5-10-18																								
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WATER PROFILE				WATER AND SEWER PLAN CORRIDOR 95 BUSINESS PARK STAGE I CONTRACT NO. 14-4576-D																						
DESIGN BY: GOT, PLH DRAWN BY: GMO CHECKED BY: PLH DATE: 6/25/18				SCALE: 600 SCALE MAP NO. <u>37</u> BLOCK NO. <u>8</u>																						
BY NO. REVISION DATE				ELECTION DISTRICT: 1ST HOWARD CO., MARYLAND DATE: 6/25/2018																						

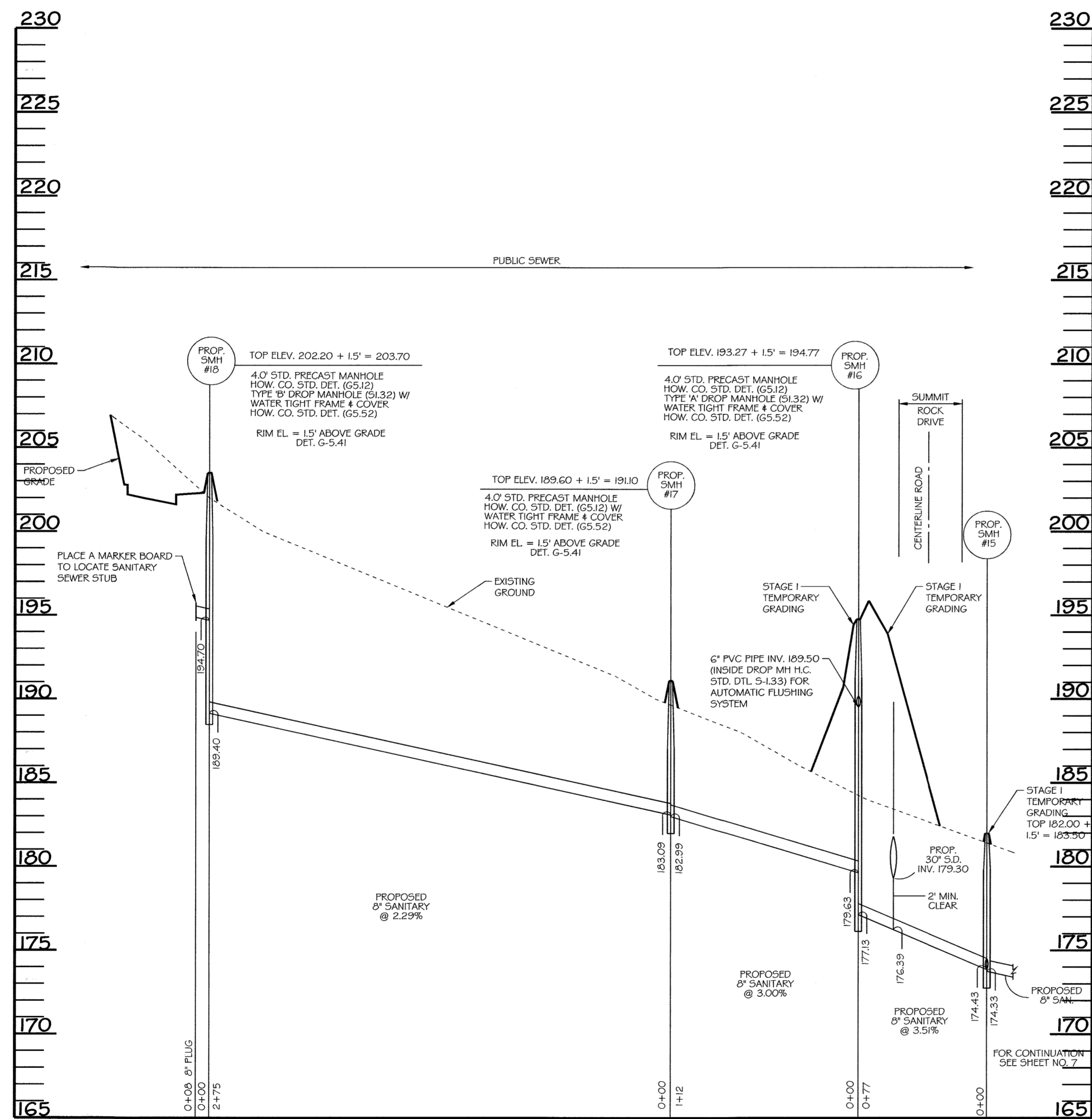
PROPOSED/REVISIONS/REVISIONS/STAGE AND SEWER PLAN/STAGE WORKING, WAS, SHEET 02/DWG. P/L JUN 29, 2008



SANITARY SEWER PROFILE

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

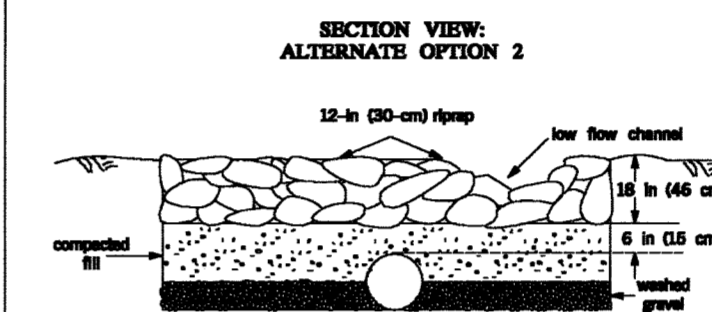
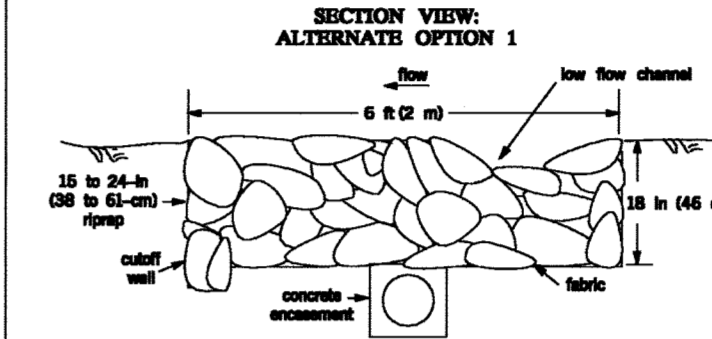
<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>[Signature]</i> CHIEF - BUREAU OF UTILITIES - DATE</p>	<p>DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND</p> <p><i>[Signature]</i> CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE</p>	<p>PROFESSIONAL CERTIFICATION</p> <p>I HEREBY 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. 26563, EXPIRATION DATE: 07/01/19.</p> <p>DMW DAFT MCCUNE WALKER INC.</p>	<p>NOTE: ORIGINAL DESIGN WAS PROVIDED BY GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC. AND APPROVED ON 5-6-11</p> <p>FOR REDLINE REVISIONS 1-6 ONLY</p>	<p>DESIGN BY: GOT, R.H.</p> <p>DRAWN BY: GMO</p> <p>CHECKED BY: P.H.</p> <p>DATE: 6/25/18</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>REVISION</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>PROVIDE A CLEAN SET OF PLANS. REMOVE ANY MENTION OF STAGE II</td> <td>5-10-18</td> </tr> <tr> <td>2</td> <td>SHOW REVISED SEWER, REMOVE STREAM CROSSING AND BORING</td> <td>3-16-15</td> </tr> <tr> <td>3</td> <td>JACKING BETWEEN SMH #3 AND SMH #4 (REPLACEMENT SHEET)</td> <td>5-21-14</td> </tr> <tr> <td>4</td> <td>SHOW STAGES 1 AND 2 FOR COORDINATION WITH SDP-08-082 REV.1</td> <td>5-21-14</td> </tr> </tbody> </table>	NO.	REVISION	DATE	1	PROVIDE A CLEAN SET OF PLANS. REMOVE ANY MENTION OF STAGE II	5-10-18	2	SHOW REVISED SEWER, REMOVE STREAM CROSSING AND BORING	3-16-15	3	JACKING BETWEEN SMH #3 AND SMH #4 (REPLACEMENT SHEET)	5-21-14	4	SHOW STAGES 1 AND 2 FOR COORDINATION WITH SDP-08-082 REV.1	5-21-14	<p style="text-align: center;">SEWER PROFILE</p>	<p style="text-align: center;">WATER AND SEWER PLAN CORRIDOR 95 BUSINESS PARK STAGE I</p> <p style="text-align: center;">CONTRACT NO. 14-4576-D</p> <p style="text-align: center;">ELECTION DISTRICT: 1ST HOWARD CO., MARYLAND</p>	<p>OWNER / DEVELOPER: SHEPPARD PRATT HEALTH SYSTEM INC 6501 N. CHARLES ST BALTIMORE, MD 21285-6815 410-938-3242</p> <p>REPLACEMENT SHEET</p> <p>SCALE: AS SHOWN</p> <p>SHEET 7 of 9</p> <p>DATE: 6/25/2018</p>
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SANITARY SEWER PROFILE

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

**Maryland's Guidelines To Waterway Construction
DETAIL 4.2(b): UTILITY CROSSING**

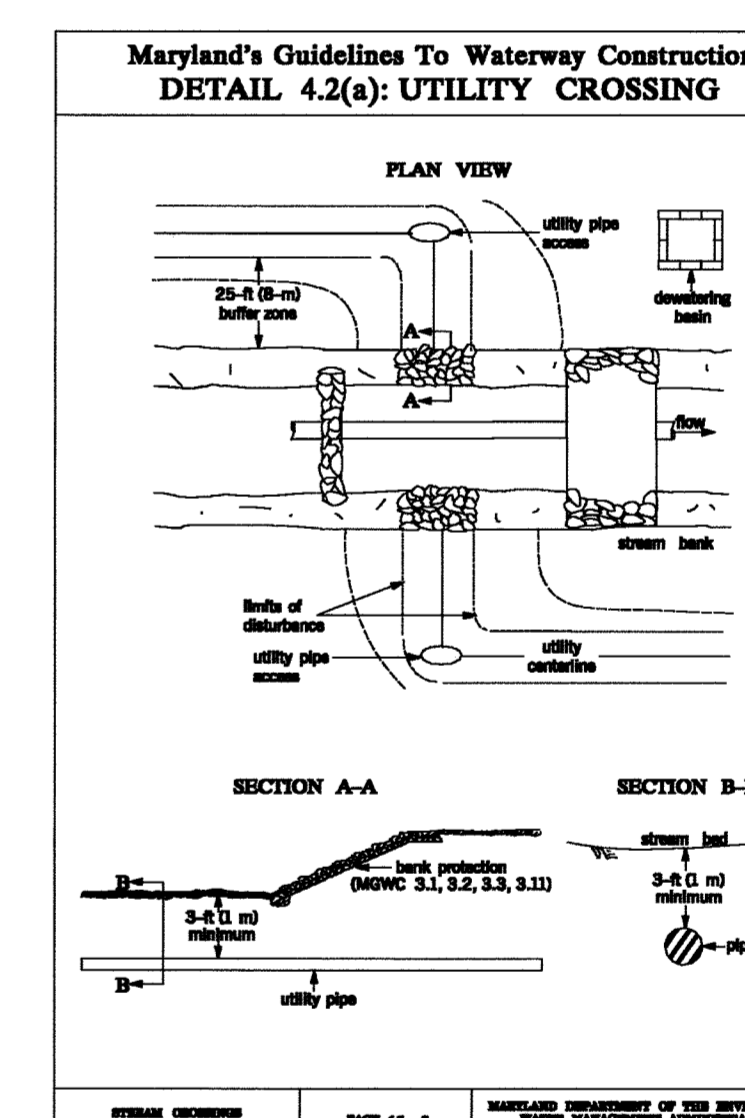
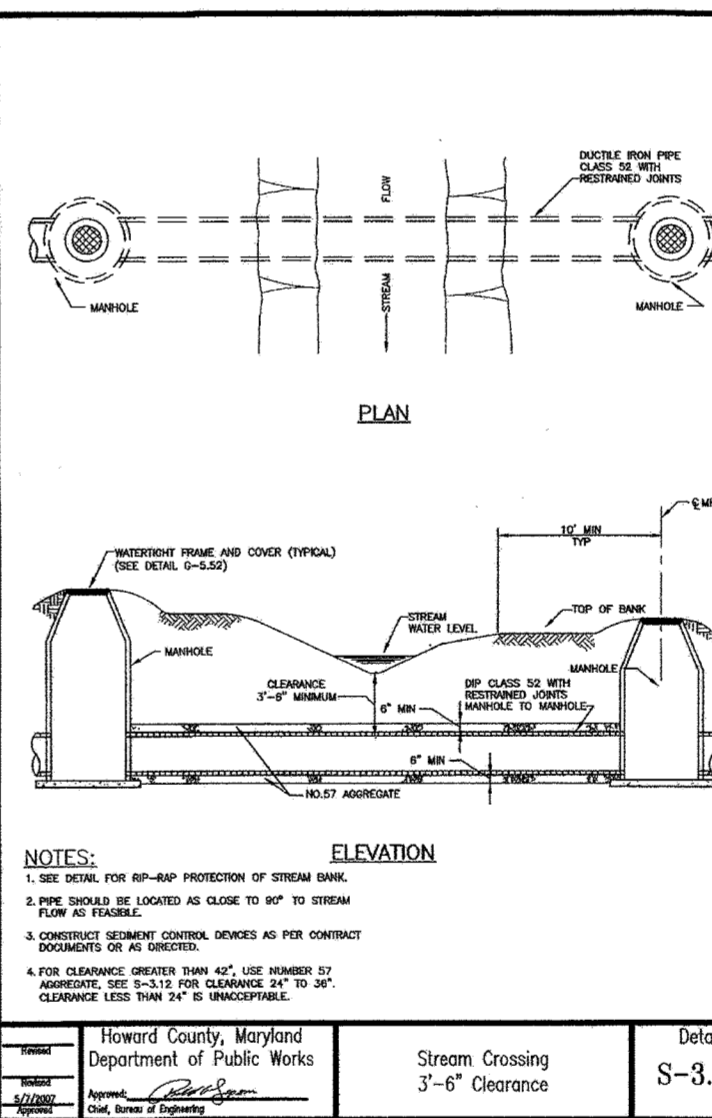


MGWC 4.2: UTILITY CROSSING

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:**
- All erosion and sediment control devices, including de-watering basins, should be implemented as the first order of business according to plans approved by the WMA or local authority. (See the 1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control.) The proposed construction sequence is as follows (refer to Detail 4.2):
 - The contractor should insure that a continuous perimeter control barrier is in place to minimize the amount of sediment entering the stream. A diversion pipe as shown in MFWC 1.4, Diversion Pipe or other means should be installed and installed or other means as shown in MFWC 1.5, Diversion Pipe or other means should be constructed according to specifications to divert the streamflow.
 - Streambed layout and subject should be kept separate, placed on the upland side of the excavation, and replaced in their natural order.
 - All construction should take place during stream low flows. The length of construction time should be limited to a maximum of 5 consecutive days for each crossing.
 - All utility crossings should be placed a minimum of 3 feet (1 meter) beneath the stream bed unless an alternative section is specifically approved by the WMA. For instance when a 3-foot cover is not viable, two alternate stabilization options are given in the Detail 4.2. A low flow channel shall be constructed through all pipe 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 WMA approved flow barrier may be constructed to limit the construction area to 50'.
 - Once the crossing is completed, the diversion should be removed from operation to downstream. Sediment control devices, including perimeter erosion control, are to remain in place until all disturbed areas are stabilized in accordance with an approved sediment and erosion control plan and the inspection authority approves the work.

HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS
Page 4.2-1



PHOTOGRAPHIC SOURCE: D. FLEISSCHMIDT; STAGES AND 1 WATER AND SEWER PLANS; STAGE OF DESIGN; DATE: JUN. 29, 2018

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND CHIEF - BUREAU OF UTILITIES - DATE		DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE		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. 26569, EXPIRATION DATE 07/18/19.		NOTE: ORIGINAL DESIGN WAS PROVIDED BY GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC. AND APPROVED ON 5-6-11.		OWNER / DEVELOPER: SHEPPARD PRATT HEALTH SYSTEM INC 8501 N. CHARLES ST BALTIMORE, MD 21285-6915 410-938-3242	
SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE HOWARD COUNTY DESIGN MANUAL VOL. IV		FOR REVIEW ONLY		DESIGN BY: CDT, PLH DRAWN BY: GMD CHECKED BY: PLH DATE: 6/25/18		BY NO. REVISION DATE DMW 1 PROVIDE A CLEAN SET OF PLANS. REMOVE ANY MENTION OF STAGE II 5-04-18 DMW 2 INSTALL SMH #19 FROM STAGE 1 TO STAGE 2 2-02-16 DMW 3 SHOW STAGES 1 AND 2 FOR COORDINATION WITH SDP-08-082 REV.1 5-21-14 NAD SHOW 6" PVC INV. AT SMH #16 FOR DISCHARGE OF AUTOMATIC FLUSHING SYSTEM		REPLACEMENT SHEET WATER AND SEWER PLAN CORRIDOR 95 BUSINESS PARK STAGE I CONTRACT NO. 14-4576-D ELECTION DISTRICT: 1ST HOWARD CO., MARYLAND DATE: 6/25/2018	
HOWARD COUNTY, MARYLAND Department of Public Works Name: [Signature] Title: [Title]		Stream Crossing 3'-6" Clearance Detail S-3.11		600 SCALE MAP NO. 37 BLOCK NO. 8		SCALE: AS SHOWN SHEET 9 of 9			