

ADDENDUM #4

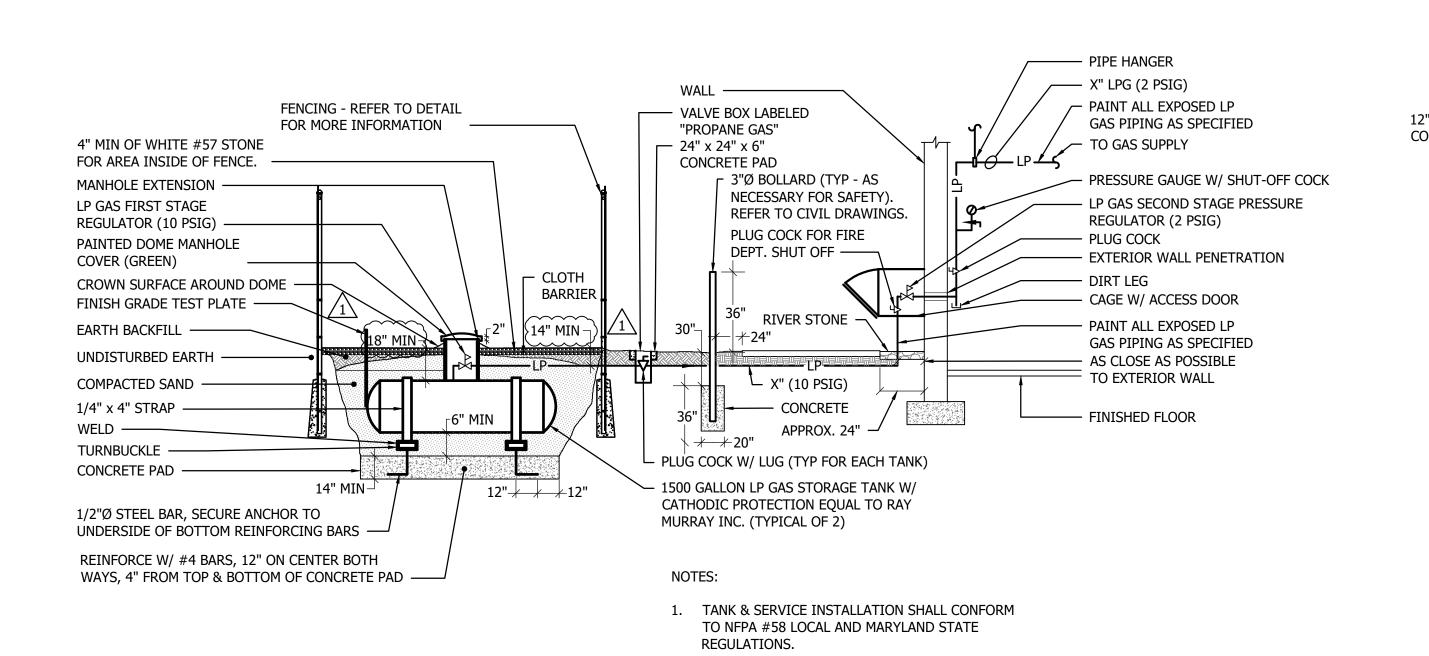
By: Steve Jenkins, P.E. Date: 05/19/2025

Project: North Harford Elementary School Fuel Tank Removal

Bid #: CAG 25-3

Addendum No.4 is issued to clarify the burial depth of the (2) 1500-gallon propane tanks.

• The tanks shall be provided with a minimum cover of 18" as recommended by propane tank manufacturer. Updated sheet MP-701 is attached.



CLEAN SAND COMPACT EVERY 12" BACKFILL OR 6" (MAXIMUM) TO 95% COMPOSITE ROAD SURFACE FILTER CLOTH ALL 4 SIDES (TYP) 36" MIN — SAND OR PEA GRAVEL BED AS REQUIRED BY AUTHORITIES HAVING JURISDICTION NOTES: 1. PROVIDE FILTER FABRIC AROUND ENTIRE TRENCH

UNDERGROUND GAS PIPING DETAIL

HANG FROM STRUCTURE ABOVE

THREADED ROD SIZE DETERMINED BY

SUPPORTED WEIGHT.

SEE SPECIFICATIONS

FOR SPACING ——

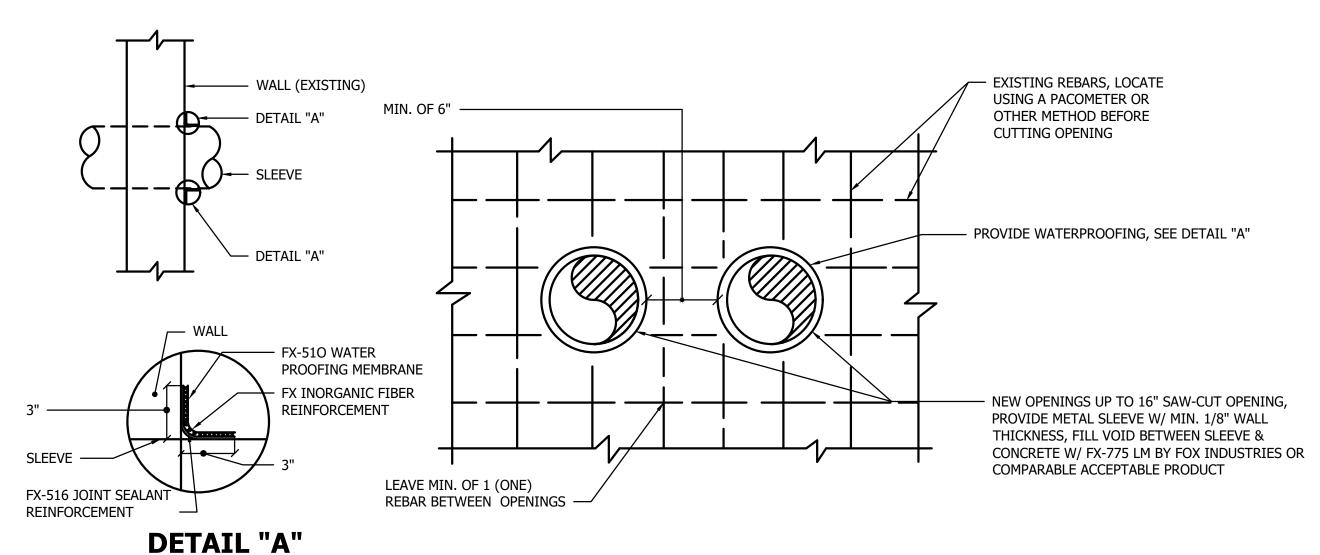
- PIPE INSULATION, REFER

TO SPECIFICATION FOR

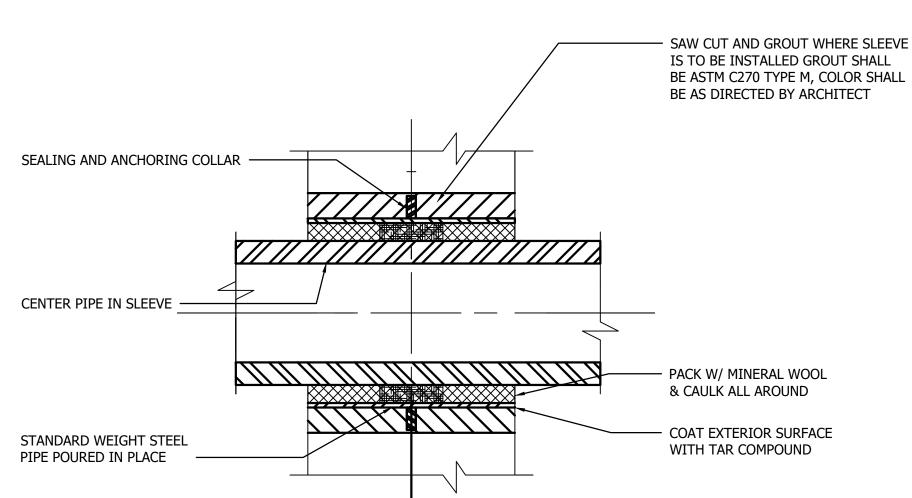
DETAIL - TYPICAL GAS PRESSURE REGULATING STATION

SCALE: NONE

GAS COCK (TYP.) -

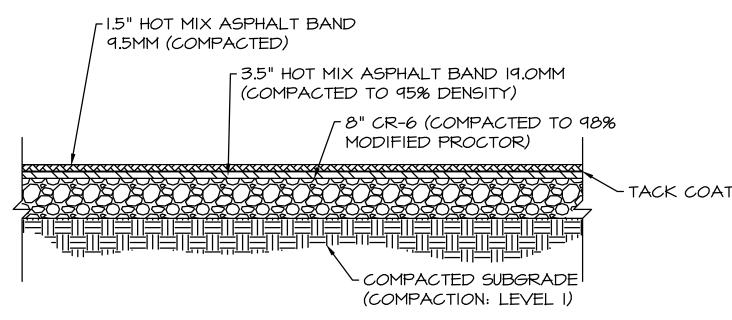


DETAIL - TYPICAL NEW OPENING THRU EXISTING WALL

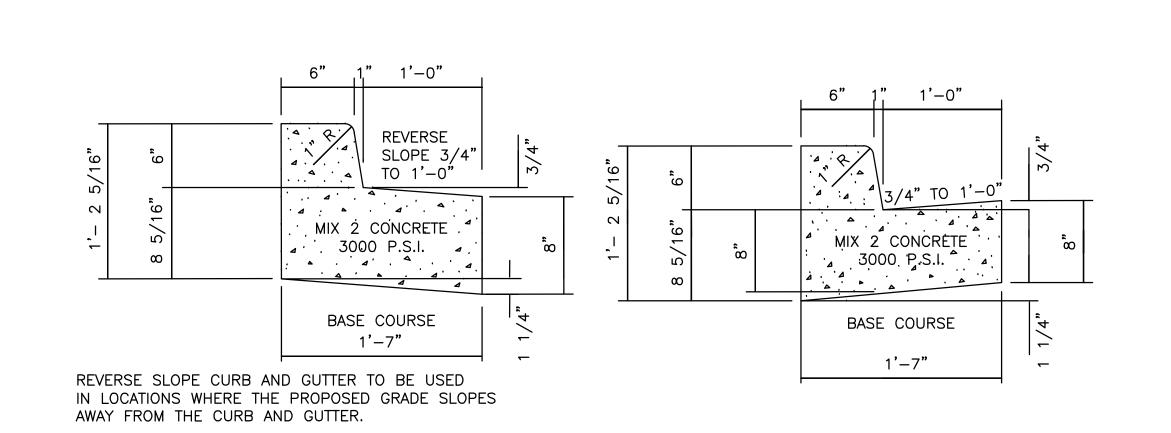


DETAIL - TYPICAL PIPE SLEEVE THRU EXTERIOR WALL

- 1. PROVIDE WEATHER TIGHT PIPE SLEEVES AT ALL WALL PENETRATIONS
- 2. REFER TO ARCHITECTURAL DRAWINGS FOR WALL CONSTRUCTIONS.



DETAIL - MEDIUM DUTY ASPHALT PAVEMENT



DETAIL - TYPICAL 6" CURB AND GUTTER

CLEVIS HANGER —

LP UNDERGROUND GAS STORAGE TNAK AND SERVICE DETAIL SCALE: NONE

2. PROVIDE CLEARANCE TO IGNITION SOURCES,

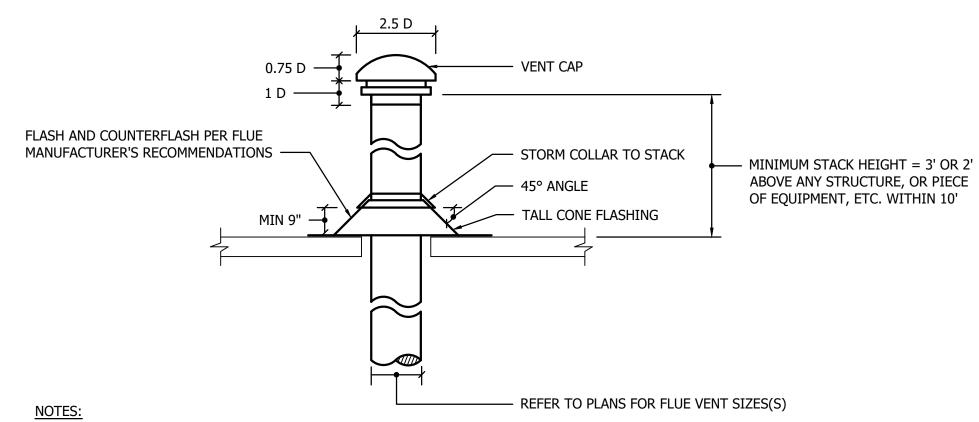
3. CONTRACTOR SHALL PROVIDE (2) 1500 GALLON UNDERGROUND PROPANE TANKS MANIFOLDED

TOGETHER SUCH THAT THE TOTAL STORAGE

AND PROPERTY LINES PER NFPA #58

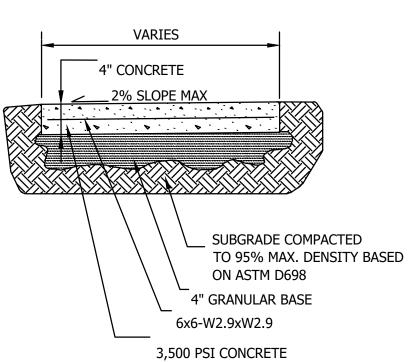
CAPACITY EQUALS 3000 GALLONS.

OPENINGS, MECHANICAL INTAKES, WINDOWS,



- FLUE SHALL TERMINATE ABOVE ROOF AS INDICATED IN ACCORDANCE WITH ALL NFPA, LOCAL, AND STATE CODE REQUIREMENTS
- 2. FLUE SYSTEMS SHALL BE TYPE AS INDICATED IN SPECIFICATIONS.
- PROVIDE ALL REQUIRED HARDWARE IN QUANTITIES AND SIZES PER THE PRODUCT MANUFACTURER'S INSTRUCTIONS. FINAL SUPPORT METHODS SHALL BE REVIEWED AND APPROVED BY ARCHITECT &
- 4. NOTE: REFER TO ARCHITECTURAL DRAWINGS FOR EXACT ROOF CONSTRUCTION.
- PROVIDE THIMBLE IF REQUIRED BY PRODUCT MANUFACTURER'S OR APPLICATION.
- INSTALL FLUE PER PRODUCT'S UL LISTING AND PRODUCT INSTALLATION INSTRUCTIONS AS WELL AS ALL APPLICABLE CODES AND THE AUTHORITY HAVING JURISDICTION'S REQUIREMENTS.

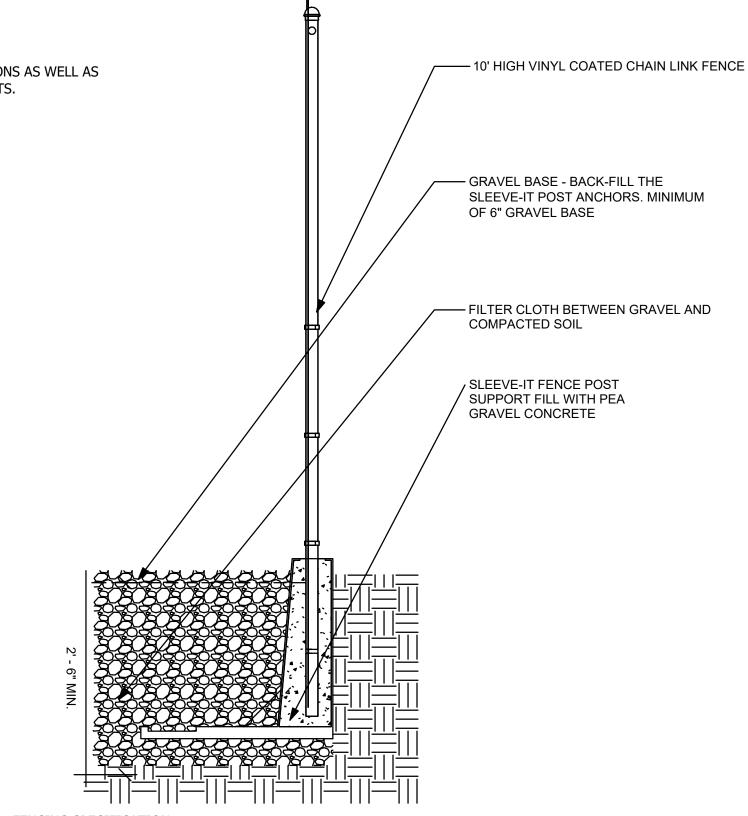
DETAIL - TYPICAL DOMESTIC WATER AND BOILER FLUE PENETRATION SCALE: NONE



CONCRETE SIDEWALK NOTES:

- 1) BROOM THE SURFACE WITH A FINE-HAIR BROOM AT RIGHT ANGLES TO THE CENTERLINE, TOOL ALL EDGES, JOINTS AND MARKINGS.
- 2) EXPANSION JOINTS OF 1/2" (MIN.) RIGID BITUMINOUS MATERIAL SHALL BE PLACED AT 24' SPACING.
- 3) MARK THE WALK AT 4 FT. INTERVALS WITH A JOINTING TOOL OR AS NOTED ON DRAWINGS.
- 4) AFTER FINISHING APPLY AN APPROVED CURING COMPOUND. PROTECT SIDEWALK FOR 7 DAYS.
- 5) CONCRETE MIX FOR SIDEWALK TO BE 3.500 PSI COMPRESSIVE STRENGTH AT 28 DAYS AND MEETING MD. SHA STD. MIX NO. 3. ALL CONCRETE PLACEMENT SHALL BE DESIGNED IN ACCORDANCE WITH A.C.I. SPECIFICATIONS.
- 6) INITIAL SITE CLEARING SHALL CONSIST OF COMPLETE REMOVAL OF TOPSOIL AND ORGANIC MATERIAL TO DEPTHS OF APPROVED AND STABLE SOILS. MAXIMUM CROSS-SLOPE SHALL BE BETWEEN 2%.
- 8) EXTEND GAB BEYOND WIDTH OF CONCRETE ON EACH SIDE.

DETAIL - CONCRETE SIDEWALK SCALE: NONE



FENCING SPECIFICATION

Terminal Fence Posts shall be 3" SS40 Cold-Formed Steel (ASTM F 1043, Group IC)

Line Fence Posts shall be 2.5" SS40 Cold-Formed Steel (ASTM F 1043, Group IC)

Posts shall be set with mow strip under fence.

Provide Top, Middle, and Bottom rails with self-locking bands at 12" on centers. The tie shall be preformed with a shape that will fit the circumference of the post or rail and over one picket of the chain link fabric. It shall be made of flat aluminum stock. The ends shall lock together by bending or folding the ends over and flat to the back of the

For fence fabric, provide 8 guage perma-fuse fabric at 120" in height. Vinyl coating thickness, galvanized coating weight, and wire tensile strength conform to ASTM F668, Class 2b. Federal Specification RR-F-191/1E Type IV, and AASHTO M-181 Type IV, Class B. The wire is SRO\ROHILQ coated before weaving and is free and flexible at all joints. Fabric woven in 2" mesh, is knuckled at both selvages.

DETAIL - FENCE SECTION

TYPES PIPE INSULATION -- ROLLER HANGER WHERE REQUIRED **DETAIL - TYPICAL PIPE CLEVIS HANGER** - PRESSURE REGULATING VALVE, REFER TO PRESSURE AND VOLUME AS INDICATED ON THE DWGS., VENT TO OUTSIDE PER CODE — UNION (TYP.) - GAS PIPE TO SERVE EQUIPMENT (REFER TO DWGS. OR GAS RISER FOR PIPE SIZES) 1'-0" MAX. 1'-0" MAX.

ROUNDED CONCRETE FINISH —

- HANG FROM STRUCTURE ABOVE

8" DIA. STD. PTD. STEEL PIPE FILLED W/CONC. ~ (PAINTED BLACK) 1X1X1X1XXX 1'-6" DIA. — 3000 PSI CONC. BASE

> **DETAIL - TYPICAL BOLLARD** SCALE: NONE

HARFORD COUNTY PUBLIC SCHOOLS

I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR

UNDER THE LAWS OF THE STATE OF MARYLAND.

ADDENDUM #4

LICENSE NUMBER: 58981

EXPIRATION DATE: $\overline{03-06-27}$

APPROVED BY ME, AND THAT I AM A DULY LICENSED ENGINEER

Description

Date

05/19/2025

410.494.1111

bowman.com

© 2022 Bowman Consulting Group Ltd

HARFORD COUNTY

PUBLIC SCHOOLS

102 SOUTH HICKORY AVENUE

BEL AIR, MD 21014

(410) 838-7300

NORTH HARFORD **ELEMENTARY SCHOOL FUEL** TANK REMOVAL

DETAILS

Project Number 280780 03/10/2025 Drawn By SSJ Checked By MGH

Scale

AS NOTED