Rubin & Hays

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CHARLES S. MUSSON
W. RANDALL JONES
CHRISTIAN L. JUCKETT

June 12, 2015

Mr. Jeff Derouen
Executive Director
Public Service Commission
P.O. Box 615
Frankfort, Kentucky 40602

Case No. 2015-00197

Re: Cumberland County Water District PSC Application for authorization to issue securities and issuance of a CPCN

Dear Mr. Derouen:

Enclosed please find the original and ten (10) copies of the Application of the Cumberland County Water District for a Certificate of Public Convenience and Necessity to construct, finance and increase rates pursuant to KRS 278.300 and 807 KAR 5:001.

Also enclosed are eleven (11) copies of the exhibits required pursuant to 807 KAR 5.069. Also enclosed in a CD with the Plans and Specifications and 2 paper copies of the location maps.

If you need any additional information or documentation, please let us know.

Sincerely,

Rubin & Hays

By
W. Randall Jones

WRJ:jlm
Enclosures
cc: Distribution List

DISTRIBUTION LIST

Re: Cumberland County Water District PSC Application for Authorization to issue Securities and the issuance of a CPCN - 2014 Water System Improvements Project.

Mr. Matthew Dyer, Manager
Cumberland County Water District
133 Lower River Street
Burkesville, Kentucky 42717
cumberlandcowater@gmail.com
Telephone: (270) 864-3133
Fax: (270) 864-3865

Lee Mudd, P.E.
Monarch Engineering, Inc.
556 Carlton Drive
Lawrenceburg, Kentucky 40342
lmudd@monarchengineering.net
Telephone: (502) 839-1310
Fax: (502) 839-1373

W. Randall Jones, Esq.
Rubin & Hays
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COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

IN THE MATTER OF:

THE APPLICATION OF CUMBERLAND COUNTY WATER DISTRICT FOR THE ISSUANCE OF A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT A WATERWORKS IMPROVEMENTS PROJECT AND AUTHORIZING THE ISSUANCE OF SECURITIES FOR THE PURPOSE OF FINANCING SAID PROJECT PURSUANT TO THE PROVISIONS OF KRS 278.300 AND 807 KAR 5:001	)	**Case No. 2015-** 00197

** *** **** ******* **** *** **

APPLICATION

The Applicant, Cumberland County Water District (the "District"), files this Application pursuant to KRS 278.300, 807 KAR 5:001, and all other applicable laws and regulations, and requests that the Kentucky Public Service Commission (the "Commission") granting the District a Certificate of Public Convenience and Necessity to construct a waterworks improvements project and entering an Order authorizing the District to issue certain securities in the principal amount of $1,268,000 for the purpose of financing said waterworks improvements project. In support of this Application, and in compliance with the rules and regulations of the Commission, the District states as follows:

1. The District was established in accordance with the provisions of Chapter 74 of the Kentucky Revised Statutes pursuant to an Order of the County Judge/Executive of Cumberland

County, which Order is on file in the County Court Order Books in the office of the Clerk of Cumberland County, Kentucky. The District is now, and has been since its inception, regulated by the Commission, and all records and proceedings of the Commission with reference to the District are incorporated in this Application by reference. The District does not have any Articles of Incorporation due to the fact that it is a statutory entity.

2. The governing body of the District is its Board of Commissioners which is a public body corporate, with power to make contracts in furtherance of its lawful and proper purpose as provided for in KRS 74.070 and all applicable law and regulations.

3. The mailing address of the District is as follows:

Cumberland County Water District
c/o Mr. Johnny Carter, General Manager
133 Lower River Street
Burkesville, Kentucky 42717
Telephone: (270) 864-3133
Fax: (270) 864-3865
Email: cumberlandcowater@gmail.com

4. A general description of the District's water system property, together with a statement of the original cost, is contained in the District's Annual Report for 2014 which is on file with the Commission. The Annual Report is incorporated herein by reference.

5. Pursuant to 807 KAR 5:001, Section 15 - Applications for Certificates of Public Convenience and Necessity, the District hereby responds as follows:

(i) Section 15(2)(a): Facts Relied Upon to Show Public Necessity: The proposed waterworks improvements project (hereinafter the "Project") includes the (a) replacement of 3,100 linear feet of asbestos cement water line with 6 inch PVC water line; (b) replacement of 36,450 linear feet of undersized 2 inch

PVC water lines with 3 and 4 inch PVC water lines; (c) a complete rehabilitation of the two existing booster pump stations (Highway 1880 and Highway 449); (d) the complete rehabilitation of an existing 100,000 gallon elevated water storage tank (South Highway 61); (e) installation of new telemetry communications system equipment at the five existing water storage tanks, four booster pump stations and the water treatment plant; and (f) purchase of approximately 400 radio read meters to replace existing manual read meters. The District states the proposed Project will upgrade or rehabilitate various aging, undersized or inadequate infrastructure components throughout the system. The proposed Project will ensure that the system can meet the demands of existing and future customers in a safe and efficient manner. In total, 116 underserved households will see dramatically improved service through this Project. In addition, the system as a whole will be better equipped to provide a safe and reliable supply of potable water to current and future residents of Cumberland County. The installation of modern pump motors, VFD's and an improved telemetry control system will result in a substantial improvement in the system's energy efficiency. The Project also entails replacing existing standard water meters with radio read meters. The radio read system will decrease the number of hours and fuel needed to manually read meters and allow the District to achieve minimum water loss due to faulty and misread meters.

(ii) Section 15(2)(b): Copies of Permits: Required permits include a Kentucky Division of Water Construction Permit and Kentucky Transportation Cabinet Encroachment permit. Copies of both required permits are attached hereto as **Exhibit "A"**.

(iii) Section 15(2)(c): Description of Proposed Location or Route. All construction will be confined to the rural areas of Cumberland County, specifically, areas which are currently served by the District's system. All improvements to be constructed will be a direct replacement or rehabilitation of existing infrastructure which is currently in use. The District is the only supplier of potable water in the area of Cumberland County outside the city limits of the City of Burkesville, therefore, the improvements will not compete with any other public utilities.

(iv) Section 15(2)(d)(1) and (2): Three Maps to Suitable Scale and Plans and Specifications: two paper maps and one .pdf on electronic storage medium map showing the location and route of the proposed Project are included with this Application. Also the Plans and Specifications in .pdf format on electronic storage medium are being filed with this Application.

(v) Section 15(2)(e) Financing: The District is financing the Project with the proceeds of $1,268,000 loan from Kentucky Infrastructure Authority Federally Assisted Drinking Water Revolving Loan Fund ("DWSRF Loan"). A copy of the DWSRF Loan Conditional Commitment Letter, dated October 2, 2014 is attached hereto as **Exhibit "B"**. The original Project budget

included a $100,000 grant from the U.S. Department of Agriculture, acting through Rural Development. Such grant has already been spent on Project costs.

(vi) Section 15(2)(e) Estimated Cost of Operation: the estimated cost of operation of the system after the proposed Project is placed in service is attached hereto as **Exhibit "C"**.

6. Pursuant to 807 KAR 5:001, Section 12 - Financial Exhibit; the District hereby responds as follows:

(i) Section 12(1)(b): The District states that it had less than $5,000,000 in gross annual revenue in the immediate past calendar year and that no material changes to the District's financial condition have occurred since the end of the twelve (12) month period contained in the District's most recent annual report on file with the Commission.

(ii) Section 12(2)(a), (b) and (c) Stock: The District does not have any authorized, issued or outstanding stock as of the date hereof.

(iii) Section 12(2)(d) Mortgages: The District does not have any outstanding mortgages as of the date hereof.

(iv) Section 12(2)(e), (f) and (g) Indebtedness: The information concerning the outstanding indebtedness of the District is contained in the 2014 Annual Report on file with this Commission.

(v) Section 12(2)(h) Dividends: The District has no outstanding stock and therefore pays no dividends.

(vi) Section 12(2)(i) Financial Statements: Detailed Statements of Net Position; Statements of Revenues, Expenses and Changes in Net Position; and Statements of Cash Flows for the years ended December 31, 2014 and 2013 are attached hereto as **Exhibit "D"**.

7. Pursuant to 807 KAR 5:001, Section 18, the District hereby responds as follows:

(i) Section 18(1)(a): The District has complied with the requirements of 807 KAR 5:001, Section 14.

(ii) Section 18(1)(b): A general description of the District's property, its field of operation and a statement of original cost of said property and the cost to the District is contained in the District's 2014 Annual Report on file with this Commission.

(iii) Section 18(1)(c): The District is not issuing any stock as part of this financing. The information concerning the proposed DWSRF Loan is contained as an Exhibit to this Application. The DWSRF Loan will be secured by and payable from the gross revenues of the District's water system.

(iv) Section 18(1)(d): The proceeds of the DWSRF Loan are being used to finance the construction of the Project. See the Final Project Budget spreadsheet attached hereto as **Exhibit "E"**.

(v) Section 18(1)(e): the only property is being acquired with the proceeds of the DWSRF Loan are the radio read meters. Said meters are made by the same manufacturer as the rest of the meters installed in the District's system and

are available only from one supplier in Kentucky. A specification sheet on the radio read meters is attached hereto as **Exhibit "F"**.

(vi) Section 18(1)(f): No proceeds of the DWSRF Loan will be used to refund outstanding obligations of the District.

(vii) Section 18(1)(g): Written notification of the proposed issuance of the DWSRF Loan is being provided to the State Local Debt Officer.

(viii) Section 18(2)(a): See paragraph #6 above.

(ix) Section 18(2)(b): The District does not have any outstanding trust deeds or mortgages.

(x) Section 18(2)(c): See paragraph #7(v) above. Approximately $70,000 will be expended on radio read meters and will be added to Account #334 (meters and installation) in the Uniform System of Accounts.

8. Certified copies of the bid tabulations for Contracts 1, 2 and 3 are attached hereto as **Exhibit "G"**.

9. No rate adjustment will be necessary.

WHEREFORE, the District respectfully requests that the Commission take the following actions:

A. A certificate of public convenience and necessity permitting the Applicant to acquire and install a water system improvement project; and

B. An order approving the issuance of securities in the form of a DWSRF Loan in the amount of $1,268,000.

Cumberland County Water District

By _____

Alvin Pharis, Chairman
133 Lower River Street
Burkesville, Kentucky 42717
Telephone: (270) 864-3133
Fax: (270) 864-3865
Email: cumberlandcowater@gmail.com

Rubin & Hays

By _____

W. Randall Jones
Kentucky Home Trust Building
450 South Third Street
Louisville, Kentucky 40202
Phone: (502) 569-7525
Fax: (502) 569-7555
Counsel for Cumberland County Water District
wrjones@rubinhays.com

STATE OF KENTUCKY)
) SS
COUNTY OF CUMBERLAND)

The affiant, Alvin Pharis, being first duly sworn, states: That he is the Chairman of the Cumberland County Water District, the Applicant in this case; that he has read the foregoing Application and has noted the contents thereof; that the same are true of his own knowledge and belief, except as to matters which are herein stated to be based on information or belief, and that these matters, believes to be true and correct.

IN TESTIMONY WHEREOF, witness the signature of the undersigned on the 8th day of June, 2015.

Alvin Pharis, Chairman

SUBSCRIBED, SWORN TO AND ACKNOWLEDGED before me by Alvin Pharis, Chairman of the Cumberland County Water District, on this the 8th day of June, 2015.

My Commission expires: July 2016.

NOTARY PUBLIC

STEVEN L. BESHEAR
GOVERNOR

LEONARD K. PETERS
SECRETARY

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
200 FAIR OAKS LANE, 4TH FLOOR
FRANKFORT, KENTUCKY 40601
www.kentucky.gov

May 1, 2015

Mr. Johnny E Carter
Cumberland Co Water District
133 Lower River St
Burkesville, KY 42717

RE: Cumberland Co Water District
AI # 878, APE20150002
PWSID # 0290271-15-002
2014 Water System Improvements
Cumberland County, KY

Dear Mr. Carter:

We have reviewed the plans and specifications for the above referenced project. The plans include:

- The construction of approximately 32,350 feet of 3-inch PVC; 4,100 feet of 4-inch PVC; 3,100 feet of 6-inch PVC water line
- Complete rehabilitation of the existing pump stations at Hwy 1880 & Hwy 449 with new pumps with identical existing operating points (100 gpm with 525 feet TDH for the Hwy 1880 Pump Station and 150 gpm with 550 feet TDH for the Hwy 449)
- Complete rehabilitation of the existing 100,000 gallon Elevated Water Storage Tank which on South Hwy 61 consists of removal of tank exterior coatings, removal of any visible corrosion, painting the tank exterior, and miscellaneous minor repairs to exterior of the tank
- Installation of a new telemetry control system
- Installation of 400 radio read meters within the existing water distribution system.

This is to advise that plans and specifications for the above referenced project are APPROVED with respect to sanitary features of design, as of this date with the requirements contained in the attached construction permit.

Based on the hydraulic analysis/data submitted, the areas served by the following 3-inch extensions are considered to be underserved.

a) Dutch Creek Road Waterline Replacement (Section C)
b) Leatherwood Road Waterline Replacement
c) Pitman Creek/Muse Road Waterline Replacement

This designation indicates that without improvements to the existing infrastructure, future extensions may not be able to provide the required minimum pressure of 30 psi on the discharge side of customer's meter. Without improvements to the infrastructure, future extensions may be denied.

The following stipulations apply for the tank rehabilitation:

1. Paints shall meet NSF standard 61.
2. Paints shall be properly applied and cured.

3. Paints shall not transfer any substance to water which will be toxic or cause tastes or odors (following curing).
4. Following completion of work on the tank and before being placed into service, the tank shall be thoroughly disinfected.
5. Disposal of heavily chlorinated water from the tanks disinfection process shall be in accordance with Kentucky EPPC Division of Water requirements.
6. Two or more successive sets of bacteriological samples, taken at 24-hour intervals, shall be taken and reported (using the most expedient method) to the Division of Water following disinfection.
7. Samples shall indicate microbiologically satisfactory water prior to placing the tank back into operation.
8. When this project is completed, the owner shall submit a written certification to Division of Water that the above referenced painting and modification has been completed in accordance with the approved specifications. Such certification shall be signed by licensed professional engineer

This approval has been issued under the provision of KRS Chapter 224 and regulation promulgated pursuant thereto. Issuance of this approval does not relieve the applicant from the responsibly of obtaining any other approval, permits or licenses required by this Cabinet and other state, federal and local agencies. Furthermore, this permit does not address the authority of the permittee to provide service.

Based on DOW records, this project is being funded by a State Revolving Fund (SRF) loan. Therefore, this approval is for the technical aspects of the project only. Currently, a State Planning and Environmental Assessment Report (SPEAR) related to your funding application is under review. **Therefore, you are NOT authorized to advertise for bids at this time. Should you choose to proceed with the bidding and award a contract prior to DOW approval, this will be at your own risk and payment from the SRF program is not guaranteed**

If you have any questions concerning this project, please contact Mr. Mohammed Mohiuddin at 502-564-3410 extension 4827.

Sincerely,

Mark Rasche

Mark Rasche, P.E.
Supervisor, Engineering Section
Water Infrastructure Branch
Division of Water

MR: MM
Enclosures
C: Monarch Engineering, Inc. (by e-mail only)
Cumberland County Health Department (by e-mail only)
Public Service Commission (by e-mail only)
Division of Plumbing (by e-mail only)

PORT0000000056 (Waterline Extension) 32,350 feet of 3-inch PVC, 4,100 feet of 4-inch PVC; 3,100 feet of 6-inch PVC Waterline:

Narrative Requirements:

Condition No.	Condition
T-1	Construction of this project shall not result in the water system's inability to supply consistent water service in compliance with 401 KAR 8:010 through 8:600. [401 KAR 8:100 Section 5]
T-2	The public water system shall not implement a change to the approved plans without the prior written approval of the cabinet. [401 KAR 8:100 Section 4(3)]
T-3	A proposed change to the approved plans affecting sanitary features of design shall be submitted to the cabinet for approval in accordance with Section 2 of this administrative regulation. [401 KAR 8:100 Section 4(2)]
T-4	During construction, a set of approved plans and specifications shall be available at the job site. Construction shall be performed in accordance with the approved plans and specifications. [401 KAR 8:100 Section 3(1)]
T-5	Unless construction begins within two (2) years from the date of approval of the final plans and specifications, the approval shall expire. [401 KAR 8:100 Section 3(3)]
T-6	Upon completion of construction, a professional engineer shall certify in writing that the project has been completed in accordance with the approved plans and specifications. [401 KAR 8:100 Section 4(1)]
T-7	The system shall be designed to maintain a minimum pressure of 20 psi at ground level at all points in the distribution system under all conditions of flow. [Recommended Standards for Water Works 8.2.1, Drinking Water General Design Criteria IV.1.a]
T-8	Water lines should be hydraulically capable of a flow velocity of 2.5 ft/s while maintaining a pressure of at least 20 psi. [Drinking Water General Design Criteria IV.1.b]
T-9	The normal working pressure in the distribution system at the service connection shall not be less than 30 psi under peak demand flow conditions. Peak demand is defined as the maximum customer water usage rate, expressed in gallons per minute (gpm), in the pressure zone of interest during a 24 hour (diurnal) time period. [Drinking Water General Design Criteria IV.1.d]
T-10	When static pressure exceeds 150 psi, pressure reducing devices shall be provided on mains or as part of the meter setting on individual service lines in the distribution system. [Drinking Water General Design Criteria IV.1.c]

PORT0000000056 (continued):

Narrative Requirements:

Condition No.	Condition
T-11	The minimum size of water main in the distribution system where fire protection is not to be provided should be a minimum of three (3) inch diameter. Any departure from minimum requirements shall be justified by hydraulic analysis and future water use, and can be considered only in special circumstances. [Recommended Standards for Water Works 8.2.2, Drinking Water General Design Criteria IV.2.b]
T-12	Water mains not designed to carry fire-flows shall not have fire hydrants connected to them. [Recommended Standards for Water Works 8.4.1.b]
T-13	Flushing devices should be sized to provide flows which will give a velocity of at least 2.5 feet per second in the water main being flushed. [Recommended Standards for Water Works 8.2.4.b, Recommended Standards for Water Works 8.4.1.b]
T-14	No flushing device shall be directly connected to any sewer. [Recommended Standards for Water Works 8.2.4.b, Recommended Standards for Water Works 8.4.1.b]
T-15	Pipe shall be constructed to a depth providing a minimum cover of 30 inches to top of pipe. [Drinking Water General Design Criteria IV.3.a]
T-16	Water mains shall be covered with sufficient earth or other insulation to prevent freezing. [Recommended Standards for Water Works 8.7]
T-17	A continuous and uniform bedding shall be provided in the trench for all buried pipe. Backfill material shall be tamped in layers around the pipe and to a sufficient height above the pipe to adequately support and protect the pipe. Stones found in the trench shall be removed for a depth of at least six inches below the bottom of the pipe. [Recommended Standards for Water Works 8.7]
T-18	Water line installation shall incorporate the provisions of the AWWA standards and/or manufacturer's recommended installation procedures. [Recommended Standards for Water Works 8.7]
T-19	All materials used for the rehabilitation of water mains shall meet ANSI/NSF standards. [Recommended Standards for Water Works 8.1]
T-20	Packing and jointing materials used in the joints of pipe shall meet the standards of AWWA and the reviewing authority. [Recommended Standards for Water Works 8.1]
T-21	All tees, bends, plugs and hydrants shall be provided with reaction blocking, tie rods or joints designed to prevent movement. [Recommended Standards for Water Works 8.7]

PORT0000000056 (continued):

Narrative Requirements:

Condition No.	Condition
T-22	All materials including pipe, fittings, valves and fire hydrants shall conform to the latest standards issued by the ASTM, AWWA and ANSI/NSF, where such standards exist, and be acceptable to the Division of Water. [Recommended Standards for Water Works 8.1]
T-23	Water mains which have been used previously for conveying potable water may be reused provided they meet the above standards and have been restored practically to their original condition. [Recommended Standards for Water Works 8.1]
T-24	Manufacturer approved transition joints shall be used between dissimilar piping materials. [Recommended Standards for Water Works 8.1]
T-25	Pipes and pipe fittings containing more than 8% lead shall not be used. All products shall comply with ANSI/NSF standards. [Recommended Standards for Water Works 8.1]
T-26	The minimum size of water main which provides for fire protection and serving fire hydrants shall be six?inch diameter. [Recommended Standards for Water Works 8.2, Drinking Water General Design Criteria IV.2.a]
T-27	Gaskets containing lead shall not be used. Repairs to lead?joint pipe shall be made using alternative methods. [Recommended Standards for Water Works 8.1]
T-28	Pipe materials shall be selected to protect against both internal and external pipe corrosion. [Recommended Standards for Water Works 8.1]
T-29	Dead end mains shall be equipped with a means to provide adequate flushing. [Recommended Standards for Water Works 8.2]
T-30	The hydrant lead shall be a minimum of six inches in diameter. Auxiliary valves shall be installed on all hydrant leads. [Recommended Standards for Water Works 8.4.3]
T-31	A sufficient number of valves shall be provided on water mains to minimize inconvenience and sanitary hazards during repairs. [Recommended Standards for Water Works 8.3]
T-32	Wherever possible, chambers, pits or manholes containing valves, blow?offs, meters, or other such appurtenances to a distribution system, shall not be located in areas subject to flooding or in areas of high groundwater. Such chambers or pits should drain to the ground surface, or to absorption pits underground. The chambers, pits and manholes shall not connect directly to any storm drain or sanitary sewer. Blow?offs shall not connect directly to any storm drain or sanitary sewer. [Recommended Standards for Water Works 8.6]

PORT0000000056 (continued):

Narrative Requirements:

Condition No.	Condition
T-33	At high points in water mains where air can accumulate provisions shall be made to remove the air by means of air relief valves. [Recommended Standards for Water Works 8.5.1]
T-34	Automatic air relief valves shall not be used in situations where flooding of the manhole or chamber may occur. [Recommended Standards for Water Works 8.5.1]
T-35	The open end of an air relief pipe from automatic valves shall be extended to at least one foot above grade and provided with a screened, downward?facing elbow. [Recommended Standards for Water Works 8.5.2.c]
T-36	Discharge piping from air relief valves shall not connect directly to any storm drain, storm sewer, or sanitary sewer. [Recommended Standards for Water Works 8.5.2.d]
T-37	Water pipe shall be constructed with a lateral separation of 10 feet or more from any gravity sanitary or combined sewer measured edge to edge where practical. If not practical a variance may be requested to allow the water pipe to be installed closer to the gravity sanitary or combined sewer provided the water pipe is laid in a separate trench or undisturbed shelf located on one side of the sewer with the bottom of the pipe at least 18 inches above the top of the gravity sanitary or combined sewer pipe. [Drinking Water General Design Criteria IV.3.b]
T-38	Water lines crossing sanitary, combined or storm sewers shall be laid to provide a minimum vertical distance of 18 inches between the outside of the water main and the outside of the sanitary, combined or storm sewer with preference to the water main located above the sanitary, combined or storm sewer. [Drinking Water General Design Criteria IV.3.c]
T-39	At crossings, one full length of water pipe shall be located so both joints will be as far from the sewer as possible. [Recommended Standards for Water Works 8.8.3.b]
T-40	There shall be no connection between the distribution system and any pipes, pumps, hydrants, or tanks whereby unsafe water or other contaminating materials may be discharged or drawn into the system. [Recommended Standards for Water Works 8.10.1]
T-41	Water utilities shall have a cross connection program conforming to 401 KAR 8. [Recommended Standards for Water Works 8.10.1]
T-42	Installed pipe shall be pressure tested and leakage tested in accordance with the appropriate AWWA Standards. [Recommended Standards for Water Works 8.7.6]

PORT0000000056 (continued):

Narrative Requirements:

Condition No.	Condition
T-43	New, cleaned and repaired water mains shall be disinfected in accordance with AWWA Standard C651. The specifications shall include detailed procedures for the adequate flushing, disinfection, and microbiological testing of all water mains. In an emergency or unusual situation, the disinfection procedure shall be discussed with the Division of Water. [Recommended Standards for Water Works 8.7.7]
T-44	A minimum cover of five feet shall be provided over pipe crossing underwater. [Recommended Standards for Water Works 8.9.2]
T-45	Valves shall be provided at both ends of water crossings so that the section can be isolated for testing or repair; the valves shall be easily accessible, and not subject to flooding for pipes crossing underwater. [Recommended Standards for Water Works 8.9.2.b]
T-46	Permanent taps or other provisions to allow insertion of a small meter to determine leakage and obtain water samples on each side of the valve closest to the supply source for pipes crossing. [Recommended Standards for Water Works 8.9.2.c]

PORT0000000057 (Pump Station) Complete rehabilitation of the existing Pump Stations at Hwy 1880 & Hwy 449 with new pumps with identical existing operating points; 100 gpm with 525 feet TDH and 550 gpm with 550 TDH:

Narrative Requirements:

Condition No.	Condition
T-1	Construction of this project shall not result in the water system's inability to supply consistent water service in compliance with 401 KAR 8:010 through 8:600. [401 KAR 8:100 Section 5]
T-2	The public water system shall not implement a change to the approved plans without the prior written approval of the cabinet. [401 KAR 8:100 Section 4(3)]
T-3	A proposed change to the approved plans affecting sanitary features of design shall be submitted to the cabinet for approval in accordance with Section 2 of this administrative regulation. [401 KAR 8:100 Section 4(2)]
T-4	During construction, a set of approved plans and specifications shall be available at the job site. Construction shall be performed in accordance with the approved plans and specifications. [401 KAR 8:100 Section 3(1)]
T-5	Unless construction begins within two (2) years from the date of approval of the final plans and specifications, the approval shall expire. [401 KAR 8:100 Section 3(3)]
T-6	Upon completion of construction, a professional engineer shall certify in writing that the project has been completed in accordance with the approved plans and specifications. [401 KAR 8:100 Section 4(1)]
T-7	The system shall be designed to maintain a minimum pressure of 20 psi at ground level at all points in the distribution system under all conditions of flow. [Recommended Standards for Water Works 8.2.1, Drinking Water General Design Criteria IV.1.a]
T-8	Pumping facilities shall be elevated to a minimum of three feet above the 100?year flood elevation, or three feet above the highest recorded flood elevation, whichever is higher, or protected to such elevations, [Recommended Standards for Water Works 6.1.1.a]
T-9	Pumping facilities shall be readily accessible at all times. [Recommended Standards for Water Works 6.1.1.b]
T-10	Pumping facilities shall be graded around the station so as to lead surface drainage away from the station. [Recommended Standards for Water Works 6.1.1.c]
T-11	Pumping facilities shall be protected to prevent vandalism and entrance by animals or unauthorized persons. [Recommended Standards for Water Works 6.1.1.d]

PORT0000000057 (continued):

Narrative Requirements:

Condition No.	Condition
T-12	Raw and finished pump stations shall have adequate space for the installation of additional units if needed, and for the safe servicing of all equipment. [Recommended Standards for Water Works 6.2.a]
T-13	Raw and finished pump stations shall have floors that slope to a suitable drain. [Recommended Standards for Water Works 6.2.e]
T-14	Raw and finished pump stations shall provide a suitable outlet for drainage from pump glands without discharging onto the floor. [Recommended Standards for Water Works 6.2.f]
T-15	At least two pumping units shall be provided. With any pump out of service, the remaining pump or pumps shall be capable of providing the maximum pumping demand of the system. [Recommended Standards for Water Works 6.3]
T-16	Pumps shall have ample capacity to supply the peak demand against the required distribution system pressure without dangerous overloading, [Recommended Standards for Water Works 6.3.a]
T-17	Pumps shall be driven by prime movers able to meet the maximum horsepower condition of the pumps. [Recommended Standards for Water Works 6.3.b]
T-18	Pumps shall be provided with readily available spare parts and tools. [Recommended Standards for Water Works 6.3.c]
T-19	Pump stations shall have indicating, totalizing, and recording metering of the total water pumped. [Recommended Standards for Water Works 6.6.3]
T-20	Each pump shall have a standard pressure gauge on its discharge line. [Recommended Standards for Water Works 6.6.3.a]
T-21	Each pump shall have a compound gauge on its suction line. [Recommended Standards for Water Works 6.6.3.b]
T-22	Where two or more pumps are installed, provision shall be made for alternation. [Recommended Standards for Water Works 6.6.5]
T-23	Provisions shall be made to prevent energizing the pump motor in the event of a backspin cycle. [Recommended Standards for Water Works 6.6.5]
T-24	Electrical controls shall be located above grade. [Recommended Standards for Water Works 6.6.5]

PORT0000000057 (continued):

Narrative Requirements:

Condition No.	Condition
T-25	Equipment shall be provided or other arrangements made to prevent surge pressures from activating controls which switch on pumps or activate other equipment outside the normal design cycle of operation. [Recommended Standards for Water Works 6.6.5]
T-26	Pump stations shall have a power supply provided from at least two independent sources or a standby or an auxiliary source. [Recommended Standards for Water Works 6.6.6]
T-27	If standby power is provided by onsite generators or engines, the fuel storage and fuel line must be designed to protect the water supply from contamination. [Recommended Standards for Water Works 6.6.6]
T-28	All lubricants which come into contact with the potable water shall be certified for conformance to ANSI/NSF Standard 60. [Recommended Standards for Water Works 6.6.8]
T-29	Booster pumps stations shall have a bypass available. [Recommended Standards for Water Works 6.4.e]
T-30	Each booster pumping station shall contain not less than two pumps with capacities such that peak demand can be satisfied with the largest pump out of service. [Recommended Standards for Water Works 6.4.1]
T-31	All booster pumping stations shall be fitted with a flow rate indicating and totalizer meter. [Recommended Standards for Water Works 6.4.2]
T-32	Inline booster pumps shall be accessible for servicing and repairs. [Recommended Standards for Water Works 6.4.3]
T-33	Each pump must have an isolation valve on the intake and discharge side of the pump to permit satisfactory operation, maintenance and repair of the equipment. [Recommended Standards for Water Works 6.6.1]
T-34	Each pump shall have a positive?acting check valve on the discharge side between the pump and the shut?off valve. [Recommended Standards for Water Works 6.6.1]
T-35	Pump station piping shall be designed so that the friction losses will be minimized, not be subject to contamination, have watertight joints, be protected against surge or water hammer with suitable restraints when necessary, and be such that each pump has an individual suction line or the lines shall be manifolded that they will insure similar hydraulic and operating conditions. [Recommended Standards for Water Works 6.6.2]

PORT0000000057 (continued):

Narrative Requirements:

Condition No.	Condition
T-36	Booster pumps taking suction from storage tanks shall be provided adequate net positive suction head. [Recommended Standards for Water Works 6.4.b]
T-37	Booster pumps shall controlled so that automatic shutoff or low pressure controllers maintain at least 20 psi in the suction line under all operating conditions. [Recommended Standards for Water Works 6.4.c]
T-38	Booster pumps taking suction from ground storage tanks shall be equipped with automatic shutoffs or low pressure controllers. [Recommended Standards for Water Works 6.4.c]
T-39	All automatic pump stations should be provided with automatic signaling apparatus which will report when the station is out of service. [Recommended Standards for Water Works 6.5]
T-40	All remote controlled stations shall be electrically operated and controlled and shall have signaling apparatus of proven performance. [Recommended Standards for Water Works 6.5]
T-41	Raw and finished pump stations shall have a floor elevation of at least six inches above finished grade. [Recommended Standards for Water Works 6.2.c]

TRANSPORTATION CABINET

Steven L. Beshear
Governor

Department of Highways District 8 Office
1660 S. Highway 27
Somerset, KY 42502
(606) 677-4017

Michael W. Hancock, P.E.
Secretary

Cumberland County Water District
133 Lower River Street
Burkesville, KY 42717

Subject: Cumberland County
KY 90
MP 029-0090-0.984
Entrance: A08-2015-00032

Dear Sir:

The attached is your approved copy of the encroachment permit application. One copy is to be submitted to your contractor. This permit is to remain on the project until the permitted work is complete.

You are to shape and seed any disturbed areas on the State's right of way. All work and materials are to comply with the Department's Standard Specification for Road and Bridge Construction- 2012 Edition. Signs, barricades, lights, etc. if required, are to be installed in accordance with the Manual on Uniform Traffic Control Devices.

Please notify this office when permitted work begins. When work has been completed, the Notice of Completion of Encroachment Permit Work must be completed and returned so an inspection can be made by personnel from this office. If all work has been completed satisfactorily, your indemnity will then be released.

Yours truly,

Conley Moren, P.E.
Engineering Support TEBM
District 8- Somerset

4-8-2015
Date

BN/cm
Attachments

Kentucky Transportation Cabinet
Department of Highways
Permits Branch

ENCROACHMENT PERMIT

KEPTS No.: A08-2015-00032

Permittee: Cumberland Water District

Latitude: 36.839088

Longitude: -85.558267

Completion Date: 6/1/2016

Coordinates provided on the TC 99-1(B) are the approved location for this permit

Indemnities		
Type	Amount Required	Tracking Number
Performance Bond	0	
Payment Bond	0	
Liability Insurance	0	

This permit has been:

APPROVED [X] **DENIED** [ ]

Conley Moren — Engineer Branch Manager

NAME — **TITLE**

Conley Moren — 4/8/2015

SIGNATURE — **DATE**

The TC 99-1(B), including the application TC-99 1(A) and all related and accompanying documents and drawings make up the permit. It is not a permit unless both the TC 99-1(A) and TC 99-1(B) are both present.

KUD
Know 'U' Dig
CALL TOLL FREE
1-800-752-6007
For Buried Elec/Cable Locations

Kentucky Transportation Cabinet
Department of Highways
Permits Branch

APPLICATION FOR ENCROACHMENT PERMIT

Permittee Information	**KYTC No.** 08-2015-00032
Name Cumberland County Water District	**Permit Information**
Address 133 Lower River Street	Address
	City
City Burkesville	State Zip
State Kentucky Zip 42717	County Cumberland
Phone# (502) 864-3133	Route No. KY 90 Mile-Point 0.984
Contact Johnny Carter	Longitude (X) 85°33'29.55" W
Phone (502) 864-3133 Cell (270) 459-2247	Latitude (Y) 36°50'20.69" N
Email ccwateroffice@yahoo.com	*Information below to be filled out by KYTC*
Contact James Lee Mudd Jr.	☐ Air Right ☐ Entrance
Phone (502) 839-1310 Cell (502) 604-0847	☒ Utilities ☐ Other:
Email lmudd@monarchengineering.net	
	☐ Left ☐ Right ☒ X-ing
	Access: ☐ Full ☐ Partial ☒ by Permit

General Description of Work:

M.P. 0.984 (X-ing) - Install approximately 100 L.F. of Bore & Case for 3" PVC water main below Kentucky Highway 90. Encasement pipe will be 8" steel.
(See Applicant's Plans, Sheet 20)

Cumberland County Water

P.S.

THE UNDERSIGNED PERMITTEE(s) (being duly authorized representative(s) or owner(s)) DO AGREE TO ALL TERMS AND CONDITIONS ON THE TC 99-1 (A).

Johnny Carter — 3-9-15

Signature — Date

This is not a permit unless and until the permittee(s) receives an approved TC 99-1(B) from KYTC. This application will become void if not approved by the cancellation date. The cancellation date will be one year from the date the permittee submits their application.

APPLICATION FOR ENCROACHMENT PERMIT

TERMS AND CONDITIONS

1. The permit, including this application and all related and accompanying documents and drawings making up the permit, remains in effect and is binding upon the Applicant/Permittee, its successors and assigns, as long as the encroachment(s) exists and also until the permittee is finally relieved by the Department of Highways from all its obligations.

2. Applicant shall meet all requirements of the Clean Water Act if the project will disturb one acre or more, the applicant shall obtain a KPDES KYR10 Permit from the Kentucky Division of Water. All disturbed areas shall meet the requirements of the Department of Highway's Standard Specifications, Sections 212 and 213, as amended.

3. INDEMNITY:

- **A.** PERFORMANCE BOND: The permittee shall provide to the Department a performance bond according to the Permits Manual, Section PE-203 as a guarantee of conformance with the Department's Encroachment Permit requirements.
- **B.** PAYMENT BOND: At the discretion of the department, a payment bond will be required of the permittee to ensure payment of liquidated damages assessed to the permittee.
- **C.** LIABILITY INSURANCE: Liability insurance will be required of the permittee (in an amount approved by the department) to cover all liabilities associated with the encroachment.
- **D.** It shall be the responsibility of the permittee, its successors and assigns, to maintain all indemnities in full force and effect until the permittee is authorized to release the indemnity by the Department.

4. A copy of this application and all related documents making up the approved permit will be given to the applicant and shall be made readily available for review at the work site at all times.

5. Perpetual maintenance of the encroachment is the responsibility of the permittee, its successors and assigns, with the approval of the Department as required, unless otherwise stated.

6. Permittee, its successors and assigns, shall comply with and agrees to be bound by the requirements and terms of (a) this application and all related documents making up the approved permit, (b) by the Department's Permits Manual, and (c) by the Manual on Uniform Traffic Control Devices, both manuals as revised to and in effect on the date of issuance of the permit, all of which documents are made a part thereof by this reference. Compliance by the permittee, its successors and assigns, with subsequent revisions to applicable provisions of either manual or other policy of the Department may be made a condition of allowing the encroachment to persist under the permit.

7. Permittee agrees that this and any encroachment may be ordered removed by the Department at any time, and for any reason, upon thirty days written notice to the last known address of the applicant or to the address at the location of the encroachment. The permittee agrees that the cost of removing and of restoring the associated right-of-way is the responsibility of the permittee, its successors and assigns.

8. Permittee, its successors and assigns, agree that if the Department determines that motor vehicular safety deficiencies develop as a result of the installation or use of the encroachment, the permittee, its successors and assigns, shall provide and bear the expenses to adjust, relocate, or reconstruct the facilities, and/or add signs, auxiliary lanes, or other corrective measures reasonably deemed necessary by the Department within a reasonable time after receipt of a written notice of such deficiency. The period within which such adjustments, relocations, additions, modifications, and/or other corrective measures must be completed will be specified in the notice.

APPLICATION FOR ENCROACHMENT PERMIT

9. Where traffic signals are required as a condition of granting the requested permit or are thereafter required to correct motor vehicular safety deficiencies, as determined by the Department, the costs for signal equipment and installation(s) shall be borne by the permittee, its successors and assigns, and/or the Department in its reasonable discretion and only in accordance with the Department's current policy set forth in the Traffic Operations Manual and Permits Manual. Any modifications to the permittee's entrance necessary to accommodate signalization (including necessary easement(s) on private property) shall be the responsibility of the permittee, its successors and assigns, at no expense to the Department.

10. The requested encroachment shall not infringe on the frontage rights of an abutting owner without their written consent as hereinafter described. Each abutting owner shall express their consent, which shall be binding on their successors and assigns, by the submission of a notarized statement as follows, "I (we), _____, hereby consent to the granting of the permit requested by the applicant along Route _____, which permit does affect frontage rights along my (our) adjacent real property." By signature(s) _____, subscribed and sworn by _____, on this date _____.

11. The permit, if approved, is subject to the agreement that it shall not interfere with any similar rights or permit(s) previously granted to any other party, except as otherwise provided by law.

12. Permittee shall include documentation which describes the facilities to be constructed. Permittee, its successors and assigns, agrees as a condition of the granting of the permit to construct and maintain any and all permitted facilities or other encroachments in strict accordance with the submitted and approved permit documentation and the policies and procedures of the Department. Permittee, its successors and assigns, shall not use facilities authorized herein in any manner contrary to that prescribed by the approved permit. Only normal usage as contemplated by the parties and by this application and routine maintenance are authorized by the permit.

13. Permittee, its successors and assigns, at all times from the date permitted work is commenced until such time as all permitted facilities or other encroachments are removed from the right-of-way and the right-of-way restored, **shall defend, protect, indemnify and save harmless** the Department from any and all liability claims and demands arising out of the work, encroachment, maintenance, or other undertaking by the permittee, its successors and assigns, related or undertaken pursuant to the granted permit, due to any claimed act or omission by the permittee, its servants, agents, employees, or contractors. This provision shall not inure to the benefit of any third party nor operate to enlarge any liability of the Department beyond that existing at common law or otherwise if this right to indemnity did not exist.

14. Upon a violation of any provision of the permit, or otherwise in its reasonable discretion, the Department may require additional action by the permittee, its successors and assigns, up to and including the removal of the encroachment and restoration of the right-of-way. In the event additional actions required by the Department under the permit are not undertaken as ordered and within a reasonable time, the Department may in its discretion cause those or other additional corrective actions to be undertaken and the Department may and shall recover the reasonable costs of those corrective actions from the permittee, its successors and assigns.

15. Permittee, its successors and assigns, shall use the encroachment premises in compliance with all requirements of federal law and regulation, including those imposed pursuant to Title VI of the Civil Right Act of 1964 (42 U.S.C. § 2000d et seq.) and the related regulations of the U.S. Department of Transportation in Title 49 C.F.R. Part 21, all as amended.

APPLICATION FOR ENCROACHMENT PERMIT

16. Permittee, its successors and assigns, agree that if the Department determines it is necessary for the facilities or other encroachment authorized by the permit to be removed, relocated or reconstructed in connection with the reconstruction, relocation or improvement of a highway, the Department may revoke permission for the encroachment to remain under the permit and may order its removal, relocation or reconstruction by the permittee, its successors and assigns, at the expense of the permittee, except where the Department is required by law to pay any or all of those costs.

17. Permittee agrees that the authorized permit is personal to the permittee and shall remain in effect until such time as (a) the permittee's rights to the adjoining real property to have benefitted from the requested encroachment have been relinquished, (b) until all permit obligations have been assumed by appropriate successors and assigns, and (c) unless and until a written release from permit obligations has been granted by the Department. The permit and its requirements shall also bind the real property to have benefitted from the requested encroachment to the extent permitted by law. The permit and the related encroachment become the responsibility of the successors and assigns of the permittee and the successors and assigns of each property owner benefitting from the encroachment, or the encroachment may not otherwise permissibly continue to be maintained on the right-of-way. (Does not apply to utility encroachments serving the general public.)

18. If work authorized by the permit is within a highway construction project in the construction phase, it shall be the responsibility of the permittee to make personal contact with the Department's Engineer on the project in order to coordinate all permitted work with the Department's prime contractor on the project.

19. This permit is not intended to, nor shall it, affect, alter or alleviate any requirement imposed upon the permittee, its successors and assigns, by any other agency.

20. Permittee, its successors and assigns, agrees to contain and maintain all dirt, mud, and other debris emanating from the encroachment away from the surrounding right-of-way and the travel way of the highway hereafter and at all times that its obligations under the permit remain in effect.

KY Transportation Cabinet – District 8
Permit Number 08-2015-00032

Applicant to bore under KY 90 at mp 0.984 in Cumberland County with 100 feet of 8 inch steel casing for 3 inch PVC water line connecting to existing water line as shown on attached plans and typical section.

Valves, taps, and additional hardware shall be constructed between back slope of ditch line or toe of slope and right of way line and shall have a minimum of 42 inch cover. All water meters are to be placed off Kentucky Transportation Cabinet right of way.

Note: Actual length of encasement pipe for each road bore shall be determined in the field to meet the requirements of the attached typical section.

The boring pit and tail ditch shall extend past the existing toe of slope or bottom of ditch line and shall be a minimum of 42 inches deep. The encasement and utility line shall be 42 inches from the lowest point of the ditch line to the top of the encasement.

The end of all encasement pipes shall be left uncovered until the Department of Highways is notified and field inspection is made. The encasement pipe shall be welded at all joints and be one continuous run of pipe.

All work and materials shall meet or exceed the state specifications. Work area within the state's right of way shall be signed and flagged in accordance to the Manual on Uniform Traffic Control Devices before any work is to begin on the Kentucky Transportation Cabinet right of way.

No changes shall be made by the contractor contrary to this permit and the applicant's plans without first notifying and being approved by the Permit engineer.

Construction of the utility shall not interfere with any construction or maintenance operations on KY 90 by the Transportation Cabinet.

Roadway drainage shall be maintained at all times, with silt checks placed in the roadway ditch where needed and near the inlet of all culvert and entrance pipe to control erosion and prevent silt from settling inside of pipe.

The applicant shall provide all necessary steps to contain all silting within the work area as specified in Section 212 and Section 213, Department's Standard Specifications for Road and Bridge Construction.

All disturbed portions of the right-of-way are to be restored to grass as per Kentucky Department of Highways Standard Specifications for Road and Bridge Construction, 2012 edition. A satisfactory turf, as determined by the Department, is to be established by the permittee prior to release of indemnity.

The minimum rate of application for seeding and protection method II per 1,000 square feet shall be applied as follows:

2 lbs. of seed mixture
23 lbs. of 10-20-20 fertilizer
150 lbs. of agricultural limestone

Applicant will be responsible to contact the Department of Highways D-8 Permits Office at 606-677-4017 a minimum of 2 working days prior to beginning of permitted work.

This permit will be terminated and work will stop immediately at any time the Department of Highways discovers or is notified of any unsafe or hazardous conditions until corrections have been made.

ENCROACHMENT PERMIT GENERAL NOTES & SPECIFICATIONS

Permit No. 08-2015-00032

I. SAFETY

A. General Provisions

☒ All signs and control of traffic shall be in accordance with the Manual on Uniform Traffic Control Devices for Streets and Highways, latest edition, Part VI, and safety requirements shall comply with the Permits Manual.

☒ All work necessary in shoulder or ditch line areas of a state highway shall be scheduled to be promptly completed so that hazards adjacent to the traveled way are kept to an absolute minimum.

☒ No more than one (1) traveled-lane shall be blocked or obstructed during normal working hours. All signs and flaggers during lane closure shall conform to the Manual on Uniform Traffic Control Devices.

☒ When necessary to block one (1) traveled-lane of a state highway, the normal working hours shall be as directed by the Department. No lanes shall be blocked or obstructed during adverse weather conditions (rain, snow, fog, etc.) without specific permission from the Department. Working hours shall be between 8:30 AM and 4:00 PM

☒ The traveled-way and shoulders shall be kept clear of mud and other construction debris at all times during construction of the permitted facility.

☒ No nonconstruction equipment or vehicles or office trailers shall be allowed on the right of way during working hours.

☒ The right of way shall be left free and clear of equipment, material, and vehicles during non-working hours.

B. Explosives

☒ No explosive devices or explosive material shall be used within state right of way without proper license and approval of the Kentucky Department of Mines and Minerals, Explosive Division.

C. Other Safety Requirements

☒ All workers must wear OSHA conforming personal protection items at all times when work is performed on the KYTC right of way. All traffic control must conform to the latest edition of the Manual on Uniform Traffic Control Devices

II. UTILITIES * Applies to Fully Controlled Access Highways **ONLY**

☐ *All work necessary within the right of way shall be performed behind a temporary fence erected prior to a boring operation.

☐ *The temporary woven wire fence shall be removed immediately upon completion of work on the right of way, and the control of access immediately restored to original condition, in accordance with applicable Kentucky Department of Highways Standard Drawings.

☐ *All vents, valves, manholes, etc., shall be located outside of the right-of-way.

☐ *Encasement pipe shall extend from right-of-way line to right-of-way line and shall be one continuous run of pipe. The encasement pipe shall be welded at all joints.

☒ The boring pit and tail ditch shall extend past the existing toe of slope or bottom of ditch line and shall be a minimum of 42 inches deep.

Permit No. _____

II. UTILITIES (Continued)

☒ Encasement pipe pipe shall conform to current standards for highway crossings in accordance with the Permits Manual.

☐ Parallel lines shall be constructed between back slope of ditch line and right-of-way line and shall have a minimum of 42-inch cover above top of pipe or conduit.

☐ All pavement cuts shall be restored per Kentucky Transportation Cabinet form TC 99-13.

☐ Aerial crossing of this utility line shall have a minimum clearance of _____ feet from the high point of the roadway to the low point of the line (calculated at the coefficient for expansion of 120 degrees Farenheit).

☐ The 30-foot clear zone requirement shall be met to the extent possible in accordance with the Permits Manual.

☐ Special requirements:

III. GENERAL

A. OSHA

☒ Kentucky Occupational Safety and Health Standards for the construction industry, which has the effect of law, states in part: (Page 52, 1926.651, Specific Excavation Requirements) "Prior to opening an excavation, effort shall be made to determine whether underground installations, (sewer, telephone, water, fuel, electric lines, etc.) will be encountered, and if so, where such underground installations are located. When the excavation approaches the estimated location of such an installation, the exact location shall be determined, and when it is uncovered, proper supports shall be provided for the existing installation. Utility companies shall be contacted and advised of proposed work prior to the start of actual excavation."

B. Archaeological

☒ Whenever materials of an archaeological nature are discovered during the course of construction work or maintenance operations, contact shall be made immediately with the Division of Environmental Analysis, which maintains an archaeologist on staff, or with the Office of the State Archaeologist located at the University of Kentucky. Following this consultation, further action shall be decided on a case-by-case basis by the State Highway Engineer or the Transportation Planning Engineer or their designated representative.

C. Utilities in the Work Areas

☒ The permittee shall be responsible for any damage to existing utilities, and any utility modifications or relocations within state right of way necessary, as determined by the Department or by the owner of the utility, shall be at the expense of the permittee and subject to the approval of the Department.

☐ All existing manholes and valve boxes shall be adjusted to be flush with finished grade.

D. Environmental

☒ If the activity to which this permit relates disturbs one acre or more of land, you must obtain a KPDES KYR10 permit.

Websites

http://www.water.ky.gov/permitting/wastewaterpermitting/KPDES/storm/

Inspectors for KPDES KYR10 at www.KEPSC.org

Permit No. _____

IV. RIGHT OF WAY RESTORATION

☒ All disturbed portions of the right of way shall be restored to grass as per Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition). A satisfactory turf, as determined by the Department, shall be established by the permittee prior to release of indemnity. Sodding or seeding shall be as follows:

Lawn or High Maintenance Situation	70% Lawn Fescue (e.g., variety - Falcon) 30% Bluegrass **or** 70% Lawn Rye (e.g., variety - Derby) 30% Bluegrass
Right of Way Lawn Maintenance Situation	70% KY 31 Fescue 30% Perennial Rye Grass **or** 100% KY Fescue

☒ Two tons of clean straw mulch per acre of seeding.

☒ Prior to seeding, the ground shall be prepared in accordance with Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition).

☐ Substitutes for sod such as artificial turf, rocked mulch, or paved areas may be acceptable if they are aesthetically pleasing.

☐ All ditch-flow lines and all ditch-side slopes shall be sodded.

☒ Existing concrete right of way markers shall not be disturbed, but if damaged in any way, they shall be entirely replaced by the permittee, with new concrete markers to match the original markers, in accordance with Kentucky Department of Highways Standard Drawings. Markers that are entirely removed shall be re-established in the proper locations by the permittee and to the satisfaction of the Department.

☐ Other right of way restoration requirements are as follows:

V. DRAINAGE

☐ All pipe shall be laid in a straight alignment, to proper grades, and with all materials and methods of installation including bedding and joint seating in accordance with Department Standard Specifications for Road and Bridge Construction (latest edition). Pipe shall not be covered until inspected by the Department and express permission obtained to make backfill.

☐ All gutter lines at the base of new curbs shall be on continuous grades, and pockets of water along with curbs or in entrance areas or other paved areas within the right of way shall not be acceptable.

☐ All drainage structures and appurtenances (manholes, catch basins, curbing, inlet basins, etc.) shall conform to Department specifications and shall be constructed in accordance with the Department Standard Drawings. Type required:

_____

_____

Permit No. _____

VI. Paving

☐ No bituminous pavement shall be installed within the right of way between November 15 and April 1, nor when the temperature is below 40 degrees Farenheit, without the express consent of the Department. No bituminous pavement shall be installed when the underlying course is wet.

☐ Paving within the right of way shall be as follows:

☐ Base (Type) _____ (Thickness) _____

☐ Surface Base (Type) _____ (Thickness) _____

☐ Finished Surface (Type) _____ (Thickness) _____

☐ Existing pavement and shoulder material shall be removed to acommodate the above paving specifications.

☐ The finished surface of all new pavement within the right of way shall be true to the required slope and grade, uniform in density and texture, free of irregularities, and equivalent in riding qualities to the adjacent highway pavement or as determined by the Department of Highways.

☐ All materials and methods of construction, including base and subgrade preparation, shall be in accordance with Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition).

☐ 24 hours notice to the Department is required prior to beginning paving operations.

Phone: _____ Name: _____

☐ To ensure proper surface drainage, the new pavement shall be flush with the edge of existing highway pavement and shall slope away from the existing edge of the pavement as specified in drawings.

☐ Existing edge of pavement shall be saw-cut to provide a straight and uniform joint for new pavement. An approved joint sealer, in accordance with Kentucky Department of Highways Standard Specifications (latest edition), shall be applied between new and existing pavements.

VII. SIDEWALKS SPECIFICATIONS *This dimension should be equal to the width of the sidewalk.

A. New Sidewalks

☐ Sidewalks shall be constructed of Class A concrete (3,500 p.s.i. test), shall be *_____ feet in width, 6 inches in thickness across the bituminous entrance, and 4 inches in thickness across the remaining sections.

☐ Sidewalks shall have tooled joints not less than 1 inch in depth at four foot intervals*, and 1/2 premolded expansion joints extending entirely through the sidewalk at intervals not to exceed 50 feet.

☐ All materials and methods of construction, including curing, shall be in accordance with the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition).

B. Existing Sidewalks

☐ **(Applicable if existing sidewalks are being relocated)** Use of the sidewalk shall not be blocked or obstructed, and a usable walkway shall be maintained across the construction area at all times.

☐ All damaged sections of the sidewalks shall be entirely replaced to match existing sections.

Permit No. _____

VIII. DENSE GRADED SHOULDERS

☐ Any existing dense-graded aggregate shoulders in the entire frontage within the construction area, which have been disturbed or damaged or on which dirt has been placed or mud has been deposited or tracked, shall be restored to original condition by removal of all contaminated material and replaced to proper grade with new dense-graded aggregate.

☐ All new aggregate shoulders as specified in the plan shall consist of 5 inches of compacted dense-graded aggregate, $2^{1/2}$ pounds per square yard of calcium chloride.

☐ All dense-graded aggregate shoulders shall slope away from the new edge of pavement at the rate of 3/4 inch per foot.

IX. CURBING

A. Bituminous Curbs

☐ Bituminous concrete curbs shall be given a paint coat of asphalt emulsion.

☐ The surface under the bituminous concrete curb shall be tacked with asphalt emulsion.

☐ All bituminous concrete curbs shall be constructed of a Class I bituminous concrete mixture as specified by official Department of Highways specifications.

☐ All bituminous curbs shall be rolled curb, with a minimum base width of 8 inches and a minimum height of _____ inches. The top of the curb shall be constructed in such a manner as to guarantee a uniform rolled effect throughout the entire run.

B. Concrete Curbs

☐ All curbs or curb and gutter shall be constructed of Class A concrete (3,500 p.s.i. test) and shall be uniform in height, width, and alignment, true to grade, and satisfactory in finish and appearance as determined by the Department. All materials and methods of construction, including curing, shall be in accordance with Department of Highways Standard Specifications for Road and Bridge Construction (latest edition).

☐ All concrete curbs shall be 6 inches in width, extend _____ inches above finished grade and 12 inches below finished grade, with all visible edge rounded to 1/2 inch radii.

☐ All concrete curbs shall have expansion joints constructed at intervals of not more than 30 feet, and 1/2 inch premolded expansion joint material (cut to conform to the curb or to the curb and gutter section) shall be used in each expansion joint.

☐ The last _____ feet of all concrete curbs are to be tapered down to finished grade.

Permit No. _____

X. RIGHT-OF-WAY FENCE REPLACEMENT

☐ The replacement fence shall be a height of at least 48 inches and shall be of sufficient density to contain all animals (if applicable).

☐ The replacement fence shall be a minimum of 1 foot and a maximum of 2 feet outside the right-of-way line.

☐ The fence materials and design shall meet accepted industry standards and be treated as paintable.

☐ The permittee shall be required to maintain the fence in a high state of repair.

☐ The existing fence shall be removed by permittee and stored at the Department's maintenance storage yard for future reuse by the Department.

☐ The control of access shall not be diminished as a result of replacement of the fence.

☐ Miscellaneous:

NOTICE TO PERMITTEE

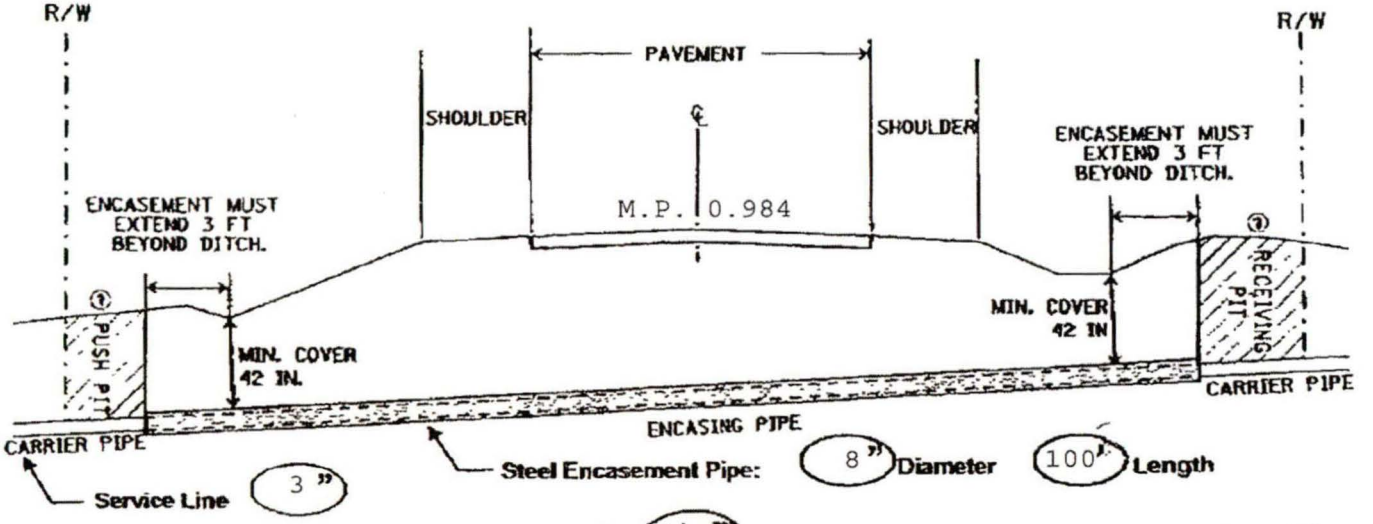
THE PERMITTEE AGREES THAT ALL WORK WITHIN THE EXISTING RIGHT OF WAY SHALL BE DONE IN ACCORDANCE WITH THE PLANS AS APPROVED AND PERMITTED BY AN ENCROACHMENT PERMIT. ANY CHANGES OR VARIANCES MADE AT THE TIME OF CONSTRUCTION WITHOUT WRITTEN APPROVAL FROM THE DEPARTMENT OF HIGHWAYS SHALL BE REMOVED BY THE PERMITTEE AT NO EXPENSE TO THE DEPARTMENT OF HIGHWAYS AND SHALL BE REDONE BY THE PERMITTEE TO CONFORM WITH THE APPROVED PLANS.

08-2015-00032

Route Number: KY 90

Pavement Width: 50 LF

Failure to place bore at 42" depth will result in re-boring at applicant's expense, and may result in forfeiture of bond or other indemnity.



(1) Push pit and receiving pit shall be backfilled and thoroughly compacted.

2. All ditch lines shall be restored to original condition.

3. Shape, seed, and straw all disturbed areas.

4. Services over 2" shall be steel encased unless exempt under Chapter Two of the KYTC Permits Guidance Manual.

KENTUCKY DEPARTMENT OF HIGHWAYS

TYPICAL HIGHWAY BORING CROSSING DETAIL

TC99-10 Rev. 04/06 Dist. 4

NOTICE OF COMPLETION OF ENCROACHMENT PERMIT WORK

Please return this form to the District Office when work is completed and ready for final inspection.

Application Identification

Name: Cumberland Co. Water

Contact Person:

Address: 133 Lower River St.

City: Burkesville

State: KY

Telephone:

Project Identification

Permit Number: A08-2015-00032

County: Cumberland

Road Name: KY 90

Milepoint: 0.984

I wish to notify the Department of Highways that the above mentioned permits work and any necessary right of way restoration have been completed and are ready for final inspection.

_____

Applicant Signature

Please Return To:

Department of Highways
District 8 Somerset
P.O. Box 780
Somerset, Ky. 42502

Attention: **Conley Moren**

KENTUCKY INFRASTRUCTURE AUTHORITY
1024 Capital Center Drive, Suite 340
Frankfort, Kentucky 40601
Phone (502) 573-0260
Fax (502) 573-0157
http://kia.ky.gov

Steven L. Beshear
Governor

John E. Covington III
Executive Director

October 2, 2014

Mr. Alvin Pharis, Chairman
Cumberland County Water District
133 Lower River Street
Burkesville, KY 42717

KENTUCKY INFRASTRUCTURE AUTHORITY
FEDERALLY ASSISTED DRINKING WATER REVOLVING LOAN FUND
CONDITIONAL COMMITMENT LETTER (F15-001)

Dear Chairman Pharis:

The Kentucky Infrastructure Authority ("the Authority") commends your efforts to improve public service facilities in your community. On October 2, 2014, the Authority approved your loan for the Water System Improvement Project subject to the conditions stated below. The total cost of the project shall not exceed $1,368,000 of which the Authority loan shall provide $1,268,000 of the funding. Other anticipated funding for the project is reflected in the attached documents. The final loan amount will be equal to the Authority's portion of estimated project cost applied to the actual project cost. The attachments incorporated herein by reference fully describe the project.

An Assistance Agreement will be executed between the Authority and the Cumberland County Water District upon satisfactory performance of the conditions set forth in this letter. A period of twelve months from the date of this letter (October 2, 2015), will be allowed for you to meet the conditions set forth in this letter and enter into an Assistance Agreement. A one-time extension of up to six months may be granted for applicants that experience extenuating circumstances. Funds will be available for disbursement only after execution of the Assistance Agreement.

The Assistance Agreement and this commitment shall be subject, but not limited to, the following terms:

1. The Authority project loan shall not exceed $1,268,000.

2. The loan shall contain principal forgiveness in the amount of 30%. Actual amortized loan and forgiveness amounts will be based on actual project costs drawn from the Authority.

3. The loan shall bear interest at the rate of 0.75 percent per annum commencing with the first draw of funds.

4. The loan shall be repaid over a period not to exceed 20 years from the date the loan is closed.

5. Interest shall be payable on the unforgiven amount of actual funds received. The first payment shall be due on June 1 or December 1 immediately succeeding the date of the initial draw of funds, provided that if such June 1 or December 1 shall be less than three months since the date of the initial draw of funds, then the first interest payment date shall be the June 1 or December 1 which is at least six months from the date of the initial draw of funds. Interest payments will be due each six months thereafter until the loan is repaid.

6. Full principal payments will commence on the appropriate June 1 or December 1 within twelve months from initiation of operation. Full payments will be due each six months thereafter until the loan is repaid.

7. A loan servicing fee of 0.25% of the annual outstanding loan balance shall be payable to the Authority as a part of each interest payment.

8. Loan funds will be disbursed after execution of the Assistance Agreement as project costs are incurred.

9. The Authority loan funds must be expended within six months of the official date of initiation of operation.

10. Fund "F" loan funds may be considered to be federal funds. OMB Circular A-133, "Audits of States, Local Governments and Non-Profit Organizations, requires that all recipients and subrecipients **expending $500,000 or more in a year in federal awards must have a single or program-specific audit conducted for that year** in accordance with the Circular. If the federal amount expended plus all other federal funds expended exceeds the threshold, you are required to arrange for an A-133 audit to be performed by an independent, licensed CPA, or in special cases, the Auditor of Public Accounts of the Commonwealth of Kentucky. Please note that the guidance for single audit requirements will change for

calendar or fiscal years beginning after December 26, 2014. Please consult with your independent auditor as soon as possible to understand how the changes will affect you.

11. The Authority requires an annual financial audit to be performed for the life of the loan.

The following is a list of the standard conditions to be satisfied prior to execution of the Assistance Agreement or incorporated in the Assistance Agreement. Any required documentation must be submitted to the party designated.

1. The Authority to Award (bid) package must be submitted to the Division of Water for approval within 14 days of bid opening.

2. The Assistance Agreement must be executed within six (6) months from bid opening.

3. Documentation of final funding commitments from all parties other than the Authority as reflected in the credit analysis shall be provided prior to preparation of the Assistance Agreement and disbursement of the loan monies. Rejections of any anticipated project funding shall be immediately reported and may cause this loan to be subject to further consideration.

4. The loan must undergo review by the Capital Projects and Bond Oversight Committee of the Kentucky Legislature prior to the state's execution of the Assistance Agreement. The committee meets monthly on the third Tuesday. At this time we know of no further submission required for their review; however, they may request information as needed.

5. Any required adjustment in utility service rates shall be adopted by ordinance, municipal order or resolution by the appropriate governing body of the Borrower. Public hearings as required by law shall be held prior to the adoption of the service rate ordinance, order, or resolution. Any required approvals by the Kentucky Public Service Commission shall be obtained.

6. The Borrower must complete and return to the Authority the attached "Authorization for Electronic Deposit of Vendor Payment" Form.

7. An environmental review shall be conducted by the Division of Water for all construction projects receiving DWSRF funds, within the term of this binding commitment and prior to project bid.

8. Technical plans and specifications and a complete DWSRF specifications checklist shall be approved by the Division of Water prior to project bid.

9. All easements or purchases of land shall be completed prior to commencement of construction. Clear Site Certification of all land or easement acquisitions shall be provided to the Division of Water. DOW representatives shall be notified for attendance of the pre-construction conference.

10. Project changes or additions shall require a complete environmental and change order review before they can be included in the DWSRF loan project.

11. Applicant must provide certification from their legal counsel stating that they have prepared construction specifications in accordance with all applicable state or federal wage rate laws, and that the procurement procedures, including those for construction, land, equipment and professional services that are a part of the project, are in compliance with applicable federal, state and local procurement laws.

12. The Borrower shall comply with all Davis Bacon related monitoring and reporting and require all contractors to pay wages pursuant to applicable prevailing wage rates (federal or state) for all work relating to the subject Project.

13. The project shall comply with the reporting requirements of the Transparency Act, and shall complete the attached Transparency Act Reporting Information Form and provide to the Authority no later than 30 days after the KIA Board approval date of your loan.

14. If the project has a "Green Reserve" component, the Borrower must submit a Business Case, if required.

15. The project shall comply with American Iron and Steel requirements of The Consolidated Appropriations Act of 2014 (H.R. 3547), which became effective January 17, 2014, unless engineering plans and specifications were approved by the Division of Water prior to the effective date.

Any special conditions stated in the Project Review attachment must be resolved.

Please inform the Authority of any changes in your financing plan as soon as possible. We wish you every success for this project which will benefit both your community and the Commonwealth as a whole.

Sincerely,

John Covington, III
Executive Director

Attachments

cc: Mathew Dyer, Cumberland County Water District
Johnny Carter, Cumberland County Water District
Lee Mudd, Monarch Engineering, Inc
Division of Water
Dirk Bedarff, Peck, Shaffer & Williams LLP
State Local Debt Office, DLG
Borrower File - Cumberland County Water District - F15-001

Please sign and return a copy of this letter indicating your acceptance of this commitment and its terms. Also attach the completed "Authorization For Electronic Deposit of Vendor Payment" Form.

Accepted

10-14-2014
Date

ATTACHMENTS

Cumberland County Water District
F15-001

EXECUTIVE SUMMARY
KENTUCKY INFRASTRUCTURE AUTHORITY
FUND F, FEDERALLY ASSISTED DRINKING WATER REVOLVING LOAN FUND

Reviewer	Jeff Abshire
Date	October 2, 2014
KIA Loan Number	F15-001
WRIS Number	WX21057013

BORROWER	CUMBERLAND COUNTY WATER DISTRICT CUMBERLAND COUNTY

BRIEF DESCRIPTION

The proposed project will upgrade or rehabilitate various aging, undersized and inadequate infrastructure components of the District. Project components include waterline replacements, elevated storage tank and pump station rehabilitation, new telemetry communications system and installation of radio read meters.

PROJECT FINANCING		PROJECT BUDGET	RD Fee %	Actual %	
Fund F Loan	$1,268,000	Administrative Expenses			$5,000
USDA RD	100,000	Legal Expenses			8,000
		Eng - Design / Const	8.6%	7.4%	88,000
		Eng - Insp	5.4%	4.7%	56,000
		Eng - Other			20,000
		Construction			1,092,000
		Contingency			99,000
TOTAL	$1,368,000	TOTAL			$1,368,000

REPAYMENT	Rate	0.75%	Est. Annual Payment	$50,094
	Term	20 Years	1st Payment	6 Mo. after first draw
PROFESSIONAL SERVICES	Engineer	Monarch Engineering, Inc		
	Bond Counsel	Peck, Shaffer, & Williams, a division of Dinsmore & Shohl, LLP		
PROJECT SCHEDULE	Bid Opening	Feb-15		
	Construction Start	Apr-15		
	Construction Stop	Apr-16		
DEBT PER CUSTOMER	Existing	$1,252		
	Proposed	$1,476		
OTHER DEBT		See Attached		
OTHER STATE-FUNDED PROJECTS LAST 5 YRS		See Attached		

RESIDENTIAL RATES		Users	Avg. Bill	
	Current	2,736	$42.00	(for 4,000 gallons)
	Additional	0	$42.00	(for 4,000 gallons)

REGIONAL COORDINATION This project is consistent with regional planning recommendations.

CASHFLOW	Cash Flow Before Debt Service	Debt Service	Cash Flow After Debt Service	Coverage Ratio
Audited 2012	174,535	200,008	(25,473)	0.9
Audited 2013	336,766	291,994	44,772	1.2
Projected 2014	407,511	240,353	167,158	1.7
Projected 2015	397,667	244,540	153,127	1.6
Projected 2016	384,426	253,478	130,948	1.5
Projected 2017	374,184	277,455	96,729	1.3
Projected 2018	363,737	276,837	86,900	1.3
Projected 2019	353,081	275,594	77,487	1.3

Reviewer: Jeff Abshire
Date: October 2, 2014
Loan Number: F15-001

KENTUCKY INFRASTRUCTURE AUTHORITY
DRINKING WATER STATE REVOLVING FUND (FUND "F")
CUMBERLAND COUNTY WATER DISTRICT, CUMBERLAND COUNTY
PROJECT REVIEW
WX21057013

I. PROJECT DESCRIPTION

The Cumberland County Water District is requesting a $1,268,000 Fund "F" loan for the Water System Improvement Project. The project will replace aging and undersized lines; rehabilitate two pump stations; rehabilitate a 100,000 gallon elevated storage tank; install new telemetry communications systems on five storage tanks, four pump stations and at the water treatment plant; and install approximately 400 radio read meters.

The District is regulated by the Kentucky Public Service Commission, purchases water from the cities of Albany and Burkesville, and serves approximately 2,700 customers.

II. PROJECT BUDGET

	Total
Administrative Expenses	$ 5,000
Legal Expenses	8,000
Engineering Fees – Design / Const	88,000
Engineering Fees - Inspection	56,000
Engineering Fees - Other	20,000
Construction	1,092,000
Contingency	99,000
Total	**$ 1,368,000**

III. PROJECT FUNDING

	Amount	%
Fund F Loan	$ 1,268,000	93%
USDA RD	100,000	7%
Total	**$ 1,368,000**	**100%**

IV. KIA DEBT SERVICE

Construction Loan	$	1,268,000
Less: Principal Forgiveness (30%)		380,400
Amortized Loan Amount	$	887,600
Interest Rate		0.75%
Loan Term (Years)		20
Estimated Annual Debt Service	$	47,875
Administrative Fee (0.25%)		2,219
Total Estimated Annual Debt Service	**$**	**50,094**

V. PROJECT SCHEDULE

Bid Opening	February 2015
Construction Start	April 2015
Construction Stop	April 2016

VI. CUSTOMER COMPOSITION AND RATE STRUCTURE

A) Customers

Customers	Current
Residential	2,688
Commercial	42
Industrial	6
Total	2,736

B) Rates

	Current	Prior	Percent
Date of Last Rate Increase	05/16/13	03/22/11	
Minimum (2,000 gallons)	$27.00	$19.48	38.6%
Next 3,000 Gallons	7.50	7.10	5.6%
Next 5,000 Gallons	6.50	5.90	10.2%
All Over 10,000 Gallons	5.50	4.80	14.6%
Cost for 4,000 gallons	$42.00	$33.68	24.7%
Affordability Index (Rate/MHI)	1.5%		

VII. DEMOGRAPHICS

Based on current Census data from the American Community Survey 5-Year Estimate 2008-2012, the Utility's service area population was 4,770 with a Median Household Income (MHI) of $32,699. The median household income for the Commonwealth is $42,610. The project will qualify for a .75% interest rate.

	Population				Unemployment	
Year	City	% Change	County	% Change	Date	Rate
1980	2,150		7,289		June 2003	7.1%
1990	1,815	-15.6%	6,784	-6.9%	June 2008	6.9%
2000	1,756	-3.3%	7,147	5.4%	June 2012	9.8%
2010	1,521	-13.4%	6,856	-4.1%	June 2013	10.9%
Current	1,738	14.3%	6,857	0.0%		
Cumulative %		-19.2%		-5.9%		

VIII. 2014 CAPITALIZATION GRANT EQUIVALENCIES

1) Green Project Reserve - The Drinking Water capitalization grant does not contain a "green" requirement.

2) Additional Subsidization – This project qualifies for additional subsidization in the amount of $380,400.

IX. FINANCIAL ANALYSIS (See Exhibit 1)

Financial information was obtained from the audited financial statements for the District for the years ended December 31, 2012 and 2013. Amounts for 2014 are estimated.

HISTORY

Revenues increased 15% from $1,077,873 to $1,240,214 due a rate increase of 24.7% which was offset by some volume decrease. Purchased water cost decreased 18% from $417,986 to $340,986 due to both the volume reduction and a reduction in water loss. Operating expenses averaged about $487,000 each year. The debt coverage ratio improved from .9 in 2012 to 1.7 in 2014 due to the effect of the rate increase and the reduction in water loss.

The balance sheet reflects a current ratio of .8, a debt to equity ratio of 1.2 and a receivables collection period of about thirty-five days. Months of operating expenses in unrestricted cash are 1.6. The District maintains restricted funds for depreciation (1.2% of net fixed assets) and for debt service.

PROJECTIONS

Projections are based on the following assumptions:

1) Revenues reflect an approved rate increase in May 2013 but will otherwise be flat for inflation and volume.
2) Increases in purchased water cost will be immediately passed through to the users.
3) Operating expenses will increase 2% annually.

4) Debt service coverage is 1.3 in 2017 which is the first full year of principal and interest payments.

Based on the proforma assumptions, the utility shows adequate cash flow to repay the KIA Fund F loan.

REPLACEMENT RESERVE

The annual replacement cost is $3,200. This amount should be added to the replacement account each December 1 until the balance reaches $32,000 and maintained for the life of the loan.

X. DEBT OBLIGATIONS

	Outstanding	Maturity
Rural Water	$ 86,000	2031
RD Series 1975	11,800	2014
RD Series 1978	19,550	2017
RD Series 1985	169,399	2024
RD Series 1986	165,517	2025
RD Series 1987	64,042	2026
RD Series 1988	51,231	2027
RD Series 1991	48,000	2029
RD Series 1994	110,000	2033
RD Series 1994	95,848	2033
RD Series 1996	199,000	2036
RD Series 2001	349,000	2041
RD Series 2005	424,500	2045
RD Series 2009	405,500	2049
RD Series 2011	1,000,000	2051
RD Series 2014	487,000	2053
Total	**$ 3,686,387**	

XI. OTHER STATE OR FEDERAL FUNDING IN PAST FIVE YEARS

Project Title	Funding Source	Amount	Type
Water Tank Renovations (2009)	USDA	710,000	Loan / Grant
Water Systems Improvements (2011)	USDA	1,500,000	Loan / Grant
Water Systems Improvements (2013)	USDA	796,000	Loan / Grant

XII. CONTACTS

Legal Applicant	
Name	Cumberland County Water District
Address	133 Lower River Street
	Burkesville, KY 42717
County	Cumberland
Authorized Official	Alvin Pharis (Chairman)
Phone	(270) 864-3133
Email	cumberlandcowater@gmail.com

Project Contact - Applicant	
Name	Johnny Carter
Representing	Cumberland County Water District
Address	133 Lower River Street
	Burkesville, KY 42717
Phone	(270) 864-3133
Email	cumberlandcowater@gmail.com

Project Administrator	
Name	Cumberland County Water District
Address	133 Lower River Street
	Burkesville, KY 42717
Contact	Mathew Dyer
Phone	(270) 864-3133
Email	cumberlandcowater@gmail.com

Consulting Engineer	
Name	Lee Mudd
Firm	Monarch Engineering, Inc
Address	556 Carlton Drive
	Lawrenceburg, KY 40342
Phone	(502) 839-1310
Email	lmudd@monarchengineering.net

XIII. RECOMMENDATIONS

KIA staff recommends approval of the loan with the standard conditions.

CUMBERLAND COUNTY WATER DISTRICT
FINANCIAL SUMMARY (DECEMBER YEAR END)

	Audited 2012	Audited 2013	Projected 2014	Projected 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019
Balance Sheet								
Assets								
Current Assets	141,729	155,439	252,097	315,224	356,172	362,901	364,801	367,288
Other Assets	5,912,579	6,094,903	7,703,865	8,331,643	8,662,890	9,014,976	9,362,062	9,699,148
Total	6,054,308	6,250,342	7,955,962	8,646,867	9,019,062	9,377,877	9,726,863	10,066,436
Liabilities & Equity								
Current Liabilities	344,532	296,927	299,939	285,649	285,893	286,773	287,888	288,239
Long Term Liabilities	3,298,200	3,424,845	4,015,657	4,139,957	4,038,857	3,933,657	3,824,157	3,711,157
Total Liabilities	3,642,732	3,721,772	4,315,596	4,425,606	4,324,750	4,220,430	4,112,045	3,999,396
Net Assets	2,411,576	2,528,570	3,640,366	4,221,261	4,694,312	5,157,447	5,614,818	6,067,040
Cash Flow								
Revenues	1,077,873	1,159,723	1,240,214	1,240,214	1,240,214	1,240,214	1,240,214	1,240,214
Operating Expenses	904,042	823,552	833,203	843,047	856,288	866,530	876,977	887,633
Other Income	704	595	500	500	500	500	500	500
Cash Flow Before Debt Service	174,535	336,766	407,511	397,667	384,426	374,184	363,737	353,081
Debt Service	200,008	291,994	240,353	244,540	253,478	277,455	276,837	275,594
Cash Flow After Debt Service	(25,473)	44,772	167,158	153,127	130,948	96,729	86,900	77,487
Ratios								
Current Ratio	0.4	0.5	0.8	1.1	1.2	1.3	1.3	1.3
Debt to Equity	1.5	1.5	1.2	1.0	0.9	0.8	0.7	0.7
Days Sales in Accounts Receivable	30.5	34.7	34.7	34.7	34.7	34.7	34.7	34.7
Months Operating Expenses in Unrestricted Cash	0.4	0.4	1.6	2.5	3.1	3.1	3.1	3.1
Debt Coverage Ratio	0.9	1.2	1.7	1.6	1.5	1.3	1.3	1.3

CUMBERLAND COUNTY WATER DISTRICT
ESTIMATED ANNUAL COST OF SYSTEM OPERATION
FOLLOWING COMPLETION OF
2014 WATER SYSTEM IMPROVEMENTS PROJECT
PROJECTED FOR THE 2016 OPERATING YEAR

SALARIES & WAGES	$215,000
EMPLOYEE BENEFITS	79,000
PURCHASED WATER	395,000
UTILITIES	50,000
MATERIALS & SUPPLIES	83,000
CONTRACTED SERVICES	35,000
VEHICLE & EQUIPMENT EXPENSES	26,000
INSURANCE	15,000
OFFICE EXPENSES	34,000
DIRECTORS FEES	9,000
BAD DEBT EXPENSE	5,000
OTHER OPERATING EXPENSES	4,000
TOTAL OPERATING EXPENSES	**$950,000**

Cumberland County Water District
Statements of Net Position
December 31, 2014 and 2013

	2014	2013
Assets		
Current Assets		
Cash and cash equivalents	$ 10,442	$ 27,039
Receivables, less allowance for doubtful accounts of $54,134 and $49,110, respectively	78,482	75,758
Unbilled accounts receivable	35,087	34,521
Grant receivables	44,859	-
Inventories	12,738	18,121
Prepaid expenses	6,484	5,740
Total Current Assets	188,092	161,179
Noncurrent Assets		
Restricted Assets		
Customer deposits	28,111	26,151
Depreciation reserves	179,525	84,521
Debt and interest funds	257,462	251,521
Total Restricted Assets	465,098	362,193
Capital Assets		
Land and improvements	55,313	55,313
Buildings and improvements	179,437	165,511
Equipment	307,110	302,411
Other water system assets	8,203,878	7,252,820
Transportation	193,903	153,503
Office furniture and equipment	62,445	54,531
Construction in progress	-	303,445
Less: accumulated depreciation	(2,780,995)	(2,560,564)
Net Capital Assets	6,221,091	5,726,970
Total Noncurrent Assets	6,686,189	6,089,163
Total Assets	$ 6,874,281	$ 6,250,342

See accompanying notes to financial statements.

Cumberland County Water District
Statements of Net Position (Continued)
December 31, 2014 and 2013

	2014	2013
Liabilities		
Current Liabilities		
Accounts payable	$ 151,796	$ 66,946
Accrued interest payable	89,025	85,911
Accrued salaries and taxes payable	17,979	20,231
Current portion of long-term debt	103,600	100,000
Other current liabilities	21,580	23,839
Total Current Liabilities	383,980	296,927
Noncurrent Liabilities		
Construction loan	-	226,644
Long-term debt, less current portion included in current liabilties	3,581,600	3,198,201
Total Noncurrent Liabilities	3,581,600	3,424,845
Total Liabilities	3,965,580	3,721,772
Net Position		
Net investment in capital assets	2,535,891	2,202,125
Restricted	465,098	362,193
Unrestricted	(92,288)	(35,748)
Total Net Position	$ 2,908,701	$ 2,528,570

See accompanying notes to financial statements.

Cumberland County Water District
Statements of Revenues, Expenses and Changes in Net Position
For the Years Ended December 31, 2014 and 2013

	2014	2013
Operating Revenues		
Water sales	$ 1,250,222	$ 1,117,022
Service charges	17,050	14,952
Other revenues	46,605	27,749
Total Operating Revenues	1,313,877	1,159,723
Operating Expenses		
Salaries and wages	215,629	200,773
Employee benefits	78,652	80,052
Purchased water	393,800	340,986
Utilities	49,389	40,014
Materials and supplies	82,693	31,541
Contracted services	35,115	33,540
Vehicle and equipment expenses	26,001	22,792
Insurance	15,512	17,338
Office expenses	34,189	31,743
Directors fees	8,600	8,737
Bad debt expense, net of recoveries	5,024	6,089
Depreciation	220,431	214,359
Other operating expenses	11,101	9,948
Total Operating Expenses	1,176,136	1,037,912
Operating Income	137,741	121,811
Non-operating Revenues (Expenses)		
Interest income	854	595
Grant revenue	378,697	115,700
Interest expense	(137,161)	(121,112)
Total Non-operating Revenues (Expenses)	242,390	(4,817)
Change in Net Position	380,131	116,994
Net Position, Beginning of Year	2,528,570	2,411,576
Net Position, End of Year	$ 2,908,701	$ 2,528,570

See accompanying notes to financial statements.

Cumberland County Water District
Statements of Cash Flows
For the Years Ended December 31, 2014 and 2013

	2014	2013
Cash Flows From Operating Activities		
Receipts from customers	$ 1,303,304	$ 1,145,507
Payments to employees	(217,881)	(193,803)
Payments to suppliers	(636,963)	(614,757)
Payments for other activities	(8,600)	(8,737)
Net Cash Provided by Operating Activities	439,860	328,210
Cash Flows From Capital and Related Financing Activities		
Purchases of property, plant and equipment	(714,552)	(285,440)
Principal payments on debt	(118,326)	(167,290)
Interest payments on debt	(134,047)	(124,704)
Proceeds from debt	278,681	226,644
Grants	333,838	115,700
Net Cash Used by Capital and Related Financing Activities	(354,406)	(235,090)
Cash Flows From Investing Activities		
Interest income	854	595
Net Cash Provided by Investing Activities	854	595
Net Increase in Cash and Cash Equivalents	86,308	93,715
Cash and Cash Equivalents at Beginning of Year	389,232	295,517
Cash and Cash Equivalents at End of Year	$ 475,540	$ 389,232
Reconciliation of cash per Statement of Net Assets to cash per Statement of Cash Flows:		
Cash and cash equivalents	$ 10,442	$ 27,039
Customer deposits	28,111	26,151
Depreciation reserves	179,525	84,521
Debt and interest funds	257,462	251,521
Cash and cash equivalents per Statement of Cash Flows	$ 475,540	$ 389,232

See accompanying notes to financial statements.

Cumberland County Water District
Statements of Cash Flows (Continued)
For the Years Ended December 31, 2014 and 2013

	2014	2013
Reconciliation of Operating Income to Net Cash Provided by Operating Activities:		
Operating Income	$ 137,741	$ 121,811
Adjustments to reconcile operating income to net cash provided by operating activities		
Depreciation	220,431	214,359
(Increase) Decrease in operating assets		
Accounts receivable	(2,724)	(13,821)
Unbilled receivables	(566)	(6,484)
Inventory	5,383	4,850
Prepaid expenses	(744)	2,222
Increase (Decrease) in operating liabilities		
Accounts payable	84,850	(4,851)
Accrued salaries and taxes payable	(2,252)	6,970
Other current liabilities	(2,259)	3,154
Net Cash Provided by Operating Activities	$ 439,860	$ 328,210

See accompanying notes to financial statements.

FINAL PROJECT BUDGET
2014 WATER SYSTEM IMPROVEMENTS
CUMBERLAND COUNTY WATER DISTRICT
CUMBERLAND COUNTY, KENTUCKY
MAY 2015

PROJECT COSTS	
DEVELOPMENT	
CONTRACT NO. 1: WATER LINE REPLACEMENTS & PUMP STATION REHABILITATIONS	$507,974.94
CONTRACT NO. 2: SOUTH HIGHWAY 61 WATER STORAGE TANK REHABILITATION	$135,000.00
CONTRACT NO. 3: TELEMTRY CONTROL SYSTEM ADDITIONS	$204,800.00
TOTAL DEVELOPMENT	$847,774.94
CONTINGENCY	$190,058.82
ENGINEERING DESIGN (9.10%)	$77,147.52
CONSTRUCTION INSPECTION (5.90%)	$50,018.72
PRELIMINARY ENGINEERING REPORT	$10,000.00
ENVIROMENTAL ASSESSMENT	$10,000.00
ADMINISTRATION	$5,000.00
LEGAL	$8,000.00
EQUIPMENT - RADIO READ METERS	$70,000.00
TOTAL PROJECT COSTS	**$1,268,000.00**
PROJECT FUNDING	
KIA DWSRF LOAN	$1,268,000.00
TOTAL PROJECT FUNDING	**$1,268,000.00**

Certified Bid Tabs Attached

MONARCH ENGINEERING, INC.
556 Carlton Drive
Lawrenceburg, KY 40342
Phone (502) 839-1310
Fax (502) 839-1373

BID TABULATIONS
CUMBERLAND COUNTY WATER DISTRICT
2014 WATER SYSTEM IMPROVEMENTS
CONTRACT NO. 1
CUMBERLAND COUNTY, KENTUCKY
BID DATE: MAY 21, 2015 @ 11:00 A.M. LOCAL TIME

			Cumberland Pipeline, LLC P.O. Box 277 Russell Springs, KY 42642		Stotts Construction Co. P.O. Box 1689 Columbia, KY 42728		United Pipeline, Inc. 150 Hill Road Tompkinsville, KY 42167	
ITEM NO.	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL COST	UNIT PRICE	TOTAL COST	UNIT PRICE	TOTAL COST
	BASE BID CONTRACT							
1	6-Inch PVC SDR-21 Water Line	3,150 LF	$9.68	$30,492.00	$12.25	$38,587.50	$12.00	$37,800.00
2	4-Inch PVC SDR-21 Water Line	4,100 LF	9.36	38,376.00	9.60	39,360.00	10.00	41,000.00
3	3-Inch PVC SDR-21 Water Line	15,150 LF	7.98	120,897.00	9.00	136,350.00	8.00	121,200.00
4	2-Inch PVC SDR-21 Water Line	20 LF	7.02	140.40	12.00	240.00	12.00	240.00
5	Creek Crossing for 6-Inch Water Line	70 LF	89.76	6,283.20	30.00	2,100.00	90.00	6,300.00
6	Creek Crossing for 3-Inch Water Line	120 LF	88.20	10,584.00	30.00	3,600.00	80.00	9,600.00
7	Bore & Case for 3-Inch Water Line	30 LF	55.36	1,660.80	58.00	1,740.00	80.00	2,400.00
8	Free Bore & Case for 4-Inch Water Line	20 LF	34.29	685.80	28.40	568.00	80.00	1,600.00
9	Free Bore & Case for 3-Inch Water Line	90 LF	32.75	2,947.50	25.00	2,250.00	80.00	7,200.00
10	6-Inch Gate Valve	2 EA	961.00	1,922.00	1,500.00	3,000.00	1,600.00	3,200.00
11	4-Inch Gate Valve	1 EA	710.00	710.00	1,200.00	1,200.00	1,300.00	1,300.00
12	3-Inch Gate Valve	4 EA	350.00	1,400.00	1,000.00	4,000.00	1,000.00	4,000.00
13	2-Inch Gate Valve	1 EA	446.00	446.00	800.00	800.00	800.00	800.00
14	Blowoff Assembly	2 EA	811.00	1,622.00	1,200.00	2,400.00	1,100.00	2,200.00
15	Direct Connection	5 EA	656.00	3,280.00	600.00	3,000.00	1,000.00	5,000.00
16	Type I Connection	2 EA	1,140.00	2,280.00	900.00	1,800.00	1,200.00	2,400.00
17	Type II Connection	3 EA	1,350.00	4,050.00	700.00	2,100.00	1,000.00	3,000.00
18	Meter Setting	4 EA	1,191.00	4,764.00	1,000.00	4,000.00	1,200.00	4,800.00
19	Service Line Reconnection	3 EA	270.00	810.00	250.00	750.00	100.00	300.00
20	Meter Reconnection	44 EA	435.21	19,149.24	500.00	22,000.00	600.00	26,400.00
21	1-Inch PE Service Tubing	20 LF	6.00	120.00	8.50	170.00	12.00	240.00
22	3/4-Inch PE Service Tubing	720 LF	6.00	4,320.00	8.00	5,760.00	11.00	7,920.00
23	Exploration	36 HR	100.00	3,600.00	200.00	7,200.00	$50.00	1,800.00
	BASE BID CONTRACT (Continued)							

THE ABOVE IS A TRUE AND COMPLETE TABULATION OF BIDS RECEIVED AT 11:00A.M. LOCAL TIME, THURSDAY, MAY 21, 2015 AT THE CUMBERLAND COUNTY WATER DISTRICT.

BY: James Lee Mudd, Jr.

STATE OF KENTUCKY
JAMES LEE MUDD JR.
28693
LICENSED PROFESSIONAL ENGINEER

5-21-15
DATE

Project No. 1423

MONARCH ENGINEERING, INC.
556 Carlton Drive
Lawrenceburg, KY 40342
Phone (502) 839-1310
Fax (502) 839-1373

BID TABULATIONS
CUMBERLAND COUNTY WATER DISTRICT
2014 WATER SYSTEM IMPROVEMENTS
CONTRACT NO. 1
CUMBERLAND COUNTY, KENTUCKY
BID DATE: MAY 21, 2015 @ 11:00 A.M. LOCAL TIME

ITEM NO.	DESCRIPTION	QUANTITY	Cumberland Pipeline, LLC P.O. Box 277 Russell Springs, KY 42642 UNIT PRICE	Cumberland Pipeline, LLC TOTAL COST	Stotts Construction Co. P.O. Box 1689 Columbia, KY 42728 UNIT PRICE	Stotts Construction Co. TOTAL COST	United Pipeline, Inc. 150 Hill Road Tompkinsville, KY 42167 UNIT PRICE	United Pipeline, Inc. TOTAL COST
	BASE BID CONTRACT (Continued)							
24	Hwy 1880 Booster Pump Station Rehabilitation							
	24A) Demolition & Removal	1 LS	$5,500.00	$5,500.00	$10,000.00	$10,000.00	$9,000.00	$9,000.00
	24B) Building Modification & Improvements	1 LS	21,576.00	21,576.00	20,000.00	20,000.00	7,000.00	7,000.00
	24C) New Booster Pumps	1 LS	47,218.00	47,218.00	30,000.00	30,000.00	28,000.00	28,000.00
	24D) New Piping & Appurtenances	1 LS	18,132.00	18,132.00	26,500.00	26,500.00	32,000.00	32,000.00
	24E) Paint & Coatings	1 LS	5,000.00	5,000.00	8,500.00	8,500.00	1,500.00	1,500.00
	24F) Electrical & Mechanical	1 LS	20,000.00	20,000.00	30,000.00	30,000.00	46,500.00	46,500.00
25	Hwy 449 Booster Pump Station Rehabilitation							
	25A) Demolition & Removal	1 LS	5,500.00	5,500.00	10,000.00	10,000.00	9,000.00	9,000.00
	25B) Building Modification & Improvements	1 LS	21,576.00	21,576.00	20,000.00	20,000.00	2,200.00	2,200.00
	25C) New Booster Pump	1 LS	59,806.00	59,806.00	40,000.00	40,000.00	40,400.00	40,400.00
	25D) New Piping & Appurtenances	1 LS	18,127.00	18,127.00	26,500.00	26,500.00	32,000.00	32,000.00
	25E) Paint & Coatings	1 LS	5,000.00	5,000.00	8,500.00	8,500.00	1,500.00	1,500.00
	25F) Electrical & Mechanical	1 LS	20,000.00	20,000.00	30,000.00	30,000.00	50,000.00	50,000.00
	TOTAL BASE BID			**$507,974.94**		**$542,975.50**		**$549,800.00**

ITEM NO.	DESCRIPTION	QUANTITY	Cumberland Pipeline, LLC UNIT PRICE	Cumberland Pipeline, LLC TOTAL COST	Stotts Construction Co. UNIT PRICE	Stotts Construction Co. TOTAL COST	United Pipeline, Inc. UNIT PRICE	United Pipeline, Inc. TOTAL COST
	ADDITIVE ALTERNATE NO. 1							
1	3-Inch PVC SDR-21 Water Line	5,850 LF	$10.82	$63,297.00	$11.00	$64,350.00	$8.00	$46,800.00
2	Bore & Case for 3-Inch Water Line	50 LF	116.09	5,804.50	50.00	2,500.00	80.00	4,000.00
3	3-Inch Gate Valve	2 EA	610.00	1,220.00	1,200.00	2,400.00	1,000.00	2,000.00
4	Direct Connection	1 EA	606.00	606.00	600.00	600.00	1,000.00	1,000.00
5	Type II Connection	1 EA	981.00	981.00	700.00	700.00	1,000.00	1,000.00
6	Meter Reconnection	7 EA	431.00	3,017.00	600.00	4,200.00	600.00	4,200.00
7	3/4-Inch PE Service Tubing	140 LF	6.00	840.00	7.50	1,050.00	11.00	1,540.00
8	Exploration	7 HR	100.00	700.00	200.00	1,400.00	50.00	350.00
	TOTAL ADDITIVE ALTERNATE NO. 1 BID			**$76,465.50**		**$77,200.00**		**$60,890.00**

MONARCH ENGINEERING, INC.
556 Carlton Drive
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BID TABULATIONS
CUMBERLAND COUNTY WATER DISTRICT
2014 WATER SYSTEM IMPROVEMENTS
CONTRACT NO. 1
CUMBERLAND COUNTY, KENTUCKY
BID DATE: MAY 21, 2015 @ 11:00 A.M. LOCAL TIME

ITEM NO.	DESCRIPTION	QUANTITY	Cumberland Pipeline, LLC P.O. Box 277 Russell Springs, KY 42642 UNIT PRICE	Cumberland Pipeline, LLC TOTAL COST	Stotts Construction Co. P.O. Box 1689 Columbia, KY 42728 UNIT PRICE	Stotts Construction Co. TOTAL COST	United Pipeline, Inc. 150 Hill Road Tompkinsville, KY 42167 UNIT PRICE	United Pipeline, Inc. TOTAL COST
	ADDITIVE ALTERNATE NO. 2							
1	3-Inch PVC SDR-21 Water Line	3,400 LF	$13.95	$47,430.00	$10.00	$34,000.00	$8.00	$27,200.00
2	2-Inch PVC SDR-21 Water Line	20 LF	12.52	250.40	14.50	290.00	12.00	240.00
3	3-Inch Gate Valve	1 EA	662.00	662.00	1,300.00	1,300.00	1,000.00	1,000.00
4	2-Inch Gate Valve	1 EA	446.00	446.00	1,000.00	1,000.00	800.00	800.00
5	Direct Connection	2 EA	940.00	1,880.00	700.00	1,400.00	1,000.00	2,000.00
6	Type II Connection	1 EA	980.00	980.00	850.00	850.00	1,000.00	1,000.00
7	Meter Reconnection	8 EA	431.00	3,448.00	600.00	4,800.00	600.00	4,800.00
8	3/4-Inch PE Service Tubing	60 LF	6.00	360.00	7.00	420.00	11.00	660.00
9	Exploration	8 HR	100.00	800.00	200.00	1,600.00	50.00	400.00
	TOTAL ADDITIVE ALTERNATE NO. 2 BID			**$56,256.40**		**$45,660.00**		**$38,100.00**

ITEM NO.	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL COST	UNIT PRICE	TOTAL COST	UNIT PRICE	TOTAL COST
	ADDITIVE ALTERNATE NO. 3							
1	3-Inch PVC SDR-21 Water Line	8,750 LF	$9.20	$80,500.00	$12.00	$105,000.00	$8.00	$70,000.00
2	2-Ince PVC SDR-21 Water Line	20 LF	15.05	301.00	11.00	220.00	12.00	240.00
3	Creek Crossing for 3-Inch Water Line	100 LF	88.41	8,841.00	30.00	3,000.00	80.00	8,000.00
4	Bore & Case for 3-Inch Water Line	100 LF	89.21	8,921.00	58.00	5,800.00	80.00	8,000.00
5	Open Cut & Case for 3-Inch Water Line	60 LF	79.55	4,773.00	48.00	2,880.00	70.00	4,200.00
6	3-Inch Gate Valve	3 EA	593.00	1,779.00	1,200.00	3,600.00	1,000.00	3,000.00
7	2-Inch Gate Valve	1 EA	413.00	413.00	1,000.00	1,000.00	800.00	800.00
8	Blowoff Assembly	1 EA	811.00	811.00	1,500.00	1,500.00	1,100.00	1,100.00
9	Direct Connection	1 EA	795.00	795.00	850.00	850.00	1,000.00	1,000.00
10	Type II Connection	1 EA	1,053.00	1,053.00	1,200.00	1,200.00	1,000.00	1,000.00
11	Meter Reconnection	10 EA	485.00	4,850.00	800.00	8,000.00	600.00	6,000.00
12	1-Inch PE Service Tubing	100 LF	6.00	600.00	8.70	870.00	12.00	1,200.00
13	3/4-Inch PE Service Tubing	80 LF	6.00	480.00	8.00	640.00	11.00	880.00
14	Exploration	14 HR	100.00	1,400.00	200.00	2,800.00	50.00	700.00
	TOTAL ADDITIVE ALTERNATE NO. 3 BID			**$115,517.00**		**$137,360.00**		**$106,120.00**

MONARCH ENGINEERING, INC.
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BID TABULATIONS
CUMBERLAND COUNTY WATER DISTRICT
2014 WATER SYSTEM IMPROVEMENTS
CONTRACT NO. 1
CUMBERLAND COUNTY, KENTUCKY
BID DATE: MAY 21, 2015 @ 11:00 A.M. LOCAL TIME

			Twin States Utilities, Inc. P.O. Box 14 Mt. Hermon, KY 42157	
ITEM NO.	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL COST
	BASE BID CONTRACT			
1	6-Inch PVC SDR-21 Water Line	3,150 LF	$14.00	$44,100.00
2	4-Inch PVC SDR-21 Water Line	4,100 LF	12.00	49,200.00
3	3-Inch PVC SDR-21 Water Line	15,150 LF	11.00	166,650.00
4	2-Inch PVC SDR-21 Water Line	20 LF	15.00	300.00
5	Creek Crossing for 6-Inch Water Line	70 LF	110.00	7,700.00
6	Creek Crossing for 3-Inch Water Line	120 LF	108.00	12,960.00
7	Bore & Case for 3-Inch Water Line	30 LF	98.00	2,940.00
8	Free Bore & Case for 4-Inch Water Line	20 LF	50.00	1,000.00
9	Free Bore & Case for 3-Inch Water Line	90 LF	50.00	4,500.00
10	6-Inch Gate Valve	2 EA	1,140.00	2,280.00
11	4-Inch Gate Valve	1 EA	880.00	880.00
12	3-Inch Gate Valve	4 EA	775.00	3,100.00
13	2-Inch Gate Valve	1 EA	590.00	590.00
14	Blowoff Assembly	2 EA	1,180.00	2,360.00
15	Direct Connection	5 EA	1,200.00	6,000.00
16	Type I Connection	2 EA	2,500.00	5,000.00
17	Type II Connection	3 EA	1,860.00	5,580.00
18	Meter Setting	4 EA	1,120.00	4,480.00
19	Service Line Reconnection	3 EA	420.00	1,260.00
20	Meter Reconnection	44 EA	480.00	21,120.00
21	1-Inch PE Service Tubing	20 LF	12.00	240.00
22	3/4-Inch PE Service Tubing	720 LF	11.00	7,920.00
23	Exploration	36 HR	250.00	9,000.00
	BASE BID CONTRACT (Continued)			

MONARCH ENGINEERING, INC.
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BID TABULATIONS
CUMBERLAND COUNTY WATER DISTRICT
2014 WATER SYSTEM IMPROVEMENTS
CONTRACT NO. 1
CUMBERLAND COUNTY, KENTUCKY
BID DATE: MAY 21, 2015 @ 11:00 A.M. LOCAL TIME

			Twin States Utilities, Inc. P.O. Box 14 Mt. Hermon, KY 42157	
ITEM NO.	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL COST
	BASE BID CONTRACT (Continued)			
24	Hwy 1880 Booster Pump Station Rehabilitation			
	24A) Demolition & Removal	1 LS	$7,150.00	$7,150.00
	24B) Building Modification & Improvements	1 LS	17,050.00	17,050.00
	24C) New Booster Pumps	1 LS	36,300.00	36,300.00
	24D) New Piping & Appurtenances	1 LS	35,200.00	35,200.00
	24E) Paint & Coatings	1 LS	3,300.00	3,300.00
	24F) Electrical & Mechanical	1 LS	49,500.00	49,500.00
25	Hwy 449 Booster Pump Station Rehabilitation			
	25A) Demolition & Removal	1 LS	5,500.00	5,500.00
	25B) Building Modification & Improvements	1 LS	13,200.00	13,200.00
	25C) New Booster Pump	1 LS	49,500.00	49,500.00
	25D) New Piping & Appurtenances	1 LS	35,200.00	35,200.00
	25E) Paint & Coatings	1 LS	3,300.00	3,300.00
	25F) Electrical & Mechanical	1 LS	52,800.00	52,800.00
	TOTAL BASE BID			**$667,160.00**

ITEM NO.	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL COST
	ADDITIVE ALTERNATE NO. 1			
1	3-Inch PVC SDR-21 Water Line	5,850 LF	$19.00	$111,150.00
2	Bore & Case for 3-Inch Water Line	50 LF	98.00	4,900.00
3	3-Inch Gate Valve	2 EA	775.00	1,550.00
4	Direct Connection	1 EA	1,200.00	1,200.00
5	Type II Connection	1 EA	1,860.00	1,860.00
6	Meter Reconnection	7 EA	480.00	3,360.00
7	3/4-Inch PE Service Tubing	140 LF	11.00	1,540.00
8	Exploration	7 HR	250.00	1,750.00
	TOTAL ADDITIVE ALTERNATE NO. 1 BID			**$127,310.00**

MONARCH ENGINEERING, INC.
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BID TABULATIONS
CUMBERLAND COUNTY WATER DISTRICT
2014 WATER SYSTEM IMPROVEMENTS
CONTRACT NO. 1
CUMBERLAND COUNTY, KENTUCKY
BID DATE: MAY 21, 2015 @ 11:00 A.M. LOCAL TIME

Twin States Utilities, Inc.
P.O. Box 14
Mt. Hermon, KY 42157

ITEM NO.	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL COST
	ADDITIVE ALTERNATE NO. 2			
1	3-Inch PVC SDR-21 Water Line	3,400 LF	$11.00	$37,400.00
2	2-Inch PVC SDR-21 Water Line	20 LF	15.00	300.00
3	3-Inch Gate Valve	1 EA	775.00	775.00
4	2-Inch Gate Valve	1 EA	590.00	590.00
5	Direct Connection	2 EA	1,200.00	2,400.00
6	Type II Connection	1 EA	1,860.00	1,860.00
7	Meter Reconnection	8 EA	480.00	3,840.00
8	3/4-Inch PE Service Tubing	60 LF	11.00	660.00
9	Exploration	8 HR	250.00	2,000.00
	TOTAL ADDITIVE ALTERNATE NO. 2 BID			**$49,825.00**

ITEM NO.	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL COST
	ADDITIVE ALTERNATE NO. 3			
1	3-Inch PVC SDR-21 Water Line	8,750 LF	$19.00	$166,250.00
2	2-Ince PVC SDR-21 Water Line	20 LF	22.00	440.00
3	Creek Crossing for 3-Inch Water Line	100 LF	108.00	10,800.00
4	Bore & Case for 3-Inch Water Line	100 LF	98.00	9,800.00
5	Open Cut & Case for 3-Inch Water Line	60 LF	98.00	5,880.00
6	3-Inch Gate Valve	3 EA	775.00	2,325.00
7	2-Inch Gate Valve	1 EA	590.00	590.00
8	Blowoff Assembly	1 EA	1,180.00	1,180.00
9	Direct Connection	1 EA	1,200.00	1,200.00
10	Type II Connection	1 EA	1,860.00	1,860.00
11	Meter Reconnection	10 EA	480.00	4,800.00
12	1-Inch PE Service Tubing	100 LF	12.00	1,200.00
13	3/4-Inch PE Service Tubing	80 LF	11.00	880.00
14	Exploration	14 HR	250.00	3,500.00
	TOTAL ADDITIVE ALTERNATE NO. 3 BID			**$210,705.00**

MONARCH ENGINEERING, INC.
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BID TABULATIONS
CUMBERLAND COUNTY WATER DISTRICT
2014 WATER SYSTEM IMPROVEMENTS
CONTRACT NO. 2
SOUTH HIGHWAY 61 WATER STORAGE TANK REHABILITIATION
CUMBERLAND COUNTY, KENTUCKY
BID DATE: MAY 21, 2015 @ 11:00 A.M. LOCAL TIME

ITEM NO.	DESCRIPTION	QUANTITY	Huffman Tank & Tower, Inc. 210 Burkesville Road Albany, KY 42602 UNIT PRICE	Huffman Tank & Tower, Inc. TOTAL COST	C&S Quality Services, LLC 1042 Forest Hill Lawrenceburg, KY 40342 UNIT PRICE	C&S Quality Services, LLC TOTAL COST
	BASE BID					
1	Complete Removal & Reapplication					
	of Exterior Steel Coating System	1 LS	$97,550.00	$97,550.00	$155,600.00	$155,600.00
2	Miscellaneous Repairs & Modifications					
	2A) Adjustment of Loose Windage Rods	10 EA	400.00	4,000.00	250.00	2,500.00
	2B) Replacement of Middle Level Struts	4 EA	4,000.00	16,000.00	3,900.00	15,600.00
	2C) Caulk Exterior Skip-Weld Seams					
	Under Balcony & Struts	790 LF	5.00	3,950.00	5.00	3,950.00
	2D) Fill/Surface Sharp Edged Pits					
	& Pits Deeper than 1/16"	80 SF	2.00	160.00	23.50	1,880.00
	2E) Weld Pits Deeper than 3/16"	50 SI	5.00	250.00	5.00	250.00
	2F) Grind All Sharp Edges, Burrs, & Weld					
	Spatter Flush with Adjacent Surfaces	1 LS	90.00	90.00	1,000.00	1,000.00
	2G) Replace Existing Fall Prevention Cables					
	on Leg & Roof Ladders with Aluminum					
	Notched Rail Fall Prevention System	1 LS	8,000.00	8,000.00	5,000.00	5,000.00
	2H) Install New Aluminum Climb Prevention					
	Gate at the Base of the Leg Ladder	1 LS	3,000.00	3,000.00	1,400.00	1,400.00
	2I) Repair Concrete Leg Foundation Piers	1 LS	1,000.00	1,000.00	1,500.00	1,500.00
	2J) Sweep Blast and Coat Exposed Concrete					
	Foundation Surfaces	1 LS	1,000.00	1,000.00	800.00	800.00
	TOTAL BASE BID			**$135,000.00**		**$189,480.00**

THE ABOVE IS A TRUE AND COMPLETE TABULATION OF BIDS RECEIVED AT 11:00A.M. LOCAL TIME, THURSDAY, MAY 21, 2015 AT THE CUMBERLAND COUNTY WATER DISTRICT.

BY: James L. Mudd

James L. Mudd

28693

LICENSED PROFESSIONAL ENGINEER

STATE OF KENTUCKY

5-21-15
DATE

Project No. 1423

MONARCH ENGINEERING, INC.
556 Carlton Drive
Lawrenceburg, KY 40342
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BID TABULATIONS
CUMBERLAND COUNTY WATER DISTRICT
2014 WATER SYSTEM IMPROVEMENTS
CONTRACT NO. 3
SUPERVISORY CONTROL & DATA ACQUISITION
(SCADA) CONTROL SYSTEM IMPROVEMENTS
CUMBERLAND COUNTY, KENTUCKY
BID DATE: MAY 21, 2015 @ 11:00 A.M. LOCAL TIME

			HTI, Inc. 9560 US Highway #62 E. Horse Branch, KY 42349	
ITEM NO.	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL COST
	BASE BID			
1	Water Treatment Plant (Central Control)	1 LS	$33,000.00	$33,000.00
2	South Highway 61 Water Storage Tank Site	1 LS	5,500.00	5,500.00
3	Highway 449 Water Storage Tank Site	1 LS	25,400.00	25,400.00
4	Highway 1880 Water Storage Tank Site	1 LS	25,700.00	25,700.00
5	Highway 449 Booster Pump Station Site	1 LS	23,800.00	23,800.00
6	Albany Booster Pump Station Site	1 LS	25,600.00	25,600.00
7	Highway 1880 Booster Pump Station Site	1 LS	21,700.00	21,700.00
8	Cedar Creek Booster Pump Station Site	1 LS	21,700.00	21,700.00
9	Kettle Control Valve Vault Site	1 LS	22,400.00	22,400.00
	TOTAL BASE BID			**$204,800.00**

THE ABOVE IS A TRUE AND COMPLETE TABULATION OF BIDS RECEIVED AT 11:00A.M. LOCAL TIME, THURSDAY, MAY 21, 2015 AT THE CUMBERLAND COUNTY WATER DISTRICT.

BY: _____
James L. Mudd

STATE OF KENTUCKY
JAMES LEE MUDD
25009
LICENSED PROFESSIONAL ENGINEER

5-21-15
DATE

Project No. 1423

420 Series Composite

420 Composite PD Meter
Sizes 5/8" x 1/2" and 5/8" x 3/4"

Features

APPLICATIONS: The **Hersey**® 420 composite is a nutating disc style, positive displacement meter designed for residential and small commercial applications where water volumes are low and low flow sensitivity is important.

CONFORMANCE TO STANDARDS: All **Hersey** 420 composite meters meet or exceed the latest revision of the AWWA C-710 Standard for positive displacement meters. Every 420 composite no lead meter is compliant with the latest initiatives of NSF, ANSI and EPA standards.

CONSTRUCTION: Hersey 420 water meters consist of three basic parts: maincase; measuring chamber; and permanently sealed register. The maincase is an advanced composite material designed for reduced weight and minimal environmental impact. Stainless steel metal threads provide corrosion resistant connections to standard bronze couplings.

Direction of flow arrows, model and size are molded into each maincase for easy identification. The bottom cover is an advanced composite material designed with a unique internal thread that enhances the structural integrity of the meter and is sealed with an o-ring. The measuring chamber is molded from materials specifically designed to provide reduced wear during operation. The measuring chamber, integral strainer, nutating disc and thrust roller are thermoplastic, which is dimensionally stable and will not corrode. The thrust roller moves smoothly along the chamber diaphragm to reduce friction and maintain accuracy. The register box and lid are molded thermoplastic. The meter is designed so that the register can be replaced without removing the meter from the service line.

REGISTER: The permanently sealed visual read register has a unique triple "L" seal and heat treated, glass lens to eliminate dirt, moisture infiltration and fogging. An integral tamper-proof locking feature is provided to resist tampering with the register. The totalizing register has a straight-reading odometer type display, a 360° test circle with center sweep hand and a low flow (leak) detector. Standard gearing is used, making registers interchangeable by size. The 420 composite meter is available with all AMR and AMI options for increased reading efficiency.

OPERATION: Water flows through the meter's strainer where debris is screened out. The incoming water fills a known volume of the measuring chamber on one or the other side of a movable disc that separates the chamber into two sections. As water enters, it moves the disc (nutates), forcing a known volume of water out of the meter from the opposite side of the disc. The process repeats as the sections refill and empty in turn. The nutating action of the disc is coupled magnetically to the register to indicate the volume of water that passes through the meter.

MAINTENANCE: The **Hersey** 420 positive displacement meter is designed and manufactured to provide long service life with virtually no maintenance required. Repair components available include complete chamber assemblies and bottom plate o-rings. All components can be accessed without removing the meter body from the service line for simplified maintenance.

CONNECTIONS: Supplied with external straight pipe threads (NPSM) per ANSI B1.20.1

5/8" x 3/4" 420 Composite PD Meter

Materials and Specifications

MODEL	420 Composite Meter
SIZES	5/8" X ½", 5/8" X ¾"
STANDARDS	AWWA C-710, Most current NSF-61, ANSI, & EPA Initiatives
SERVICE	Measurement of flow in forward direction only
INSTALLATION	Horizontal or Vertical
OPERATING FLOW RANGE	See Charts on the following pages
ACCURACY	See Charts on the following pages
MAXIMUM WORKING PRESSURE	150 PSI
TEMPERATURE RANGE	33° F to 100° F water temperature
MEASURING ELEMENT	Nutating Disc PD Chamber
REGISTER TYPE	Straight reading, permanently sealed, magnetic drive with low flow indicator and remote reading capability
METER CONNECTIONS	External straight pipe threads (NPSM)
MATERIALS	Meter case – Composite Measuring Element Chamber and Disc - Thermoplastic Strainer - Thermoplastic
OPTIONS	AMR/AMI Reading Systems

420 Series Composite

420 Composite PD Meter
Sizes 5/8" x 1/2" and 5/8" x 3/4"

Meter Registration

Meter Size	Initial Dial*	Capacity	Initial Dial*	Capacity
5/8"	10 Gallons	10 Million	1 Cubic Ft.	1 Million

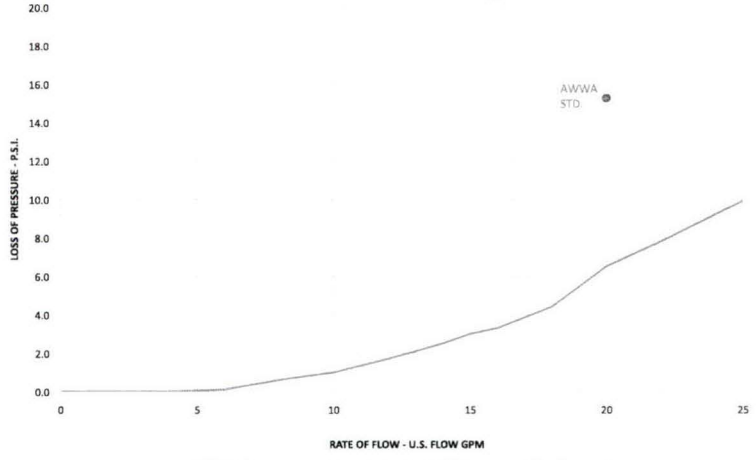
*Registration equal to one full revolution of the sweep hand.

Flow Characteristics

Meter Size	Typical Low Flow (95% Minimum	Typical Operating Range (100% ± 1.5%)	Maximum Continuous Operation
5/8"	1/8 GPM	1/2 to 20 GPM	15 GPM

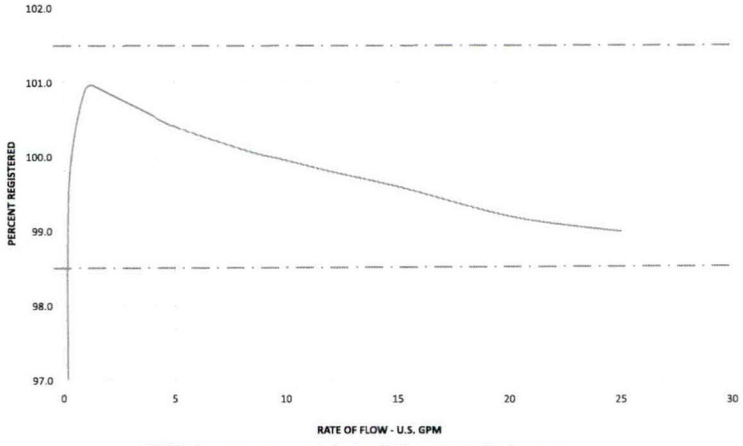
Performance

Head loss



NOTE: Performance curves are typical only and NOT a guarantee of performance.

Accuracy



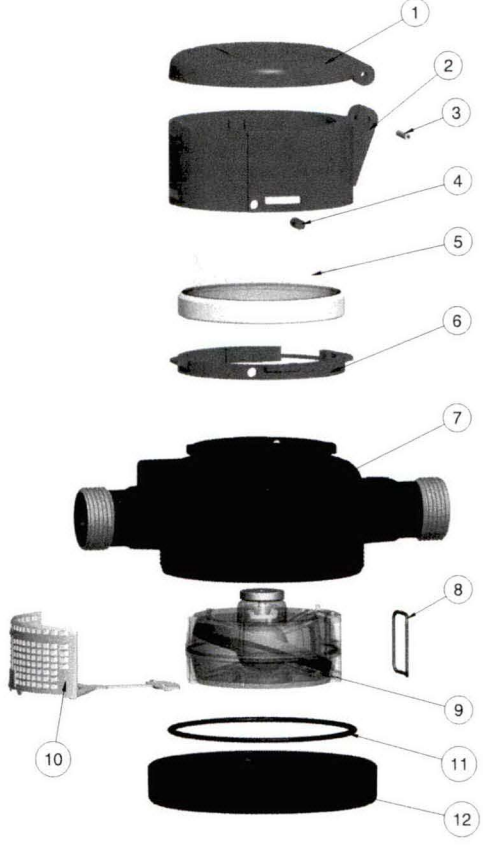
NOTE: Performance curves are typical only and NOT a guarantee of performance.

Mueller SYSTEMS

420 Composite PD Meter

Sizes 5/8" x 1/2" and 5/8" x 3/4"

MODEL 420 COMPOSITE METER ASSEMBLY COMPONENTS			
ITEM	PART #	DESCRIPTION	QTY
1	C5768	PLASTIC REGISTER COVER	1
2	C5769	PLASTIC REGISTER HOUSING BASE	1
3	AS41122	PLASTIC LID SPIROL PIN SS	1
4	AS12658	BLUE COLOR REGISTER LOCKING PIN	1
5	D36981	MODEL 420 VISUAL REGISTER SG	1
	D36982	MODEL 420 VISUAL REGISTER CF	
	D36983	MODEL 420 VISUAL REGISTER CM	
	D36991XX	MODEL 420 TRANSLATOR REGISTER SG	
	D36992XX	MODEL 420 TRANSLATOR REGISTER CF	
	D36993XX	MODEL 420 TRANSLATOR REGISTER CM	
6	C5770	REGISTER HOUSING INSERT	1
7	B8644	5/8" X 3/4" COMPOSITE MAIN CASE	1
	B8651	5/8" X 1/2" COMPOSITE MAIN CASE	
8	A13120	MODEL 420 CHAMBER O-RING	1
9	D3635PO	MODEL 420 CHAMBER ASSEMBLY	1
10	C6625	MODEL 420 COMPOSITE STRAINER RETAINER	1
11	A13060	MODEL 420 COMPOSITE BOTTOM PLATE O-RING	1
12	C6627	MODEL 420 COMPOSITE BOTTOM PLATE	1



420 Series Composite

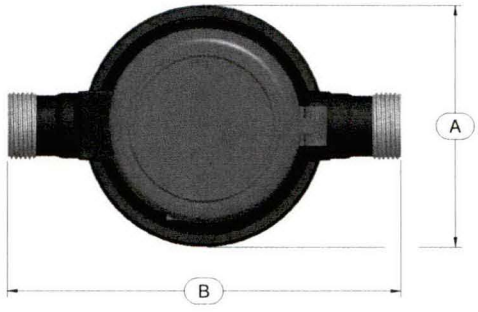
420 Composite PD Meter
Sizes 5/8" x 1/2" and 5/8" x 3/4"

Dimensions, Weights and Parts

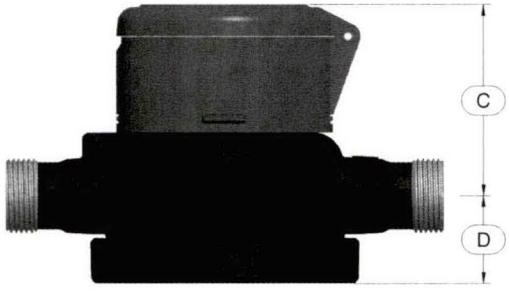
Meter Size	5/8"	
Model	420 Composite Standard Register	420 Composite Translator Register
Dimension		
A	4.625"	4.625"
B	7.5"	7.5"
C	3.125	4.25
D	1.5"	1.5"
Weight	2.2	2.2

Weights are in pounds and are approximate.
Inlet and outlet 1/2" or 3/4"

420 Composite Meter



420 Composite Meter



HOT ROD®

HOT ROD® Radio Transmitter Unit

Mueller SYSTEMS

Features

APPLICATIONS: The Mueller Systems HOT ROD® is a high performance, transmitter designed for mobile AMR. It is compatible with all current Hersey meters utilizing the Translator® Positional Encoder Register and other manufacturers' encoder registers outputting a similar protocol. The primary function of the HOT ROD module is to transmit an encoded serial number, water consumption, leak detection information and status data via radio frequency. When combined with the Mueller Systems STREET MACHINE™ Mobile Receiver and EZ Reader™ Software, it provides the basis for high speed, high performance meter reading.

INSTALLATION: HOT ROD modules are available in two options; metal and standard variant. The metal variant is a high power version for installation in a metal box and the standard variant is a low power version for installation in a plastic meter box. Installation in a pit set requires no drilled holes through the lid and are mounted beneath the meter box lid for security and ease of installation on PVC pipe. Surface mount installations, such as above ground, are easily accomplished with the integral mount bracket and two screws.

PERFORMANCE: The HOT ROD module utilizes the 902MHz to 928MHz ISM band which are FCC license exempt frequencies which translates to lower initial start up costs. The HOT ROD module transmits or "bubbles up" every 3 seconds on multiple frequencies without the need of a "wake up call' insuring a continuous information stream for absolute data collection. Each transmission lasts only 2.5 milliseconds. That equates to almost 11 million opportunities per year to read each HOT ROD module and unparalleled performance.

CONFORMANCE TO STANDARDS: FCC compliance: Part 15 certified. HOT ROD complies with Standard C707 for Encoded Remote Reading Systems. No FCC License is required for operation.

CONSTRUCTION: The HOT ROD module consists of a compact printed circuit board which is encapsulated to provide complete protection against shock and water intrusion. The enclosure is made of UV stable, high density thermoplastic and is completely waterproof. All modules have integral mounting brackets for both pit and wall installations. One C size lithium battery provides plenty of power for reading the register and sending RF data. The battery is sealed within the module and is not replaceable. There are no customer serviceable parts inside the HOT ROD.

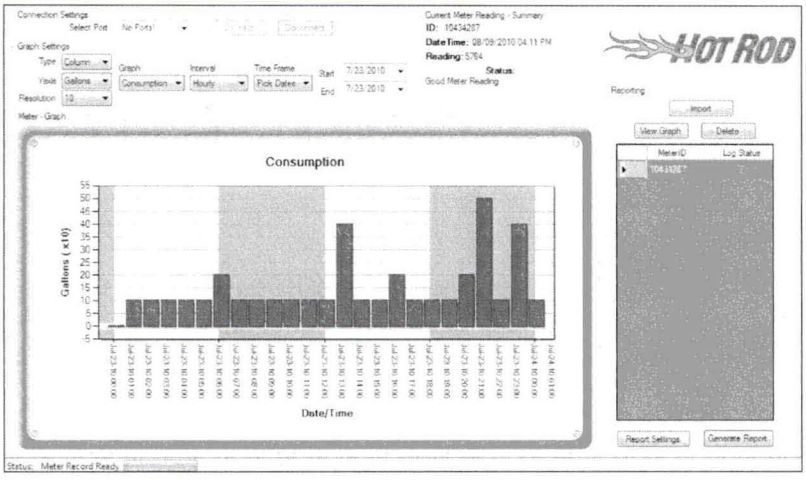
INSTANT DATA LOGGING ALARMS: Along with the standard meter reading the HOT ROD modules also transmit any instant data logging alarms for a specific account identifying a potential problem or issue with that account. The instant data logging alarms can be viewed on the Mapping screen of EZ Mobile™ and trigger the meter reader to stop and take action; such as leaving a door hanger or downloading the hourly consumption data for further investigation of the issue. The types of Instant Data Logging Alarms that can be communicated along with the meter reading are: small and continuous leak, reverse flow, no flow, and register disconnect. These instant data logging alarms can also be viewed with the Extended Data report from EZ Mobile.

HOT ROD Transmitter

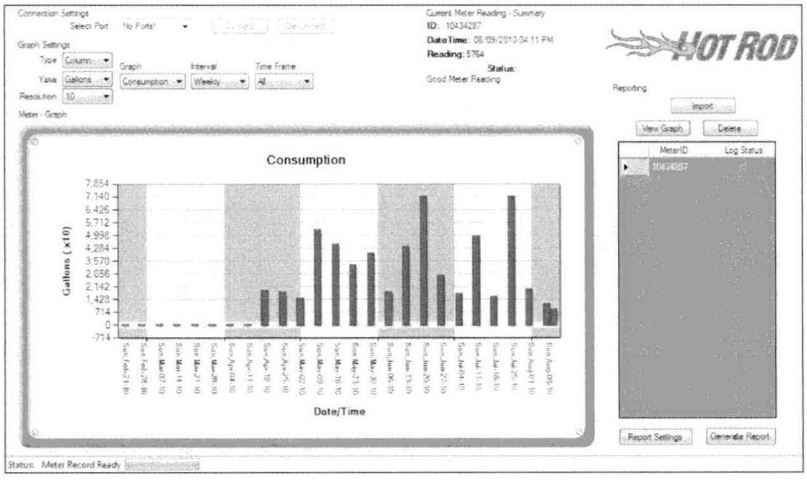
Materials and Specifications

RADIO FREQUENCY	Operates on 902 to 928MHz
MODEL	HOT ROD® Standard and Metal Pit Options
WIRE LENGTHS TO TRANSLATOR	Standard: 3' or 15' Pit Options: 3' or 25'
POWER SOURCE	C Cell Lithium Battery
TYPICAL RANGE	up to 1200 feet
TRANSMIT FREQUENCY	902 MHz – 928 MHz
DATA INTEGRITY	Verified with every data message
TEMPERATURE RANGE	Operating Temperature: -40°F to + 158°F (-40°C to + 70°C) Storage Temperature: -40°F to + 158°F (-40°C to + 70°C) Humidity: 0% - 100% condensing

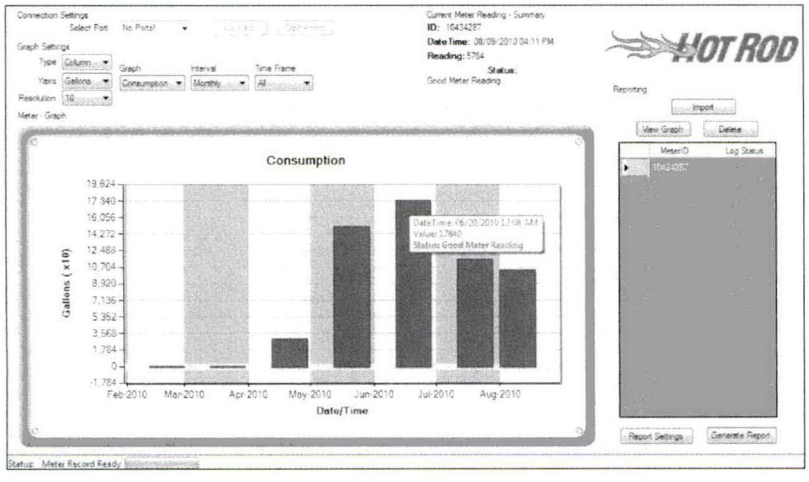
HOURLY CONSUMPTION DATA: The HOT ROD modules come standard with the ability to log and store up to 170 days of hourly consumption data that can then be downloaded by a meter reader/technician using the same Street Machine™ Mobile Receiver that is used to read meters. The meter reader would just start up EZ Profiler™ Software and swipe a magnet over the top of the Hot Rod module to begin the process. The monthly, daily or hourly consumption profiling data can then be displayed on a bar graph that can be supplied to the customer to help justify the amount being charged and resolve high water bill disputes/complaints. This information can also be used to monitor and address water conservation initiatives, such as, odd-even watering restrictions.



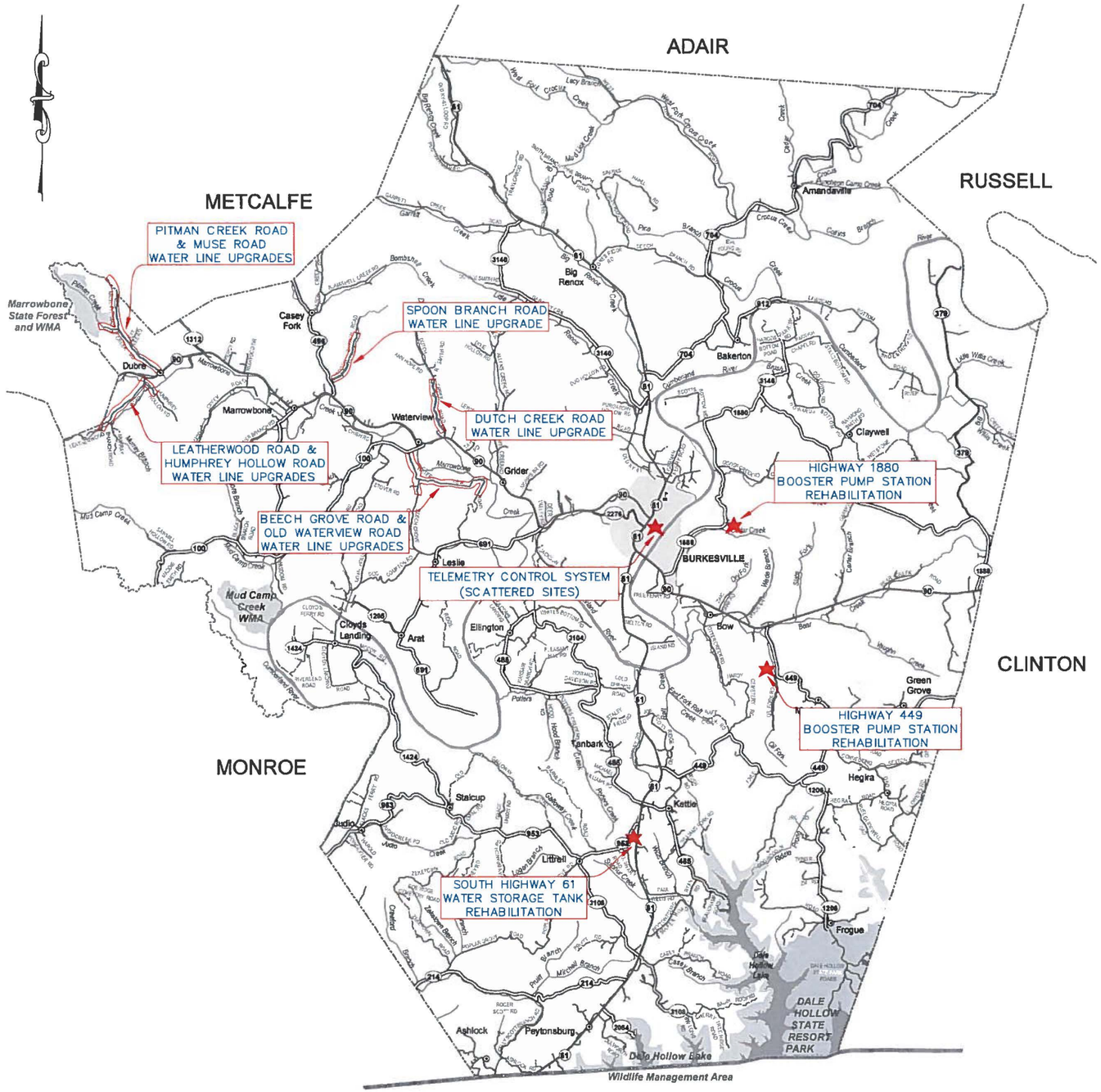
24-Hour Consumption Graph – Graph display shows where usage does not go to zero during any 24-hour period, identifying a possible leak.



Weekly Consumption Graph – Provide historical data for 6 months to view consumer usage trends to better understand and educate customers on water conservation.



Monthly Consumption Graph – Total consumption can be viewed by account for 6 months. Information could be supplied to the customer to help resolve high water bill complaints.



RECEIVED
JUN 16 2015
PUBLIC SERVICE COMMISSION

Monarch Engineering, Inc.
556 CARLTON DRIVE
LAWRENCEBURG, KY 40342

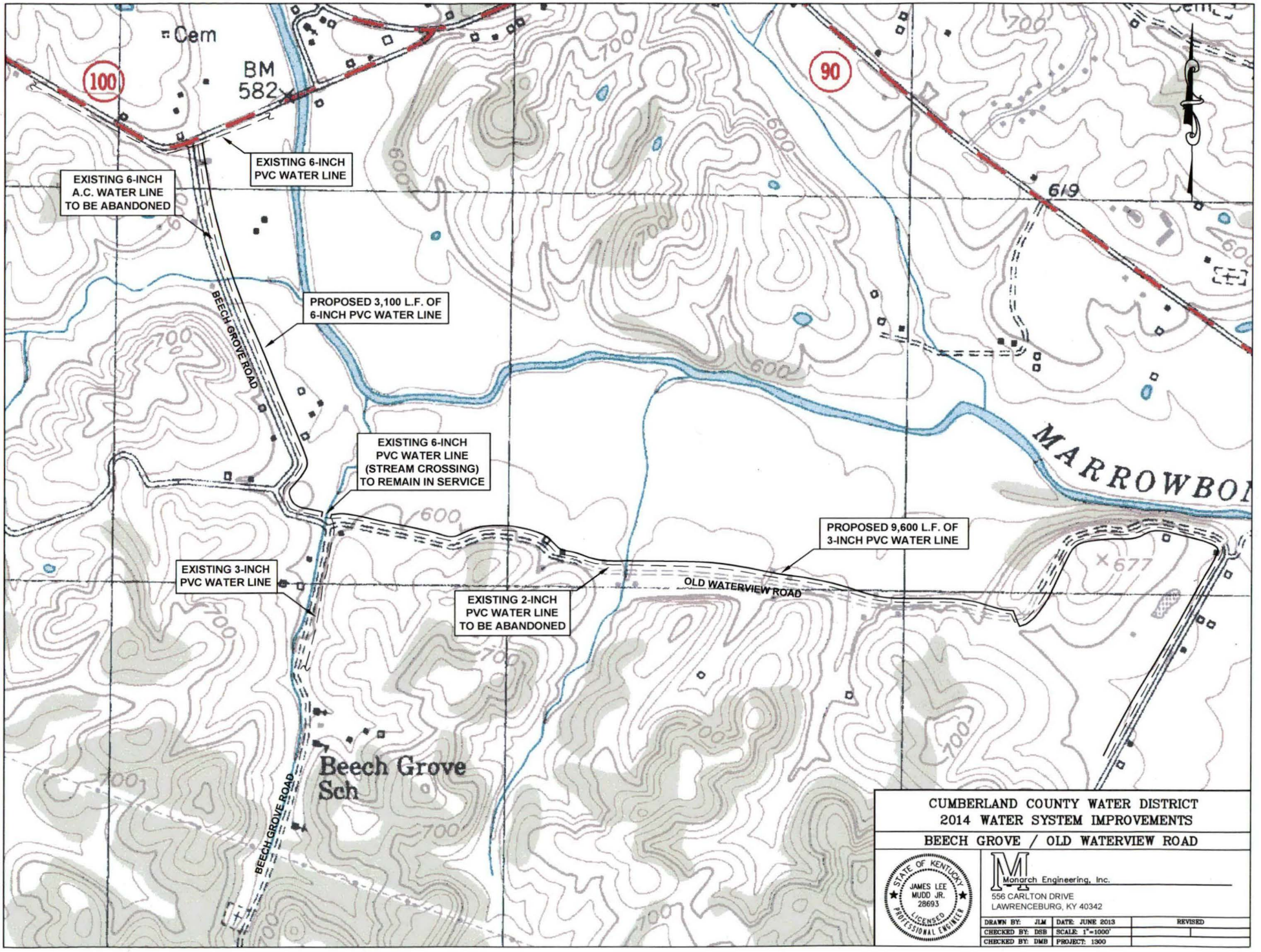
DESCRIPTION: LOCATION MAP
2014 WATER SYSTEM IMPROVEMENTS

CUSTOMER: CUMBERLAND COUNTY WATER DISTRICT
CUMBERLAND COUNTY, KENTUCKY

PROJECT NO.	1423
DATE:	JUNE 2013
DRAWN BY:	JLM
CHECKED BY:	DSB
CHECKED BY:	DMB
SCALE:	N.T.S.

SHEET: LM-1

STATE OF KENTUCKY
JAMES LEE MUDD JR.
28693
LICENSED PROFESSIONAL ENGINEER



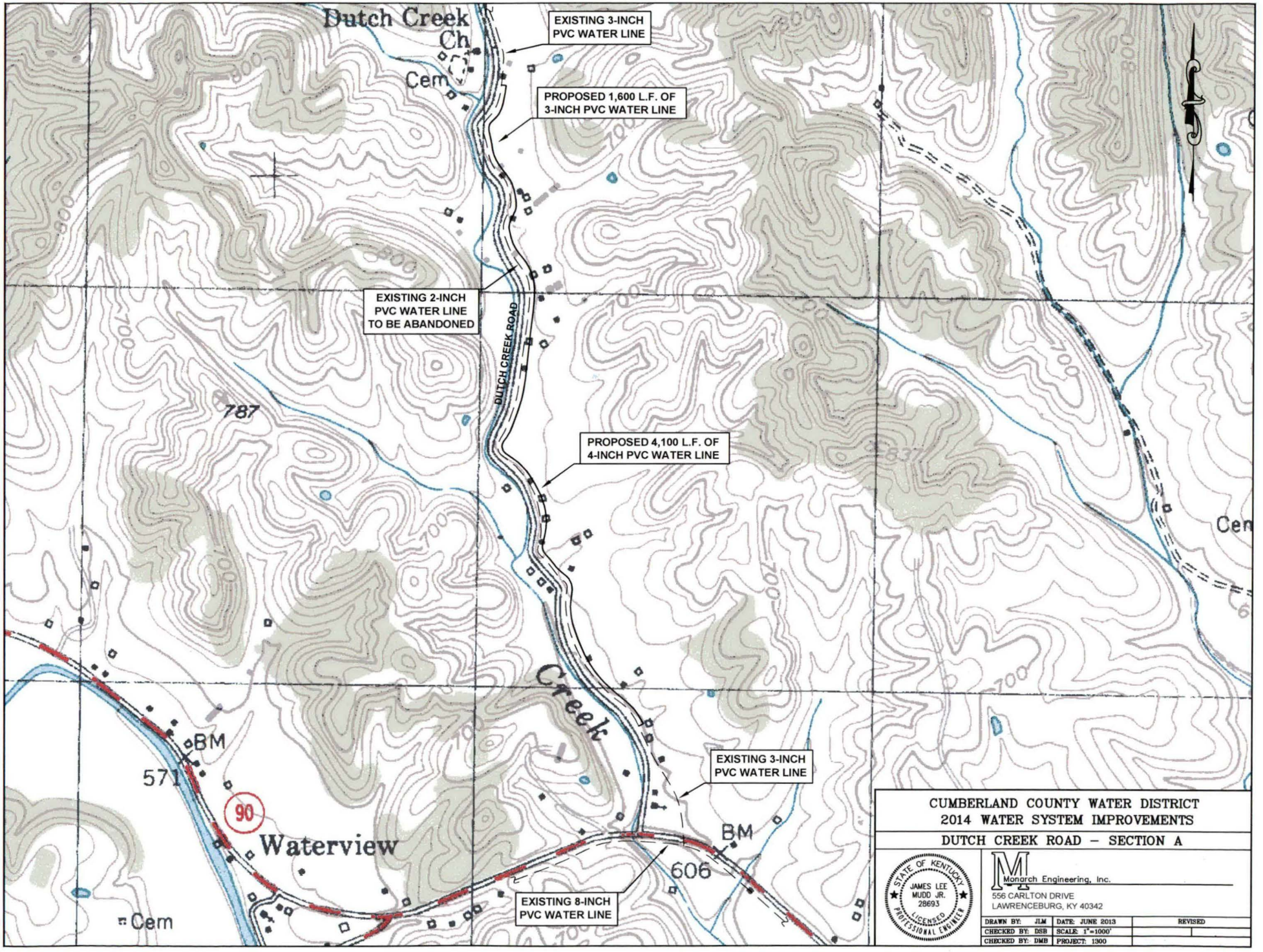
CUMBERLAND COUNTY WATER DISTRICT
2014 WATER SYSTEM IMPROVEMENTS

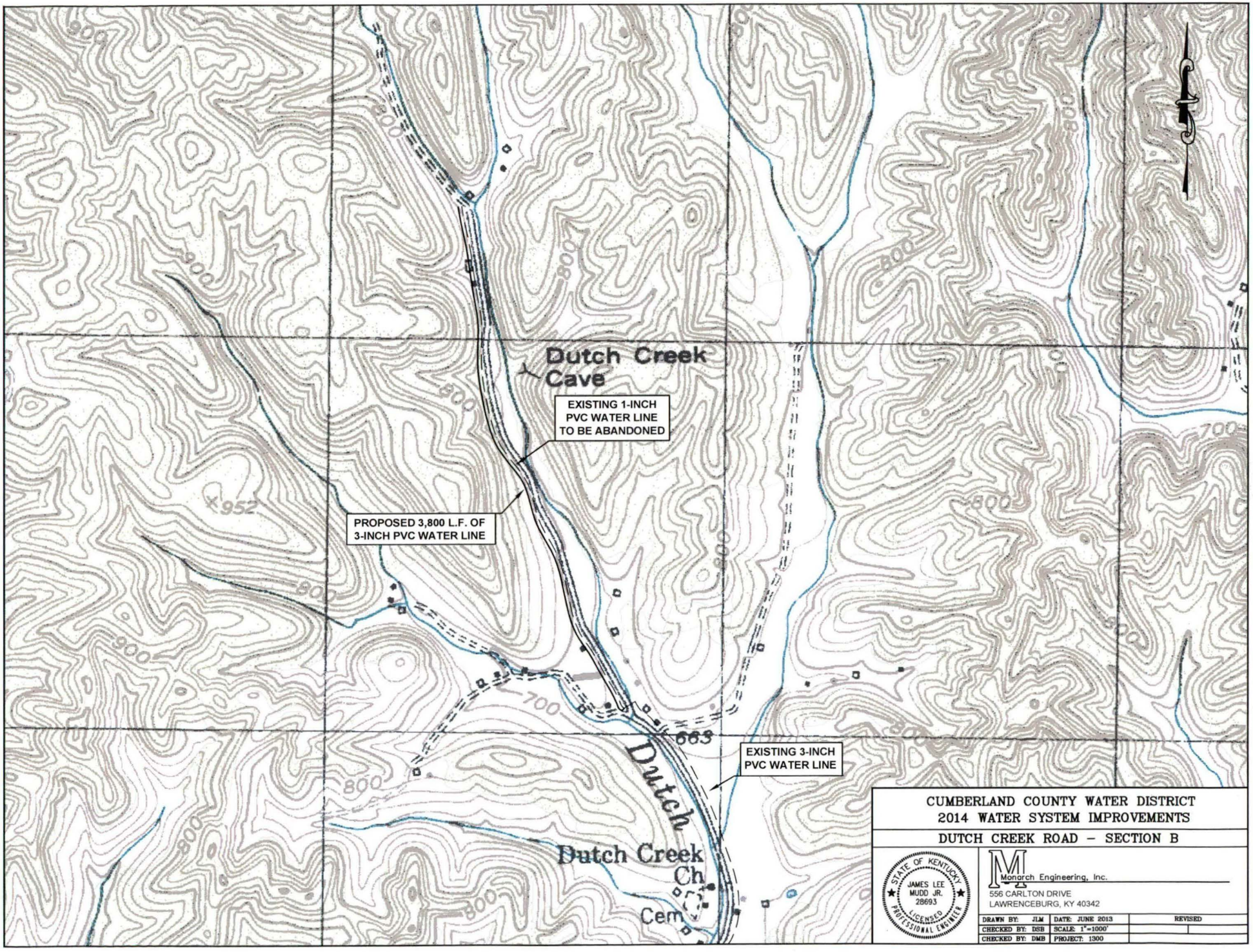
BEECH GROVE / OLD WATERVIEW ROAD

STATE OF KENTUCKY
JAMES LEE MUDD JR.
28693
LICENSED PROFESSIONAL ENGINEER

Monarch Engineering, Inc.
556 CARLTON DRIVE
LAWRENCEBURG, KY 40342

DRAWN BY: JLM	DATE: JUNE 2013	REVISED
CHECKED BY: DSB	SCALE: 1"=1000'	
CHECKED BY: DMB	PROJECT: 1300	


Dutch Creek Ch
Cem
EXISTING 3-INCH PVC WATER LINE
PROPOSED 1,600 L.F. OF 3-INCH PVC WATER LINE
EXISTING 2-INCH PVC WATER LINE TO BE ABANDONED
DUTCH CREEK ROAD
787
PROPOSED 4,100 L.F. OF 4-INCH PVC WATER LINE
Creek
EXISTING 3-INCH PVC WATER LINE
BM
571
90
Waterview
606
EXISTING 8-INCH PVC WATER LINE
Cem
CUMBERLAND COUNTY WATER DISTRICT
2014 WATER SYSTEM IMPROVEMENTS
DUTCH CREEK ROAD – SECTION A
STATE OF KENTUCKY
JAMES LEE MUDD JR.
28693
LICENSED PROFESSIONAL ENGINEER
Monarch Engineering, Inc.
556 CARLTON DRIVE
LAWRENCEBURG, KY 40342
DRAWN BY: JLM
DATE: JUNE 2013
REVISED
CHECKED BY: DSB
SCALE: 1"=1000'
CHECKED BY: DMB
PROJECT: 1300



CUMBERLAND COUNTY WATER DISTRICT
2014 WATER SYSTEM IMPROVEMENTS

DUTCH CREEK ROAD – SECTION B

STATE OF KENTUCKY
JAMES LEE MUDD JR.
28693
LICENSED PROFESSIONAL ENGINEER

Monarch Engineering, Inc.
556 CARLTON DRIVE
LAWRENCEBURG, KY 40342

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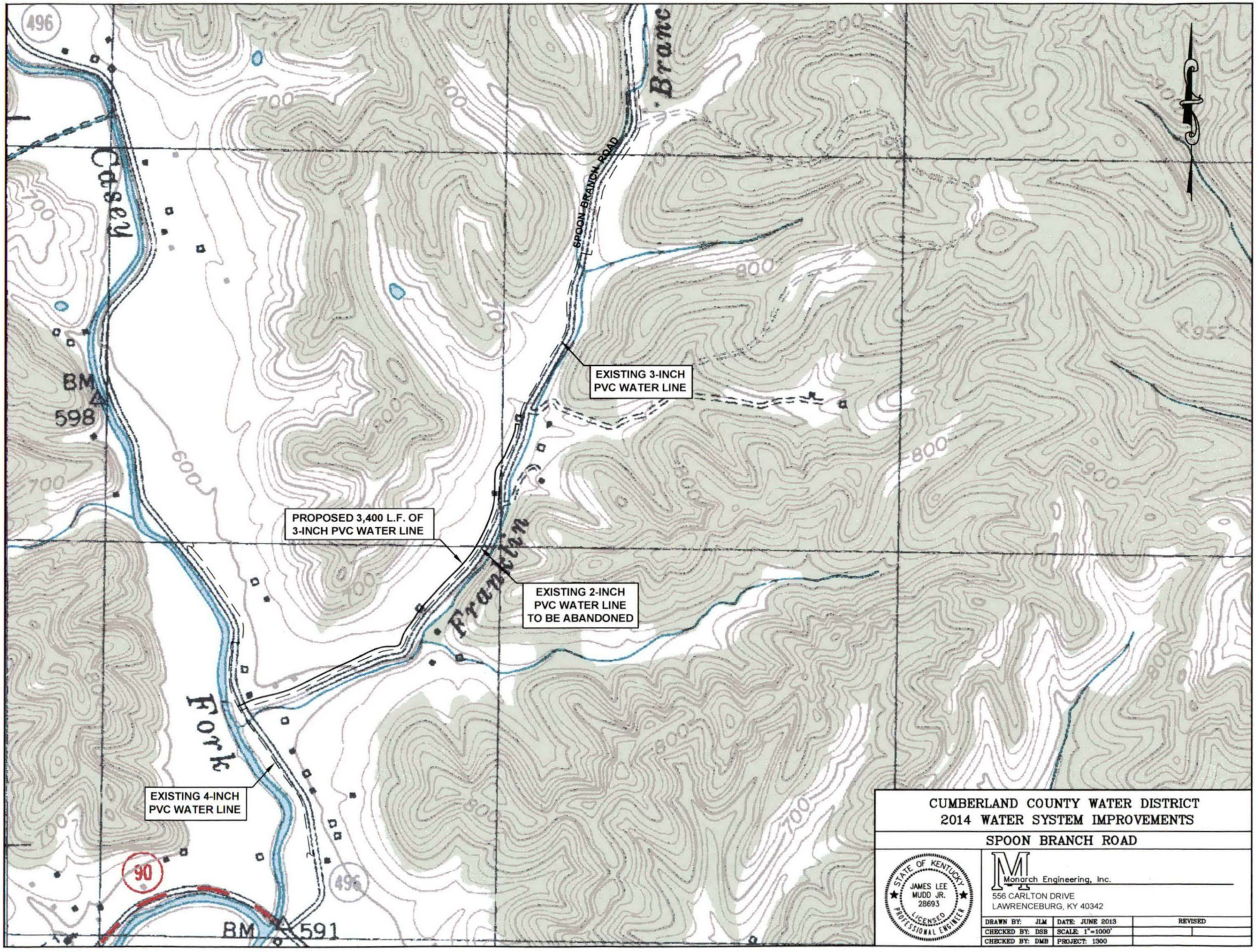
CHECKED BY: DMB	PROJECT: 1300	



CUMBERLAND COUNTY WATER DISTRICT
2014 WATER SYSTEM IMPROVEMENTS

SPOON BRANCH ROAD

STATE OF KENTUCKY
JAMES LEE MUDD JR. 28693
LICENSED PROFESSIONAL ENGINEER

Monarch Engineering, Inc.
556 CARLTON DRIVE
LAWRENCEBURG, KY 40342

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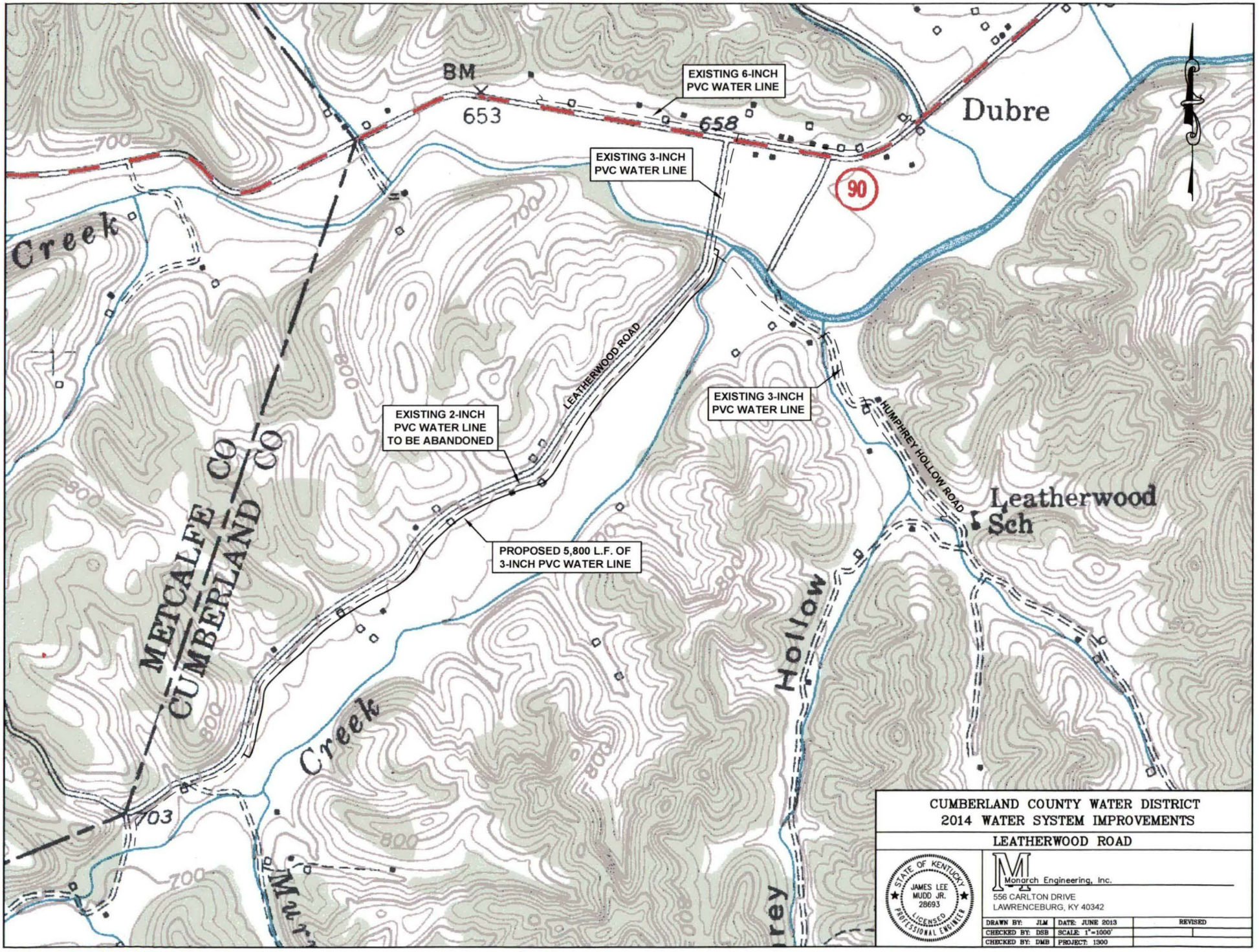


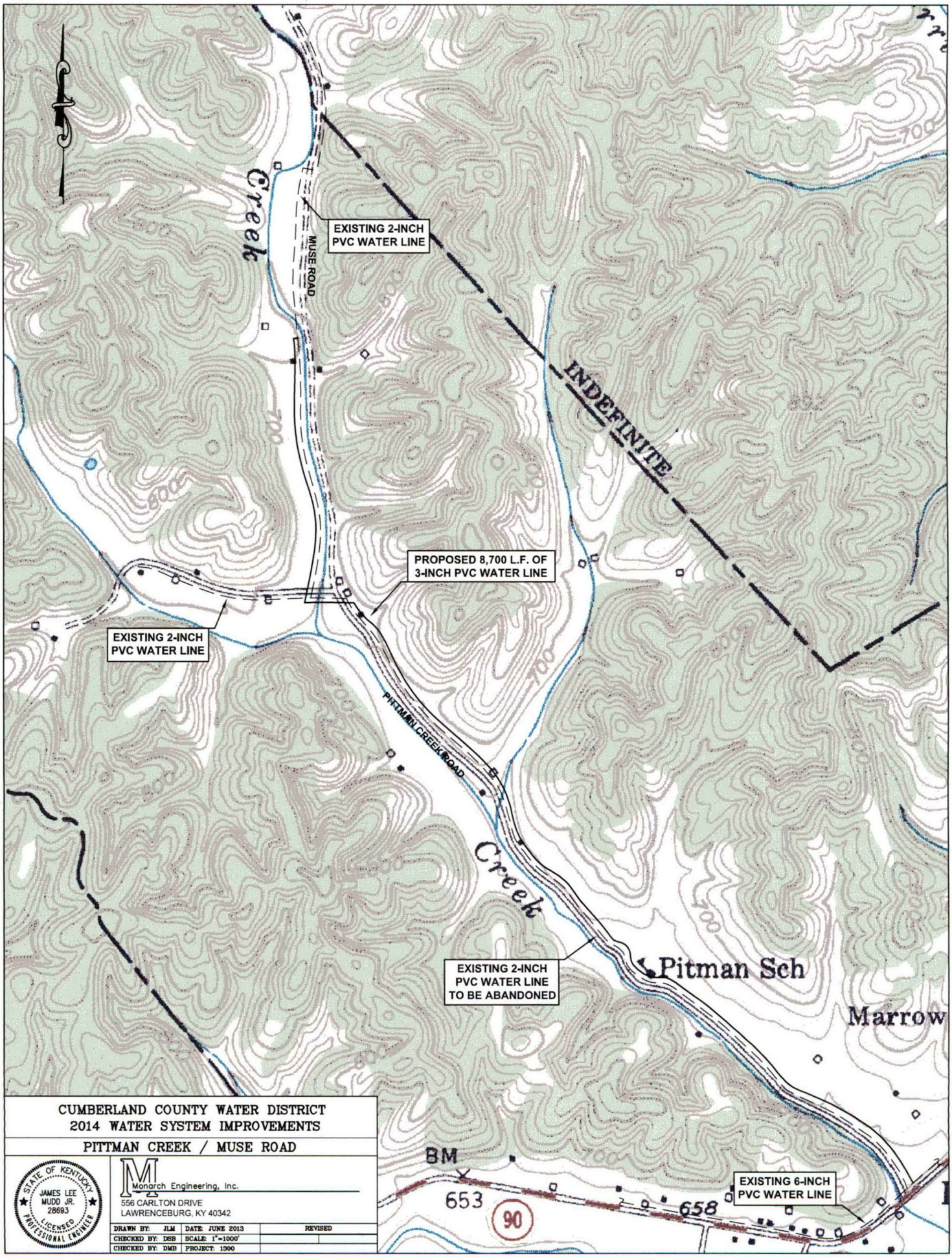
CUMBERLAND COUNTY WATER DISTRICT
2014 WATER SYSTEM IMPROVEMENTS

LEATHERWOOD ROAD

STATE OF KENTUCKY
JAMES LEE MUDD JR.
28693
LICENSED PROFESSIONAL ENGINEER

Monarch Engineering, Inc.
556 CARLTON DRIVE
LAWRENCEBURG, KY 40342

DRAWN BY: JLM	DATE: JUNE 2013	REVISED
CHECKED BY: DSB	SCALE: 1"=1000'	
CHECKED BY: DMB	PROJECT: 1300	



CUMBERLAND COUNTY WATER DISTRICT
2014 WATER SYSTEM IMPROVEMENTS

PITTMAN CREEK / MUSE ROAD

STATE OF KENTUCKY
JAMES LEE MUDD JR.
28693
LICENSED PROFESSIONAL ENGINEER

Monarch Engineering, Inc.
556 CARLTON DRIVE
LAWRENCEBURG, KY 40342

DRAWN BY: JLM	DATE: JUNE 2013	REVISED
CHECKED BY: DSB	SCALE: 1"=1000'	
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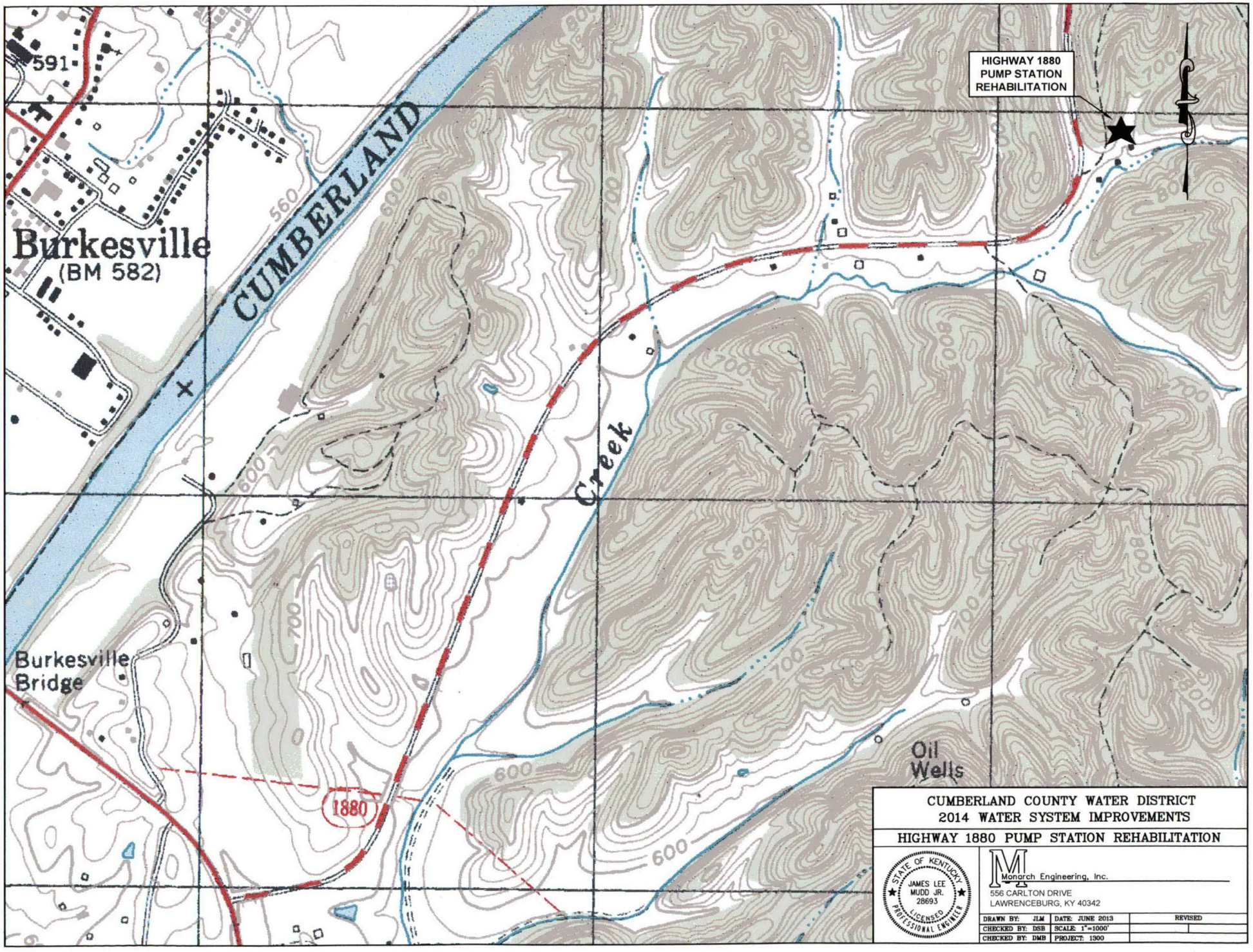

CUMBERLAND COUNTY WATER DISTRICT
2014 WATER SYSTEM IMPROVEMENTS

HIGHWAY 1880 PUMP STATION REHABILITATION

STATE OF KENTUCKY
JAMES LEE MUDD JR.
28693
LICENSED PROFESSIONAL ENGINEER

Monarch Engineering, Inc.
556 CARLTON DRIVE
LAWRENCEBURG, KY 40342

DRAWN BY: JLM	DATE: JUNE 2013	REVISED
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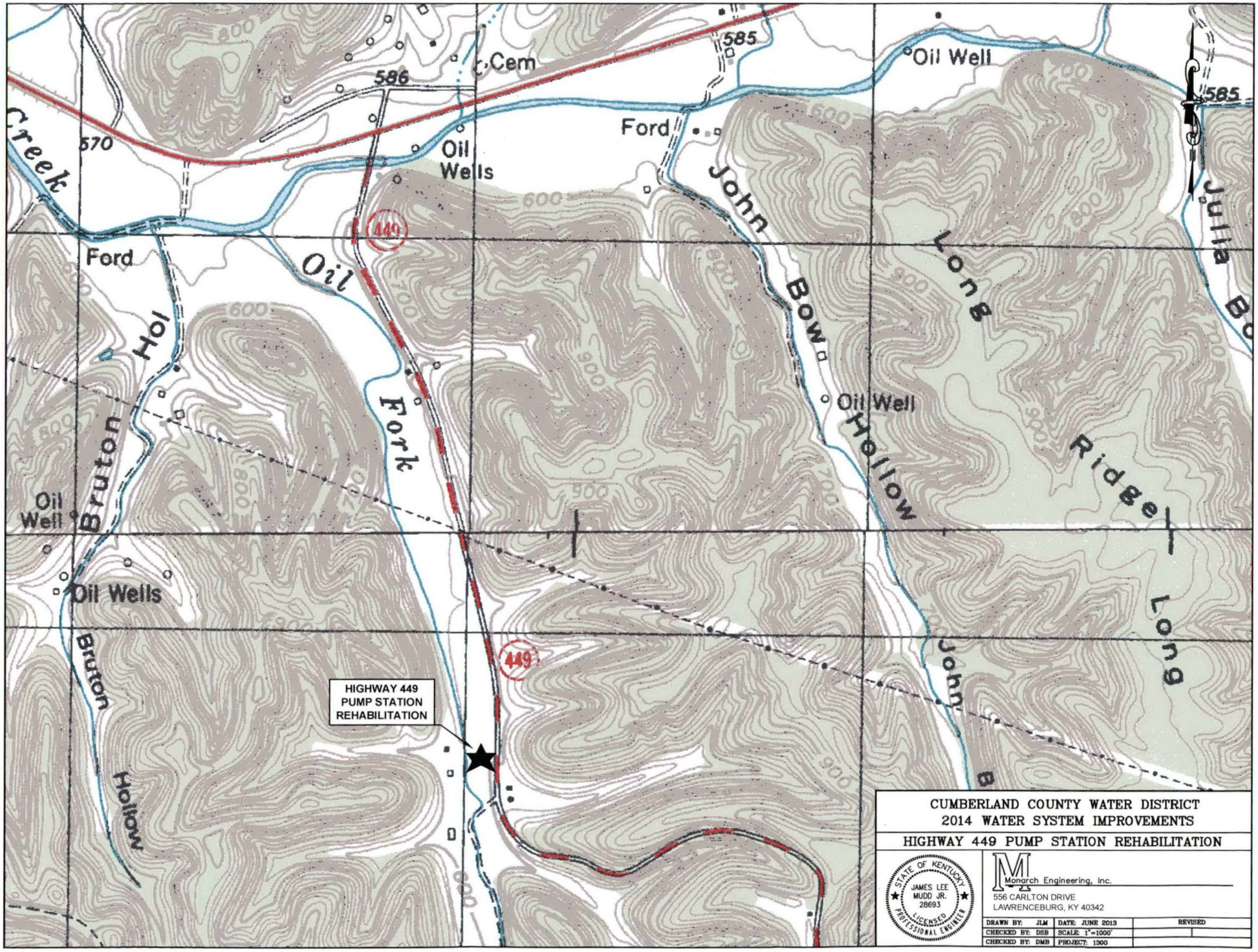

CUMBERLAND COUNTY WATER DISTRICT
2014 WATER SYSTEM IMPROVEMENTS

HIGHWAY 449 PUMP STATION REHABILITATION

STATE OF KENTUCKY
JAMES LEE MUDD JR. 28693
LICENSED PROFESSIONAL ENGINEER

Monarch Engineering, Inc.
556 CARLTON DRIVE
LAWRENCEBURG, KY 40342

DRAWN BY: JLM	DATE: JUNE 2013	REVISED
CHECKED BY: DSB	SCALE: 1"=1000'	
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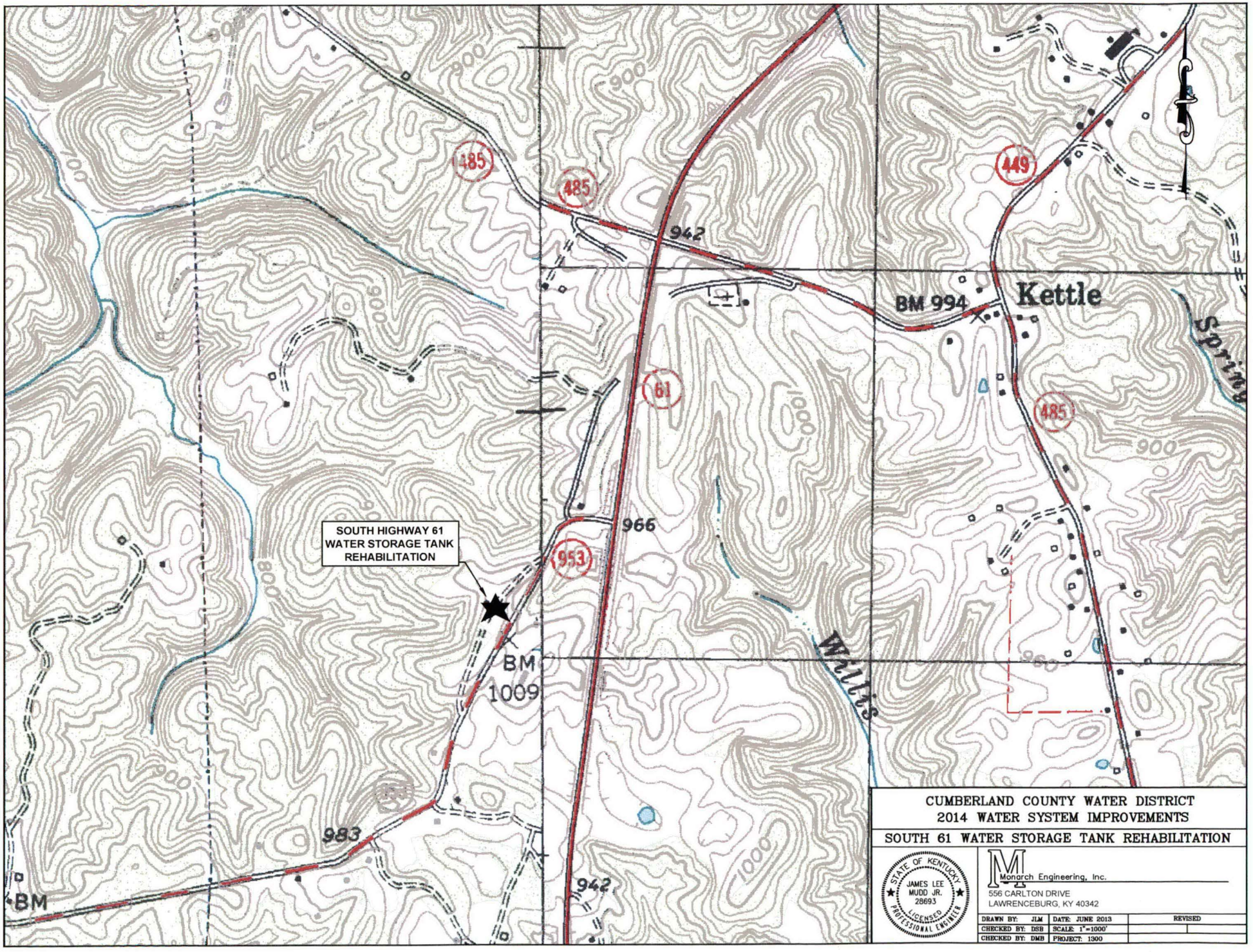

CUMBERLAND COUNTY WATER DISTRICT
2014 WATER SYSTEM IMPROVEMENTS

SOUTH 61 WATER STORAGE TANK REHABILITATION

STATE OF KENTUCKY
JAMES LEE MUDD JR.
28693
LICENSED PROFESSIONAL ENGINEER

Monarch Engineering, Inc.
556 CARLTON DRIVE
LAWRENCEBURG, KY 40342

DRAWN BY: JLM	DATE: JUNE 2013	REVISED
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CHECKED BY: DMB	PROJECT: 1300	