

**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 MAINTAINS 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 FEBRUARY 2019 BY HOWARD COUNTY.
- 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 36EA, 36HB, 37IC, AND 42B2.
- 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 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.....800-252-1133  
 BGE (CONTRACTOR SERVICES).....410-637-8713  
 BGE (EMERGENCY).....410-685-0123  
 BUREAU OF UTILITIES.....410-313-4900  
 COLONIAL PIPELINE CO.....410-795-1390  
 MISS UTILITY.....800-257-7777  
 STATE HIGHWAY ADMINISTRATION.....410-531-5533  
 VERIZON.....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 THE 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 CUTTING OR BORING/JACKING OF ANY COUNTY ROADS 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 PVC C900 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" OF COVER UNLESS OTHERWISE NOTED.
- ALL 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 DIP AND PVC WATER MAINS IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL.
- FOR PVC WATER MAINS, ALL RECORDS FOR THE QUALITY CONTROL AND QUALIFICATIONS TEST REQUIREMENTS NOTED IN SECTION 5.1 OF THE AWWA STANDARD C900 FOR PVC PRESSURE PIPES 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. 17 POUND MAGNESIUM ANODES SHALL BE INSTALLED ON ALL VALVES AND DUCTILE IRON FITTINGS INCLUDING RESTRAINTS AND HARNESSES. 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 PIPE JOINTS: THE MANUFACTURER'S INSERTION LINE OF GASKETED PVC PIPE JOINTS INDICATES THE MAXIMUM DEPTH OF INSERTION OF THE SPIGOT INTO THE BELL. AFTER ASSEMBLY OF THE JOINT, THE INSERTION LINE SHALL REMAIN VISIBLE. DUAL INSERTION LINES ON GASKETED PVC PIPE INDICATE THE MAXIMUM AND MINIMUM DEPTH OF INSERTION OF THE SPIGOT INTO THE BELL. THE CONTRACTOR SHALL NOT OVER INSERT OR OVER HOME THE SPIGOT INTO THE BELL OF THE 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 ON 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 BEST STONE ON BOTH SIDES OF THE HIGH DEFLECTION COUPLING OR 5-DEGREE SWEEP, TAKING CARE NOT TO USE COMPACTOR EQUIPMENT DIRECTLY OVER THE FITTING. PVC HIGH DEFLECTION COUPLINGS SHALL BE LIMITED TO A TOTAL DEFLECTION OF 3-DEGREES (1 1/2-DEGREE ON EITHER END OF THE COUPLING), SHALL BE RATED FOR A MINIMUM 200 PSI MEETING THE REQUIREMENTS OF AWWA C900, SHALL HAVE A MINIMUM LAY LENGTH OF 9-INCHES AND SHALL HAVE CENTER STOPS. PVC HIGH DEFLECTION COUPLINGS SHALL BE CERTAINTIED PVC HIGH DEFLECTION (HD) STOP COUPLINGS OR EQUAL. FIVE DEGREE SWEEPS SHALL BE BELL BY SPIGOT, RATED FOR A MINIMUM 225 PSI, OR 18 MEETING THE REQUIREMENTS OF AWWA C900 AND SHALL BE MULTI FITTINGS (PEX) 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 INCORPORATES AN EXPANSION RETENTION SPRING TO ALLOW FOR PIPE EXPANSION AND CONTRACTION. THE BELL STOPS SHALL BE SERIES 5000 MEGA-STOP, AS MANUFACTURED BY EBAA IRON, INC. OR APPROVAL EQUAL.

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE SPECIFICATIONS AND WITH SITE DEVELOPMENT PLAN ~~SDP-20-009~~ SDP-20-059

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

*Alexander Birtch* 08/11/21  
 SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 DEPARTMENT OF PLANNING & ZONING  
 HOWARD COUNTY, MARYLAND  
*5.9.21* DATE  
 CHIEF, BUREAU OF UTILITIES  
 CHIEF, DEVELOPMENT OF ENGINEERING DIVISION  
 DATE

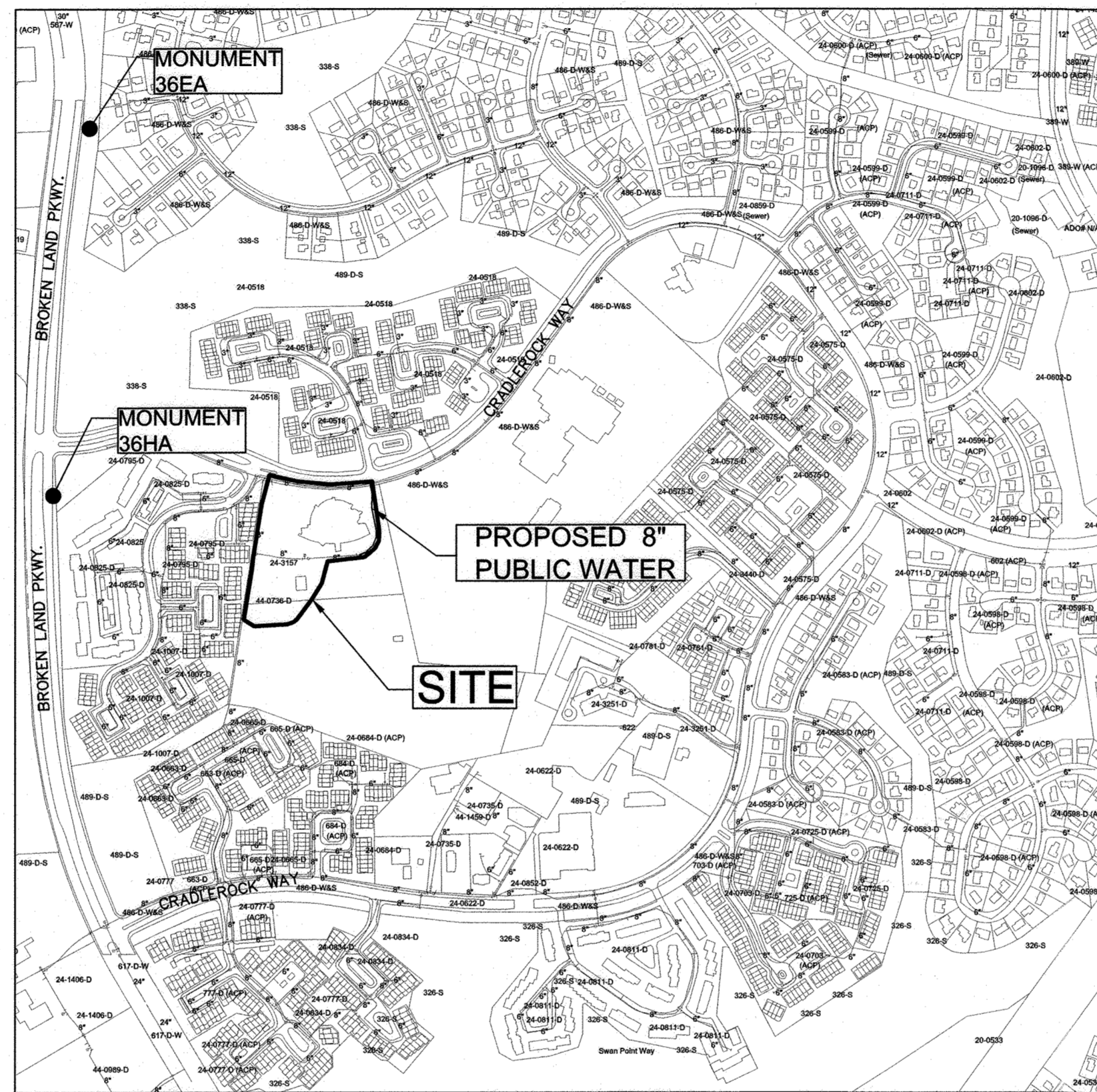
**AMT**  
 A. MORTON THOMAS AND ASSOCIATES, INC.  
 CONSULTING ENGINEERS  
 800 KING FARM BOULEVARD,  
 4TH FLOOR  
 ROCKVILLE, MD 20850  
 PHONE (301) 881-2545  
 FAX (301) 881-0814  
 AMT1@AMTEENGINEERING.COM

PROFESSIONAL CERTIFICATE  
 I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.  
 LICENSE NUMBER: 37683  
 EXPIRATION DATE: 07/13/2021  
 DRN: DES:  
 CHK:  
 DATE: 8-19-2020  
 PHILIP D. RHODES, PE NO. 37683

# FINAL WATER CONSTRUCTION PLAN

## EAST COLUMBIA LIBRARY - 50+ CENTER

6610 CRADLEROCK WAY  
 PARCEL 0275 (LOT A-1/B-1) PLAT NO. 10361  
 CONTRACT 44-5129-D  
 HOWARD COUNTY, MARYLAND



**LOCATION MAP**

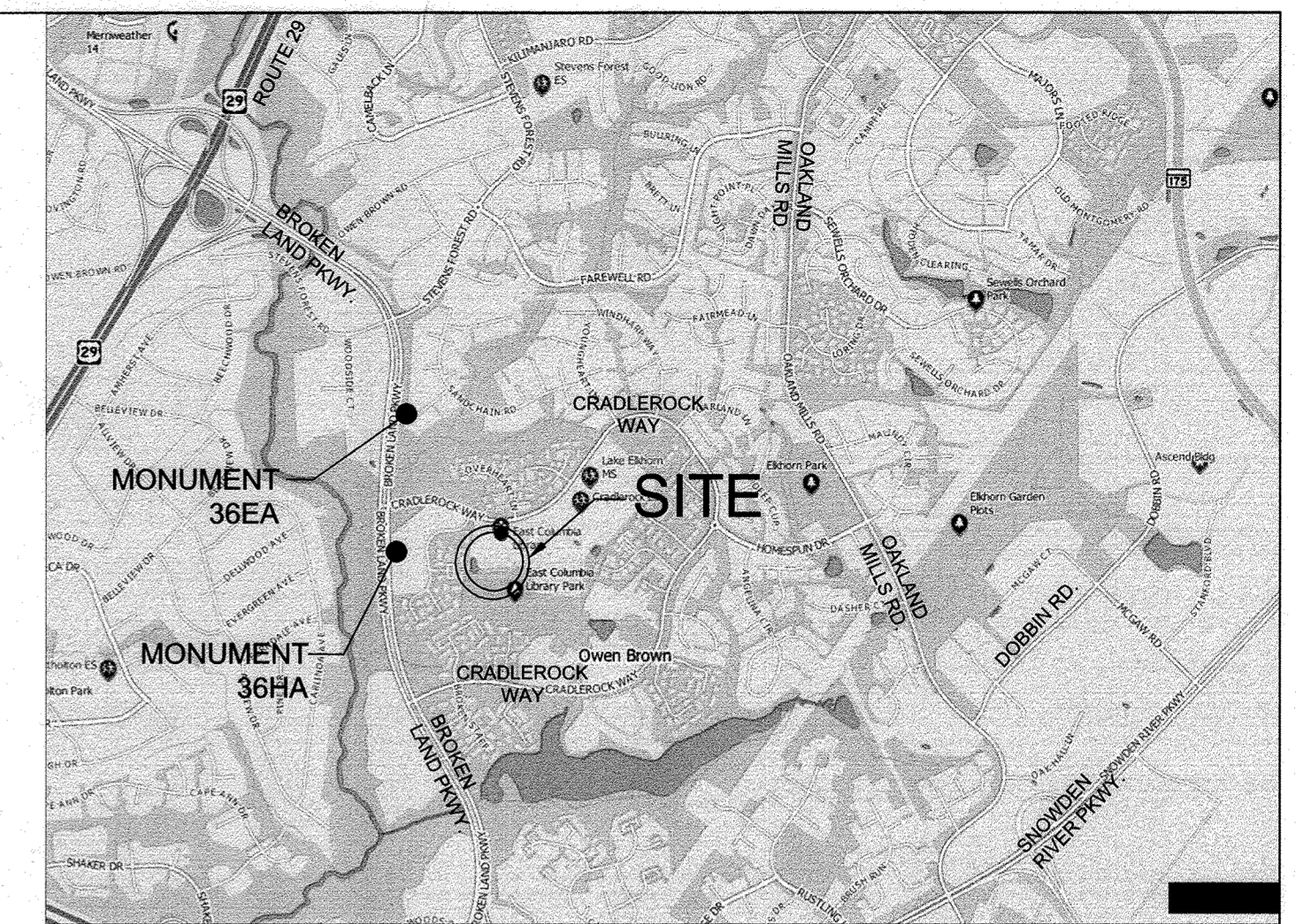
SCALE 1" = 600'

WATER ZONE: 550 SOUTH  
 TEST GRADIENT: 828  
 TEST PRESSURE: 213 PSI

TYPE OF BUILDING: 50+ CENTER, LIBRARY  
 NO. OF BUILDING: 2  
 NO. OF SINGLE WATER HOUSE CONNECTIONS: 2  
 SITE AREA: 2.58 ACRES

QUANTITIES					
NAME OF UTILITY CONTRACTOR:					
SURVEY AND DRAFTING DIVISION AS-BUILT DATE:					
ITEMS	QUANTITIES ESTIMATED	QUANTITIES	TYPE	AS-BUILT	MANUFACTURER/SUPPLIER
4" PVC C-900 (DR14) WATER MAIN	5 LF	0			
6" PVC C-900 (DR14) WATER MAIN	60 LF	48 LF	C900 DR14	NATIONAL PIPE	LB WATER
8" PVC C-900 (DR14) WATER MAIN	425 LF	421 LF	C900 DR14	NATIONAL PIPE	LB WATER
8" TAPPING SLEEVE & VALVE	1	2	55/RWGV	FORD METER BOX	AMERICAN FC LB WATER
FIRE HYDRANT, FH TEE & VALVE	4	4	51/14/MW/NTV	AMERICAN FC / STAR PIPE	AMERICAN LB WATER

WATER SHEET INDEX	
SHEET NUMBER	SHEET TITLE
1	COVER SHEET
2	WATER PLAN
3	WATER PROFILES



**VICINITY MAP**

SCALE 1" = 2000'

HOWARD COUNTY, MD ADC MAP 33/GRID C4  
 6610 CRADLEROCK WAY COLUMBIA, MD 21046

**SEQUENCE OF CONSTRUCTION:**

**INITIAL**

- ENGINEER MUST OBTAIN A GRADING PERMIT IN ORDER TO PROCEED WITH SEDIMENT CONTROL MEASUREMENTS.
- PRIOR TO CLEARING TREES, INSTALLING SEDIMENT CONTROL MEASURES, OR GRADING A PRECONSTRUCTION MEETING MUST BE CONDUCTED ON-SITE WITH THE HOWARD COUNTY CONSTRUCTION INSPECTION DIVISION INSPECTOR 410-313-1855 (48 HOURS NOTICE). THE OWNERS REPRESENTATIVE AND THE SITE ENGINEER SHALL BE PRESENT. IN ORDER FOR THE MEETING TO OCCUR, THE APPLICANT MUST PROVIDE ONE PAPER SET OF APPROVED SEDIMENT CONTROL PLANS TO HOWARD COUNTY CONSTRUCTION INSPECTION DIVISION. SEDIMENT CONTROL INSPECTOR AT THE PRECONSTRUCTION MEETING. IF NO PLANS ARE PROVIDED, THE MEETING SHALL NOT OCCUR AND WILL NEED TO BE RESCHEDULED PRIOR TO COMMENCING ANY WORK.
- THE LIMITS OF DISTURBANCE MUST BE FIELD MARKED PRIOR TO CLEARING OF TREES, INSTALLATION OF SEDIMENT CONTROL MEASURES, CONSTRUCTION, OR OTHER LAND DISTURBING ACTIVITIES.
- CLEAR AND GRADE FOR INSTALLATION OF SEDIMENT CONTROL DEVICES.
- INSTALL SEDIMENT CONTROL DEVICES; STABILIZED CONSTRUCTION ENTRANCE, SUPER SILT FENCE, TREE PROTECTION FENCE, CONSTRUCTION FENCE, AND INLET PROTECTION.
- ONCE THE SEDIMENT CONTROL DEVICES ARE INSTALLED THE PERMITTEE MUST OBTAIN WRITTEN APPROVAL FROM THE HOWARD COUNTY SOIL CONSERVATION DISTRICT INSPECTOR BEFORE PROCEEDING WITH ANY ADDITIONAL CLEARING, GRADING OR GRUBBING.
- INSTALL STORM DRAIN MANHOLES MH10, MH12, MH14, MH16, MH18 & MH20 AND ASSOCIATED PIPES WITH INLET PROTECTION PER PLAN (SEE UTILITY PLAN & STORM DRAIN PROFILES FOR MORE INFORMATION).
- INSTALL EXISTING ROOF LEADERS INTO MH10
- PERFORM RELOCATION OF UTILITIES, AND BEGIN SITE EARTHWORK.
- INSTALL SITE UTILITIES INCLUDING WATER LINE, FIRE HYDRANTS, SEWER LINE, COMMUNICATION LINE, GAS LINE, UNDERGROUND ELECTRIC, AND REMAINING STORM DRAIN.
- DEMOLISH EXISTING WATER AND SEWER SERVICE.
- BEGIN BUILDING FOUNDATION CONSTRUCTION.
- PERMITTEE MUST OBTAIN WRITTEN APPROVAL FROM HOWARD COUNTY SOIL CONSERVATION DISTRICT INSPECTOR PRIOR TO THE REMOVAL OF ANY SEDIMENT CONTROL DEVICES.

**FINAL**

- INSTALL SIDEWALK IMPROVEMENTS, RETAINING WALLS, AND PARKING LOT IMPROVEMENTS.
- FINALIZE GRADING CONDITIONS PER GRADING PLAN.
- INSTALL MICRO-BIORETENTION FACILITIES AND ASSOCIATED UNDERDRAIN PIPES AND CLEANOUTS. REFER TO STORMWATER MANAGEMENT PLAN SHEETS FOR FURTHER DETAILS.
- UPON STABILIZATION OF THE SITE WITH ESTABLISHED VEGETATION AND WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, REMOVE REMAINING SEDIMENT CONTROL MEASURES AND STABILIZE THOSE AREAS DISTURBED BY THIS PROCESS.

**LEGEND**

- NEW WATER HOUSE CONNECTION
- NEW WATER MAIN
- NEW FIRE HYDRANT
- NEW SEWER LINE
- NEW SANITARY MANHOLE
- NEW STORM DRAIN
- NEW GAS LINE
- NEW COMMUNICATION LINE
- WATER/SEWER TO BE REMOVED
- PROPOSED SWM FACILITY
- PROPOSED BUILDING
- PROP. 20' WATER & UTILITY EASEMENT

**OWNER-PARCEL A-1**  
 HOWARD COUNTY MARYLAND  
 DEPARTMENT OF PUBLIC WORKS  
 3430 COURT HOUSE DR.  
 ELLICOTT CITY, MD 21043  
 (410) 313-4401

**OWNER-PARCEL B-1**  
 THE HOWARD RESEARCH AND  
 DEVELOPMENT CORPORATION  
 P.O. BOX 833  
 COLUMBIA, MD 21044  
 (410) 992-4377

**OWNER / APPLICANT**

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 BUREAU OF FACILITIES, DESIGN & CONSTRUCTION DIVISION  
 9200 BERGER ROAD  
 COLUMBIA, MD 21046  
 ATTN: MRS. SHARON R. WALSH, CHIEF DIVISION  
 TEL: 410-313-5386 MOBILE: 301-717-8417

**DESIGN ENGINEER**

A. MORTON THOMAS & ASSOCIATES, INC.  
 800 KING FARM BLVD, 4TH FLOOR  
 ROCKVILLE, MD 20850  
 ATTN: MR. PHILIP RHODES, PE  
 TEL: 301-881-2545

FINAL WATER  
 CONSTRUCTION PLAN  
 CONTRACT 44-5129-D

EAST COLUMBIA LIBRARY  
 50+ CENTER  
 6610 CRADLEROCK WAY  
 COLUMBIA, MD 21045  
 PARCEL 0275 (LOT A-1/B-1)  
 PLAT NO. 10361

SCALE AS SHOWN

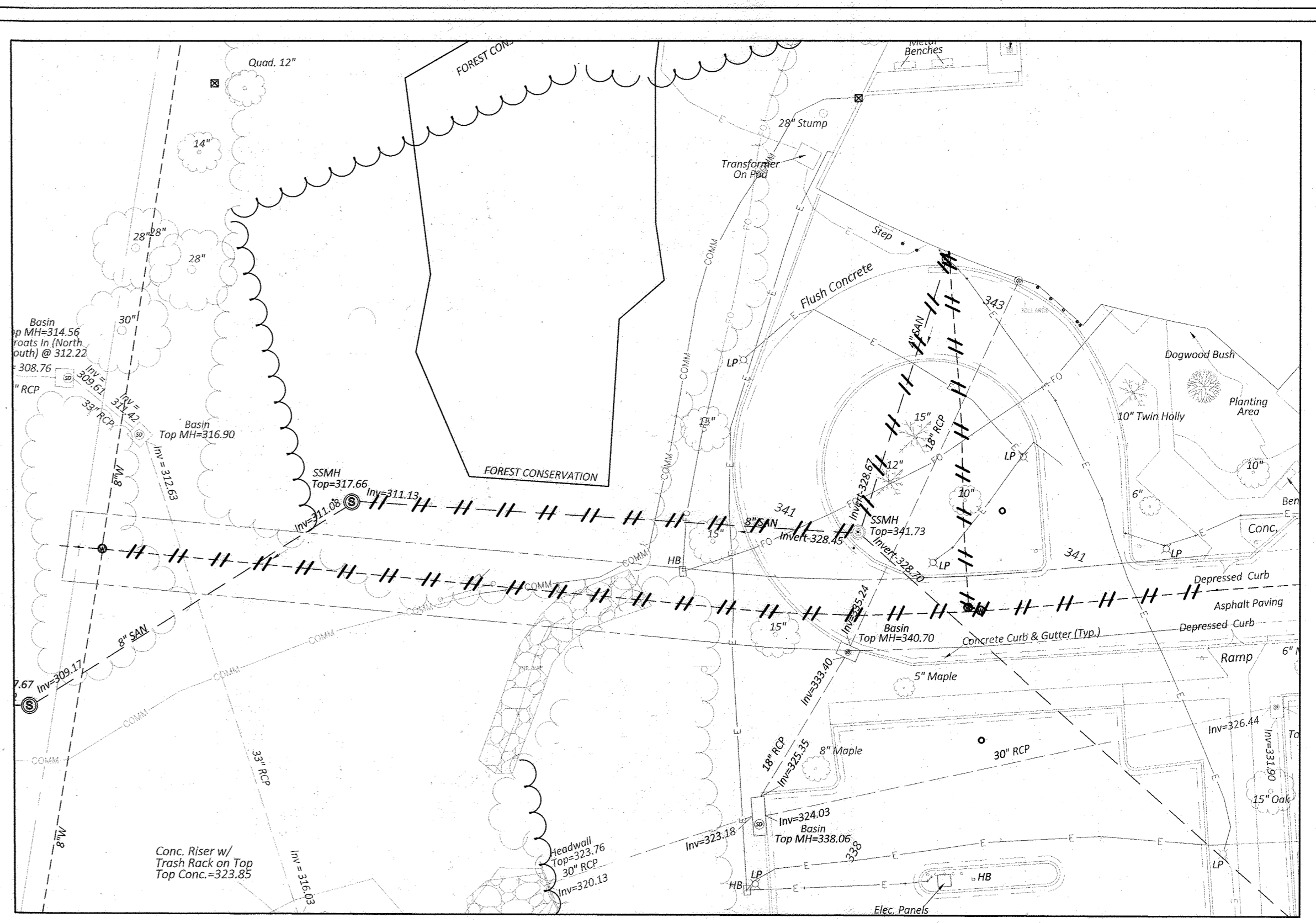
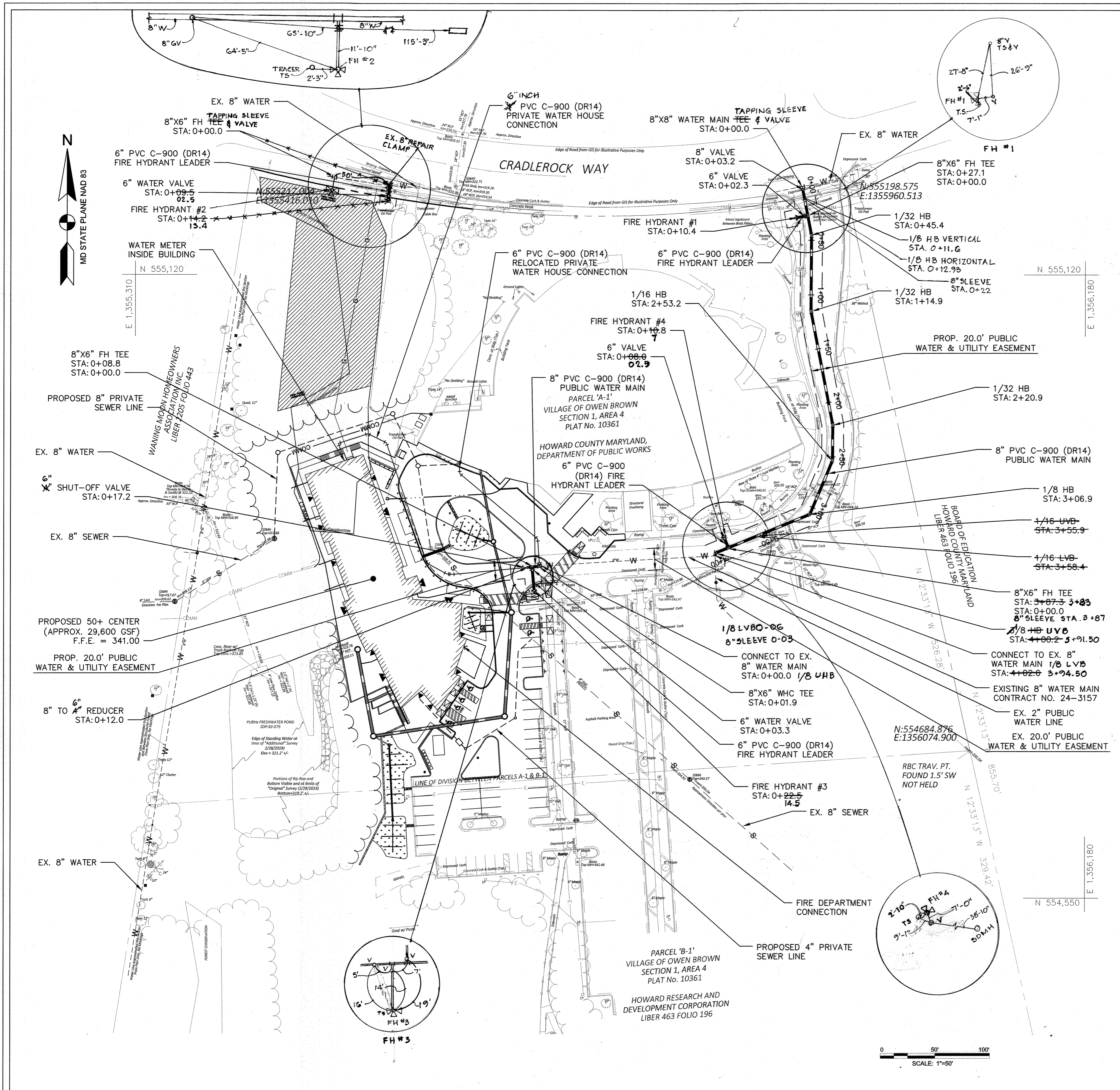
SHEET

1 OF 3

600' SCALE MAP NO. 36 BLOCK NO.

TAX MAP: 36 ELECTION DISTRICT: 3

ZONED: NT LOT: A-1/B-1 HOWARD COUNTY, MD



**EXISTING WATER & SEWER TO BE REMOVED**  
SCALE: 1"=30'

- UTILITY NOTES:**
- CONTRACTOR SHALL OPEN ONLY THAT SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED EACH DAY. IF THE TRENCH MUST REMAIN OPEN LONGER THAN ONE DAY, SILT FENCE SHALL BE PLACED BELOW (DOWN SLOPE OF) 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.

WATER FITTINGS CHART				
PROFILE	TYPE OF FITTING	STATION	NORTHING	EASTING
8" WATER MAIN	8"x8" TEE TO MAIN	0+00.00	555200.8879	1355920.3898
	8" VALVE	0+03.2	555198.0473	1355920.0473
	8"x6" FH TEE	0+27.1	555174.2778	1355925.4745
	1/32 HORIZONTAL BEND	0+45.4	555156.3158	1355929.0547
	1/32 HORIZONTAL BEND	1+14.9	555086.8238	1355928.7470
	1/16 HORIZONTAL BEND	2+53.2	554982.6571	1355948.7861
	1/8 HORIZONTAL BEND	3+06.9	554900.8987	1355927.9395
	1/8 UPPER VERTICAL BEND	3+06.9	554870.6960	1355853.2207
	1/8 LOWER VERTICAL BEND	3+06.9	554882.4929	1355882.3251
	8" SLV STA 3+87	8"x6" FH TEE	3+87.0	554881.5729
8" WATER MAIN REPLACEMENT	1/8 HORIZONTAL BEND	4+00.0	554885.6781	1355841.5925
	TEE TO EX. 8" WATER MAIN	4+00.0	554883.1032	1355841.4603
	CONNECT TO EX. 8" MAIN	0+00.0	554853.6136	1355682.3686
	8"x6" TEE FOR WHC	0+01.9	554853.5299	1355680.5682
	8"x6" FH TEE	0+08.8	554852.7767	1355673.6597
FIRE HYDRANT #1	8" TO 6" REDUCER	0+12.0	554852.4006	1355669.6277
	6" SHUT-OFF VALVE	0+17.2	554852.0239	1355665.2710
	8"x6" FH TEE	0+00.0	555174.2778	1355925.4745
FIRE HYDRANT #2	6" VALVE	0+02.3	555173.7741	1355922.7073
	FIRE HYDRANT	0+10.4	555172.3000	1355915.1714
	BURY LENGTH = 6.0' BURY ELEVATION = 344.04			
FIRE HYDRANT #3	8"x6" FH TEE	0+00.0	555201.8531	1355542.5989
	6" VALVE	0+09.5	555192.1990	1355541.4285
	FIRE HYDRANT	0+14.2	555188.4628	1355541.0059
FIRE HYDRANT #4	BURY LENGTH = 6.0' BURY ELEVATION = 320.28			
	8"x6" FH TEE	0+00.0	554852.7767	1355673.6597
	6" VALVE	0+03.3	554849.9283	1355673.8961
FIRE HYDRANT #4	FIRE HYDRANT	0+22.5	554831.0942	1355675.5950
	BURY LENGTH = 4.5' BURY ELEVATION = 341.20			
	8"x6" FH TEE	0+00.0	554881.5729	1355880.0419
FIRE HYDRANT #4	6" VALVE	0+08.8	554878.8348	1355849.9616
	FIRE HYDRANT	0+14.2	554880.7961	1355849.1174
BURY LENGTH = 5.0' BURY ELEVATION = 344.06				

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

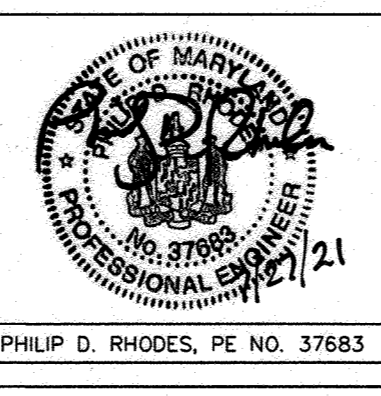
*[Signature]*  
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

*[Signature]*  
CHIEF, DEVELOPMENT OF ENGINEERING DIVISION

**AMT**  
A. MORTON THOMAS AND ASSOCIATES, INC.  
CONSULTING ENGINEERS

800 KING FARM BOULEVARD,  
4TH FLOOR  
ROCKVILLE, MD 20850  
PHONE (301) 881-2545  
FAX (301) 881-0814  
AMT@AMTENGINEERING.COM



PROFESSIONAL CERTIFICATE  
I CERTIFY THAT THESE DOCUMENTS  
WERE PREPARED OR APPROVED BY ME,  
AND THAT I AM A DULY LICENSED  
ENGINEER UNDER THE LAWS OF THE  
STATE OF MARYLAND.  
LICENSE NUMBER: 37683  
EXPIRATION DATE: 07/13/2021

DRN: \_\_\_\_\_ DES: \_\_\_\_\_  
CHK: \_\_\_\_\_

DATE: 8-19-2020

BY: WRA NO. \_\_\_\_\_

AS BUILT  
AS BUILT "FIRE HYDRANTS"

9/1/23  
4/20/22

FINAL WATER  
CONSTRUCTION PLAN  
CONTRACT 44-5129-D

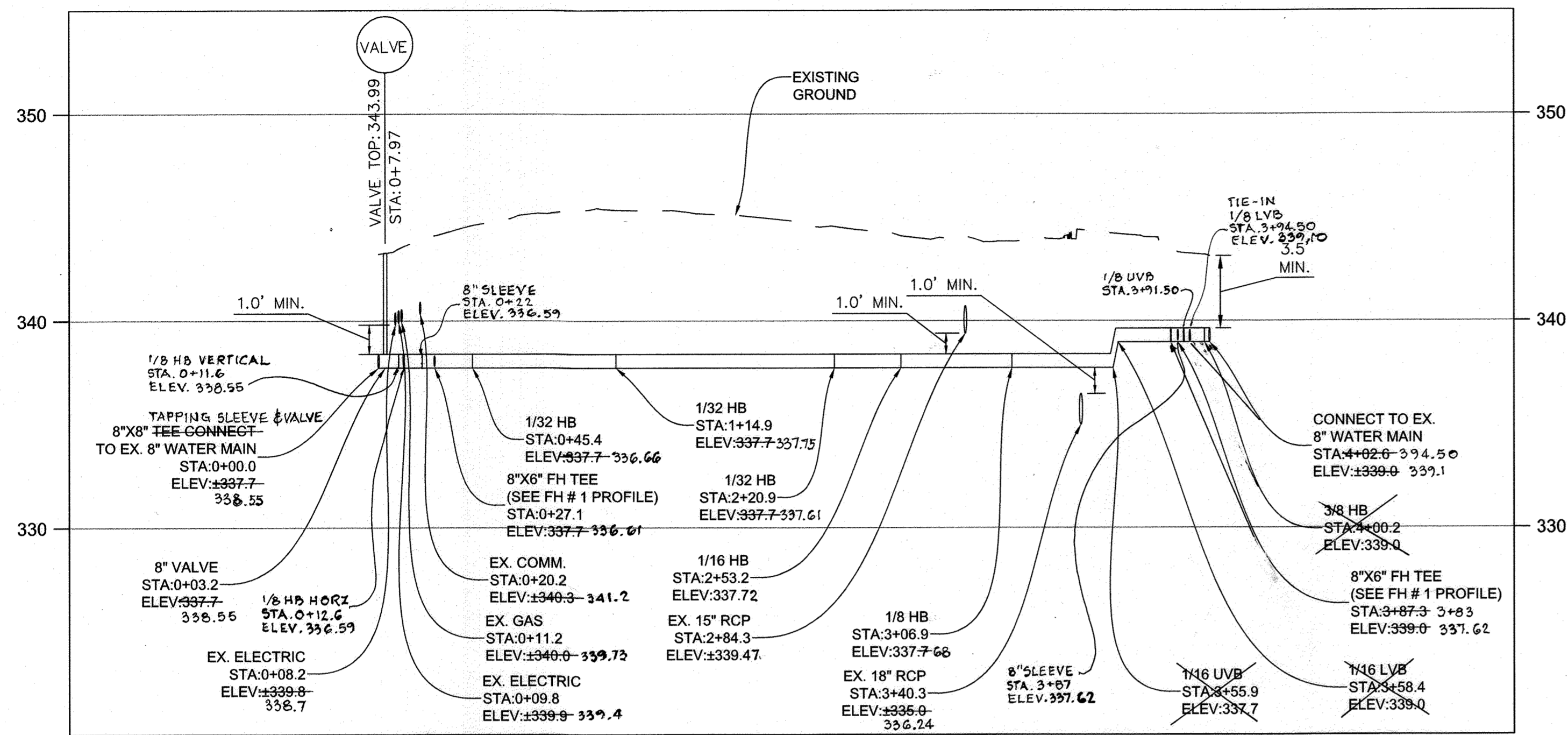
600' SCALE MAP NO. 36 BLOCK NO. \_\_\_\_\_

EAST COLUMBIA LIBRARY  
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PARCEL 0275 (LOT A-1/B-1)  
PLAT NO. 10361

ZONED: NT  
LOT: A-1/B-1  
HOWARD COUNTY, MD

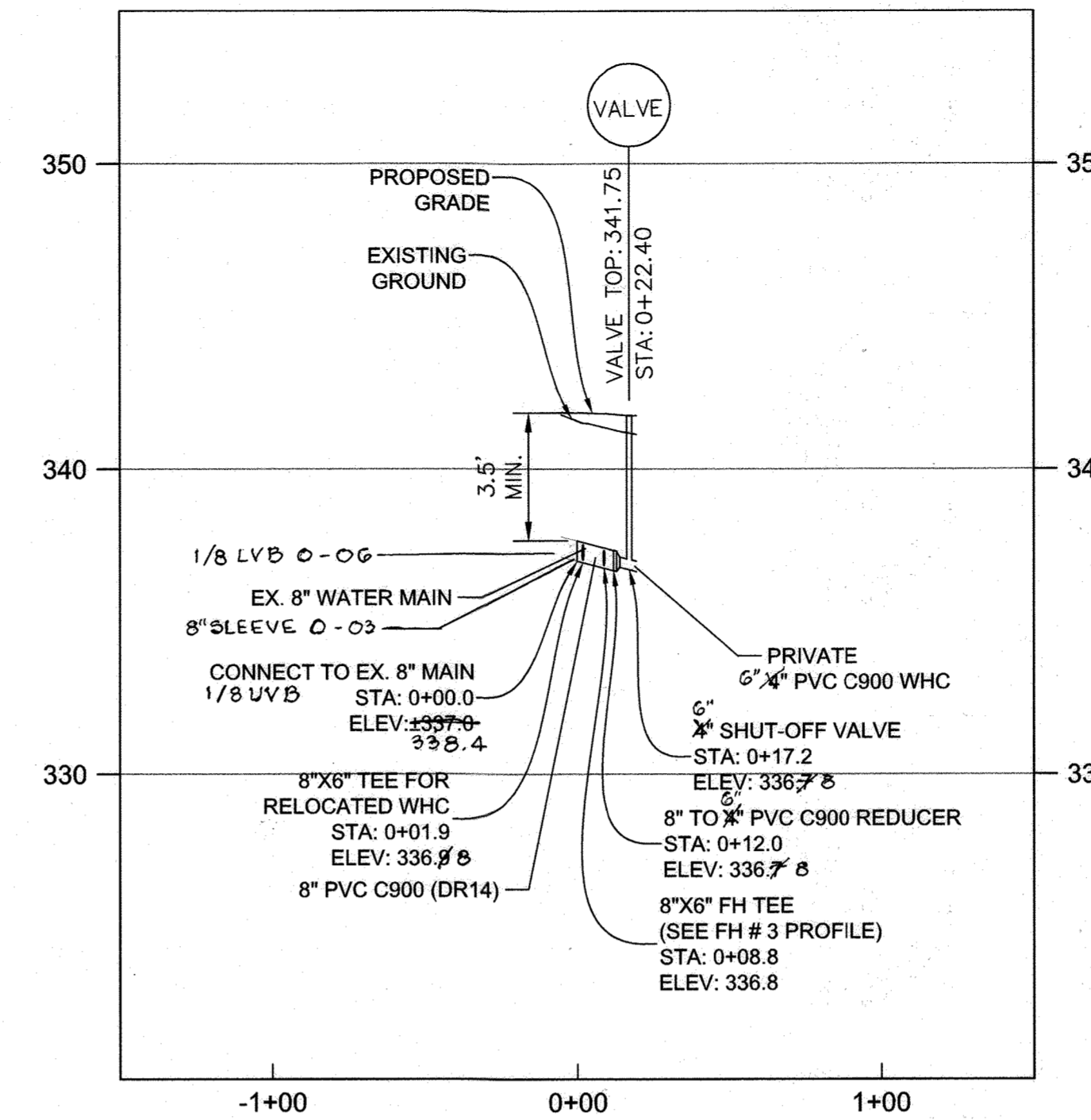
SCALE  
AS  
SHOWN

SHEET  
2 OF 3



**8" PVC (C-900) WATER MAIN PROFILE**

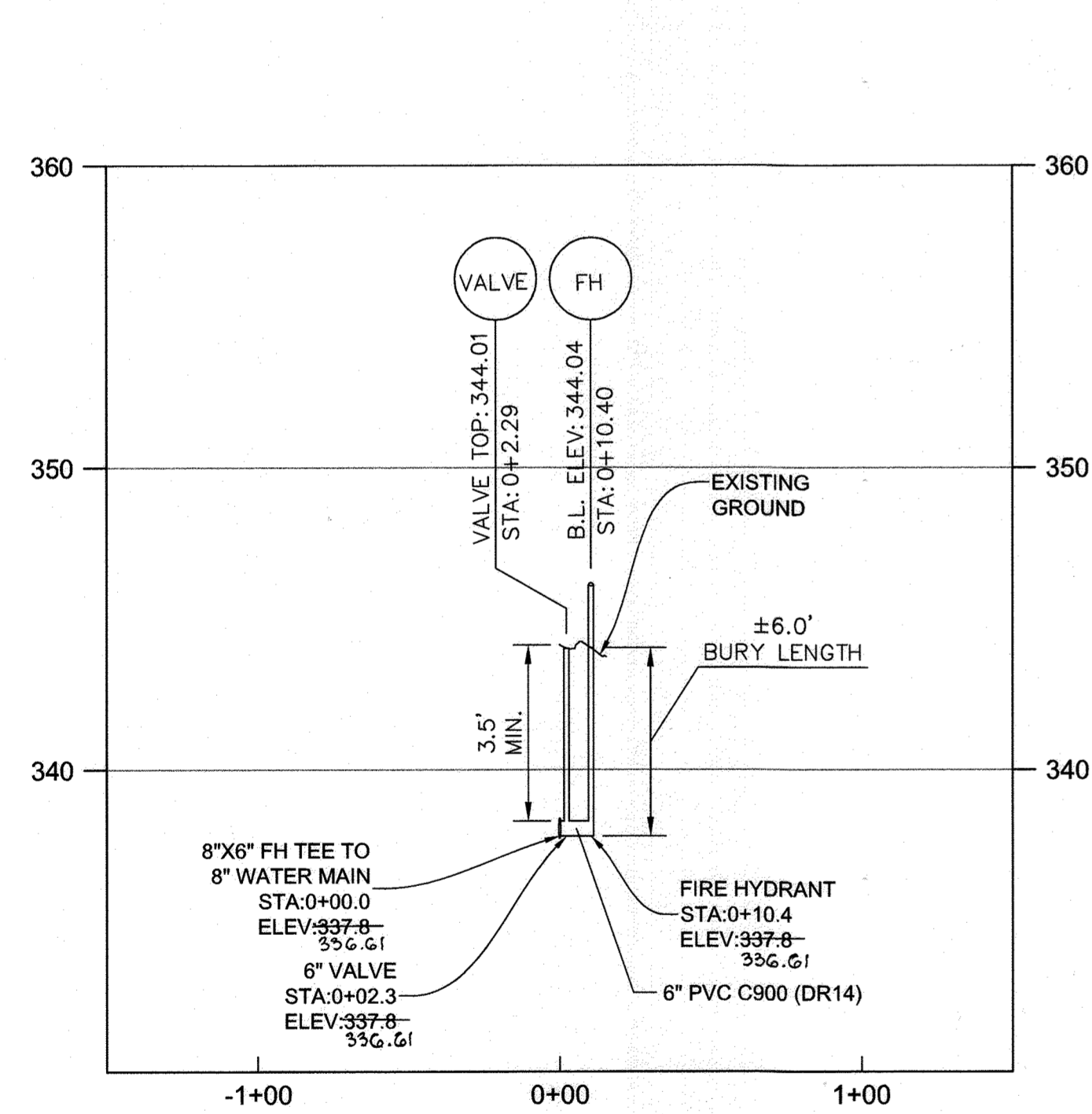
HORZ 1" = 50'  
VERT. 1" = 5'



**8" PVC (C-900) WATER MAIN REPLACEMENT PROFILE**

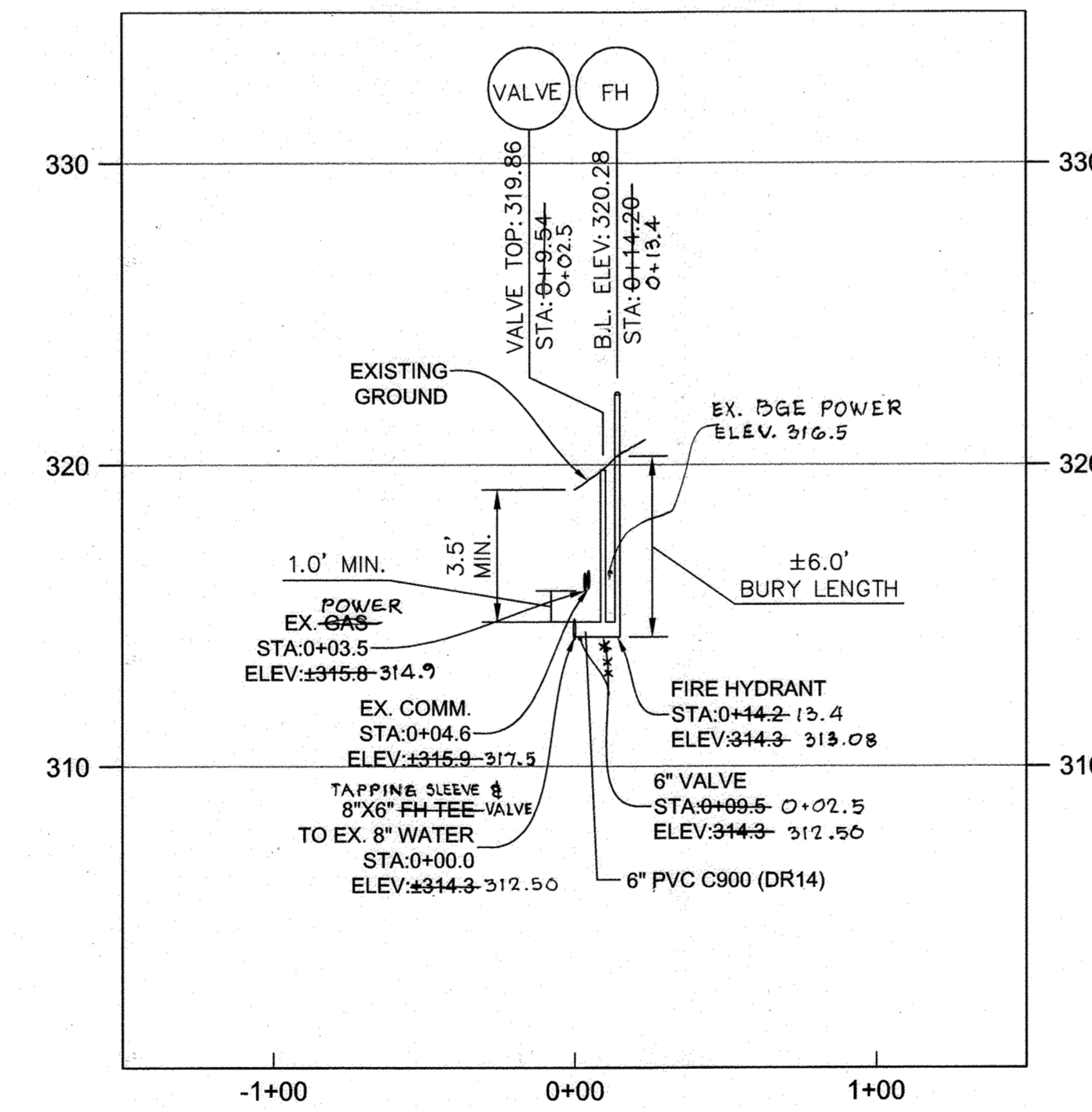
HORZ 1" = 50'  
VERT. 1" = 5'

- PROFILE NOTES:**
1. ALL EXISTING UTILITY SHOULD BE TEST PITTED BY THE CONTRACTOR TO VERIFY LOCATION AND DEPTH.
  2. ALL EXISTING WATER LINES SHOULD BE TEST PITTED WHERE CONNECTIONS ARE BEING MADE TO VERIFY LOCATION AND DEPTH.



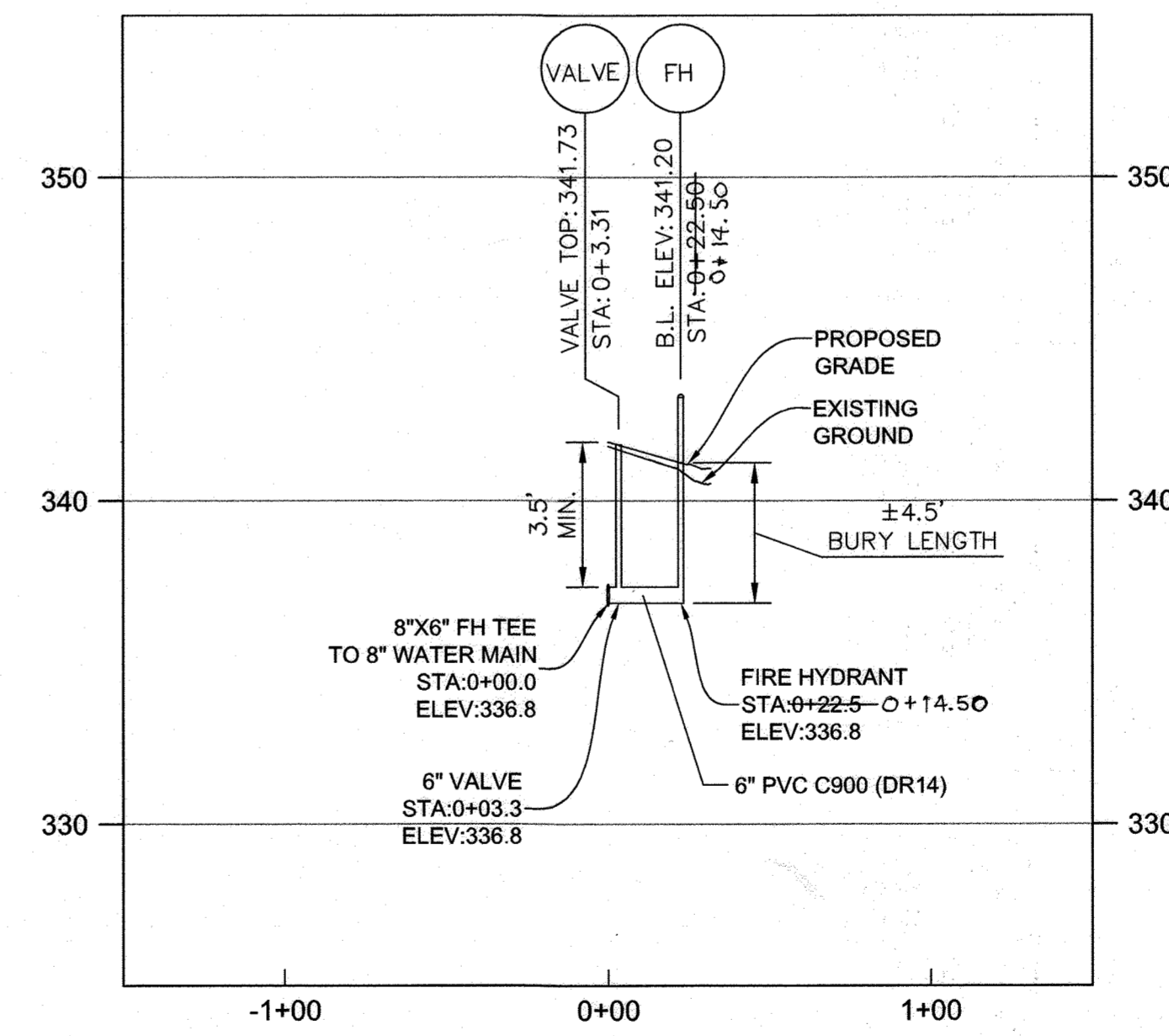
**FIRE HYDRANT #1**

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



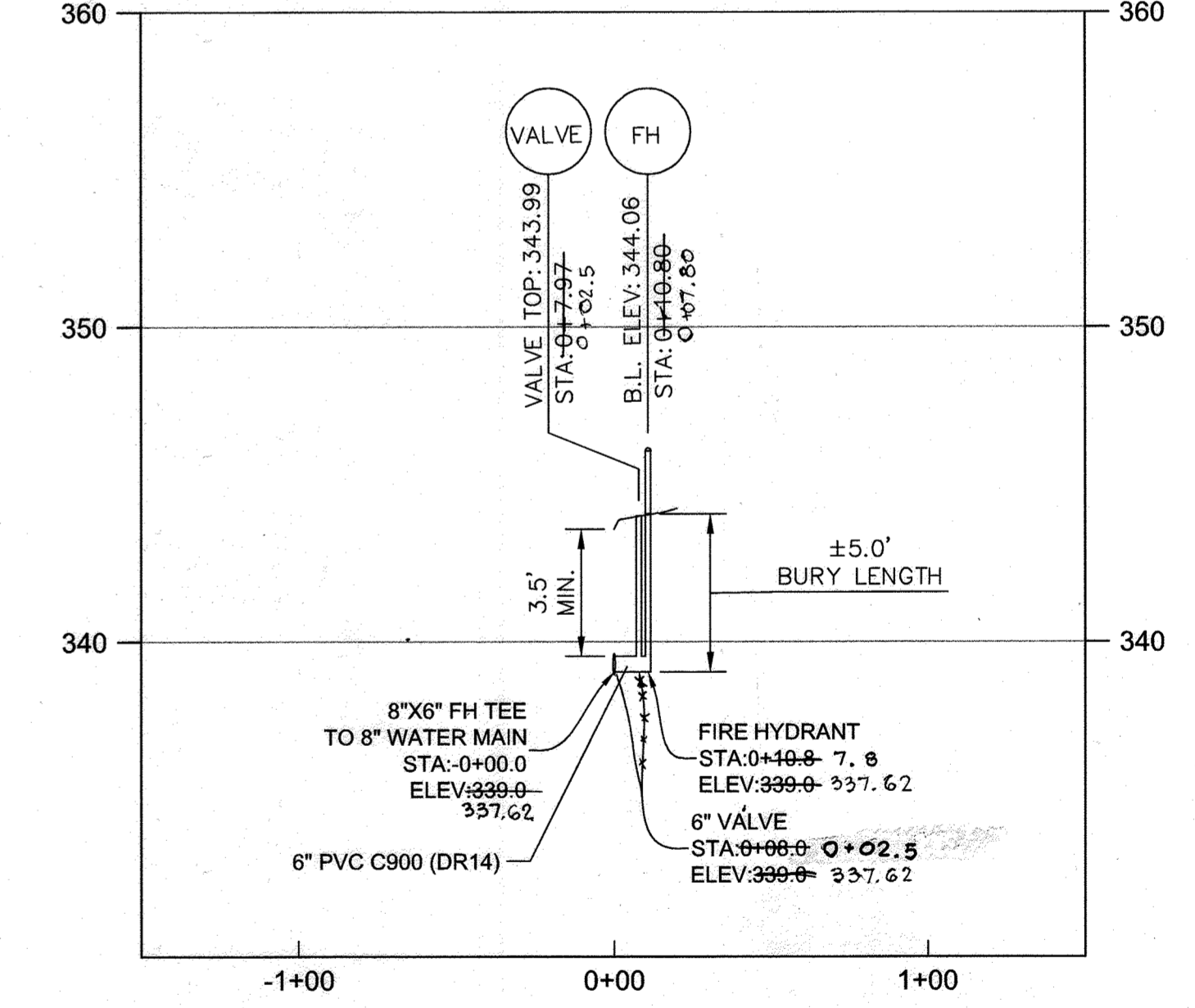
**FIRE HYDRANT #2**

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



**FIRE HYDRANT #3**

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

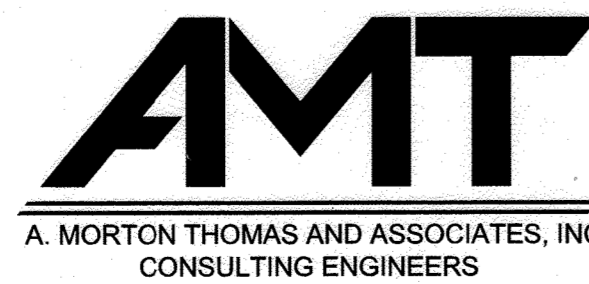


**FIRE HYDRANT #4**

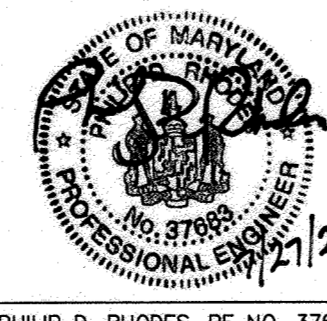
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DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND



800 KING FARM BOULEVARD,  
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PROFESSIONAL CERTIFICATE  
I CERTIFY THAT THESE DOCUMENTS  
WERE PREPARED OR APPROVED BY ME,  
AND THAT I AM A DULY LICENSED  
ENGINEER UNDER THE LAWS OF THE  
STATE OF MARYLAND.  
LICENSE NUMBER: 37683  
EXPIRATION DATE: 07/13/2021  
DATE: 8-19-2020

DRN:	DES:	WRA:	AS BUILT:	DATE:
		WRA	AS BUILT	9/7/23
		WRA	AS BUILT	4/20/22
CHK:	BY:	NO.:	REVISION:	DATE:

FINAL WATER  
CONSTRUCTION PLAN  
CONTRACT 44-5129-D

600' SCALE MAP NO. 36 BLOCK NO.

EAST COLUMBIA LIBRARY  
50+ CENTER  
6610 CRADLEROCK WAY  
COLUMBIA, MD 21045  
PARCEL 0275 (LOT A-1/B-1)  
PLAT NO. 10361

TAX MAP: 38  
ELECTION DISTRICT: 3

ZONED: NT  
LOT: A-1/B-1  
HOWARD COUNTY, MD

SCALE  
AS  
SHOWN  
SHEET  
3 OF 3