

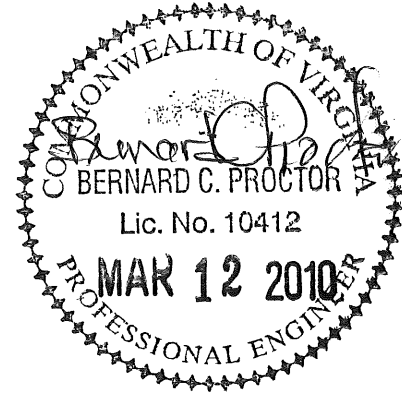
SPECIFICATIONS
AND
CONTRACT DOCUMENTS

FOR THE

SANITARY SEWERAGE IMPROVEMENTS
FOR THE
EAST PAMPLIN SERVICE AREA

FOR THE
TOWN OF PAMPLIN CITY

COMM. NO. 030320



Plans and Specifications DatedJanuary 27, 2010
Addendum No. 1 February 22, 2010
Addendum No. 2March 12, 2010

The following revisions and clarifications shall be made to the Contract Documents for the above referenced project.

A. Administrative

The Bid Date for the above referenced project shall be changed to Tuesday, March 30, 2010 at 2:00 p.m. (EST) with receipt of the bids due at the Town Office in the manner originally specified.

B. Clarifications and Comments

1. Piping Clarification

The following piping and valve references are offered for clarification.

- a. The low pressure sanitary sewer force main piping for line sizes 1 ¼", 1 ½" and 2" diameter pipe shall be SDR 11 (HDPE or PE).
- b. The low pressure sanitary sewer force main piping for the line size of 3" diameter pipe shall be SDR 21 (PVC).
- c. Valves for the 1 ¼", 1 ½" and 2" diameter low pressure sanitary sewer line sizes shall be compression style including the main line valves for isolation or air release/vacuum relief valve assemblies.
- d. In some sewer force main lateral operation summaries on each of the low pressure sewage force main sheets in the C.1 Series 1 ¼" pipe is incorrectly labeled as "Sch. 11 HDPE" all such references shall be changed to SDR 11 – HDPE or PE pipe.

2. Pipe Revision

- a. The following piping and valve changes are hereby made in the plans and specifications. All four (4) inch diameter raw sewage and sewage effluent force mains are currently labeled SDR 21 PVC. This piping specification shall be changed to C-900 PVC pipe.
- b.. Valves on the three (3) inch sewage force mains, such as the eccentric plug valves used as isolation valves, shall be mechanical joint valves with restrained joints.

3. LPSS FORCE MAIN – PRESSURE TEST

The low pressure sanitary sewage force main shall be hydrostatically pressure tested. The Town of Pamplin City will provide enough water to fill the force main once. Any and all water required for retesting will be billed to the Contractor at the water rates effective on the date of Bid receipt.

4. FORCE MAIN PRESSURE TESTING

The raw sewage force main and the effluent force main shall be hydrostatically pressure tested in line segments not exceeding 2,000 LF. Water for the first pressure test of the raw sewage force main will be provided by the Town of Pamplin City. Water for testing the effluent force main the first time will also be provided by the Town of Pamplin City. Any additional water will be billed at the water rate effective on the date of bids.

Water for testing at the wastewater treatment plant may be available from the proposed on-site Class IIIB well or by pumping water from the raw sewage pump station. Water to fill the tanks and pump stations and piping initially will also be provided by the Town of Pamplin City.

5. The wall thickness for casing pipe required for the bore and tack railroad installations shall be 0.25" as specified in the plan notes for the sewage force main on Sheet C.1.11.
6. The directional boring installations, where specified, shall be bored slightly larger than the specified carrier pipe and the specified carrier pipe may be pulled through the bored opening. Casing pipe in these instances is not required.
7. The low pressure sanitary sewer force main piping is specified as either SDR 11 or SDR 21, available in rigid pipe with glue joints or roll pipe format. In the flushing connection installations with or without air release valves, rigid pipe is recommended for a secure installation.
8. The StarGrip™ mechanical joint restraint system is an acceptable mechanical joint wedge restraint, but it shall only be used on ductile iron pipe installations.
9. Approximately 200 LF of existing four (4) foot high woven wire fence exists on the raw sewage pump station site. The existing fence is to be removed and replaced with chain link fence as specified. Approximately 505 LF of new six (6) foot high chain link fence with two (2) – eight (8) foot gates is required.
10. The lateral connection tees for Summary Nos. 26 and 28 shall be changed from 3" x 3" x 1 ¼" tee to 2" x 2" x 1 ¼" tee installations.

11. The service connections for each residence or structure; i.e. the tee or tapping saddle, curb stop, valve box, etc., shall be included in the Item A.1.r. on the Bid Form. The Bid Form has a designation for non-CDBG, CDBG and SERCAP strictly for funding purposes. The unit price for each connection should be the same even though there is both the two (2) inch or three (3) inch diameter lines on for the individual services to preclude additional detailing.
12. The 1 ¼" diameter service laterals to each house are scheduled on the Bid Form in Item 7.a.3); Item 7.b.3) and Item 7.c.3).
13. Pipe fittings shall be included in the unit price for linear feet of pipe cost.
14. The individual sewage grinder pump stations for each user are specified in Section 11253. The unit price for these stations shall be included in the Bid Form under Line item 7.a.1), Item 7.b.1) and Item 7.c.1).
15. The specifications for the packaged wastewater treatment plant are provided in Section 11520.
16. The labels provided in the summary of fittings on Sheet C.4.02; labels such as A1, A2, etc., refer to specific locations of pipe and these locations are labeled on the Site Plan.
17. All work shown on Sheets C.4.01 through C.4.70 shall be included in line Item 4 on the Bid Form.
18. Air Release Valves
 - a. Sewage Air Release/Vacuum Relief Valves

The sewage air release/vacuum relief valves shall be the Model 443 as manufactured by APCO/Valve and Primer Corporation, a similar valve by Crispin Valves or equal.
 - b. Water Line Air Release Valves

The water line combination air release valve, the one (1) inch dia. inlet, shall be a Model 143C as manufactured by APCO Valve/Primer Corporation, or a similar valve by Crispin Valves or equal. Valve shall have a 5/64" small orifice for air release.
 - c. The air vent valves for the domestic water system in the wastewater process building shall be Model 50 as manufactured by APCO Valve and Primer Corporation, similar units by Crispin Valves, or equal.
19. The water and sewer line piping specifications are provided in Specification Sections 02665 and 02730 respectively.
20. The spacers for the low pressure sanitary sewer force mains in casing installations shall be properly sized for the carrier and casing pipe specified. The spacers shall be either carbon steel or non-metallic spaces as manufactured by BWM Company or equal.
21. The depth of any valve box shown shall for the purpose of bidding be the same as the depth of the line shown in profile.

22. On-Site Pumping Station for Summary No. 59

Summary No. 59 is the Pamplin Volunteer Fire Department building on Swan Road. The property is shown on Sheet C.1.03.

A lateral connection for this parcel is shown at Sta.15+74.67. This lateral connection work remains unchanged.

However, the on-site improvements shown on the On-Site Improvement sheet titled "Summary No. 59" in Appendix "A" shall be deleted and replaced with the sheet entitled "On-Site Improvements for Summary No. 59" shown on the revised on-site Improvement sheet attached hereto and made a part hereof. A standard pump station assembly will not be required for this parcel. Rather the existing septic tank shall be converted to a sewage pump station using the "after-market" assembly shown in Sketch SK-6, dated March 12, 2010, attached hereto and made a part hereof. This new detail shall be added to Sheet C.8.01.

23. Specifications for the pressure sand filter system are attached hereto and made a part hereof.

24. Submersible Level Transmitter

The specification for the "Submersible Level Transmitters" which follows shall be incorporated into the Specifications.

The submersible level transmitters shall consist of a progressive sensing element encased in a 316 SS housing. The unit shall incorporate lightning and surge protection utilizing dual arrestor technology and shall be grounded to its case.

Unit shall be equipped with 270-pound tensile strength shielded and vented cable with a maintenance free vent filter.

The submersible level transmitters shall be similar to Model PBLT 2-5-40 (suitable for 5 psi range or 11.51 ft. of water column) as manufactured by Mercoid; similar units by Omega or equal.

25. Aeration Systems

a. The sludge holding tank system is shown on Sheet C.4.70.

The aeration package for the sludge holding tank shall be similar to Motor-Blower Aeration Package Model 90TA-BA blower with ½ hp motor as manufactured by Ohio Electric Controls, Inc. or equal.

The coarse bubble diffusers shall be capable of up to 5 cfm each. The units shall be leak-proof, sealing in the closed position to provide non-clog performance.

b. Sludge Air Lift System – Packaged Wastewater Treatment Plant

The air lift system for the sludge tank shall be similar to Motor-Blower Aeration Package Model 90TA-BA blower with a 1/3 hp motor as manufactured by Ohio Electric Controls, Inc. or equal.

26. Wastewater Facilities Building

Gutters

The sections for the wastewater facilities building shown on Sheet C.4.41, C.4.42 and C.4.50 show roof gutters and downspouts. The foundation detail shown in Section F-F on Sheet C.4.42 shows a foundation drain. The location and alignment of the foundation drain line is shown on the site plan on Sheet C.4.02.

The gutter for the wastewater process and laboratory building shall be 5 x 0.032" Style "K" aluminum gutters. Appropriate style outlet sections shall be used where down spouts are indicated. A gutter cover suitable for use with asphalt shingles shall also be installed. The cover shall be powder coated galvanized steel material.

The gutters shall be aluminum, "K" gutter style, white or other color similarly priced. 2" x 3" white or similarly priced downspouts shall be used with elbows and other fittings as required. 2" x 3" flex-downspout with fitting for connection to the downspout collector shall be required to connect the downspout to the storm sewer drain line.

The foundation drain detail on the Typical Exterior Wall Section – F-F shall be modified to show the required installation of downspout collector, gutter and downspout specification as shown in Sketch entitled "Downspout Connection and Foundation Drain", SK-2 dated March 12, 2010. This detail shall be added to Sheet C.4.42.

27. Wastewater Treatment Plant

Wastewater Facilities Building

Doors

The doors for the wastewater facilities building shall be the 18 ga., laminated steel, seamless style, honeycomb full height door with welded edge seams. The doors shall meet ANSI A 250.8-2003 requirements.

The doors shall be the L-Series as manufactured by Steelcraft, Inc. or others as listed. The glass light, when specified, shall be the ¼" thick safety glass.

Door frames shall be designed for installation in CMU wall construction. Door frames shall be 16 gauge. Overall door frame construction shall meet the requirements of ANSI A 250.8-2003.

A door schedule is attached hereto and made a part hereof.

Windows

The two (2) windows shown, both designated W101, shall be 2 ¼" frame depth, projection style windows with insect screens. The aluminum windows shall be rated as thermal design. The frames shall be extruded aluminum profiles with minimum wall thickness of 0.090". All fasteners shall be stainless steel.

Glass shall be ¼" tempered glass. The windows shall be sized as indicated. Windows shall be Series 8225 TL as manufactured by Kawneer; or equal.