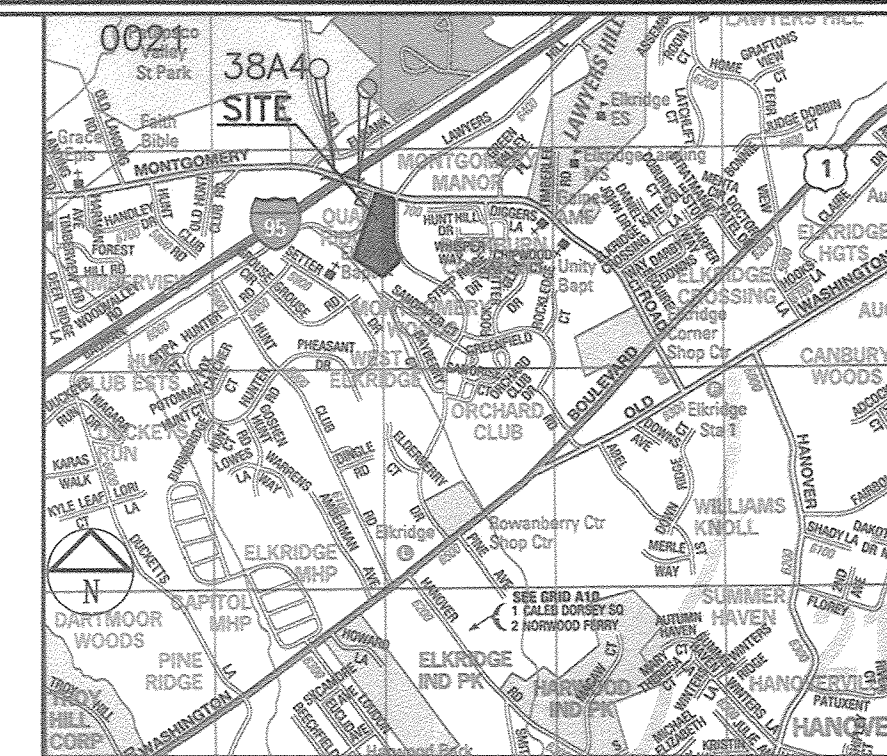


# Elkridge Fire Station Parcel A

## Capital Project F-5964

### Contract No. 14-4827 D



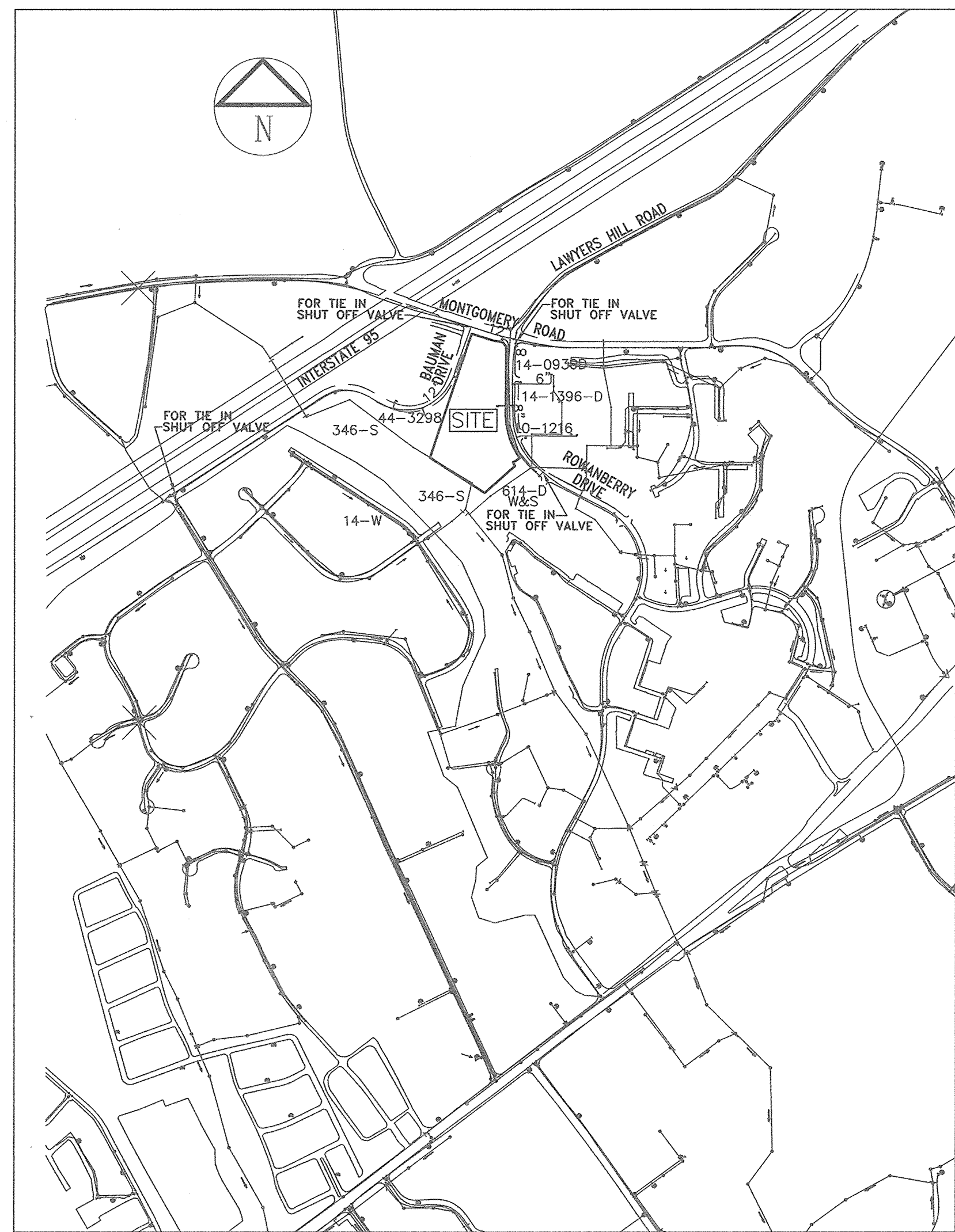
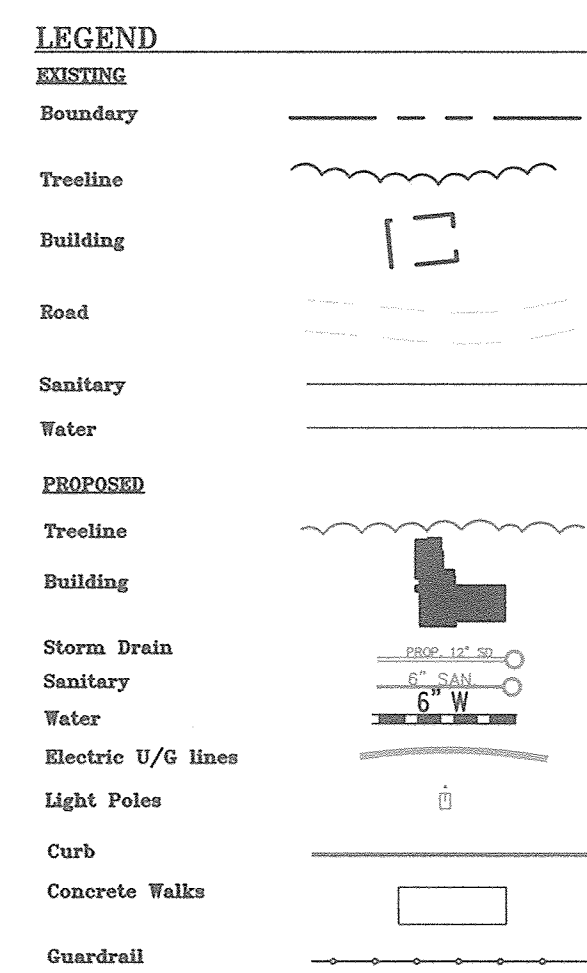
VICINITY MAP  
SCALE :1"=2,000' ADC MAP 4937-B7 & C7

ITEMS	ESTIMATED QUANTITIES	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
8" x 6" TS&V	1 EA.	1	663	SMITH BLAIR
12" x 6" TS&V	2 EA.	2	663	SMITH BLAIR
6" C900 PVC DR-14	143 LF	143	C900	NATIONAL PIPE
FIRE HYDRANT	3 EA.	3	A423	MUELLER COMPANY
TEST STATIONS	4 EA.	4	18" X 30"	HORNE CONCRETE
12" x 8" TS & V	1 EA.	1	663	SMITH BLAIR
6" C900	72 L.F.	72'	C900	NATIONAL PIPE
DOG HOUSE MANHOLE	1 EA.	1		

NAME OF UTILITY CONTRACTOR: **COMER**  
SURVEY AND DRAFTING DIVISION AS-BUILT DATE:

Water House Connection As-built Location Table			
Lot Number	Address	Location Dimension 1	Location Dimension 2
Parcel A	5700 Rowanberry Drive		

- WATER MAIN GENERAL NOTES**
- All water mains shall be C900 PVC DR-14 unless otherwise noted.
  - Tops of all water mains shall have a minimum of 3'-6" of cover unless otherwise noted.
  - Valves adjacent to tees shall be strapped to tees.
  - All fittings shall be buttressed or anchored with concrete in accordance with Standard Details unless otherwise provided for on the drawings.
  - Fire hydrants shall be set to the bury line elevations shown on the drawings. All fire hydrants shall be installed in accordance with Standard Details. The soil around the fire hydrant shall be compacted in accordance with Section 1000 and Section 1005 of the Standard Specifications.
  - The contractor shall not operate any water main valves on the existing water system.
  - Tracer wire and continuity test stations shall be installed on all DIP and PVC water mains in accordance with the Howard County Design Manual.
  - For PVC water mains, all records for the Quality Control and Qualification Test Requirements noted in Section 5.1 of the AWWA Standard C900 for PVC pressure pipe shall be submitted with the pipe material certifications or shop drawings prior to approval of the material for use. The test records shall be for the pipe to be installed under this contract. All PVC pipe shall contain markings to allow cross referencing of the pipe supplied to the test records received.
  - Unless otherwise noted on the plans or in the specifications, seventeen (17) pound sacrificial anodes shall be installed on all valves and metallic fittings used with PVC water mains in accordance with Volume IV Standard Specifications and Details for Construction. Magnesium anodes shall be installed on all valves and ductile iron fittings including restraints and harnesses. 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 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.



LOCATION MAP

SCALE :1"=600'

TYPE OF BUILDING: **FIRE SUBSTATION**  
 NO. OF LOTS / PARCELS: 1  
 NO. OF WATER HOUSE CONNECTIONS: 1  
 NO. OF SEWER HOUSE CONNECTIONS: 1 EXISTING  
 DRAINAGE AREA: PATAPSCO  
 TREATMENT PLANT: PATAPSCO WATER RECLAMATION PLANT ELKRIE, HOWARD COUNTY  
 WATER ZONE : 550  
 TEST GRADIENT: 700

THE PURPOSE OF THIS REVISED WATER PLAN IS TO DELETE THE 8" WATER & FH LINE C & REVISED PLAN VIEW

INSIDE WATER METERS TO BE USED

NOTE: EXISTING WATER CONNECTIONS FOR 3 HOUSES ORIGINALLY ON THE PROPERTY SHALL BE ABANDONED (2 HOUSES 6990 & 6994 MONTGOMERY ROAD HAVE BEEN RAZED BY HO.CO). SEWER HOUSE CONNECTION FOR HOUSE AT 5700 ROWANBERRY DRIVE SHALL BE ABANDONED. EXISTING SEWER CONNECTION SERVICING 6990 & 6994 MONTGOMERY ROAD SHALL BE UTILIZED BY FIRE STATION.

**BENCHMARK DESCRIPTIONS**

The courses and coordinates shown hereon are based on the following Howard County monuments:

Point	Northing	Easting	Elevation
38A4	562977.641	1386288.0606	223.372
0021	562745.8233	1386542.0529	226.190

AS-BUILT

Revised 7/23/18

**SHEET INDEX**

SHEET NO.	TITLE
1	Cover Sheet
2	Water Plan
3	Water Profiles

**OWNER/DEVELOPER:**  
 HOWARD COUNTY, MARYLAND  
 9250 BENDIX ROAD  
 COLUMBIA, MARYLAND 21045  
**CONTACT:** MARK STROMDAHL 410-313-5757  
 mcstromdahl@HowardCountyMD.gov

- GENERAL NOTES**
- Approximate location 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 and Boundary surveys were performed in February 2013 by Shanberger & Lane.
  - 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. 38A4 and No. 0021. All vertical controls are based on NAVD '88. Vertical controls provided on the drawings are based on Howard County Geodetic Control Stations No. 38A4 and No. 0021.
  - 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 the monies owed by 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 the work shown on these plans:
 

AT&T	1-800-252-1133
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	1-800-257-7777
State Highway Administration	410-531-5533
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 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 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.

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE STANDARD SPECIFICATIONS AND WITH SITE DEVELOPMENT PLANS SDP 14-075.

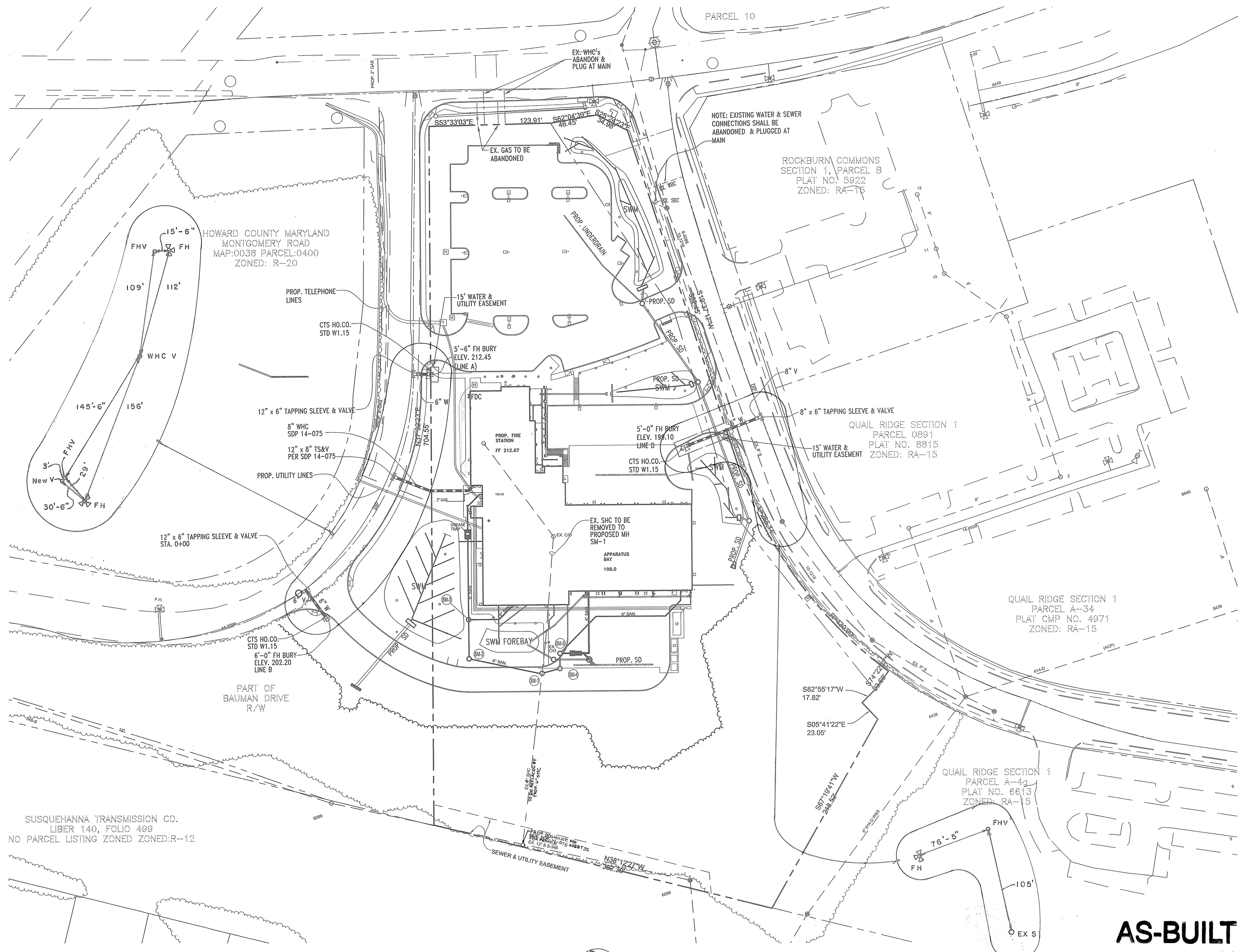
THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

*John R. Roberts* 9/29/16  
 SOIL CONSERVATION DISTRICT DATE

Note: No improvements shall be constructed or placed within the Public Water, Sewer and Utility Easements, which will impede or hinder access to the public water and sewer mains. Improvements such as air-conditioning units, fireplace chimneys, decks, fencing, foundation plantings and trees shall not be placed within the easement.

SITE ADDRESS: 5700 ROWANBERRY AVE. ELKRIE, MARYLAND 21075 BID DOCUMENTS IFB #2016-12

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND  <i>Charles S. [Signature]</i> CHIEF, BUREAU OF UTILITIES DATE 9/29/16	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND  <i>[Signature]</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 9-30-16	SILL ENGINEERING GROUP, LLC 11130 Dovedale Court, Suite 200 Marriottsville, Maryland 21104 Phone: 413.325.5076 Fax: 410.696.2022 Email: info@sillengineering.com Civil Engineering for Land Development	DESIGNED BY: JLS DRAWN BY: MPO CHECKED BY: PS DATE: MAY 31, 2016	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	DESCRIPTION	DATE							REVISED COVER SHEET  600' SCALE MAP NO. 1943    BLOCK NO. B2	ELKRIE FIRE STATION Capital Project F-5964  PARCEL A 1ST ELECTION DISTRICT-Howard County, Maryland PARCEL A ZONING R-12, RA15  CONTRACT NO. 14-4827 D	SCALE: AS SHOWN  SHEET NO. 1 OF 3
NO.	DESCRIPTION	DATE														



**UTILITY NOTE:**

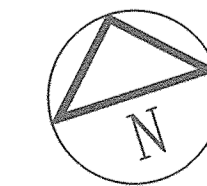
A) CONTRACTOR SHOULD OPEN ONLY THAT SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED EACH DAY. IF TRENCH MUST REMAIN OPEN LONGER THAN ONE DAY, SILT FENCE SHALL BE PLACED BELOW (DOWN SLOPE OF) THE TRENCH.

B) PLACE ALL EXCAVATED MATERIAL ON UPHILL SIDE OF TRENCH.

C) ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.

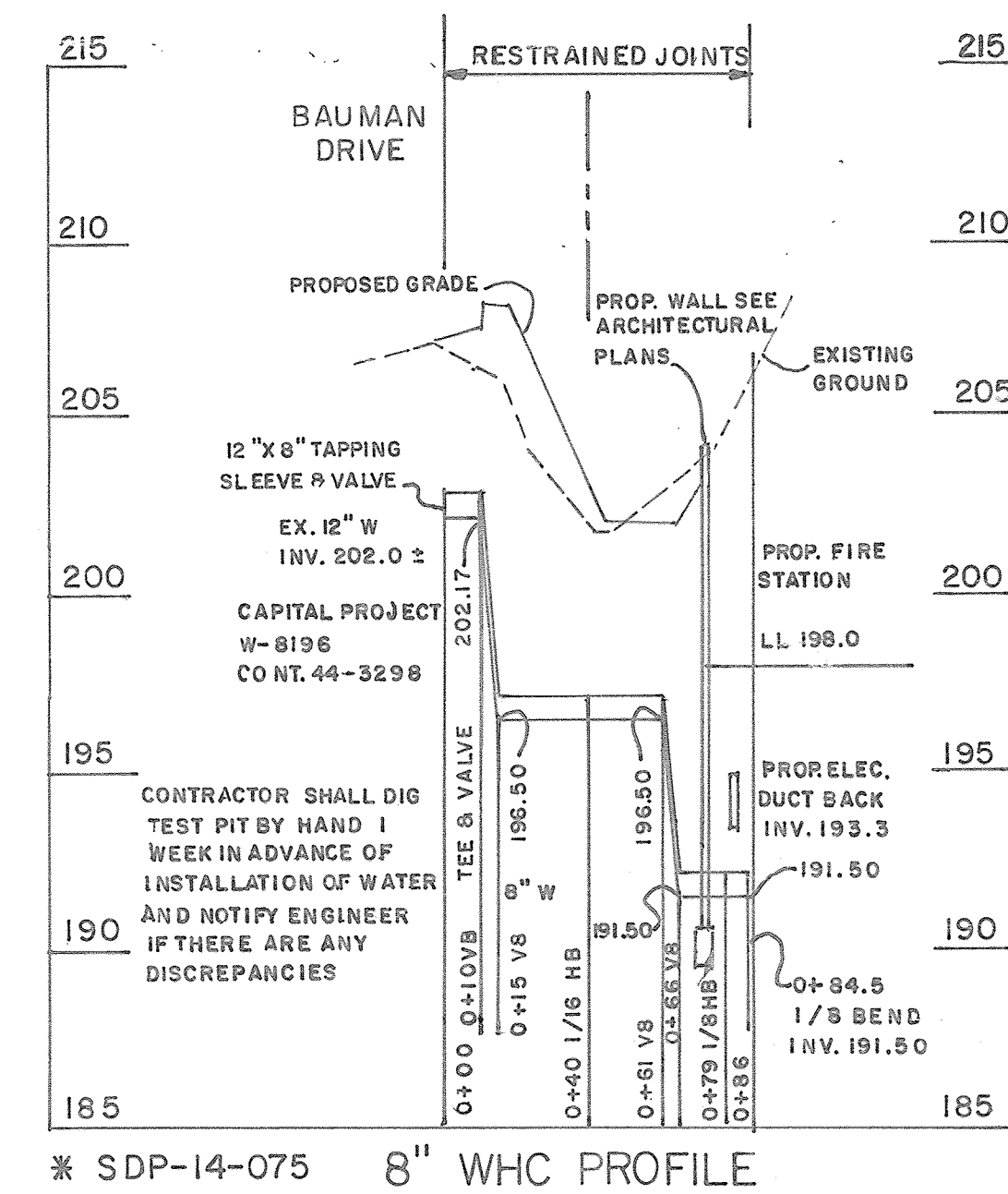
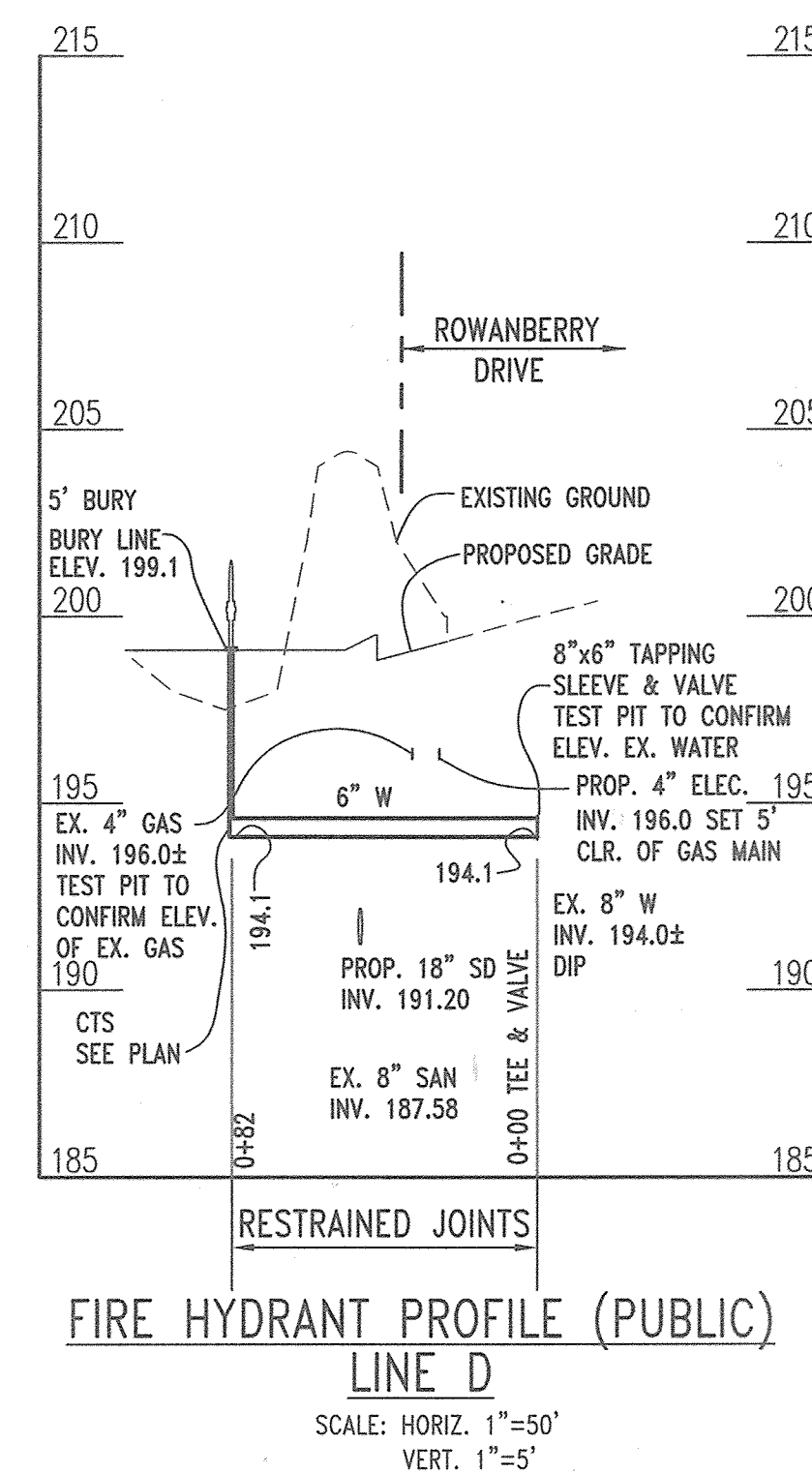
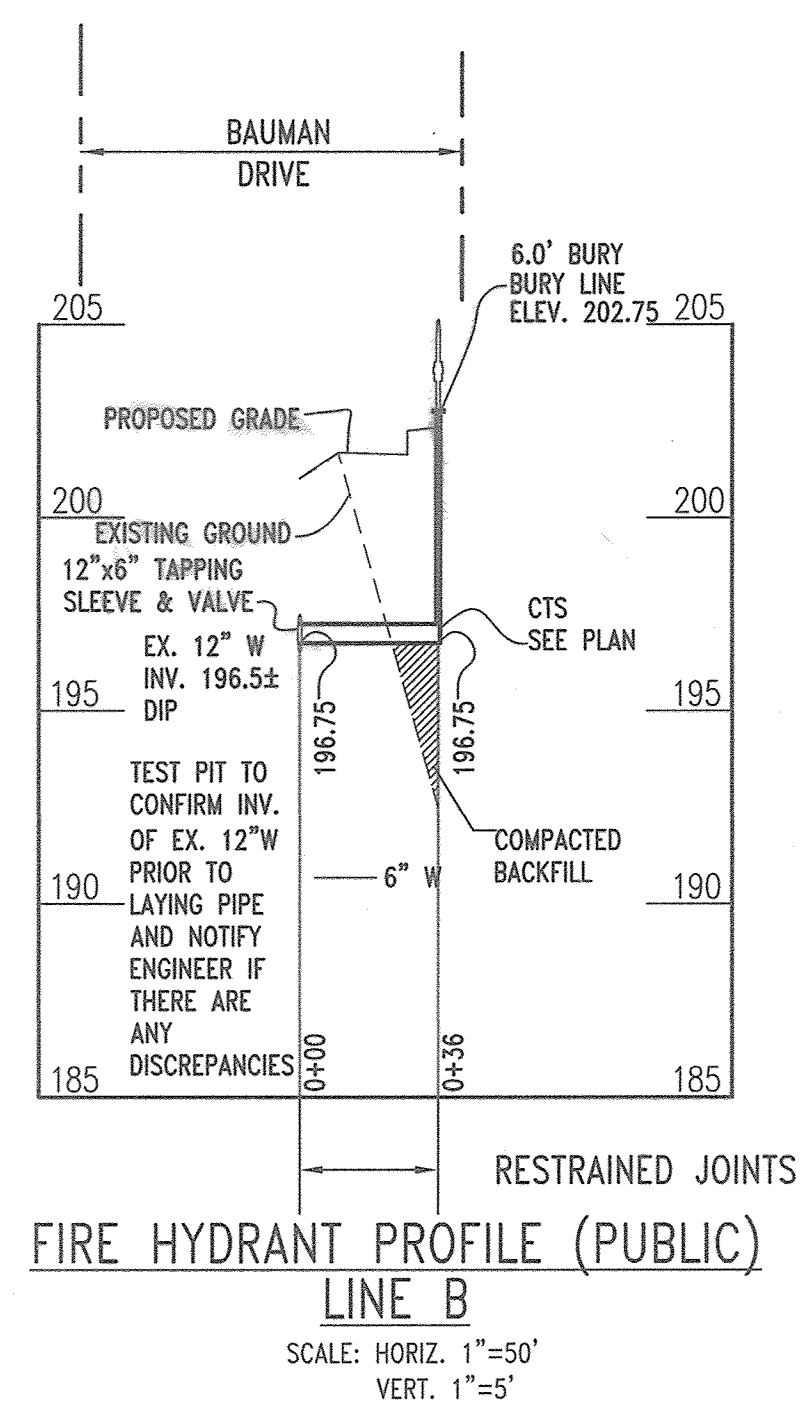
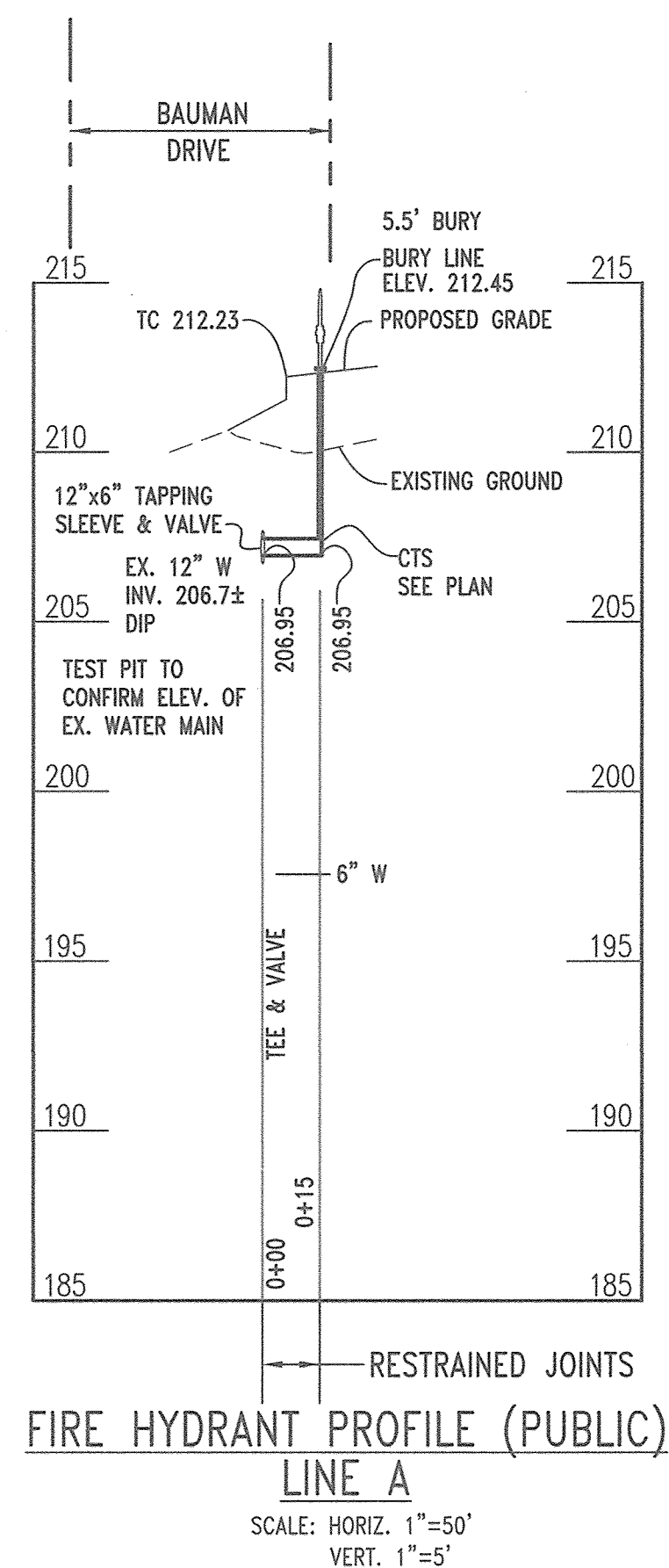
THE PURPOSE OF THIS REVISED WATER PLAN IS TO DELETE THE 8" WATER & FH LINE C & REVISED PLAN VIEW

PLAN VIEW  
SCALE: 1"=50'



**AS-BUILT**  
By: *[Signature]* Date: 6/2/18  
Revised 7/23/18

<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>[Signature]</i> CHIEF, BUREAU OF UTILITIES</p> <p>DATE: 9/29/16</p>	<p>DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND</p> <p><i>[Signature]</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION</p> <p>DATE: 9.30.16</p>	<p><b>SILL ENGINEERING GROUP, LLC</b> 11130 Dovegate Court, Suite 200 Marriottsville, Maryland 21104 Phone: 443.325.5076 Fax: 410.696.2022 Email: info@sillengineering.com Civil Engineering for Land Development</p>	<p>DESIGNED BY: JLS DRAWN BY: MPO CHECKED BY: PS DATE: MAY 31, 2016</p> <p>STATE OF MARYLAND PROFESSIONAL ENGINEER No. 52093 EXPIRES 06/30/2017</p>	<table border="1"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>REPLACE EX. 4" SHC W/ PROP. 6" SHC &amp; DOGHOUSE MH</td> <td>04/30/2016</td> </tr> </tbody> </table>	NO.	DESCRIPTION	DATE	1	REPLACE EX. 4" SHC W/ PROP. 6" SHC & DOGHOUSE MH	04/30/2016	<p>REVISED WATER PLAN</p> <p>600' SCALE MAP NO. 1943 BLOCK NO. B2</p>	<p><b>ELKRIDGE FIRE STATION</b> Capital Project F-5964</p> <p>PARCEL A 1ST ELECTION DISTRICT-Howard County, Maryland PARCEL A ZONING R-12, RA15</p> <p>CONTRACT NO. 14-4827 D</p>	<p>SCALE: AS SHOWN</p> <p>SHEET NO. 2 OF 3</p>
NO.	DESCRIPTION	DATE											
1	REPLACE EX. 4" SHC W/ PROP. 6" SHC & DOGHOUSE MH	04/30/2016											



THE PURPOSE OF THIS REVISED WATER PLAN IS TO DELETE THE 8" WATER & FH LINE C & REVISED PLAN VIEW

**AS-BUILT**  
By [Signature] Date 6/6/18  
Revised 7/23/18

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

[Signature]  
CHIEF, BUREAU OF UTILITIES

DATE: 9/29/16

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

[Signature]  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

DATE: 9.30.16

**SILL ENGINEERING GROUP, LLC**  
11130 Dovedale Court, Suite 200  
Marriottsville, Maryland 21104  
Phone: 443.325.5076  
Fax: 410.696.2022  
Email: info@sillengineering.com  
Civil Engineering for Land Development

STATE OF MARYLAND  
PROFESSIONAL ENGINEER  
No. 32095  
EXPIRES 12/31/2017

DESIGNED BY: JLS  
DRAWN BY: MPG  
CHECKED BY: PS  
DATE: MAY 31, 2016

NO.	DESCRIPTION	DATE

**REVISED WATER PROFILES**

600' SCALE MAP NO. 1943 BLOCK NO. B2

**ELKRIDGE FIRE STATION  
Capital Project F-5964**

PARCEL A  
1ST ELECTION DISTRICT-Howard County, Maryland  
PARCEL A ZONING R-12, RA15

CONTRACT NO. 14-4827 D

SCALE: AS SHOWN

SHEET NO. 3 OF 3