

UNCLASSIFIED//FOR OFFICIAL USE ONLY

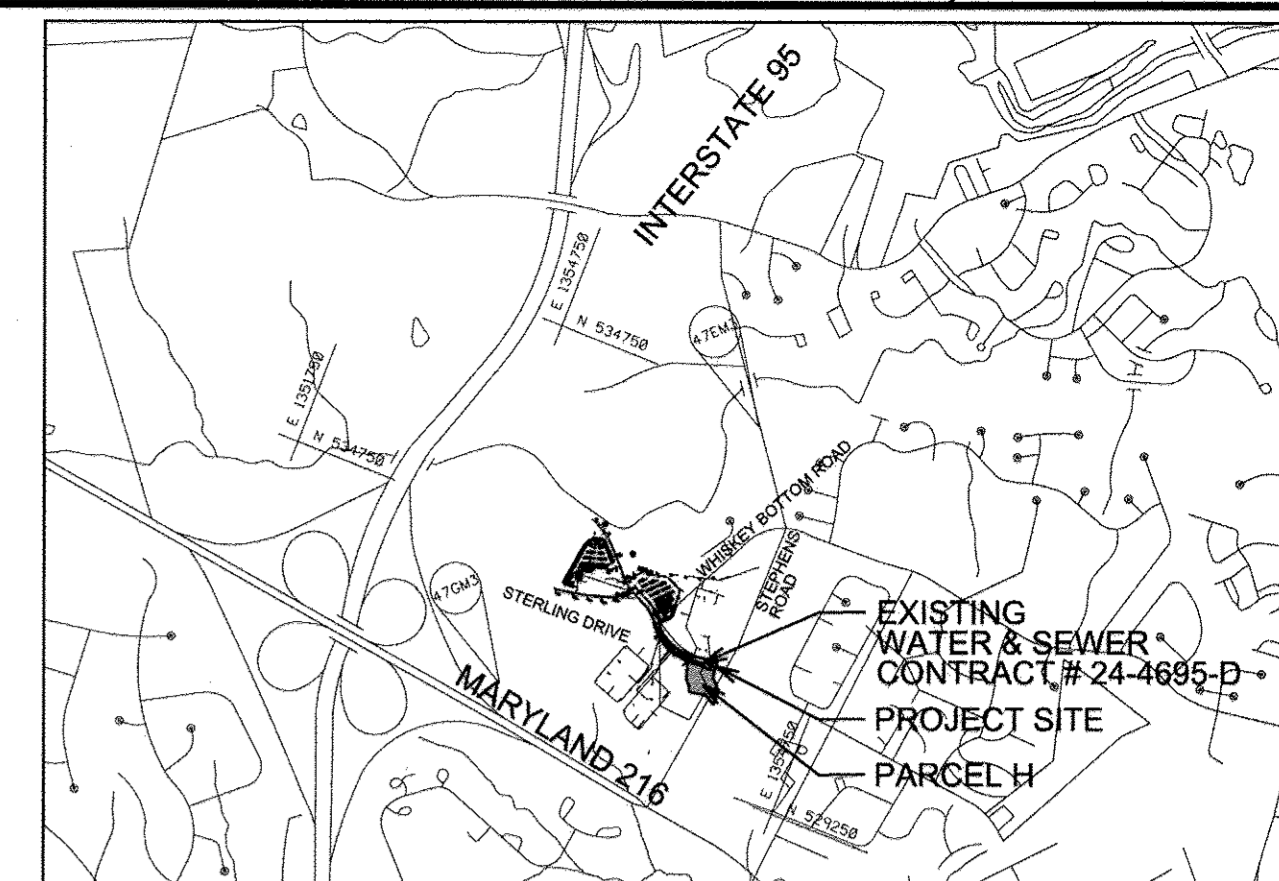
# 12" & 8" WATER MAIN RE-ROUTE

for

# EMERSON-CAMPUS VCP

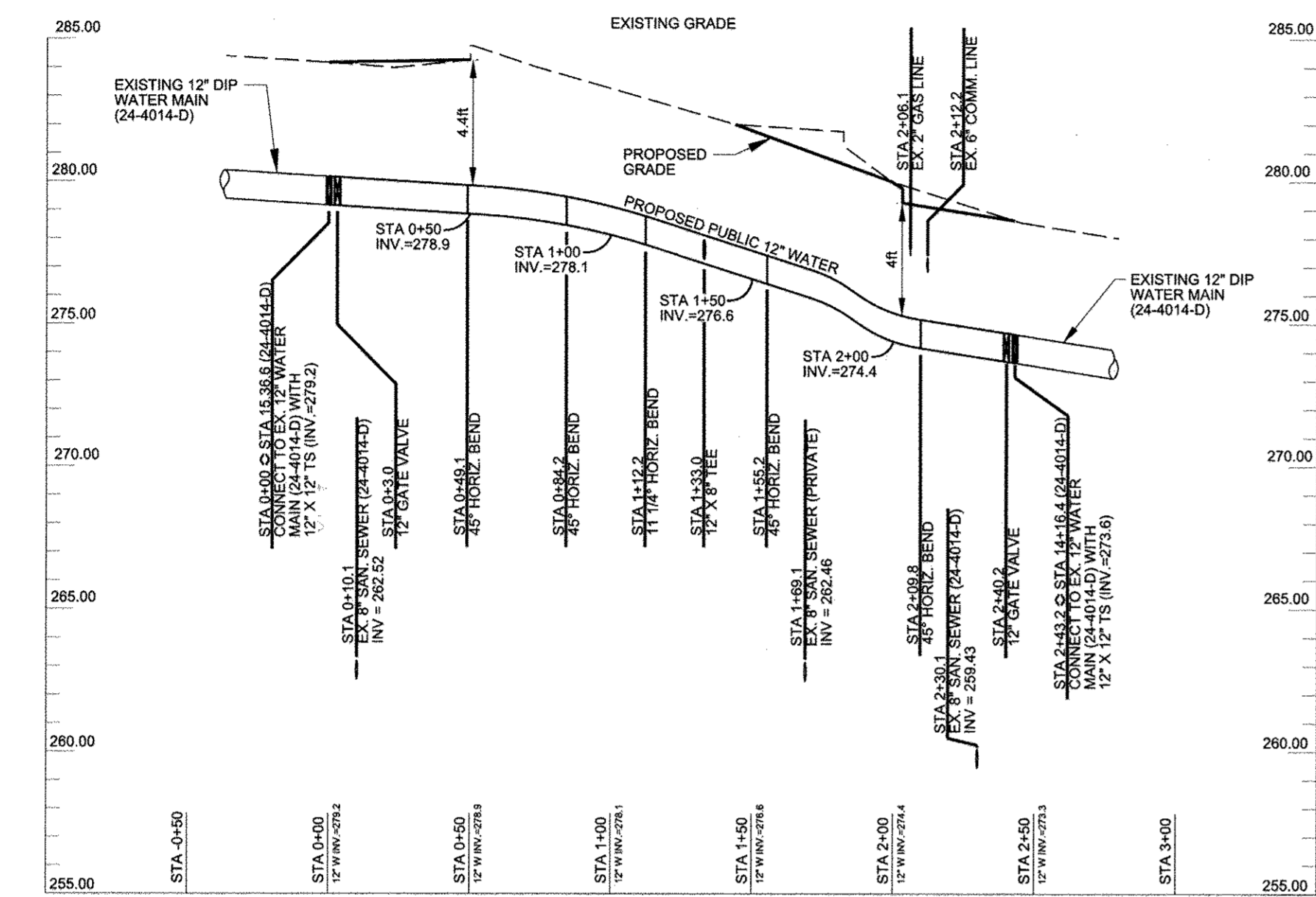
HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS

## CONTRACT NO. 44-4957-D

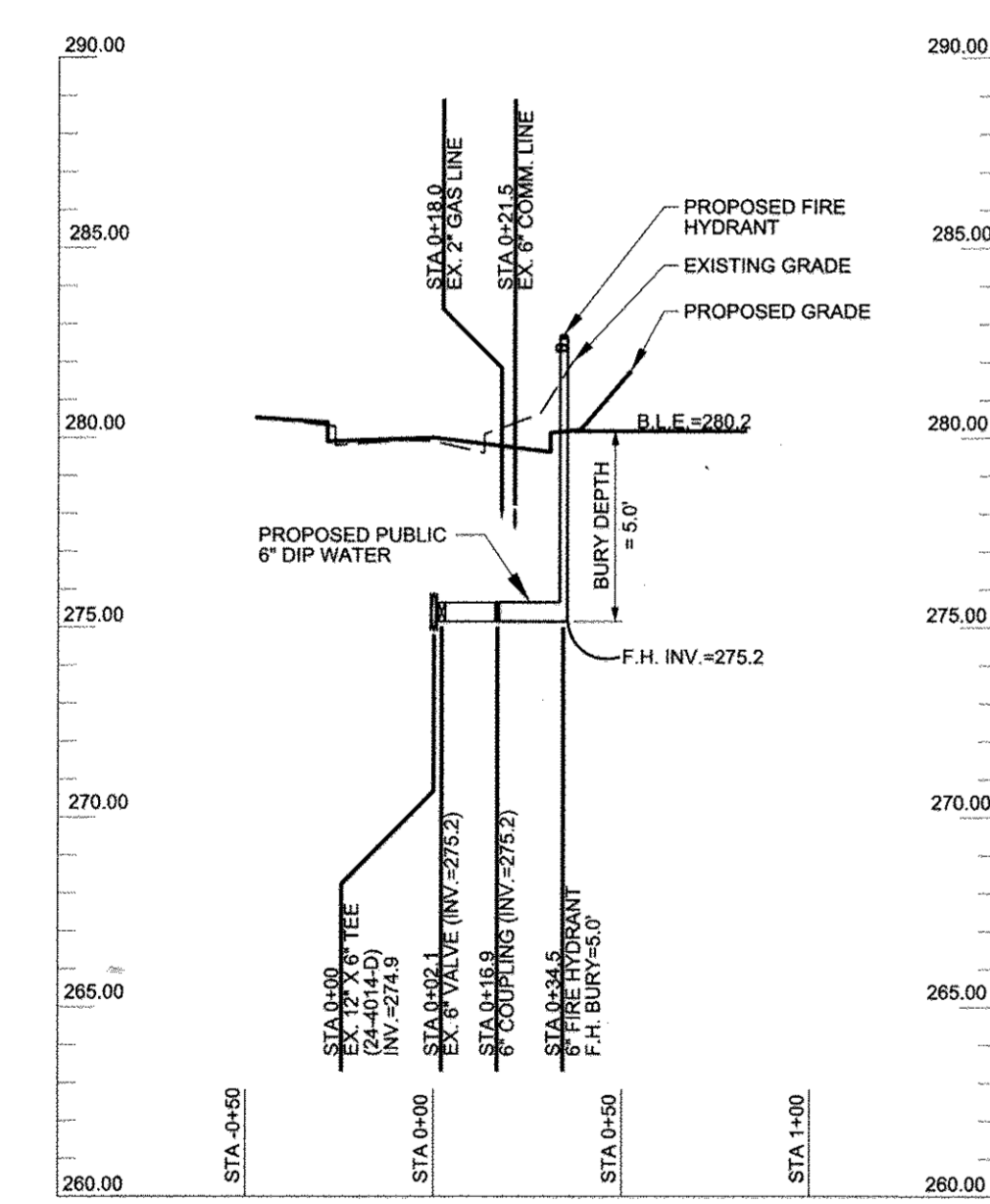


QUANTITIES				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER / SUPPLIER
12" DIP - CL 54	243'	240.0'	T.J.	MCWANE / FERGUSON
8" DIP - CL 54	19'		T.J.	MCWANE / FERGUSON
6" DIP - CL 54	64'	60.0'	T.J.	MCWANE / FERGUSON
12"x12" TS & V	2		S-3885	SMITH BLAIR MUELLER / FERGUSON
12"x8" TEE	1		M.J.	TYLER UNION / FERGUSON
12"x6" TS & V	1		S-3885	SMITH BLAIR MUELLER / FERGUSON
8" VALVE	1		M. RES WEDGE	AMERICAN FLOW CONTROL / FERGUSON
45" BEND-12"	4			
11 1/4" BEND - 12"	1		M.J.	TYLER UNION / FERGUSON
45" BEND - 8"	1		M.J.	TYLER UNION / FERGUSON
12" CAP	2		M.J.	TYLER UNION / FERGUSON
8" CAP	1		M.J.	TYLER UNION / FERGUSON
6" CAP	1		M.J.	TYLER UNION / FERGUSON
6" COUPLING	1		M.J.	TYLER UNION / FERGUSON

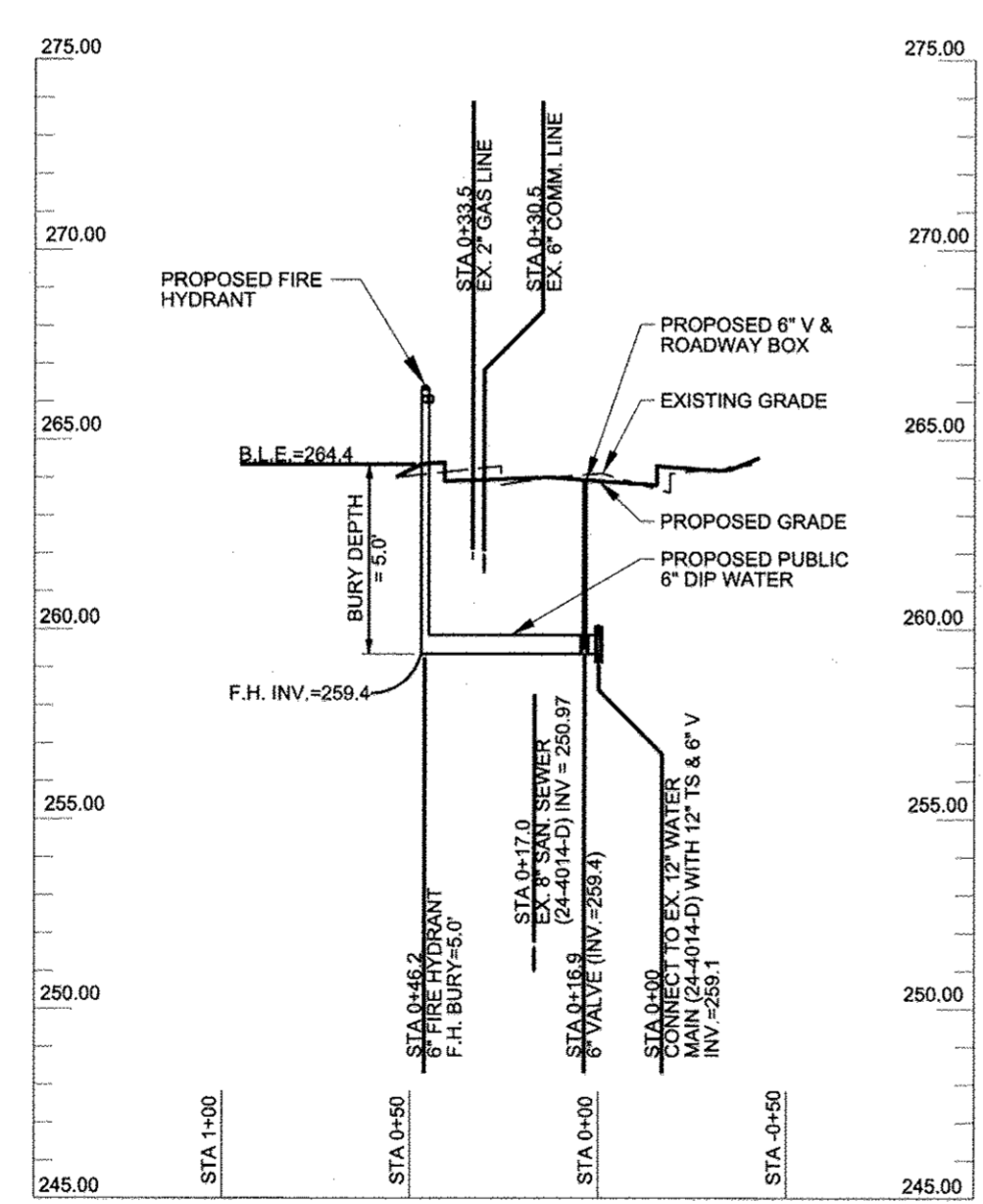
NAME OF UTILITY CONTRACTOR: **COMER CONSTRUCTION INC.**  
 SURVEY AND DRAFTING DIVISION AS-BUILT DATE: **3-8-18**



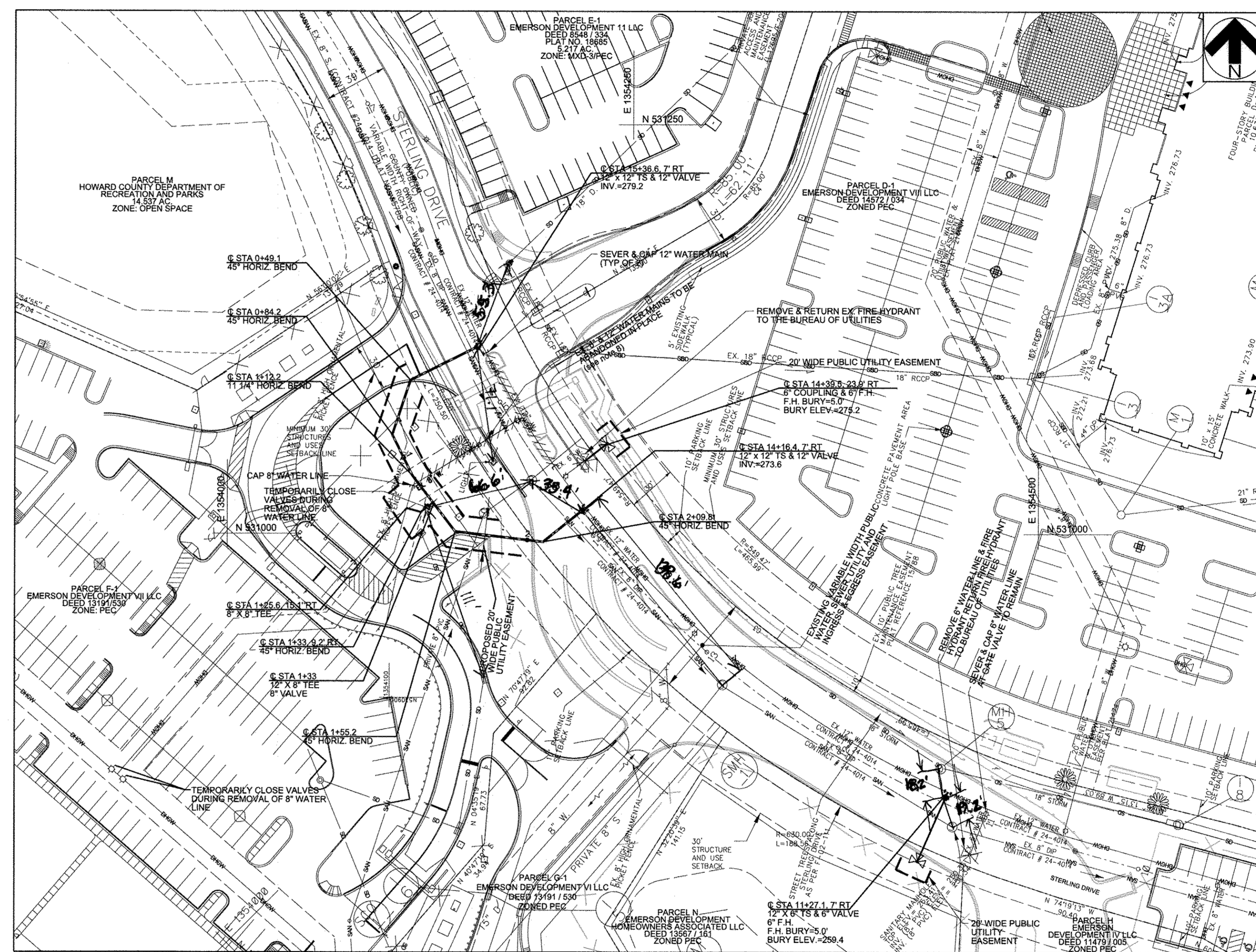
**1 12" DIP WATER MAIN RELOCATION**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 5'



**2 6" DIP WATER LINE EXTENSION TO NEW FH**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 5'



**3 6" DIP WATER LINE TO NEW FH**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 5'



**SEQUENCE OF CONSTRUCTION**  
 SCALE: 1" = 50'

- INSTALL 12" WATER MAIN BETWEEN STA 14+16.4 AND STA 15+38.6 OF EX. 12" WATER MAIN (CONTRACT NO. 24-4014-D). INSTALL BENDS, TEES, AND ASSOCIATED VALVES ALONG THE WATER MAIN REROUTE. REROUTED 12" WATER MAIN SHALL BE INSTALLED WITH RESTRAINED JOINTS AND MECHANICAL FITTINGS. DO NOT CONNECT TO EXISTING WATER MAIN.
- PERFORM TESTING OF REROUTED WATER MAIN IN ACCORDANCE WITH HOWARD COUNTY BUREAU OF UTILITIES RULES AND REGULATIONS PRIOR TO CONNECTING TO EXISTING 12" WATER MAIN (CONTRACT NO. 24-4014-D).
- INSTALL 12" TAPPING SLEEVES ON EXISTING 12" WATER MAIN AND CONNECT REROUTED 12" WATER MAIN TO EXISTING 12" WATER MAIN.
- CLOSE VALVE AND REMOVE EXISTING HYDRANT AT STA 14+39.5 AND RETURN TO BUREAU OF UTILITIES. EXTEND 6" DIP WATER LINE AT STA 14+39.5 AND INSTALL NEW FIRE HYDRANT.
- OPEN VALVE AND RESTORE SERVICE TO FIRE HYDRANT AT STA 14+39.5.
- INSTALL 12" X 6" TAPPING SLERVE AND VALVE AT STA 11+27.1. EXTEND 6" DIP WATER LINE TO SOUTH SIDE OF STERLING DRIVE AND INSTALL NEW FIRE HYDRANT.
- CLOSE GATE VALVE AT STA 10+99.5. SEVER AND CAP 6" WATER LINE IMMEDIATELY AFTER VALVE. REMOVE 6" DIP WATER LINE AND FIRE HYDRANT. RETURN FIRE HYDRANT TO THE BUREAU OF UTILITIES.
- COORDINATE SHUT-DOWN OF WATER SERVICE ALONG STERLING DRIVE WITH THE HOWARD COUNTY, BUREAU OF UTILITIES. NOTIFICATION SHALL BE GIVEN 5 DAYS PRIOR TO THE SHUT-DOWN AND ONE HOUR PRIOR TO THE SHUT-DOWN FOR CHANGES TO BE MADE TO THE WATER SUPPLY. ALL VALVES TO BE CLOSED IN ORDER TO ISOLATE THE EXISTING 12" WATER MAIN ALONG STERLING DRIVE SHALL BE PERFORMED BY THE HOWARD COUNTY BUREAU OF UTILITIES.
- SEVER AND CAP EXISTING 12" WATER MAIN (CONTRACT NO. 24-4014-D) AND PRIVATE 8" WATER LINE. REMOVE SEGMENTS OF 12" AND 8" WATER LINES AS SHOWN. ABANDON PORTION OF 12" WATER OF WATER MAIN ALONG STERLING DRIVE AND INFILL WITH FLOWABLE FILL.
- INSTALL SCREW JACKS BETWEEN ACTIVE 12" WATER MAIN AND SECTION OF EXISTING WATER MAIN TO BE ABANDONED IN PLACE AND BACKFILL WITH CONCRETE.
- CONNECT 8" PRIVATE WATER LINE AT PARCEL F-1 TO 12" X 8" TEE PLACED ALONG REROUTED WATER MAIN.
- RESTORE WATER SERVICE ALONG STERLING DRIVE. ALL VALVES REQUIRED TO BE OPENED TO RESTORE SERVICE SHALL BE PERFORMED BY THE HOWARD COUNTY BUREAU OF UTILITIES.

**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. 45292 EXPIRATION DATE: 05/21/2016.

**PROFESSIONAL CERTIFICATION FOR REV 1**

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. 45292 EXPIRATION DATE: 05/21/2016.

**LOCATION MAP**  
 SCALE 1" = 600'

**HOWARD COUNTY GEODETIC COORDINATES**

BENCH MARK ID: 47GM3	BENCH MARK ID: 47EM3
NORTHING: 531620.07	NORTHING: 532973.07
EASTING: 1352684.71	EASTING: 1356218.71
ELEVATION: 91.734	ELEVATION: 84.447

**ADDRESS CHART**

PARCEL NUMBER	STREET ADDRESS
PARCEL H	9005 STERLING DRIVE

WATER ZONE: 400  
 TEST GRADIENT: 550

TYPE OF BUILDING: OFFICE  
 NO. OF PARCELS: N/A  
 DRAINAGE AREA: LITTLE PATUXENT  
 TREATMENT PLANT: LITTLE PATUXENT WATER QUALITY MANAGEMENT CENTER

**GENERAL NOTES**

- PART I - GENERAL**
- 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.
  - All horizontal controls are based on Maryland State Coordinates, NAD 83/91.
  - All vertical controls are based on NAVD 88.
  - 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 2' minimum or larger 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 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 1-800-252-1133  
 BGE (Contractor Services) 410-550-4620  
 BGE (Underground Damage Control) 410-787-0066  
 Bureau of Utilities 410-313-4900  
 Colonial Pipeline Co. 410-786-1390  
 Miss Utility 1-800-257-7777  
 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 site 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) 313-7400 at least five working days before open cutting or boring along 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.
  - 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 DIP Class 54 unless otherwise noted.
- Top of all water mains shall have a minimum of 3' of cover unless otherwise noted.
- Valves adjacent to trees shall be strapped to trees.
- 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 DIP and PVC water mains in accordance with the Howard County Design Manual.
- Pipeline to be abandoned in place using flowable fill or other approved method.

THE PURPOSE FOR THIS REVISION IS TO PROVIDE A REVISED SEQUENCE OF CONSTRUCTION FOR THE INSTALLATION OF THE WATER MAIN ALONG STERLING DRIVE.

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY BUREAU OF UTILITIES.

*John K. [Signature]* 3/22/17  
 SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE HOWARD COUNTY STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION AND AS SHOWN ON THE APPROVED SDP-16-005 PLANS.

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

*Stefan C. Coon* 3/15/17  
 CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING  
 HOWARD COUNTY, MARYLAND

*Chief [Signature]* 3/28/17  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

REVITZ PROPERTY  
 #9005 STERLING DRIVE  
 OWNER/DEVELOPER: EMERSON DEVELOPMENT IV, LLC  
 ONE TEXAS STATION, SUITE 200 TIMONUM, MD 21093  
 (443) 689-8000

**JACOBS**  
 1100 N GLEBE RD., ARLINGTON, VA, 22201  
 (571) 218-1000



DES:	MMS	REVISION	DATE
MGW		REVISED SEQUENCE OF CONSTRUCTION	2/21/17
DRN:			
CHK:			
		AS BUILT	3/8/18
DATE 4/04/18	BY NO.	REVISION	DATE

PROPOSED 12 INCH WATER MAIN RELOCATION

600 SCALE MAP NO. 47 BLOCK NO. 20

PARCEL H, D, E, F, G, O, Q  
 6TH ELECTION DISTRICT

REVITZ PROPERTY  
 STERLING DRIVE LAUREL, MARYLAND  
 CONTRACT NO. 44-4957-D

SCALE: AS SHOWN  
 SHEET: 1 OF 1