



**LETTER OF TRANSMITTAL**

TO: Northwest Georgia Paving, Inc. Bo Price [tprice@nwgpinc.com](mailto:tprice@nwgpinc.com)  
 Brown Brothers Mike Brock [mbrockbbi@gmail.com](mailto:mbrockbbi@gmail.com)  
 Talley Construction, Inc. Tim Fountain [tfountain@talleyconstruction.net](mailto:tfountain@talleyconstruction.net)  
 United Grading & Excavating Matt Stonica [mstonia@unitedgrading.com](mailto:mstonia@unitedgrading.com)

The Blue Book [emcveigh@mail.thebluebook.com](mailto:emcveigh@mail.thebluebook.com)  
 Dodge Data & Analytics [dodge.bidding@construction.com](mailto:dodge.bidding@construction.com)  
 Builders Exchange of Tennessee [heather@bxtn.org](mailto:heather@bxtn.org)  
 Associated General Contractors [planroom@agcctn.org](mailto:planroom@agcctn.org)  
 ConstructConnect [amelia.mcmahan@constructionconnect.com](mailto:amelia.mcmahan@constructionconnect.com)

Courtney Johnson – [cjohnson@fortoglethorpega.gov](mailto:cjohnson@fortoglethorpega.gov)  
 Michael Housley - [mhousley@fortoglethorpega.gov](mailto:mhousley@fortoglethorpega.gov)

FROM: Philip Schofield, P.E.

DATE: October 20, 2020

PROJ. NO.: G14005-02

SUBJECT: Addendum No. 1  
City of Fort Oglethorpe  
Northside Water System Improvements  
(Edgewood Circle)

PAGES:  
9 pages to follow

<p><b>PLEASE RESPOND</b></p> <p>→ → → →</p>	<p><b>TO CONFIRM RECEIPT OF THIS ADDENDUM NO. 1 PLEASE SIGN AND EMAIL TO CTI</b></p> <p><a href="mailto:vvisco@ctiengr.com">vvisco@ctiengr.com</a></p>
	Company _____
	Signature _____
	Title _____
	Date _____

**ADDENDUM NO. 1**  
**CITY OF FORT OGLETHORPE, GEORGIA**  
**NORTHSIDE WATER SYSTEM IMPROVEMENTS**  
**(EDGEWOOD CIRCLE)**

The following changes shall be made to the Specifications.

**I. SPECIFICATIONS**

**A. Section 33 12 13, Water Service Metering.**

1. Page 33 12 13-1, Paragraph 2.3A, 2.3C, 2.3D, and 2.3E DELETE and SUBSTITUTUTE the following therefor:

“A. Service saddles shall be utilized in connecting corporation stops and service lines to all ductile iron, cast iron, or PVC water mains. Service saddles shall be Smith Blair, 313 Series with 3/4-inch outlet, or equivalent.”

“C. Water meters shall be provided by the Owner if needed.”

“D. Meter yokes shall be manufactured by Ford Meter, VBHH72-7W-41-33-O-NL or approved equal.”

“E. Meter boxes for 3/4-inch assemblies shall be 18-inch diameter plastic meter boxes and with Cast Iron, 194525, lids as manufactured by Old Castle.”

2. Page 33 12 13-2 PART 3 Paragraph A. line 4 DELETE the words “by the Utility.”
3. Page 33 12 13-2 PART 3 Paragraph D. DELETE and SUBSTITUTE the following therefor:

“D. All service lines crossing new residential streets shall be installed within a minimum 1 ½" inch diameter Schedule 40 PVC casing pipe. All service lines crossing existing Highways shall be bored and jacked and installed within a minimum two (2) inch diameter Schedule 40 PVC casing pipe.”
4. PART 3 paragraph E. DELETE the paragraph in its entirety.

**B. Section 33 12 19, Fire Hydrants.**

1. Page 33 12 19-2 Paragraph J and K, DELETE and SUBSTITUTE therefor the following:

“J. Fire hydrants shall be as manufactured by M&H, 1295 or approved equal.

K. Fire hydrants shall be painted silver with epoxy primed bonnet.”

**C. Section 40 05 13.53, Ductile Iron Pipe and Fittings.**

1. Page 40 05 13.53-4 in paragraph 2.4 C.2 DELETE the last sentence in the paragraph.

**D. Section 40 05 23, Valves.**

1. Page 40 05 23-3, 2.2 A., Revise the last sentence to read "Resilient wedge gate valves shall be US Pipe Metroseal 250, or equal."
2. Page 40 05 23-7, 2.5 D. Revise the last sentence to read "Corporation stops shall be manufactured by Ford Meter and shall conform to the applicable requirements of AWWA C800."
3. Page 40 05 23-11, 2.14 B., Revise the sentence to read, "The operating wrenches shall be at least 72 inches in length."

Date: October 20, 2020

CTI Engineers, Inc.  
/s/ Philip R. Schofield, P.E.  
Senior Project Manager

## SECTION 33 12 13

### WATER SERVICE METERING

#### PART 1 - GENERAL

##### 1.1 SCOPE

- A. The work described by this section includes furnishing all labor, materials, and equipment required to install new water meters, including all meter boxes and covers, meter yokes, valves, fittings, accessories, etc., as specified herein and/or shown on the Drawings.

#### PART 2 - PRODUCTS

- 2.1 The service assembly shall include a corporation stop, copper service pipe gooseneck, meter yoke, meter, meter box, and tapping saddle as required.

##### 2.2 SERVICE TUBING

- A. Service tubing shall be 3/4-inch Type K copper meeting ASTM B88. Goosenecks shall be a minimum of 5 feet long.

##### 2.3 METER FITTINGS AND ACCESSORIES

- A. Service saddles shall be utilized in connecting corporation stops and service lines to all ductile iron, cast iron, or PVC water mains. Service saddles shall be **Smith Blair, 313** Series with 3/4-inch outlet, or equivalent.
- B. Corporation stops shall be provided on each service connection to the water main. Corporation stops shall be of the plug type and shall be designed and manufactured in accordance with AWWA Standard C800 and shall be constructed of red brass. Corporation stop shall be Ford, Series F-1000, or equivalent, for 1-inch service and shall have compression fittings.
- C. Water meters shall be provided **by the Owner** if needed.
- D. Meter yokes shall be Ford **Meter, VBHH72-7W-41-33-O-NL** or approved equal.
- E. Meter boxes for **3/4-inch** assemblies shall be 18-inch **diameter** plastic meter boxes with **Cast Iron, 194525**, lids as manufactured by **Old Castle**.

### PART 3 - EXECUTION

- A. A complete meter service shall be installed on each existing connection (where applicable) and all new connections to the water distribution system. Service lines shall be installed between the water main and the property line. Meter boxes shall be set at the property line and connected to the new service line. The exact field location of the meter box shall be determined by the Utility and shall be located to provide easy access to the meter reader and serviceman; not be a hazard to the customer or public; and be reasonably well protected against frost, mechanical damage, and tampering.
- B. Water meters shall not be installed in meter boxes until construction of the residence has been completed and all pipelines have been flushed clean of all mud and grit deposits, and have been disinfected.
- C. Meter boxes and meters shall be installed in a neat and workmanlike manner. The elevation of the boxes shall be carefully adjusted so that the lid is flush with the ground surface or sidewalk. Soil around the meter box shall be tamped or settled in place so that hazard is eliminated and further settling is minimized.
- D. All service lines crossing new residential streets shall be installed within a minimum 1 1/2" inch diameter Schedule 40 PVC casing pipe. All service lines crossing existing Highways shall be bored and jacked and installed within a minimum two (2) inch diameter Schedule 40 PVC casing pipe.
- E. ~~The customer valve box consist of a pressure reducing valve and gate valve. It shall be installed between the meter box and the house in a neat and workmanlike manner. The elevation of the boxes shall be carefully adjusted so that the lid is flush with the ground surface or sidewalk and is aligned with the adjacent box to allow easy access to both boxes. The customer box shall include the pressure reducing valve and a 3/4-inch gate valve.~~

END OF SECTION

stem coupling to prevent damage to the stem when hydrant is hit by a vehicle. A positive stop shall be provided to permit full opening of the valve and prevent overtravel of the stem.

- F. Direction of opening shall be counterclockwise and shall be cast on the head. Operating nut shall be National Standard, 1½-inch, pentagon shaped.
- G. Two 2½-inch hose nozzles and one 4½-inch pumper nozzle shall be provided on each hydrant. Hose and pumper nipples shall be of bronze or noncorrosive metal, and threads shall be National Standard in accordance with NFPA Standard No. 1963. Nipple caps shall be securely chained to the barrel with galvanized, non-kinking chains.
- H. Hydrants that are to be connected to ductile iron pipe shall be equipped with mechanical joint inlet with gland, gaskets, bolts, and nuts. Suitable ringtight or fluidtight inlets shall be provided on hydrants that are to be connected to cement asbestos pipe. Inlet bell shall have two lugs for harness restraint.
- I. After fabrication, all exterior above-ground ferrous surfaces shall be blast-cleaned and painted at the shop with one coat of zinc chromate primer conforming to Federal Specification TT-P-636 and one coat of compatible alkyd enamel. All interior and below ground, nonmachined ferrous surfaces shall be blast-cleaned and painted at the shop with two coats of asphaltic varnish conforming to Federal Specification TT-V-51c.
- J. Fire hydrants shall be as manufactured by **M&H, 1295 or approved equal.**
- K. Fire **hydrants shall be painted silver with epoxy primed bonnet.**

## 2.2 YARD HYDRANTS

- A. Yard hydrants shall be nonfreezing, compression, post type hydrant with self-draining barrel suitable for 150 psi working pressure.
- B. Yard hydrants shall have a cast iron bonnet and base, bronze seats, resilient-faced disc, O-ring stem seal, bronze or stainless steel stem, and galvanized steel barrel.
- C. Furnish yard hydrants with 1-inch threaded inlet connection per ANSI B2.1 and threaded 1-inch male outlet hose connection with suitable cap and chain. Furnish a ball-wheel handle to operate the valve.
- D. All internal working parts shall be readily accessible and removable through the top for ease of maintenance.
- E. Shop prime and paint hydrant in accordance with Part 2.1 I. of this section.

## 2.3 BLOW-OFF HYDRANTS

- A. Blow-off hydrants shall be full draining and shall have a 2-inch inlet, 2½-inch nozzle with cap, locking valve, and brass working parts.
- B. Hydrants shall be designed for underground installation in a meter box. Internal working parts shall be accessible through the top for ease of maintenance.

4. Glands shall be of high strength ductile iron.

#### C. Flanged Joints

1. Flanged joints shall conform to ANSI B16.1, Class 125, in accordance with Table 10.23 of ANSI A21.10.
2. Flanged joints shall be bolted with through stud or tap bolts of required size as directed. Bolts and nuts shall conform in dimensions to the American Standard heavy series. Nuts shall be hexagonal, cold pressed. Bolts and nuts shall be cadmium plated, cold pressed, steel machine bolts, conforming to ASTM A 307, Grade B. Cadmium plating shall be by an approved process and shall be between 0.003 and 0.0005 inch thick.
3. Gaskets shall be full face type, 1/16 inch thick, conforming to the requirements of AWWA C111.
4. Flanged ductile iron pipe approximately 12 inches or less in length shall have flanges cast solidly to the pipe barrel. Flanges on ductile iron pipe longer than 12 inches may be of the screw type. Pipe threads shall be of such length that with flanges screwed home, the end of the pipe shall project beyond the face line of the flange. Flange and pipe shall then be machined to give a flush finish to the pipe and the flange and surface shall be normal to the axis of the pipe. Ductile iron flanges shall be of such design that the flange neck completely covers the threaded portion of the pipe to protect same against corrosion. All pipe with screw type flanges shall be assembled, faced, and drilled at the point of manufacture, unless otherwise approved by the Engineer.
5. Where tap or stud bolts are required, flanges shall be drilled and tapped accordingly.

#### D. Push-On Joints

1. Push-on joints shall conform to ANSI A21.11. Details of the joint design shall be in accordance with the manufacturer's standard practice.
2. Gaskets shall be in accordance with ANSI A21.11 and shall be of such quality that they will not be damaged by the liquid or gases with which they will come into contact.

### 2.5 PIPE COATING AND LINING

- A. All ductile iron pipe and fittings buried underground shall have a standard bituminous outside coating conforming to ANSI A21.6 or A21.51. All exposed or immersed ductile iron pipe and fittings shall have an outside shop coating of epoxy coating, TNEMEC Series N 140-1211 Potapox Plus (or equal) at 4 to 6 mils dry film thickness (DFT) and two coats of TNEMEC Series 69, Hi-Build Epoxoline II at 4 to 6 mils DFT per coat.
- B. All ductile iron pipe used for water or wastewater shall have cement mortar lining of standard thickness in accordance with ANSI A21.4. Cement mortar lining for ductile iron fittings shall be double the standard thickness under ANSI A21.4.

- H. Valve operators shall be of sufficient size and capacity to seat, unseat, and operate the valve under the maximum specified differential pressure. Where no maximum differential pressure is specified, the operator shall be designed for a differential pressure equal to the maximum working pressure of the valve. Additional allowances shall be made for the lubricating and/or scale-forming tendencies of the fluid.

## 2.2 GATE VALVES

- A. All gate valves smaller than 2 inches and those larger than 24 inches shall be of the single disc, double sealed, solid tapered wedge type, unless otherwise specified. Gate valves in sizes 2 through 24 inches shall be of the single disc, resilient seated type, unless otherwise specified. Valves shall have non-rising stems and be capable of being repacked under pressure when valve is fully open. Minimum working pressures shall be 200 psi for valves through 14 inches in size and 150 psi for valves 16 inches and larger. Resilient wedge gate valves shall be **US Pipe Metroseal 250, or equal.**
- B. Gate valves smaller than 2 inches shall be bronze body, bronze fitted valves, and have 150-pound, cast bronze body, union bonnet, Teflon-impregnated asbestos packing, and threaded ends per ANSI B2.1. Bronze shall conform to ASTM B62. Brass for nuts and gland shall conform to ASTM V16. Valve discs shall be reversible. Bronze gate valves shall be Stockham Fig. B-130, Nibco Fig. T-136, or equal. For use in copper plumbing, furnish gate valves with solder ends per ANSI B16.18.
- C. Gate valves larger than 24 inches in water and wastewater shall be iron body, bronze mounted valves conforming in all respects to the applicable material and dimensional requirements of AWWA C500. Gate valves shall have an O-ring or self-adjusting chevron packing stem seal, and 125-pound flanged ends per ANSI B16.1, except for valves to be buried underground, which shall have mechanical joint ends per ANSI A21.11 (AWWA C111). Body seat rings shall be ASTM B62 bronze and be screwed into the body so as to be field replaceable. Disc faces and all moving parts shall be bronze or bronze mounted. Cast iron for body and bonnet shall conform to ASTM A126, Grade B. Iron body gate valves with solid wedge discs shall be M&H (Dresser) Fig. 2067, or equal. Iron body gate valves with double discs shall be M&H (Dresser) Fig. 67, Mueller Fig. A-2380, or equal.
- D. Gate valves in sizes 2 through 24 inches for use in water and wastewater shall be of the ductile iron body, resilient seated type, manufactured in conformance with AWWA C509. Gate shall be of ductile iron with bonded resilient seat and integral flush drain. Minimum working pressure shall be 200 psi when unbalanced pressure is applied to either side of the gate. Gate valves shall have a minimum of two O-ring stem seals; one above and one below the integral stem collar. The area between the O-rings shall be filled with permanent lubricant. Valve shall have no metal fasteners or screws exposed in the wetted portion of the valve. All ferrous surfaces shall be shot-blasted to a white metal finish. All interior and exterior valve surfaces, including the interior of the gate and all bolt holes shall be coated with an epoxy coating in accordance with AWWA C550. The minimum thickness of the coating shall be 8 mils. Valve ends shall be of the type required for the installation as specified herein or shown on the Drawings and meet the requirements as specified in Paragraph C of this section.
- E. Gate valves 3 inches in size and larger in steam service shall have 125-pound cast iron body, bronze trim, and outside stem and yoke.



- D. Corporation stops for service line connections shall be precision fitted, individually lapped, ground joint key stops of all bronze construction. For tapped connections to water mains, inlet threads shall be of the steep taper, corporation stop type. Corporation stops shall be **manufactured by Ford Meter and shall conform** to the applicable requirements of AWWA C800.

## 2.6 AIR RELEASE VALVES

- A. Air release valves shall have cast iron body and cover, stainless steel float, stainless steel or bronze trim, and Buna-N seat. All other attaching parts or internal parts shall be stainless steel or bronze.
- B. Valve shall be designed for a working pressure of 0 to 150 psi unless otherwise shown or specified and shall be equipped with an orifice appropriate to the venting needs of the pipeline.
- C. Sewage valves shall be equipped with an elongated body, a 2-inch NPT inlet connection, and a ½-inch NPT outlet connection and shall be provided with 2-inch inlet shut-off valve, 1-inch blow-off valve, and ½-inch back-flush valve with quick-disconnect coupling and flushing hose with quick-disconnect connections.
- D. Pressure water valves shall be installed in valve pit, complete with tapping saddle and connecting line to main, gate valve, etc., and at the location(s) shown on the Drawings. Clean, prime, and paint valve exterior with bituminous paint. Valves 2 inches and smaller shall have NP screwed inlet. Combination air vacuum/air release valve shall be Valve and Primer Corporation, APCO Air Release Valve (Standard), Crispin Universal Air Valve, or equal.

## 2.7 PRESSURE REDUCING VALVES FOR WATER

- A. Pressure reducing valves shall automatically reduce a higher inlet pressure to a preset, steady outlet pressure. The reducing valve shall be very sensitive to slight pressure changes and immediately control the main valve to maintain the desired pressure. Valve outlet pressure shall be adjustable between 25 and 75 psi.
- B. The main valve shall be direct acting, single seated, spring-loaded, diaphragm-actuated, globe type valve. When the downstream pressure exceeds the pressure setting, the main valve shall close drip-tight. Piston actuators will not be acceptable. Main valve shall be guided at two locations. No external packing glands shall be used and the diaphragm shall not be used as a seating surface.
- C. Pressure reducing valves sized 2 inches and smaller shall have cast bronze body; stainless steel seat ring; Teflon, Buna-N, or composition disc and diaphragm; and outside screw adjustment. Valves shall be suitable for 230-psi inlet pressure. Valves shall be furnished with threaded ends per ANSI B2.1. Bronze pressure reducing valves shall be Watts Regulator No. 223SLP, or equal.
- D. Pressure reducing valves 2½ inches and larger shall have cast iron body, bronze trim, bolted cover, and pilot-controlled main valve. The pilot control system shall be external, connected to the valve with union fittings. Pressure setting shall be adjustable by a single screw adjustment enclosed in a tamperproof housing. Valve shall be suitable for an inlet pressure of not less than 175 psi. Valves sized 2½ inches shall have threaded

- B. Operating nuts for buried or submerged valves shall be standard 2-inch-square nuts and shall conform to AWWA C500, Section 19. Extension stems, valve boxes, and stem guides shall be furnished where shown, specified, or required for proper operation.
- C. Manual rotary operators for buried or submerged service shall be totally enclosed and completely sealed to prevent the entrance of water and dirt. Buried or submerged operators shall be finished on the outside with a bituminous or other approved coating. Rotary operators for buried or submerged service shall be capable of withstanding 300 foot-pounds of torque on the operating nut or handwheel. A corrosion-resistant, dial type valve position indicator shall be provided at the operating nut on the extension stem of buried operators to provide a remote indication of valve position.
- D. All manual rotary and lever operators shall be capable of seating or unseating the valve disc under the most adverse conditions in the particular application with not more than an 80-pound pull on the handwheel or lever. Valve operators shall be capable of holding the valve in any position between fully open and fully closed without creeping or fluttering. Operators shall be provided with adjustable, mechanical, stop-limiting devices to prevent over-travel of the valve disc in the open and closed positions. Manual rotary and lever operators shall comply with all applicable requirements of AWWA C540, Sections 11.1, 11.2, and 11.3.

#### 2.14 VALVE BOXES

- A. All buried valves shall be provided with three-piece, cast iron, extension sleeve type valve boxes suitable for the depth of cover shown on the Drawings.
- B. Valve boxes shall not be less than 5 inches in diameter, shall have a minimum thickness of 3/16 inch at any point, and shall be provided with suitable cast iron bases and covers. Covers shall have cast thereon an appropriate name designating the service for which the valve is intended ("W" for water, "S" for drain or waste lines). Covers in roadways shall be of the deep locking type.
- C. All parts of valve boxes, bases, and covers shall be heavily coated with a suitable bituminous finish.
- D. Valves and boxes shall be set plumb. Each valve box shall be placed directly over the valve it serves with the top of the box flush with the finished grade.
- E. Valve box lids shall be provided with the word "Water" embossed in the lid surface.

#### 2.15 T-HANDLE OPERATING WRENCH

- A. Furnish two T-handle, steel valve operating wrenches with sockets compatible with standard 2-inch-square valve operating nuts.
- B. The operating wrenches shall be at least 72 inches in length.