

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

**APPLICATION OF ESTILL COUNTY WATER
DISTRICT NO. 1 FOR A CERTIFICATE OF)
PUBLIC CONVENIENCE AND NECESSITY)
FOR THE PURCHASE AND INSTALLATION) CASE NO. 2021-00207
OF METERING EQUIPMENT AND)
AUTHORIZATION TO USE LOAN)
PROCEEDS FOR PROPOSED PURCHASE))**

VERIFIED APPLICATION

Pursuant to KRS 278.020(1), 807 KAR 5:001, Section 15, and the Public Service Commission’s (“Commission”) Order of April 8, 2021 in Case No. 2021-00064,¹ Estill County Water District No. 1 (“Estill District”) applies to the Commission for an Order granting a certificate of public convenience and necessity for the purchase and installation of 3,100 water meters, 3,800 leak sensor devices and automated meter infrastructure (“AMI”) radio adapters, a mobile meter data collection and management system and leak detection software. It further applies for authorization to use \$1,379,030 of the proceeds from Kentucky Infrastructure Authority (“KIA”) Loan F20-13 for the proposed equipment purchase and installation.

In support of its Application,² Estill District provides the following:

¹ *Electronic Application of Estill County Water District No. 1 for Authorization to Enter into An Assistance Agreement With the Kentucky Infrastructure Authority, For A Certificate of Public Convenience To Construct Certain Water Improvements and Authorization to Use Water Loss Control Program Surcharge Proceeds*, Case No. 2021-00064 (Ky. PSC Apr. 8, 2021).

² To facilitate the Public Service Commission’s initial review of this Application, Estill District has attached to this Application a “Filings Requirements List” that consists of two pages, lists each statutory and regulatory requirement for an application for a certificate of public convenience and necessity and identifies the exhibit or paragraph that satisfies the requirement.

A. General Information

1. The full name and post office address of Estill District is: Estill County Water District No. 1, 76 Cedar Grove Road, Irvine, Kentucky 40336. Its e-mail address is: a.miller@estillcountywater.com.

2. Copies of all orders, pleadings and other communications related to this proceeding should be directed to³:

Audrea Miller
General Manager
76 Cedar Grove Road
Irvine, Kentucky 40336
(606) 723-3795
a.miller@estillcountywater.com

Gerald E. Wuetcher
Stoll Keenon Ogden PLLC
2100 West Vine Street, Ste 2100
Lexington, KY 40507-1801
(859) 231-3017
gerald.wuetcher@skofirm.com

3. Estill District not a corporation, limited liability company or limited partnership. It has no articles of incorporation or partnership agreements.

4. Estill District is a water district created under the provisions of KRS Chapter 74.

5. KRS 365.015 does not require Estill District to file a certificate of assumed name.

6. Estill District was duly incorporated, pursuant to KRS Chapter 74, by Order of the Estill County Court entered on December 30, 1960, a copy of which is attached as **Exhibit 1** and was merged with the former Estill County Water District No. 2 into a single water district by Order of Estill County Court entered on January 1, 1978, a copy of which is attached as **Exhibit 2**.

³ On May 18, 2021 pursuant to 807 KAR 5:001, Section 8, Estill District notified the Public Service Commission of its election of the use of electronic filing procedures for this proceeding.

7. Estill District is engaged in the distribution and sale of water in the non-incorporated areas of Estill County, Kentucky. As of December 31, 2020, it served approximately 3,583 residential customers and 178 commercial customers⁴

8. A copy of the resolution of Estill District’s Board of Commissioners authorizing the filing of this application is attached as **Exhibit 3** of this Application.

B. Estill District’s Unaccounted-For Water Loss

9. As shown in the table below, for each year since 2010 Estill District has been unable to account for 23 percent or more of its total purchased water. Since 2014, it has experienced an unaccounted water rate in excess of 35 percent. For every three gallons of water purchased since 2014, Estill District has recorded sales of less than two gallons of water.

Year	Unaccounted-For Water Loss (%)
2010	25.8524
2011	27.4459
2012	23.6125
2013	32.0143
2014	36.4580
2015	35.4295
2016	35.2625
2017	37.6515
2018	39.6243
2019	37.4645
2020	37.5343

10. This high rate of unaccounted-for water adversely affects Estill District’s finances. 807 KAR 5:066, Section 6(3) provides that “[e]xcept purchased water rate adjustments for water districts and water associations, and rate adjustments pursuant to KRS 278.023(4), for rate making purposes a utility’s unaccounted-for water loss shall not exceed fifteen (15) percent of total water

⁴ *Annual Report of Estill County Water District No. 1 to the Public Service Commission of the Commonwealth of Kentucky for the Calendar Year Ended December 31, 2020* at Ref Page 27.

produced and purchased, excluding water used by a utility in its own operations.” Therefore, a significant portion of Estill District’s purchased water expense is subject to disallowance and is not recoverable through Estill District’s rates for water service.

11. Estill District has experience financial problems because of its high unaccounted-for water levels. In the period from 2013 through 2020, it had a cumulative net income of (\$3,049,583). In February 2018, it failed to meet scheduled principal and interest payments on several bonds that Rural Development held and was considered a delinquent debtor by Rural Development. Rural Development eventually agreed to reamortize Estill District’s loans at a reduced interest rate and to reschedule their payment.

12. The Commission has attributed Estill District’s recent financial problems to poor water loss control. In Case No. 2017-00176, it noted that Estill District’s “current financial difficulties could be eliminated by reducing unaccounted-for water loss to 15 percent” and strongly encouraged Estill District “to pursue reasonable actions to reduce its unaccounted-for water loss.”⁵ In Case No. 2018-00276,⁶ it noted the futility of Estill District restructuring its debt unless it was also “taking steps to correct the primary cause of its financial condition.” Suggesting that the restructuring of Estill District’s debt represented a final opportunity for Estill District to address its water loss problems, the Commission directed that Estill District to prepare a comprehensive plan to correct its excessive water loss.⁷

13. On May 15, 2019 at the Commission’s direction, Estill District filed with the Commission a Comprehensive Corrective Action Plan to address its excessive water loss. A copy

⁵ *Electronic Application of Estill County Water District No. 1 for Rate Adjustment Pursuant to 807 KAR 5:076*, Case No. 2017-00176 (Ky. PSC Dec. 20, 2017) at 4.

⁶ *Electronic Application of Estill County Water District No. 1 for Authorization to Consolidate its Existing Loans with Citizens Guaranty Bank*, Case No. 2018-00276 (Ky. PSC Dec. 21, 2018) at 5.

⁷ *Id.* at 6 (“Given Estill District No. 1’s history of non-compliance and its financial condition, it may not get another opportunity to correct the water loss issues.”).

of this Plan is attached to this Application as **Exhibit 4**.⁸ The Plan analyzed Estill District's current water loss trends and identified potential corrective actions to reduce Estill District's water losses. Bell Engineering, the Plan's author, projected that, if Estill District took no action to implement a water loss reduction program, Estill District's non-revenue water would exceed its actual metered water sales by 2026.⁹

14. Bell Engineering recommended as Estill District's initial water loss control measures: (1) the purchase and installation of zone meters and the establishment of district metered areas; (2) installation of a backflow prevention device at the Irvine Bridge Master Meter;¹⁰ (3) replacement of at least 20 percent of its existing customer meters; and (4) the hiring of additional personnel dedicated to leak detection efforts. Bell Engineering estimated that the costs of these measures would be approximately \$1,021,000.¹¹

15. In Case No. 2019-00176,¹² Estill District applied to the Commission for authorization to assess to each customer a monthly surcharge of \$3.54 to fund a comprehensive water loss program. The surcharge was expected to generate annual revenues of approximately \$159,880. On August 29, 2019, the Commission issued an Order permitting the surcharge to take effect.¹³

16. Estill District recognized that the surcharge would not produce sufficient revenues to fully support the measures necessary to resolve its water loss problem and sought funding from other sources. In the Comprehensive Corrective Action Plan, Bell Engineering had in fact

⁸ *Id.* at 7 (directing Estill District file a "a detailed and comprehensive plan to correct its excessive water loss").

⁹ Bell Engineering, *Comprehensive Correction Action Plan* (May 15, 2019) at 46.

¹⁰ Using internally generated funds, Estill District installed a backflow prevention device at the Irvine Bridge Master Meter in June 2019 at a cost of \$19,892.

¹¹ *Id.* at 47-48; Application, Exhibit 3, *Electronic Application of Estill County Water District No. 1 For A Surcharge to Finance Water Loss Control Efforts*, Case No. 2019-00176 (Ky. PSC filed Jun. 13, 2019).

¹² *Electronic Application of Estill County Water District No. 1 For A Surcharge to Finance Water Loss Control Efforts*, Case No. 2019-00176 (Ky. PSC filed Jun. 13, 2019).

¹³ *See also* Case No. 2019-00176, Order of July 28, 2020 (clarifying the effective date of the surcharge).

recommended that Estill District seek additional funding from Rural Development, Appalachian Regional Commission (“ARC”), and KIA to finance its water loss control measures.¹⁴

17. Estill District has been successful at securing additional sources of funding. On December 5, 2019 KIA Board of Directors authorized a loan not to exceed \$2,399,450 (“KIA Loan F20-13”) to Estill District to finance the construction of the Phase 11 - System Improvements and Meter Purchase and Replacement Project (“Phase 11 Project” or “the Project”). The minutes of the meeting in which KIA’s Board of Directors authorized this loan are attached as **Exhibit 5** to this Application. The ARC subsequently awarded a grant of \$500,000 to Estill District for the same project. A copy of the Notice to Obligate is attached to this Application as **Exhibit 6**.¹⁵

C. Phase 11 – System Improvements and Meter Purchase and Replacement Project

18. The Phase 11 Project is a series of proposed system improvements to enhance Estill District’s ability to locate and repair leaks within its distribution system, as well as replace substandard stream crossings water service lines and aging metering equipment. The improvements will be made in two phases.

19. The Project’s first phase involves the replacement of four stream crossings, the establishment of a zone meter system through the purchase and installation of 17 meters, and the upgrade of Estill District’s system telemetry. This phase’s key feature is the establishment of a zone metering system. Estill District will divide its distribution system into twelve zones and place at least one water meter or flowmeter in each zone to measure the volume entering the zone. Three zones will be divided into subzones, each with its own meter. One meter will also be installed to

¹⁴ *Comprehensive Correction Action Plan* at 48.

¹⁵ See also Press Release, Office of the Governor of Kentucky, Gov. Beshear Announces More than \$5 Million in Grants to Kentucky Cities and Counties (May 28, 2020) (available at <https://kentucky.gov/Pages/Activity-stream.aspx?n=GovernorBeshear&prId=186>).

measure the volume of water purchased from Estill District’s water supplier. Telemetry equipment installed on each meter will enable Estill District to monitor its zone and sub-zone meters, to have real-time information regarding the flow of water in its water distribution system, and to react immediately to changing conditions in its water system. This action is consistent with the Commission’s guidance to all water utilities with significant water loss to “begin installing zone meters to help identify problem areas” and, where possible, to “install[] bypass meters . . . to help isolate leaks into smaller areas.”¹⁶

20. On April 8, 2021, the Commission in Case No. 2021-00064 granted Estill District a certificate of public convenience and necessity for the Project’s first phase and authorized Estill District to enter an Assistance Agreement for KIA Loan F20-13 to finance the construction of the Phase 11 Project. Construction on the Project’s first phase began on May 10, 2021.

21. The Project’s second phase builds upon the first phase. It expands and enhances Estill District’s ability to monitor water usage within each meter zone, to more precisely measure customer usage, and to more efficiently identify the locations of leaks. It involves purchase and installation of 3,100 water meters, 3,800 leak sensor devices and automated meter reading radio adapters, a mobile meter data collection and management system and leak detection software.

22. In accordance with KRS 424.260, Estill District published in the *Estill County Tribune* on March 24, 2021 and in the *Citizens Voice and Times* on March 25, 2021 an advertisement for bids on the Project’s second phase. A copy of each advertisement is attached to this Application as **Exhibit 7 and Exhibit 8** respectively.

23. On April 6, 2021, Estill District received one bid on the Project’s second phase. United Systems and Software, Inc., of Benton, Kentucky (“United Systems”), was the sole bidder,

¹⁶ *Electronic Investigation into Excessive Water Loss by Kentucky’s Jurisdictional Water Utilities*, Case No. 2019-00041 (Ky. PSC Nov. 22, 2019) at 6-7.

submitting a bid of \$1,499,785.00. A copy of the certified bid tabulation is attached as **Exhibit 9** to this Application. A more detailed description of United Systems' bid proposal and the Project Engineer's recommendation regarding the bid proposal are attached to this Application as **Exhibit 10** and **Exhibit 11** respectively.

24. On May 27, 2021, Estill District's Board of Commissioners awarded the contract for the purchase and installation of meter and leak detection equipment to United Systems, contingent upon receiving KIA's authorization to award the contract and an Order from the Commission granting a certificate of public convenience and necessity for the purchase and installation of the metering and leak detection equipment. The Board's resolution awarding the contract is attached as **Exhibit 12** of this Application.

D. AMI Metering Equipment

25. In the Corrective Action Plan, Bell Engineering stated that Estill District's meters were not accurately registering customer water usage and estimated that approximately eight percent of Estill District's total water purchases were lost due to metering inaccuracy.¹⁷ It recommended Estill District establish an AMI network and replace its existing meters with smart metering equipment that would be integrated into such network.¹⁸

26. Estill District's last systemwide meter replacement occurred in 2007 when it purchased and installed approximately 3,800 5/8-inch x 3/4-inch Sensus SRII water meters.¹⁹ These meters were equipped with radio transmitters that permitted Estill District to conduct drive-by meter reading but lacked two-way communication capability. These meters have not been

¹⁷ *Comprehensive Correction Action Plan* at 42.

¹⁸ *Id.* at 56 (noting that the installation of smart meters would "help in loss reduction by providing improved low-flow metering, remote management and monitoring capabilities, and advanced tampering/unauthorized access notifications").

¹⁹ *The Application of the Estill County Water District No.1 For A Certificate of Public Convenience and Necessity to Construct, Finance, and Increase Rates and Charges Pursuant to KRS 278.023*, Case No. 2006-00308 (July 18, 2006).

tested for accuracy since their installation.²⁰ In 2018 Estill District began replacing inoperative or defective meters with Sensus iPERL water meters, which are compatible with advanced metering infrastructure (“AMP”) network. Currently, approximately 700 Sensus iPERL meters are in service in Estill District’s system. Approximately 3,100 of the Sensus SRII water meters remain in service.

27. Estill District proposes to purchase 3,100 Kamstrup flowIQ 2100 5/8-inch x 3/4-inch water meters. The selection of this meter was made after interviewing various water meter vendors, reviewing water industry literature, holding discussions with water utility officials whose utilities had performed or were planning to perform a large meter replacement, and consulting with its professional engineers. A detailed description of the Kamstrup flowIQ 2100 water meter is contained in **Exhibit 13** and **Exhibit 14** to this Application. This water meter has the following characteristics:

a. The Kamstrup flowIQ 2100 water meter is a static ultrasonic meter. It uses transient time methodology and ultrasonic sound to measure the flow of the water. Two ultrasonic transducers, which function as both transmitters and receivers, send sound signals against and with the flow of water. The ultrasonic signal traveling with the flow will reach the opposite transducer first. The time difference between the two signals is converted into a flow and the flow sensor sends out pulses corresponding to the amount of the flow. In contrast to a mechanical meter that uses rotating turbines, an ultrasound meter has no moving parts and is thus unaffected by wear and tear. It can measure flow even with low pressure, which is difficult for mechanical flow sensors.

²⁰ In Case No. 2019-00041, Estill District acknowledged that it was not in compliance with the meter testing requirements set forth in 807 KAR 5:066, Section 15. It reported that the failure to test was due to the lack of personnel and funding. It further advised the Commission that “replacement of the meters is more cost-effective than testing the meters” and that it was seeking funding to finance system-wide meter replacement. See Case No. 2019-00041, Estill County Water District No. 1’s Response to Commission Staff’s Request for Information Dated May 3, 2019, Question 16.

b. The meter has a low start flow down to 0.015 gallons per minute which ensures the measurement of water at relatively low flows and allows for greater measurement accuracy. The meter is also capable of detecting signs of water leaks and pipe bursts. It has a configurable leak detection sensitivity as low as 1/40th of a gallon per minute.

c. The meter housing and measurement part are made of the synthetic material polyphenylene sulfide, which is free from lead and other heavy metals. The meter is fully compliant with NSF/ANSI 61, which establishes the minimum requirements for the control of potential adverse human health effects from products that contact drinking water.

d. The meter measures water and ambient temperatures and thus will enable Estill District to monitor the temperature of the water reaching the end user and warn of freezing temperatures that may damage meter equipment and piping.

e. Each meter is equipped with an internal data logger that logs target meter readings, daily maximum flow, monthly maximum flow, and water and ambient temperature. The meter can collect and store up to 460 days of information. The meter is compatible with and can transmit information over several radio frequency networks. All transmitted information is encrypted.

f. The meter is powered by a lithium battery that is warranted for twenty years.

g. Each meter is warranted for a period of twenty years. A copy of the manufacturer's warranty is attached to this Application as **Exhibit 15**.

h. Each meter will be tested for accuracy in accordance with the standards set forth in 807 KAR 5:066, Section 15 prior to its delivery to Estill District and installation.

28. The proposed metering equipment is likely to reduce non-revenue water by enabling Estill District to quickly identify water leaks, meter tampering, and theft of service. It

will also enhance customer service by alerting the utility if a customer exceeds a threshold water usage set by the utility and allowing Estill District to respond to customer issues more quickly and with more accurate water usage information. It will provide a significant amount of customer usage data on the hour, day, and week, which will be useful to customers and the utility. Bell Engineering estimates that the proposed meter replacement will result in 9,812,564 fewer gallons of water purchased annually, an annual savings of \$31,930.²¹

29. United Systems will remove the existing Sensus SR II meters and replace them with Kamstrup flowIQ 2100 meters. It will also map and record the precise location of each installed meter using global positioning system technology.²²

30. Estill District’s Sensus SR II meters have been in service approximately 13 years. Their original cost is \$698,606. Estill District uses a service life of 40 years to determine depreciation expense for these meters²³ Accumulated Depreciation on these meters is \$255,425. These meters have a remaining book value of \$427,681. Estill District estimates that the replaced meters will have a salvage value of \$15,500. To reflect the removal of the replaced meters from its books, Estill District will make the following entry:

Loss on Disposition of Asset	427,681	
Cash	15,000	
Acct 108 A/D Utility Plant	255,425	
		698,606
Acct 334 Meters		

²¹ *Comprehensive Correction Action Plan* at 60. Annual Savings = 9,812,564 gallons x \$3.254/1,000 gallons.

²² United Systems will install the acoustic leak sensors and encoder receiver transmitters when installing the Kamstrup flowIQ 2100 meters. It will also install this equipment on the existing iPERL meters.

²³ According to the reference on which the Commission relies to establish depreciation rates for water utilities, the average service life for water meters is between 35 and 45 years. National Association of Regulatory Utility Commissioners, *Depreciation Practices for Small Water Utilities* (Washington D.C. Aug. 15, 1979) at 11. In recent years, however, the Commission has acknowledged that this service life range is no longer realistic and permitted a service life of 20 years for AMI meters. See, e.g., *Electronic Application of McCreary County Water District For Authorization to Execute Lease-Purchase Agreement and Related Relief*, Case No. 2018-00038 (Ky. PSC June 28, 2018).

E. Acoustic Leak Sensors

31. Estill District proposes to purchase 3,800 acoustic leak sensors capable of identifying noise and vibration sources and attached a sensor to each of its residential meters. Each sensor has a sensing range of between 100 and 500 linear feet depending upon the composition of the pipe and can record and transmit sound and vibration patterns. Computer software, which is included in the proposed purchase, analyzes these patterns, computes a leak index for each sensor and assigns a leak status. This software then produces a system map that indicates the areas that have a high probability of a leak occurrence.

32. The sensors permit more effective deployment of Estill District's leak detection and control personnel. Rather than aimlessly patrolling Estill District's entire distribution system for leaks, these personnel can be deployed to areas that have been identified as having a high likelihood of leaks. The addition of the leak sensors allows Estill District to build upon its zone metering system. While the zone meters can reveal problematic water usage or loss in a zone, the deployment of the leak sensors will pinpoint the location of leaks. Moreover, the sensors will also permit Estill District to better identify and repair hard-to-detect service line leaks, which make up approximately 70 percent of all leaks.²⁴ The data gathered by the sensors can also show changes occurring in the distribution system and provide valuable information essential to planning for infrastructure replacement.

33. A detailed description of the acoustic leak sensors and leak tracking software that Estill District proposes to purchase is set forth at **Exhibit 17** to this Application.

²⁴ Phil Cole, The Reality of Leaks: Cost Effective Strategies for Real Water Loss Recovery, Water Online (Nov.11, 2020), available at <https://www.wateronline.com/doc/the-reality-of-leaks-cost-effective-strategies-for-real-water-loss-recovery-0001>. A copy is attached to this Application as **Exhibit 16**.

F. Encoder Receiver Transmitters

34. Estill District proposes to purchase 3,800 Itron encoder receiver transmitter (“ERT”) devices to transmit information from its leak sensors and meter equipment. An ERT device will be located at each meter location. Each device is compatible with Kamstrup and Sensus meters, as well as those of other major meter manufacturers, and will permit Estill District to consolidate all of its metering and leak detection equipment under a single communications platform.²⁵ The ERT device can collect and store up to 40 days of hourly meter and leak sensor interval data when configured to connect data in a mobile mode. It is capable of two-way communication and supports such other capabilities such as on-demand reads; real-time leak reporting, tamper and reverse flow reporting, remote disconnection, time synchronized data, exception reporting and firmware upgrades. Each ERT device is powered by a lithium battery that has an expected service life of 20 years.

35. The ERT devices can operate in a mobile or fixed network mode. Estill District plans to operate the devices in the mobile mode initially. Under that method of operation, as an Estill District employee drives along a street or road, a specially designed computer tablet in his vehicle will connect with nearby ERT devices, receive and store the meter and leak sensor data transmitted from those devices. The tablet has a built-in GPS receiver and mapping software that indicates where the vehicle is in relation to the ERT devices and meters and which ERTs are being read and which remain to be read. After the data is collected, it is uploaded onto Itron servers through cellular connections where it can be accessed at Estill District’s central office. The mobile collection devices permit the collection of out-of-route readings to fulfill off-cycle reading requests.

²⁵ Estill District’s current radio read receivers and data collection software are not compatible with Kamstrup flowIQ 2100 meters or Itron leak sensors.

36. The ERT devices can be easily be integrated into a fixed base AMI network to obtain continuous real-time information from the meters and leak sensors. However, the topography of Estill County, Kentucky, with its numerous hills and valleys, would require the installation of more than 20 fixed-base relay stations to enable the continuous transmission and relay of the meter information to a central office to cover approximately 63 percent of Estill District's territory at an approximate cost of \$159,000. Therefore, the construction of such network is currently uneconomical. For this reason, Estill District will initially collect the data using a motor vehicle. If the cost of constructing fixed-base relay stations declines, Estill District will investigate constructing a fixed base AMI network.

37. Detailed descriptions of the ERT device, data collection application, and data management application are attached to this Application as **Exhibits 18, 19 and 20**.

38. As Estill District currently uses radio read technology to read its meters, the proposed installation of ERT devices is not expected to result in a substantial reduction of meter reading labor expense or the size of Estill District's vehicle fleet or the fleet's operation and maintenance costs.

G. Certificate of Public Convenience and Necessity

39. Estill District restates and incorporates the information contained in paragraphs 9 through 38 of this Application.

40. The proposed facilities to be purchased and installed are: 3,100 Kamstrup flow IQ2100 5/8-inch x 3/4-inch water meters, 3,800 leak sensor devices and AMI ERT radio adapters, a mobile meter data collection and management system and leak detection software.

41. The Kentucky Division of Water ("KDOW") has reviewed the plans and specifications for the proposed installation of 3,100 water meters and 3,800 leak sensors and has

approved them with respect to sanitary features of design. A copy of the letter in which the KDOW stated its approval is attached as **Exhibit 21** of this Application.

42. The KDOW has also reviewed for accuracy and completeness the plans and specifications of the installation of the meter equipment and has approved them. A copy of the letter in which the KDOW stated its approval is attached as **Exhibit 22** of this Application.

43. A description of the proposed equipment's location is attached as **Exhibit 23** to this Application. The proposed equipment will be located throughout Estill County, Kentucky. A map depicting the Estill District's territory and existing water mains is found at Attachment C of **Exhibit 4** of the Application.

44. The proposed equipment will not compete with those of another public utility. Its purchase and installation will not result in the wasteful duplication of utility facilities or inefficient investment.

45. The contract specifications for the proposed equipment are attached to this Application as **Exhibit 24**. The specifications and descriptions of the meter equipment, leak sensors, data collection equipment and related computer software are attached to this Application as **Exhibits 13, 14, 17, 18, 19 and 20**.

46. Except for a certificate of public convenience and necessity, no permits or easements or other regulatory approvals are required for the purchase and installation of the proposed equipment.

47. The total estimated cost of the second phase of the Phase 11 Project is \$1,879,030. The Project Engineer's Opinion of Probable Costs is attached as **Exhibit 25** to this Application.

Estill District proposes to finance this cost with the remaining proceeds of a loan of \$2,399,450²⁶ from KIA's Fund F Infrastructure Revolving Loan Program and with an ARC grant of \$500,000.

48. A Statement of Annual Cost of Proposed Equipment is attached as **Exhibit 26** to this Application. Estill District anticipates an annual cost of \$10,184 for software subscription fees and maintenance and support fees.

49. Installation of the proposed equipment is estimated to be substantially completed within 120 days of the execution of the contract. Final completion is expected within 150 days of the execution of the contract.

H. Authorization to Use Proceeds from KIA Loan F20-013 For Second Phase

50. Estill District restates and incorporates the information contained in paragraphs 9 through 49 of this Application.

51. In Case No. 2021-00064, Estill District sought authority to enter KIA Loan F20-13 to borrow \$2,399,450 to finance its Phase 11 Project as well as a certificate of public convenience and necessity to construct the Project's first phase. As part of its Application, Estill District committed to draw down only the proceeds necessary to finance the Project's first phase and not to draw down any proceeds for the Project's second phase until a certificate of public convenience and necessity had been granted for that phase.²⁷

52. In its Order of April 8, 2021 in Case No. 2021-00064, the Commission authorized Estill District to enter an Assistance Agreement for KIA Loan F20-13 but authorized the use of only \$1,020,420 of the proceeds of that loan. Authorization to use of the loan proceeds for any purpose other than the first phase of the Phase 11 Project was not granted.

²⁶ Approximately \$1,020,420 of KIA Loan F20-13 is obligated for use on the first phase of the Phase 11 Project. Estill District plans to use the remaining \$1,379,030 for the second phase.

²⁷ Case No. 2021-00064, Application at ¶ 49.

53. On May 27, 2021, Estill District executed an Assistance Agreement with KIA for KIA Loan F20-13.

54. Upon the issuance of a certificate of public convenience and necessity for the Project's second phase, Estill District requests that the Commission specifically authorize Estill District's use of the remaining proceeds of the F20-13 loan to finance that phase.

I. Request for Expedited Review

55. Estill District must act on the submitted bid for the purchase and installation of the proposed equipment no later than July 6, 2021. After that date, the contractor has the right to withdraw its bid. To accept the bid, Estill District requires a final decision on this application **no later than July 1, 2021.**


J. Requested Relief

WHEREFORE, Estill County Water District No. 1 requests that the Commission:

1. Place this Application at the head of the Public Service Commission's docket;
2. Grant Estill District a Certificate of Public Convenience and Necessity to purchase and install the Proposed Equipment;
3. Authorize Estill District to use \$1,379,030 of the proceeds from KIA Loan F20-13 for the proposed equipment purchase and installation;
4. Enter an Order granting the requested relief without holding an evidentiary hearing in this matter and **no later than July 1, 2021**; and,
5. Grant any and all such other relief to which Estill District may be entitled.

Dated: May 28, 2021

Respectfully submitted,

A handwritten signature in blue ink that reads "Gerald E. Wuetcher". The signature is written in a cursive style and is positioned above a horizontal line.

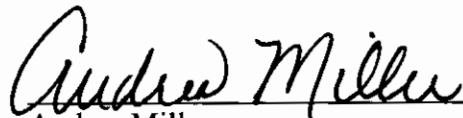
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Counsel for Estill County Water District No. 1

COMMONWEALTH OF KENTUCKY)
) SS
COUNTY OF ESTILL)

The undersigned, Audrea Miller, being duly sworn, deposes and states that she is the General Manager of Estill County Water District No. 1, the Applicant in the above proceedings; that she has read this Application and has noted its contents; that the same is true of her own knowledge, except as to matters which are therein stated on information or belief, and as to those matters, she believes same to be true.

IN TESTIMONY WHEREOF, witness the signature of the undersigned on this May 28, 2021.


Audrea Miller
General Manager
Estill County Water District No. 1

Subscribed and sworn to before me by Audrea Miller, General Manager, Estill County Water District No. 1, on this May 28, 2021.

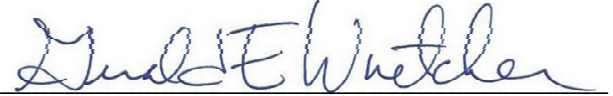

Notary Public

Notary ID: K4NP28367

My Commission Expires: April 23, 2025

CERTIFICATE OF SERVICE

In accordance with 807 KAR 5:001, Section 8, I certify that Estill County Water District No. 1's electronic filing of this Application is a true and accurate copy of the same document being filed in paper medium; that the electronic filing was transmitted to the Public Service Commission on May 28, 2021; that there are currently no parties that the Public Service Commission has excused from participation by electronic means in this proceeding; and that within 30 days following the termination of the state of emergency declared in Executive Order 2020-215, this Application in paper medium will be delivered to the Public Service Commission

A handwritten signature in blue ink, appearing to read "Gerald E. Wuetcher", written over a horizontal line.

Gerald E. Wuetcher

FILING REQUIREMENTS

FILING REQUIREMENTS FOR AN APPLICATION FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY

Source Authority	Requirement	Location
807 KAR 5:001, § 14(1)	Applicant's name, mailing address and e-mail address	Page 2, Para 1
807 KAR 5:001, § 14(1)	Statutory Reference – KRS 278.020(1)	Page 1
807 KAR 5:001, § 4(3)	Signature of Applicant's Attorney	Page 18
807 KAR 5:001, § 4(3)	Name, Address, Telephone Number, Fax Number, and e-mail address of Applicant's Attorney	Page 2, Para 2 Page 18
807 KAR 5:001, § 14(2)	If Applicant is corporation: State and date of incorporation, attestation of good standing in state of incorporation, statement regarding authorization to transact business in Kentucky	Page 2, Para 3 Not Applicable
807 KAR 5:001, § 14(3)	If Applicant is a limited liability company: State and date of organization, attestation of good standing in state of incorporation, statement regarding authorization to transact business in Kentucky	Page 2, Para 3 Not Applicable
807 KAR 5:001, § 14(4)	If the Applicant is a limited partnership: a certified copy of limited partnership agreement and all amendments or statement identifying prior Commission proceedings in which limited partnership agreement and all amendments filed	Page 2, Para 3 Not Applicable
807 KAR 5:001, § 15(2)(a)	The facts relied upon to show that the public convenience and necessity requires the proposed construction	Pages 3-5, Paras 9-14 Pages 6-7, Paras 18-21 Page 8, Paras 25-26 Page 10, Para 28 Page 12, Paras 31-32 Page 14, Para 36 Exhibit 4
807 KAR 5:001, § 15(2)(b)	Copies of franchises or permits for the proposed construction or extension	Page 14, Para 41 Page 15, Paras 42, 46
807 KAR 5:001, § 15(2)(c)	A full description of the proposed location, route, or routes of the proposed construction or extension, including a description of the manner in which same will be constructed, and the names of all public utilities, corporations, or persons with whom the proposed construction or extension is likely to compete	Page 11, Para 29 Page 12, Para 31 Page 15, Para 43-44 Exhibit 23

Source Authority	Requirement	Location
807 KAR 5:001, § 15(2)(d)(1)	Maps to suitable scale showing the location or route of the proposed construction or extension, as well as the location to scale of like facilities owned by others located anywhere within the map area with adequate identification as to the ownership of the other facilities	Page 15, Para 439 Exhibit 4 – Attachment C
807 KAR 5:001, § 15(2)(d)(2)	Plans and specifications and drawings of the proposed plant, equipment, and facilities	Page 15, Para 45 Exhibits 13-14, 17-20
807 KAR 5:001, § 15(2)(e)	The manner in detail in which the Applicant proposes to finance the proposed construction or extension.	Page 6, Para 17 Page 15, Para 47 Exhibits 5-6
807 KAR 5:001, § 15(2)(f)	An estimated annual cost of operation after the proposed facilities are placed into service	Page 16, Para 48 Exhibit 26
KRS 322.340	Engineering plans, specifications, drawings, plats and reports for the proposed construction or extension prepared by a registered engineer, must be signed, sealed, and dated by an engineer registered in Kentucky	Exhibits 9, 11, 24

EXHIBITS

TABLE OF EXHIBITS

<u>Exhibit No.</u>	<u>Description</u>
1	Order of Estill County Court Establishing Estill County Water District No. 1 (Dec. 30, 1960)
2	Order of Estill County Court Merging Estill County Water District No. 1 and Estill County Water District No. 2 (Jan. 1, 1978)
3	A Resolution of the Board of Commissioners of Estill County Water District No. 1 Authorizing an Application to the Kentucky Public Service Commission for Authorization to Issue an Evidence of Indebtedness, for A Certificate of Public Convenience and Necessity and Other Relief as Necessary
4	Bell Engineering, <i>Comprehensive Corrective Action Plan for Estill County Water District No. 1</i> (May 2019) (filed separately)
5	Minutes of the December 5, 2019 Meeting of the Board of Directors of the Kentucky Infrastructure Authority
6	Notice to Obligate
7	Proof of Publication of Notice of Advertisement for Bids in <i>Estill County Tribune</i> on March 24, 2021
8	Proof of Publication of Notice of Advertisement for Bids in <i>Citizen Voice and Times</i> on March 25, 2021
9	Certified Bid Tabulation
10	United Systems and Software, Inc. Detailed Bid Pricing
11	Project Engineer's Recommendation
12	Resolution 2021-05-27-2: A Resolution of the Board of Commissioners of Estill County Water District No. 1 Awarding A Contract for the Purchase and Installation of Metering Equipment
13	Kamstrup Brochure, flowIQ 2100 & 3100 series Encoded Meter
14	Kamstrup Data Sheet, flowIQ 2100
15	Kamstrup Water Metering L.L.C., Limited Warranty for Products and Services sold by Authorized Resellers

<u>Exhibit No.</u>	<u>Description</u>
16	Phil Cole, The Reality of Leaks: Cost Effective Strategies for Real Water Loss Recovery, Water Online (Nov.11, 2020)
17	Itron, OpenWay Riva Leak Sensor
18	Itron, OpenWay Riva 500W ERT Module
19	Itron, Mobile Collector Generation 4 (Mobile Collection Systems)
20	Itron, Temetra: Cloud based Mobile Meter Data Collection and Management
21	KDOW Approval of Proposed Facilities with Respect to Sanitary Features of Design (Aug. 3, 2020)
22	KDOW Approval of Proposed Facilities with Respect to Completeness and Accuracy (Nov. 19, 2020)
23	Description of Proposed Facilities' Location
24	Drawings/Plans for the Proposed Facilities
25	Contract Specifications
26	Project Engineer's Opinion of Probable Cost
27	Statement of Annual Cost of Operations

EXHIBIT 1

No. _____

ESTILL COUNTY COURT

PETITION OF RUSSELL McCLANAHAN, JR., et al.

ORDER ESTABLISHING WATER DISTRICT
TO BE KNOWN AS
ESTILL COUNTY WATER DISTRICT NO. 1.

WHEREAS, there has heretofore been filed a Petition by the above named petitioner and other freeholders and residents of an area lying in Estill County, Kentucky, for the creation of a water district, that same be named ESTILL COUNTY WATER DISTRICT NO. 1, pursuant to Chapter 74 of the Kentucky Revised Statutes, and

WHEREAS, a Notice of the filing of such Petition was duly published in compliance with all legal requirements, and

WHEREAS, a period of thirty days has expired after the publication of such Notice, during which time all residents of the proposed district had an opportunity to file objections, and

WHEREAS, the Court within the ten day period following the expiration of said thirty day period, set the case for hearing on the 30th day of December, 1960, at 10:00 A.M., and

WHEREAS, notice of such hearing was duly published in compliance with all legal requirements, and

WHEREAS, the Court has found and does hereby find that the establishment of such district is reasonably necessary for the public health, convenience, fire protection and comfort of the residents within the area described in the Petition as being the area sought to be established as said water district, and

WHEREAS, the Court has determined and does hereby determine, that such Petition was signed by at least seventy-five

(75) resident freeholders of the proposed district, as required by law,

NOW, THEREFORE, it is hereby ordered that there be and there is hereby established a water district which shall be designated by the name of "Estill County Water District No. 1". It is further ordered that the boundaries of said district shall be and they are hereby designated to be as follows:

Beginning at a point in the centerline of the Kentucky River said point also being in the centerline of the roadway designated as Ky. Highway 52 and 89; thence with the centerline of the Kentucky River in a north-westerly direction to a point in the centerline of said river which is located due East from the Sand Hill School thence due West approximately 3900 feet to said school thence in a Westerly direction approximately 5700 feet from and parallel to the centerline of Kentucky Highway 52 to the Estill County-Madison County line; thence in a southerly direction with said county line in a point located 5000 feet in a southerly direction from the centerline of Kentucky Highway 52; thence in an easterly direction 5000 feet from and parallel to Kentucky Highway 52 to Hoys Fork; thence with Hoys Fork in a southerly direction to Crooked Creek; thence with Crooked Creek in an easterly direction to Station Camp Creek; thence due east approximately 8200 feet to the Sugar Hollow Creek; thence with the Sugar Hollow Creek in a northerly direction to the centerline of the Kentucky River; thence with the centerline of said river to the beginning.

Entered this the 30th day of December, 1960.

[Signature]

JUDGE OF THE ESTILL COUNTY COURT

CERTIFICATE OF COUNTY CLERK

It is hereby certified that the foregoing is a true copy of such instrument duly filed in my office on this 9th day of January, 1961.

Maggie Hoffmeyer

County Clerk of Estill County, Kentucky

EXHIBIT 2

154

ORDERS

COURT

Term,

Day,

Day of

19

Form O-7-T

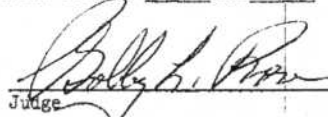
Estill County Court
Probate Division

IN RE: Final Settlement
Imo Noland, Incompetent

Estill County, Kentucky

ORDER

On the motion of the Committee herein for the filing of the Final Settlement on behalf of the above-named Incompetent; that same has been held over for a period of not less than 30 days to allow for exceptions and no exceptions being taken thereto, and this filing being acceptable to this Court, IT IS HEREBY ORDERED that the foregoing filing of the Final Settlement is hereby approved and further that the Committee be discharged for the liability upon this confirmation; further, that such bond required be discharged as satisfied by this Court; further, said Final Settlement and Order be recorded in SETTLEMENT BOOK NO. 6 PAGE 88 in my said office.


Judge

29 December 1977
Date Signed

*CCO Book 2
Pg 8454-8455*

ESTILL COUNTY COURT

ORDER MERGING ESTILL COUNTY WATER DISTRICT NO. 1 AND ESTILL COUNTY WATER DISTRICT NO. 2 TO BE KNOWN AS ESTILL COUNTY WATER DISTRICT NO. 1.

WHEREAS, there has heretofore been filed a Joint Petition by the Commissioners of Estill County Water District No. 1 and the Commissioners of Estill County Water District No. 2, for the purpose to merge the said Water Districts, that same be named ESTILL COUNTY WATER DISTRICT NO. 1, pursuant to Chapter 74 of the Kentucky Revised Statutes, and

WHEREAS, a Notice of the filing of such Joint Petition was duly published in compliance with all legal requirements, and

WHEREAS, the Court within ten days period following the expiration of said thirty day period, set the case for hearing on Sunday, January 1, 1978, at 2:00 p.m., local time, at the Estill County Courthouse, Circuit Courtroom, Irvine, Estill County, Kentucky, 40336, and

WHEREAS, Notice of such hearing was duly published in compliance with all legal requirements, and

WHEREAS, the Court has found and does hereby find that the merger of said Water Districts is reasonably necessary for the public health, convenience, fire protection and comfort of the residents within the area described in the Joint Petition as being the area sought to be

Term,

Day,

Day of

19

Form 0-7-T

It is FURTHER ordered that the boundaries of the said merged Water Districts shall be and they are hereby designated to be as follows:

TRACT NO. I:

"Beginning at the Lee County Boundary line at the centerline of the Kentucky River; thence along the centerline of the Kentucky River in a Northwesternly direction to the centerline of the Kentucky River to the Madison County Boundary line; thence in a southernly direction along the Madison County boundary line to the Jackson County boundary line; thence in a Easternly direction along the Jackson County boundary line to the Lee County boundary line; thence in a Northeasternly direction along the Lee County boundary line to the beginning at the centerline of the Kentucky River; Estill County Water District No. 1, as enlarged shall include all of the territory in the Estill County, Kentucky, South of the Kentucky River."

TRACT NO. II:

"Beginning at a point in the centerline of the Kentucky Highway 89 where the bridge of Sweet Lick Creek crosses Highway 89 going in a Northeastern direction to a point on the Estill County, Powell County line known as Marble Yard. Following the Estill County, Powell County line to Red River, following Red River to where Red River enters into the Kentucky River. Following up the Kentucky River to a point on the Eastern side of the Kentucky River Northwest of Irvine. This is a point known as the old West Irvine Bridge embuttment. From there a straight line back to the starting point in the centerline of Highway 89 at Sweet Lick Bridge."

The hereinafter described tracts of real property is excepted and excluded from aforesaid described Tract No. II:

TRACT NO. 1; "Beginning at a point in a corner of the existing corporate limits of the City of Irvine, Kentucky, said point being 780 feet west of the center of Main Street; and 55 feet south of the centerline of Rice Street, if extended; thence north 740 feet to a point; thence north 42° east 230 feet to a corner to Edgewood Estates, said corner being also in the east right-of-way line of Kentucky 89; thence with the northwest boundary of Edgewood Estates north 63° 56' east 213 feet; north 58° 19' east 28.6 feet; north 50° 09' east 58.4 feet; north 39° 15' east 715.8 feet; and north 54° 28' west 168.1 feet to a corner, said corner being the northern most corner of Edgewood Estates; thence with the northeast boundary of Edgewood Estates south 44° 53' east 789.5 feet to a corner, said corner being the eastern most corner of Edgewood Estates and in the north right-of-way line of a county road; thence with the county road right-of-way and Edgewood Estates south 47° 04' west 564.9 feet to a corner; thence leaving Edgewood Estates and crossing the county road and the property of C. T. Williams south 23° 30' east 770 feet to a corner between the Housing Commission property and Mrs. Bertha Wallace's property; said corner being a corner to the existing corporate limits of the City of Irvine, Kentucky; thence with the northern boundary of the Housing Commission property, said boundary being also the existing northern corporate limits of the City of Irvine, Kentucky west 132.88 feet; north 37.30 feet; west 295 feet to a corner between the lands of the Housing Commission and Irvine High School, said corner also in Sweet Lick Creek; thence in a westerly direction with the meanders of Sweet Lick Creek and the property of Irvine High School 700 feet to the east right-of-way line of Kentucky 89; thence in an Westernly direction with the meanders of Sweet Lick Creek and the property of Irvine High School, 700 feet to the East right-of-way line of Kentucky State Highway 89."

TRACT NO. 2; "Beginning at the City limits of Irvine, Estill County, Kentucky, being the northern section of the said City of Irvine; thence in an Northernly direction on Kentucky Highway 89 for a distance of two and two-tenth (2 2/10) miles, all real property on both sides of said Highway."

TRACT NO. 3: "Beginning at the intersection of Kentucky Highway No. 89 and Kentucky Highway No. 1705, known as the White Oak Road, and in Northeasternly direction on Kentucky Highway No. 1705 for a distance of three and three-tenth (3 3/10) miles, all real property on both sides of said Highway."

TRACT NO. 4: "Beginning at the intersection of Kentucky Highway No. 1705 and Kentucky Highway No. 794, known as the Dry Branch Road, and in a Northernly direction for a distance five tenth (.5) mile, all real property on both sides of said Highway."

TRACT NO. 5: "Beginning at the intersection of Kentucky Highway No. 1705 and Kentucky Highway No. 1058, known as the right fork of White Oak Road, and in a Southeasternly direction for a distance of six tenth (.6) mile, all real property on both sides of said Highway."

Entered this 1st day of January, 1978.

[Handwritten Signature]

CLERK OF THE COUNTY COURT

EXHIBIT 3

RESOLUTION NO. 2021-05-27-1

**A RESOLUTION OF THE BOARD OF COMMISSIONERS OF
ESTILL COUNTY WATER DISTRICT NO. 1 AUTHORIZING AN
APPLICATION TO THE KENTUCKY PUBLIC SERVICE
COMMISSION FOR AUTHORIZATION FOR A CERTIFICATE OF
PUBLIC CONVENIENCE AND NECESSITY AND OTHER RELIEF
AS NECESSARY**

WHEREAS, Estill County Water District No. 1 (“Estill District”) is a water district organized pursuant to the provisions of KRS Chapter 74;

WHEREAS, pursuant to KRS 278.015, the Kentucky General Assembly has declared that all water districts are “public utilities” and are subject to the regulation of the Kentucky Public Service Commission;

WHEREAS Estill District owns and operates facilities used to transport and distribute water to the public for compensation to serve the residents of Estill County, Kentucky;

WHEREAS, Estill District’s water distribution operations are subject to the jurisdiction and regulation of the Kentucky Public Service Commission;

WHEREAS, Estill District District proposes a series of improvements to its water distribution system known as “Phase 11 - System Improvements & Meter Purchase and Replacement Project” (“the Project”) at an estimated total cost of \$2,899,450;

WHEREAS, the Kentucky Public Service Commission in Case No. 2021-00064 issued a certificate of public convenience and necessity to Estill District for the first phase of the Project, which involves the purchase and installation of 17 zone meters on existing water mains, improvements to its telemetry and replacement of four (4) stream crossings at an estimated total cost of \$1,020,420;

WHEREAS, the Kentucky Public Service Commission in Case No. 2021-00064 authorized Estill District to enter into an Assistance Agreement with the Kentucky Infrastructure Authority to borrow \$2,399,4500 and authorized the use of \$1,020,420 of the proceeds of that loan to finance the cost of the first phase of the Project;

WHEREAS, Estill District now proposes to complete the second phase of the Project, which involves the purchase and installation of 3,100 water meters, 3,800 leak sensor devices and automated meter reading radio adapters, a mobile meter data collection and management system and leak detection software and the upgrade of Estill District’s meter reading software and equipment at an estimated cost of \$1,499,785;

WHEREAS, Estill District proposes to use \$1,379,030 of the proceeds of the authorized Kentucky Infrastructure Authority loan to finance the cost of the second phase of the Project;

WHEREAS, KRS 278.020(1) prohibits a utility from constructing any facilities to be used to provide utility service, including those for the transmission and distribution of water to the public for compensation, without first obtaining a certificate of public convenience and necessity from the Kentucky Public Service Commission; and

WHEREAS, KRS 278.020(1) requires Estill District to obtain a certificate of public convenience and necessity from the Kentucky Public Service Commission prior to commencing the second phase of the Project or significant portions of that Project;

WHEREAS, under the provisions of the Commission's Order of April 8, 2021 in Case No. 2021-00064, Estill District must obtain prior Commission authorization for any use of the proceeds of the Kentucky Infrastructure Authority loan not previously authorized;

NOW, THEREFORE, IT IS HEREBY RESOLVED BY THE BOARD OF COMMISSIONERS OF ESTILL COUNTY WATER DISTRICT NO. 1 AS FOLLOWS:

Section 1. The facts, recitals, and statements contained in the foregoing preamble of this Resolution are true and correct and are hereby affirmed and incorporated as a part of this Resolution.

Section 2. The General Manager, all appropriate Staff, and Estill County Water District No. 1's attorney are hereby further authorized and directed to take any and all actions to apply to the Kentucky Public Service Commission for authorization for a certificate of public convenience and necessity to proceed with the second phase of the Project and for authority to use the remaining proceeds from the Kentucky Infrastructure Authority loan for the second phases of the Project, and to apply for such other relief as appropriate and necessary to ensure that Estill County Water District No. 1 is acting in accordance with the requirements of KRS Chapter 278.

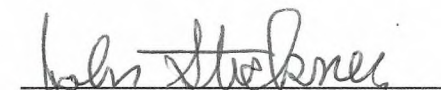
Section 3. This Resolution shall take effect upon its adoption.

ADOPTED BY THE BOARD OF COMMISSIONERS OF ESTILL COUNTY WATER DISTRICT NO. 1 at a meeting held on May 27, 2021, signed by the Chairman, and attested by the Secretary.



D. Blain Click, Chairman

ATTEST:

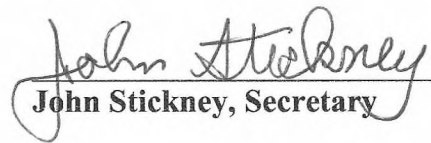


John Stickney, Secretary

CERTIFICATION

I, the undersigned, hereby certify that I am the duly qualified and acting Secretary of the Estill County Water District No. 1; that the foregoing is a full, true and correct copy of a Resolution adopted by the Board of Commissioners of the Estill County Water District No. 1 at a meeting duly held on May 27, 2021; that said official action appears as a matter of public record in Estill County Water District No. 1's official records or journal; that said meeting was held in accordance with all applicable requirements of Kentucky law, including KRS 61.810, 61.815, 61.820 and 61.823; that a quorum was present at said meeting; that said official action has not been modified, amended, revoked or repealed and is now in full force and effect.

WITNESS my hand this 27th day of May 2021.



John Stickney, Secretary

EXHIBIT 4

PROVIDED AS SEPARATE DOCUMENT

EXHIBIT 5

Mr. Ora Main, Nesbitt Engineering, Inc.
Mr. Greg Mains, Augusta Regional Sewer Authority
Mr. Charlie Martin, Lexington-Fayette Urban County Government
Ms. Audra Miller, Estill County Water District
Mr. Russell Neal, Division of Water
Mr. Paul Nesbitt, Nesbitt Engineering, Inc.
Mr. Bill Payne, Lincoln County Sanitation District
Mr. Bob Peterson, Lexington-Fayette Urban County Government
Mr. James Rowe, Northern Madison County Sanitation District
Mr. Chris Stewart, HMB Engineers
Mr. Jack Stickney, Estill County Water District
Mr. Elliott Turner, Northern Madison County Sanitation District
Ms. Julia Wang, Legislative Research Commission
Ms. Dana Whitis, City of Somerset

PROCEEDINGS

Commissioner Sandra K. Dunahoo, Chair, called the meeting of the Kentucky Infrastructure Authority (KIA) Board to order. She asked Suzanne Molley, DLG Staff Attorney, to confirm the press notification distribution as well as the presence of a quorum. Guests were asked to introduce themselves.

I. BUSINESS (Board Action Required)

A. 1. APPROVAL OF MINUTES

For: KIA Regular Board Meeting of November 7, 2019

Mr. Ron Lovan moved to approve the minutes of the November 7, 2019, regular board meeting. Mr. Russ Rose seconded, and the motion carried unanimously.

2. AWARDS PRESENTATION

Director Donna McNeil explained that USEPA has a program called Performance and Innovation in the SRF Creating Environmental Success (PISCES) program. It allows assistance recipients to gain national recognition for exceptional projects funded by the CWSRF. Participating state programs each nominated one project that demonstrates one or more of the evaluation criteria: water quality, public health, or economic benefits; sustainability; or Innovation

In 2018 there were 5 Nationally Recognized Projects and 11 Honorable Mention projects. KIA nominated the Lincoln County Sanitation District, which was recognized as a 2018 USEPA PISCES Honorable Mention recipient for the Junction City to Hustonville Sewer project. The project provided a sanitary sewage system to serve 535 residential customers and 50 commercial customers which had no sanitary sewer system. The project eliminated approximately 220 failing septic tanks, 100 raw sewage discharges, and 2 package treatment plants. An inadequate sewage package treatment plant was eliminated at the Hustonville Elementary School. The school was not able to operate its dishwasher because the package plant could not handle the load in addition to the rest rooms. Meals were served on Styrofoam trays with plastic utensils at a large cost to the school district.

The \$7.92 million project was funded by a KIA, US Rural Development, Community Development Block Grant, Appalachian Regional Commission, and local funds. Director McNeil presented representatives from the Lincoln County Sanitation District a certificate for their 2018 USEPA Pisces Award Honorable Mention to Chairman Bill Payne, Lincoln County Judge Executive Jim Adams, and Luther Galloway, AGE Engineering.

For the 2019 PISCES Recognition Program, at least one project was selected in each EPA Region resulting in 13 projects receiving Exceptional Project recognition. 17 states received Honorable Mention Recognition.

KIA's nomination received recognition again this year. The Lexington-Fayette Urban County Government was recognized as a 2019 USEPA PISCES Honorable Mention recipient from Region 4 for the West Hickman WWTP Wet Weather Storage and Head Works project.

The \$63.4 million project included construction a new mechanical screening and grit removal system, a facility odor control system, two non-potable water pumping stations, auxiliary power to operate the entire complex, a 20 million gallon above ground storage tank, and a 140 million gallon a day (MGD) pump station that allowed for the elimination of two smaller pump stations. The project provides future public sewer capacity in an area expected to see expansive development. Construction of these enhancements provides the City with the appropriate sewer capacity and eliminates the need for future private septic systems and additional wastewater treatment plants.

Director McNeil also presented a certificate for the 2019 USEPA Pisces Award Honorable Mention to representatives Bob Peterson and Charles Martin from the Lexington-Fayette Urban County Government; the project design lead Herb LeMaster representing Tetra Tech; and the prime contractor, Steve Judy, from Judy Construction Company.

B. NEW PROJECTS/ACTION ITEMS

1. A RESOLUTION AND ORDER OF THE BOARD OF DIRECTORS OF THE KENTUCKY INFRASTRUCTURE AUTHORITY AUTHORIZING AN AMENDMENT TO THE CONDITIONAL COMMITMENT FOR A FEDERALLY ASSISTED CLEAN WATER REVOLVING FUND A LOAN (A17-001) INCREASE FOR AN AMOUNT UP TO \$7,397,000 TO THE AUGUSTA REGIONAL SEWER AUTHORITY, BRACKEN COUNTY, KENTUCKY

Mr. Russell Neal, DOW, Ms. Ashley Adams, KIA, and Mr. Greg Mains, representing the Augusta Regional Sewer Authority (ARSA), discussed ARSA's request for a Fund A loan increase in the amount of \$1,100,000 for the Augusta/Brooksville Regional Sewer project. The original loan was approved by the KIA board in October 2017 in the amount of \$5,697,000 which will bring the new loan total to \$6,797,000. The reason for the increase is due to bids coming in higher than originally estimated. Specifically, the overage was due to an increase in pump pricing from the time of the engineer estimate until bidding occurred. Rejecting and rebidding this portion of the project is highly unlikely to produce a different outcome.

ARSA was established by ordinance in 2014 in an effort to regionalize wastewater treatment in an area of Bracken County which includes the Cities of Augusta and Brooksville and unserved citizens in the County between those cities. ARSA was created as a joint sewer agency pursuant to KRS 76.232. This project is the construction portion of a prior Planning and Design loan (A114-015) for \$600,000 by KIA which will help fund the creation of a new

Single Stage Activated Sludge Wastewater Treatment Plant (WWTP). This regional plant will serve the cities of Augusta, Brooksville, and Northern Bracken County based upon the recommendations of the Facilities Plan approved in 2010. The project will also construct a new outfall and four lift stations.

The existing WWTPs for both Augusta and Brooksville are in severe disrepair and will both be eliminated as a result of this project. In addition, a package treatment plant located at a nursing home in the county will be eliminated. The project will extend service to over 80 new customers in the county who were previously unserved with the potential to pick up more as Bracken County's population continues to grow.

In addition to those new customers, Augusta Regional Sewer Authority will serve approximately 775 existing residential customers as well as 2 commercial and industrial customers in Bracken County. At the time of the original project KIA extended \$1.3 million in principal forgiveness to help facilitate the project and was the first funding agency committed. Since then, USDA Rural Development has committed funds to the project in the form of a \$3.2 million loan and a \$2.8 million grant combination.

Mr. Bruce Scott thanks the ARSA staff for the continued work they have done, he noted it was not an easy thing to do, but the right thing to do for the betterment of the communities and Commissioner Dunahoo also mentioned Kristie Dodge and her assistance.

Mr. Greg Mains thanked KIA for their support through the long process of getting to this point.

Mr. Bruce Scott moved to approve the Fund A Loan, (A17-001), increase in an amount up to \$1,100,000 with the standard conditions. Judge David Voegelé seconded and the motion was unanimously approved.

2. A RESOLUTION AND ORDER OF THE BOARD OF DIRECTORS OF THE KENTUCKY INFRASTRUCTURE AUTHORITY AUTHORIZING ISSUANCE OF A CONDITIONAL COMMITMENT FOR A FEDERALLY ASSISTED CLEAN WATER REVOLVING FUND LOAN (A20-003) FOR AN AMOUNT UP TO \$3,406,500 TO THE LINCOLN COUNTY SANITATION DISTRICT, LINCOLN COUNTY, KENTUCKY

Mr. Russell Neal, DOW, Ms. Ashley Adams, KIA and Mr. Bill Payne, representing the Lincoln County Sanitation District, discussed District's request for a Fund A Loan, (A20-003), in an amount up to \$3,018,100 for the construction of the US 127 Corridor Sanitary Sewer project. Prior KIA planning and design loan A19-048 will be rolled into this loan for a total of \$3,406,500. This project is the second phase of a project to bring sanitary sewer to a section of Lincoln County that has seen rapid residential growth over the past few years but remains unserved by sanitary sewer. This second phase will complete service to virtually all subdivisions on the east and west side of US 127 from the Norfolk Southern Railroad, north to KY Hwy 1194 which includes approximately 363 homes both older and recently built.

Lincoln County Sanitation District currently serves approximately 412 customers with more expected to connect in the Phase 1 service area in the future along with the additional 363 Phase 2 customers. The District was established on May 10, 2011 by the Lincoln County Fiscal Court. It is governed by five directors who are appointed by the County Judge Executive and approved by the fiscal court. Connection to the public wastewater system is mandatory within four months of the date that a property owner is notified that service is available. The

District has received national recognition from US EPA for their accomplishments with Phase 1 of this project including an Honorable Mention for the 2018 PISCES award.

Mr. Ron Lovan moved to approve the Fund A Loan (A20-003) in an amount up to \$3, 018,100 with the standard conditions. Mr. Bruce Scott seconded and the motion was unanimously approved.

3. A RESOLUTION AND ORDER OF THE BOARD OF DIRECTORS OF THE KENTUCKY INFRASTRUCTURE AUTHORITY AUTHORIZING ISSUANCE OF A CONDITIONAL COMMITMENT FOR A FEDERALLY ASSISTED CLEAN WATER REVOLVING FUND A LOAN (A20-049) FOR AN AMOUNT UP TO \$730,000 TO THE NORTHERN MADISON COUNTY SANITATION DISTRICT, MADISON COUNTY, KENTUCKY

Mr. Russell Neal, DOW, Ms. Meili Sun, KIA, and Mr. Patrick Kirby, Community & Economic Development Associates, Inc. (CEDA), discussed the Northern Madison County Sanitation District's request for a Fund A loan in the amount of \$730,000 for the Boone Village Wastewater Collection System project.

The project proposes to install approximately 7,701 LF of gravity sewers, thirty-five manholes, two submersible pump stations, and approximately 4,700 LF of 4" diameter force main to collect and transport wastewater from 70 residential customers and 1 commercial establishment to the existing District system. The flow will ultimately be treated at the District's regional wastewater treatment plant. The purpose of this project is to eliminate sewage overflow caused by septic tanks and improve public health.

Upon completion of this project, the District will add 71 new customers to the 1,000 existing customers in Madison County.

Judge David Voegele asked about if there are additional customers coming, does that account for the \$1,200 decrease in debt per customer. Ms. Sun noted the District had been making the annual debt service payment each year. Mr. Paul Nesbitt stepped up and noted the increased customers and the additional debt service payments.

Mr. Ron Lovan asked about the flow from the project eventually going to the regional waste water plant. Will it automatically happen or is there additional work to be done? City officials noted everything was in place to do it automatically

Mr. Kurt Stafford asked about the anticipated 70 new customers that would be added on and if there potentially were more customers. City officials noted that there was a major construction project on Exit 95 and when it was completed, they expected there to be rapid growth, including a new school, and that lines are in place now for future customers.

Mr. Ron Lovan moved to approve the Fund A Loan (A20-049) in an amount up to \$730,000 to the Northern Madison County Sanitation District with the standard conditions. Mr. Bruce Scott seconded and the motion was unanimously approved.

4. A RESOLUTION AND ORDER OF THE BOARD OF DIRECTORS OF THE KENTUCKY INFRASTRUCTURE AUTHORITY AUTHORIZING ISSUANCE OF A CONDITIONAL COMMITMENT FOR A FEDERALLY ASSISTED DRINKING WATER REVOLVING FUND LOAN (F20-013) FOR AN AMOUNT UP TO \$2,399,450 TO THE ESTILL COUNTY WATER DISTRICT, ESTILL COUNTY, KENTUCKY

Mr. Russell Neal, DOW, Ms. Meili Sun, KIA, and Ms. Audrea Miller, representing the Estill County Water District, discussed the District's request for a Fund F loan in the amount of \$2,399,450 for the System Improvement and Meter Replacement project.

This project will implement improvements designed to help reduce unaccounted for water in the system. It will install flow metering and backflow prevention devices, develop a hydraulic model, and relocate or replace five substandard existing creek crossings. The ECWD has taken an active approach to minimizing unaccounted for water loss through pump stations and telemetry upgrades, valve replacements, installation of test meter assemblies within the system, utilization of leak detection services, and purchase of a hydraulic model for the system. The scope of work also includes purchase and installation of new residential meters throughout the service area. On site testing indicates that the current meters are rapidly reaching the end of the useful life and inaccurate in measuring low "trickle" flows. The ECWD is a PSC regulated system serving approximately 3,800 residential and commercial customers in Estill County. All rate changes related to retail and water purchase are subject to PSC approval.

Mr. Bruce Scott asked Mr. Neal what their hope was in reducing their water loss. City officials noted they hoped to get it down from 40% to 15%. PSC requires the District to do a Corrective Action Plan. Mr. Ron Lovan said they are to be commended that it is important to get water losses down. Mr. Lovan asked if they were replacing all residential meters and what were their plans for back flow prevention. It was noted that Estill County receives 90 of their water from IMU and interconnector goes under the Kentucky River and that has been problematic since it was built in the 1960s so they advised them to establish backflow prevention on their side of the river in case of failure at the River crossing. He believes it has already been put in place. Mr. Russ Rose asked if the meter replacements would be done in-house or if it would be contracted out. County officials noted it would be contracted out.

Mr. Bruce Scott moved to approve the Fund F Loan (F20-013) loan in an amount up to \$2,399,450 to the Estill County Water District with the standard conditions. Mr. Ron Lovan seconded and the motion was unanimously approved.

5. A RESOLUTION AND ORDER OF THE BOARD OF DIRECTORS OF THE KENTUCKY INFRASTRUCTURE AUTHORITY AUTHORIZING ISSUANCE OF A CONDITIONAL COMMITMENT FOR A FEDERALLY ASSISTED DRINKING WATER REVOLVING FUND LOAN (F20-019) FOR AN AMOUNT UP TO \$7,027,878 TO THE CITY OF SOMERSET, PULASKI COUNTY, KENTUCKY

Mr. Russell Neal, DOW, Ms. Meili Sun, KIA and Ms. Dana Whitis, representing the City of Somerset, discussed the City's request for a Fund F loan in the amount of \$7,027,878 for the Storage Tank, Booster Stations, and Water Main Extension project, which is consisted of 2 contracts. Contract 1 – Oak Hill Storage Tank Replacement, 5 MG Booster Station, and Water Main Extension will replace an existing one million gallon storage tank with a new one of the same storage capacity. It will also build a new booster pump station with 5 million gallon capacity and SCADA, add Variable Frequency Drives at the water treatment plant, and install an eight inch water main near the Lake Cumberland Regional Hospital to balance pressure in the system. Contract 2 – Valley Oak Industrial Park Water System improvements will construct a 1,000 gallon per minute water booster pumping station to facilitate filling of the Sugar Hill Water Storage Tank, install a new water mixing system in the same tank, reconfigure piping

that feeds the tank, and build a Chlorination Booster Station to improve water quality for the Valley Oak Industrial Park and Southeastern Water Association.

The City is a regional provider currently serving approximately 9,000 retail and 4 wholesale customers in Somerset and the surrounding area. Of the 4 wholesale customers, Southeastern Water Association and Western Pulaski County Water District are PSC regulated systems.

Mr. Kurt Stafford asked about the rates for outside the city and if they were residential customers or wholesale customers.

Mr. Bruce Scott moved to approve the Fund F Loan (F20-019) loan to the City of Somerset in an amount up to \$7,027,878 with the standard conditions. Mr. Russ Rose seconded and the motion carried unanimously.

6. A RESOLUTION OF THE KENTUCKY INFRASTRUCTURE AUTHORITY AUTHORIZING AND APPROVING THE ISSUANCE OF OBLIGATIONS OF THE KENTUCKY INFRASTRUCTURE AUTHORITY TO REIMBURSE CAPITAL EXPENDITURES MADE BY GOVERNMENTAL AGENCIES PURSUANT TO LOANS MADE BY THE KENTUCKY INFRASTRUCTURE AUTHORITY TO SUCH GOVERNMENTAL AGENCIES

This is a routine resolution allowing KIA to reimburse expenses that are paid out of the Authority’s funds with bond proceeds. The projects listed below are covered under this resolution:

BORROWER	FUND	AMOUNT UP TO
Augusta Regional Sewer Authority (Increase)	A17-001	\$1,100,000
Lincoln County Sanitation District (Construction)	A20-003	\$3,018,100
Northern Madison County Sanitation District	A20-049	\$ 730,000
Estill County Water District	F20-013	\$2,399,450
City of Somerset	F20-019	\$7,027,878

Mr. Ron Lovan moved to approve the reimbursement resolution. Mr. Bruce Scott seconded and the motion carried unanimously.

EXECUTIVE DIRECTOR’S REPORT

Director McNeil addressed the group noting the suggested 2020 board dates that had been sent out with the other Board meeting materials. All are suggested for the first or second Thursday, other than the September date that would be the final Thursday to review the audit. Commissioner Dunahoo asked if it would be advisable with the pending transition and several Board positions changing to hold off and finalizing dates at a later date. Mr. Kurt Stafford noted a January date would need to be set. Mr. Ron Lovan asked if they were the standard dates. Director McNeil noted that in years past, the regularly scheduled meetings were the first Thursday of each month. Last year, for quorum purposes, April, May and September were changed for spring and fall break as well as Derby in May. Director McNeil noted, it might be best to confirm January 9th as the next meeting and finalize the other dates at a later time. The By-Laws state the Board would set the dates for the following year at the December Board

meeting. If they are set and then changed, it will become a Special Called meeting. Mr. Ron Lovan suggested the January date be approved and confirmed, but to wait until January to set the additional 2020 meeting dates to avoid conflicts with new Board members' schedules.

Mr. Ron Lovan moved to approve Thursday, January 9th as the next regularly scheduled board Meeting. Mr. Bob Amato seconded and the motion was unanimously approved.

Director McNeil discussed the 2019 USEPA Aquarius recognition program for the Drinking Water State Revolving Fund, which began this year. KIA's nomination was selected to receive this national honor. On December 18th, the City of Danville is scheduled to be presented the USEPA Aquarius Excellence Recognition award for the water treatment plant and intake project. The presentation will be at the water treatment plant at 11:00 EST. Lunch is being served after a short presentation. This drinking water project was the first H2O Award recipient.

There are two other presentations coming in the next few weeks, the 2019 H2O Award recipient City of Fleming-Neon will be receiving their drinking water award on December 11th at the KRADD Board of Directors meeting in Hazard. The Regional Water Resource Agency will receive the 2019 H2O Award for a clean water project on Monday, December 16th at their Board of Directors meeting at 3:30 CST in Owensboro.

Staff attended the CIFA Conference and EPA SRF Workgroup meeting in Cleveland on November 17-20th. Staff presented the KIA dashboards and screens associated with the SRF program, including the loan management process, including project ranking. It was very well received. Director McNeil was elected to the CIFA Board of Directors.

KIA may be the recipient of another grant program, the Sewer Overflow Grant Program (SOG) to benefit SSO elimination. It will be used for sanitary sewer overflow, combined sewer overflows, especially if utility has a consent degree in place and also storm water overflow. This program was authorized in the American Water Infrastructure Act, both the House and Senate have funds set aside in their budget for this Act so EPA thinks we will be getting money. These funds will be allocated based upon the Clean Water SRF allocation formula, with some other things factoring in, including permeability, rainfall and other factors in addition to how the state gets their SRF.

This is also a look at the 2020 Water Resource Development Act and the Water Quality Protection and Job Creation Act both deal with the Clean Water SRF Program, looking at the authorization and reallocating of funds. We were recently told that Congress is looking at an allocation formula to change the way states are allocated funds based upon the Needs Survey, which has not been done in the past. So it will be very important in the next couple of years that the Drinking Water and Clean Water SRF Needs Survey are documented as well as we can to ensure Kentucky gets the most funds possible. Those funds for implementation, administration and possibly set-asides and also to support job creation in the industry for economic development. It unanimously passed the House Transportation Infrastructure Committee in October.

With the Drinking Water program, EPA has announced they will issue a deviation to the federal regulations, allowing water rights to be eligible for the program. Water rights by the standard definition are not a Kentucky or states east of the Mississippi, however USEPA is using a broader definition for the Drinking Water program which will involve storage capacity for existing population, disallowing growth.

KIA has filed their 2020 Budget, our operating expenses are going to be approximately \$3.2 million. KIA's operating expenses are funded from Restricted Funds – administrative loan fees (54%), the General Fund (33%) funds updates to WRIS and planning, and Federal Funds (13%) which includes both Federal loan programs.

The Capital Budget has been submitted requesting state match bond and Disadvantaged Community Drinking Water Grant. The 3 Grants equal around \$39 million with about \$8.8 carry over for FY 2021. State matching funds is 20% for the SRF. The Drinking Water SRF was increased, we are asking for an additional \$800,000 to fund a state match shortfall during 2020 for the additional capitalization grant funding. There was almost an \$11 million increase in funding.

We included leverage bonds, we do not expect to use it, but wanted it in place should the need arise. Our Capital Plan, includes the \$25 million request to increase the lending capacity of Fund B.

ANNOUNCEMENTS/NOTIFICATIONS

Commissioner Dunahoo announced that this was her final Board meeting and thanked the group for the services to the Board and wished everyone well. She said she would be returning back into the private sector to pursue other opportunities.

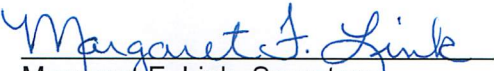
Mr. Bruce Scott also noted that this would be his last Board meeting. He would be leaving EEC as of Monday. He thanked Commissioner Dunahoo and Director McNeil for their service as well as the KIA and DOW staffs.

Mr. Ron Lovan thanked all for their service to the Commonwealth.

- Next scheduled KIA board meeting:
Thursday, January 9, 2020, 1:00 p.m.
100 Airport Road, Third Floor
Frankfort, Kentucky

There being no further business, Mr. Claude Christian moved to adjourn. Mr. Ron Lovan seconded and the motion carried unanimously. The December 5, 2019 meeting of the Board of the Kentucky Infrastructure Authority was adjourned.

Submitted by:


Margaret F. Link, Secretary
Kentucky Infrastructure Authority

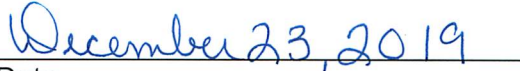

Date

EXHIBIT 6



Notice to Obligate

TO: Christopher McLean
U.S. Department of Agriculture, Rural
Development
Utilities Program
South Building, Room 5135-S
14th & Independence Avenue, SW
Washington, DC 20250
Attn: Lois East

CC: Karen Leadlove
U.S. Department of Agriculture, Rural
Development
Financial Accounting Branch
Bldg. 104 Post 48B
4300 Goodfellow Blvd.
St. Louis, MO 63120

Pursuant to the Appalachian Regional Development Act of 1965, as amended, the Appalachian Regional Commission has approved the referenced project under appropriation 46X0200. Rural Development has agreed to obligate and administer the grant under the Memorandum of Agreement between ARC and USDA.

ARC Project Number: KY-19847
Project Title: Estill Water District Meter Replacement Project
Grantee: Estill County Water District
Approved Funding:

ARC	\$500,000	17%
Local	\$2,399,450	83%
Total Project Cost	<u>\$2,899,450</u>	<u>100%</u>

Authorized USDA Administrative Charge: \$9,000

Approved:

Tim Thomas
Federal Co-Chair

Date

EXHIBIT 7

NOTARIZED PROOF OF PUBLICATION

STATE OF KENTUCKY

COUNTY OF ESTILL

Before me, a Notary Public, in and for said County and State, this

26th DAY OF MARCH, 2021, came TRACY R. PATRICK,

personally known to me, who being duly sworn, states as follows:

That he/she is the OWNER of THE ESTILL COUNTY TRIBUNE

newspaper and the attached sheets show proof of publication for an

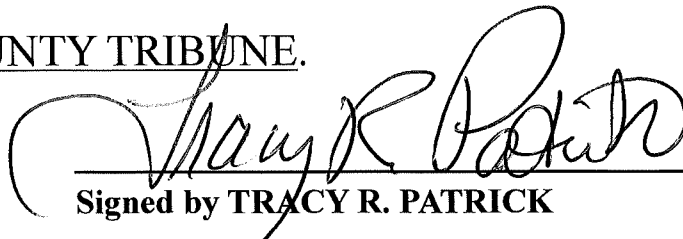
advertisement seeking bids for:

CONTRACT 371-20-02
WATER SYSTEM IMPROVEMENTS,
PHASE 11-RESIDENTIAL METER REPLACEMENT
ESTILL COUNTY WATER DISTRICT NO. 1

by the ESTILL COUNTY WATER DISTRICT

that appeared in the MARCH 24, 2021 edition of

THE ESTILL COUNTY TRIBUNE.


Signed by TRACY R. PATRICK

Kendrea Powell

Notary Public

My commission expires 4.23.23

Classifieds

Buy, Sell, Trade or Giveaway, Call (606) 723-5012

Help Wanted

Day help wanted, male or female. Must be able to pass a background check, absolutely no drugs, must be willing to take a drug test. Hard worker, good pay, carpentry experience helpful. Can work into great part time job. EOE
Contact Steve at 1-606-975-0993

Construction Services

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CONSTRUCTION SERVICES
Water & Fire Damage Repairs
Email <ToddLinville7@gmail.com> or
Call (859) 691-0953

Electrical



Eastern Kentucky Electric
Working together to make things brighter
Daniel Muchow, Owner
(859) 351-4001
Irvine, KY 40336
CE65199 ME #64934
easternkyelectric@yahoo.com

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Davidson Tree Service
We treat our customers right!
Tree and stump removal.
Professional pruning and shaping.
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Bucket truck now available!
Fully Insured!
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Mike 1-606-723-9227
Tommy 1-606-253-8826

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YARD MASTER
"Weed the Best!"
For All Your
Landscaping Needs
Call the best! (859) 408-3057

Hay for Sale

Rolled Hay For Sale
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Viet Nam War Items

WANTED TO BUY
Viet Nam War items brought back that are for sale. Flags, patches, knives, anything Viet Nam War.
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Tree Trimming

GET-R-DONE
Tree Trimming & Removal
Also, NEW! Pressure Washing!
Homes, Decks, Driveways, Sidewalks
Contact Anthony Conrad
FREE Estimates! 606-975-3799
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Advertisement for Bids

ADVERTISEMENT FOR BIDS
CONTRACT 371-20-02
WATER SYSTEM IMPROVEMENTS,
PHASE 11 - RESIDENTIAL METER REPLACEMENT
ESTILL COUNTY WATER DISTRICT NO. 1
ESTILL COUNTY, KENTUCKY

Sealed proposals for the following work will be received by Estill County Water District No. 1, Estill County, Kentucky at 76 Cedar Grove Road, Irvine, Kentucky, until 10:00 a.m. local time, Tuesday, April 6, 2021, for furnishing labor and materials and performing all work as set forth by the Advertisement, General Conditions, Specifications and/or Drawings prepared by Bell Engineering. Immediately following the scheduled closing time for the reception of bids, all proposals which have been submitted in accordance with the above conditions will be publicly opened and read aloud.

The work to be bid is described as follows:

CONTRACT 371-20-02
Water System Improvements, Phase 11- Residential meter replacement of approximately 3,000 residential meters.

Drawings, Specifications and Contract Documents may be examined at the following places:

Estill County Water District No. 1 76 Cedar Grove Road Irvine, Kentucky 40336	Bell Engineering 2480 Fortune Drive, Suite 350 Lexington, Kentucky 40509
---	--

or may be obtained from Lynn Imaging, 328 E. Vine Street, Lexington, Kentucky 40507, phone 859/255-1021, upon receipt of non-refundable deposit as follows:

CONTRACT 371-20-02 -- \$200.00 (electronic or hard copy)

Sealed proposals for this Contract shall be clearly marked on the outside of the envelope as follows:

"Sealed Proposal for Contract 371-20-02. Not to be opened until 10:00 a.m., local time, Tuesday, April 6, 2021."

If forwarded by mail, the sealed envelope containing the proposal must be enclosed in another envelope and mailed to the Estill County Water District No. 1, 76 Cedar Grove Road, Irvine, Kentucky 40336, allowing sufficient time for such mailing to reach this address prior to the scheduled closing time for receipt of proposals.

Bids shall be accompanied by a certified check or bid bond made payable to Estill County Water District No. 1, in an amount not less than 5 percent of the base bid indicated in Specification Section 00200, Instructions to Bidders, Bid Security. No bidder may withdraw his bid for a period of 90 days after the date bids are opened. He may, however, withdraw his bid at any time prior to the time and date scheduled for opening of same or any authorized postponement thereof. Any bid received after the time and date specified shall not be considered and will be returned unopened to the bidder. The expected construction time for this project will be 150 days and the liquidated damages have been set at \$500.00 per day.

Any contract awarded under this Advertisement for Bids is expected to be funded in part by a loan from the Kentucky Infrastructure Authority, Drinking Water State Revolving Fund and a grant from the Appalachian Regional Commission (ARC).

The OWNER's share will be provided from current funds on hand.

Work to be performed by contractors involved in this project is subject to the minimum wage rates established by the U.S. Department of Labor under the provisions of the Davis Bacon Act.

State Revolving Fund requirements must be met by the bidder and all sub-contractors.

Bidders must comply with the President's Executive Order Nos. 11246 and 11375, which prohibit discrimination in employment regarding race, creed, color, sex or national origin. Where the President's Executive Order No. 11246 is shown, Executive Order No. 11375 also applies.

Bidders must make positive efforts to secure small, minority owned, and/or disadvantaged business enterprise participation in this Project.

Small and disadvantage business enterprises are encouraged to bid on this Project.

Bidders must comply with Title VI of the Civil Rights Act of 1964, the Anti Kickback Act, and the Contract Work Hours Standard Act.

Bidders must certify that they do not and will not maintain or provide for their employees any facilities that are segregated or based on race, color, creed, or national origin.

Bidders must show a certification of prior work under Executive Order 11246 (Equal Employment Opportunity) as amended.

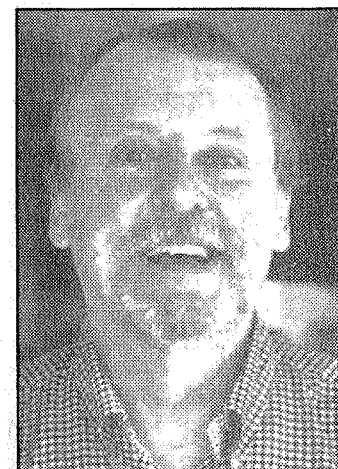
All contractors and subcontractors shall comply with 41 CFR 60-4, in regard to affirmative action, to ensure equal opportunity to females and minorities, and shall apply the timetables and goals set forth in 41 CFR 60-4. Estill County Water District No. 1 is an equal opportunity employer.

Neither the United States nor any of its departments, agencies or employees is or will be a party to this Invitation for Bids or any resulting contract.

Award will be made to the lowest, responsive, responsible bidder. Estill County Water District No. 1 may consider informal any bid not prepared and submitted in accordance with the provisions of this advertisement and/or the Specifications and may waive any informalities or reject any and all bids.

ESTILL COUNTY WATER DISTRICT NO. 1
Audrea Miller, Manager

Balance is the key word for new UK offensive coordinator Liam Coen



by Larry Vaught

Balance is the goal for Kentucky's offense with new offensive coordinator Liam Coen. He understands how well Kentucky has run the football in recent years and returns a potential star running back in Chris Rodriguez and All-American tackle in Darian Kinnard. He also knows Kentucky needs to add some sparkle to the offense by being able to stretch the field with a passing attack.

"Balance is the key word. They have done a phenomenal job of running the ball here and we need to continue to do that and be physical up front," Coen, who left the Los Angeles Rams to join Mark Stoops' staff, said. "Now how do we marry the run, pass, play-action and all that stuff and give the quarterbacks and receivers high level completions and explosive plays. Our offense will be more similar to what the Rams did. We are not just going to drop back and pass all the time."

One change he's trying to implement is putting quarterbacks under center rather than aways in the shotgun. Problem is Beau Allen and Joey Gatewood, the top two quarterbacks going into spring practice, cannot really remember the last time they took a snap under center.

"We are going to try it and see where we go. If they can not handle it I am not going to try and fit a square peg into a round hole but there are a lot of things I like to do that come from under center," Coen said.

Allen, the redshirt freshman from Lexington, says being under center allows his "feet to be quicker" and that has made him feel faster and more agile during off-season workouts. He also says the view from under center as opposed to being in the shotgun formation is not that different.

"You can still look around and see what you have to do. It's pretty similar. You are just a little closer to the line of scrimmage," Allen said.

Gatewood said he's had to adjust to being under center but is getting more comfortable daily.

"I feel good with it. I am getting more confident with it every day," Gatewood said.

EXHIBIT 8

Hatfield Newspapers Inc.

Affidavit of Publication

I hereby certify that I am the Publisher of the Citizen Voice & Times, the newspaper published in the county of Estill, Kentucky (hereinafter referred to as the "publication area") that has the largest bonafide circulation in and said publication area of any newspaper published therein.

I further certify that there is attached here to a true copy of the CONTRACT 371-20-02 WATER SYSTEM IMPROVEMENTS PHASE 11- RESIDENTIAL METER REPLACEMENT ESTILL COUNTY WATER which was published in DISTRICT NO. 1 said newspaper in its regular issue for the 25th day of March 20 21.

I further certify that said newspaper is circulated generally in the publication area, maintains a definite price or consideration not less than fifty percent of its published price and is paid for by not less than fifty percent of those to whom distribution is made. I further certify said newspaper bears a title or name, consists of not less than four pages without a cover, is a type to which the general public resorts for passing events of a political, religious, commercial or social nature for current happenings, announcements, miscellaneous reading matter, advertisements and other noticed and that the news content of said newspaper is at least twenty-five percent of the total column space in the publication hereinbefore referred to.

Dated this 26th day of March 20 21.

Cheyenne Young

Teresa Hatfield-Barger, Publisher

Subscribed and sworn to before me this 26th day of March 20 21.

My commission expires May 7, 2021.

#577877

Christie Young

Notary Public, Kentucky.

Classifieds

CITIZEN VOICE & TIMES

11 Thursday, March 25, 2021

SERVICES

TRACTOR AND FARM EQUIPMENT Repairs. We come to you. Call and ask Randy about our service 606-726-9277.

FOR RENT

2 bedroom trailer, W/D hookup, stove, refrigerator furnished, KU electric. For more info call 606-726-9163

BUYING

WE WILL BUY guns, cars, trucks, motorcycles, campers, 4-wheelers, gold & diamonds, anything of value. 1128 West Lexington Ave., Winchester. 859-771-8191 or 859-744-7834.

HELP WANTED

CDL Drivers, equipment operators and laborers need in Waco for a construction company. 859-623-4199.

STATEWIDE CLASSIFIEDS

ATTORNEY
Denied Social Security Disability? Appeal! If you're 50+, filed SSD and denied, our attorneys can help get you approved! No money out of pocket! Call 1-855-980-5461. SERIOUSLY INJURED IN AN AUTO ACCIDENT? Let us fight for you! Our network has recovered millions for clients! Call today for a FREE consultation! 1-844-423-8835. **AUTOMOBILES**
CASH FOR CARS! We buy all cars! Junk, high-end, totaled - it doesn't matter! Get free towing and same day cash! NEWER MODELS too! Call 1-833-258-7036. **DONATE YOUR CAR TO UNITED BREAST CANCER FOUNDATION!** Your donation helps education, prevention & support programs. FAST FREE PICKUP - 24 HR RESPONSE - TAX DEDUCTION 1-888-861-0156

Donate your car, truck or van. Help veterans find jobs or start a business. Call Patriotic Hearts Foundation. Fast, FREE pick-up. Max tax-deduction. Operators are standing by! Call 1-866-495-0115. **CABLE/UTILITIES**
DIRECTV - Every live football game, every Sunday - anywhere - on your favorite device. Restrictions apply. Call IVS - 1-866-292-5435. **DIRECTV NOW**. No Satellite Needed. \$40/month. 65 Channels. Stream Breaking News, Live Events, Sports & On Demand Titles. No Annual Contract. No Commitment. CALL 1-844-448-9318. **DISH Network**. \$59.99 for 190 Channels! Blazing Fast Internet, \$19.99/mo. (where available.) Switch & Get a FREE \$100 Visa Gift Card. FREE Voice Remote. FREE HD DVR. FREE Streaming on ALL Devices. Call today! 1-855-633-4574. **CELLULAR** Two great new offers from AT&T Wireless! Ask how to get the new iPhone 11 or Next Generation Samsung Galaxy S10e ON US with AT&T's Buy one, Give One offer. While supplies last! CALL 1-866-478-8859. **FINANCIAL SERVICES**
Attention all homeowners in jeopardy of foreclosure? We can help stop your home from foreclosing. The Foreclosure Defense helpline can help save your home. The Call is absolutely free. 1-855-685-9465. **Wesley Financial Group, LLC** Timeshare Cancellation Experts Over \$50,000,000 in timeshare debt and fees cancelled in 2019. Get free informational package and learn how to get rid of your timeshare! Free consultations. Over 450 positive reviews. Call 855-977-4979. **HEALTH SERVICE**
LIVE PAIN FREE with CBD

products from Ace Wellness. We guarantee highest quality, most competitive pricing on CBD products. Softgels, Oils, Skincare, Vape & more. Coupon Code: PRINT20 Call Now 855-780-8704. **HEARING AIDS!!** Buy one/get one FREE! Nearly invisible, fully rechargeable IN-EAR NANO hearing aids priced thousands less than competitors! 45-day trial! Call: 1-844-819-0345. **HELP WANTED - TRUCK DRIVERS**
NEW STARTING BASE PAY - .50 cpm w/ option to make .60 cpm for Class A CDL Flatbed Drivers, Excellent Benefits, Home Weekends, Call 800-648-9915 or www.boydandsons.com. **HOME IMPROVEMENT**
Eliminate gutter cleaning forever! LeafFilter, the most advanced debris-blocking gutter protection. Schedule a FREE LeafFilter estimate today. 15% off Entire Purchase. 10% Senior & Military Discounts. Call 1-866-329-2415. **BATHROOM RENOVATIONS. EASY, ONE DAY updates!** We specialize in safe bathing. Grab bars, no slip flooring & seated showers. Call for a free-in-home consultation: 1-844-519-3621. **HOME SERVICES**
GENERAC Standby Generators provide backup power during utility power outages, so your home and family stay safe and comfortable. Prepare now. Free 7-year extended warranty (\$695 value!). Request a free quote today! Call for additional terms and conditions. 1-844-688-8576. The Generac PWRcell, a solar plus battery storage system. SAVE money, reduce your reliance on the grid, prepare for power outages and power your home. Full installation services available. \$0 Down Financing

Option. Request a FREE, no obligation, quote today. Call 1-844-499-0041. **INSURANCE SERVICES**
New Medicare Part D Insulin Savings Model. Stable, Predictable Insulin Copays throughout 2021! \$35/Month through Deductible, Initial, and Coverage Gap stages. Cumberland Benefits, 502.386.7857. Up to \$15,000.00 of GUARANTEED Life Insurance! No medical exam or health questions. Cash to help pay funeral and other final expenses. Call Physicians Life Insurance Company- 844-950-2448 or visit www.Life55plus.info/ky-press. **MEDICAL**
HEARING AIDS!! Buy one/get one FREE! Nearly invisible, fully rechargeable IN-EAR NANO hearing aids priced thousands less than competitors! 45-day trial! 855-491-9600. **MISCELLANEOUS**
FREON WANTED: We pay \$\$\$ for cylinders and cans. R12 R500 R11 R113 R114. Convenient. Certified Professionals. Call 312-291-9169 or visit RefrigerantFinders.com. High-Speed Internet. We instantly compare speed, pricing, availability to find the best service for your needs. Starting at \$39.99/month! Quickly compare offers from top providers. Call 1-866-523-0708. AT&T Internet. Starting at \$40/month w/12-mo agmt. Includes 1 TB of data per month. Get More For Your High-Speed Internet Thing. Ask us how to bundle and SAVE! Geo & svc restrictions apply. Call us today 1-866-515-1316. Earthlink High Speed Internet. As Low As \$14.95/month (for the first 3 months.) Reliable High Speed Fiber Optic Technology. Stream Videos, Music and More! Call Earthlink To-

day 1-866-930-8254. **HughesNet Satellite Internet** - Finally, no hard data limits! Call today for speeds up to 25mbps as low as \$59.99/mo! \$75 gift card, terms apply. 1-844-759-0616. **4G LTE Home Internet Now Available!** Get GotW3 with lightning fast speeds plus take your service with you when you travel! As low as \$109.99/mo! 1-888-610-0053. **ATTENTION HOMEOWNERS!! YOU CAN PROTECT YOUR APPLIANCES AND SYSTEMS.** For just a little more than a \$1.00/day. Call now for First month free, \$75.00/off 1st year. 1-855-536-7294. **MOVING COMPANIES**
Cross Country Moving, Long distance Moving Company, out of state move \$799 Long Distance Movers. Get Free quote on your Long distance move. Call 1-866-277-4555. **PROFESSIONAL ORGANIZATIONS**
Become a Published Author. We want to Read Your Book! Dorrance Publishing-Trusted by Authors Since 1920 Book manuscript submissions currently being reviewed. Comprehensive Services: Consultation, Production, Promotion and Distribution Call for Your Free Author's Guide 1-855-209-2951 or visit http://dorranceinfo.com/Kentucky. **TAX SERVICES**
Need IRS Relief \$10K - 125K+ Get Fresh Start or Forgiveness. Call 1-855-897-7657 Monday through Friday 7AM-5PM PST



All real estate advertising in this newspaper is subject to the Fair Housing Act which makes it illegal to advertise "any preference, limitation or discrimination based on race, color, religion, sex, handicap, familial status or national origin, or an intention, to make any such preference, limitation or discrimination." Familial status includes children under the age of 18 living with parents or legal custodians, pregnant women and people securing custody of children under 18. This newspaper will not knowingly accept any advertising for real estate which is in violation of the law. Our readers are hereby informed that all dwellings advertised in this newspaper are available on an equal opportunity basis. To complain of discrimination call HUD toll-free at 1-800-669-9777. The toll-free telephone number for the hearing impaired is 1-800-927-9275.

Legal Notices:

KRS 376.275 & KRS 424.130
For Sale to Pay Towing and Storage Fees of \$9030
1997 Pace Arrow Vision
VIN #3FCMF53G7VJAO5238
Condition: Fair. Miles 50k
Last Known Owner/Address:
Deanna Smith
123 Payton Ave
Irvine, KY 40336

Written offers to purchase or parties claiming a financial interest should contact by registered mail no later than April 15th, 2021:
Sonya Bourne Hauling
225 Parsons Street
Mt. Vernon, KY
Questions: Text (606) 510-7404

Public Notice Invitation for Fuel Bids

The Estill County Board of Education is seeking bids for gasoline and diesel fuel for the 2021-2022 school year. This will be an annual bid for fuel on an as-needed basis beginning July 1, 2021 through June 30, 2022. Deliveries shall be made within three (3) business days after order has been placed. Bids should include upcharge and delivery fees. The winning bidder must provide a local fueling station to dispense gasoline and provide equipment to dispense diesel at a local site in an emergency situation if such should occur. Gasoline must be 87 or higher octane rating. Diesel must be ultra-low sulfur rating.

Bids should be sent to the Estill County Board of Education, P.O. Box 930, Irvine, KY 40336 - or be delivered in person. Bids must be received by 2:00 PM Tuesday, April 6, 2020.

NOW HIRING

The Estill County Fiscal Court is receiving applications for Solid Waste/Recycling/Animal Control Coordinator. Applications are available at the County Judge's Office in the Estill County Courthouse 130 Main St., Rm 101 Irvine, KY 40336. Applications along with a resume must be received by 4:00 p.m. Friday April 9, 2021 in the County Judge's Office.

ADVERTISEMENT FOR BIDS

CONTRACT 371-20-02 WATER SYSTEM IMPROVEMENTS, PHASE 11 - RESIDENTIAL METER REPLACEMENT ESTILL COUNTY WATER DISTRICT NO. 1 ESTILL COUNTY, KENTUCKY

Sealed proposals for the following work will be received by Estill County Water District No. 1, Estill County, Kentucky at 76 Cedar Grove Road, Irvine, Kentucky, until 10:00 a.m. local time, Tuesday, April 6, 2021, for furnishing labor and materials and performing all work as set forth by the Advertisement, General Conditions, Specifications and/or Drawings prepared by Bell Engineering. Immediately following the scheduled closing time for the reception of bids, all proposals which have been submitted in accordance with the above conditions will be publicly opened and read aloud.

The work to be bid is described as follows:

CONTRACT 371-20-02
Water System Improvements, Phase 11- Residential meter replacement of approximately 3,000 residential meters.

Drawings, Specifications and Contract Documents may be examined at the following places:

Estill County Water District No. 1
76 Cedar Grove Road
Irvine, Kentucky 40336

Bell Engineering
2480 Fortune Drive, Suite 350
Lexington, Kentucky 40509
or may be obtained from Lynn Imaging, 328 E. Vine Street, Lexington, Kentucky 40507, phone 859/255-1021, upon receipt of non-refundable deposit as follows:

CONTRACT 371-20-02 -- \$200.00 (electronic or hard copy)

Sealed proposals for this Contract shall be clearly marked on the outside of the envelope as follows:

"Sealed Proposal for Contract 371-20-02. Not to be opened until 10:00 a.m., local time, Tuesday, April 6, 2021."

If forwarded by mail, the sealed envelope containing the proposal must be enclosed in another envelope and mailed to the Estill County Water District No. 1, 76 Cedar Grove Road, Irvine, Kentucky 40336, allowing sufficient time for such mailing to reach this address prior to the scheduled closing time for receipt of proposals.

Bids shall be accompanied by a certified check or bid bond made payable to Estill County Water District No. 1, in an amount not less than 5 percent of the base bid indicated in Specification Section 00200, Instructions to Bidders, Bid Security. No bidder may withdraw his bid for a period of 90 days after the date bids are opened. He may, however, withdraw his bid at any time prior to the time and date scheduled for opening of same or any authorized postponement thereof. Any bid received after the time and date specified shall not be considered and will be returned unopened to the bidder. The expected construction time for this project will be 150 days and the liquidated damages have been set at \$500.00 per day.

Any contract awarded under this Advertisement for Bids is expected to be funded in part by a loan from the Kentucky Infrastructure Authority, Drinking Water State Revolving Fund and a grant from the Appalachian Regional Commission (ARC).

The OWNER's share will be provided from current funds on hand.

Work to be performed by contractors involved in this project is subject to the minimum wage rates established by the U.S. Department of Labor under the provisions of the Davis-Bacon Act.

State Revolving Fund requirements must be met by the bidder and all subcontractors.

Bidders must comply with the President's Executive Order Nos. 11246 and 11375, which prohibit discrimination in employment regarding race, creed, color, sex or national origin. Where the President's Executive Order No. 11246 is shown, Executive Order No. 11375 also applies.

Bidders must make positive efforts to secure small, minority owned, and/or disadvantaged business enterprise participation in this Project.

Small and disadvantage business enterprises are encouraged to bid on this Project.

Bidders must comply with Title VI of the Civil Rights Act of 1964, the Anti-Kickback Act, and the Contract Work Hours Standard Act.

Bidders must certify that they do not and will not maintain or provide for their employees any facilities that are segregated or based on race, color, creed, or national origin.

Bidders must show a certification of prior work under Executive Order 11246 (Equal Employment Opportunity) as amended.

All contractors and subcontractors shall comply with 41 CFR 60-4, in regard to affirmative action, to ensure equal opportunity to females and minorities, and shall apply the timetables and goals set forth in 41 CFR 60-4. Estill County Water District No. 1 is an equal opportunity employer.

Neither the United States nor any of its departments, agencies or employees is or will be a party to this Invitation for Bids or any resulting contract.

Award will be made to the lowest, responsive, responsible bidder. Estill County Water District No. 1 may consider informal any bid not prepared and submitted in accordance with the provisions of this advertisement and/or the Specifications and may waive any informalities or reject any and all bids.

ESTILL COUNTY WATER DISTRICT NO. 1
Audrea Miller, Manager

ORDINANCE NO. 21-01 CITY OF IRVINE, KENTUCKY

AN ORDINANCE AMENDING ORDINANCE §36.081 AND INCREASING THE PAY RATE FOR A FULL-TIME FIRE FIGHTER AND SERGEANT'S POSITION IN THE POLICE DEPARTMENT

WHEREAS, the City of Irvine, Kentucky, has heretofore adopted Ordinance §36.081, said ordinance establishing a pay scale for all non-elected city employees, and, it now being the wish and desire of the Board of Council of the City of Irvine, Kentucky, to increase the pay of non-certified police officers, and it being desirable and the City of Irvine does deem it advisable to amend the pay scale to reflect this new position and rate of pay for said position,

NOW, THEREFORE, BE IT ORDAINED BY THE CITY OF IRVINE, KENTUCKY:

1. That Ordinance No. §36.081, is hereby amended to read as to reflect the following positions and rates of pay for all non-elected City employees: (all per hour)

Sanitation Department:

Driver	\$11.90
Worker	\$10.70

Street Department:

Supervisor	\$12.53
Worker	\$10.70
Part Time	\$8.00

Fire Department:

Fire Chief	\$19.34
Assistant	\$17.18
Captain	\$11.50
Lieutenant	\$9.50 - REMOVE
Firefighter	\$8.50 - \$12.00
Part-time	\$8.00

Any full or part-time firefighter that obtains a Commercial Drivers License (CDL) shall be paid \$10.00 per hour.

Police Department:

Police Chief	\$19.31
Captain	\$17.65
Sergeant	\$15.50 - \$16.00
Officer - certified	\$15.00
Officer - non-certified	\$9.50
Part-time	\$9.50
Part-time certified	\$15.00
Parking	\$8.00 - REMOVE

City Hall:

Clerk	\$17.34
Assistant Clerk	\$12.00
Part-time	\$8.00

These pay rates shall be increased according to this amendment and shall be in addition to any existing employees' annual salary increase as described in paragraph 3 below.

3. On the annual anniversary date of the employment of any employee, the employee shall receive a minimum wage and/or salary increase in the amount of two percent (2%) of the gross hourly wage and/or salary if approved by a vote of the Board of Council after having determined that the City of Irvine has sufficient financial resources to pay said increase at the time of adoption of the current year budget. This paragraph shall not apply to part-time employees.

4. On December 15th of each year a longevity payment will be made to each employee on the payroll as of that date. The amount each year shall be set by vote of the Council.

5. This ordinance shall be referenced as Section §36.081, as amended, in the Code of Ordinances of the City of Irvine, Kentucky.

This ordinance shall be effective upon adoption and publication.

James E. Gross
JAMES E. GROSS, MAYOR

Introduced by the City Council, given first reading and adoption on March 24, 2021.

Given second reading and adoption by the City Council on March 22, 2021.

Published on March 25, 2021.

ATTESTED: *Robin Powell*
ROBIN POWELL, CITY CLERK

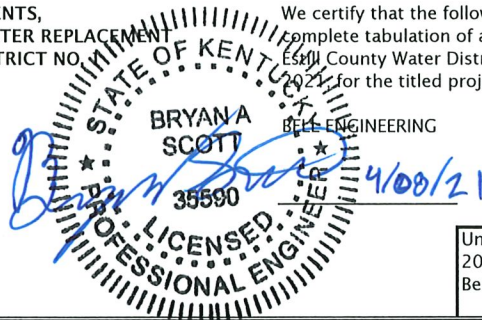
PREPARED BY:

RODNEY G. DAVIS
Irvine City Attorney
133 Main Street
P.O. Box 150
Irvine, Kentucky 40336
(606) 726-9991
rgd@davislawky.com

EXHIBIT 9

CONTRACT 371-20-02 WATER SYSTEM IMPROVEMENTS,
 PHASE 11 - RESIDENTIAL METER REPLACEMENT
 ESTILL COUNTY WATER DISTRICT NO. 1
 ESTILL COUNTY, KENTUCKY

We certify that the following is a true and
 complete tabulation of all bids received by
 Estill County Water District No. 1 on April 6,
 2021 for the titled project.



United Systems and Software
 205 Ash Street
 Benton, Kentucky 42025

Item No.	Description	Quantity	Unit	Unit Price	Total Cost
DIVISION "A" RESIDENTIAL METER REPLACEMENT					
1.	Replace Existing 5/8-Inch x 3/4-Inch Residential Meter with New KAMSTRUP Meter as Specified. Including Locating Meter, Excavation and Clean-Out of Existing Meter Setting, Removal of Existing Meter, Installation of New AMR Radio Read Meter, Recording GPS Location of the New Radio Read Meter, Delivery of Abandoned Meter to the ECWD Office No. 1, Furnish and Install, Complete.	3,000	Each	\$391.00	\$1,173,000.00
2.	Install New acoustic leak detector Adaptor to Existing Iperl Meter as Specified. Including Locating Meter, Excavation and Clean-Out of Existing Meter Setting, Installation of New AMR Radio Adaptor, Recording GPS Location of the New Radio Read Meter, Furnish and Install, Complete.	700	Each	\$273.50	\$191,450.00
3.	Remove Existing Meter and Install Stop in Existing Setter on Inactive Services Identified by the ECWD No. 1. Including Locating Meter, Excavation/Clean-Out of Existing Meter Setting, Removal of Existing Meter, Installation of Stop on Existing Meter Setter, Recording GPS Location of the New Radio Read Meter, Delivery of Abandoned Meter to ECWD No. 1 Office. Furnish and Install, Complete.	100	Each	\$446.00	\$44,600.00
4.	Provide and Install Mobile Meter Reading Equipment, Including Handheld Programmer, Meter Reading Software with 5000 Unit Capacity, Technical Training and Assistance to Integrate New Radeon Read Meters and Existing Billing Software, Leak Sensor Software, Furnish and Install, Complete.	1	L.S.	\$90,735.00	\$90,735.00
SUBTOTAL DIVISION "A"					\$1,499,785.00
DIVISION "B" MISCELLANEOUS					
1.	Crushed Stone on Order of the Engineer, Furnish and Install, Complete.	250	Tons	No Bid	No Bid
2.	Bituminous Surface, Furnish and Install Complete.	100	Tons	No Bid	No Bid
SUBTOTAL DIVISION "D"					No Bid
SUMMARY					
DIVISION "A" RESIDENTIAL METER REPLACEMENT					\$1,499,785.00
DIVISION "B" MISCELLANEOUS					No Bid
TOTAL BASE BID CONTRACT 371-20-02					\$1,499,785.00

EXHIBIT 10

Detailed Bid Pricing:

April 6, 2021

Estill County Water District #1
 Ph: (606) 723-3795 - Email: a.miller@estillcountywater.com

Prices guaranteed for 90 days. Please consider the following:

Advanced AMR Drive-by System with Integrated Leak Sensors:

Your existing Billing software will work with this system if your vendor can provide an Itron MVRS software interface. We have included our services to get the interface working but have not included any charges your Billing Software vendor may charge.

Qty	Product/Service Description	Unit Price	Ext Price
Section 1:			
3000	Kamstrup FlowIQ2100 5/8x3/4" Ultrasonic Water Meters With Itron Cable	\$ 125.00	\$ 375,000.00
3000	Itron Riva ERT- 3 Port Water Radios with Inline Connectors -Pit Model (Encoder)	\$ 87.00	\$ 261,000.00
3000	Radio Thru lid install kit	\$ 3.00	\$ 9,000.00
3000	Itron OLS Leak Sensor (Lower QTY if desired)	\$ 100.00	\$ 300,000.00
3000	Meter Change & Radio Installation	\$ 60.00	\$ 180,000.00
3000	OLS Leak Sensor Installation (Lower QTY if desired)	\$ 16.00	\$ 48,000.00
Section 2:			
700	Itron Riva ERT- 3 Port Water Radios with Inline Connectors -Pit Model (Encoder)	\$ 87.00	\$ 60,900.00
700	Itron Splice Kit & Cable for Meter Retrofits	\$ 15.00	\$ 10,500.00
700	Radio Thru lid install kit	\$ 3.00	\$ 2,100.00
700	Itron OLS Leak Sensor (Lower QTY if desired)	\$ 100.00	\$ 70,000.00
700	Meter Retrofit & Radio Installation	\$ 52.50	\$ 36,750.00
700	OLS Leak Sensor Installation (Lower QTY if desired)	\$ 16.00	\$ 11,200.00
Section 3:			
100	Kamstrup FlowIQ2100 5/8x3/4" Ultrasonic Water Meters With Itron Cable	\$ 125.00	\$ 12,500.00
100	Itron Riva ERT- 3 Port Water Radios with Inline Connectors -Pit Model (Encoder)	\$ 87.00	\$ 8,700.00
100	Radio Thru lid install kit	\$ 3.00	\$ 300.00
100	Itron OLS Leak Sensor (Lower QTY if desired)	\$ 100.00	\$ 10,000.00
100	Meter Change & Radio Installation	\$ 60.00	\$ 6,000.00
100	OLS Leak Sensor Installation (Lower QTY if desired)	\$ 16.00	\$ 1,600.00
100	Supply and Install Meter Stop	\$ 55.00	\$ 5,500.00
Section 4:			
1	Itron MC4Core Mobile Unit for Automatic Drive By Meter Reading Includes GPS Mapping, Data logging Support, Rugged 10" FZ-G1 Win10 Tablet, 1-year Itron Hardware Warranty: 3-year Tablet Warranty. Tablet requires 3 rd party vehicle mount, typically \$200 (not included).	\$14,995.00	\$ 14,995.00
1	Itron Mobile Radio (Bluetooth Radio Handheld). 1-year Itron Hardware Warranty: Annual Maintenance: \$144/Yr. Use with Windows 10 Pro, IOS or Android device for Programming/Check/Read.	\$ 1,995.00	\$ 1,995.00
1	Itron Temetra Reading Software up to 5,000 Services. Includes first year Software Subscription Fee of \$4,500. For Customer Portal add Setup Fee \$2,100 and Annual Fee \$1,125	\$ 9,000.00	\$ 9,000.00
1	Itron Mlogonline Leak Detection Software (Up to 5,000 Sensors). Does not include Annual Fee: \$2,380 (<3,000 sensors) or \$3,120 (<4,000 sensors).	\$ 6,000.00	\$ 6,000.00
1	Itron Technical Services: ESTIMATED: 24 hours remote setup & 32 hours onsite. Service \$175/hr, Travel \$750/trip & daily per diem \$275. (56@\$175, 2@\$750, 4@\$275) Actual Services rendered will be billed. Plus, USS Itron Annual Remote Support fee: \$1,295.		\$ 13,695.00
1	Bid Bond, Payment & Performance Bonds		\$ 30,000.00
1	Alliance CIS System Integration Services		\$ 15,050.00
System Total:			\$1,499,785.00



Alternate Meter Options:

1	Kamstrup FlowIQ3101 1" Ultrasonic Water Meters (No moving parts) US Gallons, with 5' Itron Cable & Connector.	\$ 265.00	
1	Kamstrup FlowIQ3101 1.5" Flanged Ultrasonic Water Meters (No moving parts) US Gallons, with 5' Itron Cable & Connector.	\$ 475.00	
1	Kamstrup FlowIQ3101 2" Flanged Ultrasonic Water Meters (No moving parts) US Gallons, with 5' Itron Cable & Connector.	\$ 650.00	
1	Kamstrup FlowIQ3101 3" Flanged Ultrasonic Water Meters (No moving parts) US Gallons, with 5' Itron Cable & Connector.	\$ 1,250.00	
1	Kamstrup FlowIQ3101 4" Flanged Ultrasonic Water Meters (No moving parts) US Gallons, with 5' Itron Cable & Connector.	\$ 1,800.00	
12	Itron 100W+ Through-the-lid remote mount antenna kit CFG-0900-003 (Box qty: 12)	\$ 50.00	\$ 600.00

General- Prices do not include shipping and/or sales tax (if applicable). This quotation shall remain firm for ninety (90) days from the bid date, unless modified in writing by USS prior to USS acceptance. All related invoices shall be paid on a Net 10 Day basis. All services are to be delivered during USS' standard service window (8AM-4:30PM, Monday thru Friday, excluding USS Holidays).

Prior to deliveries there are a few Itron Software Agreements that will need to be signed. These will be provided upon Contract Award.

To prevent unexpected shipping delays, we recommend shipment of all materials at one time or over a short initial period. Assuming payment for materials can be processed upon delivery.

Services and Installation fees would be invoiced monthly upon actual installations.

Daniel Brown

United Systems & Software, Inc.
O: 800.455.3293 ~ M: 270.205.3103
danielb@united-systems.com

EXHIBIT 11



April 12, 2021

Estill County Water District No. 1
76 Cedar Grove Rd
Irvine, Kentucky 40336

Attention: Ms. Audrea Miller

**RE: Recommendation for Award
Water System Improvements,
Phase 11- Residential Meter Replacement
Contract Number 371-20-02
Estill County Water District No. 1
Estill County, Kentucky**

Dear Ms. Miller:

We are pleased to submit our recommendation for award of the subject contract. Following the April 6, 2021, bid opening, Bell Engineering has reviewed, mathematically checked, tabulated all bids received, and contacted references. Enclosed please find two copies of the Certified Bid Tabulation for your review and acceptance.

The project low bid totaled **\$1,499,785.00** compared to Bell Engineering's Opinion of Probable Construction Cost of \$1,200,000.00. The low bid was \$299,785.00 above the Engineer's As-Designed Opinion of Probable Construction Cost

Bidder Rank	Bidder Name	Bid Amount	Difference Above Low
1	United Systems and Software	\$1,499,785.00	N/A
Engineer's Opinion of Probable Construction Cost		\$1,200,000.00	-\$299,785.00



April 12, 2021
Page 2
Audrea Miller

The low bidder, United Systems and Software has been contacted and they have informed us that they are satisfied with their bid and are capable of performing the work to a satisfactory level. References for the company are good and indicate that they are capable of conducting the work. We believe them to be capable of completing Contract 371-20-02 and recommend the contract be awarded to them as bid. If the preceding is acceptable, we suggest Estill County Water District No. 1 pass a resolution of award for this contract, and advise Bell Engineering to distribute contract documents for execution. The award should be contingent on Kentucky Infrastructure Authority's authority to award approval and available funding. Should you have any questions about this or any other matter, please do not hesitate to call.

Sincerely,
BELL ENGINEERING

A handwritten signature in black ink that reads "Steph H. Caudill".

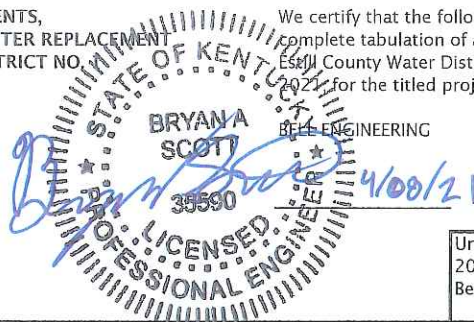
Stephen H. Caudill, P.E.
Vice President

Enclosure

c: Bell Engineering File, w/enclosure

CONTRACT 371-20-02 WATER SYSTEM IMPROVEMENTS,
 PHASE 11 - RESIDENTIAL METER REPLACEMENT
 ESTILL COUNTY WATER DISTRICT NO. 1
 ESTILL COUNTY, KENTUCKY

We certify that the following is a true and
 complete tabulation of all bids received by
 Estill County Water District No. 1 on April 6,
 2021 for the titled project.



United Systems and Software
 205 Ash Street
 Benton, Kentucky 42025

Item No.	Description	Quantity	Unit	Unit Price	Total Cost
DIVISION "A" RESIDENTIAL METER REPLACEMENT					
1.	Replace Existing 5/8-Inch x 3/4-Inch Residential Meter with New KAMSTRUP Meter as Specified. Including Locating Meter, Excavation and Clean-Out of Existing Meter Setting, Removal of Existing Meter, Installation of New AMR Radio Read Meter, Recording GPS Location of the New Radio Read Meter, Delivery of Abandoned Meter to the ECWD Office No. 1, Furnish and Install, Complete.	3,000	Each	\$391.00	\$1,173,000.00
2.	Install New acoustic leak detector Adaptor to Existing Iperl Meter as Specified. Including Locating Meter, Excavation and Clean-Out of Existing Meter Setting, Installation of New AMR Radio Adaptor, Recording GPS Location of the New Radio Read Meter, Furnish and Install, Complete.	700	Each	\$273.50	\$191,450.00
3.	Remove Existing Meter and Install Stop in Existing Setter on Inactive Services Identified by the ECWD No. 1. Including Locating Meter, Excavation/Clean-Out of Existing Meter Setting, Removal of Existing Meter, Installation of Stop on Existing Meter Setter, Recording GPS Location of the New Radio Read Meter, Delivery of Abandoned Meter to ECWD No. 1 Office. Furnish and Install, Complete.	100	Each	\$446.00	\$44,600.00
4.	Provide and Install Mobile Meter Reading Equipment, Including Handheld Programmer, Meter Reading Software with 5000 Unit Capacity, Technical Training and Assistance to Integrate New Radeon Read Meters and Existing Billing Software, Leak Sensor Software, Furnish and Install, Complete.	1	L.S.	\$90,735.00	\$90,735.00
SUBTOTAL DIVISION "A"					\$1,499,785.00
DIVISION "B" MISCELLANEOUS					
1.	Crushed Stone on Order of the Engineer, Furnish and Install, Complete.	250	Tons	No Bid	No Bid
2.	Bituminous Surface, Furnish and Install Complete.	100	Tons	No Bid	No Bid
SUBTOTAL DIVISION "D"					No Bid
SUMMARY					
DIVISION "A" RESIDENTIAL METER REPLACEMENT					\$1,499,785.00
DIVISION "B" MISCELLANEOUS					No Bid
TOTAL BASE BID CONTRACT 371-20-02					\$1,499,785.00

EXHIBIT 12

RESOLUTION 2021-05-27-2

A RESOLUTION OF THE BOARD OF COMMISSIONERS OF ESTILL COUNTY WATER DISTRICT NO. 1 AWARDING A CONTRACT FOR THE PURCHASE AND INSTALLATION OF METERING EQUIPMENT

WHEREAS, Estill County Water District No. 1 (“Estill District”) caused to be published in accordance with the provisions of KRS Chapter 424 an advertisement for bids on the Contract 371-20-02 (Phase 11 – Residential Meter Replacement) in the *Citizen Voice and Times* and in the *Estill Tribune*;

WHEREAS, on April 6, 2021, in accordance with the terms of those advertisements Estill District opened the bids received on Contract 371-20-02;

WHEREAS, United Systems and Software, Inc., of Benton, Kentucky, submitted a bid of \$1,499,785.00, which was the only bid submitted on Contract 371-20-02;

WHEREAS, Bell Engineering, the project engineer, has reviewed United Systems and Software, Inc.’s bid and has recommended that Contract 371-20-02 be awarded to United Systems and Software, Inc. and,

WHEREAS, Estill District’s Board of Commissioners finds that Contract 371-20-02 should be awarded to United Systems and Software, Inc. subject to the Kentucky Public Service Commission’s issuance of a certificate of public convenience and necessity authorizing Estill District to proceed with Contract 371-20-02 and the Kentucky Infrastructure Authority’s issuance of authorization to award Contract 371-20-02;

NOW, THEREFORE, IT IS HEREBY RESOLVED BY THE BOARD OF COMMISSIONERS OF ESTILL COUNTY WATER DISTRICT NO. 1 AS FOLLOWS:


Section 1. The facts, recitals, and statements contained in the foregoing preamble of this Resolution are true and correct and are hereby affirmed and incorporated as a part of this Resolution.

Section 2. The Board of Commissioners hereby declares the bid of United Systems and Software, Inc., in the amount of \$1,499,785.00 to be the only bid and awards Contract 371-20-02 to this firm, contingent upon Estill District’s receipt of a favorable Recommendation of Award Letter from Bell Engineering and of an Order from the Kentucky Public Service Commission issuing a certificate of public convenience and necessity authorizing Estill District to proceed with Contract 371-20-02 and the Kentucky Infrastructure Authority’s issuance of authorization to award Contract 371-20-02.

CERTIFICATION

I, the undersigned, hereby certify that I am the duly qualified and acting Secretary of the Estill County Water District No. 1; that the foregoing is a full, true and correct copy of a Resolution adopted by the Board of Commissioners of the Estill County Water District No. 1 at a meeting duly held on May 27, 2021; that said official action appears as a matter of public record in Estill County Water District No. 1's official records or journal; that said meeting was held in accordance with all applicable requirements of Kentucky law, including KRS 61.810, 61.815, 61.820 and 61.823; that a quorum was present at said meeting; that said official action has not been modified, amended, revoked or repealed and is now in full force and effect.

WITNESS my hand this 27th day of May 2021.



John Stickney, Secretary

EXHIBIT 13

flowIQ® 2100 & 3101 series Encoded Meter

kamstrup

Next generation Encoded Meter reading

- Proven ultrasonic technology
- Pinpoint accuracy and superior quality
- Leak detection and intelligent alarms
- Modular cable system
- C-715-18 compliant
- Touch Read Pit Lid (TRPL) interface






Theft



Inaccurate
mechanical meters



Leak detected

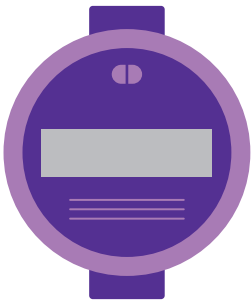
The ideal ultrasonic water meter

The flowIQ® 2100 & 3101 series Encoded Meter is a smart water meter based on the latest ultrasonic technology. The meter has no moving parts and maintains its accuracy throughout its entire lifetime of 20 years. The meter has industry leading accuracy that ensures even very low flows are measured down to the very last drop. This improves the quality of your data and helps you reduce non-revenue water.



flowIQ® 2100 & 3101 series Encoded Meter

- the reliable and flexible solution for water metering



Ultrasonic water meter

flowIQ® 2100 & 3101 series Encoded Meter ensures that the consumption of every single gallon of water is accurately registered and billed. Tamper-proof with no moving parts, flowIQ® 2100 & 3101 series Encoded Meter is resistant to typical wear and tear experienced by mechanical moving parts of nutating disk, piston, and multi-jet type meters. flowIQ® 2100 & 3101 series Encoded Meter reads and sustains ultra-low starting flows throughout its entire lifetime.



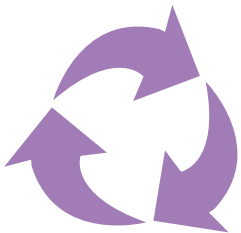
Smart and robust design

The vacuum sealing and IP68 packaging enables installation in meter pits with no risk of moisture intrusion and condensation. The flowIQ® 2100 & 3101 series Encoded Meter uses UI-1203 protocol and equipped with an auto detect TRPL interface so that no reprogramming is necessary. The meter is configurable to 4-9 reading digit output resolution and extended alarm data.

The modular cable system

The cables are field replaceable and interchangeable, as well as submersible and waterproof IP68 rated.

Available cables	Nicor	Itron	TRPL	3-wire open end
-------------------------	-------	-------	------	-----------------



Water metering without waste

Conservation is what it is all about. The environmental report, Carbon Footprint, documents the meter's high reusability and low environmental impact. Meter housing and measuring tube are made of 100 % lead-free composite or stainless steel. Other key advantages of the flowIQ® 2100 & 3101 series Encoded Meter are leak, burst, and tamper detections. These are significant drivers to minimize the waste of water – a benefit for the environment and your economy.

Technical specifications

	flowIQ® 2100	flowIQ® 3101
Meter size	½" and ¾"	½", ¾", 1", 1½", 2" and 4"
Start flow	0.015 GPM	As low as 0.04 GPM
Saturation flow rate	Up to 42 GPM	Up to 1000 GPM
Environmental class	IP68, 0 to 100 % relative humidity. The meter is designed for indoor and outdoor operation, including fully submerged installations	
LCD register display	Nine digit display with up to 3 decimals in Gallons, Ft ³ or m ³	
Battery	3.65 VDC, 1 C cell lithium, supports extended data set	
Communication	Encoded output UI-1203 communication protocol with extended alarms	
Meter housing and flow part	Depending on flowIQ® model and size, meter will be either 100 % ecofriendly composite PPS or stainless steel	

Think forward

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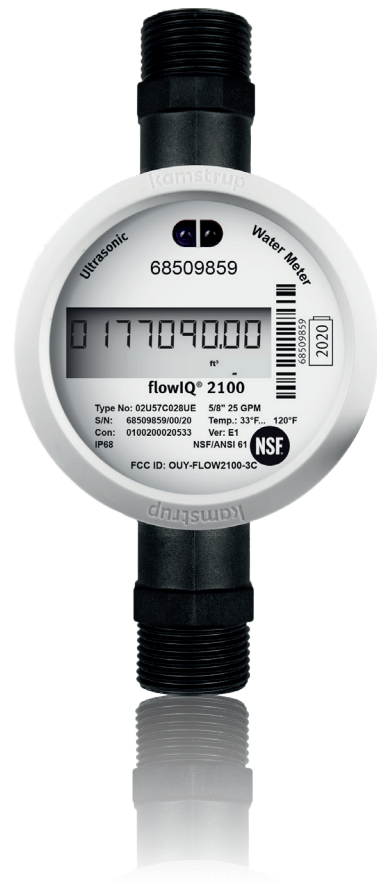


EXHIBIT 14

Data Sheet

flowIQ® 2100

- 2 versions available:
 - Internal Radio (RF)
 - Encoded Output (EO)
- Ultrasonic measurement
- Pinpoint accuracy
- 20 year longevity
- Dual temperature measurement
- IP68 vacuum sealed construction
- Lead free and certified to NSF/ANSI 61



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Electronic ultrasonic cold water meter for measurement of cold water consumption in households, multi-unit buildings and industry.

Pinpoint accuracy

Ultrasonic flow measurement guarantees pinpoint accuracy and longevity. Ultrasonic flow measurement is based on the transit time method, and all measurements, references, readings, calculations and data communication are controlled by an advanced, specially designed electronic circuit. Thus, the meter includes no moving parts, which makes flowIQ® 2100 resistant to wear and impurities in the water.

Construction

The meter is hermetically closed and vacuum-sealed to prevent humidity from reaching the electronics and avoid condensation between the glass and display. The meter is IP68 (submersible) type tested and suitable for installation in meter pits.

Installation

flowIQ® 2100 is easy to install in all operating environments, horizontally as well as vertically, independent of piping and installation conditions. Consumption data can be read visually from the display, using an optical eye, and remotely read, either by 915MHz band RF signal, built into the meter, or alternatively by a 3-wire encoded interface.

The Encoded Output meters will operate in Installation Mode immediately after water begins flowing through the meter. This reduces time and water consumption required to check that the meter is operational.

Specific features

flowIQ® 2100 measures the water and environment temperatures and it includes leak detection, securing that water loss is discovered quickly.

The unique combination of all the flowIQ® 2100 features reduces current operating costs to measure water usage and minimizes unexpected expenses in connection with possible leakage.

Environmentally friendly

The meter has been approved according to Drinking Water Standards in multiple countries, and it is certified to NSF/ANSI 61. The meter housing and measuring part are made of the synthetic material polyphenylene sulfide (PPS), which is free from lead and other heavy metals. The environmental report, Carbon Footprint, documents the meter's high reusability and low environmental impact, including recycling of materials.

Hygiene

To protect the health of the consumers Kamstrup has a hygienic manufacturing process of the water meters. Kamstrup has a highly automated manufacturing process, and only uses materials which are approved for drinking water. Furthermore the products gets disinfected before dispatch. The hygiene is being controlled by external accredited laboratories and by frequent audits.

General description

flowIQ® 2100 is a hermetically closed static water meter, intended for the measurement of cold water consumption. The water meter uses the ultrasonic principle and has been designed and constructed on the basis of Kamstrup's experience in the development and production of static ultrasonic meters, since 1991.

flowIQ® 2100 has been subjected to a comprehensive set of tests to ensure a long-term, accurate and reliable meter. This technology has many advantages, including no moving parts so the meter is unaffected by particles in the water and measures consistently throughout its lifetime. Furthermore, the meter

has a start flow of only 0.015 GPM, which provides accurate measurement at low water flows.

flowIQ® 2100 is constructed as a vacuum chamber of molded composite material. Thus, the electronics are fully protected against penetration of water. Therefore, the electronics are fully protected against penetration of water, making the meter is suitable for mounting in meter pits or other environments subject to frequent flooding.

The volume is measured using bidirectional ultrasonic technique based on the transit time method, proven as a long-term and accurate measuring principle. Two ultrasonic transducers send sound signals against and with the flow. The ultrasonic signal traveling with the flow reaches the opposite transducer first. The time difference between the two signals can be converted into flow velocity and thereby the volumetric flow rate can be calculated.

The accumulated water consumption is displayed by flowIQ® 2100 in gallons or cubic feet with nine digits and up to three decimals, to clearly display usage data. The display has been specially designed to obtain long lifetime and sharp contrast in a wide temperature range.

In addition to volume reading, a number of information codes are displayed.

The meter also measures both water and ambient temperature continuously, storing minimum, mean and maximum temperatures daily.

All registers are saved daily in the meter memory for 460 days. Monthly data for the latest 36 months are also saved.

The meter is fitted with an optical eye, which makes it possible to read consumption data and information codes, stored in the meter's data logger. Using a USB or Bluetooth connection, the optical eye gives access to configure the meter.

The water meter is powered by an internal lithium battery.

The meter can and must only be opened by one of Kamstrup's authorized service centers by means of special tools. If the meter has been opened and the seals have thus been broken, the meter is no longer valid for billing purposes. Furthermore, the factory guarantee no longer applies.

Technical data

Electrical data

Battery 3.65 VDC, 1 C cell lithium. The battery warranty does not apply at meter temperatures above $t_{BAT} > 95$ °F.

Mechanical data

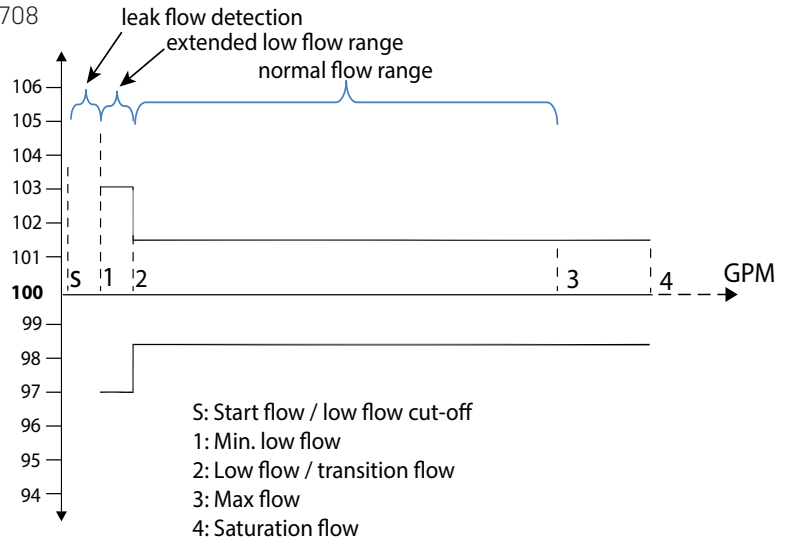
Ambient temperature 35 °F...130 °F
 Protection class IP68-rated (waterproof/submersible)
 Fluid temperature 33 °F...120 °F
 Storage temp. empty sensor -10 °F...140 °F
 Maximum operating pressure 250 PSI

Accuracy

MPE (maximum permissible error) According to AWWA C-708
 Meter approved for 33 °F...95 °F:
 ± 3 % in extended low flow range
 ± 1.5 % in 'normal flow' range

Approvals

Certified to NSF/ANSI 61
 Complies to part 15 of the FCC rules



Material

Wetted parts

Meter housing and flow part Polyphenylene sulfide (PPS) with fiberglass reinforcement
 Reflectors Stainless steel, 304L
 Strainer Polyarylethersulfone

Meter sizes

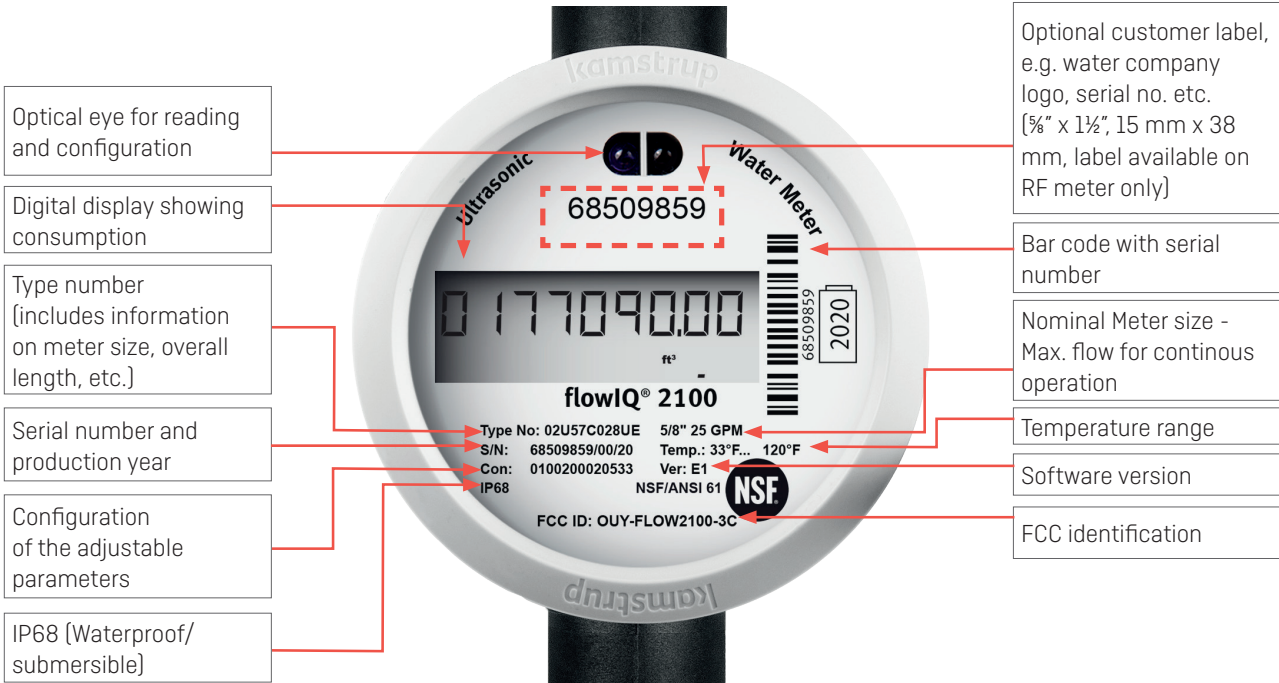
flowIQ® 2100 is available in following sizes:

Type number		Meter size	Max. flow for continuous operation	Start flow	Saturation flow rate	Min flow	Transition flow	Pressure loss at 15 GPM	Connection on meter	Lay Length
RF version	EO version									
02U-57-C02-8UX	02U-22-C02-8EX	¾" x ½"	25	0.015	37	0.10	0.15	4.1	¾" thread	7½"
02U-57-C04-8UX	02U-22-C04-8EX	¾" x ¾"	25	0.015	37	0.10	0.15	4.1	1" thread	7½"
02U-57-C05-8UX	02U-22-C05-8EX	¾" x ¾"	25	0.015	37	0.10	0.15	4.1	1" thread	5.1"
02U-57-C06-8UX	02U-22-C06-8EX	¾"	32	0.015	42	0.10	0.15	3.0	1" thread	7½" or 9"

* Note: meter versions ...C06-8XX includes an 1½" extension (installed by the customer) to fit 7½" [190 mm] or 9" [228 mm] lay lengths.

Meter face details

Meter information in permanent laser engraved text.



Measurement of temperatures

Temperature monitoring

flowIQ® 2100 measures water and ambient temperatures. The measurements can be used to monitor the installation and to give an indication of the temperature of the water when the water reaches the end user. Both temperatures are logged in the daily and monthly records.

Minimum, mean and maximum values are logged daily. The register contains the last 460 days.

On the first day of each month the minimum, maximum and average temperatures, recorded in the past month, are stored in the register. The register stores values from the last 36 months.

Temperature values are referred to in °F and can be read via the optical eye and send by the Wireless RF radio signal. Optional temperature combinations in the radio package are described in the section 'Optional data in data logger'.

Ambient temperatures

Monitoring the ambient temperature of the installation can be used as a warning of freezing temperatures or unintended high temperatures. The measurement in the meter housing corresponds to the ambient temperature where the meter is installed. The temperature is measured every minute. The maximum and minimum values are calculated based on a 2 minute average value. The average temperature is a time-weighted mean value.

Water temperatures

Water temperature measurements are made as an indirect measurement of the water using the ultrasound signal. The water temperature is measured every 32 seconds.

The maximum and minimum values are calculated every 2 minutes and is based on an average since the last calculation.

Measurement of water temperature requires that the meter is filled with water. If there is no water within the meter a code will be saved, indicating DRY.

During periods of very low water consumption the water temperature approaches the ambient temperature. In periods where there is no water flow, a code is stored indicating that there is no consumption.

Display and information codes

flowIQ® 2100 can be read from the large, easily readable, specially designed display. Nine large figures indicate number of gallons or cubic feet. The last three figures may indicate decimals.

The information codes in the display have the following meaning and function:



Info code flashes in the display	Meaning
FLOW	The FLOW infocode is the digital equivalent of a spinning proving wheel featured on many mechanical meters. Indicates water flow through the meter. If there is no flow, the text will be off. This text does not blink.
LEAK	The water has not been stagnant in the meter during the last few days. This can be a sign of a leaky tap or toilet.
BURST	The water flow has exceeded a preprogrammed limit for a minimum of 30 minutes which is a sign of a burst pipe.
TAMPER	Attempt of fraud. The meter is no longer valid for billing.
Gal / ft3 / m3	Consumption is indicated in gallons, cubic feet or cubic meters
VERIFIC	Will always be off when the meter is in operation - text will be on during factory control and verification of the meter.
DRY	The meter is not water-filled. In this case nothing will be measured.
REVERSE	The water flows through the meter in the wrong direction.
RADIO OFF ¹	The meter is still in transport mode with the built-in radio transmitter turned off. The transmitter turns on automatically when the first quarter gallon of water has run through the meter.
Squared 'dot'	One small square flashing indicates that the meter is active.
A' followed by a number Change log	Indicates the number of metrologic changes the meter has gone through after factory verification. If no adjustments have been made both the A symbol and the digit are inactive. When the meter is toggled to visualize Encoded Output, the letter A and the following digit have different meanings: A = Encoded Output changed from factory configuration, E = Encoded Output visualization mode

Information codes 'LEAK', 'BURST', 'DRY' and 'REVERSE' switch off automatically, when the conditions that activated them no longer exist. In other words, 'LEAK' disappears when the water is stagnant; 'BURST' disappears when the consumption falls to normal level; 'REVERSE' disappears when the water no longer flows in the wrong direction; and 'DRY' disappears when the meter again is filled with water.

Note: 1) RADIO OFF will not display on Encoded Output meters.

Data registers

flowIQ® 2100 has an integrated data logger, in which the values of various data logs are saved.

The meter includes the following registers:

Data logging interval	Data log records	Logged value
Monthly logger	36 months	See table below
Daily logger	460 days	See table below
Info logger	50 events	Info code, meter reading and date

Therefore, it is always possible to read target volume and information codes for each of the latest 36 months as well as corresponding meter reading and possible information codes for each of the latest 460 days. The data logs can only be read via the meter's optical eye.

The monthly log is written on the first day of the subsequent month; the daily logger is written at midnight.

The following registers are logged:

Register type	Description	Monthly logger, 36 months	Daily logger, 460 days
Date [YY.MM.DD]	Logging time, year, month and day	•	•
Volume	Current meter reading (legal)	•	•
Operating hour counter	Accumulated number of operating hours	•	•
Info	Information code	•	•
Vol Reverse	Volume during reverse flow	•	–
Date of max. flow	Date stamp of max. flow during period	•	–
Max. flow, V1	Value of max. flow during period	•	•
Date of min. flow, V1	Date stamp of min. flow during period	•	–
Min. flow V1	Value of min. flow during period	•	•
Min. temp. water	Water temperature – minimum	•	•
Max. temp. water	Water temperature – maximum	•	•
Med. temp. water	Volume weighted mean water temp.	•	•
Min. temp.	Meter temperature – minimum	•	•
Max. temp.	Meter temperature – maximum	•	•
Medium temp.	Meter temp. – time weighted average	•	•

Every time the information code changes, date and information codes are logged. Thus, it is possible to read the latest 50 changes of the information code as well as the date the change was made. Reading is only possible via the optical eye.

Radio packet options

Optional RF output

flowIQ® 2100 communicates via a high-power antenna and integrated 915MHz band RF, which gives access to easy and fast wireless reading of the meter.

The integrated 915MHz band RF transmits a data package every 16 seconds. In order to obtain long battery lifetime, the data package has been compressed and includes only the most important meter readings. The radio is ready for multi-channel transmission to avoid interference with nearby transmitters.

Besides readout of the current total registered water use, the meter saves a number of other consumption data.

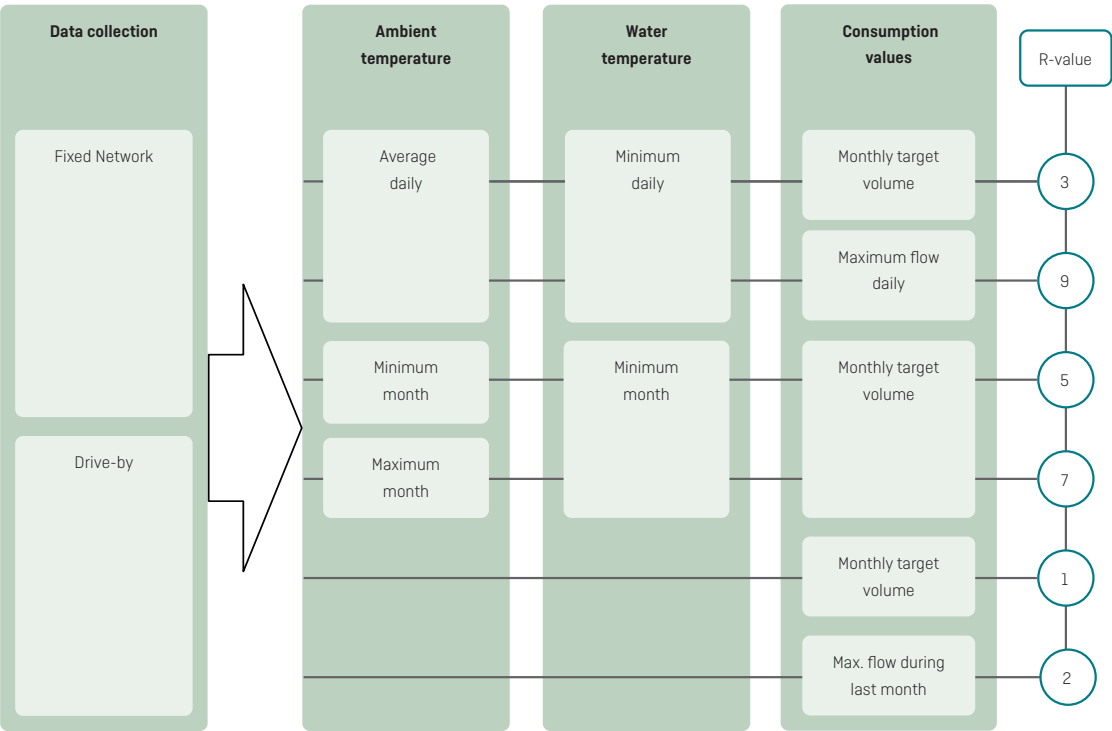
Following values can be send via the Wireless RF radio signal:

- Target Volume - e.g., meter read from the first day of the month
- Maximum flow - daily
- Maximum flow - monthly
- Selected values of water temperature and ambient temperature

Optional registers in data logger

It is possible to select one data package; content is illustrated below. The choices are determined by means of the selected R-value when ordering a water meter, as shown to the right in the figure.

In addition the RF package will contain actions and historical events from the infologger from within the past 30 days.



915MHz band RF – wireless radio communication

Standardized and open communication

915MHz band RF is an open standard, following EN13757-4 : 2010, which means that while the flowIQ® 2100 can be configured with or without encryption of the transmitted signal, encryption is required in the United States.

Encryption protects personal data against unauthorized monitoring. Furthermore, the encryption file provides easy access to import meter data for reading programs.

State of the art meter reader

Kamstrup offers mobile meter reading via either the USB meter reader for wireless platforms or READy for use via android based smart phones and tablets.

Encoded Output version

General description

Encoded Output is compatible with a number of RF network systems. In addition to Type Number and Configuration Code, three additional items are required to specify Encoded Output version meters:

EO Order Code: Letters A through Z, which specifies Data Packet and EO Digits
Alarms included: Default = ON, optional = OFF*

Connector/Cable Type:

Ittron or Nicor – with cable length 5' 15' and 25' and
Open end solid strain cables – also of 3 lengths: 5', 15' and 25'

All must be ordered separately as accessories.

Encoded Output packages

18 Encoded Output options are available, which transmit from 4 to 9 digits, via the following three protocols:

Sensus UI-1203	4 to 9 digits, with or without extended alarms, 16 total EO options
Neptune E-Coder	8 digits, with Neptune alarms, 1 EO option

*] Note. Kamstrup Alarm Protocol [KAP] is available and included by default with all Sensus data protocols; Neptune E-Coder includes [Neptune] alarms; Neptune ProRead does not support alarms.

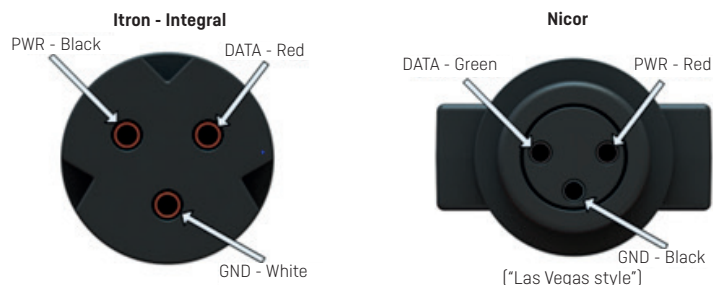
Encoded Output - ordering details

Encoded Output ordering details - total of 18 ordering options

Encoded Output Description	EO Digits Visualization	Order Code
Sensus 9-digit	[987654321]	Z
Sensus 8-digit	[98765432*]	A
Sensus 7-digit	[9876543**]	B
Sensus 7-digit [-1]	[*8765432*]	C
Sensus 6-digit	[987654***]	D
Sensus 6-digit [-1]	[*876543**]	E
Sensus 6-digit [-2]	[**765432*]	F
Sensus 5-digit	[98765****]	G
Sensus 5-digit [-1]	[*87654***]	H
Sensus 5-digit [-2]	[**76543**]	J
Sensus 5-digit [-3]	[***65432*]	K
Sensus 4-digit	[9876*****]	L
Sensus 4-digit [-1]	[*8765****]	M
Sensus 4-digit [-2]	[**7654***]	N
Sensus 4-digit [-3]	[***6543**]	P
Sensus 4-digit [-4]	[****5432*]	Q
Neptune 8-digit [E-Coder]	[98765432*]	X
Neptune 6-digit [ProRead]	[987654***]	Y

Encoded Output - wiring and pinouts

Connector pinouts



Wiring cross reference

Function	Kamstrup	Sensus	Neptune	Itron Integral	Itron Remote
DATA	Green	Green	Red	Red	Brown
PWR/Clock	Red	Red	Black	Black	Yellow
GND	Black	Black	Green	White	Grey

Encoded Output - visualization

Visualization of Encoded Output configuration

Under normal operation, the 9-digit LCD will show the contents of the Volume V1 data register. Using a magnet, the Encoded Output Configuration can be briefly visualized, after which the LCD automatically reverts to display V1 Volume. The figures to the right show normal display mode [visualization not activated].

To indicate that additional alarms are included, the small "dot" is enabled.

Sample Register for $\frac{3}{8}$ " meter used in examples, typical configuration for residential meters. The figures to the right show the Encoded Output Configuration [visualization activated].

Example 1 - Option D, Sensus 6-digit, Extended Alarms: OFF

EO Resolution. Meters configured in:

USG - 6 most significant digits; 10s of US Gallons

CuFt - 6 most significant digits; whole Cubic Feet

Order Option D, Sensus 6-digit, without Extended Alarms, factory EO configuration

Example 2 - Option Z, Sensus 9-digit; Extended Alarms: ON

EO Resolution. Meters configured in:

USG - 7 most significant integer digits + tenths and hundredths of US Gallons

CuFt - 6 most significant integer digits + tenths and hundredths and thousandths of Cubic Feet

Example 3 - Neptune 8-digit (E-Coder);

EO Resolution. Meters configured in:

USG - 7 most significant integer digits + tenths of US Gallons

CuFt - 6 most significant integer digits + tenths and hundredths of Cubic Feet

Note: Neptune 8-digit [E-Coder] data package can be distinguished by the display of LEAK and BURST alarms. Sensus 8-digit data package contains all or none of the Alarms [see figure by example 2].

Gallons



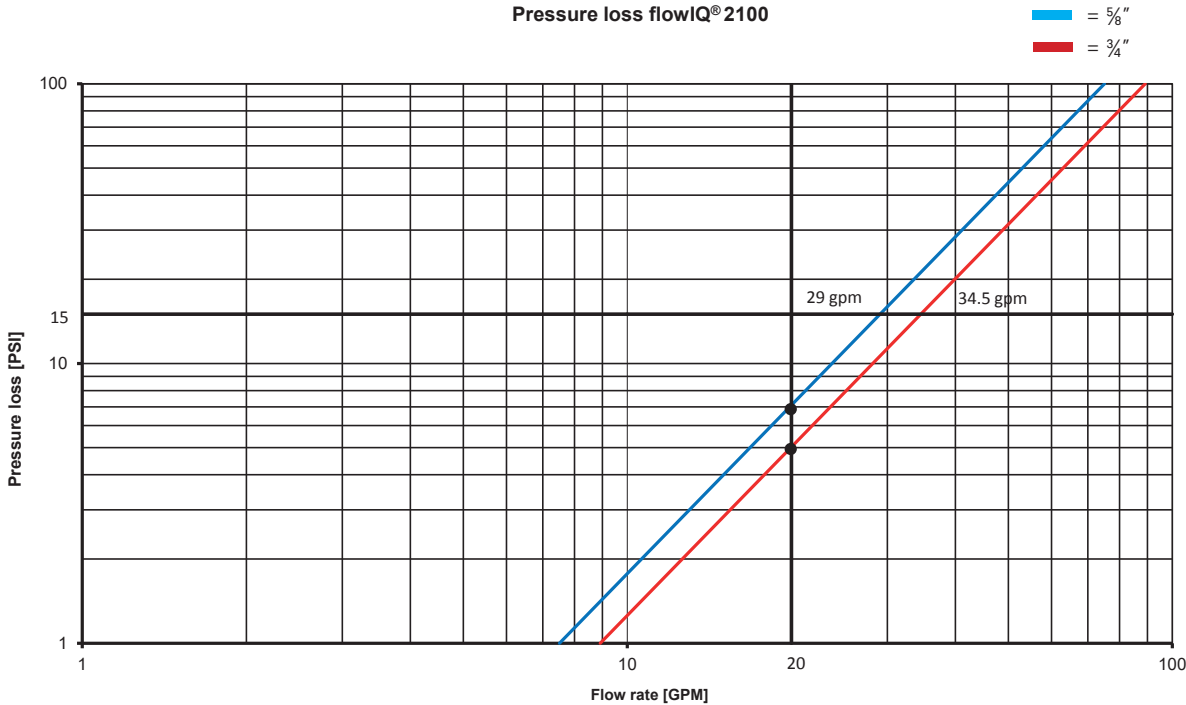
Cubic feet



Pressure loss

According to AWWA standards the maximum pressure loss must not exceed 15 PSI at 20 GPM.

The following graph shows pressure loss with respect to flow rate:



Ordering details

Start your order by stating the type number of the selected model of flowIQ® 2100. The type number includes information on meter type - meter version (Radio or Encoded Output), size, lay length, service connection and time zone.

The features included in the Type Number cannot be changed once the meter has been produced.

Subsequently the meter configuration, which determines customer-specific requirements such as number of digits in display etc., is selected. The configuration is completed during programming of the final meter.

Refer to Encoded Output Specification for further ordering details, for the Encoded Output version meter.

Kamstrup recommends 3 mm EDPM rubber gaskets, which are sold separately.

Accessories are enclosed separately to be mounted by the installer.

Type number

flowIQ® 2100			Type 02U	<input type="checkbox"/>	<input type="checkbox"/>	C	<input type="checkbox"/>	8	<input type="checkbox"/>	<input type="checkbox"/>
Communication										
915 MHz US						57				
Encoded output						22				
Battery										
C										
Meter size										
GPM	Connection	Length [inches/mm]								
25	5/8" x 1/2" [DN15] meter - 3/4" thread	7 1/2 / 190				02				
25	5/8" x 3/4" [DN20] meter - 1" thread	7 1/2 / 190				04				
25	5/8" x 3/4" [DN20] meter - 1" thread	5.12 / 130				05				
32	3/4" [DN20] meter - 1" thread	7 1/2 / 190 or 9 / 228; includes 1 1/2" extension				06				
Cold water meter										
8										
Meter type										
Radio										U
Encoded output										E
Time zone										
Eastern										E
Central										C
Mountain										M
Pacific										P

Configuration

	KK	LLL	MMM	N	P	R	S	T
Target date (fixed) for RF package¹	01							
Average time of max. values - 2 minutes		002						
Customer label code (available for RF meters only)			MMM					
Leakage message limit								
OFF				0				
Flow continuously > 0.5 % of max. flow				1				
Flow continuously > 1.0 % of max. flow				2				
Flow continuously > 2.0 % of max. flow				3				
Flow continuously > 0.25 % of max. flow				4				
Flow continuously > 0.1 % of max. flow				5				
Pipe burst limit								
OFF					0			
Flow > 5 % of max. flow for 30 minutes					1			
Flow > 10 % of max. flow for 30 minutes					2			
Flow > 20 % of max. flow for 30 minutes					3			
Optional data in RF package¹								
Monthly target volume						1		
Maximum flow (monthly)						2		
Monthly target volume / Min.temp.water - daily / Time weighted average temp. meter - daily						3		
Monthly target volume / Min. water Temperature - Monthly / Min. temp. meter - latest month						5		
Monthly target volume / Min. water Temperature - Monthly / Max. temp. meter - latest month						7		
Daily max. flow / Min.temp.water-daily / Time weighted average temp. meter- daily						9		
Display resolution								
000000.001 m ³							0	
000000001 Gal							1	
00000000.1 Gal							2	
000000.01 Gal [Default setting for US Gallon configured meters - 5/8" and 3/4"]							3	
000000.001 Gal							4	
000000001 ft ³							5	
00000000.1 ft ³							6	
0000000.01 ft ³							7	
000000.001 ft ³ [Default setting for cubic feet configured meters - 5/8" and 3/4"]							8	
Encryption level for RF package¹								
Encryption with separately forwarded key								3
Unless otherwise stated in the order, Kamstrup supplies the following:	01	002	000	2	3	5	3	3

Note: 1) Configuration Codes KK, R and T affect only the RF version meter.
 Default values are used for E0 meters, but serve no purpose.

Dimensional sketches

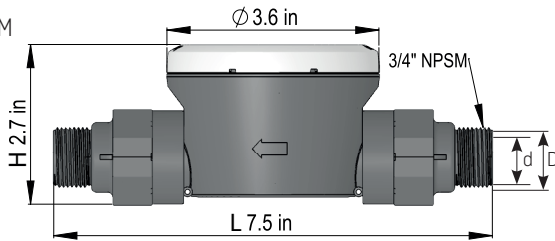
NOTE! Same threads for in- and outlet.

Type: C02

Size: $\frac{5}{8}$ " x $\frac{1}{2}$ ", 25 GPM

d = $\frac{1}{2}$ "

D = $\frac{3}{4}$ " NPSM

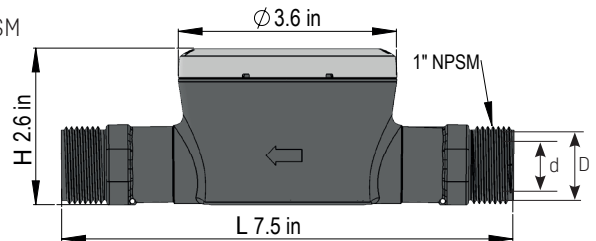


Type: C04

Size: $\frac{5}{8}$ " x $\frac{3}{4}$ ", 25 GPM

d = $\frac{3}{4}$ "

D = 1" NPSM

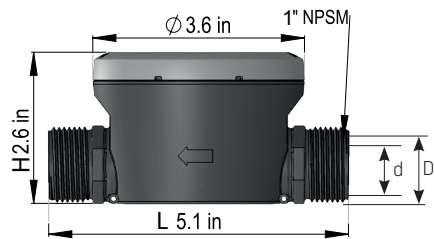


Type: C05

Size: $\frac{5}{8}$ " x $\frac{3}{4}$ " 25 GPM

d = $\frac{3}{4}$ "

D = 1" NPSM

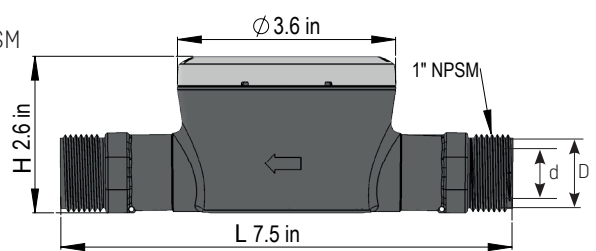


Type: C06

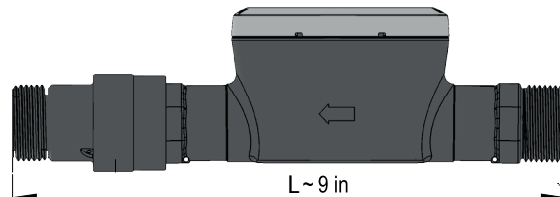
Size: $\frac{3}{4}$ " or $\frac{3}{4}$ " Short, 32 GPM

d = $\frac{3}{4}$ "

D = 1" NPSM



With extension 9 inches (228 mm)



Accessories

See Accessories for Water Meters: 5810-1270.

For information about our Hygiene concept go to: products.kamstrup.com.

Kamstrup Water Metering, LLC

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EXHIBIT 15

Kamstrup Water Metering L.L.C. Limited Warranty for Products and Services sold by Authorized Resellers

1.0 Definitions. As used herein: (a) **Seller.** Seller shall refer to the authorized reseller that is selling Products to Buyer on behalf of Kamstrup Water Metering L.L.C. (b) **Buyer.** Buyer shall refer to the purchaser of goods sold by Seller on behalf of Kamstrup Water Metering L.L.C., as set forth in the particular Sales Order, and shall include all agents, subsidiaries, parent company, and any affiliated entity of Buyer. (c) **Sales Order.** Sales Order shall refer to the purchase order acceptance, order confirmation or invoice issued by Seller reflecting the sale of the Products sold on behalf of Kamstrup Water Metering L.L.C. to Buyer. (d) **Products.** Products shall refer to the products, and related services if any, sold by Seller on behalf of Kamstrup Water Metering L.L.C. to Buyer as identified in the Sales Order.

2.0 Limited Warranty

2.1. **General.** Kamstrup Water Metering L.L.C. warrants that the Products shall be free from defects in Materials and Workmanship for a period of two (2) years from the date of delivery to Buyer (the "Warranty Period").

2.2. **Special Limited Warranty Terms For flowIQ® 2100 Series, flowIQ® 3101 Series Cold Water Meters.** Notwithstanding Section 2.1, with regard to flowIQ® 2100 Series, flowIQ® 3101 Series Cold Water Meters and USB Meter Readers which are delivered to Buyer directly from Kamstrup Water Metering L.L.C., the following warranty terms shall apply:

Accuracy

The Seller warrants that the flowIQ® 2100 Water Meters and flowIQ® 3101 Water Meters will perform to the accuracy as defined in applicable AWWA standards for a period of twenty (20) years from date of delivery to Buyer. In the absence of published AWWA standards specific to cold water ultrasonic revenue meters the new meter accuracy refers to AWWA standard C708-11 [section 4.2.8] and to AWWA M6 manual [chapter 5, Testing new meters and table 5-3 defining test rates in accordance with AWWA C708].

Kamstrup Water Metering L.L.C. shall, at its sole discretion, repair or replace the meter at no cost for year one (1) through year ten (10) following the date of delivery. For year eleven (11) through year twenty (20) following the date of delivery, Kamstrup Water Metering L.L.C. will repair or replace the meter at the following discounted product list

prices in effect at the time of the product return according to the following schedule:

Year	Replacement Price	Year	Replacement Price
1 – 10	no charge	16	50%
11	20%	17	60%
12	25%	18	70%
13	30%	19	80%
14	35%	20	90%
15	40%		

The Limited Warranty is valid for normal meter operation and installation only in accordance with Product documentation provided by Kamstrup Water Metering L.L.C. with the Products and on its website.

Any meter accuracy claims shall be subject to verification through testing by a NIST Traceable laboratories or ISO 17025 accredited laboratories.

Battery Life

Based on operation of the meter with either communication via the three wire encoded output OR with communication via the embedded radio, the warranty on the system battery in the flowIQ® Water Meters shall be for a period of twenty (20) years. Kamstrup Water Metering L.L.C. shall, at sole discretion, repair or replace the meter at no cost for year one (1) through year ten (10) following the date of delivery. For year eleven (11) through year twenty (20) following the date of delivery, Kamstrup Water Metering L.L.C. shall, at sole discretion, repair or replace the meter at the following discounted product list prices in effect at the time of the product return according to the following schedule:

Year	Replacement Price	Year	Replacement Price
1 – 10	no charge	16	50%
11	20%	17	60%
12	25%	18	70%
13	30%	19	80%
14	35%	20	90%
15	40%		

Kamstrup Water Metering L.L.C.

Limited Warranty for Products and Services sold by Authorized Resellers

The Limited Warranty is valid for normal meter operation and installation only in accordance with product documentation provided by Seller.

2.3. **Product Return.** IF, WITHIN THE APPLICABLE WARRANTY PERIOD, (I) BUYER DISCOVERS ANY DEFECTS IN MATERIALS OR WORKMANSHIP, ACCURACY OR BATTERY LIFE AND (II) NOTIFIES KAMSTRUP WATER METERING L.L.C. IN WRITING OF SUCH DEFECTS, AND (III) RETURNS THE DEFECTIVE PRODUCTS TO KAMSTRUP WATER METERING L.L.C., KAMSTRUP WATER METERING L.L.C. SHALL, AT ITS SOLE DISCRETION, REPAIR OR REPLACE THE DEFECTIVE PRODUCTS OR BATTERIES AS NOTED ABOVE, OR REFUND THE PURCHASE PRICE FOR THE DEFECTIVE PRODUCTS OR BATTERIES. THIS WARRANTY SHALL NOT APPLY TO ANY OF THE FOLLOWING: (A) PRODUCTS THAT HAVE BEEN ALTERED; (B) PRODUCTS THAT HAVE BEEN DAMAGED BY NEGLIGENCE OR ACCIDENT OR BY OTHER CIRCUMSTANCES BEYOND THE REASONABLE CONTROL OF KAMSTRUP WATER METERING L.L.C.; OR (C) PRODUCTS THAT HAVE BEEN IMPROPERLY USED OR MAINTAINED BY BUYER, OR THAT HAVE BEEN SUBJECTED TO ABNORMAL CONDITIONS OF USE OR MAINTENANCE NOT IN CONFORMITY WITH ACCEPTED INDUSTRIAL PRACTICES OR ANY INSTRUCTIONS, MANUALS OR OTHER DOCUMENTATION PROVIDED BY KAMSTRUP WATER METERING L.L.C.. NO WARRANTY CLAIMS WILL BE PROCESSED IF RECEIVED AFTER THE WARRANTY PERIOD. REJECTED PRODUCTS MAY BE RETURNED ONLY WITH KAMSTRUP WATER METERING L.L.C.'S PRIOR EXPRESS WRITTEN CONSENT AND AT BUYER'S COST AND RISK. IF PRODUCTS ARE RETURNED WITHOUT KAMSTRUP WATER METERING L.L.C.'S PRIOR CONSENT, KAMSTRUP WATER METERING L.L.C. MAY REFUSE TO ACCEPT THE RETURNED PRODUCTS AND MAY RETURN THEM TO BUYER AT BUYER'S COST AND EXPENSE. IN ADDITION, IF BUYER RETURNS PRODUCT TO KAMSTRUP THAT, AFTER TESTING, IS FOUND NOT TO BE DEFECTIVE, THEN BUYER AGREES TO PAY FOR THE COSTS OF TESTING THE PRODUCT INCURRED BY KAMSTRUP WATER METERING, LLC.

2.4. **Set-Off.** IN NO CASE WHATSOEVER, INCLUDING JUSTIFIED WARRANTY CLAIMS, IS THE BUYER ENTITLED TO RETAIN ANY MONIES OWED TO KAMSTRUP WATER METERING L.L.C., EXCEPT UPON THE WRITTEN CONSENT OF KAMSTRUP WATER METERING L.L.C. FURTHER, THE WARRANTIES PROVIDED FOR HEREIN SHALL NOT APPLY IN THE EVENT BUYER HAS FAILED TO REMIT PAYMENT IN FULL FOR SUCH PRODUCTS.

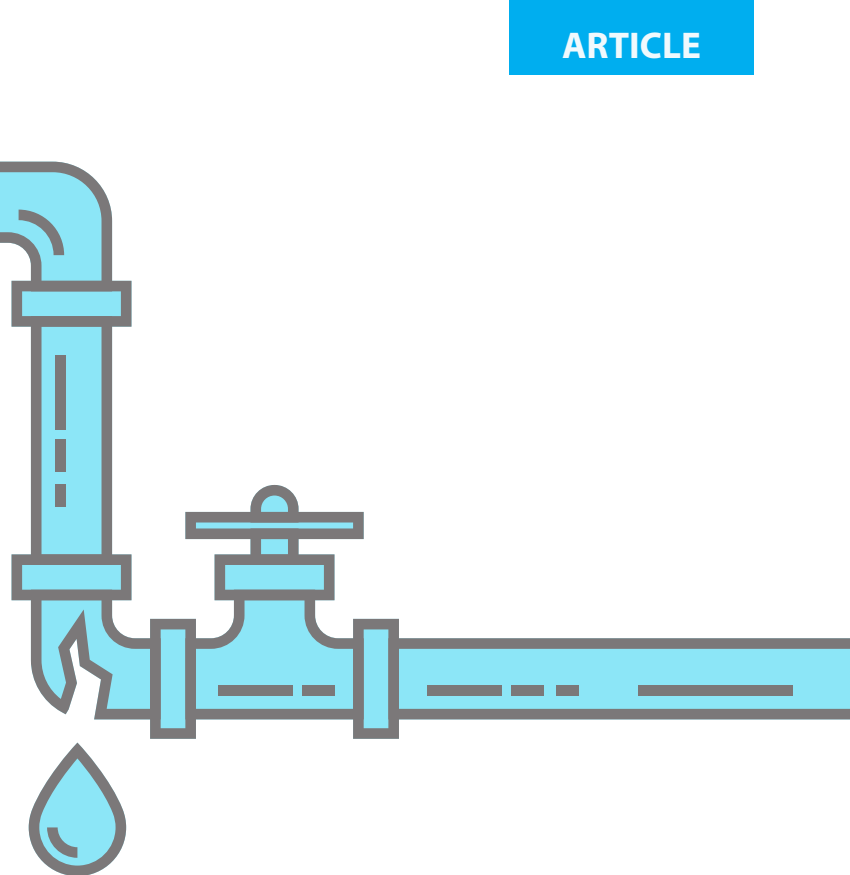
2.5. **WARRANTY DISCLAIMER. THE FOREGOING LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON-INFRINGEMENT, ALL OF WHICH ARE HEREBY EXPRESSLY DISCLAIMED.**

2.6. **LIMITATION OF LIABILITY. IN ALL EVENTS, THE LIABILITY OF KAMSTRUP WATER METERING L.L.C., WHETHER BASED IN TORT, BREACH OF CONTRACT, BREACH OF WARRANTY, OR OTHERWISE, SHALL NOT EXCEED THE PRICE OF THE PRODUCTS OR BATTERIES IN QUESTION OR WITH RESPECT TO WHICH SUCH BREACH, DEFAULT, OR NEGLIGENCE IS CLAIMED. BUYER ACKNOWLEDGES THAT THE REMEDIES PROVIDED HEREIN ARE EXCLUSIVE AND IN LIEU OF ALL OTHER REMEDIES. IN NO EVENT SHALL KAMSTRUP WATER METERING L.L.C. BE LIABLE TO BUYER OR ANY THIRD PARTY, IN CONTRACT, TORT OR OTHERWISE, FOR ANY LOSS OF PROFITS OR BUSINESS, OR FOR ANY SPECIAL, INCIDENTAL, INDIRECT, EXEMPLARY, PUNITIVE OR CONSEQUENTIAL DAMAGES RELATING TO THE PRODUCTS, EVEN IF KAMSTRUP WATER METERING L.L.C. HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. NOTWITHSTANDING THE FOREGOING, IN THE EVENT THAT ANY CLAIM IS BROUGHT AGAINST KAMSTRUP WATER METERING L.L.C. FOR PRODUCT LIABILITY, KAMSTRUP WATER METERING L.L.C.'S LIABILITY SHALL BE LIMITED TO A MAXIMUM OF KAMSTRUP WATER METERING L.L.C.'S AVAILABLE INSURANCE COVERAGE AVAILABLE FOR SUCH DAMAGE, IF ANY. ANY AMOUNT IN EXCESS THEREOF SHALL BE BORNE BY THE BUYER. KAMSTRUP WATER METERING L.L.C. SHALL NOT BE LIABLE FOR ANY DEFECT THAT WAS CAUSED BY THE PRODUCTS HAVING BEEN INTEGRATED INTO PRODUCTS OF BUYER OR THOSE OF ITS CUSTOMERS. KAMSTRUP WATER METERING L.L.C. SHALL NOT BE LIABLE IN THE EVENT THE PRODUCTS SUPPLIED WERE IMPROPERLY USED, TREATED, HANDLED, STORED OR SUPPLIED BASED ON BUYER'S INSTRUCTIONS (INCLUDING, WITHOUT LIMITATION, DESIGN DETAILS, SPECIFICATIONS, PLANS, TEMPLATES OR STORAGE AND TRANSPORT RULES).**

2.7. **Damages Disclaimer and Limitation. BUYER HEREBY EXPRESSLY WAIVES ANY AND ALL CLAIMS FOR ANY AND ALL INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO ANY CLAIMS FOR DAMAGES FOR LOSS OF USE, LOSS OF TIME, LOSS OF PROFITS, OR LOSS OF INCOME RELATING TO THE PURCHASE OR USE OF THE PRODUCTS.**

EXHIBIT 16

The Reality Of Leaks: Cost-Effective Strategies For Real Water Loss Recovery



Reducing water loss starts with proper perspective. In distribution systems that do not yet have permanent infrastructure monitoring for active leaks, even the approach to evaluating such infrastructure requires a new perspective. Here is how different technical approaches can make a difference, regardless of the age of the system or the pipe materials it uses.

The Economics Of Leak Detection And Prioritization

For operations management and C-level decision-makers at water distribution systems experiencing high water costs, real and apparent non-revenue water (NRW) losses, water scarcity, or rapid growth, the need for change is obvious but the cost of it raises concerns.

Fortunately, affordable strategies for leak detection and repair do not necessarily require all-or-nothing capital investments. Utilities can take a tiered approach to investing in solutions that will help them identify and remediate their most egregious risks for real water loss first. Whatever the approach, a fundamental aspect of cost-effective leak detection and prioritization is having low-cost, permanent sensing capabilities to focus attention on key factors:

- **The majority of leaks (70 percent) occur on service lines.** Even at less than 1 gpm, that can add up to a lot of real losses if those leaks go undetected for years.
- **Increasing pressure to satisfy customer complaints is not the solution.** It only forces

more water through those leaks and endangers other areas of weakness in adjacent infrastructure.

- **Leaks change over time.** Not all leaks deteriorate at the same pace. Good tracking systems can identify when they cross the threshold to a higher level of concern.
- **A holistic approach can save more than just the cost of water.** A comprehensive approach to water operations management should improve infrastructure management and reduce the risk of liability for damage caused by leaks.



Photo courtesy of Itron

Figure 1. Affordable acoustic sensors that provide up to 20 years of field life for leak detection on metal and plastic pipe are just the first aspect of a comprehensive water operations management solution.

The Mechanics Of Leak Detection

Getting to the root of the problem involves both structural and logistical considerations related to aging infrastructure, population growth, mixed pipeline materials, and other operating conditions. Technology options include acoustic, pressure, optical, and ultrasound monitoring — each with its associated advantages, operating requirements, and costs.

For example, non-invasive acoustic sensing can pinpoint leak locations accurately (Figure 1), but because sound does not transmit through plastic the same as metal, using it for standard correlation techniques on plastic pipe requires closely spaced extra sensors. Alternately, using a temporary 'lift and shift' approach to limit the number of acoustic sensors required can drive up labor costs and provide only a snapshot of system leaks at a point in time, not a continuous view.

By contrast, a low-cost pressure and triangulation approach can make permanent sensor installation more affordable for continuous monitoring at numerous service line locations — including segments served by plastic pipe. It can blanket a distribution system well enough to narrow down leak locations to the point where repair crews can confirm the exact location cost effectively by using a second technology such as a ground microphone. While [district metered areas](#) (DMAs) are not yet widely used in the U.S., utilities are starting to recognize their value associated with pressure-based leak monitoring solutions.

Pressure monitoring can also highlight sudden starts and stops of flow at high-volume industrial accounts that can introduce water hammer and cause leaks by placing added stress on nearby weak spots. And it can identify increased pressures at low points in hilly terrain that can exacerbate leak rates unless managed by pressure control valves.

What Makes Leak Monitoring Cost-Effective?

Using affordable [sensor](#) and [transmitter](#) units, [networks](#), and [analytical systems](#) (Figure 2) that make it more practical to collect and analyze leak detection data as a proactive solution improves short-term and long-term decisions for infrastructure repair and replacement. That approach makes it easier to establish Infrastructure Leakage Index (ILI) and Loss Cost Rate (LCR) key performance indicators (KPIs). It also enhances operational visibility, operational efficiency, event management, and real loss leak management.

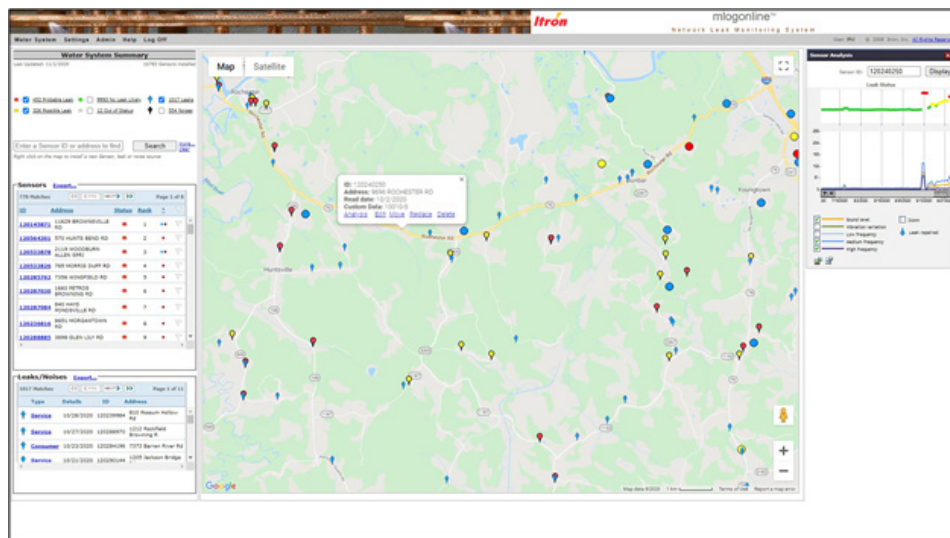


Photo courtesy of Itron

Figure 2. Continuous monitoring of signals from acoustic and pressure sensors can help water distribution utilities map newly emerging leaks and deteriorating existing leaks by service location, with added insight to make optimal decisions about repair efforts.

Best of all, water operations management solutions that integrate multiple sources of pressure, flow, acoustical, GIS, hydraulic modeling, and even billing data into one platform (Figure 3) — instead of tracking them through different departments — support a more holistic approach to decision-making in order to:

- **Identify Emerging Problems.** Permanent pipeline monitoring can identify anomalies in operating patterns, quantify emerging leak issues as soon as they occur, and track their progress over time better than intermittent pipeline inspections.
- **Establish Leak Patterns For Better Decision-Making.** Whatever a water utility's priorities — water scarcity, cutting real losses, forestalling capital investments in new water treatment capabilities, etc. — better leak detection and documentation provide greater insight for cost-effective decision-making:
 - **Repair vs. Replace.** Better analysis of leak frequency and severity patterns in a segment of the distribution system or

by a given type or age of pipe material can support better repair/replacement decisions.

- **Now vs. Later.** Certain small leaks can be repaired affordably before they grow to the point of requiring large equipment and road infrastructure repairs, but not every leak necessarily demands immediate repair. Continuously monitoring for sudden changes in water loss rates can help to determine the optimal repair time based on a utility's unique circumstances of water availability, treatment-plant costs, and capital/operating budgets.
- **Prioritize High-Value/High-Volume Leaks.** Integrated solutions help users prioritize leak repairs by volume of loss, ease/cost of repair, risk of critical infrastructure failure, risk of ancillary damage, etc.
- **Protect Critical Resources/Services.** Continuous leak monitoring makes it easier to manage concerns about

potential service disruptions to critical customer locations, such as hospitals, large industrial users, and high-rise buildings.

Finally, Extrapolate Success From The Experience Of Others

As utilities look to the future and consider how to combat NRW losses, one of the best ways to appreciate the value of cost-effective, permanent leak monitoring is to compare the experiences of other utilities that have already embraced the concept. Here are examples of how one utility used [district metering analysis](#) to effect an average 33 percent reduction in monthly NRW losses — and occasionally up to 50 percent — while another used [comprehensive water analytics](#) to cut its real losses from 22 percent to just 5 percent of treated water.

With that insight, affordable sensing technology, and targeted use of analytical software, every utility is capable of crafting its own most cost-effective strategy for real water loss recovery — regardless of the age or makeup of its infrastructure. ■

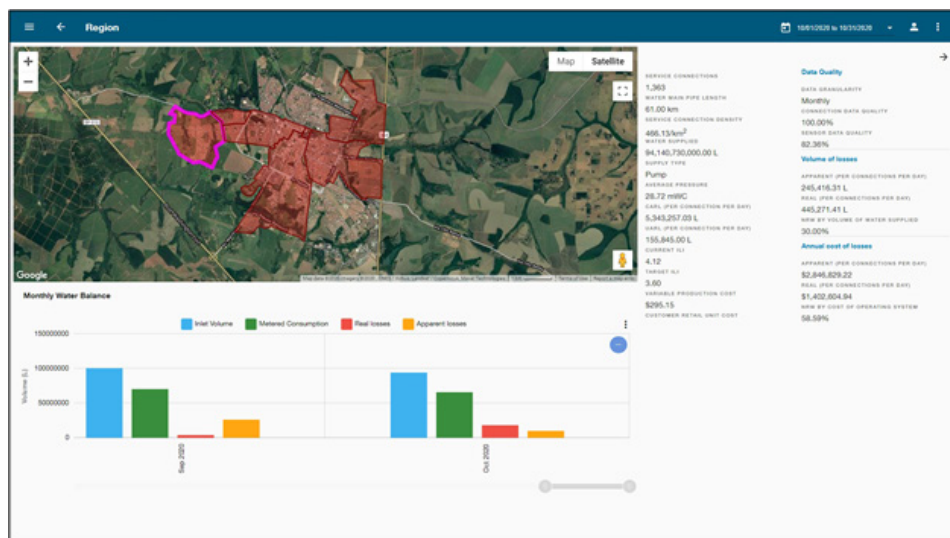


Photo courtesy of Itron

Figure 3. [Water operations management](#) solutions that integrate multiple capabilities in one system — e.g., distribution infrastructure performance, GIS-indicated repair locations, performance analytics, etc. — can have positive impacts on improving overall efficiency while reducing real and apparent losses.



Phil Cole is a Product Manager for Water Operations Management at Itron. Based in Massachusetts, Phil has over 25 years of global engineering experience, 18 years of which are focused on non-revenue water (NRW) solutions. Phil has extensive experience in hardware design and the development of acoustic leak detection devices, field deployments, and product management of NRW solutions for global markets. Phil has a Bachelor of Engineering in Electrical & Electronic Engineering from University of Portsmouth, United Kingdom.

EXHIBIT 17



OpenWay® Riva Leak Sensor

It's estimated that up to 30 percent of water pumped through distribution systems is lost to leaks. In today's conservation-driven environment, water losses and associated pumping and treatment costs add up quickly. Distribution leak detection, and keeping system losses minimal, are important operational concerns for water providers.

The OpenWay® Riva Leak Sensor (OLS) is the latest addition to Itron's advanced approach to distribution system leak detection. Part of Itron's OpenWay Riva multi-purpose IoT solution, for the OpenWay Riva Network, the OLS is the result of merging an OpenWay Riva water module with an advanced acoustic sensor to create a single point for collecting meter data and monitoring for distribution system leaks. The OLS utilizes the cutting-edge OpenWay Riva network. It offers a scalable solution that allows for parameter adjustments based on the environment.

The OLS has increased detection accuracy by being able to more readily identify noise sources/leaks. This solution reduces non-

revenue water losses, associated costs and potential service disruptions caused by major leak events.

The innovation behind the OpenWay Riva Leak Sensor is the new sensor technology. The OLS examines the pipe network more intensely over what the OLS considers the best period for detection of leaks. This results in providing a higher quality of data to mlogonline™, which in turn improves leak identification.

Every day the acoustic sensors analyze sound patterns in its environment, detecting and categorizing new, evolving and pre-existing leaks automatically. The recording period is adaptive and will self-adjust to get the best reads between 10

p.m. and 6 a.m. local time. Sensors attach to an OpenWay Riva Water Module and transmit vibration recordings along with other metering information through the OpenWay Riva network to the utility. An Itron web interface—mlogonline Network Leak Monitoring System—handles data classification and analysis of the recordings and graphically displays all sensor locations using visual maps and satellite images, highlighting the status of leak locations.

Simple, affordable and technically superior, the OpenWay Riva Leak Sensor provides advanced leak detection technology at optimal cost. Best of all, the OpenWay Riva Leak Sensor leverages the investment in Itron's OpenWay Riva multi-purpose IoT solution.

SPECIFICATIONS

How It Works

Step 1:

An Itron OpenWay Riva Leak Sensor is deployed in the water distribution system.

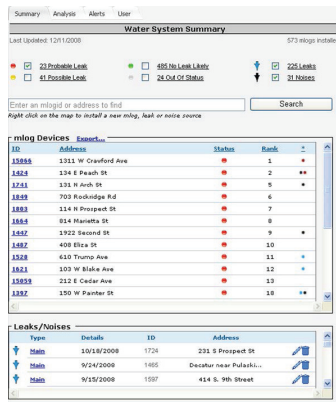
Step 2:

The Analyze process receives readings by e-delivery to mlogonline.

Step 3:

mlogonline Network Monitoring System computes a leak index for each Leak Sensor and assigns a leak status:

- Probable leak
- Possible leak
- No leak likely
- Out of Status



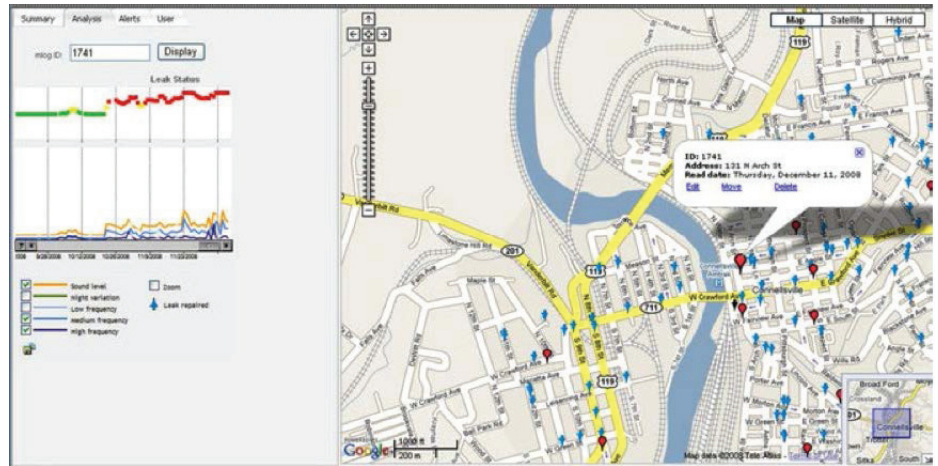
OpenWay Riva Leak Sensor information table displays all OpenWay Riva Leak Sensor data from one or more water distribution systems—sorting, searching and ranking all sensors by leak status:

- Probable Leak
- Possible Leak
- No Leak Likely
- Out of Status

Step 4:

The OpenWay Riva communication module generates messages, alerts and reports to direct leakage investigations and pinpointing activities.

The map in mlogonline Network Monitoring System shows leakage at a glance. OLS locations are overlaid, and allow highlighting of increased leak probability from green (no leak) to yellow (possible) to red (probable leak). This is all made possible using the



OpenWay Riva Leak Sensor's advanced digital signal processing.

TECHNICAL SPECIFICATIONS

mlogonline Network Monitoring System

- » Operating systems: MS Windows®
- » Maximum number of sensors: Unlimited
- » Integrated water system maps

SPECIFICATIONS BENEFITS

The OpenWay Riva Leak Sensor delivers unprecedented leak detection capabilities including:

- » Advanced acoustic leak detection monitoring and meter data collection
- » Compact form for easy field installation
- » Low cost of ownership (one sensor can cover multiple homes in a residential area)
- » Automated capture and data transmission (of actual vibration recordings)
- » Advanced analysis and applications available for in-depth analysis.
- » Stores a minimum of one year of spectral data for interpretation, prioritization and mitigation

Sensing

- » Resolution < 2µg √Hz
- » Range Up to:
 - ±500 linear feet of pipe (metal <12")
 - ±100 linear feet of pipe (PVC <6")
- » Bandwidth: 36Hz-2048Hz

- » Noise signature detection and subtraction (ex. busy highways, trains, factories, etc.) for improved leak detection in high noise environments.

Power

- » Source: Powered by an OpenWay Riva Pit or Remote Water module

Physical/Environmental

- » Operating temperature: -10°C to +50°C
- » Operating humidity: Up to 100%
- » Product identification: Numeric and barcoded serial number
- » Exposure rating: Sealed, waterproof and submersible IP68
- » Housing: Stainless Steel 316
- » Cover: ABS
- » Weight: .2 lbs, .90 grams
- » Dimensions: Height with mounting bracket from pipe to top of sensor: 2.21" 56.2 mm Diameter: 2", 51mm

Installation options:

The OpenWay Riva Leak Sensor is installed permanently either indoors or outdoors on the water service pipe (1-2"), valve nut, or even on a meter itself. Allowing for installations in most pit environments.

- » The OLS can be mounted using the pre-assembled ground clamp/mount assembly kit: CFG-1601-10X



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EXHIBIT 18



OpenWay[®] Riva 500W ERT[®] Module

The OpenWay Riva 500W ERT Module is the latest addition to Itron's portfolio of advanced metering devices for water utilities. OpenWay Riva 500W ERT Modules are IPv6 endpoints designed to operate on Itron's OpenWay Riva multi-purpose IoT solution. Featuring a compact design, industry-leading battery life, firmware download and technology designed to adapt and grow with your business, the OpenWay Riva 500W ERT Module can help you streamline your operations and maximize your resources today while also connecting to the Internet of Things.

INTRODUCTION

OpenWay Riva modules offer advanced two-way communications designed specifically for Itron's OpenWay Riva solution as well as Itron's industry-leading ChoiceConnect solutions. OpenWay Riva 500W ERT Modules enable easy migration from mobile to network operations as your business needs evolve. The ability to perform firmware downloads over the network allows the utility to ensure they have the latest features available without having to visit each account. With Itron's complementary communications

technology, network and mobile systems can be deployed side-by-side in hybrid configurations to ensure maximum efficiency and reliability in both high- and low-density meter populations.

OpenWay Riva 500W ERT Modules are available in two housing designs, supporting both water pit and remote installations. Both pit and remote modules support encoder and pulsar register types. One single endpoint will support both register types. Itron's auto sensing technology allows the OpenWay Riva

endpoint to detect what register model it is attached to, removing the need to program the endpoint at installation. OpenWay Riva pit modules include an integral connector port and a telemetry port standard. A single pit SKU is compatible for both encoders and pulsers; and one remote SKU is compatible for both encoders and pulsers. The integral port allows for the use of Itron's Through-The-Lid antenna and the telemetry port enables the use of Itron's acoustic leak sensor, third-party remote disconnect valves.



- » remote disconnect capabilities
- » time synchronized data
- » meter right sizing functions
- » exception reporting
- » firmware upgrades

SUPERIOR PERFORMANCE

The OpenWay Riva 500W ERT Module utilizes multiple radio channels. This multi-channel approach delivers higher read integrity over competing products by reducing the effect of interfering signals from other radio frequency (RF) signals in the area. The OpenWay Riva 500W ERT Module transmits the fixed network consumption messages at peak radiated power greater than one watt.

RELIABILITY

OpenWay Riva 500W ERT Modules feature a circuit assembly and battery pack that are fully encapsulated within a specially formulated potting material to protect internal components from water, contaminants, corrosion, rough handling and temperature cycling.

With their straightforward, rugged design, OpenWay Riva 500W ERT Modules use significantly fewer components than most competing products, resulting in greater reliability. The advanced, integrated antenna operates effectively in a wide range of meter box installations. The OpenWay Riva 500W ERT Module offers peace of mind with a 20-year limited warranty.

LOWER COST OF OWNERSHIP

OpenWay Riva 500W ERT Modules feature industry-leading battery life, ensuring your meter data collection investment achieves substantially better financial returns than competing meters with batteries that typically last only 10 to 12 years. When factoring the advancements in leak, reverse flow (absolute encoder version only) and tamper detection, OpenWay Riva 500W ERT Modules necessitate fewer field investigations and lower expenditures for customer and field service. OpenWay Riva 500W ERT Modules include a battery replacement alarm that helps utilities to plan and manage module replacements in the field.

WATER METER COMPATIBILITY

The OpenWay Riva 500W ERT Module is compatible with water meters from all major manufacturers, including — Badger, Elster AMCO, Hersey, Master Meter, Neptune, Kamstrup and Sensus— enabling water utilities to consolidate all water meters under a single communications platform. Powered by proven, advanced lithium battery technology, the module is designed for 20 years of battery life in both fixed network and mobile modes.

DATA LOGGING

The OpenWay Riva 500W ERT Module stores 160 days of hourly data when in network system mode. There are two modes available for collecting data:

ChoiceConnect Mobile Mode

- » Any hourly reading within the last 40 days
- » A set of 24 consecutive hourly readings
- » A set of 40 daily readings
- » A set of 40 days of hourly interval data are available even in mobile mode

OpenWay Riva Network Mode

- » Any hourly reading within the last 160 days
- » Any 15 minute interval within the last 40 days
- » A set of 24 consecutive hourly readings
- » A set of daily readings over 160 days
- » A set of 160 days of hourly readings
- » A set of 40 days of 15 minute interval readings
- » Additional data logging options:

OpenWay Riva offers configurable intervals for data storage for any interval length evenly divisible into 60 minutes (1, 2, 3, 4,

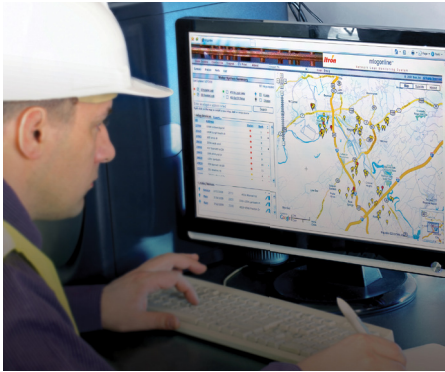
5, 6, 10, 12, 15, 30, and 60 minutes) when operating in FN mode. Intervals are configurable and re-configurable via the OpenWay Riva network.

Throughout a normal day of operations, the 500W ERT Module collects and stores meter readings and waits for an interrogation request to arrive from the headend. The headend system is configured to request data from the module. The recommended configuration is to request eight hours of data, three times per day. This results in 24 hours of data each day from the endpoint. The system can also request all 24 hours of data once a day, or six hours of data four times a day. You can choose whichever configuration best matches your business process.

Data does not need to be requested in an overlapping fashion. This type of redundancy is unnecessary in the OpenWay Riva solution. For example, the headend doesn't need to request 24 hours of data, three times a day, where each request overlaps the previous request. The request/response process, also known as the interrogation process, is an acknowledged process. This means that the headend knows if the data was not received. It then triggers an automatic retry process that continues attempts to retrieve the missing data for a configurable time frame.

Additionally, as part of the full two-way communications network, the module supports other value-added capabilities including:

- » on-demand reads
- » real-time leak
- » tamper and reverse flow flags



LEAK MANAGEMENT

Non-revenue water management is critical to any water utility's success. Modules can be paired with Itron's OpenWay Riva Leak Sensor which collects and analyzes changes in pipe acoustics. This data indicates probable leaks in the distribution system environment to detect both new and pre-existing leaks automatically. Leak sensor technology, coupled with the module's internal customer-side leak detection algorithm and the option to compare data from groups of OpenWay Riva 500W ERT Modules to the utility's production meters, provides the utility with a highly accurate picture of the overall health of the water distribution system.

OpenWay Riva Leak Sensor

The OpenWay Riva 500W ERT Module collects and stores the data from the OpenWay Riva Leak Sensor. The OpenWay Riva Leak Sensor samples the pipe conditions during the quietest usage periods (usually at night). The recording period is adaptive and depends on the sound profile at each location making the sure the OpenWay Riva Leak Sensor is recording at the most optimum time to hear a leak. This sensor data is picked up during normal meter reading operations and seamlessly transfers the data to our hosted web-based solution. The OpenWay Riva Leak Sensor threshold can be adjusted to account for different environments where background noise may be high, and allows the utility to target specific-sized leaks.

The OpenWay Riva Leak Sensor is built to last 20 years in the harshest environments. It can be installed in the meter box on either the meter setter or coupler. Additionally, it can be installed on mains valves, placing the sensor closer to the critical non-revenue water leaks. These installation options make the OpenWay Riva Leak Sensor the most flexible solution on the market. The OpenWay Riva Leak Sensor comes with a market-leading 5-year warranty.

Extended Meter Alarms

The OpenWay Riva 500W ERT Module relays the extended meter alarms provided by new solid state and electronic meters. These alarms include:

- » Empty Pipe
- » Temperature
- » High Flow
- » Meter Low Battery
- » Meter Tampering
- » Reverse Flow
- » Zero Consumption

OPENWAY RIVA 500W ERT MODULE SPECIFICATIONS

Functional

- » Power Source: Four "A" cell lithium batteries warranted for 20 years
- » Maximum meter register pulse frequency (pulse version only): 4 Hertz
- » Operating temperature:
 - -104°F to +158°F (-40°C to +70°C) for remote applications
 - -68°F to +140°F (-20°C to +60°C) for pit applications
- » Storage temperature: -104°F to +158°F (-40°C to +70°C) for a maximum of 1,000 hours
- » Humidity limits: 0 to 100% (submersible)
- » Maximum register cable dimension: 300 feet with Itron-approved cable and splice connectors
- » Meter compatibility: See Water Module Meter Compatibility Guide (PUB-0063-002)

TRANSMISSION PARAMETERS

- » Data message:
 - The OpenWay Riva 500W ERT Module is a Wisun compliant IPv6 device. Multiple RF channel transmissions of meter register value, cut cable, and/ or communication error tamper(s) reverse flow (encoder version only) and system leak status messages. A low battery indicator is transmitted every nine seconds in ChoiceConnect mobile mode.
- » OpenWay Riva Network mode:
 - Four interrogation cycles per day, each collecting six hours of intervals and events data.
 - A Local Access Beacon message is sent every 60 seconds that allowing the user to gather contingency readings locally if needed.
- » Transmitter frequencies:
 - 908 - 924 MHz (Standard Power) in ChoiceConnect mobile mode
 - 903 - 924 MHz (Low Power) in OpenWay Riva Fixed Network mode for Local Access Beacon
- » Operates in ISM frequency band (does not require a licensed spectrum)

Approved Mobile Systems and Devices when using Basic Security

- » Multi-Vendor Reading System (MV-RS) v8.7.3 or later with the FC300SR, MCLite and MC3 with Mobile Collection software v3.8.1.1 (Note: MV-RS does not support the OpenWay Riva Leak Sensor)
- » Field Collection System (FCS) v3.0 SP1 or later with the FC300SR, MCLite, and MC3 with Mobile Collection software v3.8.1.1
- » Field Collection System (FCS) v4.0 or later with Itron Mobile v1.0 or later and the Itron Mobile Radio or MC3 Radio.

Approved Mobile Systems and Devices when using Enhanced Security

- » Field Collection System (FCS) v4.0.3 or later with Itron Mobile v1.0 or later and the Itron Mobile Radio or MC3 Radio or FC300SR, MCLite or MC3 with Mobile Collection software v3.8.1.1

Compatible Communication Applications

The following software applications are approved IoT Reading Systems Cisco Connected Grid Routers (CGR's) offering full two-way communication capability:

- » OpenWay Operations Center
- » Collection Manager
- » ISM
- » Network Manager

Programmable Mode Options

- » ChoiceConnect Mobile Mode
 - Should be used when mobile or handheld meter reading is the method for collecting the Standard Consumption Message (SCM+) or data logging reads
 - The SCM+ bubbles up in this mode every 9 seconds at standard power optimized for mobile read rate performance
 - Supports a 20-year battery life
- » OpenWay Riva Network Mode
 - Should be used when OpenWay Riva network is the method of meter data collection
 - A high power Network Interval Message (NIM) is typically transmitted up to four times per day
 - Can be programmed at the factory during installation with an approved handheld device or after initial installation via programming using a handheld device.
 - Supports a 20-year battery life

- » ChoiceConnect Hard-to-Read Mobile Mode
 - Should only be used when communication modules are installed in difficult-to-read locations where standard mobile mode is not sufficient for satisfactory reading performance
 - Bubbles up an SCM+ at 30 seconds with high power output to optimize performance of unique applications
 - Supports a 10+ year battery life
- » ChoiceConnect High Power Mobile Mode
 - This mode should be used when communication modules are installed in difficult-to-read environments where there is a high concentration of unfriendly RF and where standard ChoiceConnect mobile mode is not sufficient for satisfactory reading performance
 - Bubbles up an SCM+ at 60 seconds with a higher power output to optimize performance of these applications
 - Supports a 20-year battery life

OpenWay Riva 500W ERT Module Pit Dimensions

- » Height: 4.5 inches (11.4 centimeters)
- » Maximum diameter:
 - Lower: 3.9 inches (9.9 centimeters)
 - Upper: Approximately 1.7 inches (4.3 centimeters)
- » Weight: approximately 9.6 ounces (272.2 grams).

- » In-line connector register cables: 5 feet and 25 feet (1.5 meters and 7.6 meters) - ordered separately
- » Pit models can be installed up to 300 feet (91.4 meters) from a meter

OpenWay Riva 500W ERT Module Remote Dimensions

- » Height: 4.5 inches (11.4 centimeters)
- » Width: 5.05 inches (12.8 centimeters)
- » Depth: 3 inches (7.6 centimeters)
- » Weight: Approximately 9.6 ounces (272.2 grams)
- » Module cable length: 10 inches (25.4 centimeters)
- » Remote models can be installed up to 300 feet (91.4 meters) from a meter

Mounting Options

OpenWay Riva 500W ERT Modules are designed with compact housing and features meant to be highly compatible with the water pit mounting options. These features include the following:

- » Rod-mount on a ½ inch (1.3 centimeter) diameter fiberglass or other non-metallic rods; requires a Remote Through the Lid Antenna
- » Through-the-lid mounting with a pre-drilled 1.75 inch (4.4 centimeters) hole and up to 2.5 inch (6.4 centimeters) maximum lid thickness
- » Direct-mount to any flat surface with screw kit
- » Wall-mount for installation to the side of residence or building using screw kit
- » Pipe-mount for installation on pipe sizes from ¾ inch to 4 inch (1.9 to 10.2 centimeters)



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EXHIBIT 19



Mobile Collector Generation 4

Mobile Collection Systems

The Itron MC4 series is the latest generation in drive-by data collection and mobile command and control from Itron. The MC4 series includes multiple models designed to meet your specific needs.

HIGH-PERFORMANCE COMMUNICATIONS FOR THE MOST DEMANDING APPLICATIONS

Mobile Collector 4 Max, Mobile Collector 4 Pro and Mobile Collector 4 Core

Performance and portability are combined with Itron's patented GPS mapping for meter reading, two-way wireless radio communications and compatibility with Itron's latest generation mobile collection apps. The MC4 series provides improvements in a utility's operational efficiencies, regardless of the type or size of their service – streamlining business processes and reducing costs associated with meter reading operations and service delivery, enhancing customer service and improving employee safety.

The MC4 series of mobile collectors will ensure you continue to benefit from your investment in Itron Advanced AMR meters and ERTs through their 20-year life.

Itron ERTs set the standard for automated meter reading (AMR) when they were introduced in the 1980s. Itron continues to invest in the ERT product family and provides ever increasing benefits from these modules used for both AMR and AMI. Over the years, evolutions have occurred including Itron's introduction of datalogging, enhanced security, remote disconnect, and other Advanced AMR capabilities that were all enabled through Itron's highly efficient ERT communication protocols.

The MC4 series of mobile collectors provide the following:

- » All the safety, accuracy, and efficiency benefits that come with Itron AMR
- » “Drop-in” compatibility with Temetra Mobile and Itron Mobile for FCS
- » Basic AMR data collection for Billing and Tamper/Event monitoring
- » Advanced AMR capability for Datalogging, Remote Disconnect, and more
- » Itron’s latest radio designs with improved read sensitivity and range
- » Ever increasing app features including Itron’s patented Endpoint Tracking for finding lost and stolen meters

INTRODUCTION

Powered by Itron SRead™ radio technology, the MC4 Series can handle everything from basic consumption reads to the collection of interval data and performing other two-way communications with Itron’s advanced meters and ERTs for gas, water, and electricity. The MC4 Series eliminates the need for a dedicated vehicle by being small enough to easily transfer among drivers as necessary.

FUNCTIONALITY PROFILE

Depending on the selected model, MC4 has the capacity to store and process up to 30,000 or 100,000 meter reads per shift. The MC4 Series can also collect out-of-route readings used to fulfill off-cycle reading requests without dispatching a technician. The potential savings are substantial when compared to the few hundred meters read per day by a typical walk-by employee. Itron SRead radio technology offers increased read sensitivity, simultaneously listens to over 80 channels and can conduct up to 50 two-way communications simultaneously all to improve range and reduce route processing times.

GPS MAPPING

A built-in GPS receiver and on-board mapping software allow a user to see where the vehicle is in relation to the ERT modules and meters. Using the Windows apps from Itron, various icons indicate the completion status of each endpoint in addition to those accounts that take priority or require other special operations such as remote disconnect. A Microsoft Bing satellite view is available when the computer is connected to the Internet.

MC4CORE FEATURES

The MC4Core is Itron’s entry-level mobile collector. While affordable, the MC4Core contains a complete and powerful set of features that work with Itron ERTs, meters and sensors. These features are available in all MC4 models:

- » Collect gas, water and electricity current index reads for billing
- » Read “bubble-up” endpoints
- » Extract 40 days of daily or hourly interval data from advanced gas, water and electricity meters and ERTs
- » Perform real-time demand reset and extract TOU data from CENTRON Bridge and CENTRON R450 Advanced meters
- » Remote disconnect for gas, water and electricity services
- » Collect leak data from water ERTs equipped with acoustic leak sensors
- » Fulfill special read requests such as move-ins and move-outs
- » Daily data for customer service and billing disputes
- » Monthly gas balancing reads
- » Data to facilitate load studies and conservation programs
- » Data to support mid-cycle rate changes

- » Extract 40 days of daily, hourly or 15-minute interval data from CENTRON® Bridge and CENTRON R450 Advanced meters
- » Ability to process multiple routes simultaneously
- » Up to 30,000 in-route reads per shift
- » Up to 30,000 out-of-route reads per shift
- » GPS mapping for reduced drivetimes
- » Exceptional meter reading performance in a small size
- » Wired or wireless data transfer using any Internet connection

MC4PRO FEATURES

The MC4Pro includes all the features of the MC4Core plus these additional features:

- » Side looking radios to improve basic AMR read performance for reduced drivetimes and improved out-of-route read collection
- » Up to 100,000 in-route reads per shift
- » Up to 100,000 out-of-route reads per shift
- » GPS Endpoint Tracking for finding lost and stolen meters

MC4MAX FEATURES

The MC4Max includes all the features of the MC4Core and MC4Pro plus this additional feature:

- » Ability to read Itron’s legacy wake-up ERT modules including 40G/40GB/40E/45E/40W/50W

Customers who only deployed bubble-up ERT modules will be get everything they need from the value priced MC4Core and MC4Pro. The MC4Max is only required by customers who continue to need the ability to read wake-up ERT modules.

MOBILE COLLECTOR 4 FEATURE COMPARISON MATRIX

	MC4MAX	MC4PRO	MC4CORE
Basic AMR for billing	✓	✓	✓
Advanced AMR (Datalogging, etc.)	✓	✓	✓
Mapping	✓	✓	✓
Out-of-Route Reads	✓	✓	✓
Side Looker Radios	✓	✓	✗
Endpoint Tracking	✓	✓	✗
Wakeup Transmitter for 40G/40GB/40E/45E/40W/50W **	✓	✗	✗

**Wakeup ERTs requiring a wakeup transmitter: All models of the 40G, 40W, 40E. These ERTs can be programmed in wakeup or bubble-up mode: All models of the 40GB, 50W, 45E

SPECIFICATIONS

Transmitter/Receiver Characteristics

- » Legacy wake-up transmitter: 952 or 956 MHz Licensed Frequency
- » Receiver: 908–924 MHz (ISM Band)
- » Two-way command transmitter: 908–924 MHz (ISM Band)
- » Transmitter power: 6.5 Watts peak
- » Output impedance: 50 ohms
- » Data integrity: verified in every message

Antenna Specifications

- » 5 dBi omni-directional whip mounted on base with built-in 3 dBi GPS antenna.
- » Optional Side Looker (left+right), 9.1 dBi Linear Directional antenna

Regulatory Information

- » Legacy wake-up transmitter, MAS band:
 - » FCC Part 101 compliance
 - » ISED RSS-119 compliance
- Two-way transmitter/receiver, ISM band:
- » FCC Part 15.247 compliance
 - » ISED RSS-247 compliance

Environmental

- » Operating temperature: -4°F to +122°F (-20°C to +50°C)
- » Storage temperature: -40°F to +160°F (-40°C to +71°C)
- » Humidity limits: 5 to 95% noncondensing relative humidity

Physical Dimensions

- » MC4 Series Radio: 13"W x 11.25"L x 2.75"H
- » Sled: 13"W x 19"L x 9.5"H
- » CF-33 Laptop: 11.9"W x 11.5"L x 2.9"H

Weight

- » MC4Max Radio: 10 lbs./ 4.5 kg
 - » Sled: 13.2 lbs. / 6 kg
 - » CF-33 Laptop: 8.2 lbs./ 3.7 kg
- MC4 Series comes complete with MC4 Series radio, mounting and wiring hardware, and optionally with Panasonic Toughbook or Toughpad computer.

Panasonic Computer (Optional)

- » Choice of fully rugged Windows 10 Toughbook or Toughpad computer from Panasonic. For details, see the respective Panasonic datasheet.

Power

- » Power supply: 12Volts DC vehicle power supply
- » Power consumption: 5 Amps maximum

Wiring Options

- » Permanent – Permanent wiring includes a through-the-roof antenna base and a fuse block power cable
- » Portable – Portable wiring includes a magnetic-mount antenna base and a vehicle accessory power cable

Mounting Options

- » Sled Mount – The Panasonic Toughpad vehicle dock comes attached to a sled that can be easily and safely installed on any seat in the vehicle.
- » Pedestal Mount – The Panasonic Toughpad comes with a vehicle dock that can be attached to a pedestal that is installed in the vehicle (note: the pedestal is not included).

Endpoint Compatibility*

All MC4 Models:

- » 100G gas ERT modules
- » Gen™5 500G Intelis Gas Meter
- » Gen™5 500G ERT® Module
- » Gen™5 500W ERT® Module
- » OpenWay Riva Intelis Gas Meter

- » OpenWay Riva 500G ERT® Module
- » OpenWay Riva 500W ERT® Module
- » 60W water ERT modules
- » 100W water ERT modules
- » Itron CENTRON Bridge electricity meters
- » Itron CENTRON R450 Advanced electricity meters
- » Itron CENTRON electricity meters equipped with R300 or R400 modules
- » Itron SENTINEL® electricity meters equipped with R300 modules

Additional Support with MC4Max

- » All legacy Itron ERT® modules
- » 40G / 40GB gas ERT modules
- » 40W / 50W water ERT Modules
- » 40E electric ERT modules

* Supported endpoints will vary across applications. Please consult the capabilities of the software app and version.



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EXHIBIT 20

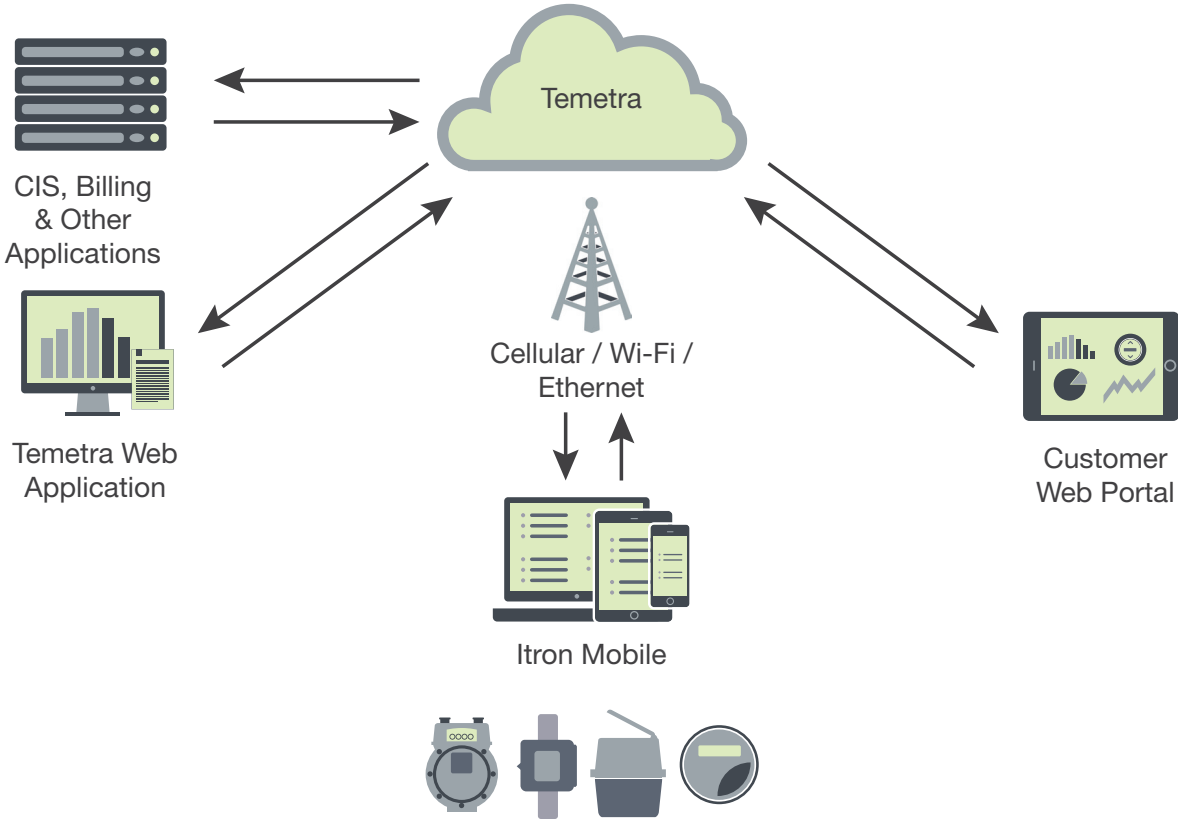


Temetra[®]

Cloud-based Mobile Meter Data Collection and Management



Temetra is Itron's next-generation mobile meter data collection and management solution, providing you with new ways to optimize your operations and improve customer engagement. With full Itron Mobile integration, Temetra provides you with a complete, cutting-edge mobile data collection package in the cloud.



Temetra with Itron Mobile in a Typical Mobile Collection Deployment

STRENGTHS:

- » Automate meter reading using drive-by or walk-by and Itron's advanced meters and endpoints
- » Collect visual reads, water probe reads and other valuable meter data
- » Improve meter reading efficiency with map-assisted meter reading on the mobile device
- » Collect and upload meter data in real time
- » Securely and easily access, store and manage data through the cloud
- » Quickly assign or reassign work based on meter and meter reader location via Temetra Geo-Routing
- » Increase customer satisfaction and engagement by providing access to meter history via the Customer Web Portal



Itron Mobile Radio
(actual size: 3.20" W x 5.66" L x 1.53" H)



Itron MC3 Radio
(actual size: 13" W x 11.25" L x 2.75" H)

SAFE, ACCURATE & EFFICIENT

Safety

Using drive-by data collection keeps your employees out of the weather and safer in the field. Hazard warnings from the data collector inform meter readers of potential dangers before approaching a meter.

Accuracy

Automated data collection avoids mis-keyed reads, resulting in reduced billing errors. Read validation ensures meter reads are recorded accurately, and photo support helps address billing complaints.

Efficiency

Quickly find customer and meter locations using integrated mapping with GPS support. Location-based route sequencing helps your meter readers work more efficiently.

DATA STORAGE AND ACCESS IN THE CLOUD

Real Time

Improve your operational efficiency by loading and unloading routes and photos remotely from the field. Data storage in the cloud allows employees in the field to upload their route data and receive new routes using internet connections including Wi-Fi and cellular.

Secure

Rest easy knowing your utility's data is safe. All data is held on secure servers which meet the ISO 27001 information security standard.

Accessible

Give users easy access to the information they need. Data is accessed through the Temetra Web Application, which can be configured with as many user profiles as there are departments at your utility.

Affordable

Reduce costs associated with deploying and maintaining servers and software. While our industry-leading IT and security professionals maintain your servers, we will also continue to provide you with regular software updates transparently through the cloud. This reduces IT costs and downtime associated with buying and setting up new hardware and installing software updates.

INTUITIVELY ASSIGN OR REASSIGN ROUTES USING GEO-ROUTING

Temetra Geo-Routing enables the simple creation of more efficient routes. Meter coordinates are stored in the Temetra cloud environment, allowing routes to be created and assigned based on the locations of both meters and meter readers.



CUSTOMER WEB PORTAL

Improve customer satisfaction and awareness by enabling customer cost-savings. The Customer Web Portal allows you to proactively inform your customers of abnormal usage, therefore reducing billing complaints. In addition, customers can monitor their usage over time, allowing them to take steps to reduce their monthly bill.



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EXHIBIT 21



ANDY BESHEAR
GOVERNOR

REBECCA W. GOODMAN
SECRETARY

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON
COMMISSIONER

300 SOWER BOULEVARD
FRANKFORT, KENTUCKY 40601

August 3, 2020

Greg Wright
Bell Engineering
2480 Fortune Dr
Lexington, KY 40509

RE: Phase 11 Improvements
F20-013
Estill County, KY
Estill Co Water District
AI #: 34966, FGL20200006

Dear Mr. Greg Wright:

The Kentucky Division of Water (DOW) has reviewed for completeness and adequacy the construction plans and specifications submitted for the above referenced contract(s). The DOW now approves these plans and specifications with respect to sanitary features of design in accordance with the requirements contained in the attached construction permit. The plans consist of 900 LF of 6-inch HDPE water line replacements at four (4) creek crossings, seventeen (17) zone meters for distribution system monitoring including three (3) flow meters in existing booster pump stations, telemetry upgrades, replacement of 3,000 existing residential meters with radio read meters, 700 adapters for existing residential meters for radio read capability, removal of 100 inactive meters, meter reading software and equipment upgrades, and crushed stone and associated pavement repairs. The approval conditions and a list of eligible/ineligible items are enclosed. Please note that ineligible items cannot be funded using State Revolving Fund (SRF) monies, and must be paid by other funding sources.

We have sent one (1) set of approved plans and specifications. An identical set should be made available at the project site at all times. If modifications are made to these plans and specifications before bidding, two (2) complete sets of as-bid plans and specifications must be submitted to the DOW for approval. A second DOW construction approval must be issued by separate correspondence before proceeding with advertising for bids. Any red line changes that were made by DOW personnel on the approved plans shall be incorporated into the bid set plans unless an alternative is approved.

You may now advertise for bids on the construction of this project. In addition to other notifications, this project must be advertised in the newspaper of the largest daily circulation in the project area.

You are cautioned not to advertise unless you have a proper wage decision. The Federal Davis-Bacon wage rates are applicable for this project. Please contact all other funding sources for their requirements pertaining to federal wage rates.

Phase 11 Improvements
F20-013
Estill Co Water District
AI #: 34966, FGL20200006
August 3, 2020
Page 2 of 3

You are reminded that the construction contracts are subject to the equal employment opportunity requirements contained in Executive Order 11246. Equal employment opportunity affirmative action by the prime contractors and all subcontractors is mandated throughout the duration of the contract. Documentation of efforts to comply with Executive Order 11246, Equal Employment Opportunity is required to be kept by the borrower.

Review the attached Project Review and Cost Summary form for details of the information to be collected and retained in your files or to be submitted to DOW for review and approval. This form must be completed, signed by the recipient, and with the necessary information be then forwarded to the DOW. This signature will certify that all the information to be retained by the recipient has been secured and is available for review by the Division at the pre-construction conference. The required information must be approved by the DOW before executing any contracts.

Along with the Project Review and Cost Summary form, the following items must be submitted to the DOW for review and approval before executing any contracts:

- The bid advertisement
- Revised Project Budget
- Certified bid tabulation
- Documentation of compliance with DBE Good Faith Effort in accordance with 40 CFR 33.301

These items will be reviewed as a part of the Authority to Award process. The DOW will authorize you to award the contracts once these documents are approved

After the Notice to Proceed is signed, the DOW will need a copy of the executed contract documents, including plans and specifications.

Changes orders will require approval from the DOW before payment can be authorized from the State Revolving Fund. Submission of plans and specifications may be required for change order work.

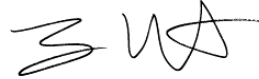
Upon completion of the project, as-built drawings shall be provided to the DOW. As-builts shall be stamped, signed and dated by a professional engineer. A written certification stating that the project was constructed according to the approved plans shall be provided to the DOW by a professional engineer.

The construction permit included in this letter has been issued under the provisions of KRS Chapter 224 and the regulations promulgated pursuant thereto. Issuance of this approval does not relieve the applicant from the responsibility of obtaining any other approvals, permits or licenses required by this Cabinet and other state, federal and local agencies.

You are cautioned that the advertisement and award of this contract will be subject to the laws and regulations that govern the State Revolving Fund (SRF) and to the conditions of your loan agreement. If we can be of further assistance, please call David Coe, Project Engineer, at (502) 782-6296.

Phase 11 Improvements
F20-013
Estill Co Water District
AI #: 34966, FGL20200006
August 3, 2020
Page 3 of 3

Sincerely,



Terry Humphries, P.E.
Supervisor, Engineering Section
Water Infrastructure Branch
Division of Water

TH:DRC
Enclosures

Eligible List, Ineligible List, Approval Conditions
Project Review and Cost Summary Form
1 set plans and specification

C: Estill Co Water District No 1
Kentucky Infrastructure Authority
Cabinet for Economic Development
Estill County Health Department
Division of Plumbing

F20-013
Bell Engineering

SRF ELIGIBLE ITEMS:

Contract No. 371-20-01 Water System Improvements Phase 11:

All the bid items for the contract are SRF eligible.

900 LF of 6-inch HDPE water line replacements at four (4) creek crossings
Seventeen (17) zone meters for distribution system monitoring including three (3) flow meters in existing booster pump stations
Telemetry upgrades
Replacement of 3,000 existing residential meters with radio read meters
700 adapters for existing residential meters for radio read capability
Removal of 100 inactive meters
Meter Reading software and equipment upgrade
Crushed stone and associated pavement repairs

SRF INELIGIBLE ITEMS:

Contract No. 371-20-01 Water System Improvements Phase 11:

None of the bid items for the contract are SRF ineligible.

APPROVAL CONDITIONS:

1. Provide Clear Site Certificates
2. Complete and return the Project Review and Cost Summary Form.

PROJECT REVIEW AND COST SUMMARY

This questionnaire/checklist is furnished as an administrative aid and is required for use in supplying information and documents, reporting minor changes, and project status. The information and documents should be submitted to DOW as soon as possible after bid opening.

DRINKING WATER SRF

CLEAN WATER SRF

SECTION 1.

1. Project Name Project Number
-
2. Changes: Have there been any changes in the project since DOW's approval of the plans and specifications?
- Yes No Construction Drawings. If yes, submit revised drawings and addenda. **See Note***
- Yes No Specifications. If yes, submit addenda. **See Note***
- Yes No Site Changes. If so, new Clear Site Certificates are required prior to start of construction.
- Yes No Authorized Representative (Mayor, City Manager, etc.). If so, provide name and title.

***Note:** Prior approval is required for changes in design, scope, type of treatment, size, capacity, time to complete the project, etc. Changes, which result in increase in the amount of a contract, must be procured in accordance with state and federal requirements, as applicable.

SECTION 2.

Date Bids Opened: _____ Date Bids Expire: _____

1. The following items should be submitted to DOW after bid opening:
- a) Executed Project Review & Cost Summary Form (this form).
 - b) Revised (As-bid) Budget (form attached).
 - c) Original bid advertisement or copy of advertisement with affidavit of publication.
 - d) Certified Bid Tabulations with engineer's seal.
 - e) Davis-Bacon ATA Certification form (with Project Wage Rate Sheet HUD-4720 form).
 - g) Clear Site Certificates.
 - h) DBE Documentation (See Attachment No. 11 of the Supplemental General Conditions (SGC)):
 - (1) Disadvantaged Business Enterprise Participation Policy form from the successful low bidder with DBE certifications and executed subcontracts with DBEs or letters of intent signed by both parties; and documentation on the level of effort taken

to obtain DBEs including copies of correspondence with DBE contractors, requesting quotes and copies of any advertisements soliciting DBE contractors, copies of returned envelopes and certified mail receipts, telephone log, etc.

(2) Bidder's List Form from recipient and successful bidder.

2. The following items must be submitted to DOW at the Pre-construction Meeting:

- a) Executed Contract Documents (once contract is signed).
- b) Notice of Award, Notice to Proceed, Bid Bond, Payment Bond, and Performance Bond (generally included in executed contract).
- c) Technical Specification (generally included in executed contract).
- d) Contractor's Certification Regarding Lobbying (See Attachment No. 11 in the SGC).
- e) Contractor's Debarred Firm Certification (See Attachment No. 10 in the SGC).

3. A copy of the items identified in Section 2.1 and Section 2.2, above, and the following must be retained by the owner. This documentation is subject for review, by DOW, at the time of the pre-construction conference.

- a) Name and qualifications of the proposed resident inspector(s).
- b) Proposal of the successful bidder(s).
- c) EEO documentation required by Executive Order 11246 as amended. Items 1 through 11 (See Attachment No. 7 in the SGC), is required for all contracts over \$10,000 except supplier contracts. Supplier contracts require:
 - (1) Name, address, and telephone number.
 - (2) Materials to be supplied and dollar value.For contracts below \$10,000, the same information required for supplier contracts must be submitted.
- d) Engineer's letter to the loan recipient recommending award of the contract. Letter must include a description of work, dollar amount, and name of the low bidder. If award is recommended to be made to other than the low bidder, a justification indicating why the low bidder is not responsive or responsible.
- e) Contractor project construction schedule and payment schedule.
- f) Applicable wage rate determination letter.
- g) Tentative Award Resolution.

4. **Comments:** _____

I hereby certify that all documentation outlined in Section 2.1, 2.2 and 2.3 will be retained in our project files and all documentation outlined in Section 2.1 has been submitted to DOW and all documentation outlined in Section 2.2 will be submitted to DOW during the Pre-construction meeting.

Signature of Authorized Representative

Date

Print Name and Title

SRF Project Cost Summary

Project Title: _____ WRIS#: _____

Project Budget: **Estimated** enter date **As Bid** enter date **Revised** enter date

Cost Classification	SRF KIA Loan	Funding Source 1	Funding Source 2	Funding Source 3	Funding Source 4	Funding Source 5	Local Funds	Unfunded Costs	Total
1	Administrative Expenses								
2	Legal Expenses								
3	Land, Appraisals, Easements								
4	Relocation Expenses & Payments								
5	Planning								
6	Engineering Fees – Design								
7	Engineering Fees – Construction								
8	Engineering Fees – Inspection								
9	Engineering Fees – Other								
10	Construction								
11	Equipment								
12	Miscellaneous								
13	Contingencies								
	Total								

Funding Sources	Amount	Date Committed
1		
2		
3		
4		
5		
	Total	

Local Funding Sources	Amount	Date Committed
1		
2		
3		
	Total	

Total Funding \$ _____

Cost Categories	Funding Source	Total Cost
Treatment (DW)		
Transmission and Distribution (DW)		
Source (DW)		
Storage (DW)		
WWTP Secondary Portion (CW)		
WWTP Advanced Portion (CW)		
Inflow and Infiltration Correction (CW)		
Major Sewer Rehabilitation (CW)		
Collector Sewers (CW)		
Interceptor Sewers including Pump Station (CW)		
Combined Sewer Overflow Correction (CW)		
Purchase of Systems (DW and CW)		
Restructuring (DW and CW)		
Land Acquisition (DW and CW)		
	Total Costs	

EXHIBIT 22

ANDY BESHEAR
GOVERNOR



REBECCA W. GOODMAN
SECRETARY

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON
COMMISSIONER

300 SOWER BOULEVARD
FRANKFORT, KENTUCKY 40601

November 19, 2020

Andrea Miller
Estill Co Water District No 1
76 Cedar Grove Rd
Irvine, KY 40336

RE: Phase 11 Improvements Zone Meters and River Crossings
Phase 11 Improvements Residential Meters
F20-013
Estill County, KY
Estill Co Water District
AI #: 34966, FGL20200006 FGL20200008

Dear Mr. Greg Wright:

The Kentucky Division of Water (DOW) has reviewed for completeness and adequacy the construction plans and specifications submitted for the above referenced contract(s). The DOW previously approved the plans and specifications with respect to sanitary features of design on August 8, 2020. The plans consist of 900 LF of 6-inch HDPE water line replacements at four (4) creek crossings; seventeen (17) zone meters for distribution system monitoring including three (3) flow meters in existing booster pump stations, and telemetry upgrades in the first contract titled zone meters and river crossings. The second contract titled, residential meters includes the replacement of 3,000 existing residential meters with radio read meters, 700 adapters for existing residential meters for radio read capability, removal of 100 inactive meters, meter reading software and equipment upgrade, and crushed stone and associated pavement repairs. The approval conditions and a list of eligible/ineligible items are enclosed. Please note that ineligible items cannot be funded using State Revolving Fund (SRF) monies, and must be paid by other funding sources.

We have sent one (1) set of approved plans and specifications, previously approved. An identical set should be made available at the project site at all times. If modifications are made to these plans and specifications before bidding, two (2) complete sets of as-bid plans and specifications must be submitted to the DOW for approval. A second DOW construction approval must be issued by separate correspondence before proceeding with advertising for bids. Any red line changes that were made by DOW personnel on the approved plans shall be incorporated into the bid set plans unless an alternative is approved.

You may now advertise for bids on the construction of this project. In addition to other notifications, this project must be advertised in the newspaper of the largest daily circulation in the project area.

Phase 11 Improvements Zone Meters and River Crossings
Phase 11 Improvements Residential Meters
F20-013
Estill Co Water District
AI #: 34966, FGL20200006, FGL20200008
November 19, 2020
Page 2 of 3

You are cautioned not to advertise unless you have a proper wage decision. The Federal Davis-Bacon wage rates are applicable for this project. Please contact all other funding sources for their requirements pertaining to federal wage rates.

You are reminded that the construction contracts are subject to the equal employment opportunity requirements contained in Executive Order 11246. Equal employment opportunity affirmative action by the prime contractors and all subcontractors is mandated throughout the duration of the contract. Documentation of efforts to comply with Executive Order 11246, Equal Employment Opportunity is required to be kept by the borrower.

Review the attached Project Review and Cost Summary form for details of the information to be collected and retained in your files or to be submitted to DOW for review and approval. This form must be completed, signed by the recipient, and with the necessary information be then forwarded to the DOW. This signature will certify that all the information to be retained by the recipient has been secured and is available for review by the Division at the pre-construction conference. The required information must be approved by the DOW before executing any contracts.

Along with the Project Review and Cost Summary form, the following items must be submitted to the DOW for review and approval before executing any contracts:

- The bid advertisement
- Revised Project Budget
- Certified bid tabulation
- Documentation of compliance with DBE Good Faith Effort in accordance with 40 CFR 33.301

These items will be reviewed as a part of the Authority to Award process. The DOW will authorize you to award the contracts once these documents are approved

After the Notice to Proceed is signed, the DOW will need a copy of the executed contract documents, including plans and specifications.

Changes orders will require approval from the DOW before payment can be authorized from the State Revolving Fund. Submission of plans and specifications may be required for change order work.

Upon completion of the project, as-built drawings shall be provided to the DOW. As-builts shall be stamped, signed and dated by a professional engineer. A written certification stating that the project was constructed according to the approved plans shall be provided to the DOW by a professional engineer.

The previously issued construction permit has been issued under the provisions of KRS Chapter 224 and the regulations promulgated pursuant thereto. Issuance of this approval does not relieve the applicant from the responsibility of obtaining any other approvals, permits or licenses required by this Cabinet and other state, federal and local agencies.

Phase 11 Improvements Zone Meters and River Crossings
Phase 11 Improvements Residential Meters
F20-013
Estill Co Water District
AI #: 34966, FGL20200006, FGL20200008
November 19, 2020
Page 3 of 3

You are cautioned that the advertisement and award of this contract will be subject to the laws and regulations that govern the State Revolving Fund (SRF) and to the conditions of your loan agreement. If we can be of further assistance, please call David Coe, Project Engineer, at (502) 782-6296.

Sincerely,



Terry Humphries, P.E.
Supervisor, Engineering Section
Water Infrastructure Branch
Division of Water

TH:DRC
Enclosures

Eligible List, Ineligible List, Approval Conditions
Project Review and Cost Summary Form
1 set plans and specification

C: Estill County Water District
Kentucky Infrastructure Authority
Cabinet for Economic Development
Estill County Health Department
Division of Plumbing

EXHIBIT 23

DESCRIPTION OF PROPOSED EQUIPMENT'S LOCATION

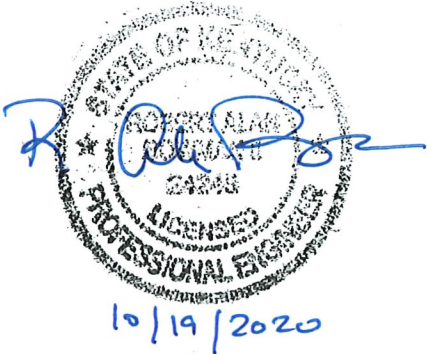
The proposed equipment will be located throughout Estill County, Kentucky. A map depicting the Estill District's territory and existing water mains is found at Attachment C of **Exhibit 4** of the Application.

EXHIBIT 24

SPECIFICATIONS FOR
CONTRACT 371-20-02

WATER SYSTEM IMPROVEMENTS, PHASE 11 – RESIDENTIAL METER REPLACEMENT

*ESTILL COUNTY WATER DISTRICT NO. 1
ESTILL COUNTY, KENTUCKY*



April 2020



2480 Fortune Drive
Suite 350
Lexington, KY 40509
859/278-5412

107 Forbes Drive
Hopkinsville, KY 42240
270/886-5466

1278 Hendersonville Road
Suite D
Asheville, NC 28803
828/774-5499

INDEX

**CONTRACT 371-20-02
WATER SYSTEM IMPROVEMENTS,
PHASE 11 – RESIDENTIAL METER REPLACEMENT
ESTILLCOUNTY WATER DISTRICT NO. 1
ESTILL COUNTY, KENTUCKY**

<u>SECTION NO.</u>	<u>TITLE</u>	<u>PAGE NO.</u>
<u>DIVISION 0</u>	<u>GENERAL SPECIFICATIONS, BIDDING REQUIREMENTS, CONTRACT FORMS AND CONDITIONS OF THE CONTRACT</u>	
00010	Advertisement for Bids	00010-1 Thru 00010-3
C-200	Instructions to Bidders	1 Thru 9
C-410	Form of Proposal	1 Thru 7
C-451	Bidder's Qualification Statement	1 Thru 8
C-520	Agreement between Owner and Contractor	1 Thru 6
C-610	Performance Bond	1 Thru 3
C-615	Payment Bond	1 Thru 3
C-700	General Conditions	1 Thru 65
C-800	Supplementary Conditions	1 Thru 14
00820	Special Conditions	00820-1 Thru 00820-6
00830	Supplemental General Conditions for Clean Water State Revolving Fund Drinking Water State Revolving Fund	1 Thru 49
<u>DIVISION 1</u>	<u>GENERAL REQUIREMENTS</u>	
01010	Summary of Work	01010-1
<u>DIVISION 2</u>	<u>SITWORK</u>	
02140	Dewatering	02140-1
02400	Streets, Roads, and Parking Areas	02400-1 Thru 02400-3
02930	Sodding and Seeding	02930-1 Thru 02930-7
<u>DIVISIONS 3 THRU 4</u>		
	Not Applicable	

371-20-02 (04/2020)

<u>SECTION NO.</u>	<u>TITLE</u>	<u>PAGE NO.</u>
<u>DIVISION 5</u>	<u>METALS</u>	
05540	Castings	05540-1 Thru 05540-2
<u>DIVISION 9 THRU 14</u>		
	Not Applicable	
<u>DIVISION 15</u>	<u>MECHANICAL</u>	
15107	Water Meters, Service Valves, Stops and Miscellaneous Appurtenances for Water Line Projects	15107-1 Thru 15107-5
<u>DIVISION 16</u>	<u>ELECTRICAL</u>	
	Not Applicable	

END

371-20-02 (04/2020)

SECTION 00010

**ADVERTISEMENT FOR BIDS
CONTRACT 371-20-02
WATER SYSTEM IMPROVEMENTS,
PHASE 11 - RESIDENTIAL METER REPLACEMENT
ESTILL COUNTY WATER DISTRICT NO. 1
ESTILL COUNTY, KENTUCKY**

Sealed proposals for the following work will be received by the Estill County Water District No. 1, Estill County, Kentucky at the district office, until 10:00 a.m. local time, Tuesday, April 6, 2021, for furnishing labor and materials and performing all work as set forth by the Advertisement, General Conditions, Specifications and/or Drawings prepared by Bell Engineering. Immediately following the scheduled closing time for the reception of bids, all proposals which have been submitted in accordance with the above conditions will be publicly opened and read aloud.

The work to be bid is described as follows:

CONTRACT 371-20-02

Water System Improvements, Phase 11- Residential meter replacement of approximately 3,000 residential meters.

Drawings, Specifications and Contract Documents may be examined at the following places:

Estill County Water District No. 1
76 Cedar Grove Road
Irvine, Kentucky 40336

Bell Engineering
2480 Fortune Drive, Suite 350
Lexington, Kentucky 40509

or may be obtained from Lynn Imaging, 328 E. Vine Street, Lexington, Kentucky 40507, phone 859/255-1021, upon receipt of non-refundable deposit as follows:

CONTRACT 371-20-02 -- \$200.00 (electronic or hard copy)

Sealed proposals for this Contract shall be clearly marked on the outside of the envelope as follows:

“Sealed Proposal for Contract 371-20-02. Not to be opened until 10:00 a.m., local time, Tuesday, April 6, 2021.”

If forwarded by mail, the sealed envelope containing the proposal must be enclosed in another envelope and mailed to the Estill County Water District No. 1, 76 Cedar Grove Road, Irvine, Kentucky 40336, allowing sufficient time for such mailing to reach this address prior to the scheduled closing time for receipt of proposals.

371-20-02 (04/2020)

Bids shall be accompanied by a certified check or bid bond made payable to the Estill County Water District No. 1, in an amount not less than 5 percent of the base bid indicated in Specification Section 00200, Instructions to Bidders, Bid Security. No bidder may withdraw his bid for a period of 90 days after the date bids are opened. He may, however, withdraw his bid at any time prior to the time and date scheduled for opening of same or any authorized postponement thereof. Any bid received after the time and date specified shall not be considered and will be returned unopened to the bidder. The expected construction time for this project will be 150 days and the liquidated damages have been set at \$500.00.

The attention of all contractors is called to the fact that any contract awarded under this Advertisement for Bids is expected to be funded in part by a loan from the Kentucky Infrastructure Authority, Drinking Water State Revolving Fund and from a grant from the Appalachian Regional Commission (ARC).

The OWNER's share will be provided from current funds on hand.

Work to be performed by contractors involved in this project is subject to the minimum wage rates established by the U.S. Department of Labor under the provisions of the Davis-Bacon Act.

State Revolving Fund requirements must be met by the bidder and all subcontractors.

Bidders must comply with the President's Executive Order Nos. 11246 and 11375, which prohibit discrimination in employment regarding race, creed, color, sex or national origin. Where the President's Executive Order No. 11246 is shown, Executive Order No. 11375 also applies.

Bidders must make positive efforts to secure small, minority owned, and/or disadvantaged business enterprise participation in this Project.

Bidders must comply with Title VI of the Civil Rights Act of 1964, the Anti-Kickback Act, and the Contract Work Hours Standard Act.

Bidders must certify that they do not and will not maintain or provide for their employees any facilities that are segregated or based on race, color, creed, or national origin.

Bidders must show a certification of prior work under Executive Order 11246 (Equal Employment Opportunity) as amended.

All contractors and subcontractors must comply with 41 CFR 60-4, in regard to affirmative action. This is to insure equal opportunity to females and minorities, and apply the time tables and goals set forth in 41 CFR 60-4. Estill County Water District No. 1 is an equal opportunity employer.

Neither the United States nor any of its departments, agencies or employees is or will be a party to this Invitation for Bids or any resulting contract.

371-20-02 (04/2020)

Award will be made to the lowest, responsive, responsible bidder. The Estill County Water District No. 1 may consider informal any bid not prepared and submitted in accordance with the provisions of this advertisement and/or the Specifications and may waive any informalities or reject any and all bids.

ESTILL COUNTY WATER DISTRICT NO. 1

By _____
Audrea Miller, Manager

Bell Engineering
2480 Fortune Drive
Suite 350
Lexington, Kentucky 40509
Phone: 859/278-5412

END OF SECTION

00010-3

INSTRUCTIONS TO BIDDERS

CONTRACT 371-20-02

WATER SYSTEM IMPROVEMENTS,

PHASE 11 – RESIDENTIAL METER REPLACEMENT

ESTILL COUNTY WATER DISTRICT NO. 1

ESTILL COUNTY, KENTUCKY

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ARTICLE 1 – DEFINED TERMS

1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:

A. *Issuing Office* – The office from which the Bidding Documents are to be issued.

ARTICLE 2 – COPIES OF BIDDING DOCUMENTS

2.01 Complete sets of the Bidding Documents may be obtained from the Issuing Office in the number and format stated in the advertisement or invitation to bid.

2.02 Complete sets of Bidding Documents shall be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

2.03 Owner and Engineer, in making copies of Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids for the Work and do not authorize or confer a license for any other use.

ARTICLE 3 – QUALIFICATIONS OF BIDDERS

3.01 To demonstrate Bidder's qualifications to perform the Work, after submitting its Bid and within 5 days of Owner's request, Bidder shall submit (a) written evidence establishing its qualifications such as financial data, previous experience, and present commitments, and (b) the following additional information:

A. Refer to Section C-451.

3.02 A Bidder's failure to submit required qualification information within the times indicated may disqualify Bidder from receiving an award of the Contract.

3.03 No requirement in this Article 3 to submit information will prejudice the right of Owner to seek additional pertinent information regarding Bidder's qualifications.

3.04 Bidder is advised to carefully review those portions of the Bid Form requiring Bidder's representations and certifications.

ARTICLE 4 – SITE AND OTHER AREAS; EXISTING SITE CONDITIONS; EXAMINATION OF SITE; OWNER'S SAFETY PROGRAM; OTHER WORK AT THE SITE

4.01 *Site and Other Areas*

A. The Site is identified in the Bidding Documents. By definition, the Site includes rights-of-way, easements, and other lands furnished by Owner for the use of the Contractor. Any additional lands required for temporary construction facilities, construction equipment, or storage of materials and equipment, and any access needed for such additional lands, are to be obtained and paid for by Contractor. Contractor will be responsible for minimizing siltation and erosion control during construction.

4.02 *Existing Site Conditions*

- A. Subsurface and Physical Conditions; Hazardous Environmental Conditions
 - 1. The Supplementary Conditions identify:
 - a. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site.
 - b. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).
 - c. reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site.
 - d. Technical Data contained in such reports and drawings.
 - 2. Owner will make copies of reports and drawings referenced above available to any Bidder on request. These reports and drawings are not part of the Contract Documents, but the Technical Data contained therein upon whose accuracy Bidder is entitled to rely, as provided in the General Conditions, has been identified and established in the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any Technical Data or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.
 - 3. If the Supplementary Conditions do not identify Technical Data, the default definition of Technical Data set forth in Article 1 of the General Conditions will apply.
- B. Underground Facilities: Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or adjacent to the Site are set forth in the Contract Documents and are based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, including Owner, or others.
- C. Adequacy of Data: Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions, and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated subsurface or physical conditions appear in Paragraphs 5.03, 5.04, and 5.05 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work, appear in Paragraph 5.06 of the General Conditions.

4.03 *Site Visit and Testing by Bidders*

- A. Bidder shall conduct the required Site visit during normal working hours, and shall not disturb any ongoing operations at the Site.
- B. Bidder is not required to conduct any subsurface testing, or exhaustive investigations of Site conditions.
- C. On request, and to the extent Owner has control over the Site, and schedule permitting, the Owner will provide Bidder access to the Site to conduct such additional examinations, investigations, explorations, tests, and studies as Bidder deems necessary for preparing and submitting a successful Bid. Owner will not have any obligation to grant such access if doing

so is not practical because of existing operations, security or safety concerns, or restraints on Owner's authority regarding the Site.

- D. Bidder shall comply with all applicable Laws and Regulations regarding excavation and location of utilities, obtain all permits, and comply with all terms and conditions established by Owner or by property owners or other entities controlling the Site with respect to schedule, access, existing operations, security, liability insurance, and applicable safety programs.
- E. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies.

4.04 *Owner's Safety Program*

- A. Site visits and work at the Site may be governed by an Owner safety program. As the General Conditions indicate, if an Owner safety program exists, it will be noted in the Supplementary Conditions.

4.05 *Other Work at the Site*

- A. Reference is made to Article 8 of the Supplementary Conditions for the identification of the general nature of other work of which Owner is aware (if any) that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) and relates to the Work contemplated by these Bidding Documents. If Owner is party to a written contract for such other work, then on request, Owner will provide to each Bidder access to examine such contracts (other than portions thereof related to price and other confidential matters), if any.

ARTICLE 5 – BIDDER'S REPRESENTATIONS

5.01 It is the responsibility of each Bidder before submitting a Bid to:

- A. examine and carefully study the Bidding Documents, and any data and reference items identified in the Bidding Documents;
- B. visit the Site, conduct a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfy itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;
- C. become familiar with and satisfy itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work;
- D. carefully study all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings;
- E. consider the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of

- the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs;
- F. agree, based on the information and observations referred to in the preceding paragraph, that at the time of submitting its Bid no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents;
 - G. become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;
 - H. promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder;
 - I. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work; and
 - J. agree that the submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 6 – PRE-BID CONFERENCE

- 6.01 A pre-Bid conference will be held at the time and location stated in the invitation or advertisement to bid. Representatives of Owner and Engineer will be present to discuss the Project. Bidders are encouraged to attend and participate in the conference. Engineer will transmit to all prospective Bidders of record such Addenda as Engineer considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.

ARTICLE 7 – INTERPRETATIONS AND ADDENDA

- 7.01 All questions about the meaning or intent of the Bidding Documents are to be submitted to Engineer in writing. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda delivered to all parties recorded as having received the Bidding Documents. Questions received less than seven days prior to the date for opening of Bids may not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
- 7.02 Addenda may be issued to clarify, correct, supplement, or change the Bidding Documents.

ARTICLE 8 – BID SECURITY

- 8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of 5 percent of Bidder's maximum Bid price (determined by adding the base bid and all alternates) and in the form of a certified check, bank money order, or a Bid bond (on the form included in the Bidding Documents) issued by a surety meeting the requirements of Paragraphs 6.01 and 6.02 of the General Conditions.
- 8.02 The Bid security of the apparent Successful Bidder will be retained until Owner awards the contract to such Bidder, and such Bidder has executed the Contract Documents, furnished the

required contract security, and met the other conditions of the Notice of Award, whereupon the Bid security will be released. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within 15 days after the Notice of Award, Owner may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited. Such forfeiture shall be Owner's exclusive remedy if Bidder defaults.

- 8.03 The Bid security of other Bidders that Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of seven days after the Effective Date of the Contract or 61 days after the Bid opening, whereupon Bid security furnished by such Bidders will be released.
- 8.04 Bid security of other Bidders that Owner believes do not have a reasonable chance of receiving the award will be released within seven days after the Bid opening.

ARTICLE 9 – CONTRACT TIMES

- 9.01 The number of days within which, or the dates by which, Work is to be substantially completed, and completed and ready for final payment, shall be 180 days.

ARTICLE 10 – LIQUIDATED DAMAGES

- 10.01 Provisions for liquidated damages, if any, for failure to timely attain a Milestone, Substantial Completion, or completion of the Work in readiness for final payment, are set forth in the Agreement.

ARTICLE 11 – SUBSTITUTE AND “OR-EQUAL” ITEMS

- 11.01 The Contract for the Work, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents with substitute or “or-equal” materials and equipment presumed to be equal but which will have to be proven equal or acceptable during the shop drawing review phase as described in the General Conditions. The materials and equipment described in the Bidding Documents establish a standard of required type, function, and quality to be met by any proposed substitute or “or-equal” item. The burden of proof of the merit of the proposed item is upon Bidder. Engineer's decision of approval or disapproval of the proposed item will be final. Bidders shall not rely upon approvals made in any other manner. If, after award of the Contract, the Engineer approves a substitute or an “or-equal” item, any reduction made in contract price will be subtracted from the bidder's contract and placed into contingency funds for the Project.
- 11.02 All prices that Bidder sets forth in its Bid shall be based on the presumption that the Contractor will furnish the materials and equipment specified or described in the Bidding Documents, as supplemented by Addenda. Any assumptions regarding the possibility of post-Bid approvals of “or-equal” or substitution requests are made at Bidder's sole risk.

ARTICLE 12 – SUBCONTRACTORS, SUPPLIERS, AND OTHERS

- 12.01 A Bidder shall be prepared to retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of the Work if required by the Bidding Documents (most commonly in the Specifications) to do so. If a prospective Bidder objects to retaining any such Subcontractor, Supplier, or other individual or entity, and the concern is not relieved by an Addendum, then the prospective Bidder should refrain from submitting a Bid.

- 12.02 Subsequent to the submittal of the Bid, Owner may not require the Successful Bidder or Contractor to retain any Subcontractor, Supplier, or other individual or entity against which Contractor has reasonable objection.
- 12.03 The apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening, submit to Owner a list of the Subcontractors or Suppliers proposed for the following portions of the Work: Zone meter installation and stream crossings.
- If requested by Owner, such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, or other individual or entity. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit an acceptable substitute, in which case apparent Successful Bidder shall submit a substitute, Bidder's Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and Owner may consider such price adjustment in evaluating Bids and making the Contract award.
- 12.04 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, or other individuals or entities. Declining to make requested substitutions will constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to subsequent revocation of such acceptance as provided in Paragraph 7.06 of the General Conditions.

ARTICLE 13 – PREPARATION OF BID

- 13.01 The Bid Form is included with the Bidding Documents.
- A. All blanks on the Bid Form shall be completed in ink and the Bid Form signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each section, Bid item, alternate, adjustment unit price item, and unit price item listed therein.
- B. If the Bid Form expressly indicates that submitting pricing on a specific alternate item is optional, and Bidder elects to not furnish pricing for such optional alternate item, then Bidder may enter the words "No Bid" or "Not Applicable."
- 13.02 A Bid by a corporation shall be executed in the corporate name by a corporate officer (whose title must appear under the signature), accompanied by evidence of authority to sign. The corporate address and state of incorporation shall be shown.
- 13.03 A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The partnership's address for receiving notices shall be shown.
- 13.04 A Bid by a limited liability company shall be executed in the name of the firm by a member or other authorized person and accompanied by evidence of authority to sign. The state of formation of the firm and the firm's address for receiving notices shall be shown.
- 13.05 A Bid by an individual shall show the Bidder's name and address for receiving notices.
- 13.06 A Bid by a joint venture shall be executed by an authorized representative of each joint venturer in the manner indicated on the Bid Form. The joint venture's address for receiving notices shall be shown.

- 13.07 All names shall be printed in ink below the signatures.
- 13.08 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.
- 13.09 Postal and e-mail addresses and telephone number for communications regarding the Bid shall be shown.
- 13.10 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located, or Bidder shall covenant in writing to obtain such authority and qualification prior to award of the Contract and attach such covenant to the Bid. Bidder's state contractor license number, if any, shall also be shown on the Bid Form.

ARTICLE 14 – BASIS OF BID

14.01 Lump Sum

- A. Bidders shall submit a Bid on a lump sum basis as set forth in the Bid Form.

14.02 Unit Price

- A. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the unit price section of the Bid Form.
- B. The "Bid Price" (sometimes referred to as the extended price) for each unit price Bid item will be the product of the "Estimated Quantity" (which Owner or its representative has set forth in the Bid Form) for the item and the corresponding "Bid Unit Price" offered by the Bidder. The total of all unit price Bid items will be the sum of these "Bid Prices"; such total will be used by Owner for Bid comparison purposes. The final quantities and Contract Price will be determined in accordance with Paragraph 13.03 of the General Conditions.
- C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

14.03 Allowances

- A. For cash allowances the Bid price shall include such amounts as the Bidder deems proper for Contractor's overhead, costs, profit, and other expenses on account of cash allowances, if any, named in the Contract Documents, in accordance with Paragraph 13.02.B of the

ARTICLE 15 – SUBMITTAL OF BID

- 15.01 With each copy of the Bidding Documents, a Bidder is furnished one separate unbound copy of the Bid Form, and, if required, the Bid Bond Form. The unbound copy of the Bid Form is to be completed and submitted with the Bid security and the other documents required to be submitted under the terms of Article 7 of the Bid Form.
- 15.02 A Bid shall be received no later than the date and time prescribed and at the place indicated in the advertisement or invitation to bid and shall be enclosed in a plainly marked package with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the name and address of Bidder, and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate package plainly marked on the outside with the notation "BID ENCLOSED." A mailed Bid shall be addressed to Cannonsburg Water District, 1606 Cannonsburg Road, Ashland, Kentucky 41102.

- 15.03 Bids received after the date and time prescribed for the opening of bids, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.

ARTICLE 16 – MODIFICATION AND WITHDRAWAL OF BID

- 16.01 A Bid may be withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids. Upon receipt of such notice, the unopened Bid will be returned to the Bidder.
- 16.02 If a Bidder wishes to modify its Bid prior to Bid opening, Bidder must withdraw its initial Bid in the manner specified in Paragraph 16.01 and submit a new Bid prior to the date and time for the opening of Bids.
- 16.03 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, that Bidder will be disqualified from further bidding on the Work.

ARTICLE 17 – OPENING OF BIDS

- 17.01 Bids will be opened at the time and place indicated in the advertisement or invitation to bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

ARTICLE 18 – BIDS TO REMAIN SUBJECT TO ACCEPTANCE

- 18.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

ARTICLE 19 – EVALUATION OF BIDS AND AWARD OF CONTRACT

- 19.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner will reject the Bid of any Bidder that Owner finds, after reasonable inquiry and evaluation, to not be responsible. If Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, then the Owner will reject the Bid as nonresponsive; provided that Owner also reserves the right to waive all minor informalities not involving price, time, or changes in the Work.
- 19.02 The contract will be awarded to the lowest, responsive, responsible bidder.
- 19.03 Evaluation of Bids
- A. In evaluating Bids, Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award.
 - B. Bid prices will be compared after adjusting for differences in time of Substantial Completion (total number of calendar days to substantially complete the Work) designated by Bidders. The adjusting amount will be determined at the rate set forth in the Agreement for

liquidated damages for failing to achieve Substantial Completion, or such other amount that Owner has designated in the Bid Form.

1. The method for calculating the lowest bid for comparison will be the summation of the Bid price shown in the Bid Form plus the product of the Bidder-specified time of Substantial Completion (in calendar days) times the rate for liquidated damages (in dollars per day).
2. This procedure is only used to determine the lowest bid for comparison and contractor selection purposes. The Contract Price for compensation and payment purposes remains the Bid price shown in the Bid Form.

19.04 In evaluating whether a Bidder is responsible, Owner will consider the qualifications of the Bidder and may consider the qualifications and experience of Subcontractors and Suppliers proposed for those portions of the Work for which the identity of Subcontractors and Suppliers must be submitted as provided in the Bidding Documents.

19.05 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders and any proposed Subcontractors or Suppliers.

ARTICLE 20 – BONDS AND INSURANCE

20.01 Article 6 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner's requirements as to performance and payment bonds and insurance. When the Successful Bidder delivers the Agreement (executed by Successful Bidder) to Owner, it shall be accompanied by required bonds and insurance documentation.

ARTICLE 21 – SIGNING OF AGREEMENT

21.01 When Owner issues a Notice of Award to the Successful Bidder, it shall be accompanied by the unexecuted counterparts of the Agreement along with the other Contract Documents as identified in the Agreement. Within 15 days thereafter, Successful Bidder shall execute and deliver the required number of counterparts of the Agreement (and any bonds and insurance documentation required to be delivered by the Contract Documents) to Owner. Within ten days thereafter, Owner shall deliver one fully executed counterpart of the Agreement to Successful Bidder, together with printed and electronic copies of the Contract Documents as stated in Paragraph 2.02 of the General Conditions.

ARTICLE 22 – SALES AND USE TAXES

22.01 See Specification Section 00700, Article 7.09, for instructions.

BID FORM

**CONTACT 371-20-02
WATER SYSTEM IMPROVEMENTS,
PHASE 11 – RESIDENTIAL METER REPLACEMENT
ESTILL COUNTY WATER DISTRICT NO. 1
ESTILL COUNTY, KENTUCKY**

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ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:

*Estill County Water District No. 1
76 Cedar Grove Road
Irvine, Kentucky 40336*

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER’S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 – BIDDER’S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

<u>Addendum No.</u>	<u>Addendum, Date</u>
_____	_____
_____	_____
_____	_____
_____	_____

B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of

such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.

- F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
 - 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 – BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the price(s) as shown on the Form of Proposal following Article 9.01 of this Section C-410 of these Specifications.

ARTICLE 6 – TIME OF COMPLETION

6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.

6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

7.01 The following documents are submitted with and made a condition of this Bid:

- A. Required Bid security;
- B. List of Proposed Subcontractors;
- C. List of Proposed Suppliers;
- D. List of Project References;
- E. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;
- F. Contractor's License No.: _____ [or] Evidence of Bidder's ability to obtain a State Contractor's License and a covenant by Bidder to obtain said license within the time for acceptance of Bids;
- G. Required Bidder Qualification Statement with supporting data; and

ARTICLE 8 – DEFINED TERMS

8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 9 – BID SUBMITTAL

BIDDER: *[Indicate correct name of bidding entity]*

By:

[Signature] _____

[Printed name] _____

(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest:

[Signature] _____

[Printed name] _____

Title: _____

Submittal Date: _____

Address for giving notices:

Telephone Number: _____

Fax Number: _____

Contact Name and e-mail address: _____

Bidder's License No.: _____

(where applicable)

**FORM OF PROPOSAL
CONTRACT 371-20-02
WATER SYSTEM IMPROVEMENTS,
PHASE 11 – RESIDENTIAL METER REPLACEMENT
ESTILL COUNTY WATER DISTRICT NO. 1
ESTILL COUNTY, KENTUCKY**

Note: The following Form of Proposal shall be followed exactly in submitting a proposal for this work. This copy, properly filled in, shall be used in submitting a proposal.

This proposal is submitted by _____

(Name and Address of Bidding Contractor) Zip Code

Date: _____ Phone No.: _____
Area Code

To: Estill County Water District No. 1
76 Cedar Grove Road
Irvine, Kentucky 40336

Having carefully examined the complete contract documents, including all general and technical specifications and drawings, special requirements, as well as the project site, the undersigned, hereinafter known as the CONTRACTOR, proposes to furnish all labor, materials, tools, machinery, appliances, supplies, equipment, and services as called for by the applicable contract documents, as well as by all Addenda heretofore issued. We agree to enter into a contract and to complete all work required by and under the terms and conditions of the contract documents for the amounts shown in this proposal form.

We acknowledge receipt of the following Addenda:

No. _____, dated _____.	No. _____, dated _____.
No. _____, dated _____.	No. _____, dated _____.
No. _____, dated _____.	No. _____, dated _____.
No. _____, dated _____.	No. _____, dated _____.

If none received, write "none" here: _____.

CONTRACT 371-20-02 WATER SYSTEM IMPROVEMENTS,
 PHASE 11 - RESIDENTIAL METER REPLACEMENT
 ESTILL COUNTY WATER DISTRICT NO. 1
 ESTILL COUNTY, KENTUCKY

Item No.	Description	Quantity	Unit	Unit Price	Total Cost
DIVISION "A" RESIDENTIAL METER REPLACEMENT					
1.	Replace Existing 5/8-Inch x 3/4-Inch Residential Meter with New KAMSTRUP Meter as Specified. Including Locating Meter, Excavation and Clean-Out of Existing Meter Setting, Removal of Existing Meter, Installation of New AMR Radio Read Meter, Recording GPS Location of the New Radio Read Meter, Delivery of Abandoned Meter to the ECWD Office No. 1, Furnish and Install, Complete.	3,000	Each	\$_____	\$_____
2.	Install New accoustic leak detector Adaptor to Existing Iperl Meter as Specified. Including Locating Meter, Excavation and Clean-Out of Existing Meter Setting, Installation of New AMR Radio Adaptor, Recording GPS Location of the New Radio Read Meter, Furnish and Install, Complete.	700	Each	\$_____	\$_____
3.	Remove Existing Meter and Install Stop in Existing Setter on Inactive Services Identified by the ECWD No. 1. Including Locating Meter, Excavation/Clean-Out of Existing Meter Setting, Removal of Existing Meter, Installation of Stop on Existing Meter Setter, Recording GPS Location of the New Radio Read Meter, Delivery of Abandoned Meter to ECWD No. 1 Office. Furnish and Install, Complete.	100	Each	\$_____	\$_____
4.	Provide and Install Mobile Meter Reading Equipment, Including Handheld Programmer, Meter Reading Software with 5000 Unit Capacity, Technical Training and Assistance to Integrate New Radeon Read Meters and Existing Billing Software, Leak Sensor Software, Furnish and Install, Complete.	1	L.S.	\$_____	\$_____
	SUBTOTAL DIVISION "A"				\$_____
DIVISION "B" MISCELLANEOUS					
1.	Crushed Stone on Order of the Engineer, Furnish and Install, Complete.	250	Tons	\$_____	\$_____
2.	Bituminous Surface, Furnish and Install Complete.	100	Tons	\$_____	\$_____
	SUBTOTAL DIVISION "D"				\$_____
SUMMARY					
	DIVISION "A" RESIDENTIAL METER REPLACEMENT				\$_____
	DIVISION "B" MISCELLANEOUS				\$_____
	TOTAL BASE BID CONTRACT 371-20-02				<u>\$_____</u>

QUALIFICATIONS STATEMENT

THE INFORMATION SUPPLIED IN THIS DOCUMENT IS CONFIDENTIAL TO THE EXTENT PERMITTED BY LAWS AND REGULATIONS

1. SUBMITTED BY:

Official Name of Firm: _____

Address: _____

2. SUBMITTED TO: _____

3. SUBMITTED FOR: _____

Owner: _____

Project Name: _____

TYPE OF WORK: _____

4. CONTRACTOR'S CONTACT INFORMATION

Contact Person: _____

Title: _____

Phone: _____

Email: _____

5. AFFILIATED COMPANIES:

Name: _____

Address: _____

6. TYPE OF ORGANIZATION:

SOLE PROPRIETORSHIP

Name of Owner: _____

Doing Business As: _____

Date of Organization: _____

PARTNERSHIP

Date of Organization: _____

Type of Partnership: _____

Name of General Partner(s): _____

CORPORATION

State of Organization: _____

Date of Organization: _____

Executive Officers:

- President: _____

- Vice President(s): _____

- Treasurer: _____

- Secretary: _____

LIMITED LIABILITY COMPANY

State of Organization: _____

Date of Organization: _____

Members: _____

JOINT VENTURE

Sate of Organization: _____

Date of Organization: _____

Form of Organization: _____

Joint Venture Managing Partner

- Name: _____

- Address: _____

Joint Venture Managing Partner

- Name: _____

- Address: _____

Joint Venture Managing Partner

- Name: _____

- Address: _____

7. LICENSING

Jurisdiction: _____

Type of License: _____

License Number: _____

Jurisdiction: _____

Type of License: _____

License Number: _____

8. CERTIFICATIONS

CERTIFIED BY:

Disadvantage Business Enterprise: _____

Minority Business Enterprise: _____

Woman Owned Enterprise: _____

Small Business Enterprise: _____

Other (_____): _____

9. BONDING INFORMATION

Bonding Company: _____

Address: _____

Bonding Agent: _____

Address: _____

Contact Name: _____

Phone: _____

Aggregate Bonding Capacity: _____

Available Bonding Capacity as of date of this submittal: _____

10. FINANCIAL INFORMATION

Financial Institution: _____

Address: _____

Account Manager: _____

Phone: _____

INCLUDE AS AN ATTACHMENT AN AUDITED BALANCE SHEET FOR EACH OF THE LAST 3 YEARS ONLY IF REQUIRED BY OWNER SUBSEQUENT TO RECEIPT OF BIDS.

11. CONSTRUCTION EXPERIENCE:

Current Experience:

List on **Schedule A** all uncompleted projects currently under contract (If Joint Venture list each participant's projects separately).

Previous Experience:

List on **Schedule B** all projects completed within the last 5 Years (If Joint Venture list each participant's projects separately).

Has firm listed in Section 1 ever failed to complete a construction contract awarded to it?

YES NO

If YES, attach as an Attachment details including Project Owner's contact information.

Has any Corporate Officer, Partner, Joint Venture participant or Proprietor ever failed to complete a construction contract awarded to them in their name or when acting as a principal of another entity?

YES NO

If YES, attach as an Attachment details including Project Owner's contact information.

Are there any judgments, claims, disputes or litigation pending or outstanding involving the firm listed in Section 1 or any of its officers (or any of its partners if a partnership or any of the individual entities if a joint venture)?

YES NO

If YES, attach as an Attachment details including Project Owner's contact information.

12. SAFETY PROGRAM (ONLY IF REQUESTED AFTER BIDDING):

Name of Contractor's Safety Officer: _____

Include the following as attachments:

Provide as an Attachment Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) OSHA No. 500- Log & Summary of Occupational Injuries & Illnesses for the past 5 years.

Provide as an Attachment Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) list of all OSHA Citations & Notifications of Penalty (monetary or other) received within the last 5 years (indicate disposition as applicable) - IF NONE SO STATE.

Provide as an Attachment Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) list of all safety citations or violations under any state all received within the last 5 years (indicate disposition as applicable) - IF NONE SO STATE.

Provide the following for the firm listed in Section V (and for each proposed Subcontractor furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) the following (attach additional sheets as necessary):

Workers' compensation Experience Modification Rate (EMR) for the last 5 years:

YEAR	_____	EMR	_____
YEAR	_____	EMR	_____
YEAR	_____	EMR	_____
YEAR	_____	EMR	_____
YEAR	_____	EMR	_____

Total Recordable Frequency Rate (TRFR) for the last 5 years:

YEAR	_____	TRFR	_____
YEAR	_____	TRFR	_____
YEAR	_____	TRFR	_____
YEAR	_____	TRFR	_____
YEAR	_____	TRFR	_____

Total number of man-hours worked for the last 5 Years:

YEAR	_____	TOTAL NUMBER OF MAN-HOURS	_____
YEAR	_____	TOTAL NUMBER OF MAN-HOURS	_____
YEAR	_____	TOTAL NUMBER OF MAN-HOURS	_____
YEAR	_____	TOTAL NUMBER OF MAN-HOURS	_____
YEAR	_____	TOTAL NUMBER OF MAN-HOURS	_____

Provide Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) Days Away From Work, Days of Restricted Work Activity or Job Transfer (DART) incidence rate for the particular industry or type of Work to be performed by Contractor and each of Contractor's proposed Subcontractors and Suppliers) for the last 5 years:

YEAR	_____	DART	_____
YEAR	_____	DART	_____
YEAR	_____	DART	_____
YEAR	_____	DART	_____
YEAR	_____	DART	_____

13. EQUIPMENT:

MAJOR EQUIPMENT:

List on **Schedule C** all pieces of major equipment available for use on Owner's Project.

I HEREBY CERTIFY THAT THE INFORMATION SUBMITTED HEREWITH, INCLUDING ANY ATTACHMENTS, IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

NAME OF ORGANIZATION: _____

BY: _____

TITLE: _____

DATED: _____

NOTARY ATTEST:

SUBSCRIBED AND SWORN TO BEFORE ME

THIS _____ DAY OF _____, 20____

NOTARY PUBLIC - STATE OF _____

MY COMMISSION EXPIRES: _____

REQUIRED ATTACHMENTS

1. Schedule A (Current Experience).
2. Schedule B (Previous Experience).
3. Schedule C (Major Equipment).
4. Evidence of authority for individuals listed in Section 7 to bind organization to an agreement.
5. Resumes of officers and key individuals (including Safety Officer) of firm named in Section 1.
6. Additional items as pertinent.
7. Owner may require submittal of the following subsequent to receipt of bids:
 - a. Audited balance sheet for each of the last 3 years for firm named in Section 1.
 - b. Required safety program submittals listed in Section 12.

SCHEDULE A

CURRENT EXPERIENCE

Project Name	Owner's Contact Person	Design Engineer	Contract Date	Type of Work	Status	Cost of Work
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				

SCHEDULE B

PREVIOUS EXPERIENCE (Include ALL Projects Completed within last 5 years)

Project Name	Owner's Contact Person	Design Engineer	Contract Date	Type of Work	Status	Cost of Work
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				

SCHEDULE B

PREVIOUS EXPERIENCE (Include All Projects Completed within last 5 years)

Project Name	Owner's Contact Person	Design Engineer	Contract Date	Type of Work	Status	Cost of Work
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				

**AGREEMENT
BETWEEN OWNER AND CONTRACTOR
FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)**

THIS AGREEMENT is by and between Estill County Water District No. 1 (“Owner”) and
_____ (“Contractor”).

Owner and Contractor hereby agree as follows:

ARTICLE 1 – WORK

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

ARTICLE 2 – THE PROJECT

2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows: Contract 371-20-02, Water System Improvements, Phase 11 – Residential Meter Replacement, Estill County Water District No. 1, Estill County, Kentucky.

ARTICLE 3 – ENGINEER

3.01 The part of the Project that pertains to the Work has been designed by Bell Engineering, 2480 Fortune Drive, Suite 350, Lexington, Kentucky 40513.

3.02 The Owner has retained Bell Engineering (“Engineer”) to act as Owner’s representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

ARTICLE 4 – CONTRACT TIMES

4.02 *Contract Times: Days*

A. The Work will be substantially completed within 120 days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within 150 days after the date when the Contract Times commence to run.

4.03 *Liquidated Damages*

A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):

1. Substantial Completion: Contractor shall pay Owner \$500.00 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially complete.
2. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner \$500.00 for each day that expires after such time until the Work is completed and ready for final payment.
3. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.

4.04 *Special Damages*

- A. In addition to the amount provided for liquidated damages, Contractor shall reimburse Owner for any fines or penalties imposed on Owner as a direct result of the Contractor's failure to attain Substantial Completion according to the Contract Times.

ARTICLE 5 – CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

- A. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

ARTICLE 6 – PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

- A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 *Progress Payments; Retainage*

- A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the 30th day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.
 1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract
 - a. 90 percent of Work completed (with the balance being retainage). If the Work has been 50 percent completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and

- b. 90 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).
- B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 90 percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

6.03 *Final Payment*

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 15.06.

ARTICLE 7 – INTEREST

Not applicable.

ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

- 8.01 In order to induce Owner to enter into this Contract, Contractor makes the following representations:
 - A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.
 - B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 - C. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
 - D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.
 - E. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor's safety precautions and programs.
 - F. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.

- G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- J. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 *Contents*

- A. The Contract Documents consist of the following:
 - 1. This Agreement (pages 1 to ____, inclusive).
 - 2. Performance bond (pages __ to ____, inclusive).
 - 3. Payment bond (pages __ to ____, inclusive).
 - 4. Other bonds.
 - a. _____ (pages __ to ____, inclusive).
 - 5. General Conditions (pages __ to ____, inclusive).
 - 6. Supplementary Conditions (pages __ to ____, inclusive).
 - 7. Specifications as listed in the table of contents of the Project Manual.
 - 8. Drawings (not attached but incorporated by reference) consisting of __ sheets with each sheet bearing the following general title: Contract 371-20-01, Water System Improvements, Estill County Water District No. 1, Estill County, Kentucky.
 - 9. Addenda (numbers __ to ____, inclusive).
 - 10. Exhibits to this Agreement (enumerated as follows):
 - a. Contractor's Bid (pages __ to ____, inclusive).
 - 11. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
 - a. Notice to Proceed.
 - b. Work Change Directives.
 - c. Change Orders.
 - d. Field Orders.
- B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

ARTICLE 10 – MISCELLANEOUS

10.01 *Terms*

- A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 *Assignment of Contract*

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 *Severability*

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 *Contractor's Certifications*

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:
 1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process or in the Contract execution;
 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on _____ (which is the Effective Date of the Contract).

OWNER: ESTILL COUNTY WATER DISTRICT NO. 1

CONTRACTOR:

By: _____

By: _____

Title: _____

Title: _____

(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest: _____

Attest: _____

Title: _____

Title: _____

Address for giving notices:

Address for giving notices:

75 Cedar Grove Road

Irvine, Kentucky 40336

License No.: _____
(where applicable)

(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)

PERFORMANCE BOND

CONTRACTOR *(name and address):*

SURETY *(name and address of principal place of business):*

OWNER *(name and address):*

Estill County Water District No. 1
76 Cedar Grove Road
Irvine, Kentucky 40336

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location):* Contract 371-20-02, Water System Improvements, Phase 11 – Residential Meter Replacement, Estill County Water District No. 1, Estill County, Kentucky

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract):*

Amount:

Modifications to this Bond Form: None See Paragraph 16

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Contractor's Name and Corporate Seal *(seal)*

Surety's Name and Corporate Seal *(seal)*

By: _____
Signature

By: _____
Signature *(attach power of attorney)*

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after:

3.1 The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

3.3 The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed

by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

7.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

7.2 additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

7.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.

10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

11. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

14. Definitions

14.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all

valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

14.2 Construction Contract: The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3 Contractor Default: Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

14.4 Owner Default: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5 Contract Documents: All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

16. Modifications to this Bond are as follows:

PAYMENT BOND

CONTRACTOR *(name and address)*:

SURETY *(name and address of principal place of business)*:

OWNER *(name and address)*:

Estill County Water District No. 1
76 Cedar Grove Road
Irvine, Kentucky 40336

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location)*: Contract 371-20-02, Water System Improvements, Phase 11 – Residential Meter Replacement, Estill County Water District No. 1, Estill County, Kentucky

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:

Amount:

Modifications to this Bond Form: None See Paragraph 18

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

(seal)
Contractor's Name and Corporate Seal

(seal)
Surety's Name and Corporate Seal

By: _____
Signature

By: _____
Signature *(attach power of attorney)*

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond shall arise after the following:
 - 5.1 Claimants who do not have a direct contract with the Contractor,
 - 5.1.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
 - 5.1.2 have sent a Claim to the Surety (at the address described in Paragraph 13).
 - 5.2 Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
 - 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
 - 7.2 Pay or arrange for payment of any undisputed amounts.
 - 7.3 The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.
8. The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

12. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
13. Notice and Claims to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.
14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.
16. **Definitions**
 - 16.1 **Claim:** A written statement by the Claimant including at a minimum:
 1. The name of the Claimant;
 2. The name of the person for whom the labor was done, or materials or equipment furnished;
 3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
 4. A brief description of the labor, materials, or equipment furnished;
 5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
 6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
 7. The total amount of previous payments received by the Claimant; and
 - 16.2 **Claimant:** An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.
 - 16.3 **Construction Contract:** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.
 - 16.4 **Owner Default:** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
 - 16.5 **Contract Documents:** All the documents that comprise the agreement between the Owner and Contractor.
17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.
18. Modifications to this Bond are as follows:
 8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
 3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 5. *Bidder*—An individual or entity that submits a Bid to Owner.
 6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
 7. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
 8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.
 9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
 10. *Claim*—(a) A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein: seeking an adjustment of Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract; or (b) a demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal; or seeking resolution of a contractual issue that Engineer

has declined to address. A demand for money or services by a third party is not a Claim.

11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. (“CERCLA”); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5101 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. (“RCRA”); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
12. *Contract*—The entire and integrated written contract between the Owner and Contractor concerning the Work.
13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents. .
15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
17. *Cost of the Work*—See Paragraph 13.01 for definition.
18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
20. *Engineer*—The individual or entity named as such in the Agreement.
21. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
22. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated in the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, does not establish a Hazardous Environmental Condition.
23. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

24. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
25. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date or by a time prior to Substantial Completion of all the Work.
26. *Notice of Award*—The written notice by Owner to a Bidder of Owner’s acceptance of the Bid.
27. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
28. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
29. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor’s plan to accomplish the Work within the Contract Times.
30. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.
31. *Project Manual*—The written documents prepared for, or made available for, procuring and constructing the Work, including but not limited to the Bidding Documents or other construction procurement documents, geotechnical and existing conditions information, the Agreement, bond forms, General Conditions, Supplementary Conditions, and Specifications. The contents of the Project Manual may be bound in one or more volumes.
32. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative or “RPR” includes any assistants or field staff of Resident Project Representative.
33. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
34. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer’s review of the submittals and the performance of related construction activities.
35. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor’s Applications for Payment.
36. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.

37. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands furnished by Owner which are designated for the use of Contractor.
38. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
39. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
40. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
41. *Successful Bidder*—The Bidder whose Bid the Owner accepts, and to which the Owner makes an award of contract, subject to stated conditions.
42. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
43. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.
44. *Technical Data*—Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (a) subsurface conditions at the Site, or physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) or (b) Hazardous Environmental Conditions at the Site. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then the data contained in boring logs, recorded measurements of subsurface water levels, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical or environmental report prepared for the Project and made available to Contractor are hereby defined as Technical Data with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06.
45. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including but not limited to those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, fiber optic transmissions, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
46. *Unit Price Work*—Work to be paid for on the basis of unit prices.
47. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.

48. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 Terminology

- A. The words and terms discussed in the following paragraphs are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives:*
1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.
- C. *Day:*
1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
- D. *Defective:*
1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents; or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or 15.04).
- E. *Furnish, Install, Perform, Provide:*
1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
 4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.
- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

- A. *Bonds*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Contractor’s Insurance*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract), the certificates and other evidence of insurance required to be provided by Contractor in accordance with Article 6.
- C. *Evidence of Owner’s Insurance*: After receipt of the executed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or otherwise), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

- A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise specifically required by the Contract Documents), Contractor shall submit to Engineer for timely review:
 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
 2. a preliminary Schedule of Submittals; and

3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.03.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
 2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
 3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.

2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or digital format, either directly, or through access to a secure Project website.
- B. If the Contract does not establish protocols for electronic or digital transmittals, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. When transmitting items in electronic media or digital format, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the recipient's use of software application packages, operating systems, or

computer hardware differing from those used in the drafting or transmittal of the items, or from those established in applicable transmittal protocols.

ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic or digital versions of the Contract Documents (including any printed copies derived from such electronic or digital versions) and the printed record version, the printed record version shall govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.

3.02 *Reference Standards*

- A. Standards Specifications, Codes, Laws and Regulations
 - 1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
 - 2. No provision of any such standard specification, manual, reference standard, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

- A. *Reporting Discrepancies:*
 - 1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict,

error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.

2. *Contractor's Review of Contract Documents:* If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies:*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:
 - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work thereunder.
- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly give written notice to Owner and Contractor that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

- A. Contractor and its Subcontractors and Suppliers shall not:
 - 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or
 - 2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Contract, whichever date is earlier.

4.02 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to such date.

4.03 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 11.
- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times and Contract Price. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
1. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 2. abnormal weather conditions;
 3. acts or failures to act of utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 8); and
 4. acts of war or terrorism.
- D. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5.
- E. Paragraph 8.03 governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.
- F. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor.

- G. Contractor must submit any Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within 30 days of the commencement of the delaying, disrupting, or interfering event.

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.
- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 *Use of Site and Other Areas*

- A. *Limitation on Use of Site and Other Areas:*
 - 1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
 - 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.12, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part

by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.
- C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. *Loading of Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

- A. *Reports and Drawings:* The Supplementary Conditions identify:
 - 1. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site;
 - 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities); and
 - 3. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
 - 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
 - 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
 - 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.04 *Differing Subsurface or Physical Conditions*

- A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site either:
1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate; or
 2. is of such a nature as to require a change in the Drawings or Specifications; or
 3. differs materially from that shown or indicated in the Contract Documents; or
 4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A above; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Possible Price and Times Adjustments:*
1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, or both, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
 - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,

- c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
 - a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise; or
 - b. the existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
 - c. Contractor failed to give the written notice as required by Paragraph 5.04.A.
3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or adjacent to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:
 1. Owner and Engineer do not warrant or guarantee the accuracy or completeness of any such information or data provided by others; and
 2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents as being at the Site;
 - c. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 - d. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, then Contractor shall, promptly after

becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer.

- C. *Engineer's Review:* Engineer will promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the Underground Facility in question; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and advise Owner in writing of Engineer's findings, conclusions, and recommendations. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question, addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Possible Price and Times Adjustments:*
 - 1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any existing Underground Facility at the Site that was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Underground Facility in question;
 - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
 - c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times; and
 - d. Contractor gave the notice required in Paragraph 5.05.B.
 - 2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
 - 3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

5.06 *Hazardous Environmental Conditions at Site*

- A. *Reports and Drawings*: The Supplementary Conditions identify:
1. those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
 2. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.

- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off.
- H. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.
- I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6 – BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of all of Contractor's obligations under the Contract. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the Supplementary Conditions, or other specific provisions of the Contract. Contractor shall also furnish such other bonds as are required by the Supplementary Conditions or other specific provisions of the Contract.
- B. All bonds shall be in the form prescribed by the Contract except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.
- C. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.
- D. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the bond and surety requirements above.
- E. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.
- F. Upon request, Owner shall provide a copy of the payment bond to any Subcontractor, Supplier, or other person or entity claiming to have furnished labor or materials used in the performance of the Work.

6.02 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this Article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Contractor shall deliver to Owner, with copies to each named insured and additional insured (as identified in this Article, in the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Contractor has obtained and is

maintaining the policies, coverages, and endorsements required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

- D. Owner shall deliver to Contractor, with copies to each named insured and additional insured (as identified in this Article, the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Owner has obtained and is maintaining the policies, coverages, and endorsements required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
- E. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, shall not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- F. If either party does not purchase or maintain all of the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
- G. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 16.
- H. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price shall be adjusted accordingly.
- I. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests.
- J. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner and other individuals and entities in the Contract.

6.03 *Contractor's Insurance*

- A. *Workers' Compensation:* Contractor shall purchase and maintain workers' compensation and employer's liability insurance for:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts.
 - 2. United States Longshoreman and Harbor Workers' Compensation Act and Jones Act coverage (if applicable).
 - 3. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees (by stop-gap endorsement in monopolist worker's compensation states).

4. Foreign voluntary worker compensation (if applicable).
- B. *Commercial General Liability—Claims Covered:* Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against:
1. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees.
 2. claims for damages insured by reasonably available personal injury liability coverage.
 3. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.
- C. *Commercial General Liability—Form and Content:* Contractor's commercial liability policy shall be written on a 1996 (or later) ISO commercial general liability form (occurrence form) and include the following coverages and endorsements:
1. Products and completed operations coverage:
 - a. Such insurance shall be maintained for three years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
 2. Blanket contractual liability coverage, to the extent permitted by law, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.
 3. Broad form property damage coverage.
 4. Severability of interest.
 5. Underground, explosion, and collapse coverage.
 6. Personal injury coverage.
 7. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together); or CG 20 10 07 04 and CG 20 37 07 04 (together); or their equivalent.
 8. For design professional additional insureds, ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.
- D. *Automobile liability:* Contractor shall purchase and maintain automobile liability insurance against claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy shall be written on an occurrence basis.
- E. *Umbrella or excess liability:* Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the paragraphs above. Subject to industry-standard exclusions, the coverage afforded shall follow form as to each and every one of the underlying policies.
- F. *Contractor's pollution liability insurance:* Contractor shall purchase and maintain a policy covering third-party injury and property damage claims, including clean-up costs, as a result

of pollution conditions arising from Contractor's operations and completed operations. This insurance shall be maintained for no less than three years after final completion.

- G. *Additional insureds*: The Contractor's commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner and Engineer, and any individuals or entities identified in the Supplementary Conditions; include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds; and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis. Contractor shall obtain all necessary endorsements to support these requirements.
- H. *Contractor's professional liability insurance*: If Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which the insured party is legally liable. It shall be maintained throughout the duration of the Contract and for a minimum of two years after Substantial Completion. If such professional design services are performed by a Subcontractor, and not by Contractor itself, then the requirements of this paragraph may be satisfied through the purchasing and maintenance of such insurance by such Subcontractor.
- I. *General provisions*: The policies of insurance required by this Paragraph 6.03 shall:
1. include at least the specific coverages provided in this Article.
 2. be written for not less than the limits of liability provided in this Article and in the Supplementary Conditions, or required by Laws or Regulations, whichever is greater.
 3. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 10 days prior written notice has been given to Contractor. Within three days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner, Engineer, and each other insured under the policy.
 4. remain in effect at least until final payment (and longer if expressly required in this Article) and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract Documents.
 5. be appropriate for the Work being performed and provide protection from claims that may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable.
- J. The coverage requirements for specific policies of insurance must be met by such policies, and not by reference to excess or umbrella insurance provided in other policies.

6.04 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 6.03, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.
- B. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

6.05 *Property Insurance*

- A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the full insurable replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:
 - 1. include the Owner and Contractor as named insureds, and all Subcontractors, and any individuals or entities required by the Supplementary Conditions to be insured under such builder's risk policy, as insureds or named insureds. For purposes of the remainder of this Paragraph 6.05, Paragraphs 6.06 and 6.07, and any corresponding Supplementary Conditions, the parties required to be insured shall collectively be referred to as "insureds."
 - 2. be written on a builder's risk "all risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire; lightning; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; water damage (other than that caused by flood); and such other perils or causes of loss as may be specifically required by the Supplementary Conditions. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise, such insurance may be provided through other insurance policies acceptable to Owner and Contractor.
 - 3. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.
 - 4. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects).

5. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).
 6. extend to cover damage or loss to insured property while in transit.
 7. allow for partial occupation or use of the Work by Owner, such that those portions of the Work that are not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
 8. allow for the waiver of the insurer's subrogation rights, as set forth below.
 9. provide primary coverage for all losses and damages caused by the perils or causes of loss covered.
 10. not include a co-insurance clause.
 11. include an exception for ensuing losses from physical damage or loss with respect to any defective workmanship, design, or materials exclusions.
 12. include performance/hot testing and start-up.
 13. be maintained in effect, subject to the provisions herein regarding Substantial Completion and partial occupancy or use of the Work by Owner, until the Work is complete.
- B. *Notice of Cancellation or Change:* All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 6.05 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured.
- C. *Deductibles:* The purchaser of any required builder's risk or property insurance shall pay for costs not covered because of the application of a policy deductible.
- D. *Partial Occupancy or Use by Owner:* If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide notice of such occupancy or use to the builder's risk insurer. The builder's risk insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy; rather, those portions of the Work that are occupied or used by Owner may come off the builder's risk policy, while those portions of the Work not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
- E. *Additional Insurance:* If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.05, it may do so at Contractor's expense.
- F. *Insurance of Other Property:* If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, such as tools, construction equipment, or other personal property owned by Contractor, a Subcontractor, or an employee of Contractor or a Subcontractor, then the entity or individual owning such property item will be responsible for deciding whether to insure it, and if so in what amount.

6.06 *Waiver of Rights*

- A. All policies purchased in accordance with Paragraph 6.05, expressly including the builder's risk policy, shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all Subcontractors, all individuals or entities identified in the Supplementary Conditions as insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for:
 - 1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
 - 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 6.06.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them.
- D. Contractor shall be responsible for assuring that the agreement under which a Subcontractor performs a portion of the Work contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by builder's risk insurance and any other property insurance applicable to the Work.

6.07 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of insurance required by Paragraph 6.05 will be adjusted and settled with the named insured that purchased the

policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.

- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.05 shall distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the money so received applied on account thereof, and the Work and the cost thereof covered by Change Order, if needed.

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

7.01 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.03 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and

guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.04 "Or Equals"

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment, or items from other proposed suppliers under the circumstances described below.
 - 1. If Engineer in its sole discretion determines that an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer shall deem it an "or equal" item. For the purposes of this paragraph, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3) it has a proven record of performance and availability of responsive service; and
 - 4) it is not objectionable to Owner.
 - b. Contractor certifies that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor's Expense:* Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal", which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.

- D. *Effect of Engineer's Determination:* Neither approval nor denial of an "or-equal" request shall result in any change in Contract Price. The Engineer's denial of an "or-equal" request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents.
- E. *Treatment as a Substitution Request:* If Engineer determines that an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer considered the proposed item as a substitute pursuant to Paragraph 7.05.

7.05 *Substitutes*

- A. Unless the specification or description of an item of material or equipment required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment under the circumstances described below. To the extent possible such requests shall be made before commencement of related construction at the Site.
 - 1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of material or equipment from anyone other than Contractor.
 - 2. The requirements for review by Engineer will be as set forth in Paragraph 7.05.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.
 - 3. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - a. shall certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design,
 - 2) be similar in substance to that specified, and
 - 3) be suited to the same use as that specified.
 - b. will state:
 - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times,
 - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
 - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
 - c. will identify:
 - 1) all variations of the proposed substitute item from that specified, and

- 2) available engineering, sales, maintenance, repair, and replacement services.
 - d. shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
 - C. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
 - D. *Reimbursement of Engineer's Cost:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
 - E. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
 - F. *Effect of Engineer's Determination:* If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.05.D, by timely submittal of a Change Proposal.

7.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner.
- B. Contractor shall retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable, during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within five days.

- E. Owner may require the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors, Suppliers, or other individuals or entities for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor, Supplier, or other individual or entity so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity.
- F. If Owner requires the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, or both, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.
- H. On a monthly basis Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions.
- J. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors, Suppliers, and all other individuals or entities performing or furnishing any of the Work.
- K. Contractor shall restrict all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed herein.
- L. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- M. All Work performed for Contractor by a Subcontractor or Supplier shall be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer.
- N. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by the particular Subcontractor or Supplier.

- O. Nothing in the Contract Documents:
1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier, or other individual or entity; nor
 2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

7.07 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

7.08 *Permits*

- A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work

7.09 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

7.10 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It shall not be Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Owner or Contractor may give notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.11 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

7.12 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
 - 1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify Owner; the owners of adjacent property, Underground Facilities, and other utilities; and other contractors and utility owners performing work at or adjacent to the Site, when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
 - C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
 - D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
 - E. All damage, injury, or loss to any property referred to in Paragraph 7.12.A.2 or 7.12.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
 - F. Contractor's duties and responsibilities for safety and protection shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 15.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).
 - G. Contractor's duties and responsibilities for safety and protection shall resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.13 *Safety Representative*

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

7.14 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or

exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

7.16 *Shop Drawings, Samples, and Other Submittals*

A. *Shop Drawing and Sample Submittal Requirements:*

1. Before submitting a Shop Drawing or Sample, Contractor shall have:
 - a. reviewed and coordinated the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - c. determined and verified the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that submittal, and that Contractor approves the submittal.
3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be set forth in a written communication separate from the Shop Drawings or Sample submittal; and, in addition, in the case of Shop Drawings by a specific notation made on each Shop Drawing submitted to Engineer for review and approval of each such variation.

- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals. Each submittal will be identified as Engineer may require.

1. *Shop Drawings:*

- a. Contractor shall submit the number of copies required in the Specifications.
- b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to

provide and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.D.

2. *Samples:*
 - a. Contractor shall submit the number of Samples required in the Specifications.
 - b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 7.16.D.
3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. *Other Submittals:* Contractor shall submit other submittals to Engineer in accordance with the accepted Schedule of Submittals, and pursuant to the applicable terms of the Specifications.
- D. *Engineer's Review:*
 1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
 2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs incident thereto.
 3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
 4. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order.
 5. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 7.16.A and B.
 6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
 7. Neither Engineer's receipt, review, acceptance or approval of a Shop Drawing, Sample, or other submittal shall result in such item becoming a Contract Document.

8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.D.4.

E. *Resubmittal Procedures:*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.
2. Contractor shall furnish required submittals with sufficient information and accuracy to obtain required approval of an item with no more than three submittals. Engineer will record Engineer's time for reviewing a fourth or subsequent submittal of a Shop Drawings, sample, or other item requiring approval, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges.
3. If Contractor requests a change of a previously approved submittal item, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

7.17 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
 1. observations by Engineer;
 2. recommendation by Engineer or payment by Owner of any progress or final payment;
 3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 4. use or occupancy of the Work or any part thereof by Owner;
 5. any review and approval of a Shop Drawing or Sample submittal;
 6. the issuance of a notice of acceptability by Engineer;
 7. any inspection, test, or approval by others; or
 8. any correction of defective Work by Owner.

- D. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract shall govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Contractor under Paragraph 7.18.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
 - 1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
 - 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

7.19 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable Laws and Regulations.
- B. If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, and other submittals prepared by such professional. Shop

Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this paragraph, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 7.16.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria specified by Owner or Engineer.

ARTICLE 8 – OTHER WORK AT THE SITE

8.01 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any utility work at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford each other contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.
- D. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 8, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

8.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:
 - 1. the identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
 - 2. an itemization of the specific matters to be covered by such authority and responsibility; and
 - 3. the extent of such authority and responsibilities.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

- A. If, in the course of performing other work at or adjacent to the Site for Owner, the Owner's employees, any other contractor working for Owner, or any utility owner for whom the Owner is responsible causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment shall take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract. When applicable, any such equitable adjustment in Contract Price shall be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due to Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this paragraph.
- C. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due to Contractor.

- D. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9 – OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

9.02 *Replacement of Engineer*

- A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents shall be that of the former Engineer.

9.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

9.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

9.05 *Lands and Easements; Reports, Tests, and Drawings*

- A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
- B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
- C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *Limitations on Owner's Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

9.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
- B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

10.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.08. Particularly, but without limitation, during

or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 10.08. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent, or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

10.04 *Rejecting Defective Work*

- A. Engineer has the authority to reject Work in accordance with Article 14.

10.05 *Shop Drawings, Change Orders and Payments*

- A. Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, are set forth in Paragraph 7.16.
- B. Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, are set forth in Paragraph 7.19.
- C. Engineer's authority as to Change Orders is set forth in Article 11.
- D. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.06 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.07 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.08 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 15.06.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 10.08 shall also apply to the Resident Project Representative, if any.

10.09 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs (if any) of which Engineer has been informed.

ARTICLE 11 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK

11.01 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
 - 1. *Change Orders:*
 - a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times. Cost, pricing, and certification for change orders exceeding \$100,000.00 is required by DOW Procurement Guidance for Construction and Equipment Contracts.
 - b. Owner and Contractor may amend those terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, without the recommendation of the Engineer. Such an amendment shall be set forth in a Change Order.
 - 2. *Work Change Directives:* A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract

Documents governing adjustments, expressly including Paragraph 11.04 regarding change of Contract Price. Contractor must submit any Change Proposal seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the completion of the Work set out in the Work Change Directive. Owner must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.

3. *Field Orders*: Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.02 *Owner-Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Such changes shall be supported by Engineer's recommendation, to the extent the change involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters. Such changes may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work shall be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph shall obligate Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.03 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.

11.04 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment of Contract Price shall comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:
 1. where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03); or
 2. where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.04.C.2); or

3. where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.04.C).
- C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit shall be determined as follows:
1. a mutually acceptable fixed fee; or
 2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 13.01.B.3, the Contractor's fee shall be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.04.C.2.a and 11.04.C.2.b is that the Contractor's fee shall be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.A.1 and 13.01.A.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of five percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted work the maximum total fee to be paid by Owner shall be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the work;
 - d. no fee shall be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
 - e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
 - f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 11.04.C.2.a through 11.04.C.2.e, inclusive.

11.05 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment in the Contract Times shall comply with the provisions of Article 12.
- B. An adjustment of the Contract Times shall be subject to the limitations set forth in Paragraph 4.05, concerning delays in Contractor's progress.

11.06 *Change Proposals*

- A. Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; appeal an initial decision by Engineer concerning the

requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; contest a set-off against payment due; or seek other relief under the Contract. The Change Proposal shall specify any proposed change in Contract Times or Contract Price, or both, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents.

1. *Procedures:* Contractor shall submit each Change Proposal to Engineer promptly (but in no event later than 30 days) after the start of the event giving rise thereto, or after such initial decision. The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal. The supporting data shall be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event. Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal.
 2. *Engineer's Action:* Engineer will review each Change Proposal and, within 30 days after receipt of the Contractor's supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions shall be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.
 3. *Binding Decision:* Engineer's decision will be final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- B. *Resolution of Certain Change Proposals:* If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice shall be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

11.07 Execution of Change Orders

- A. Owner and Contractor shall execute appropriate Change Orders covering:
1. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
 2. changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
 3. changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.02, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and

4. changes in the Contract Price or Contract Times, or other changes, which embody the substance of any final and binding results under Paragraph 11.06, or Article 12.
- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of this Paragraph 11.07, it shall be deemed to be of full force and effect, as if fully executed.

11.08 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

ARTICLE 12 – CLAIMS

12.01 *Claims*

- A. *Claims Process:* The following disputes between Owner and Contractor shall be submitted to the Claims process set forth in this Article:
1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents; and
 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters.
- B. *Submittal of Claim:* The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim shall rest with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, or both, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.
- C. *Review and Resolution:* The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim shall be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation:*
1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate shall stay the Claim submittal and response process.
 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process shall resume as of the date of the termination. If

the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process shall resume as of the date of the conclusion of the mediation, as determined by the mediator.

3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action shall be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim shall be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim shall be incorporated in a Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 Cost of the Work

- A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
 1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or
 2. To determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included*: Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 13.01.C, and shall include only the following items:
 1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and

retirement benefits, bonuses, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof, whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with

Paragraph 6.05), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

C. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
- 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
- 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
- 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee:* When the Work as a whole is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 11.04.C.

E. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

13.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

- B. *Cash Allowances*: Contractor agrees that:
 - 1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 - 2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.
- C. *Contingency Allowance*: Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

13.03 *Unit Price Work*

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of the following paragraph.
- E. Within 30 days of Engineer's written decision under the preceding paragraph, Contractor may submit a Change Proposal, or Owner may file a Claim, seeking an adjustment in the Contract Price if:
 - 1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement;
 - 2. there is no corresponding adjustment with respect to any other item of Work; and
 - 3. Contractor believes that it is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price, and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 14 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

14.01 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

14.02 *Tests, Inspections, and Approvals*

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work shall be governed by the provisions of Paragraph 14.05.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
 - 1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
 - 2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
 - 3. by manufacturers of equipment furnished under the Contract Documents;
 - 4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
 - 5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests shall be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering shall be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to

cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

- A. *Contractor's Obligation:* It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority:* Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. *Notice of Defects:* Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. *Correction, or Removal and Replacement:* Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.
- E. *Preservation of Warranties:* When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. *Costs and Damages:* In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs, losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work shall be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

- A. Engineer has the authority to require additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.

- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.
 - 1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
 - 2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.07 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, then Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will

include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 Progress Payments

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *Applications for Payments:*
1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens, and evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
 2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
 3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.
- C. *Review of Applications:*
1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
 2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

- a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
 4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
 - a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
 5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.
 6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
 - a. the Work is defective, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or

- e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due:*

- 1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

E. *Reductions in Payment by Owner:*

- 1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
 - a. claims have been made against Owner on account of Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;
 - b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
 - c. Contractor has failed to provide and maintain required bonds or insurance;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
 - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
 - f. the Work is defective, requiring correction or replacement;
 - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - h. the Contract Price has been reduced by Change Orders;
 - i. an event that would constitute a default by Contractor and therefore justify a termination for cause has occurred;
 - j. liquidated damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
 - k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
 - l. there are other items entitling Owner to a set off against the amount recommended.
- 2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount

remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed shall be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.

3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 15.01.C.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than seven days after the time of payment by Owner.

15.03 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which shall fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.

- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.
- F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
 - 1. At any time Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through E for that part of the Work.
 - 2. At any time Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
 - 3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
 - 4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.05 regarding builder's risk or other property insurance.

15.05 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 *Final Payment*

- A. *Application for Payment:*
 - 1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of

inspection, annotated record documents (as provided in Paragraph 7.11), and other documents, Contractor may make application for final payment.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;
 - b. consent of the surety, if any, to final payment;
 - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.
 - d. a list of all disputes that Contractor believes are unsettled; and
 - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

B. *Engineer's Review of Application and Acceptance:*

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the Application for Payment to Owner for payment. Such recommendation shall account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to the provisions of Paragraph 15.07. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment.

D. *Payment Becomes Due:* Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer (less any further sum Owner is entitled to set off against Engineer's recommendation,

including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

15.07 *Waiver of Claims*

- A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor. Owner expressly reserves claims and rights arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 15.05, from Contractor's failure to comply with the Contract Documents or the terms of any special guarantees specified therein, from outstanding Claims by Owner, or from Contractor's continuing obligations under the Contract Documents.
- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted or appealed under the provisions of Article 17.

15.08 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents, or by any specific provision of the Contract Documents), any Work is found to be defective, or if the repair of any damages to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. correct the defective repairs to the Site or such other adjacent areas;
 - 2. correct such defective Work;
 - 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
 - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others).
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

- E. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension. Any Change Proposal seeking such adjustments shall be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
 - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule);
 - 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
 - 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
 - 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) ten days written notice that Owner is considering a declaration that Contractor is in default and termination of the contract, Owner may proceed to:
 - 1. declare Contractor to be in default, and give Contractor (and any surety) notice that the Contract is terminated; and
 - 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within seven days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses,

and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

- F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond shall govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate For Convenience*

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
 - 3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid on account of loss of anticipated overhead, profits, or revenue, or other economic loss arising out of or resulting from such termination.

16.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for

expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17 – FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

- A. *Disputes Subject to Final Resolution:* The following disputed matters are subject to final resolution under the provisions of this Article:
1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full; and
 2. Disputes between Owner and Contractor concerning the Work or obligations under the Contract Documents, and arising after final payment has been made.
- B. *Final Resolution of Disputes:* For any dispute subject to resolution under this Article, Owner or Contractor may:
1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions; or
 2. agree with the other party to submit the dispute to another dispute resolution process; or
 3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18 – MISCELLANEOUS

18.01 *Giving Notice*

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
1. delivered in person, by a commercial courier service or otherwise, to the individual or to a member of the firm or to an officer of the corporation for which it is intended; or
 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the sender of the notice.

18.02 *Computation of Times*

- A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

18.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

- A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

- A. A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

18.07 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

SUPPLEMENTARY CONDITIONS

Prepared by



Issued and Published Jointly by



ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

SC-1.01 *Defined Terms*

- A. Section 00700, following Article 1.01.A.48, add the following paragraph:
49. Bonds--Bid, performance and payment bonds, and/or other instruments of security.
- B. Section 00700--Article 1.01.A.27, change the first sentence to read: "A written notice by Owner to Contractor (with copy to Engineer) . . ."
- C. Section 00700, following Article 1.01.A.49, add the following paragraph:
50. Partial Utilization--Placing a portion of the Work in service for the purpose for which it is intended (or a related purpose) before reaching completion for all the Work.
- D. Section 00700, following Article 1.01.A.50, add the following paragraph:
51. Special Conditions--Additional instructions to the Bidder/Contractor denoting special construction or other requirements applicable to this Contract.
- E. Section 00700--Article 1.01.31, delete this paragraph in its entirety.
- F. Section 00700--Article 1.01.A.37, revise the paragraph to read "Lands or areas indicated in the Contract Documents as being furnished by the Owner upon which the work is to be performed, including fee simple property, rights-of-way, permanent and temporary construction easements, encroachment permits from governmental and private entities, and such other lands furnished by the Owner which are designated for the use of the Contractor in the completion of the Work."
- G. Section 00700, following Article 1.01.A.51, add the following paragraph:
52. Written Notice--Any notice to any party of this Agreement in writing and considered delivered and the service thereof completed, when posted by certified or registered mail to the said party at his last given address, or delivered in person to said party or his authorized representative on the Work.

ARTICLE 2 – PRELIMINARY MATTERS

SC-2.05 *Initial Acceptance of Schedules*

- A. SC-2.05, delete paragraph A and replace with the following paragraph A:
 - A. Initial Acceptance of Schedules
The Contractor shall, within 5 days after the Work commences on the Contract or another period of time determined by the Owner/Engineer, prepare and submit to the Owner/Engineer:
 1. Three copies of a practicable schedule showing the order in which the Contractor proposes to perform the Work, and the dates on which the Contractor contemplates starting and completing to several salient features of the Work (including acquiring materials, plant, and equipment). The Schedule shall be in the form of a progress chart of suitable scale to indicate appropriately the percentage of Work schedules for completion by any given date during the period. If the Contractor fails to submit a schedule within the time prescribed, the Owner/Engineer may withhold approval of progress payments until the Contractor submits the required schedule.

2. The Contractor shall enter the actual progress on the chart at the end of each month during the construction period and upon doing so shall immediately deliver 3 copies of the annotated schedule to the Owner/Engineer.
3. If the Contractor falls behind the progress schedule, the Contractor shall take such steps as may be necessary to improve the progress. Such steps may include increasing the number of shifts, overtime operations, days of work, amount of construction plant, or all of them, and to submit for review any supplementary schedule or schedules in chart form necessary to demonstrate the manner in which the agreed rate of progress will be regained, all without additional cost to the Owner.
4. Failure of the Contractor to prosecute the Work with sufficient diligence to ensure completion within the time specified in the Contract, or failure of the Contractor to take necessary steps to improve the Contractor's progress should it fall behind the Contractor's schedule shall be grounds for the Owner to terminate the Contractor's right to proceed with the Work, or any separate part of it, in accordance with the terms of the Contract.
5. A schedule of Shop Drawing submissions acceptable to the Engineer as providing a workable arrangement for processing the submissions.
6. A schedule of values for all of the work which will include quantities and prices of items aggregating the Contract Price and will subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. the schedule of values must be acceptable to the Engineer as to form and substance.
7. The Contractor shall also submit a schedule of payments that the Contractor anticipates the Contractor will earn during the course of the Work.

ARTICLE 3 - DOCUMENTS: INTENT, REQUIREMENTS, REUSE

SC-3.01 Intent

- A. Insert the following new paragraphs under Article 3.01:
 - B. The Contract Documents comprise the entire Agreement between the Owner and the Contractor concerning the Work.
 - C. When words which have a well-known technical or trade meaning are used to describe the Work, materials or equipment, such words shall be interpreted in accordance with that meaning.
 - D. In case of conflict between the Drawings and Specifications, the Specifications shall govern unless specifically noted to the contrary in the Drawings. Figure dimensions on Drawings shall govern over scale dimensions, and detailed drawings shall govern over General Drawings.

ARTICLE 4 - COMMENCEMENT AND PROGRESS OF THE WORK

SC-4.01 Commencement of Contract Time; Notice to Proceed

- A. Change the last sentence to read:

“In no event will the Contract Times commence to run later than the one hundred forty-fifth (145) days after the day of Bid opening or the thirtieth (30) day after the Effective Date of the Contract, whichever date is earlier.”

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

SC-5.01 Availability of Lands

- A. Add the following new paragraph under Article 5.01:
 - D. All land required for this Project is presently owned by the Owner or is under condemnation. The limits of ownership are shown on the Drawings. Easements for pipelines have been obtained by the Owner or are under condemnation. Easement widths are shown on the Drawings.

SC-5.03 Subsurface and Physical Conditions

- A. Delete paragraphs 5.03.A and 5.03.B in their entirety and insert the following:
 - A. No reports of explorations or tests of subsurface conditions at or adjacent to the Site, or drawings of physical conditions relating to existing surface or subsurface structures at the Site, are known to Owner.

SC-5.04 Differing Subsurfaces or Conditions

- A. Add the following paragraphs:
 - E. Damages
 - 1. Repair to existing utilities and facilities damaged by the Contractor’s construction forces shall be considered as a part of the Contract covered only by the prices bid for the new construction. The only exceptions to this provision, wherein extra compensation will be authorized, are:
 - a. Relocation of an existing facility due to direct conflict with the new pipeline.
 - b. Relocation (outside of limits of maximum allowable trench widths) of an existing facility presently located within the bounds of maximum allowable trench width, where necessitated for assurance against future damage due to settlement or to permit reasonable access to the new work.
 - 2. Repair to damaged underground utilities, whether reimbursable or otherwise, must meet the requirements of the agency in charge of that particular utility.
 - 3. The intent of this article is to assure compensation to the Contractor for changes in existing utilities reasonably necessary, and at the same time, to protect the Owner against excessive damages due to carelessness of the Contractor’s construction forces.
 - 4. Compensation for extra work covered herein shall be in accordance with other provisions of the general conditions.

SC-5.05 Underground Facilities

- A. Add the following paragraphs:
 - F. The layout of the work shall be the responsibility of the Contractor and shall be subject to checking by the Engineer. The Engineer shall establish base lines and a system of bench levels for the Contractor’s use as required. All instruments, stakes, barricades, traffic signs, flags, and other materials necessary, and personnel needed for establishing and marking lines, grades, and structure location during construction, shall be the responsibility of the Contractor.

The Contractor’s personnel engaged in the layout work described herein and the aides furnished to the Engineer shall be fully capable of performing the duties set out herein and shall be fully qualified for the work required.

2. Water, Gas, and Sewage Force Mains

Trench line stations will be set by the Contractor ahead of trenching. These will be set at least every 100 feet of pipeline and at the locations of all pipeline accessories.

SC-5.06 Delete Paragraphs 5.06.A and 5.06.B in their entirety and insert the following:

- A. No reports or drawings related to Hazardous Environmental Conditions at the Site are known to Owner.
- B. Not Used.

ARTICLE 6 – BONDS AND INSURANCE

SC-6.03 Contractor’s Insurance

- A. Add the following new paragraph immediately after Paragraph 6.03.J:
 - K. The limits of liability for the insurance required by Paragraph 6.03 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

- 1. Workers’ Compensation, and related coverages under Paragraphs 6.03.A.1 and A.2 of the General Conditions:

State:	<u>Statutory</u>
Federal, if applicable (e.g., Longshoreman’s):	<u>Statutory</u>
Jones Act coverage, if applicable:	
Bodily injury by accident, each accident	\$500,000 min
Bodily injury by disease, aggregate	\$500,000 min
Employer’s Liability:	
Bodily injury, each accident	\$500,000 min
Bodily injury by disease, each employee	\$500,000 min
Bodily injury/disease aggregate	\$500,000 min
Foreign voluntary worker compensation	<u>Statutory</u>

- 2. Contractor’s Commercial General Liability under Paragraphs 6.03.B and 6.03.C of the General Conditions:

General Aggregate	\$2,000,000 min
Products - Completed Operations Aggregate	\$2,000,000 min

Personal and Advertising Injury	\$1,000,000 min
Each Occurrence (Bodily Injury and Property Damage)	\$1,000,000 min

3. Automobile Liability under Paragraph 6.03.D. of the General Conditions:

Bodily Injury:	
Each person	\$1,000,000 min)
Each accident	\$1,000,000 min)
Property Damage:	
Each accident	\$1,000,000 min)
or	
Combined Single Limit of	\$1,000,000 min

4. Excess or Umbrella Liability:

Per Occurrence	\$2,000,000 min
General Aggregate	\$2,000,000 min

5. Contractor's Pollution Liability

Each Occurrence	\$ _____
General Aggregate	\$ _____

If box is checked, Contractor is not required to provide Contractor's Pollution Liability insurance under this Contract

6. Additional Insureds: In addition to Owner and Engineer, include as additional insureds the following:

Estill County Water District No. 1 (Client—List)

Bell Engineering

7. Contractor's Professional Liability

Each Claim	\$2,000,000 min
Annual Aggregate	\$2,000,000 min

SC-6.05 Property Insurance

- A. Add the following to the list of requirements in Paragraph 6.05.A, as a numbered item:
14. be subject to a deductible amount of no more than \$ _____ for direct physical loss in any one occurrence.
- B. Add the following new subparagraphs after subparagraph 6.05.A.1:
- a. include the interests of Engineer and any other individuals or entities identified herein, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;
 - b. in addition to the individuals and entities specified, include as additional insureds, the following:
 - 1) Engineer
Bell Engineering
2480 Fortune Drive, Suite 350
Lexington, Kentucky 40509
 - 2) Owner
Estill County Water District No. 1
76 Cedar Grove Road
Irvine, Kentucky 40336
- C. Add the following new subparagraph after subparagraph 6.05.A.1:
- a. In addition to Owner, Contractor, and all Subcontractors, include as insureds the following:
- D. Add the following to the list of items in Paragraph 6.05.A, as numbered items:
15. include for the benefit of Owner loss of profits and soft cost coverage including, without limitation, fixed expenses and debt service for a minimum of 12 months with a maximum deductible of 30 days, plus attorneys fees and engineering or other consultants' fees, if not otherwise covered;
 16. include, in addition to the Contract Price amount, the value of the following equipment and materials to be installed by the Contractor but furnished by the Owner or third parties: None.
 17. include by express endorsement coverage of damage to Contractor's equipment.
- E. Delete Paragraph 6.05.A of the General Conditions and substitute the following in its place:
- Contractor shall provide and maintain installation floater insurance for property under the care, custody, or control of Contractor. The installation floater insurance shall be a broad form or "all risk" policy providing coverage for all materials, supplies, machinery, fixtures, and equipment that will be incorporated into the Work. Coverage under the Contractor's installation floater will include:
1. any loss to property while in transit,
 2. any loss at the Site, and
 3. any loss while in storage, both on-site and off-site.
- Coverage cannot be contingent on an external cause or risk, or limited to property for which the Contractor is legally liable. The Contractor will be solely responsible for any deductible carried under this coverage and claims on materials, supplies, machinery, fixture, and equipment that will

be incorporated into the Work while in transit or in storage. This policy will include a waiver of subrogation applicable to Owner, Contractor, Engineer, all Subcontractors, and the officers, directors, partners, employees, agents and other consultants and subcontractors of any of them.

- F. Delete the first sentence of Paragraph 6.05.A and insert the following sentence in its place:

Owner shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the full insurable replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations).

- G. Add the following subparagraphs to Article SC-6.05:

G. Where work involves railroad rights-of-way, the Contractor shall purchase and maintain at the Contractor's expense for the full contract Period or as required, Railroad Protective Insurance in an amount acceptable to the railroad company.

H. On federally funded projects, the Contractor shall purchase and maintain at the Contractor's expense for the full Contract Period or as required, flood insurance where the Project is in a designated flood hazard area in which federal flood insurance is available.

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

SC-7.01 Supervision and Superintendence

- A. Following paragraph 7.01.B, add a new paragraph C as follows:

C. The Contractor shall at all times be responsible for the conduct and discipline of his employees and/or any Subcontractor or persons employed by the Subcontractor. All workmen must have sufficient knowledge and skill and experience to perform properly the work assigned to them. Any superintendent, foreman, or workman employed by the Contractor or Subcontractor who does not perform his work in a skillful manner or acts in an incompetent, disorderly, or intemperate manner shall, at the written request of the Owner, be discharged immediately.

SC-7.02 Labor; Working Hours

- A. Add the following new subparagraphs immediately after Paragraph 7.02.B:

1. Regular working hours will be Monday to Friday, 7:00 a.m. to 6:00 p.m.
2. Owner's legal holidays are New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, and Christmas Day.

- B. Amend the first and second sentences of Paragraph 7.02.B to state "...all Work at the Site shall be performed during regular working hours. Contractor will not perform Work on weekends or any legal holiday." Contractor will be responsible for compliance with OSHA (P.L. 91-596) and the Contact Work Hours and Safety Standard Act (P.L. 91-54).

- C. Following Paragraph 7.02.B, add a new Paragraph C as follows:

C. Contractor shall be responsible for the cost of any overtime pay or other expense incurred by the Owner for Engineer's services (including those of the Resident Project Representative, if any), Owner's representative, and construction observation services, occasioned by the performance of Work on Saturday, Sunday, any legal holiday, or as overtime on any regular work day. If Contractor is responsible but does not pay, or if the parties are unable to agree as

to the amount owed, then Owner may impose a reasonable set-off against payments due under Article 15.

- D. Add the following new subparagraph immediately after Paragraph 7.02.C:
1. For purposes of administering the foregoing requirement, additional overtime costs are defined as Engineer's standard hourly rates, revised annually.

SC-7.03 Services, Materials, and Equipment

- A. Add the following new paragraphs after paragraph 7.03.C:
- D. Any equipment damaged or which has been subjected to possible damage by reason of inundation, improper storage and/or protection during the construction period of a project, shall be handled only as follows:
1. Be replaced with new equipment.
 2. With approval of the Engineer, be returned to the manufacturer of the equipment, or his authorized repair agency, for inspection and repair provided; however, that such repair after inspection will place the equipment in new condition, and restore the manufacturer's guarantee the same as for new equipment.
 3. This is particularly applicable to, but not limited to, electric motors, motor controls, meter and gauges, and equipment with bearings.
- E. Materials, supplies, and equipment shall be in accordance with samples submitted by the Contractor and accepted by the Engineer.
- F. Materials, supplies, or equipment to be incorporated into the Work shall not be purchased by the Contractor or the Subcontractor subject to a chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller.
- G. The use of second hand and/or salvaged materials will not be permitted unless specifically provided for in the detailed Specifications. Materials and equipment shall be new when turned over to the Owner.
- H. All materials and/or equipment to be removed from existing structures and not specifically specified to be reused shall remain the property of the Owner. Such materials and/or equipment shall be stored by the Contractor on sites as directed by the Owner.

SC-7.12 Safety and Protection

- A. The Contractor is required to inquire with the Owner and obtain a copy of any and all safety programs the Owner has.

SC-7.16 Shop Drawings, Samples, and Other Submittals

- A. Add the following to the existing paragraph 7.16.B.3:
- No portion of the work requiring a shop drawing, working drawing, sample, or catalog data shall be started nor shall any materials be fabricated or installed prior to the review or qualified review of such item. The Owner will not be liable for any expense or delay due to corrections or remedies required to accomplish conformity.

B. Add the following to the existing paragraph 7.16.A.2:

The certification statement shall include the following information: contract name, contract number, submittal number, contractor's name, contractor's signature (original, not initialed), date, and reference to meeting the obligations required under Article 7.16.A.

C. Add the following new paragraphs under Article 7.16.A:

4. Shop drawing submittals shall contain:

- a. The date of submission and the dates of any previous submissions.
- b. The project title, contract number, and submittal number.
- c. Contractor identification.
- d. The names of:
 - (1) Contractor
 - (2) Supplier
 - (3) Manufacturer
- e. Identification of the product, with the Specification section number.
- f. Field dimensions, clearly identified as such.
- g. Relation to adjacent or critical features of the work or material.
- h. Applicable standards, such as ASTM, or federal Specification numbers.
- i. Identification of deviations from Contract Documents.
- j. Identification of revisions on resubmittals.
- k. An 8-inch x 3-inch blank space for Contractor's and Engineer's stamps.
- l. Critical path notation as required.

5. Coordination of Submittal Times

- a. The Contractor shall prepare and transmit each submittal sufficiently in advance of performing the related Work or other applicable activities, or within the time specified in the individual Work section of the Specifications, so that the installation will not be delayed by processing times, including disapproval and resubmittal (if required), coordination with other submittals, testing, purchasing, fabrication, delivery, and similar sequenced activities.

D. Add the following new subparagraph under paragraph 7.16.E:

2. The Contractor shall bear the cost for review and processing of shop drawings after the second resubmittal.

ARTICLE 8 – OTHER WORK AT THE SITE

Not applicable.

ARTICLE 9 – OWNER'S RESPONSIBILITIES

Not applicable.

ARTICLE 10 – ENGINEER’S STATUS DURING CONSTRUCTION

SC-10.01 Owner’s Representative

- A. Add a new paragraph B under existing paragraph 10.01.A:
 - B. Limit of Liability of Public Officials and Owner’s Agents
 - 1. In carrying out any of the provisions of the Contract or in exercising any power or authority to him thereby, there shall be no personal liability upon the Engineer or the Owner’s other authorized assistants or employees, it being understood that in such matters they act as the agents and representatives of the Owner.

SC-10.03 Project Representative

- A. Add the following new paragraphs immediately after Paragraph 10.03.A:
 - B. The Resident Project Representative (RPR) will be Engineer’s representative at the Site, will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding RPR’s actions.
 - 1. General: RPR’s dealings in matters pertaining to the Work in general shall be with Engineer and Contractor. RPR’s dealings with Subcontractors shall only be through or with the full knowledge and approval of Contractor. RPR shall generally communicate with Owner only with the knowledge of and under the direction of Engineer.
 - 2. Schedules: Review the progress schedule, schedule of Shop Drawing and Sample submittals, and Schedule of Values prepared by Contractor and consult with Engineer concerning acceptability.
 - 3. Conferences and Meetings: Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences, and other Project-related meetings, and prepare and circulate copies of minutes thereof.
 - 4. Liaison
 - a. Serve as Engineer’s liaison with Contractor. Working principally through Contractor’s authorized representative or designee, assist in providing information regarding the provisions and intent of the Contract Documents.
 - b. Assist Engineer in serving as Owner’s liaison with Contractor when Contractor’s operations affect Owner’s on-Site operations.
 - c. Assist in obtaining from Owner additional details or information, when required for proper execution of the Work.
 - 5. Interpretation of Contract Documents: Report to Engineer when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by Engineer.
 - 6. Shop Drawings and Samples
 - a. Record date of receipt of Samples and Contractor-approved Shop Drawings.
 - b. Receive Samples which are furnished at the Site by Contractor, and notify Engineer of availability of Samples for examination.

- c. Advise Engineer and Contractor of the commencement of any portion of the Work requiring a Shop Drawing or Sample submittal for which RPR believes that the submittal has not been approved by Engineer.
7. Modifications: Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and report such suggestions, together with RPR's recommendations, if any, to Engineer. Transmit to Contractor in writing decisions as issued by Engineer.
8. Review of Work and Rejection of Defective Work
 - a. Conduct on-Site observations of Contractor's work in progress to assist Engineer in determining if the Work is in general proceeding in accordance with the Contract Documents.
 - b. Report to Engineer whenever RPR believes that any part of Contractor's work in progress is defective, will not produce a completed Project that conforms generally to the Contract Documents, or will imperil the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise Engineer of that part of work in progress that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.
9. Inspections, Tests, and System Startups
 - a. Verify that tests, equipment, and systems start-ups and operating and maintenance training are conducted in the presence of appropriate Owner's personnel, and that Contractor maintains adequate records thereof.
 - b. Observe, record, and report to Engineer appropriate details relative to the test procedures and systems startups.
10. Records
 - a. Prepare a daily report or keep a diary or log book, recording Contractor's hours on the Site, Subcontractors present at the Site, weather conditions, data relative to questions of Change Orders, Field Orders, Work Change Directives, or changed conditions, Site visitors, deliveries of equipment or materials, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to Engineer.
 - b. Record names, addresses, fax numbers, e-mail addresses, web site locations, and telephone numbers of all Contractors, Subcontractors, and major Suppliers of materials and equipment.
 - c. Maintain records for use in preparing Project documentation.
11. Reports
 - a. Furnish to Engineer periodic reports as required of progress of the Work and of Contractor's compliance with the Progress Schedule and schedule of Shop Drawing and Sample submittals.
 - b. Draft and recommend to Engineer proposed Change Orders, Work Change Directives, and Field Orders. Obtain backup material from Contractor.

- c. Immediately notify Engineer of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, force majeure or delay events, damage to property by fire or other causes, or the discovery of any Constituent of Concern or Hazardous Environmental Condition.
 12. Payment Requests: Review applications for payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Engineer, noting particularly the relationship of the payment requested to the Schedule of Values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.
 13. Certificates, Operation and Maintenance Manuals: During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Contract Documents to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to Engineer for review and forwarding to Owner prior to payment for that part of the Work.
 14. Completion
 - a. Participate in Engineer's visits to the Site to determine Substantial Completion, assist in the determination of Substantial Completion and the preparation of a punch list of items to be completed or corrected.
 - b. Participate in Engineer's final visit to the Site to determine completion of the Work, in the company of Owner and Contractor, and prepare a final punch list of items to be completed and deficiencies to be remedied.
 - c. Observe whether all items on the final list have been completed or corrected and make recommendations to Engineer concerning acceptance and issuance of the notice of acceptability of the work.
- C. The RPR shall not:
1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).
 2. Exceed limitations of Engineer's authority as set forth in the Contract Documents.
 3. Undertake any of the responsibilities of Contractor, Subcontractors, or Suppliers.
 4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of Contractor's work.
 5. Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.
 6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
 7. Accept Shop Drawing or Sample submittals from anyone other than Contractor.
 8. Authorize Owner to occupy the Project in whole or in part.

ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

SC-13.01 Cost of the Work

A. Delete Paragraph 13.01.B.5.c in its entirety and insert the following in its place:

c. Construction Equipment and Machinery

- 1) Rentals of all construction equipment and machinery, and the parts thereof, in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
- 2) Costs for equipment and machinery owned by Contractor will be paid at a rate shown for such equipment in the *Green Book* compiled and distributed by Associates Equipment Distributors, 615 West 22nd Street, Oak Brook, Illinois 60523. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs. Costs will include the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, shall cease to accrue when the use thereof is no longer necessary for the changed Work. Equipment or machinery with a value of less than \$1,000 will be considered small tools.

SC-13.03 Unit Price Work

A. Delete Paragraph 13.03.E in its entirety and insert the following in its place:

E. The unit price of an item of Unit Price Work shall be subject to reevaluation and adjustment under the following conditions:

1. if the extended price of a particular item of Unit Price Work amounts to 5 percent or more of the Contract Price (based on estimated quantities at the time of Contract formation) and the variation in the quantity of that particular item of Unit Price Work actually furnished or performed by Contractor differs by more than 25 percent from the estimated quantity of such item indicated in the Agreement; and
2. if there is no corresponding adjustment with respect to any other item of Work; and
3. if Contractor believes that Contractor has incurred additional expense as a result thereof, Contractor may submit a Change Proposal, or if Owner believes that the quantity variation entitles Owner to an adjustment in the unit price, Owner may make a Claim, seeking an adjustment in the Contract Price.

ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

SC-15.01 Progress Payments

A. In Paragraph 15.01.D, change “Ten days” to “Ten business days (or longer if required by the funding agency).”

SC-15.03 Substantial Completion

A. Add the following new subparagraph to Paragraph 15.03.B:

1. If some or all of the Work has been determined not to be at a point of Substantial Completion and will require re-inspection or re-testing by Engineer, the cost of such re-inspection or re-testing, including the cost of time, travel and living expenses, shall be paid by Contractor to Owner. If Contractor does not pay, or the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under Article 15.

SECTION 00820

SPECIAL CONDITIONS

1. DESCRIPTION OF THE WORK; DESIGNATION OF OWNER AND ENGINEER

1.1 These Specifications and the accompanying Drawings describe the work to be done and the materials to be furnished for the construction of Contract 371-20-02, Water System Improvements, Phase 11 – Residential Meter Replacement, Estill County Water District No. 1, Estill County, Kentucky.

1.2 All references to the OWNER in these Specifications, Contract Documents and Drawings shall mean the Estill County Water District No. 1

1.3 All references to the ENGINEER in these Specifications, Contract Documents and Drawings shall mean Bell Engineering.

2. AVAILABLE FUNDS

2.1 The attention of all Bidders is directed to the fact that funds will be made available for the award of this Contract from the following sources:

Loan from Kentucky Infrastructure Authority (KIA) and local funds on hand

3. TIME OF COMPLETION

3.1 The time allowed for completion of this Contract and/or portions thereof is as follows:

150 calendar days

3.2 The time allowed for completion shall begin at midnight, local time, 10 calendar days from the date on which the OWNER, or his authorized representative, the ENGINEER, shall instruct the CONTRACTOR in writing to start work. In case of awarding more than one Contract to a CONTRACTOR, periods of construction are not additive, but will run concurrently. The same applies to divisions within a Contract.

4. LIQUIDATED DAMAGES

4.1 It is understood that time is of the essence of this Contract, and that the OWNER will sustain damages, monetary and otherwise, in the event of delay in completion of the work hereby contracted.

4.2 Therefore, if the said CONTRACTOR shall neglect, fail or refuse to complete the work within the time herein specified, or any proper extension thereof granted by the OWNER, then the CONTRACTOR does hereby agree, as a part consideration for the awarding of this Contract, to pay to the OWNER the amount specified in the Contract, not as a penalty but as liquidated damages for such breach of Contract as hereinafter set forth, for each and every calendar day that the

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CONTRACTOR shall be in default after the time stipulated in the Contract for completing the work.

4.3 The said amount is fixed and agreed upon by and between the CONTRACTOR and the OWNER because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the OWNER would in such event sustain, and said amount is agreed to be the amount of damages which the OWNER would sustain and said amount shall be retained from time to time by the OWNER from current periodical estimates.

4.4 Liquidated damages are fixed at the following amounts per calendar day of overrun beyond the date set for completion or authorized extension thereof for each of the Contracts, divisions, sections, or combinations thereof:

Contract 371-20-02-\$500.00 per calendar day

5. METHOD OF BIDDING

5.1 The work under this Contract shall be bid by unit price and/or lump sum as provided for in the Form of Proposal. This Contract shall be bid in full on the form provided.

5.2 The CONTRACTOR must bid all divisions and all listed unit price items and/or lump sums to complete a Contract. The OWNER will not award the work on divisions or sections within a Contract separately. Each Contract shall be bid separately and in full on the Form of Proposal provided.

5.3 In the case of major equipment item bidding, the CONTRACTOR must bid the base bid item.

5.5 The OWNER reserves the right, should financing considerations require or allow, to delete or add physical units to the unit price items bid. However, the monetary value of such deletions or additions shall not exceed 25 percent of the total amount bid for the Contract without specific approval of the CONTRACTOR.

5.6 If deletions or additions are made, comparison of bids will be made on the basis of portions of the Contract to be awarded and not on the total of the base bid made by the CONTRACTOR.

6. VIDEOTAPING AND PHOTOGRAPHS

6.1 Continuous video recording of preconstruction surface conditions is required for this Contract. All recording and photographs **must be completed and submitted to the ENGINEER for approval before any construction activity will be allowed**. Recording must be performed by persons experienced with this type equipment and must be acceptable to the ENGINEER. Recording and photography equipment used shall utilize digital media that the CONTRACTOR shall transfer to high-capacity USB media sticks. The digital recording format shall be a file type that is viewable on any standard Microsoft Windows based computer.

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6.2 The video recording shall be supplemented with continuous audio description of the area traversed. Verbal description of problem areas and items of special interest shall be elaborated upon.

6.3 All locations, streets and/or easements on or in which construction activity will occur shall be recorded for the complete length or boundary of the construction area.

6.4 An index shall be furnished for each USB media stick coordinating the location of the recorded area with the location of the proposed facilities as shown on the Drawings.

6.5 The CONTRACTOR shall be responsible for providing access to all areas to be recorded. All recordings shall be viewed by the ENGINEER before any construction is started. The CONTRACTOR shall provide USB media stick viewing equipment for the duration of the project.

6.6 The cost of preconstruction audio/video recording shall be at no additional cost to the OWNER, the cost being incorporated into the CONTRACTOR's unit price or lump sum bid for the items of work as listed on the Form of Proposal.

6.7 The CONTRACTOR is also urged to document on video any structure within a reasonable distance of his blasting or other work operations for reference and file.

6.8 Digital color print still photographs shall be used to supplement the continuous video recording of preconstruction conditions and/or pertinent construction items.

6.8.1 All photographs shall be compiled and saved onto a standard high-capacity USB media stick, along with an index coordinating the pictures with the location of the work shown on the drawings. Individual pictures shall be a minimum of 3 MB each.

6.9 Any photographs or audio/video recordings required by governing agencies will be the responsibility of the OWNER.

6.10 The CONTRACTOR shall submit to the ENGINEER a number of copies of the documentation media in accordance with the Contract Documents.

6.10.1 Video recordings or photography on high-capacity USB media sticks shall be submitted in a quantity greater than or equal to 4 copies.

7. MINIMUM WAGE RATES

7.1 The prevailing minimum wage rates will apply and will be incorporated by addendum.

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8. SALES AND USE TAX

8.1 See Specification Section 00700, Article 7.09, for instructions.

9. EXCAVATION

9.1 It is to be specifically noted that no separate payment for solid rock excavation will be made under this Contract. All excavation shall be considered unclassified, and payment for same included in the appropriate furnishing and laying or other items containing excavation.

10. PERMISSION TO USE PROPERTY OTHER THAN THAT PROVIDED BY OWNER

10.1 Should the CONTRACTOR desire or elect to use, pass over and/or encroach on private property other than that provided by the OWNER, either by fee simple title or right-of-way for a specific purpose, he shall obtain such rights and permission from the individual property owner at his own expense and risk.

11. TIE-IN TO EXISTING WATER MAINS

11.1 As far as possible, the locations and sizes of existing mains are indicated on the Drawings; however, exact locations, pipe materials and sizes cannot be guaranteed. It shall be the responsibility of the CONTRACTOR to locate and uncover existing lines, to which new mains are to be connected, and provide all connecting fittings of the correct size and type for each connection. Payment for the above shall be included in the unit price bid for each item used for the connection as indicated on the Drawings or as specified.

12. EXTRA FILL MATERIAL

12.1 Extra fill material required to complete the finished grading to the line and grade shown on the Drawings shall be obtained by the CONTRACTOR at no extra cost to the OWNER above that included in his lump sum bid.

13. SURFACE RESTORATION RETAINAGE

13.1 In the case of water, gas, air, and/or sewage force mains, there will be retained from each monthly payment estimate from the unit prices for "Furnishing, Trenching, Laying and Backfilling" an amount of 5 percent of each pay request. Upon completion of clean-up work satisfactory to the ENGINEER, this retainage will be paid on the subsequent periodic payment estimate. The retainage and release of same shall be between manhole sections only, and no shorter distances shall be considered.

14. USE OF SPECIALS IN VERTICAL PLANE OPTIONAL

14.1 Where specials (fittings) are shown at change in grade of pipeline, the CONTRACTOR, at his option, may use fittings as shown with blocking, or he may, where possible without exceeding maximum allowable deflection in pipe joints, avoid the use of specials at grade changes, by increasing the trench depth, provided the pipe installed to such extra depth is designed to withstand the extra depth cover and the

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maximum internal pressure specified. No additional compensation will be given for installing the pipe at an extra depth to avoid the use of fittings and thrust blocking.

15. ACCESS TO THE WORK

15.1 The representatives of OWNER, ENGINEER, and Kentucky Division of Water shall have access to the work wherever it is in preparation or progress, and the CONTRACTOR shall provide proper facilities for such access and inspection.

16. ROCK SOUNDING

16.1 Where the approximate location of solid rock is indicated on the Drawings or where it is indicated that sounding did not reveal solid rock, this information is provided for estimating purposes only. While the information is believed to be reasonably correct, there is no guarantee of accuracy or adequacy in determining the actual quantity of solid rock to be removed, the location of solid rock, or the absence thereof.

17. BLASTING AND PREBLAST SURVEYS

17.1 The CONTRACTOR will be held liable for all damages caused by blasting operations required for the construction of this project. All blasting operations shall be performed in accordance with local municipal ordinances and state laws governing such operations, including the storage of explosives.

17.2 Special precautions are required when blasting near natural gas pipelines. The CONTRACTOR shall notify the OWNER of the gas line at or near the area of blasting prior to beginning the blasting operation. The CONTRACTOR shall, with or without assistance from the gas company, develop emergency procedures, planned in advance of each blast.

17.3 Preblast surveys are required on this project for the protection of all parties concerned. These surveys shall be conducted by independent firms specializing in blasting damage control safety.

17.4 Preblast surveys shall be detailed studies of all commercial, industrial, residential or other structures within the areas subject to damage as a result of the blasting operations. The surveys shall include the exterior and/or interior of the building and other improvements on the property such as concrete, brick or bituminous paved drives, parking areas, sidewalks, retaining walls or pillars subject to damage as a result of blasting operations. In rural areas, the surveys shall also include water sources such as wells, springs and dams for farm ponds.

17.5 Individual reports shall be prepared for each parcel of property surveyed within the given radius of the blasting area. Each report shall indicate the type and location of existing structural damage, or the fact that none exists, shown in detail by sketch supplemented by color photo, audio cassette tape supplemented by color photo or video tape, as the CONTRACTOR may elect. Should the video tape method be provided, a video projector shall be furnished for the project duration.

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17.6 Preblast survey reports shall also include recommended blasting methods and techniques to preclude damage.

17.7 One copy of each individual report shall be filed with the OWNER for his file and reference prior to the start of blasting operations.

17.8 The cost for preblast surveys shall be considered incidental to the work and shall be included in the bid price for the work.

END OF SECTION

00820-6

SUPPLEMENTAL GENERAL CONDITIONS

FOR

CLEAN WATER STATE REVOLVING FUND

DRINKING WATER STATE REVOLVING FUND

(Drinking Water and Wastewater)

Project Name: **ECWD No. 1 Water System Improvements,
Phase 11 – Residential Meter Replacement**

Project Number: **371-20-02**

The attached instructions and regulations as listed below shall be incorporated into the Specifications and comprise Special Conditions.

	<u>Attachment No.</u>
SRF Special Provisions	1
KRS Chapter 45A Kentucky Model Procurement Code	2
Equal Employment Opportunity (EEO) Documents:	
Notice of Requirement for Affirmative Action	3
Construction Contract Specifications	4
EEO Goals for Region 4 Economic Areas	5
Check List of EEO Documentation for Bidders	6
Employer Information Report EEO-1 (SF 100)	7
Labor Standards Provisions for Federally Assisted Construction	8
Certifications:	
Debarment, Suspension and Other Responsibility Matters	9
Anti-lobbying	10
Disadvantaged Business Enterprise (DBE) Program	11
Bonds and Insurance	12
Storm Water General Permit	13
Davis-Bacon Wage Rate Requirements	14
American Iron and Steel Requirement	15

SRF SPECIAL PROVISIONS

- (a) Line crossings of all roads and streets shall be done in accordance with the Kentucky Transportation Cabinet requirements as may be set forth in the Special Conditions.
- (b) Construction is to be carried out so as to prevent by-passing of flows during construction unless a schedule has been approved by the State or EPA, whichever is applicable. Siltation and soil erosion must be minimized during construction. All construction projects with surface disturbance of more than 1 acre during the period of construction must have a KPDES Storm Water General Permit. The permit can be found at this [webpage](#).

If you have any questions regarding the completion of this form call the Surface Water Permits Branch at (502) 564-3410.
- (c) Restore disturbed areas to original or better condition.
- (d) Use of Chemicals: All chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant or of other classification, must show approval of either DOW or EPA. Use of all such chemicals and disposal of residues shall be in conformance with instructions on the manufacturer's label.
- (e) The construction of the project, including the letting of contracts in connection therewith, shall conform to the applicable requirements of state, territorial, and local laws and ordinances to the extent that such requirements do not conflict with Federal laws and this subchapter.
- (f) The owner shall provide and maintain competent and adequate supervision and inspection.
- (g) The Kentucky Infrastructure Authority and Kentucky Division of Water shall have access to the site and the project work at all times.
- (h) In the event Archaeological materials (arrowheads, stone tools, stone axes, prehistoric and historic pottery, bottles, foundations, Civil War artifacts, and other types of artifacts) are uncovered during the construction of this project, work is to immediately cease at the location and the Kentucky Heritage Council shall be contacted. The telephone number is (502) 564-7005. Construction shall commence at this location until a written release is received from the Kentucky Heritage Council. Failure to report a find could result in legal action.
- (i) This procurement will be subject to DOW Procurement Guidance including the Davis-Bacon Act.
- (j) Reasonable care shall be taken during construction to avoid damage to vegetation. Ornamental shrubbery and tree branches shall be temporarily tied back, where appropriate, to minimize damage. Trees which receive damage to branches shall be trimmed of those branches to improve the appearance of the tree. Tree trunks receiving damage from equipment shall be treated with a tree dressing.
- (k) No wastewater bypassing will occur during construction unless a schedule has been approved by the Kentucky Division of Water.
- (l) Change orders to the construction contract (if required) must be negotiated pursuant to DOW/KIA Procurement Guidance for Construction and Equipment Contracts.

**KRS CHAPTER 45A
KENTUCKY MODEL PROCUREMENT CODE**

45A.075 Methods of awarding state contracts.

Except as otherwise authorized by law, all state contracts shall be awarded by:

- (1) Competitive sealed bidding, pursuant to KRS 45A.080; or
- (2) Competitive negotiation, pursuant to KRS 45A.085 and 45A.090 or 45A.180; or
- (3) Noncompetitive negotiation, pursuant to KRS 45A.095; or
- (4) Small purchase procedures, pursuant to KRS 45A.100.

Effective: June 24, 2003

History: Amended 2003 Ky. Acts ch. 98, sec. 4, effective June 24, 2003. -- Created 1978 Ky. Acts ch. 110, sec. 16, effective January 1, 1979.

45A.080 Competitive sealed bidding.

(1) Contracts exceeding the amount provided by KRS 45A.100 shall be awarded by competitive sealed bidding, which may include the use of a reverse auction, unless it is determined in writing that this method is not practicable. Factors to be considered in determining whether competitive sealed bidding is not practicable shall include:

- (a) Whether specifications can be prepared that permit award on the basis of best value; and
- (b) The available sources, the time and place of performance, and other relevant circumstances as are appropriate for the use of competitive sealed bidding.

(2) The invitation for bids shall state that awards shall be made on the basis of best value. In any contract which is awarded under an invitation to bid which requires delivery by a specified date and imposes a penalty for late delivery, if the delivery is late, the contractor shall be given the opportunity to present evidence that the cause of the delay was beyond his control. If it is the opinion of the purchasing officer that there is sufficient justification for delayed delivery, the purchasing officer may adjust or waive any penalty that is provided for in the contract.

(3) Adequate public notice of the invitation for bids and any reverse auction shall be given a sufficient time prior to the date set forth for the opening of bids or beginning of the reverse auction. The notice may include posting on the Internet or publication in a newspaper or newspapers of general circulation in the state as determined by the secretary of the Finance and Administration Cabinet not less than seven (7) days before the date set for the opening of the bids and any reverse auction. The provisions of this subsection shall also apply to price contracts and purchase contracts of state institutions of higher education.

(4) Bids shall be opened publicly or entered through a reverse auction at the time and place designated in the invitation for bids. At the time the bids are opened, or the reverse auction has ended, the purchasing agency shall announce the agency's engineer's estimate, if applicable, and make it a part of the agency records pertaining to the letting of any contract for which bids were received. Each written or reverse auction bid, together with the name of the bidder and the agency's engineer's estimate, shall be recorded and be open to public inspection. Electronic bid opening and posting of the required information for public viewing shall satisfy the requirements of this subsection.

(5) The contract shall be awarded by written notice to the responsive and responsible bidder whose bid offers the best value.

(6) Correction or withdrawal of written or reverse auction bids shall be allowed only to the extent permitted by regulations issued by the secretary.

Effective: July 15, 2010

History: Amended 2010 Ky. Acts ch. 63, sec. 3, effective July 15, 2010. -- Amended 2000 Ky. Acts ch. 509, sec. 1, effective July 14, 2000. -- Amended 1998 Ky. Acts ch. 120, sec. 10, effective July 15, 1998. -- Amended 1997 (1st Extra. Sess.) Ky. Acts ch. 4, sec. 27, effective May 30, 1997. -- Amended 1996 Ky. Acts ch. 60, sec. 2, effective July 15, 1996. -- Amended 1994 Ky. Acts ch. 278, sec. 1, effective July 15, 1994. -- Amended 1982 Ky. Acts ch. 282, sec. 1, effective July 15, 1982. -- Amended 1979 (1st Extra. Sess.) Ky. Acts ch. 9, sec. 1, effective February 10, 1979. -- Created 1978 Ky. Acts ch. 110, sec. 17, effective January 1, 1979.

45A.085 Competitive negotiation.

- (1) When, under administrative regulations promulgated by the secretary or under KRS 45A.180, the purchasing officer determines in writing that the use of competitive sealed bidding is not practicable, and except as provided in KRS 45A.095 and 45A.100, a contract may be awarded by competitive negotiation, which may include the use of a reverse auction.
- (2) Adequate public notice of the request for proposals and any reverse auction shall be given in the same manner and circumstances as provided in KRS 45A.080(3).
- (3) Contracts other than contracts for projects utilizing an alternative project delivery method under KRS 45A.180 may be competitively negotiated when it is determined in writing by the purchasing officer that the bids received by competitive sealed bidding either are unreasonable as to all or part of the requirements, or were not independently reached in open competition, and for which each competitive bidder has been notified of the intention to negotiate and is given reasonable opportunity to negotiate.
- (4) Contracts for projects utilizing an alternative project delivery method shall be processed in accordance with KRS 45A.180.
- (5) The request for proposals shall indicate the relative importance of price and other evaluation factors, and any reverse auction procedures.
- (6) Award shall be made to the responsible and responsive offeror whose proposal is determined in writing to be the most advantageous to the Commonwealth, taking into consideration price and the evaluation factors set forth in the request for proposals and the reciprocal preference for resident bidders required under KRS 45A.494.
- (7) Written or oral discussions shall be conducted with all responsible offerors who submit proposals determined in writing to be reasonably susceptible of being selected for award. Discussions shall not disclose any information derived from proposals submitted by competing offerors. Discussions need not be conducted:
 - (a) With respect to prices, where the prices are fixed by law, reverse auction, or administrative regulation, except that consideration shall be given to competitive terms and conditions;
 - (b) Where time of delivery or performance will not permit discussions; or
 - (c) Where it can be clearly demonstrated and documented from the existence of adequate competition or prior experience with the particular supply, service, or construction item, that acceptance of an initial offer without discussion would result in fair and reasonable best value procurement, and the request for proposals notifies all offerors of the possibility that award may be made on the basis of the initial offers.

Effective: July 15, 2010

History: Amended 2010 Ky. Acts ch. 63, sec. 4, effective July 15, 2010; and ch. 162, sec. 8, effective July 15, 2010. -- Amended 2003 Ky. Acts ch. 98, sec. 5, effective June 24, 2003. -- Amended 1997 (1st Extra. Sess.) Ky. Acts ch. 4, sec. 28, effective May 30, 1997. -- Amended 1979 (1st Extra. Sess.) Ky. Acts ch. 9, sec. 2, effective February 10, 1979. -- Created 1978 Ky. Acts ch. 110, sec. 18, effective January 1, 1979.

45A.090 Negotiation after competitive sealed bidding when all bids exceed available funds.

- (1) In the event that all bids submitted pursuant to competitive sealed bidding under KRS 45A.080 result in bid prices in excess of the funds available for the purchase, and the chief purchasing officer determines in writing:
 - (a) That there are no additional funds available from any source so as to permit an award to the responsive and responsible bidder whose bid offers the best value; and
 - (b) The best interest of the state will not permit the delay attendant to a resolicitation under revised specifications, or for revised quantities, under competitive sealed bidding as provided in KRS 45A.080, then a negotiated award may be made as set forth in subsections (2) or (3) of this section.
- (2) Where there is more than one (1) bidder, competitive negotiations pursuant to KRS 45A.085(3) shall be conducted with the three (3) (two (2) if there are only two (2)) bidders determined in writing to be the most responsive and responsible bidders, based on criteria contained in the bid invitation and the reciprocal preference for resident bidders under KRS 45A.494. Such competitive negotiations shall be conducted under the following restrictions:
 - (a) If discussions pertaining to the revision of the specifications or quantities are held with any potential offeror, all other potential offerors shall be afforded an opportunity to take part in such discussions; and

(b) A request for proposals, based upon revised specifications or quantities, shall be issued as promptly as possible, shall provide for an expeditious response to the revised requirements, and shall be awarded upon the basis of best value.

(3) Where, after competitive sealed bidding, it is determined in writing that there is only one (1) responsive and responsible bidder, a noncompetitive negotiated award may be made with such bidder in accordance with KRS 45A.095.

Effective: July 15, 2010

History: Amended 2010 Ky. Acts ch. 162, sec. 9, effective July 15, 2010. -- Amended 2003 Ky. Acts ch. 98, sec. 6, effective June 24, 2003. -- Amended 1997 (1st Extra. Sess.) Ky. Acts ch. 4, sec. 29, effective May 30, 1997. -- Created 1978 Ky. Acts ch. 110, sec. 19, effective January 1, 1979.

45A.095 Noncompetitive negotiation.

(1) A contract may be made by noncompetitive negotiation only for sole source purchases, or when competition is not feasible, as determined by the purchasing officer in writing prior to award, under administrative regulations promulgated by the secretary of the Finance and Administration Cabinet or the governing boards of universities operating under KRS Chapter 164A, or when emergency conditions exist. Sole source is a situation in which there is only one (1) known capable supplier of a commodity or service, occasioned by the unique nature of the requirement, the supplier, or market conditions. Insofar as it is practical, no less than three (3) suppliers shall be solicited to submit written or oral quotations whenever it is determined that competitive sealed bidding is not feasible. Award shall be made to the supplier offering the best value. The names of the suppliers submitting quotations and the date and amount of each quotation shall be placed in the procurement file and maintained as a public record. Competitive bids may not be required:

(a) For contractual services where no competition exists, such as telephone service, electrical energy, and other public utility services;

(b) Where rates are fixed by law or ordinance;

(c) For library books;

(d) For commercial items that are purchased for resale;

(e) For interests in real property;

(f) For visiting speakers, professors, expert witnesses, and performing artists;

(g) For personal service contracts executed pursuant to KRS 45A.690 to 45A.725; and

(h) For agricultural products in accordance with KRS 45A.645.

(2) The chief procurement officer, the head of a using agency, or a person authorized in writing as the designee of either officer may make or authorize others to make emergency procurements when an emergency condition exists.

(3) An emergency condition is a situation which creates a threat or impending threat to public health, welfare, or safety such as may arise by reason of fires, floods, tornadoes, other natural or man-caused disasters, epidemics, riots, enemy attack, sabotage, explosion, power failure, energy shortages, transportation emergencies, equipment failures, state or federal legislative mandates, or similar events. The existence of the emergency condition creates an immediate and serious need for services, construction, or items of tangible personal property that cannot be met through normal procurement methods and the lack of which would seriously threaten the functioning of government, the preservation or protection of property, or the health or safety of any person.

(4) The Finance and Administration Cabinet may negotiate directly for the purchase of contractual services, supplies, materials, or equipment in bona fide emergencies regardless of estimated costs. The existence of the emergency shall be fully explained, in writing, by the head of the agency for which the purchase is to be made. The explanation shall be approved by the secretary of the Finance and Administration Cabinet and shall include the name of the vendor receiving the contract along with any other price quotations and a written determination for selection of the vendor receiving the contract. This information shall be filed with the record of all such purchases and made available to the public. Where practical, standard specifications shall be followed in making emergency purchases. In any event, every effort should be made to effect a competitively established price for purchases made by the state.

Effective: July 15, 2002

History: Amended 2002 Ky. Acts ch. 344, sec. 9, effective July 15, 2002. -- Amended 1997 (1st Extra. Sess.) Ky. Acts ch. 4, sec. 30, effective May 30, 1997. -- Amended 1990 Ky. Acts ch. 496, sec. 4, effective July 13, 1990. -- Created 1978 Ky. Acts ch. 110, sec. 20, effective January 1, 1979

45A.100 Small purchases by state governmental bodies.

(1) Procurements may be made in accordance with small purchase administrative regulations promulgated by the secretary of the Finance and Administration Cabinet, pursuant to KRS Chapter 13A, as follows:

(a) Up to ten thousand dollars (\$10,000) per project for construction and one thousand dollars (\$1,000) for purchases by any state governmental body, except for those state administrative bodies specified in paragraph (b) of this subsection; and

(b) Up to forty thousand dollars (\$40,000) per project for construction or purchases by the Finance and Administration Cabinet, state institutions of higher education, and the legislative branch of government.

(2) Procurement requirements shall not be artificially divided so as to constitute a small purchase under this section. Reverse auctions may be used for small purchase procurements. At least every two (2) years, the secretary shall review the prevailing costs of labor and materials and may make recommendations to the next regular session of the General Assembly for the revision of the then current maximum small purchase amount as justified by intervening changes in the cost of labor and materials.

(3) The secretary of the Finance and Administration Cabinet may grant to any state agency with a justifiable need a delegation of small purchasing authority which exceeds the agency's small purchase limit provided in subsection (1) of this section. Delegations of small purchasing authority shall be granted or revoked by the secretary of the Finance and Administration Cabinet, in accordance with administrative regulations promulgated by the cabinet pursuant to KRS Chapter 13A. These administrative regulations shall establish, at a minimum, the criteria for granting and revoking delegations of small purchasing authority, including the requesting agency's past compliance with purchasing regulations, the level of training of the agency's purchasing staff, and the extent to which the agency utilizes the Kentucky Automated Purchasing System. The administrative regulations may permit the secretary of the Finance and Administration Cabinet to delegate small purchase procurements up to the maximum amount specified in subsection (1)(b) of this section.

Effective: July 15, 2010

History: Amended 2010 Ky. Acts ch. 63, sec. 5, effective July 15, 2010. -- Amended 2002 Ky. Acts ch. 320, sec. 2, effective July 15, 2002. -- Amended 2000 Ky. Acts ch. 225, sec. 1, effective July 14, 2000. -- Amended 1996 Ky. Acts ch. 60, sec. 1, effective July 15, 1996. -- Amended 1994 Ky. Acts ch. 323, sec. 1, effective July 15, 1994. -- Amended 1990 Ky. Acts ch. 496, sec. 5, effective July 13, 1990. -- Amended 1986 Ky. Acts ch. 384, sec. 1, effective July 15, 1986. -- Amended 1984 Ky. Acts ch. 384, sec. 1, effective July 13, 1984. -- Amended 1982 Ky. Acts ch. 282, sec. 2, effective July 15, 1982. -- Amended 1980 Ky. Acts ch. 242, sec. 1, effective July 15, 1980; and ch. 250, sec. 19, effective April 9, 1980. -- Created 1978 Ky. Acts ch. 110, sec. 21, effective January 1, 1979.

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO
ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)**

The following excerpts are from 45 FR 65984 (October 3, 1980):

The minority and female goals apply to Federal and federally assisted construction contractors and subcontractors which have covered contracts. The goals are expressed as a percentage of the total hours worked by such a covered or subcontractor's entire onsite construction workforce, which is working on any construction site within a relevant area. The goal applies to each construction craft and trade in the contractor's entire workforce in the relevant area including those employees working on private non-federally involved projects.

Until further notice, the following goals for minority utilization in each construction craft and trade shall be included in all Federal or federally assisted construction contracts and subcontracts in excess of \$10,000 to be performed in the respective geographic area. The goals are applicable to each nonexempt contractor's total onsite construction workforce, regardless of whether or not part of that workforce is performing work on a Federal, federally assisted or non-federally related project, contract or subcontract.

Construction contractors which are participating in an approved Hometown Plan (see 41 CFR 60-4.5) are required to comply with the goals of the Hometown Plan with regard to construction work they perform in the area covered by the Hometown Plan. With regard to all their other covered construction work, such contractors are required to comply as follows:

- Goals for female participation in each trade.....6.9%
- Goals for minority participation in each trade.....Insert goals for each year
(see Attachment Number 5)

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or Federally assisted) performed in the covered area.

The following excerpts are from 45 FR 65977 (October 3, 1980):

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.

As used in this Notice, and in the contract resulting from this solicitation, the covered area is (insert description of the geographical areas where the contract is to be performed giving the state, country, and city, if any).

**STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY
CONSTRUCTION CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)**

EEO Specifications

Following is the standard language, which must be incorporated into all solicitations for offers and bids on all Federal and Federally assisted construction contracts or subcontracts in excess of \$10,000 to be performed in designated geographical areas:

1. As used in these specifications:
 - (a) Covered Area means the geographical area described in the solicitation from which this contract resulted.
 - (b) Director means Director, Office of Federal Contract Compliance Program, United States Department of Labor, or any person to whom the Director delegates authority;
 - (c) Employer identification number means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
 - (d) Minority includes:
 - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take a good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7-a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.
5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
6. In order for the non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
7. The Contractor shall take specific affirmative action to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensively as the following:
 - a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
 - b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the contractor or its unions have employment opportunities available, and maintain a record of the organizations responses.
 - c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the contractor may have taken.
 - d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligation.
 - e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources complied under 7-b above.

- f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, lay-off, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foreman, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
- i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's workforce.
- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
- l. Conduct, at least annually, an inventory and evaluation of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that EEO policy and the Contractor's obligations under these specifications are being carried out.
- n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
- o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
- p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations, which assist in fulfilling one or more of their affirmative actions obligations (7 a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant may be asserted as fulfilling any one or more of its obligations under 7 a through p of these specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be defense for the Contractor's noncompliance.
9. A single goal for minorities and a separate single goal for women have been established. The contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example: even though the Contractor has achieved its goal for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
10. The Contractor shall not use the goals and timetables for affirmative action standards to discriminate against any person because of race, color, religion, sex or national origin.
11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and executive Order 11246, as amended.
13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation, if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

**EEO GOALS FOR ECONOMIC AREAS IN REGION 4
SOURCE: APPENDIX B-80 IN 45 FR 65984 (OCTOBER 3, 1980)**

Kentucky:

053 Knoxville, TN
 SMSA Counties:
 3840 Knoxville, TN..... 6.6
 TN Anderson; TN Blount; TN Knox; TN Union.
 Non-SMSA Counties 4.5
 KY Bell; KY Harlan; KY Knox; KY Laurel; KY McCreary; KY Wayne; KY
 Whitley; TN Campbell; TN Claiborne; TN Cocke; TN Cumberland; TN Fentress;
 TN Grainger, TN Hamblen; TN Jefferson; TN Loudon; TN Morgan; TN Roane;
 TN Scott; TN Sevier.

054 Nashville, TN:
 SMSA Counties:
 1660 Clarksville - Hopkinsville, TN - KY 18.2
 KY Christian; TN Montgomery.
 5360 Nashville - Davidson, TN..... 15.8
 TN Cheatham, TN Davidson; TN Dickson; TN Robertson; TN Rutherford; TN
 Sumner; TN Williamson; TN Wilson.
 Non-SMSA Counties 12.0
 KY Allen; KY Barren; KY Butler; KY Clinton; KY Cumberland; KY Edmonson;
 KY Logan; KY Metcalfe; KY Monroe; KY Simpson; KY Todd; KY Trigg; KY
 Warren; TN Bedford; TN Cannon; TN Clay; TN Coffee; TN DeKalb; TN Franklin;
 TN Giles; TN Hickman; TN Houston; TN Humphreys; TN Jackson; TN Lawrence;
 TN Lewis; TN Macon; TN Marshall; TN Maury; TN Moore; TN Overton; TN
 Perry; TN Pickett; TN Putnam; TN Smith; TN Stewart; TN Trousdale; TN Van
 Buren; TN Warren; TN Wayne; TN White.

056 Paducah, KY:
 Non-SMSA Counties 5.2
 IL Hardin; IL Massac; IL Pope; KY Ballard; KY Caldwell; KY Calloway. KY
 Carlisle; KY Crittenden; KY Fulton; KY Graves; KY Hickman; KY Livingston;
 KY Lyon. KY McCracken; KY Marshall.

057 Louisville, KY:
 SMSA Counties:
 4520 Louisville, KY-IN 11.2
 IN Clark; IN Floyd; KY Bullitt; KY Jefferson; KY Oldham.
 Non-SMSA Counties 9.6
 IN Crawford; IN Harrison; IN Jefferson; IN Orange; IN Scott; IN Washington; KY
 Breckinridge; KY Grayson; KY Hardin; KY Hart; KY Henry; KY Larue; KY
 Marion; KY Meade; KY Nelson; KY Shelby; KY Spencer; KY Trimble; KY
 Washington.

058 Lexington, KY	
SMSA Counties	
4280 Lexington-Fayette, KY	10.8
KY Bourbon; KY Clark; KY Fayette; KY Jessamine; KY Scott; KY Woodford.	
Non-SMSA Counties	7.0
KY Adair KY Anderson; KY Bath; KY Boyle; KY Breathitt; KY Casey; KY Clay;	
KY Estill; KY Franklin; KY Garrard; KY Green; KY Harrison; KY Jackson; KY	
Knott; KY Lee; KY Leslie; KY Letcher; KY Lincoln; KY Madison; KY Magoffin;	
KY Menifee; KY Mercer; KY Montgomery; KY Morgan. KY Nicholas; KY	
Owsley; KY Perry; KY Powell; KY Pulaski; KY Rockcastle; KY Russell; KY	
Taylor; KY Wolfe.	
059 Huntington, WV:	
SMSA Counties:	
3400 Huntington - Ashland, WV-KY-OH	2.9
KY Boyd; KY Greenup; OH Lawrence; WV Cabell; WV Wayne.	
Non-SMSA Counties	2.5
KY Carter; KY Elliott; KY Floyd; KY Johnson; KY Lawrence; KY Martin; KY	
Pike; KY Rowan; OH Gallia; WV Lincoln; WV Logan; WV Mason; WV Mingo.	
067 Cincinnati, OH:	
SMSA Counties:	
1640 Cincinnati, OH-KY-IN	11.0
IN Dearborn; KY Boone; KY Campbell; KY Kenton; OH Clermont; OH Hamilton;	
OH Warren.	
3200 Hamilton - Middletown, OH	5.0
OH Butler.	
Non-SMSA Counties	9.2
IN Franklin; IN Ohio; IN Ripley; IN Switzerland; KY Bracken; KY Carroll; KY	
Fleming; KY Gallatin; KY Grant; KY Lewis; KY Mason; KY Owen; KY	
Pendleton; KY Robertson; OH Adams; OH Brown; OH Clinton; OH Highland.	
080 Evansville, IN:	
SMSA Counties	
2440 Evansville, IN-KY	4.8
IN Gibson; IN Posey; IN Vanderburgh; IN Warrick; KY Henderson.	
5990 Owensboro, KY	4.7
KY Daviess.	
Non-SMSA Counties	3.5
IL Edwards; IL Gallatin; IL Hamilton; IL Lawrence; IL Saline; IL Wabash; IL	
White; IN Dubois; IN Knox; IN Perry; IN Pike; IN Spencer; KY Hancock; KY	
Hopkins; KY McLean; KY Muhlenberg; KY Ohio; KY Union; KY Webster.	

**CHECK LIST OF EEO DOCUMENTATION FOR BIDDERS ON
GRANT/LOAN CONSTRUCTION (EXECUTIVE ORDER 11246 AS AMENDED)**

The low, responsive responsible bidder must forward the following items, in duplicate, to the owner no later than ten (10) days after bid opening. The owner shall have one (1) copy available for inspection by the Office of Federal Contracts Compliance (OFCC) within 14 days after the bid opening. More information can be found on the [OFCC](#) webpage.

1. Project Number. Project Location. Type of Construction.
2. Proof of registration with the Joint Reporting Commission. (See Attachment Number 7.)
3. Copy of Affirmative Action Plan of contractor. Indicate company official responsible for EEO.
4. List of current construction contracts, with dollar amount. List contracting Federal Agency, if applicable.
5. Statistics concerning company percent workforce, permanent and temporary, by sex, race, trade, handicapped, and age. 40 CFR Part 7.
6. List of employment sources for project in question. If union sources are utilized, indicate percentage of minority membership within the union crafts.
7. Anticipated employment needs for this project, by sex, race and trade, with estimate of minority participation in specific trades.
8. List of subcontractors (name, address and telephone) with dollar amount and duration of subcontract. Subcontractor contracts over \$10,000 must submit items 1- 7. The following information must be provided for all supplier contracts regardless of contract size: name of company, contact person, address, telephone number, dollar value of the contract, and a list of the materials to be supplied to the prime contractor.
9. List of any subcontract work yet to be committed with estimate of dollar amount and duration of contract.
10. Contract Price. Duration of prime contract.
11. DBE Documents - See special instructions regarding use of Minority, and Women Owned, and Small Businesses.

EMPLOYER INFORMATION REPORT EEO-1

Under the direction of the US Equal Employment Opportunity Commission, the Joint Reporting Committee is responsible for the full-length, multi-phase processing of employment statistics collected on the Employer Information Report EEO-1. This report, also termed Standard Form 100, details the sex and race/ethnic composition of an employer's work force by job category.

The Employer Information EEO-1 survey is conducted annually under the authority of Public Law 88-352, Title VII of the Civil Rights Act of 1964, as amended by the Equal Employment Opportunity Act of 1972. All employers with 15 or more employees are covered by Public Law 88-352 and are required to keep employment records as specified by Commission regulations. Based on the number of employees and federal contract activities, certain large employers are required to file an EEO-1 Report on an annual basis.

The EEO-1 Report must be filed by:

- (A) All private employers who are: (1) subject to Title VII of the Civil Rights Act of 1964 (as amended by the Equal Employment Opportunity Act of 1972) with 100 or more employees EXCLUDING State and local governments, primary and secondary school systems, institutions of higher education, Indian tribes and tax-exempt private memberships clubs other than labor organizations; OR (2) subject to Title VII who have fewer than 100 employees if the company is owned or affiliated with another company, or there is centralized ownership, control or management (such as central control of personnel policies and labor relations) so that the group legally constitutes a single enterprise and the entire enterprise employs a total of 100 or more employees.
- (B) All federal contractors (private employers), who: (1) are not exempt as provided for by 41 CFR 60-1.5, (2) have 50 or more employees, and (a) are prime contractors or first-tier subcontractors, and have a contract, subcontract, or purchase order amounting to \$50,000 or more; or (b) serve as depository of Government funds in any amount, or (c) is a financial institution which is an issuing an paying agent for U.S. Savings Bonds and Notes.

Only those establishments located in the District of Columbia and the 50 states are required to submit the EEO-1 Report. No Reports should be filed for establishments in Puerto Rico, the Virgin Islands or other American Protectorates.

When filing for the EEO-1 Report for the first time, go to the [U.S. Equal Employment Opportunity Commission](#) webpage and select "First Time Filers". Fill out the electronic questionnaire to enter your company into Joint Reporting Committee (JRC) system. Once you have completed the registration process, you will be contacted on how to proceed with the EEO-1 Report. If you have previously registered with the JRC, follow their instructions to update your information.

**LABOR STANDARDS PROVISIONS FOR
FEDERALLY ASSISTED CONSTRUCTION**

Labor standards provisions applicable to contracts covering federally financed and assisted construction (29 CFR 5.5, Contract Provisions and Related Matters) that apply to EPA State Revolving Fund loans are:

(a)(4)(iii) *Equal employment opportunity.* The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

(a)(5) *Compliance with Copeland Act requirements.* The contractor shall comply with the requirements of 29 CFR Part 3, which are incorporated by reference in this contract.

(a)(6) *Subcontracts.* The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5 (a)(1) through (10) and such other clauses as the U.S. Environmental Protection Agency may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(a)(7) *Contract termination: debarment.* A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(b) *Contractor Work Hours and Safety Standards Act.* The Administrator, EPA, shall cause or require the contracting officer to insert the following clauses set forth in paragraphs (b)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by §5.5(a) or §4.6 of part 4 of this title. As used in this paragraph, the terms *laborers* and *mechanics* include watchmen and guards.

(b)(1) *Overtime requirements.* No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(b)(2) *Violation; liability for unpaid wages; liquidated damages.* In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for unliquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of \$27 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

(3) *Withholding for unpaid wages and liquidated damages.* The U.S. Environmental Protection Agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime

contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) *Subcontracts.* The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (4) of this section.

(c) In addition to the clauses contained in paragraph (b), in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in section §5.1, the Administrator of EPA shall cause or require the contracting officer to insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Administrator of EPA shall cause or require the contracting officer to insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the U.S. Environmental Protection Agency and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job. (Approved by the Office of Management and Budget under OMB control numbers 1215-0140 and 1215-0017.)

CERTIFICATIONS

Debarred Firms

All prime Construction Contractors shall certify that Subcontractors have not and will not be awarded to any firm that is currently on the EPA Master List of Debarred, Suspended and Voluntarily Excluded Persons in accordance with the provisions of 40 CFR 32.500(c). Debarment action is taken against a firm for noncompliance with Federal Law.

All bidders shall complete the attached certification (Attachment Number 9) and submit to the owner with the bid proposal.

Anti-lobbying Certification

All prime Construction Contractors must certify (Attachment Number 10) that no appropriated funds were or will be expended for the purpose of lobbying the Executive or Legislative Branches of the Federal Government or Federal Agency concerning this contract (contract in excess of \$100,000). If the Contractor has made or agreed to make payment to influence any member of Congress in regard to award of this contract, a Disclosure Form must be completed and submitted to the owner with the bid proposal.

All prime Contractors must require all Subcontractors to submit the certification, which must also be submitted to the owner.

**CERTIFICATION REGARDING DEBARMENT,
SUSPENSION AND OTHER RESPONSIBILITY MATTERS**

The prospective participant certifies to the best of its knowledge and belief that it and its principals:

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- (b) Have not within a three year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or Local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
- (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

I understand that a false statement on this certification may be grounds for rejection of this proposal or termination of the award. In addition, under 18 USC Sec. 1001, a false statement may result in a fine of up to \$10,000 or imprisonment for up to 5 years, or both.

Typed Name & Title of Authorized Representative

Signature of Authorized Representative

Date

_____ I am unable to certify to the above statements. My explanation is attached.

**CERTIFICATION REGARDING LOBBYING
CERTIFICATION FOR CONTRACTS,
GRANTS, LOANS, AND COOPERATIVE AGREEMENTS**

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Typed Name & Title of Authorized Representative

Signature of Authorized Representative

Date

_____ I am unable to certify to the above statements. My explanation is attached.

EPA DISADVANTAGED BUSINESS ENTERPRISE PROGRAM

EPA's Disadvantaged Business Enterprise Program rule applies to contract procurement actions funded in part by EPA assistance agreements awarded after May 27, 2008. The rule is found at Federal regulation Title 40, Part 33. Specific responsibilities are highlighted below.

Loan recipient responsibilities:

- Include in each contract with a primary contractor the following term and condition:

“The contractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. The contractor shall carry out applicable requirements of 40 CFR part 33 in the award and administration of contracts awarded under EPA financial assistance agreements. Failure by the contractor to carry out these requirements is a material breach of this contract which may result in the termination of this contract.” (*Appendix A to Part 33—Term and Condition*)
- Employ the six Good Faith Efforts during prime contractor procurement (§33.301).
- Require the prime contractor to comply with the following prime contractor requirements of Title 40 Part 33:
 - To pay its subcontractor for satisfactory performance no more than 30 days from the prime contractor's receipt of payment from the recipient (§33.302(a)).
 - To notify recipient in writing prior to any termination of a DBE subcontractor for convenience by the prime contractor (§33.302(b)).
 - To employ the six Good Faith Efforts described in §33.301 if soliciting a replacement subcontractor after a DBE subcontractor fails to complete work under the subcontract for any reason (§33.302(c)).
 - To employ the six Good Faith Efforts described in §33.301 even if the prime contractor has achieved its fair share objectives under subpart D of Part 33 (§33.302(d)).
 - To provide EPA Form 6100-2 – *DBE Program Subcontractor Participation Form* to all DBE subcontractors (§33.302(e)). **NOTE: this requirement has been suspended.**
 - To submit EPA Forms 6100-3 – *DBE Program Subcontractor Performance Form* and 6100-4 *DBE Program Subcontractor Utilization Form* as part of the bid package or proposal (§33.302(f) and (g)). **NOTE: this requirement has been suspended.**
 - To employ the six Good Faith Efforts steps in paragraphs (a) through (f) of §33.301 while procuring any subcontracts (§33.302(i)).
- Conduct an Availability Analysis and negotiate fair share objectives with EPA (§33.401), or adopt the fair share objectives of the oversight state agency revolving loan fund for comparable infrastructure (§33.405(b)(3)).
- Maintain all records documenting its compliance with the requirements of Title 40 Part 33, including documentation of its, and its prime contractors', good faith efforts (§33.501(a)).

- Create and maintain a bidders list and require the prime contractor to create and maintain a bidders list (§33.501(b)). This list must include all firms that bid or quote on prime contracts, or bid or quote subcontracts, including both MBE/WBEs and non-MBE/WBEs. This list must be kept until the project period for the identified loan has ended. The following information must be obtained from all prime and subcontractors:
 - (a) Entity's name with point of contact,
 - (b) Entity's mailing address, telephone number, and email address,
 - (c) The procurement on which the entity bid or quoted, and when, and,
 - (d) Entity's status as an MBE/WBE or non-MBE/WBE.

Prime Contractor Responsibilities:

- Include in each contract with a subcontractor the following term and condition:

“The contractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. The contractor shall carry out applicable requirements of 40 CFR part 33 in the award and administration of contracts awarded under EPA financial assistance agreements. Failure by the contractor to carry out these requirements is a material breach of this contract which may result in the termination of this contract.” (*Appendix A to Part 33—Term and Condition*)
- Employ the six Good Faith Efforts during subcontractor procurement (§33.301).
- Pay subcontractors for satisfactory performance no more than 30 days from receipt of payment from the recipient (§33.302(a)).
- Notify recipient in writing prior to termination of a DBE subcontractor for convenience (§33.302(b)).
- Employ the six Good Faith Efforts described in §33.301 if soliciting a replacement subcontractor after a DBE subcontractor fails to complete work under the subcontract for any reason. (§33.302(c)).
- Employ the six Good Faith Efforts described in §33.301 even if the fair share objectives have been achieved under subpart D of Part 33 (§33.302(d)).
- Provide EPA Forms 6100-2 – *DBE Program Subcontractor Participation Form* and 6100-3 – *DBE Program Subcontractor Performance Form* to each DBE subcontractor prior to opening of the subcontractor's bid or proposal (§33.302(e) and (f)). **NOTE: this requirement has been suspended.**
- Complete EPA Form 6100-4 – *DBE Program Subcontractor Utilization Form* (§33.302(g)). **NOTE: this requirement has been suspended.**
- Submit to recipient with the bid package or proposal the completed EPA Form 6100-4, plus an EPA Form 6100-3 for each DBE subcontractor used in the bid or proposal (§33.302(f) and (g)). **NOTE: this requirement has been suspended.**
- Maintain all records documenting its compliance with the requirements of Title 40 Part 33, including documentation of its, and its subcontractors', good faith efforts (§33.501(a)).
- Create and maintain a bidders list and require the subcontractor to create and maintain a bidders list (§33.501(b)). This list must include all firms that bid or quote on subcontracts, including both

MBE/WBEs and non-MBE/WBEs. This list must be kept until the project period for the identified loan has ended. The following information must be obtained from all subcontractors:

- (a) Entity's name with point of contact,
- (b) Entity's mailing address, telephone number, and email address,
- (c) The procurement on which the entity bid or quoted, and when, and,
- (d) Entity's status as an MBE/WBE or non-MBE/WBE.

Subcontractor Responsibilities:

- May submit EPA Form 6100-2 – *DBE Program Subcontractor Participation Form* directly to DOW Project Manager (§33.302(e)). **NOTE: this requirement has been suspended.**
- Must complete EPA Form 6100-3 – *DBE Program Subcontractor Performance Form* and submit it to the prime contractor soliciting services prior to the prime contractor opening bids or quotes. **NOTE: this requirement has been suspended.**

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION POLICY

PROJECT NAME: _____ BID DATE: _____

1. Name, address and telephone number of contact person on all DBE matters:

Prime Contractor's Name: _____
Contact Person: _____
Address: _____
Phone: _____
Cell Phone: _____
Email: _____
Total Contract Amount: _____

2. Total dollar amount/percent of contract of MBE participation: _____

3. Total dollar amount/percent of contract of WBE participation: _____

4. Are certifications* for each MBE/WBE/DBE subcontractor enclosed; if no, please explain: Yes No _____

5. Are MBE/WBE/DBE subcontracts or letters of intent signed by both parties enclosed; if no, please explain: Yes No _____

6. List of MBE Subcontractors:

Name: _____
Contact Person: _____
Address: _____
Phone: _____
Cell Phone: _____
Email: _____
Type of Contract: _____
Work to be Done: _____
Amount: _____

7. List of WBE Subcontractors:

Name: _____
Contact Person: _____
Address: _____
Phone: _____
Cell Phone: _____
Email: _____
Type of Contract: _____
Work to be Done: _____
Amount: _____

Attach Additional Sheets, If Necessary

*Self-certification: Self certification of MBE/WBE/DBE firms will NOT be accepted as a valid form of certification of MBE/WBE/DBE status.

8. Information and documentation concerning efforts taken to comply with EPA’s “six good faith efforts”

(i). Ensure DBE construction firms or material suppliers are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities; including placing DBEs on solicitation lists and soliciting them whenever they are potential sources. A good source for a list of DBEs is the Kentucky Transportation’s [Certified DBE Directory](#) webpage.

The prime contractor certifies that a solicitation list of qualified DBE vendors was developed for current and future solicitations. *Submit a copy of the list as documentation.*

(ii). Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process; including, whenever possible, posting solicitation for bids or proposals for a sufficient amount of time as to receive a competitive bid or proposal pool.

The prime contractor certifies that every opportunity was provided to a number of DBEs to encourage their participation in the competitive process and that an adequate amount of time was provided for response. Must do at least one of the below.

a. List each DBE construction firm or material supplier to which a solicitation was attempted. *Submit copies of letters, emails, faxes, telecommunication logs, certified mail receipts, returned envelopes, certified mail return receipts, etc. as documentation.*

Company name and phone number: _____

Area of work expertise: _____

Date of any follow-ups and person spoke to: _____

b. Advertisements, if applicable: List each publication in which an announcement or notification was placed. *Submit original advertisement or a copy of the advertisement with an affidavit of publication for each announcement as documentation.*

Name of publication: _____

Date(s) of advertisement: _____

Specific subcontract areas announced: _____

c. Other, if applicable: List each notification method in which an announcement or outreach was used; list serve, public meeting, etc. *Submit applicable information to document effort.*

Method of notification: _____

Date(s) of notification: _____

(iii). Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs; including dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.

The prime contractor certifies that the project was broken into its basic elements (i.e., dirt hauling, landscaping, painting, pipe installation, material supplies, etc.) and that a determination was made whether it’s economically feasible to bid the elements separately and that the analysis of this effort was documented with a short memo to the project file.

- (iv). Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority business, and women’s business enterprises.
 - The prime contractor certifies that they established delivery schedules which would allow DBEs to participate in the project and the effort was documented with a short memo to the project file.

- (v). Use the services and assistance of the Small Business Administration (SBA). The easiest way to utilize their services is to visit the [SBA](#) webpage and use the electronic tools available there or you may send the nearest SBA office a certified letter that generally describes the solicitation, the dates it will be open, the types of vendors you are seeking and applicable Standard Industrial Classification (SIC) or North American Industry Classification System (NAIC) codes if known. Or, you may use the services and assistance of the Kentucky Procurement Technical Assistance Center (PTAC) **and** the Kentucky Department of Transportation (KDOT). The easiest way to utilize the services of Kentucky PTAC and KDOT is to send an email to kyptacinfo@kstc.com and Melvin.Bynes2@ky.gov and generally describe the solicitation, the dates it will be open, the types of vendors you are seeking and applicable SIC or NAIC codes if known.
 - The prime contractor certifies that the assistance of the SBA or PTAC **and** KDOT was utilized. *Submit pages printed off the SBA websites which evidence efforts to register a solicitation on the site or submit copies of the letter sent and certified mail receipt as documentation; or submit copies of emails sent to PTAC and DOT as documentation.*

- (vi). If a Prime contractor awards any subcontracts, require the subcontractor to take the steps in numbers (i) through (v) above.
 - The prime contractor certifies that subcontractors used for this project will be required to follow the steps of the “six good faith efforts” as listed above.

9. Signature and date:

To the best of my knowledge and belief, all “six good faith efforts” have been met and the information contained in this document is true and correct; the document has been duly authorized by the legal representative.

Signature

Print name and title

Date

BONDS AND INSURANCE

The minimum requirements shall be as follows:

Bonding requirements for contracts of \$100,000 or less are contained in 40 CFR 31.36(h).

Bond requirements for contracts in excess of \$100,000 are:

- Bid guarantee equivalent to five percent of the bid price. The bid guarantee shall consist of a firm commitment such as a certified check or bid bond submitted with the bid;
- Performance bond equal to 100 percent of the contract price, and
- Payment bond equal to 100 percent of the contract price. Bonds must be obtained from companies holding Certificates of Authority as acceptable sureties, issued by the U.S. Treasury.

Insurance requirements are contained in the General Conditions of the contract. In addition to the other required insurance, the owner or the contractor, as appropriate, must acquire any flood insurance made available by the Federal Emergency Management Agency as required by 44 CFR Parts 59-79, if construction will take place in a flood hazard area identified by the Federal Emergency Management Agency. The owner's requirements on Flood Insurance are contained in the Special Conditions Section of the Contracts Documents.

STORM WATER GENERAL PERMIT

All construction projects with surface disturbance of more than 1 acre during the period of construction must have a KPDES Storm Water General Permit. The permit can be found at this [webpage](#).

If you have any questions regarding the completion of this form call the Surface Water Permits Branch, at (502) 564-3410.

DAVIS-BACON WAGE RATE REQUIREMENTS

CWSRF: The recipient agrees to include in all agreements to provide assistance for the construction of treatment works carried out in whole or in part with such assistance made available by a State water pollution control revolving fund as authorized by title VI of the Federal Water Pollution Control Act (33 U.S.C. 1381 et seq.), or with such assistance made available under section 205(m) of that Act (33 U.S.C. 1285(m)), or both, a term and condition requiring compliance with the requirements of section 513 of that Act (33 U.S.C. 1372) in all procurement contracts and sub-grants, and require that loan recipients, procurement contractors and sub-grantees include such a term and condition in subcontracts and other lower tiered transactions. All contracts and subcontracts for the construction of treatment works carried out in whole or in part with assistance made available as stated herein shall insert in full in any contract in excess of \$2,000 the contract clauses as set forth below titled “Wage Rate Requirements Under The Consolidated and Further Continuing Appropriations Act, 2013 (P.L. 113-6)”. This term and condition applies to all agreements to provide assistance under the authorities referenced herein, whether in the form of a loan, bond purchase, grant, or any other vehicle to provide financing for a project, where such agreements are executed on or after October 30, 2009.

DWSRF: The recipient agrees to include in all agreements to provide assistance for any construction project carried out in whole or in part with such assistance made available by a drinking water treatment revolving loan fund as authorized by section 1452 of the Safe Drinking Water Act (42 U.S.C. 300j-12), a term and condition requiring compliance with the requirements of section 1450(e) of the Safe Drinking Water Act (42 U.S.C.300j-9(e)) in all procurement contracts and sub-grants, and require that loan recipients, procurement contractors and sub-grantees include such a term and condition in subcontracts and other lower tiered transactions. All contracts and subcontracts for any construction project carried out in whole or in part with assistance made available as stated herein shall insert in full in any contract in excess of \$2,000 the contract clauses as set forth below entitled “Wage Rate Requirements Under The Consolidated and Further Continuing Appropriations Act, 2013 (P.L. 113-6)”. This term and condition applies to all agreements to provide assistance under the authorities referenced herein, whether in the form of a loan, bond purchase, grant, or any other vehicle to provide financing for a project, where such agreements are executed on or after October 30, 2009.

Wage Rate Requirements under the Consolidated and Further Continuing Appropriations Act, 2013 (P.L. 113-6)

Preamble

With respect to the Clean Water and Safe Drinking Water State Revolving Funds, EPA provides capitalization grants to each State which in turn provides subgrants or loans to eligible entities within the State. Typically, the subrecipients are municipal or other local governmental entities that manage the funds. For these types of recipients, the provisions set forth under Roman Numeral I, below, shall apply. Although EPA and the State remain responsible for ensuring subrecipients’ compliance with the wage rate requirements set forth herein, those subrecipients shall have the primary responsibility to maintain payroll records as described in Section 3(ii)(A), below and for compliance as described in Section I-5.

Occasionally, the subrecipient may be a private for profit or not for profit entity. For these types of recipients, the provisions set forth in Roman Numeral II, below, shall apply. Although EPA and the State remain responsible for ensuring subrecipients’ compliance with the wage rate requirements set forth herein, those subrecipients shall have the primary responsibility to maintain payroll records as described in Section II-3(ii)(A), below and for compliance as described in Section II-5.

I. Requirements under the Consolidated and Further Continuing Appropriations Act, 2013 (P.L. 113-6) for Subrecipients that are Governmental Entities:

The following terms and conditions specify how recipients will assist EPA in meeting its Davis-Bacon (DB) responsibilities when DB applies to EPA awards of financial assistance under the FY 2013 Continuing Resolution with respect to State recipients and subrecipients that are governmental entities. If a subrecipient has questions regarding when DB applies, obtaining the correct DB wage determinations, DB provisions, or compliance monitoring, it may contact the State recipient. The recipient or subrecipient may also obtain additional guidance from [Department of Labor's](#) webpage.

1. Applicability of the Davis- Bacon (DB) prevailing wage requirements.

Under the FY 2013 Continuing Resolution, DB prevailing wage requirements apply to the construction, alteration, and repair of treatment works carried out in whole or in part with assistance made available by a State water pollution control revolving fund and to any construction project carried out in whole or in part by assistance made available by a drinking water treatment revolving loan fund. If a subrecipient encounters a unique situation at a site that presents uncertainties regarding DB applicability, the subrecipient must discuss the situation with the recipient State before authorizing work on that site.

2. Obtaining Wage Determinations.

(a) Subrecipients shall obtain the wage determination for the locality in which a covered activity subject to DB will take place prior to issuing requests for bids, proposals, quotes or other methods for soliciting contracts (solicitation) for activities subject to DB. These wage determinations shall be incorporated into solicitations and any subsequent contracts. Prime contracts must contain a provision requiring that subcontractors follow the wage determination incorporated into the prime contract.

(i) While the solicitation remains open, the subrecipient shall monitor the [General Services Administration](#) website weekly to ensure that the wage determination contained in the solicitation remains current. The subrecipients shall amend the solicitation if DOL issues a modification more than 10 days prior to the closing date (i.e. bid opening) for the solicitation. If DOL modifies or supersedes the applicable wage determination less than 10 days prior to the closing date, the subrecipients may request a finding from the State recipient that there is not a reasonable time to notify interested contractors of the modification of the wage determination. The State recipient will provide a report of its findings to the subrecipient.

(ii) If the subrecipient does not award the contract within 90 days of the closure of the solicitation, any modifications or supersedes DOL makes to the wage determination contained in the solicitation shall be effective unless the State recipient, at the request of the subrecipient, obtains an extension of the 90 day period from DOL pursuant to 29 CFR 1.6(c)(3)(iv). The subrecipient shall monitor the [General Services Administration](#) website on a weekly basis if it does not award the contract within 90 days of closure of the solicitation to ensure that wage determinations contained in the solicitation remain current.

(b) If the subrecipient carries out activity subject to DB by issuing a task order, work assignment or similar instrument to an existing contractor (ordering instrument) rather than by publishing a solicitation, the subrecipient shall insert the appropriate DOL wage determination from the [General Services Administration](#) website into the ordering instrument.

(c) Subrecipients shall review all subcontracts subject to DB entered into by prime contractors to verify that the prime contractor has required its subcontractors to include the applicable wage determinations.

(d) As provided in 29 CFR 1.6(f), DOL may issue a revised wage determination applicable to a subrecipient's contract after the award of a contract or the issuance of an ordering instrument if DOL determines that the subrecipient has failed to incorporate a wage determination or has used a wage

determination that clearly does not apply to the contract or ordering instrument. If this occurs, the subrecipient shall either terminate the contract or ordering instrument and issue a revised solicitation or ordering instrument or incorporate DOL's wage determination retroactive to the beginning of the contract or ordering instrument by change order. The subrecipient's contractor must be compensated for any increases in wages resulting from the use of DOL's revised wage determination.

3. Contract and Subcontract provisions.

(a) The Recipient shall insure that the subrecipient(s) shall insert in full in any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a treatment work under the CWSRF or a construction project under the DWSRF financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1 or the FY 2013 Continuing Resolution, the following clauses:

(1) Minimum wages.

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

Subrecipients may obtain wage determinations from the U.S. Department of Labor's [General Services Administration](#) website.

(ii)(A) The subrecipient(s), on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The State award official shall approve a request for an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the subrecipient(s) agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), documentation of the action taken and the request, including the local wage determination shall be sent by the subrecipient (s) to the State award official. The State award official will transmit the request, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210 and to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification request within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the subrecipient(s) do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the request and the local wage determination, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The request shall be sent to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt of the request and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided, that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(2) Withholding. The subrecipient(s), shall upon written request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the subrecipient, that is, the entity that receives the sub-grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State recipient or EPA. As to each payroll copy received, the subrecipient shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the [Wage and Hour Division's](#) webpage or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the subrecipient(s) for transmission to the State or EPA if requested by EPA, the State, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the subrecipient(s).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under §5.5(a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5(a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the “Statement of Compliance” required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees.

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman’s hourly rate) specified in the contractor’s or subcontractor’s registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice’s level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for

the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may be appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and Subrecipient(s), State, EPA, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

(i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

4. Contract Provision for Contracts in Excess of \$100,000.

(a) Contract Work Hours and Safety Standards Act. The subrecipient shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by Item 3, above or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (a)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (a)(1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (a)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The subrecipient, upon written request of the EPA Award Official or an authorized representative of the Department of Labor, shall withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (a)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (a)(1) through (4) of this section.

(b) In addition to the clauses contained in Item 3, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the Subrecipient shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Subrecipient shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

5. Compliance Verification.

(a) The subrecipient shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The subrecipient must use Standard Form 1445 (SF 1445) or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.

(b) The subrecipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. Subrecipients must conduct more frequent interviews if the initial interviews or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. Subrecipients shall immediately conduct necessary interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence.

(c) The subrecipient shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The subrecipient shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable, the subrecipient should spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract. Subrecipients must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. In addition, during the examinations the subrecipient shall verify evidence of fringe benefit plans and payments thereunder by contractors and subcontractors who claim credit for fringe benefit contributions.

(d) The subrecipient shall periodically review contractors and subcontractors use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.

(e) Subrecipients must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour [District Office](#).

II. Requirements under the Consolidated and Further Continuing Appropriations Act, 2013 (P.L. 113-6) for Subrecipients that are not Governmental Agencies

The following terms and conditions specify how recipients will assist EPA in meeting its DB responsibilities when DB applies to EPA awards of financial assistance under the FY2013 Continuing Resolution with respect to subrecipients that are not governmental entities. If a subrecipient has questions regarding when DB applies, obtaining the correct DB wage determinations, DB provisions, or compliance monitoring, it may contact the State recipient for guidance. The recipient or subrecipient may also obtain additional guidance from [DOL's](#) webpage.

Under these terms and conditions, the subrecipient must submit its proposed DB wage determinations to the State recipient for approval prior to including the wage determination in any solicitation, contract task orders, work assignments, or similar instruments to existing contractors.

1. Applicability of the Davis- Bacon (DB) prevailing wage requirements.

Under the FY 2013 Continuing Resolution, Davis-Bacon prevailing wage requirements apply to the construction, alteration, and repair of treatment works carried out in whole or in part with assistance made available by a State water pollution control revolving fund and to any construction project carried out in whole or in part by assistance made available by a drinking water treatment revolving loan fund. If a subrecipient encounters a unique situation at a site that presents uncertainties regarding DB applicability, the subrecipient must discuss the situation with the recipient State before authorizing work on that site.

2. Obtaining Wage Determinations.

(a) Subrecipients must obtain proposed wage determinations for specific localities from the U.S. Department of Labor's [General Services Administration](#) website. After the Subrecipient obtains its proposed wage determination, it must submit the wage determination to (insert contact information for State recipient DB point of contact for wage determination) for approval prior to inserting the wage determination into a solicitation, contract or issuing task orders, work assignments or similar instruments to existing contractors (ordering instruments unless subsequently directed otherwise by the State recipient Award Official).

(b) Subrecipients shall obtain the wage determination for the locality in which a covered activity subject to DB will take place prior to issuing requests for bids, proposals, quotes or other methods for soliciting contracts (solicitation) for activities subject to DB. These wage determinations shall be incorporated into solicitations and any subsequent contracts. Prime contracts must contain a provision requiring that subcontractors follow the wage determination incorporated into the prime contract.

(i) While the solicitation remains open, the subrecipient shall monitor the U.S. Department of Labor's [General Services Administration](#) website on a weekly basis to ensure that the wage determination contained in the solicitation remains current. The subrecipients shall amend the solicitation if DOL issues a modification more than 10 days prior to the closing date (i.e. bid opening) for the solicitation. If DOL modifies or supersedes the applicable wage determination less than 10 days prior to the closing date, the subrecipients may request a finding from the State recipient that there is not a reasonable time to notify interested contractors of the modification of the wage determination. The State recipient will provide a report of its findings to the subrecipient.

(ii) If the subrecipient does not award the contract within 90 days of the closure of the solicitation, any modifications or supersedes DOL makes to the wage determination contained in the solicitation shall be effective unless the State recipient, at the request of the subrecipient, obtains an extension of the 90 day period from DOL pursuant to 29 CFR 1.6(c)(3)(iv). The subrecipient shall monitor the U.S. Department of Labor's [General Services Administration](#) website on a weekly basis if it does not award the contract within 90 days of closure of the solicitation to ensure that wage determinations contained in the solicitation remain current.

(c) If the subrecipient carries out activity subject to DB by issuing a task order, work assignment or similar instrument to an existing contractor (ordering instrument) rather than by publishing a solicitation, the subrecipient shall insert the appropriate DOL wage determination from the U.S. Department of Labor's [General Services Administration](#) website into the ordering instrument.

(c) Subrecipients shall review all subcontracts subject to DB entered into by prime contractors to verify that the prime contractor has required its subcontractors to include the applicable wage determinations.

(d) As provided in 29 CFR 1.6(f), DOL may issue a revised wage determination applicable to a subrecipient's contract after the award of a contract or the issuance of an ordering instrument if DOL determines that the subrecipient has failed to incorporate a wage determination or has used a wage determination that clearly does not apply to the contract or ordering instrument. If this occurs, the subrecipient shall either terminate the contract or ordering instrument and issue a revised solicitation or ordering instrument or incorporate DOL's wage determination retroactive to the beginning of the contract

or ordering instrument by change order. The subrecipient's contractor must be compensated for any increases in wages resulting from the use of DOL's revised wage determination.

3. Contract and Subcontract provisions.

(a) The Recipient shall insure that the subrecipient(s) shall insert in full in any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a treatment work under the CWSRF or a construction project under the DWSRF financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1 or the FY 2013 Continuing Resolution, the following clauses:

(1) Minimum wages.

(i) All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

Subrecipients may obtain wage determinations from the U.S. Department of Labor's [General Services Administration](#) website.

(ii)(A) The subrecipient(s), on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The State award official shall approve a request for an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the subrecipient(s) agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), documentation of the action taken and the request, including the local wage determination shall be sent by the subrecipient(s) to the State award official. The State award official will transmit the report, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210 and to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification request within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the and the subrecipient(s) do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the request, and the local wage determination, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The request shall be sent to the EPA Regional Coordinator concurrently. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt of the request and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(2) Withholding. The subrecipient(s) shall upon written request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the

site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the subrecipient, that is, the entity that receives the sub-grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State recipient or EPA. As to each payroll copy received, the subrecipient shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the [Wage and Hour Division's](#) webpage or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the subrecipient(s) for transmission to the State or EPA if requested by EPA, the State, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the subrecipient(s).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under § 5.5(a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5(a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees.

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and

Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may be appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and Subrecipient(s), State, EPA, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

(i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

4. Contract Provision for Contracts in Excess of \$100,000.

(a) Contract Work Hours and Safety Standards Act. The subrecipient shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act.

These clauses shall be inserted in addition to the clauses required by Item 3, above or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The subrecipient shall upon the request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (a)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (4) of this section.

(c) In addition to the clauses contained in Item 3, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the Subrecipient shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Subrecipient shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

5. Compliance Verification.

(a) The subrecipient shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The subrecipient must use Standard Form 1445 (SF 1445) or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.

(b) The subrecipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. Subrecipients must conduct more frequent interviews if the initial interviews or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. Subrecipients shall immediately conduct necessary interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence.

(c) The subrecipient shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The subrecipient shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable the subrecipient should spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract. Subrecipients must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. In addition, during the examinations the subrecipient shall verify evidence of fringe benefit plans and payments thereunder by contractors and subcontractors who claim credit for fringe benefit contributions.

(d) The subrecipient shall periodically review contractors and subcontractors use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.

(e) Subrecipients must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour [District Office](#) or its successor site.

AMERICAN IRON AND STEEL REQUIREMENT

The Contractor acknowledges to and for the benefit of the ECWD No. 1 (“Purchaser”) and the State of Kentucky (the “State”) that it understands the goods and services under this Agreement are being funded with monies made available by the Clean Water State Revolving Fund and/or Drinking Water State Revolving Fund that have statutory requirements commonly known as “American Iron and Steel;” that requires all of the iron and steel products used in the project to be produced in the United States (“American Iron and Steel Requirement”) including iron and steel products provided by the Contractor pursuant to this Agreement.

The Contractor hereby represents and warrants to and for the benefit of the Purchaser and the State that (a) the Contractor has reviewed and understands the American Iron and Steel Requirement, (b) all of the iron and steel products used in the project will be and/or have been produced in the United States in a manner that complies with the American Iron and Steel Requirement, unless a waiver of the requirement is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the American Iron and Steel Requirement, as may be requested by the Purchaser or the State.

Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or State to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney’s fees) incurred by the Purchaser or State resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State or any damages owed to the State by the Purchaser).

While the Contractor has no direct contractual privity with the State, as a lender to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the State is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the State.

Sample Certification

The following information is provided as a sample letter of step certification for AIS compliance. Documentation must be provided on company letterhead.

Date

Company Name
Company Address
City, State Zip

Subject: American Iron and Steel Step Certification for Project (XXXXXXXXXXXX)

I, (company representative), certify that the (melting, bending, coating, galvanizing, cutting, etc.) process for (manufacturing or fabricating) the following products and/or materials shipped or provided for the subject project is in full compliance with the American Iron and Steel requirement as mandated in EPA's State Revolving Fund Programs.

Item, Products and/or Materials:

1. XXXX
2. XXXX
3. XXXX

Such process took place at the following location:

If any of the above compliance statements change while providing material to this project we will immediately notify the prime contractor and the engineer.

Signed by company representative

SECTION 01010
SUMMARY OF WORK

PART 1 GENERAL

1.01 SCOPE OF WORK COVERED BY THE CONTRACT

- A. These Specifications and the accompanying Drawings describe the work to be done and materials to be furnished for the construction of Contract 371-20-02, Water System Improvements, Phase 11 - Residential Meter Replacement, Estill County Water District No. 1, Estill County, Kentucky.
- B. The Work is located throughout the existing service area for the Estill County Water District No. 1.
- C. Major work items in this Contract include:
 - 1. Replacement of 3,000 residential meters.

1.02 WORK SEQUENCE

- A. No priorities are assigned to this work.

PART 2 MATERIALS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 02140

DEWATERING

PART 1 GENERAL

1.01 WORK INCLUDED

- A. Furnish all labor and equipment required to dewater all excavations. Dewatering of all excavations shall be the responsibility of the CONTRACTOR, and no additional compensation will be allowed for same unless specifically included as a bid item.
- B. Leaking pipes and structures are to be anticipated on this project. For this reason, no additional payment will be made for dewatering associated with leakage from any existing facility.

1.02 RELATED WORK

- A. Earthwork is included in Section 02200.
- B. Crushed stone and DGA are included in Section 02235.

1.03 SUBMITTALS

- A. None.

PART 2 PRODUCTS

None in this Section.

PART 3 EXECUTION

3.01 GENERAL

- A. Dewatering equipment shall be of adequate size and quantity to assure maintaining proper conditions for installing pipe, concrete, backfill or other material or structure in the excavation. Dewatering shall include proper removal of any and all liquid, regardless of source, from the excavation and the use of all practical means available to prevent surface runoff from entering any excavation.

END OF SECTION

SECTION 02400
STREETS, ROADS AND PARKING AREAS

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. Provide all labor, materials, equipment, and services required to construct all replacements as shown on the Contract Drawings and as specified herein.

1.02 RELATED WORK

- A. Crushed stone, DGA, paving and concrete are specified in other sections of Divisions 2 and 3.

1.03 SUBMITTALS

- A. Shop drawings, manufacturer's data and other items needed to establish compliance with the Drawings and these Specifications shall be submitted to the ENGINEER in accordance with Section C-700.

1.04 WARRANTY

- A. Refer to Section C-700 for general warranty requirements.

PART 2 PRODUCTS

2.01 CONSTRUCTION MATERIALS

- A. Concrete materials and methods of installation are specified in Section 03300.
- B. Drainage pipe and methods of installation are specified in Section 02700.
- C. Crushed stone and dense graded aggregate materials are specified in Section 02235.
- D. Guardrail, drainage grates and other related equipment is specified in Division 5-Metals.
- E. Geotextiles are specified in Section 02270.
- F. Bituminous paving materials and methods of placement are specified in Section 02500.
- G. Concrete paving materials and methods of placement are specified in Section 02510.
- H. Fencing materials and methods of installation are specified in Section 02830.
- I. Sodding and seeding materials and methods of construction are specified in Section 02930.

PART 3 EXECUTION

3.01 DELIVERY, STORAGE AND HANDLING

A. Clearing and Grubbing

1. Clearing and grubbing requirements shall be as stated in Section 202 of KTCSSRBC except that the method of payment as stated therein shall not apply.

B. Removal of Structures and Obstructions

1. Removal of structures and obstructions requirements shall be as stated in Section 203 - KTCSSRBC.

C. Roadway and Drainage Excavation

1. The requirements for roadway and drainage excavation shall be as stated in Section 204 of KTCSSRBC.

D. Borrow Excavation

1. The requirements for borrow excavation shall be as stated in Section 205 of KTCSSRBC.

E. Roadway Structure Excavation

1. The requirements for roadway structure excavation shall be as stated in KTCSSRBC Section 206.

F. Roadway Embankment

1. The requirements for roadway embankments shall be as stated in KTCSSRBC Section 207.

G. Roadway Subgrade

1. The requirements for roadway subgrade shall be as stated in KTCSSRBC Section 208.

H. Roadway Shoulders

1. The requirements for roadway shoulder construction shall be as stated in KTCSSRBC Section 209.

I. Ditching and Shouldering

1. The requirements for ditching and shouldering shall be as stated in KTCSSRBC Section 210.

J. Final Dressing

1. The requirements for final roadway dressing shall be as stated in KTCSSRBC Section 211. Final dressing shall meet the requirements under Final Dressing - Class A.

K. Erosion Control

1. Requirements for erosion control shall be as delineated in Section 02930 - Sodding and Seeding of these Specifications. When work is located within Department of Highways rights-of-way, the requirements for erosion control shall be as delineated in KTCSSRBC - Section 212.

L. Water Pollution Control

1. The requirements for water pollution control shall be per KTCSSRBC Section 213.

M. Drainage Structures and Conduits

1. The requirements for drainage structures and conduits shall be as specified in Section 03300 - Cast-in-Place Concrete and in Section 02700 - Sewer and Drain Pipe.

N. Aggregate Surfaces and Base Courses for Paved Surface

1. The requirements for crushed stone aggregate and base courses for paved surfaces are specified in Section 02235.

O. Paved Surfaces

1. Bituminous Pavements
 - a. The requirements for bituminous paving are as shown in Section 02500 of these Specifications.
2. Concrete Pavements
 - a. The requirements for concrete pavements are as shown in Section 02510 of these Specifications.

END OF SECTION

SECTION 02930
SODDING AND SEEDING

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. Provide all labor, materials, equipment and services required to perform sodding and seeding as shown on the Contract Drawings and as specified herein.
- B. All areas disturbed by construction operations shall receive a protective cover of vegetation. The work shall consist of preparing the area for treatment, furnishing and placing soil amendments, fertilizer, sod, seed, inoculants, mulch and plantings as specified in the designated areas.

1.02 RELATED WORK

- A. Special requirements for materials and equipment are given in Sections 00700 and 01600.
- B. Special sequence or schedule requirements (if any) are specified in Section 01010 - Summary of Work.

1.03 QUALIFICATIONS

- A. The work shall be done by a provider who is experienced, reputable, and qualified in the tasks required.

1.04 SUBMITTALS

- A. Shop Drawings and other items needed to establish compliance with the Drawings and these Specifications shall be submitted to the ENGINEER in accordance with Section 00700.
- B. Where fertilizer is furnished from bulk storage, the CONTRACTOR shall furnish a supplier's certification of analysis and weight. When required by the Contract, a representative sample of the fertilizer shall be furnished the OWNER for chemical analysis.

1.05 WARRANTY

- A. Refer to Division 0 and 1 for warranty requirements.

PART 2 PRODUCTS

2.01 SOD

- A. The sod to be used shall be Kentucky Bluegrass comparatively free from weeds or heavy root structure, cut in strips of 10 inches to 12 inches wide, 18 inches to 24 inches long, with a thickness of 1-1/2 inches to 2 inches.

2.02 SEED

- A. All seed shall conform to the current rules and regulations of the state where it is being used and from the latest crop available. It shall meet or exceed the standards for purity and germination listed herein.
- B. Seed shall be labeled in accordance with the state laws and the U.S. Department of Agriculture Rules and Regulations under the Federal Seed Act in effect on the date of invitations for bids. Bag tag figures will be evidence of purity and germination. No seed will be accepted with a date of test of more than 9 months prior to the date of delivery to the site.
- C. The seed for use on this project shall be of the type as listed below with the listed germination and purity qualifications.

<u>Species</u>	<u>% Purity</u>	<u>% Germination</u>
Tall fescue (KY-31) (<u>Festuca arundinacea</u>)	98.5	80
Ryegrass (<u>Lolium multiflorum</u>)	98.0	90
Oats (<u>Avena sativa</u>)	98.0	90
Rye, grain (<u>Secale cereale</u>)	97.0	85
Redtop (<u>Agrostis alba</u>)	90.0	80
Ky. Bluegrass (<u>Poa pratensis</u>)	81.0	70

2.03 FERTILIZER

- A. Unless otherwise specified the fertilizer shall be a commercial grade fertilizer or as specified herein. The fertilizer shall meet the standard for grade and quality specified by state law.

2.04 INOCULANTS

- A. The inoculant for treating legume seeds shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species and shall not be used later than the date indicated on the container or as otherwise specified. A mixing medium, as recommended by the manufacturer, shall be used to bond the inoculant to the seed. Two times the amount of the inoculant recommended by the manufacturer shall be used, except when seed is applied by use of hydraulic seeder, in which case 4 times the amount of inoculant recommended by the manufacturer shall be used. Seed shall be sown within 24 hours of treatment and shall not remain in the hydraulic seeder longer than 4 hours.

2.05 SOIL AMENDMENTS

- A. Lime shall consist of standard ground agricultural limestone, or equal. Standard ground agricultural limestone is defined as ground limestone meeting current requirements of the State Department of Agriculture. Agricultural lime or other needed soil amendments will be uniformly applied at the rate specified herein.

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2.06 ASPHALT EMULSION

- A. Asphalt emulsion shall conform to the requirements of ASTM D 977-80, "Emulsified Asphalt." The emulsified asphalt may be rapid, medium, or slow cure materials.

2.07 STRAW MULCH MATERIALS

- A. Straw mulch materials shall consist of wheat, oat, or rye straw, hay, grass clippings cut from any native grasses or other plants acceptable to the ENGINEER. The mulch material shall be air dry, reasonably light in color, and shall not be musty, moldy, caked, or otherwise of low quality. The use of mulch that contains noxious weeds will not be permitted. The CONTRACTOR shall provide a method satisfactory to the ENGINEER for determining weight of mulch furnished.

2.08 OTHER MULCH MATERIALS

- A. Mulching materials, such as wood cellulose fiber mulch, emulsion type, synthetic fiber mulch, netting, mesh, and other mulching materials that may be required for specialized locations and conditions, when specified, must be accompanied by the manufacturer's recommendations for methods of application.

PART 3 EXECUTION

3.01 EXTENT

A. Lump Sum Contracts

1. Sodding

- a. All sodded areas within the construction site steeper than 1 foot vertical to 4 feet horizontal, and berms less than 4 feet wide at all structures shall be sodded, unless otherwise shown on the Drawings or herein specified.

2. Seeding

- a. Except for areas occupied by structures, roadways, walkways, and sodded areas specified above, the entire area disturbed by construction operations shall be seeded.

B. Unit Price Contracts

1. Sodding

- a. Where sod is destroyed in areas maintained equivalent to residence yards, it shall be replaced on slightly ridged backfill on trench, and where destroyed in areas adjacent to the trench, it shall be replaced by the CONTRACTOR with fresh sod. Sodding will be required only on those Contracts where specifically shown on

the Drawings or called for in the Specifications or Form of Proposal.

2. Seeding

- a. Where lawns, pastures, thin grass or cover crops are destroyed by trenching, laying, backfilling, or tunneling operations, surface shall be prepared by disking, fertilizing and seeding. Seeding, fertilizing, and mulching shall be included in the price for trenching and backfilling. The timing of this operation shall be controlled by the ENGINEER. Requirements of the Department of Highways for reseeding shall take precedence over these Specifications where they are involved.
- b. When the construction project is located on privately owned property on easements acquired by the OWNER and the individual landowner requires the cover grass to be the same as present at the beginning of construction, the CONTRACTOR shall supply the seed required by the landowner. Seeding and fertilizing in such instances, shall be at the rate as recommended by the seed producer with soil preparation and mulching as stated herein.
- c. When the construction project encroaches within the rights-of-way of the Department of Highways, the seed mixture, application rate and method of mulching shall be as required by the Department of Highways.

3. CONTRACTOR'S Options

- a. Where surface grasses and cover are similar in nature throughout the length of the project, the CONTRACTOR may provide seed of one type or mixture for the entire project provided there are no objections by individual landowners involved and with permission of the OWNER and ENGINEER. In such cases, the seed type and/or mixture shall be that specified for lawn areas. Pasture and/or cover crop mixtures shall not be used for lawn application for any reason.
- b. When construction facilities or construction operations are located on or encroach on privately owned properties, the CONTRACTOR may, at his election, negotiate with the individual landowners for restoration of the surface. This negotiation and settlement may be for materials or labor or both as agreeable to the individual property owner. In such cases, the CONTRACTOR shall obtain from the individual landowner a "Release of Claims" releasing the OWNER from any further liability for surface restoration, a copy of which shall be provided for the OWNER and ENGINEER. This option shall apply to surface restoration only. The CONTRACTOR shall be responsible for cleanup and regrading work and for any settlement of the trench or graded area within the one year guarantee period.

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3.02 SOIL PREPARATION

- A. All areas to be seeded or sodded shall be thoroughly cleaned, removing all debris of whatever nature. After the area has been cleaned, the soil for seeding and sodding shall be prepared as follows:
 - 1. Loosen the soil to a depth of not less than 4 inches.
 - 2. Work the soil until it is in good condition, raking with hand rake to complete the soil preparation and make final finished grade.
 - 3. Broadcast 15 pounds of 8-8-8 or better fertilizer on each 1,000 square feet of area (for sodded areas only).
 - 4. Rake area to receive sod, to spread fertilizer and work into soil.
 - 5. On areas to be seeded, the raking in of fertilizer may be done concurrently with raking in of seed as hereinafter specified.

3.03 SODDING

- A. The timing of resodding shall be controlled by the ENGINEER. Ground shall be prepared and fertilized as previously specified under Article 3.02 of this Specification Section. In small patches, supplying of 3 inches of topsoil and raking may be substituted for disking.
- B. The strips of sod are to be laid so the joints will be broken. After the sod has been laid, it is to be watered thoroughly then rolled with a roller weighing 300 to 400 pounds, supplemented by hand tamping of sections inaccessible by roller.
- C. After the sod has been put down, as described above, each piece is to have a minimum of 2 stakes to hold it in place, the stakes to be 1/2-inch square, 10 inches long, and driven into the ground with 2 inches of the stake left above the sod.
- D. Sod shall be kept moist by watering for at least one month or until the Contract is completed and the facilities accepted by the OWNER for operation.

3.04 SEEDING

- A. Temporary Cover (All Areas)
 - 1. This item shall consist of seeding a temporary cover of grass, or grass and small grain, on areas disturbed on the construction site which will not be redisturbed within a 60 day period. The determination of the area to be temporarily seeded and the time of seeding shall be controlled by the ENGINEER.
 - 2. The seed mixtures to be used for temporary cover will be governed by the time of year the seeding is accomplished. The mixtures and time of seeding shall be as follows:

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- a. Time of Seeding - 2/15 to 6/1
 - (1) Rye 1-1/2 bushels and ryegrass 25 pounds per acre; or tall fescue 30 pounds and ryegrass 20 pounds per acre.
- b. Time of Seeding - 6/2 to 8/15
 - (1) Tall fescue 30 pounds and ryegrass 20 pounds per acre; or, spring oats 2 bushels and ryegrass 30 pounds per acre.
- c. Time of Seeding - 8/16 to 2/14
 - (1) Rye 2 bushels and ryegrass 20 pounds per acre; or, tall fescue 30 pounds and ryegrass 20 pounds per acre.
- d. Lime will not be required for temporary seeding.
- e. Fertilize at the rate of 400 pounds per acre of 10-10-10 fertilizer, or equivalent, broadcast uniformly on the area to be seeded.
- f. All seed shall be broadcast evenly over the area to be seeded and cultipacked or otherwise pressed into the soil. Seed and fertilizer may be mixed together and applied after the seed bed has been prepared.
- g. Mulch for temporary seeding will not be required except on those areas, in the ENGINEER'S opinion, too steep to hold the seed without protective cover.

B. Seeding (Permanent Cover)

1. This item consists of seeding all areas disturbed during construction. All grading and/or filling of rills and gullies to a cross section acceptable to the ENGINEER shall be included in the seed bed preparation.
 - a. Pastures and Cover Crops
 - (1) All areas to be seeded shall be seeded with 50 pounds of tall fescue (KY-31) per acre, subject to the provisions hereinbefore stated in this Specification group.
 - (2) Prepare seed bed as specified in Article 3.02 of this Specification Section unless instructed otherwise by the ENGINEER. Apply 2 tons of lime per acre.
 - (3) No mulch will be required except when seeding is done during the period October 16 through January 31, or May 2 through July 31, tall fescue straw shall be used at the rate of 2 tons per acre.

b. Lawns and Yards

- (1) This item consists of seeding all areas equivalent to residence lawns or yards disturbed during construction. All grading and filling shall be accomplished in a manner acceptable to the ENGINEER prior to the placement of seed and materials. Seed shall consist of a mixture of one part Red Top and 3 parts high grade Kentucky Bluegrass seed mixed together and broadcast at the rate of 2 lbs to each 1,000 square feet of surface, to be seeded. Apply 2 tons of lime per acre. Apply 1500 pounds of 10-20-20 fertilizer per acre. Apply mulch at the rate of 2 tons per acre. Mulch shall be applied to all lawn areas regardless of the time seeded.

3.05 MULCHING

- A. Mulch materials, meeting the requirements of Part 2 of this Specification Section, shall be applied at the rate of 2 tons per acre.
- B. The mulch shall be stabilized by running a "weighted" disk harrow with disks set straight, over the area on the contour, after the mulch has been applied, so as to imbed or press a part of the straw into the soil sufficiently to hold it in place. On earth embankments or areas too steep for use of mechanized equipment, the mulch shall be held in place by using small stakes and twine or other method acceptable to the ENGINEER.
- C. Mesh, netting or other special protective cover shall be at locations as shown on the Drawings and shall be installed according to the manufacturer's recommendations.

END OF SECTION

SECTION 05540

CASTINGS

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. Provide all labor, materials, and equipment required to install castings as shown on the Drawings and specified herein. Included in this section are manhole covers, steps, valve boxes, hatch covers, and commemorative plaques.

1.02 RELATED WORK NOT INCLUDED

- A. Concrete work is included in Division 3.
- B. Masonry work is included in Division 4.
- C. Surface preparation and finishing of castings is included in Division 9, Section 09900.
- D. Floor drains and roof drains are included in Division 15, Section 15400.
- E. Special cast valves are included in Division 15, Section 15101.

1.03 SUBMITTALS

- A. The CONTRACTOR shall submit to the ENGINEER, in accordance with Division 1, Section 00700, copies of construction details of castings proposed for use.

PART 2 MATERIALS

2.01 GENERAL

- A. All castings shall be gray iron, conforming to the requirements of the ASTM Standards, Designation A 48-83, Class 35-B for manhole casting and class 20 for valve boxes.

2.02 VALVE BOXES

- A. Slide Type for Iron Body Gate Valves
 - 1. Valve boxes for sizes through 12-inch valves shall be the cast iron slide type, without screw, of sufficient length to allow for 30 inches of cover over the top of the pipe. The inner section shall have a minimum inside diameter of 5-1/4 inches with a hood type base that will cover the packing gland on valves through 12 inches in size (minimum of 8 inches inside diameter). The base of the top section shall be flanged at least 1-1/4 inches. The caps shall be circular with a corrugated surface and have pick holes in the periphery and be marked "Water," "Gas," "Sewer," or "Air" according to use. The valve boxes shall be Tyler Pipe/Utilities Division, 6855 Series, or equal.

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2. For vertical valves larger than 12-inch size, provide Tyler Pipe/Utilities Division Series 6865 with No. 8 base, or equal.
3. Valve boxes for valves in the horizontal position shall be cast iron Tyler Pipe/Series 6855 or equal, with a base that is sized to allow covering of the bevel gear case and centering of the operating nut in the valve box.

PART 3 EXECUTION

3.01 INSTALLATION OF CASTINGS

A. Installation In or On Structures

1. The installation of castings is generally covered under specifications for pipe work and manholes. Castings shall be leveled, plumbed and secured before pouring concrete or attaching to masonry with solid, watertight, cement mortar joints.

B. Installation on Buried Valves

1. Valve box construction shall consist of the approved manufactured box and accessories. Line pipe shall not be accepted for use as valve boxes.
2. Mechanically tamp backfill, or backfill with crushed rock (per requirements of location - see Section 02610 of these Specifications) to the bottom of the packing gland of the operating nut. Install valve box base centered over operating nut.
3. Install valve box shafts, of the required height, and top section to proposed top elevation. Mechanically tamp backfill around box or backfill with crushed rock.
4. Place reinforced concrete collar around top section when shown on the Drawings.
5. Furnishing and installation of the valve box and accessories, including the concrete valve box collar, shall be included in the price bid for furnishing and installation of the valve.

END OF SECTION

SECTION 15107

**WATER METERS, SERVICE VALVES, STOPS
AND MISCELLANEOUS APPURTENANCES FOR WATER LINE PROJECTS**

PART 1 GENERAL

1.01 WORK INCLUDED

- A. Furnish all labor, materials, and accessories to install equipment required by the Project, shown on the Drawings or specified herein, including the following:
 - 1. Miscellaneous cocks and stops for water service

1.02 RELATED WORK

- A. Excavation, backfill, and grading are included in Division 2.
- B. Piping is included in the respective sections of Divisions 2 and 15.

1.03 QUALITY ASSURANCE

- A. All equipment and appurtenances shall be products of well established firms who are fully experienced, reputable, and qualified in the manufacture of the particular equipment to be furnished. All materials of construction shall be of an acceptable type and shall be designated for the pressure and temperatures at which they are to be operated, for the materials they are to handle and for the use for which they are intended. The materials shall meet established technical standards of quality and strength necessary to assure safe installations and conform to applicable standards. The equipment shall be designed, constructed, and installed in accordance with the best practices and methods and shall comply with these Specifications as applicable.

1.04 SUBMITTALS

- A. Copies of all materials required to establish compliance with these Specifications shall be submitted in accordance with the provisions of Division 1, Section 00700 (00710).

PART 2 PRODUCTS

2.01 GENERAL

- A. All meters, valves, stops, and appurtenances shall be of the size shown on the Drawings and as far as possible all equipment of the same type shall be from one manufacturer.

2.02 MISCELLANEOUS COCKS

- A. Air Release Cocks

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1. Air release cocks shall be for 125 pound pressure, 1/2-inch, bronze plug and body, with handle operator. Air cocks shall be Crane No. 256 Tee Head, Lunkenheimer No. 1571, or equal.

2.03 MISCELLANEOUS STOPS

A. Corporation Stops and Accessories

1. Corporation stops to be used with threaded pipe where connected into cast iron pipe, shall be brass ground joint type with AWWA CC or CS taper thread inlets and iron pipe thread outlets for threaded iron pipe. Stops shall be Mueller H-10045, H-9996, H-9966, Ford Type F-1600, or equal.
2. Corporation stops to be used with flared copper tubing where connected into ductile iron pipe, shall be brass ground joint type with AWWA CC or CS taper thread inlets and flared copper outlets and shall be Mueller 15050, Ford Type F-600, or equal.
3. Corporation stops to be used with plastic tubing where connected into ductile iron pipe shall be brass ground joint type with AWWA CC or CS taper thread inlets and compression connection outlets shall be Mueller H-15008, H-15009, H-15013, Ford F-1000, or equal.
4. Corporation stops installed in plastic (PVC or Pe) mains shall be attached and installed using a tapping saddle. For ASTM specification PVC pipe, the tapping saddle shall be a bronze, 2 section saddle for 2-inch through 8-inch size mains or a bronze, 3 section saddle for 10-inch and 12-inch mains, double strap, Mueller H-13420 through H-13435, Ford "Saddlestop," S-70, or equal. For AWWA specification PVC pipe (C-900) use Mueller H-16123 through H-16137, Ford S-90, or equal.
5. Corporation stops shall be factory tested to **(150 psi) (250 psi)** to be compatible with the pipes in which they are installed.

B. Curb Stops and Accessories

1. Curb stops to be used with threaded pipe shall be brass inverted key round way with female threaded iron pipe connections for threaded iron pipe. Curb stops shall be Mueller H-10201, Ford, or equal.
2. Curb stops to be used with copper pipe, with flared type connections, shall be Mueller H-15200, Ford, or equal.
3. Curb stops to be used with plastic pipe shall be brass inverted key round way with compression type connections. Curb stops shall be Mueller H-15207, Ford, or equal.
4. Furnish and install with each curb stop, a cast iron curb valve box, cast iron extension type with arch pattern base, with lid marked "WATER." Also furnish 2 tee wrenches, 4 feet in length, for operation of curb stops.

C. Water Meters

1. General
 - a. Where OWNER has standardized on one particular make and model meter, and desires that they be furnished on this project, then such standard, make and model, namely KAMSTRUP Ultrasonic 5/8-inch by 3/4-inch radio head meter with acoustic leak sensor, or equal will govern.
2. Minimum requirements for Water Radio Modules & Reading System are as follows:
 - a. To retain flexibility, the Water Radio Module being quoted should be compatible with all leading Meter Manufactures encoder registers, such as: Sensus, Badger, Kampstrup, Master Meter, Mueller, Neptune and Zenner.
 - b. For easy maintenance, any Pit Water Radio Modules being quoted should have a universal waterproof connector.
 - c. The Water Radio Modules should be capable of 2-way communications utilizing the non-licensed ISM band.
 - d. The Water Radio Modules should be capable of being programmed to transmit in a higher power mode for tough to read environments.
 - e. The Water Radio Modules should be capable of being programmed into a fixed network mode should we decide to deploy a fixed network in the future. Modules should retain the ability of being read by the mobile and handheld systems while in fixed network mode.
 - f. The Water Radio Modules should provide at least 40 days of data logging for daily and/or hourly consumption. To reduce return trips to the meter, this mass data logging collection should be collected while reading the normal route for all customers or just specified customers.
 - g. The Water Radio Modules and related equipment should allow us to collect readings and datalogging in a GPS map guided drive-by environment.
 - h. The Water Radio Modules should have an option to connect to an Acoustic Leak Sensor.
 - i. The Water Radio Modules should have an expected battery life of 20+ years.
 - j. The Water Radio Modules should be covered by a 10 year prorated warranty.
3. Minimum Requirements for Water Meters are as follows

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- a. Solid state “no moving parts” meter technology is preferred.
 - b. Meters should have a maximum operating pressure of 250 psi.
 - c. Meter 5/8-inch by ¾-inch flow range should be 0.015 to 25 GPM.
 - d. Meter 1-inch flow range should be 0.04 to 55 GPM.
 - e. Meters should contain NO Lead, not just NSF61 approved low lead.
 - f. Meters should have a 9 dial high resolution encoder register.
 - g. Meters should meet or exceed the most recent version of ANSI/AWWA Standard C-700, C-708 and C-715 for accuracy and pressure loss requirements.
 - h. Meter should retain Daily Datalogging for 460 days and Monthly Datalogging for 36 months.
 - i. Meters should have a 10 year prorated warranty, including any batteries.
4. Meter Settings (Residential)
 - a. Meter setters shall be copper, riser type with stabilizing rod, vertical inlet and outlet with angle stop on the inlet. The outlet shall be provided with end connection designed for applicable service pipe.
 5. Meter Box (Residential)
 - a. The meter and valve box shall be a precast concrete or a high density polyethylene box 24 inches deep. The box shall be able to withstand 1,200 pounds compression. The cover shall be equipped with a reader lid.

PART 3 EXECUTION

3.01 INSTALLATION

- A. All water meters, miscellaneous water service valves, stops, and appurtenances shall be installed in locations shown, true to alignment and rigidly supported. Any damage to the above items shall be repaired to the satisfaction of the ENGINEER before they are installed.
- B. All meters in boxes or vaults shall be located so that they may be easily read and serviced.
- C. After installation, all valves and appurtenances shall be tested at least 1 hour at the working pressure corresponding to the class of pipe, unless a different test pressure is specified. If any joint proves to be defective, it shall be repaired to the satisfaction of the ENGINEER.

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- D. All materials shall be carefully inspected for defects in workmanship and materials; all debris and foreign material cleaned out of openings, etc.; all operating mechanisms operated to check their proper functioning, and all nuts and bolts checked for tightness. Equipment which does not operate easily, or is otherwise defective, shall be repaired or replaced at no additional cost to the OWNER.
- E. Blow-off hydrants shall be set at the locations as shown on the Drawings and bedded on a firm foundation.
- F. If directed, the hydrant shall be tied to the pipe with suitable rods or clamps, galvanized, painted, or otherwise rustproof treated. Concrete used for backing shall be no leaner than 1 part cement, 2-1/2 parts sand, and 5-1/2 parts stone.

3.02 INSPECTION AND TESTING

- A. The various pipelines in which the specified equipment is to be installed is specified to be field tested. During these tests any defective equipment shall be adjusted, removed and replaced, or otherwise made acceptable to the ENGINEER.
- B. Various meters regulating valves, strainers, or other appurtenances shall be tested to demonstrate their conformance with the specified operational capabilities and any deficiencies shall be corrected or the device replaced or otherwise made acceptable to the ENGINEER.

END OF SECTION

EXHIBIT 25



Lexington, KY | 859.278.5412
 Hopkinsville, KY | 270.886.5466
 Asheville, NC | 828.774.5499

OPINION OF PROBABLE PROJECT COST

Project: Phase 11 - Water System Improvements, Residential Meter Replacement

Client: ECWD No. 1

No Design Completed
 Preliminary
 Final Design

Date: April 2021

Contract No.:

Est. By: BAS

Checked By: BAS

SHEET:

1

OF:

1

Drawing No.: N/A

ITEM NO.	ITEM DESCRIPTION	QUANTITY		MATERIAL		LABOR		TOTAL COST
		NO.	UNIT	PER UNIT	TOTAL	PER UNIT	TOTAL	
1	United Systems and Software							\$1,499,785
TOTAL OPINION OF PROBABLE CONSTRUCTION COST								
\$1,499,785								

PROJECT COST

1	ENGINEERING - DESIGN (USDA RD CURVE)							\$66,400
	Design Fee							\$9,500
	Bidding Fee							\$20,000
	Construction Administration Fee							\$51,000
2	ENGINEERING - RPR (USDA RD CURVE)							\$40,000
3	ADMINISTRATIVE							\$30,000
4	LEGAL							\$15,000
5	MISCELLANEOUS							\$147,345
6	CONTINGENCY							\$1,879,030

TOTAL OPINION OF PROBABLE PROJECT COST

\$1,879,030

EXHIBIT 26

Statement of Annual Cost of Facilities

Estill District estimates the following annual costs associated with the proposed equipment:

Itron Mobile Radio (Bluetooth Radio Handheld Annual Maintenance)	\$ 144
Temetra Reading Software Subscription Fee	\$4,500
Temetra Customer Portal Annual Fee	\$1,125
Itron Mlogonline Leak Detection Software Annual Fee	\$3,120
USS Itron Annual Remote Support Fee	<u>\$1,295</u>
 TOTAL:	 <u>\$9,444</u>