2019 Water System Improvements Project

Final Engineering Report Meade County Water District



February 2021



Table of Contents

1.	Project Planning	1
	Introduction	1
	Existing Facilities	1
2.	Design & Alternatives Considered	3
	Alternative 1	3
	Alternative 2	4
3.	Selection of Alternative	4
4.	Proposed Project	5
	Project Design	5
	Budget	6
	Permit Requirements	6
	Sustainability Considerations	7
App	pendix A	8
	Water Main Extensions Location Map	8
App	pendix B	9
	Bid Tabulation	9
App	pendix C	10
	Permits and Approvals	10

1. Project Planning

Introduction

Meade County Water District (MCWD) provides potable water to a majority of Meade County not including the City of Brandenburg (COB) and City of Muldraugh along the eastern part of Meade County. MCWD distributes water only and does not produce and treat water for consumption as potable water. MCWD purchases all of its water from Hardin County Water District No. 1 (HCWD1) from the south eastern section of the distribution system.

In order to improve water quality for its customers, reduce disinfection byproducts (DBPs) in the drinking water, increase system resiliency throughout the distribution system and provide water to meet existing and future system demands, MCWD is planning to implement a series of improvements to provide system redundancy, improve system hydraulics, and increase customer base for the entire MCWD distribution system.

This Preliminary Engineering Report (PER) will detail the goals of the project by reviewing and evaluating the existing interconnects and grid ties within MCWD's distribution system and extending service to additional customers. This report will also provide a current look at the project budgetary numbers.

Existing Facilities

MCWD currently serves over 4,900 residential and commercial customers in Meade County, Kentucky. MCWD also has two wholesale customers, the City of Louisville (Otter Creek Park) and Doe Valley Inc. The service area includes areas west of the Fort Knox Military Reservation and outside the limits of the City of Brandenburg. Communities currently served by MCWD include Flaherty, Ekron, Payneville-Battletown, Wolf Creek, and Concordia.

Due to the inability of the City of Brandenburg to convert their treatment process to

chloramines, MCWD now purchases all of its potable water wholesale from the Hardin County Water District (HCWD) No. 1.

HCWD No. 1 provides potable water to MCWD through various interconnects. The primary interconnect is at KY 313 and KY 1882. This interconnect along with KY 313 BPS feeds the 952 Pressure Zone (PZ) and three elevated tanks. Another interconnect is provided from HCWD No. 1 at New Salem Church Rd, which feeds the Sand Hill area by gravity. Pressure is provided from HCWD No.1 Brizendine Tank/1085 PZ.

Back-up interconnects from HCWD No. 1 are provided at KY 144 BPS and KY 1600 (gravity) interconnects.

When MCWD converted to chloramines the interconnect and supply of water from the City of Brandenburg was taken out of service.

The major components of MCWD's distribution system are three water storage tanks, three booster pump stations, and water lines. The tanks and booster pump stations in the system include:

- Garrett Elevated Tank (OE 952) 300,000 gallons
- Payneville Elevated Tank (OE 952) 300,000 gallons
- Flaherty Elevated Tank (OE 952) 500,000 gallons
- KY 144 BPS two (2) constant speed pumps, rated at 350 GPM; the KY 144 Pump Station serves as an emergency/back-up station and is only utilized when HCWD No. 1 closes the KY 1600/KY 920 Interconnect.
- KY 313/1882 Interconnect and BPS- two (2) 60 HP variable speed pumps rated at 1,000 GPM; this facility is an above ground duplex pumping station, which serves as the primary pump station and interconnect that provides water supply to the entire MCWD system.

The existing distribution system consists of approximately:

- 4 miles of 2-inch PVC
- 5 miles of 3-inch PVC
- 48 miles of 4-inch PVC
- 75 miles of 6-inch PVC/DI
- 59 miles of 8-inch PVC/DI
- 10 miles of 10-inch PVC/DI
- 4.8 miles of 12-inch PVC
 208 miles total

This entire distribution system, except for the Sandy Hill area, is served by a single pressure zone (952). Average daily demand is approximately 845, 000 gallons per day. During peak periods, the system's maximum daily demand is 1,000,000 GPD.

Even though recent expansions were completed in 2018 there remains numerous dead end mains which cause concerns if there is a water main break out in the system. Water quality also becomes a concern at dead end mains due to the potential of low usage in the area causing the water to not be able to turn over. By constructing grid ties it gives the water a continuous flow path to turn over more frequently. There are also households within the MCWD service area that are currently not served by the district.

2. <u>Design & Alternatives Considered</u>

Alternative 1

To alleviate dead end mains, increase flow and pressure, improve water quality and provide redundancy in the distribution system, MCWD plans to design and construct 11 grid ties.

MCWD also plans to design and construct 18 water main extensions throughout the distribution system, along state and county roadways, to add potentially 150 new customers. The total of the grid ties and water main extensions includes approximately 4,600 LF of 8-inch water main,

54,400 LF of 6-inch water main, and 26,700 LF of 4-inch water main.

Design was also advanced for three (3) additive alternates for water main extensions and one grid tie. The total of the additive alternates is 8,120 LF of 6-inch water mains and 1,550 LF of 4-inch water mains.

To help determine where the grid ties should be constructed the MCWD and HCWD No. 1 pipe networks and facilities (tanks, pump stations) were combined to perform a hydraulic analysis to determine flow rates and pressures at existing and new grid tie locations. Various scenarios were modeled for average day and peak hour demand conditions.

The line extensions were determined by looking at where the underserved areas are located and where future growth is anticipated to take place.

See Appendix A for location of water main extensions and grid ties.

Alternative 2

A do nothing alternative was considered. Under this alternative no action was taken and the MCWD continues operations as normal with inadequate redundancy and dead end lines.

3. Selection of Alternative

Alternative 1 was selected because it increases redundancy and resiliency in MCWD's distribution system as well as extending service to an additional 150 potential customers. If Alternative 2 was selected the dead end mains would remain and the underserved area of the service area would remain without access to water and redundancy would be lacking leaving the MCWD vulnerable to main breaks that could leave customers without water for an undetermined amount of time while the break is repaired. Alternative 2 was not a viable option for the MCWD.

4. Proposed Project

Project Design

The design for the base routes and additive alternates includes approximately 4,600 LF of 8-inch, 62,250 LF of 6-inch and 28,250 LF of 4-inch water mains extended along eighteen (18) roadways and providing twelve (12) grid ties.

See Appendix A for location of water main extensions and grid ties.

The project was advertised on January 19th, 2021, with a pre-bid meeting being held on January 28th, 2021. On February 4th, 2021 bids were received at the Meade County Water District's office.

Bid Results

MCWD received seven (7) bids from contractors wanting to perform the work. All of the bidders are routinely involved in this type of utility work and all were considered qualified to execute the project. The bidders and bid amounts (base bid and three additive alternates) are shown below with additional details provided in Appendix B.

Contractor	Base Bid Amount	Alternative A1 Bid Amount	Alternative A2 Bid Amount	Alternative A3 Bid Amount
Dirt Works Unlimited, LLC	\$2,088,820.00	\$182,600.00	\$46,440.00	\$77,380.00
Twin States Utilities & Excavation, Inc.	\$2,163,995.00	\$158,095.00	\$32,290.00	\$33,950.00
Cumberland Pipeline, LLC	\$2,246,581.00	\$154,792.00	\$40,352.00	\$45,260.60
Philips Brothers Construction, LLC	\$2,450,000.00	\$189,866.00	\$39,965.00	\$69,925.00
Cleary Construction, LLC	\$2,735,642.00	\$207,992.00	\$46,395.00	\$51,998.00
Utility & Water Services	\$2,539,476.00	\$195,500.00	\$44,700.00	\$40,100.00
Seven Seas Construction	\$2,536,215.75	\$219,125.75*	\$54,491.00*	\$71,238.60*

*Corrected sum

I hereby certify that this is a true and correct tabulation of the bids.

Kevin J. Brian, PE/Sr. Project Manager HDR Engineering, Inc. 2/8/2021

<u>Budget</u>

To stay within the project budget MCWD will proceed with only the base bid routes and not do any of the additive alternates.

The table below shows the current budget for the proposed project. The project will be financed with USDA – Rural Development Loan.

	BUDGET INFORMATION									
	Cost Category	Cost								
1	Administrative Expenses	\$10,000								
2	Legal Expenses	\$20,000								
3	Land, Appraisals, Easements	\$5,000								
4	Planning	\$35,000								
5	Engineering Fees - Design	\$120,906								
6	Engineering Fees - Construction	\$30,226								
7	Engineering Fees - Inspection	\$91,013								
8	Engineering Fees – Other	\$5,000								
9	Construction	\$2,088,820								
10	Miscellaneous	\$30,000								
11	Contingencies	\$70,205.00								
12	TOTAL PROJECT COSTS	\$2,506,170								

Permit Requirements

A Kentucky Division of Water – Approval to Construct and KYTC encroachment permit was required for this project. Copies of the permits and approvals are provided in Appendix C.

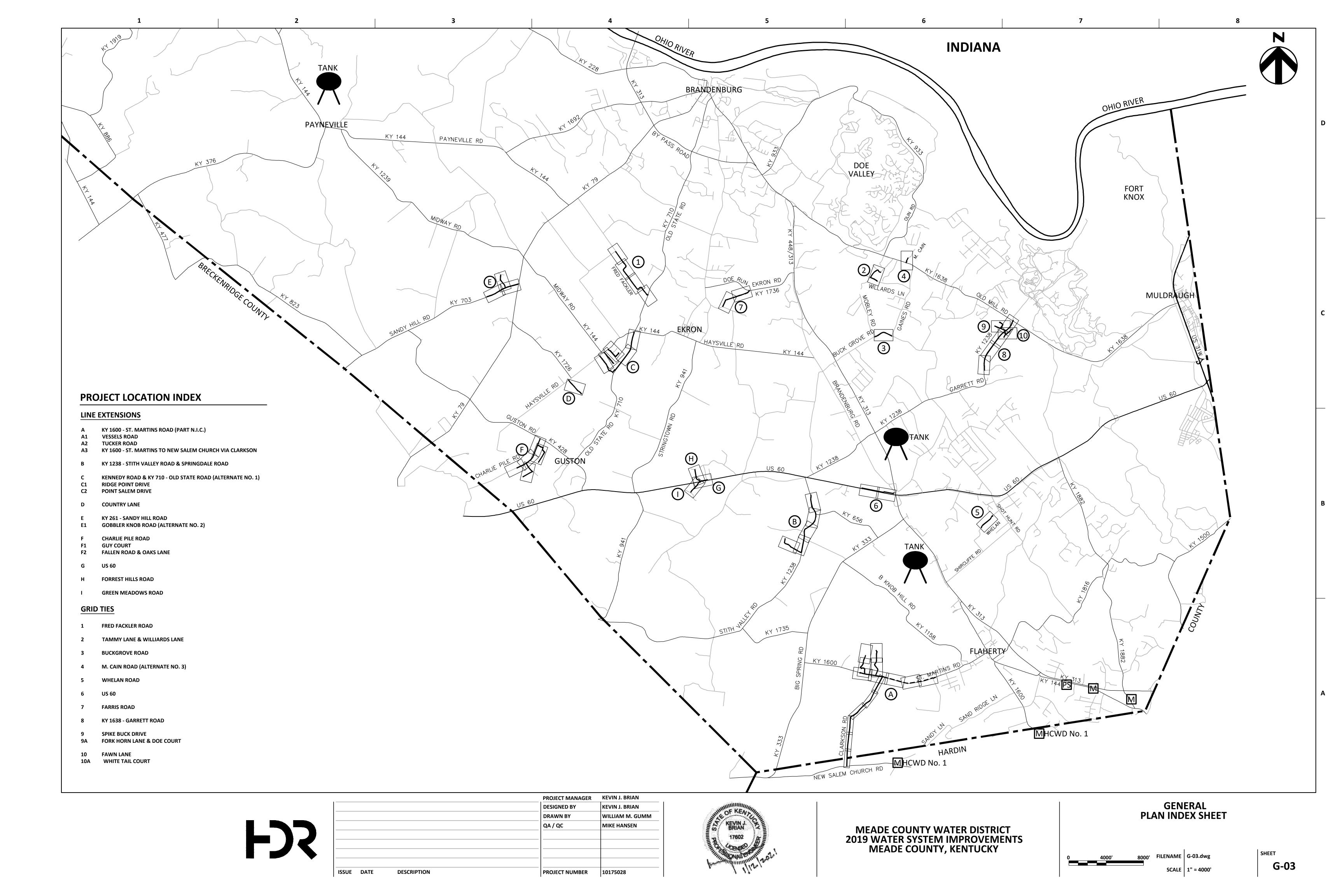
Sustainability Considerations

This project is designed to accommodate growth for the next 20 years. The pipeline assets will have a 50 plus year lifespan.

Appendix A

Water Main Extensions Location Map





Appendix B

Bid Tabulation



Bid Tabulation 2019 Water System Improvements Bids Recieved: February 4, 2021

Contractor	Base Bid Amount	Alternative A1 Bid Amount	Alternative A2 Bid Amount	Alternative A3 Bid Amount
Dirt Works Unlimited, LLC	\$2,088,820.00	\$182,600.00	\$46,440.00	\$77,380.00
Twin States Utilities & Excavation, Inc.	\$2,163,995.00	\$158,095.00	\$32,290.00	\$33,950.00
Cumberland Pipeline, LLC	\$2,246,581.00	\$154,792.00	\$40,352.00	\$45,260.60
Philips Brothers Construction, LLC	\$2,450,000.00	\$189,866.00	\$39,965.00	\$69,925.00
Cleary Construction, LLC	\$2,735,642.00	\$207,992.00	\$46,395.00	\$51,998.00
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Seven Seas Construction	\$2,536,215.75	\$219,125.75*	\$54,491.00*	\$71,238.60*

2/8/2021

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I hereby certify that this is a true and correct tabulation of the bids.

Kevin J. Brian, PE/Sr. Project Manager

HDR Engineering, Inc.

Itam			Approx.	Dirt Works Unlimited, LLC		Twin States Utilities & Excavation, Inc.		Cumberland Pipeline, LLC		Phillips Brothers Construction, LLC	
Item No.	DESCRIPTION	Unit	Quantity	Bid Unit Price	Bid Amount	Bid Unit Price	Bid Amount	Bid Unit Price	Bid Amount	Bid Unit Price	Bid Amount
1	Mobilization	LS	1	\$50,000.00	\$50,000.00	\$25,000.00	\$25,000.00	\$10,000.00	\$10,000.00	\$12,000.00	\$12,000.00
2	Bonds and Insurance	LS	1	\$25,000.00	\$25,000.00	\$42,000.00	\$42,000.00	\$22,200.00	\$22,200.00	\$26,585.00	\$26,585.00
3	General Requirements	LS	1	\$245,000.00	\$245,000.00	\$25,000.00	\$25,000.00	\$30,000.00	\$30,000.00	\$124,500.00	\$124,500.00
4	4" PVC Waterline (SDR 17)	LF	26700	\$11.00	\$293,700.00	\$14.00	\$373,800.00	\$17.00	\$453,900.00	\$16.48	\$440,016.00
5	6" PVC Waterline (SDR 17)	LF	54,400	\$13.50	\$734,400.00	\$19.00	\$1,033,600.00	\$18.33	\$997,152.00	\$18.77	\$1,021,088.00
6	8" PVC Waterline (SDR 17)	LF	4,600	\$16.70	\$76,820.00	\$23.75	\$109,250.00	\$23.00	\$105,800.00	\$21.00	\$96,600.00
7	4" Gate Valve	EA	11	\$900.00	\$9,900.00	\$1,040.00	\$11,440.00	\$1,398.00	\$15,378.00	\$975.00	\$10,725.00
8	6" Gate Valve	EA	14	\$1,100.00	\$15,400.00	\$1,230.00	\$17,220.00	\$1,585.00	\$22,190.00	\$1,120.00	\$15,680.00
9	Air Release Valve Assembly	EA	55	\$2,300.00	\$126,500.00	\$2,360.00	\$129,800.00	\$1,790.00	\$98,450.00	\$2,683.00	\$147,565.00
10	12" Steel Encasement (Bored)	LF	700	\$355.00	\$248,500.00	\$150.00	\$105,000.00	\$250.00	\$175,000.00	\$343.00	\$240,100.00
11	12" Steel Encasement (Open Cut)	LF	80	\$60.00	\$4,800.00	\$130.00	\$10,400.00	\$110.00	\$8,800.00	\$91.50	\$7,320.00
12	Concrete Encasement	LF	100	\$35.00	\$3,500.00	\$45.00	\$4,500.00	\$112.00	\$11,200.00	\$35.00	\$3,500.00
13	Flushing Hydrant Assembly	EA	20	\$2,640.00	\$52,800.00	\$2,890.00	\$57,800.00	\$4,000.00	\$80,000.00	\$2,695.00	\$53,900.00
14	8" x 6" Tapping Valve & Sleeve	EA	5	\$3,500.00	\$17,500.00	\$2,740.00	\$13,700.00	\$3,513.00	\$17,565.00	\$2,685.00	\$13,425.00
15	8" x 8" Tapping Valve & Sleeve	EA	1	\$4,200.00	\$4,200.00	\$3,380.00	\$3,380.00	\$3,909.00	\$3,909.00	\$3,075.00	\$3,075.00
16	6" x 6" Tapping Valve & Sleeve	EA	7	\$3,200.00	\$22,400.00	\$2,660.00	\$18,620.00	\$3,150.00	\$22,050.00	\$2,475.00	\$17,325.00
17	6" x 4" Tapping Valve & Sleeve	EA	3	\$2,600.00	\$7,800.00	\$2,400.00	\$7,200.00	\$3,110.00	\$9,330.00	\$2,200.00	\$6,600.00
18	Insertion Valve	EA	1	\$9,500.00	\$9,500.00	\$10,200.00	\$10,200.00	\$8,371.00	\$8,371.00	\$9,600.00	\$9,600.00
19	Connection to Existing WM	EA	6	\$600.00	\$3,600.00	\$1,180.00	\$7,080.00	\$3,410.00	\$20,460.00	\$816.00	\$4,896.00
20	Freebore Driveway	EA	21	\$2,500.00	\$52,500.00	\$1,875.00	\$39,375.00	\$700.00	\$14,700.00	\$1,500.00	\$31,500.00
21	Transfer Service	EA	25	\$500.00	\$12,500.00	\$540.00	\$13,500.00	\$660.00	\$16,500.00	\$1,320.00	\$33,000.00
22	3/4" Service Line (Short)	EA	15	\$500.00	\$7,500.00	\$650.00	\$9,750.00	\$795.00	\$11,925.00	\$1,030.00	\$15,450.00
23	3/4" Service Line (Long)	EA	10	\$750.00	\$7,500.00	\$1,180.00	\$11,800.00	\$1,100.00	\$11,000.00	\$2,000.00	\$20,000.00
24	Meter Vault Relocation	EA	6	\$1,000.00	\$6,000.00	\$980.00	\$5,880.00	\$2,950.00	\$17,700.00	\$1,450.00	\$8,700.00
25	Private Service Line Tie-In	LF	200	\$10.00	\$2,000.00	\$10.00	\$2,000.00	\$10.00	\$2,000.00	\$15.50	\$3,100.00
26	Asphalt Pavement Restoration	SF	3700	\$6.00	\$22,200.00	\$5.00	\$18,500.00	\$10.00	\$37,000.00	\$6.50	\$24,050.00
27	Concrete Pavement Restoration	SF	400	\$12.00	\$4,800.00	\$8.00	\$3,200.00	\$10.00	\$4,000.00	\$14.25	\$5,700.00
28	Erosion Prevention & Sediment Control	LS	1	\$5,000.00	\$5,000.00	\$20,000.00	\$20,000.00	\$10,000.00	\$10,000.00	\$30,000.00	\$30,000.00
29	Traffic Control	LS	1	\$7,500.00	\$7,500.00	\$25,000.00	\$25,000.00	\$10,000.00	\$10,000.00	\$23,000.00	\$23,000.00
30	Demobilization	LS	1	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$1.00	\$1.00	\$1,000.00	\$1,000.00
	Total Bid Amount			\$2,088	,820.00		\$2,163,995.00	\$2,246	5,581.00	\$2,450	0,000.00

Alternatives

ALTERNATIVE BID A1

Item			Approx.	Dirt Works Unlimited, LLC		Twin States	Utilities & Excavation, Inc.	Cumberland	Pipeline, LLC	Phillips Brothers Construction, LLC	
No.	DESCRIPTION	Unit	Quantity	Bid Unit Price	Bid Amount	Bid Unit Price	Bid Amount	Bid Unit Price	Bid Amount	Bid Unit Price	Bid Amount
1	Mobilization	LS	1	\$12,500.00	\$12,500.00	\$1,000.00	\$1,000.00	\$2,000.00	\$2,000.00	\$800.00	\$800.00
2	Bonds and Insurance	LS	1	\$3,000.00	\$3,000.00	\$2,000.00	\$2,000.00	\$1,500.00	\$1,500.00	\$2,200.00	\$2,200.00
3	General Requirements	LS	1	\$42,000.00	\$42,000.00	\$1,000.00	\$1,000.00	\$3,035.00	\$3,035.00	\$15,000.00	\$15,000.00
4	6" PVC Waterline (SDR 17)	LF	7,500	\$14.00	\$105,000.00	\$19.00	\$142,500.00	\$18.33	\$137,475.00	\$20.78	\$155,850.00
5	Air Release Valve Assembly	EA	2	\$2,300.00	\$4,600.00	\$2,360.00	\$4,720.00	\$1,790.00	\$3,580.00	\$2,683.00	\$5,366.00
6	Freebore Driveway	EA	1	\$2,500.00	\$2,500.00	\$1,875.00	\$1,875.00	\$700.00	\$700.00	\$1,500.00	\$1,500.00
7	Asphalt Pavement Restoration	SF	600	\$5.00	\$3,000.00	\$5.00	\$3,000.00	\$10.00	\$6,000.00	\$6.50	\$3,900.00
8	Erosion Prevention & Sediment Control	LS	1	\$1,000.00	\$1,000.00	\$500.00	\$500.00	\$500.00	\$500.00	\$2,250.00	\$2,250.00
9	Traffic Control	LS	1	\$1,500.00	\$1,500.00	\$500.00	\$500.00	\$1.00	\$1.00	\$2,200.00	\$2,200.00
10	Demobilization	LS	1	\$7,500.00	\$7,500.00	\$1,000.00	\$1,000.00	\$1.00	\$1.00	\$800.00	\$800.00
	Total Bid Amount	Total Bid Amount					\$158,095.00	\$154,792.00		\$189,866.00	

ALTERNATIVE BID A2

Item			Approx.	Dirt Works Unlimited, LLC		Twin States	Utilities & Excavation, Inc.	Cumberland Pipeline, LLC		Phillips Brothers Construction, LLC	
No.	I DESCRIPTION I Unit	Unit	Quantity	Bid Unit Price	Bid Amount	Bid Unit Price	Bid Amount	Bid Unit Price	Bid Amount	Bid Unit Price	Bid Amount
1	Mobilization	LS	1	\$7,500.00	\$7,500.00	\$1,000.00	\$1,000.00	\$2,000.00	\$2,000.00	\$800.00	\$800.00
2	Bonds and Insurance	LS	1	\$2,000.00	\$2,000.00	\$1,000.00	\$1,000.00	\$500.00	\$500.00	\$500.00	\$500.00
3	General Requirements	LS	1	\$11,000.00	\$11,000.00	\$1,000.00	\$1,000.00	\$791.00	\$791.00	\$3,600.00	\$3,600.00
4	4" Water Line (PVC SDR 17)	LF	1,550	\$11.00	\$17,050.00	\$14.00	\$21,700.00	\$17.00	\$26,350.00	\$17.00	\$26,350.00
5	Flush Hydrant Assembly	EA	1	\$2,640.00	\$2,640.00	\$2,890.00	\$2,890.00	\$4,000.00	\$4,000.00	\$2,695.00	\$2,695.00
6	Service-Long Side	EA	1	\$750.00	\$750.00	\$1,180.00	\$1,180.00	\$1,100.00	\$1,100.00	\$2,000.00	\$2,000.00
7	Meter Vault Relocation	EA	1	\$1,000.00	\$1,000.00	\$980.00	\$980.00	\$2,950.00	\$2,950.00	\$1,450.00	\$1,450.00
8	Transfer Service	EA	1	\$500.00	\$500.00	\$540.00	\$540.00	\$660.00	\$660.00	\$1,320.00	\$1,320.00
9	Erosion Prevention & Sediment Control	LS	1	\$500.00	\$500.00	\$500.00	\$500.00	\$1,000.00	\$1,000.00	\$500.00	\$500.00
10	Traffic Control	LS	1	\$500.00	\$500.00	\$500.00	\$500.00	\$1,000.00	\$1,000.00	\$250.00	\$250.00
11	Demobilization	LS	1	\$3,000.00	\$3,000.00	\$1,000.00	\$1,000.00	\$1.00	\$1.00	\$500.00	\$500.00
	Total Bid Amount			\$46,440.00			\$32,290.00	\$40,352.00		\$39,965.00	

ALTERNATIVE A3

Item			Approx.	Dirt Works U	Inlimited, LLC	Twin States	Utilities & Excavation, Inc.	Cumberland Pipeline, LLC		Phillips Brothers Construction, LLC	
No.	DESCRIPTION	Unit	Quantity	Bid Unit Price	Bid Amount	Bid Unit Price	Bid Amount	Bid Unit Price	Bid Amount	Bid Unit Price	Bid Amount
1	Mobilization	LS	1	\$7,500.00	\$7,500.00	\$1,000.00	\$1,000.00	\$2,000.00	\$2,000.00	\$800.00	\$800.00
2	Bonds and Insurance	LS	1	\$2,000.00	\$2,000.00	\$1,000.00	\$1,000.00	\$500.00	\$500.00	\$800.00	\$800.00
3	General Requirements	LS	1	\$18,000.00	\$18,000.00	\$1,000.00	\$1,000.00	\$887.00	\$887.00	\$5,000.00	\$5,000.00
4	6" Water Line (PVC SDR 17)	LF	620	\$14.00	\$8,680.00	\$19.00	\$11,780.00	\$18.33	\$11,364.60	\$26.00	\$16,120.00
5	6" Gate Valve	EA	1	\$1,100.00	\$1,100.00	\$1,230.00	\$1,230.00	\$1,585.00	\$1,585.00	\$1,120.00	\$1,120.00
6	12" Steel Casing (Bored)	LF	80	\$400.00	\$32,000.00	\$150.00	\$12,000.00	\$250.00	\$20,000.00	\$510.00	\$40,800.00
7	Connect to Existing WM	EA	1	\$600.00	\$600.00	\$1,200.00	\$1,200.00	\$3,410.00	\$3,410.00	\$1,000.00	\$1,000.00
8	8" x 6" Tapping Valve & Sleeve	EA	1	\$3,500.00	\$3,500.00	\$2,740.00	\$2,740.00	\$3,513.00	\$3,513.00	\$2,685.00	\$2,685.00
9	Erosion Prevention & Sediment Control	LS	1	\$500.00	\$500.00	\$500.00	\$500.00	\$1,000.00	\$1,000.00	\$500.00	\$500.00
10	Traffic Control	LS	1	\$500.00	\$500.00	\$500.00	\$500.00	\$1,000.00	\$1,000.00	\$500.00	\$500.00
11	Demobilization	LS	1	\$3,000.00	\$3,000.00	\$1,000.00	\$1,000.00	\$1.00	\$1.00	\$600.00	\$600.00
	Total Bid Amount			\$77,3	380.00		\$33,950.00	\$45,260.60		\$69,925.00	

		Cleary Cor	nstruction, Inc.	Utility & W	ater Services	Seven Seas Construction		
Item No.	DESCRIPTION	Bid Unit Price	Bid Amount	Bid Unit Price	Bid Amount	Bid Unit Price	Bid Amount	
1	Mobilization	\$2,106.00	\$2,106.00	\$75,000.00	\$75,000.00	\$11,471.25	\$11,471.25	
2	Bonds and Insurance	\$75,790.00	\$75,790.00	\$40,000.00	\$40,000.00	\$80,402.25	\$80,402.25	
3	General Requirements	\$15,790.00	\$15,790.00	\$1,000.00	\$1,000.00	\$183,000.00	\$183,000.00	
4	4" PVC Waterline (SDR 17)	\$19.20	\$512,640.00	\$21.75	\$580,725.00	\$19.25	\$513,975.00	
5	6" PVC Waterline (SDR 17)	\$23.60	\$1,283,840.00	\$21.75	\$1,183,200.00	\$14.25	\$775,200.00	
6	8" PVC Waterline (SDR 17)	\$27.60	\$126,960.00	\$21.75	\$100,050.00	\$17.50	\$80,500.00	
7	4" Gate Valve	\$1,053.00	\$11,583.00	\$1,500.00	\$16,500.00	\$1,008.00	\$11,088.00	
8	6" Gate Valve	\$1,316.00	\$18,424.00	\$1,000.00	\$14,000.00	\$1,173.00	\$16,422.00	
9	Air Release Valve Assembly	\$1,685.00	\$92,675.00	\$2,000.00	\$110,000.00	\$1,708.00	\$93,940.00	
10	12" Steel Encasement (Bored)	\$269.00	\$188,300.00	\$125.00	\$87,500.00	\$265.00	\$185,500.00	
11	12" Steel Encasement (Open Cut)	\$148.00	\$11,840.00	\$75.00	\$6,000.00	\$111.00	\$8,880.00	
12	Concrete Encasement	\$52.70	\$5,270.00	\$50.00	\$5,000.00	\$182.00	\$18,200.00	
13	Flushing Hydrant Assembly	\$4,000.00	\$80,000.00	\$4,000.00	\$80,000.00	\$3,941.00	\$78,820.00	
14	8" x 6" Tapping Valve & Sleeve	\$3,685.00	\$18,425.00	\$1,900.00	\$9,500.00	\$2,984.00	\$14,920.00	
15	8" x 8" Tapping Valve & Sleeve	\$4,211.00	\$4,211.00	\$2,300.00	\$2,300.00	\$3,566.00	\$3,566.00	
16	6" x 6" Tapping Valve & Sleeve	\$3,579.00	\$25,053.00	\$1,700.00	\$11,900.00	\$3,114.00	\$21,798.00	
17	6" x 4" Tapping Valve & Sleeve	\$3,369.00	\$10,107.00	\$1,400.00	\$4,200.00	\$2,912.00	\$8,736.00	
18	Insertion Valve	\$12,632.00	\$12,632.00	\$6,000.00	\$6,000.00	\$12,289.00	\$12,289.00	
19	Connection to Existing WM	\$1,895.00	\$11,370.00	\$500.00	\$3,000.00	\$2,031.75	\$12,190.50	
20	Freebore Driveway	\$3,158.00	\$66,318.00	\$1,500.00	\$31,500.00	\$1,953.00	\$41,013.00	
21	Transfer Service	\$1,579.00	\$39,475.00	\$500.00	\$12,500.00	\$812.00	\$20,300.00	
22	3/4" Service Line (Short)	\$843.00	\$12,645.00	\$500.00	\$7,500.00	\$1,564.50	\$23,467.50	
23	3/4" Service Line (Long)	\$1,579.00	\$15,790.00	\$500.00	\$5,000.00	\$2,973.75	\$29,737.50	
24	Meter Vault Relocation	\$527.00	\$3,162.00	\$100.00	\$600.00	\$2,841.75	\$17,050.50	
25	Private Service Line Tie-In	\$10.60	\$2,120.00	\$5.00	\$1,000.00	\$24.50	\$4,900.00	
26	Asphalt Pavement Restoration	\$12.70	\$46,990.00	\$5.00	\$18,500.00	\$11.50	\$42,550.00	
27	Concrete Pavement Restoration	\$21.10	\$8,440.00	\$5.00	\$2,000.00	\$13.75	\$5,500.00	
28	Erosion Prevention & Sediment Control	\$21,053.00	\$21,053.00	\$100,000.00	\$100,000.00	\$26,635.50	\$26,635.50	
29	Traffic Control	\$10,527.00	\$10,527.00	\$25,000.00	\$25,000.00	\$192,093.75	\$192,093.75	
30	Demobilization	\$2,106.00	\$2,106.00	\$1.00	\$1.00	\$2,070.00	\$2,070.00	
	Total Bid Amount	\$2,73	35,642.00	\$2,53	9,476.00	\$2,536,	215.75	

Alternatives

ALTERNATIVE BID A1

Item		Approx.		Cleary Construction, Inc.		Utility & Wat	er Services	Seven Seas Construction	
No.	DESCRIPTION	Unit	Quantity	Bid Unit Price	Bid Amount	Bid Unit Price	Bid Amount	Bid Unit Price	Bid Amount
1	Mobilization	LS	1	\$1,053.00	\$1,053.00	\$1,000.00	\$1,000.00	\$2,846.00	\$2,846.00
2	Bonds and Insurance	LS	1	\$6,316.00	\$6,316.00	\$500.00	\$500.00	\$2,415.00	\$2,415.00
3	General Requirements	LS	1	\$3,158.00	\$3,158.00	\$500.00	\$500.00	\$6,787.50	\$6,787.50
4	6" PVC Waterline (SDR 17)	LF	7,500	\$23.60	\$177,000.00	\$22.00	\$165,000.00	\$17.39	\$130,425.00
5	Air Release Valve Assembly	EA	2	\$1,685.00	\$3,370.00	\$5,000.00	\$10,000.00	\$1,708.00	\$3,416.00
6	Freebore Driveway	EA	1	\$3,158.00	\$3,158.00	\$1,500.00	\$1,500.00	\$22,173.00	\$22,173.00
7	Asphalt Pavement Restoration	SF	600	\$12.70	\$7,620.00	\$10.00	\$6,000.00	\$11.50	\$6,900.00
8	Erosion Prevention & Sediment Control	LS	1	\$3,158.00	\$3,158.00	\$10,000.00	\$10,000.00	\$18,492.50	\$18,492.50
9	Traffic Control	LS	1	\$2,106.00	\$2,106.00	\$500.00	\$500.00	\$24,520.75	\$24,520.75
10	Demobilization	LS	1	\$1,053.00	\$1,053.00	\$500.00	\$500.00	\$1,150.00	\$1,150.00
	Total Bid Amount			\$207,	992.00	\$195,50	00.00	\$219,	125.75*

*Corrected sum

ALTERNATIVE BID A2

Item			Approx.	Cleary Construction, Inc.		Utility & Wat	er Services	Seven Seas Construction	
No.	DESCRIPTION	Unit	Quantity	Bid Unit Price	Bid Amount	Bid Unit Price	Bid Amount	Bid Unit Price	Bid Amount
1	Mobilization	LS	1	\$1,053.00	\$1,053.00	\$500.00	\$500.00	\$1,121.25	\$1,121.25
2	Bonds and Insurance	LS	1	\$4,211.00	\$4,211.00	\$500.00	\$500.00	\$575.00	\$575.00
3	General Requirements	LS	1	\$1,053.00	\$1,053.00	\$500.00	\$500.00	\$2,119.25	\$2,119.25
4	4" Water Line (PVC SDR 17)	LF	1,550	\$19.20	\$29,760.00	\$22.00	\$34,100.00	\$14.17	\$21,963.50
5	Flush Hydrant Assembly	EA	1	\$4,000.00	\$4,000.00	\$4,000.00	\$4,000.00	\$3,941.00	\$3,941.00
6	Service-Long Side	EA	1	\$1,579.00	\$1,579.00	\$1,500.00	\$1,500.00	\$2,841.75	\$2,841.75
7	Meter Vault Relocation	EA	1	\$527.00	\$527.00	\$500.00	\$500.00	\$2,841.75	\$2,841.75
8	Transfer Service	EA	1	\$1,579.00	\$1,579.00	\$100.00	\$100.00	\$812.00	\$812.00
9	Erosion Prevention & Sediment Control	LS	1	\$1,053.00	\$1,053.00	\$2,000.00	\$2,000.00	\$5,727.50	\$5,727.50
10	Traffic Control	LS	1	\$527.00	\$527.00	\$500.00	\$500.00	\$11,973.00	\$11,973.00
11	Demobilization	LS	1	\$1,053.00	\$1,053.00	\$500.00	\$500.00	\$575.00	\$575.00
	Total Bid Amount			\$46,3	395.00	\$44,70	0.00	\$54,4	91.00*

*Corrected Sum

ALTERNATIVE BID A3

						ALILMIAII			
Itom			Approx.	Cleary Construction, Inc.		Utility & Wat	er Services	Seven Seas	Construction
No.	DESCRIPTION	Unit	Quantity	Bid Unit Price	Bid Amount	Bid Unit Price	Bid Amount	Bid Unit Price	Bid Amount
1	Mobilization	LS	1	\$1,053.00	\$1,053.00	\$500.00	\$500.00	\$1,125.25	\$1,125.25
2	Bonds and Insurance	LS	1	\$4,211.00	\$4,211.00	\$500.00	\$500.00	\$747.50	\$747.50
3	General Requirements	LS	1	\$1,053.00	\$1,053.00	\$500.00	\$500.00	\$1,044.75	\$1,044.75
4	6" Water Line (PVC SDR 17)	LF	620	\$23.60	\$14,632.00	\$30.00	\$18,600.00	\$21.46	\$13,305.20
5	6" Gate Valve	EA	1	\$1,316.00	\$1,316.00	\$1,500.00	\$1,500.00	\$1,173.00	\$1,173.00
6	12" Steel Casing (Bored)	LF	80	\$269.00	\$21,520.00	\$150.00	\$12,000.00	\$480.58	\$38,446.40
7	Connect to Existing WM	EA	1	\$1,895.00	\$1,895.00	\$1,500.00	\$1,500.00	\$2,031.75	\$2,031.75
8	8" x 6" Tapping Valve & Sleeve	EA	1	\$3,685.00	\$3,685.00	\$2,500.00	\$2,500.00	\$2,948.00	\$2,948.00
9	Erosion Prevention & Sediment Control	LS	1	\$1,053.00	\$1,053.00	\$1,500.00	\$1,500.00	\$3,855.25	\$3,855.25
10	Traffic Control	LS	1	\$527.00	\$527.00	\$500.00	\$500.00	\$5,986.50	\$5,986.50
11	Demobilization	LS	1	\$1,053.00	\$1,053.00	\$500.00	\$500.00	\$575.00	\$575.00
	Total Bid Amount	-	-	\$51,9	998.00	\$40,10	00.00	\$71,2	38.60*

*Corrected sum

Appendix C

Permits and Approvals





Andy Beshear Governor

COMMONWEALTH OF KENTUCKY TRANSPORTATION CABINET

Jim Gray Secretary

Department of Highways, District 4 Office 634 East Dixie Highway Elizabethtown, Kentucky 42701 (270) 766-5066 www.transportation.ky.gov/

April 27, 2020

Meade County Water Dist. Tim Gossett 1003 Armory Place Brandenburg, Kentucky 40108

Subject: Permit #: 04-2020-00209

Permit Type: Utilities - Water

Approval

Dear Applicant:

Attached is your permit approval and documentation for the subject permit.

Be advised that all work must be done in conformity with permit and application conditions. If you have any questions, please contact the Permits Section at this office.

Sincerely,

Jacob Riggs

D4 Permits - Supervisor

Jacob Riggs

Attachments





Kentucky Transportation Cabinet Department of Highways Division of Maintenance Permits Branch

ENCROACHMENT PERMIT

KYTC KEPT #:	04-2020-00209	
Permittee:	Meade County Water Dist.	
Permit Type / Subtype:	Utilities / Water	
Work Completion Date:	10/27/2020	
	INDEMNITIES	
	INDEMNITIES	
Туре	Amount Required	Tracking Number
Performance Bond	\$0.00	
Cash / Check	\$0.00	
Self-Insured	\$0.00	
Payment Bond	\$0.00	
Liability Insurance	\$0.00	
This permit has	been: APPROVED X	DENIED
Jacob Riggs	D4 Permits - Supervisor	4/27/2020
SIGNATURE	TITLE	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.

	LOCATION(S)		
Description	County - Route	Latitude	Longitude
	Meade - KY 1638	37.950786	-86.096942
	Meade - KY 710	37.917137	-86.205489
	Meade - KY 144	37.924174	-86.208431
	Meade - US 60	37.883240	-86.106408
	Meade - KY 1600	37.828678	-86.085448
	Meade - KY 1638	37.950786	-86.096942
	Meade - US 60	37.885777	-86.174833
	Meade - KY 1238	37.865259	-86.135112



LOCATION(S)								
Description County - Route Latitude Longitude								
	Meade - KY 1238	37.918506	-86.067624					







TC 99-1 (A)

Signature

APPLICATION FOR ENCROACHMENT PERMIT

Permitte	ee Information				КҮТ	ΓC No.	04-2020-00209		
Name	Meade Cour	ity Water	District	Permit Inform	mation				
Address	1003 Armory	/ Place		Address					
				City					
City	Brandenburg	g		State		Zip			
State	KY	Zip	40108	County	Meade				
Phone#	270-422-500)6		Route No.	KY 144	Mile- Point	71 71 1 71 7		
Contact	Tim Gossett,	/MCWD		Longitude (X)	-86.2078				
Phone	270-422-5006	Cell	270-668-2676	Latitude (Y)	37.9245				
Email	mcwattg@bbtel.c	com		Information below to be filled out by KYTC					
Contact	Kari Nunley/	HDR		Air Right	Entra	ance			
Phone	502-909-3264	Cell		□ Utilities	Othe	r:			
Email	kari.nunley@hdri	nc.com							
					Left	Rig	ght X-ing		
				Access:	☐ Full	Pa	rtial 🔀 by Permit		
General	Description of W	ork:							
and jack. road cros intersecti 12" steel.	One road crossing sing is located on I on of KY 144 and K All carrier pipe wi	is located (Y 144 ne (Y 710, at ill be 6" P	d on KY 144 near Ridg ar Point Salem Drive v mile marker 21.7 and	e Point Drive wi vith a length of a will have a lengt on will be at a n	th a length of a approximately h of approxima ninimum depth	approxim 40 LF. Th ately 40 L	will be installed by bore nately 40 LF. The second e third crossing is at the LF. All casing pipe will be All disturbed areas shall		



TC 99-1 (A) 1/2015 Page 1 of 4

APPLICATION FOR ENCROACHMENT PERMIT

Permitt	ee Information			KYTC No. 04-2020-00209					
Name	Meade Cour	nty Water	District	Permit Infor	mation				
Address	1003 Armor	y Place		Address					
				City					
City	Brandenbur	g		State		Zip			
State	KY	Zip	40108	County	Meade				
Phone#	270-422-500	06		Route No.	KY 710	Mile- Point	3.9 & 2.1-3.2		
Contact	Tim Gossett	o .		Longitude (X)	-86.19262 8	& -86.19990			
Phone	270-422-5006	Cell	270-668-2676	Latitude (Y)	37.94078 8	2 37.92344			
Email	mcwattg@bbtel.	com		Information be	low to be filled	d out by KYTC			
Contact	Kari Nunley			Air Right	☐ Ent	trance			
Phone	502-909-3264	Cell	502-909-3264	□ Utilities	Oth	her:			
Email	kari.nunley@hdr	inc.com							
					Left	Right	t X-ing		
				Access:	☐ Full	☐ Parti	al 🔀 by Permit		
Installati the inter trench e at Fred F steel. Ins Specifica	rsection of KY 710 a xcept at road cross fackler Road with a stallation will be at ations. See Sheets (R 17) Wat and Fred sings. A to length of t a minim C-19-C-21.	Fackler Road, and do tal of 1 road crossing approximately 40 LF um depth of 42". All	wn KY 710 from is occur along this and installed by I disturbed areas	mile marker 2 s mile-point. T pore and jack shall be seed	2.1 to 3.2. Ins The road cros method. All o ed and resto	wo separate locations stallation will be open ssing will be on KY 710 casing pipe will be 12' rred to KYTC Standard		
	112	s) (being du	ly authorized representa	tive(s) or owner(s)) [OO AGREE TO AL	L TERMS AND	CONDITIONS ON THE		
TC 99-1 (A	H Sas	ret		MARCH.	10,200	20			



Permittee Information

Kentucky Transportation Cabinet Department of Highways Permits Branch

TC 99-1 (A) 1/2015 Page 1 of 4

04-2020-00209

KYTC No.

APPLICATION FOR ENCROACHMENT PERMIT

Name	Meade County	Water	District	Permit Inform	mation				
Address	1003 Armory F	lace		Address					
				City					
City	Brandenburg			State		Zip			
State	KY	Zip	40108	County	Meade		GYP.		
Phone#	270-422-5006			Route No.	KY 1238	Mile- Point	5.0-6.3 12.3	&	11.1-
Contact	Tim Gossett			Longitude (X)	-86.13158	& -86.06369	15.7		
Phone	270-422-5006	Cell	270-668-2676	Latitude (Y)	37.87331 8	k 37.92722			
Email	mcwattg@bbtel.co	m		Information be	low to be filled	d out by KYTC			
Contact	Kari Nunley			Air Right	☐ En	trance			
Phone	502-909-3264	Cell		Utilities	Ot	her:			
Email	kari.nunley@hdrino	com							la .
					Left	Right	IX	X-in	g
				Access:	☐ Full	Partial	×	by P	ermit
Installati from mil installed KY 1238 will be a casing pi to KYTC	ion of an 6" PVC (SDR le marker 5.0-6.3 and by bore and jack me near mile point 5.8 wit KY 1238 and Spike ipe will be 12" steel. In Standard Specificatio	17) Wat I 11.1-1 thod. A ith a len Buck Ro nstallati ns. C-13	2.3. Installation will total of 2 road cross gth of approximately ad with a length of on will be at a minim 3, C-48.	be open trench e ings occur along t y 40 LF and be inst approximately 10 ium depth of 42"	except at roa his mile-poin alled by bore 0 LF and inst All disturbed	d crossings. Ro at. The first roa and jack meth alled by bore areas shall be	oad crossin d crossin nod. The l and jack seeded a	ings g will ast cr meth nd re	will be I be on rossing od. All estored
TC 99-1 (A	XW. K	asi	H		10,2	020			
Signatur	e			Date					



TC 99-1 (A) 1/2015 Page 1 of 4

APPLICATION FOR ENCROACHMENT PERMIT

Permitt	ee Information				К	TC No. 04-2	2020-00209		
Name	Meade Coun	ity Water	District	Permit Information					
Address	1003 Armory	/ Place		Address					
				City					
City	Brandenburg	3		State		Zip			
State	КҮ	Zip	40108	County	Meade				
Phone#	270-422-500	16		Route No.	KY 1600	Mile- Point	2.9-4.4		
Contact	Tim Gossett			Longitude (X)	-86.09870				
Phone	270-422-5006	Cell	270-668-2676	Latitude (Y)	37.82742				
Email	mcwattg@bbtel.c	om		Information below to be filled out by KYTC					
Contact	Kari Nunley			Air Right	☐ Ent	rance			
Phone	502-909-3264	Cell		□ Utilities	Oth	er:			
Email	kari.nunley@gma	il.com							
					Left	Right	X-ing		
				Access:	Full	Partial	⋈ by Permit		

General Description of Work:

Installation of an 6" PVC (SDR 17) Waterline with related appurtences within the ROW of KY 1238 from mile marker 2.9 to 4.4. Installation will be open trench except at road crossings. A total of 3 road crossings occur along this mile-point. The first road crossing is at KY 1600 and Lancaster Road with a length of approximately 40 LF and will be installed by bore and jack method. The second road crossing will be at KY 1600 and Clarkson Road with a length of 40 LF and will be installed by bore and jack method. The third road crossing will be at KY 1600 and Vessels Road with a length of approximately 50 LF installed by bore and jack. The last crossing will be at KY 1600 and Tucker Road with a length of approximately 40 LF installed by bore and jack. All casing pipe will be 12" steel pipe. Installation will be at a minimum depth of 42". All disturbed areas shall be seeded and restored to KYTC Standard Specifications. See Sheet C-01-C-05.

THE UNDERSIGNED PERMITTEE(s) (being duly authorized representative TC 99-1 (A).	e(s) or owner(s)) DO AGREE TO ALL TERMS AND CONDITIONS ON THE
The Saucet	MARCH 10, 2020
Signature	Date



TC 99-1 (A) 1/2015 Page 1 of 4

APPLICATION FOR ENCROACHMENT PERMIT

Permitte	ee Information		K	YTC No. 04-20	020-00209
Name	Meade County Water District	Permit Infor	mation		
Address	1003 Armory Place	Address			
		City			
City	Brandenburg	State		Zip	
State	KY Zip 40108	County	Meade		
Phone#	270-422-5006	Route No.	KY 1638	Mile- Point 2.	.6
Contact	Tim Gossett/MCWD	Longitude (X)	-86.09691		
Phone	270-422-5006 Cell 270-668-2676	Latitude (Y)	37.95083		
Email	mcwattg@bbtel.com	Information be	elow to be filled	out by KYTC	
Contact	Kari Nunley/HDR	Air Right	☐ Ent	crance	
Phone	502-909-3264 Cell	☐ Utilities	Oth	ner:	
Email	kari.nunley@hdrinc.com				
			Left	Right	X-ing
		Access:	Full	Partial	by Permit
Installation Cain Roa with a lead disturbed	Description of Work: on of a 6" PVC (SDR17) Waterline with related d. Road crossings will be installed by bore and jungth of approximately 60 LF. Casing pipe will be areas shall be seeded and restored to KYTC Stars areas shall be seeded and restored to KYTC Stars areas shall be seeded and restored to KYTC Stars areas shall be seeded and restored to KYTC Stars are seeded	ack method. The r e 12" cast iron. In andard Specificati	oad crossing c stallation will ons. See Shee	occurs on KY 1633 be at a minimum t C-42.	8 at M. Cain Road n depth of 42". All
Y	W Sassett	Marca	4 10,20	20	
Signature		Date	,	G.	



TC 99-1 (A) 1/2015 Page 1 of 4

APPLICATION FOR ENCROACHMENT PERMIT

Permitte	ee Information	KYTC No. 04-2020-00209
Name	Meade County Water District	Permit Information
Address	1003 Armory Place	Address
		City
City	Brandenburg	State Zip
State	KY Zip 40108	County Meade
Phone#	270-422-5006	Route No. US 60 Mile- Point 7.6-7.9 & 3.8-4.1
Contact	Tim Gossett/MCWD	Longitude (X) -86.0939 & -86.17213
Phone	270-422-5006 Cell 270-668-2676	Latitude (Y) 37.88268 & 37.88617
Email	mcwattg@bbtel.com	Information below to be filled out by KYTC
Contact	Kari Nunley/HDR	☐ Air Right ☐ Entrance
Phone	502-909-3264 Cell	☐ Utilities ☐ Other:
Email	kari.nunley@hdrinc.com	
		☐ Left ☐ Right ☒ X-ing
		Access: Full Partial Dy Permit
Installati Installati crossing Installati A road cr	ion will be open trench except at road crossing will occur on US 60 near Forrest Hill Road will occur on US 60 near Forrest Hill Road will on of a 8" PVC (SDR17) Waterline with related rossing will occur near mile-point 7.2 with a lered to a minimum depth of 42". All disturbed area	appurtences within the ROW of US 60 from mile marker 3.8 to 4.1. s. Road crossings will be installed by bore and jack method. A road ith a length of approximately 60 LF. Casing pipe will be 12" steel appurtences within the ROW of US 60 from mile marker 7.6 to 7.5 gth of approximately 80 LF. Casing pipe will be 14" steel. Installation shall be seeded and restored to KYTC Standard Specifications. See
THE UNDE		ntative(s) or owner(s)) DO AGREE TO ALL TERMS AND CONDITIONS ON THE



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 shall be required of the permittee to ensure payment of liquidated damages assessed to the permittee.
- **C.** LIABILITY INSURANCE: Liability insurance shall 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 shall 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 agree 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, 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, or other corrective measures must be completed will be specified in the notice.
- **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





APPLICATION FOR ENCROACHMENT PERMIT

installation(s) shall be borne by the permittee, its successors and assigns and 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.

σ,	no expense	•							
10. The req	uested enci	roachment	shall not inf	ringe on the fro	ntage rig	hts of an abutting	owner wit	hout their w	ritten
consent as	hereinafter	r described	d. Each abut	ting owner shal	l express	their consent, wh	ich shall b	e binding on	their
successors	and assigns	s, by the su	ubmission of	a notarized sta	itement a	s follows, "I			(we),
						, hereby con	sent to th	e granting o	f the
permit req	uested by t	he applica	nt along Rou	ite		, which	permit do	es affect fror	ntage
rights	along	my	(our)	adjacent	real	property."	Ву	signatı	ıre(s)
						subscribed	and	sworn	by
				, on t	his date _				
11.The per	mit, if appro	oved, is su	bject to the	agreement that	it shall no	ot interfere with a	ny similar	rights or perr	nit(s)
previously	granted to a	any other i	party, except	t as otherwise p	rovided b	y law.			
12. Permitt	ee shall incl	ude docur	nentation w	hich describes t	he facilitie	es to be construct	ed. Permit	tee, its succe	ssors
and assigns	s, agree as	a conditio	n of the gra	inting of the pe	ermit to c	onstruct and ma	intain any	and all perm	itted
_	_		_			ted and approve	-		
						ccessors and ass	-		
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•						rmitted work is co	•	•	ne as
						e right-of-way an			
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indemnity		-							,
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						onal actions requir			
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•						Department shall	•		
				e, its successor					
			•	•		premises in comp	liance with	n all requiren	nents
			_			tle VI of the Civil F			
	•	•	_	• •		Transportation in	•	•	
amended.			-0	C.O. Bepar			15 0.		00
	ee. its succe	essors and	assigns, agre	ee that if the De	partment	t determines it is	necessary	for the faciliti	ies 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

TC 99-1 (A) 1/2015 Page 4 of 4

APPLICATION FOR ENCROACHMENT PERMIT

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, agree 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.

NOTICE OF COMPLETION OF ENCROACHMENT PERMIT WORK

PERMITTEE

Name: Meade County Water Dist. Contact Person: Tim Gossett Address: 1003 Armory Place

City: Brandenburg State: Kentucky Zip: 40108

Telephone: (270) 668-2676

PROJECT IDENTIFICATION

Permit Number: 04-2020-00209

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

Permittee

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

Please Return to: Permit Engineer

Department of Highways, District 4 Office

634 East Dixie Highway

Elizabethtown, Kentucky 42701

(270) 766-5066

www.transportation.ky.gov/

LOCATION(S)					
Description	County - Route	Latitude	Longitude		
	Meade - KY 1638	37.950786	-86.096942		
	Meade - KY 710	37.917137	-86.205489		
	Meade - KY 144	37.924174	-86.208431		
	Meade - US 60	37.883240	-86.106408		
	Meade - KY 1600	37.828678	-86.085448		
	Meade - KY 1638	37.950786	-86.096942		
	Meade - US 60	37.885777	-86.174833		
	Meade - KY 1238	37.865259	-86.135112		
	Meade - KY 1238	37.918506	-86.067624		

4/27/2020 **Permits**

Kentucky Encroachment Permit Tracking Maintenance Division





Home Search+ Reports+ Add Permits	Perks Data		We	elcome KYTC\steve.peace	Sign Out	*
PERMIT QUICK SEARCH						
Search Criteria: Permit / Trac	cking #	Search Valu	e:			Search
PERMIT GENERAL INFORMATION						
Permit/Tracking #: T04-2020-	-00209	Follow Per	mit Status:	Active	Status Date:	4/27/2020
		Cre	eated By: S	Steve Peace	Created Date:	4/27/2020
District: 04 - Elizab	ethtown	Meade County Water D	ist · Annlica	ant 🗸		
Filing Date: 4/27/2020)				7270)660	2676
Cancellation Date: 4/27/2021		Address: 1003 Arm Brandenbi	ory Place Irg, KY 4010	Pho O8 Ema	,	Dbbtel.com
Completion Date: 10/27/202	<u>10</u>		3,	Line	_	Maintain Contacts
Permit Type: Utilities		Company			Ľ	Maintain Contacts
Permit Subtype: Water	lle					
Application Attachments Routi	ng Comments	Locations/Inspections	Indemnity	Approvals		
LOCATION DATA				-		
Description:	Most Recent Insp	DECTION -				
		ctions for this location.				
		- Clotts for this feedform				
County: Meade						
Route: Multiple						
BMP/EMP: Multiple						
Activity: New Install						
Location: Underground						
Contract Agr #:						
Bridge #:						
Baraniakian.						
Description:	m to supply see	vice to sustamore Mult	nlo location	s Coo attached a	anc	
Applicant to upgrade water system	m to supply serv	vice to customers. Mult	pie location	is. See attached pi	ans.	
						Edit

View on Map **Edit Permit**

v1.1.7221.17361



March 18, 2020

Mr. Jake Riggs

Permits Engineer KYTC – District 4 634 E Dixie Ave Elizabethtown, KY 42701

RE: Encroachment Permits

Meade County Water District (MCWD) 2019 Water System Improvements

Dear Jacob,

To improve water system flows and pressure, improve reliability (by providing grid ties), and extend water into unserved areas, MCWD is planning to extend 96,900 miles of new water mains along/adjacent to public roadways including both County and State maintained routes.

These proposed line extensions include portions along KY 1600, KY 1238, KY 710, 261 and US 60. The grid-ties include the intersection of Fred Fackler Road and KY 710, the intersection of M. Cain Road and KY 1638, and portions of KY 1238 and US 60. The encroachments include parallel installations and perpendicular crossings.

The proposed water lines are 4", 6" or 8" in size and include both PVC/DI piping materials. Installations are proposed at the back of right-of-way at minimum cover depth of 42-inches. All proposed road crossings will be done with bore and jack with steel encasement pipe. All 4" and 6" carrier pipe will have 12" steel encasements at road crossings, and all 8" carrier pipe will have 14" steel encasements at road crossings.

Attached are plans and permits for all of the state roads involved for your review.

If you should have any questions pertaining to the approval of this project, please do not hesitate to call me at 502-909-3264.

Sincerely,

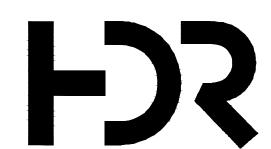
Kari Nunley, EIT

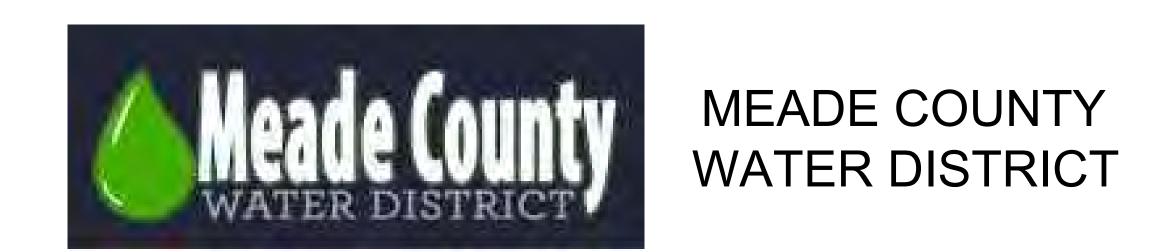
Civil EIT D. 502.909.3264

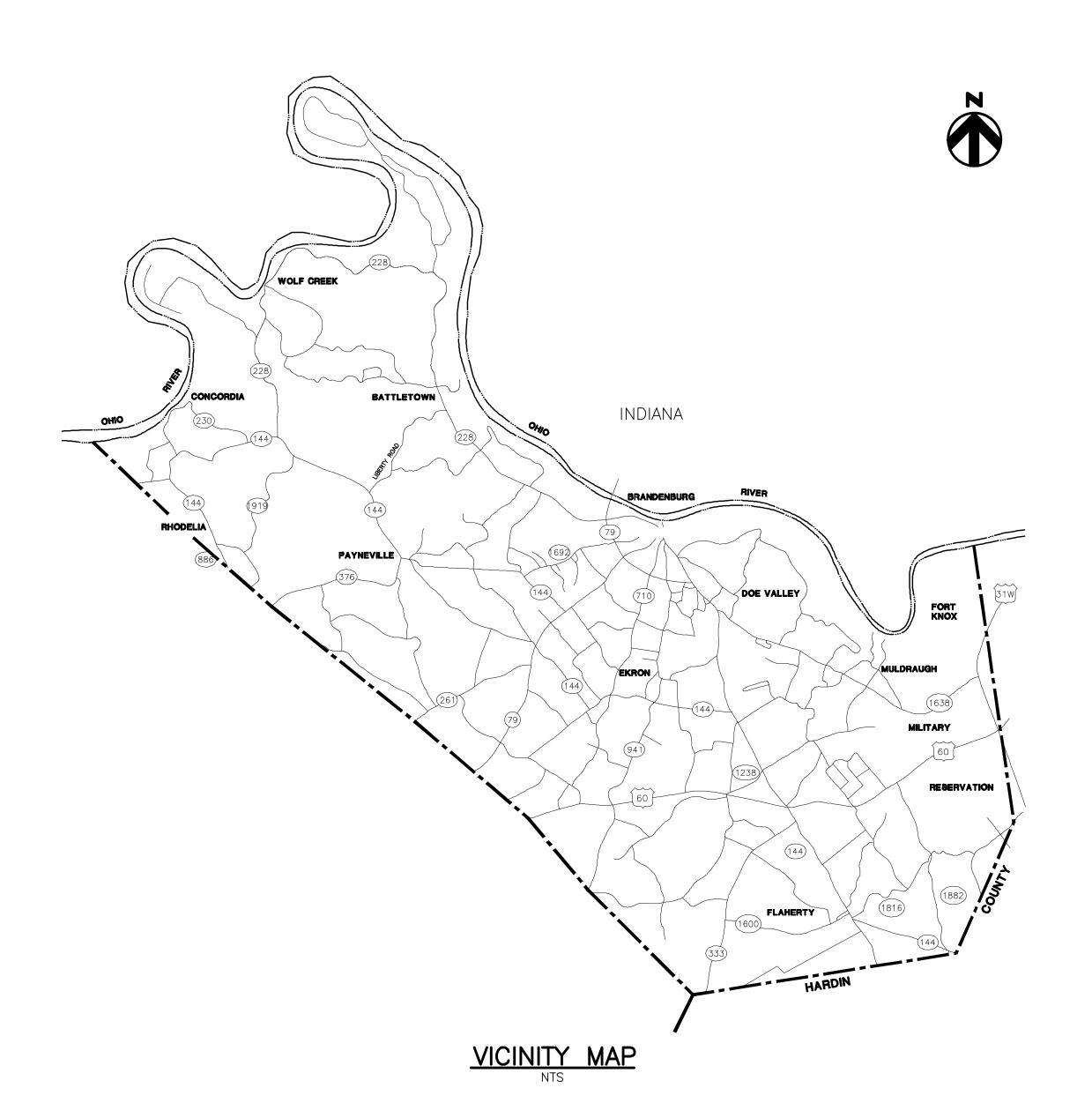
Kari.nunley@hdrinc.com

Kari Nunley

Copy: Mr. Tim Gossett, General Manager/MCWD







Contract Drawings For

Meade County Water District 2019 Water System Improvements

General / Civil

Project No. 10175028

Louisville, KY March 2020

INDEX OF DRAWINGS

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G-02 GENERAL NOTES, UTILITY INFORMATION, AND LEGEND
C-11 LINE "A3" - STA. 37+00 TO STA. 74+00 LANCASTER ROAD
C-12 LINE "A3" - STA. 74+00 TO STA. 109+50 LANCASTER ROAD
C-13 LINE "B" - STA. 0+00 TO STA. 18+00
                                         KY 1238 - STITH VALLEY ROAD
C-14 LINE "B" - STA. 18+00 TO STA. 36+00
                                         KY 1238 - STITH VALLEY ROAD
C-15 LINE "B" - STA. 36+00 TO STA. 54+00
                                         KY 1238 - STITH VALLEY ROAD
                                         KY 1238 - STITH VALLEY ROAD / SPRINGDALE ROAD
C-16 LINE "B" - STA. 54+00 TO STA. 77+00
C-17 LINE "B" - STA. 77+00 TO STA. 95+00
                                          SPRINGDALE ROAD
C-18 LINE "C" - STA. 0+00 TO STA. 18+00
                                          KENNEDY ROAD
C-19 LINE "C" - STA. 18+00 TO STA. 39+00
                                          KENNEDY ROAD / KY 710 - OLD STATE ROAD
C-20 LINE "C" - STA. 39+00 TO STA. 57+50
                                         KY 710 - OLD STATE ROAD
C-21 LINE "C" - STA. 57+50 TO STA. 75+00
                                         KY 710 - OLD STATE ROAD
C-22 LINE "C1" - STA. 0+00 TO STA. 16+50
                                          RIDGE POINT DRIVE
C-23 LINE "C2" - STA. 0+00 TO STA. 17+50
                                         POINT SALEM ROAD
C-24 LINE "D" - STA. 0+00 TO STA. 21+00
                                         COUNTRY LANE
C-25 LINE "E" - STA. 0+00 TO STA. 18+00
                                         KY 703 - SANDY HILL ROAD
C-26 LINE "E" - STA. 18+00 TO STA. 37+00
                                         KY 703 - SANDY HILL ROAD
C-27 LINE "E1" - STA. 0+00 TO STA. 15+50
                                          GOBBLER KNOB ROAD
C-28 LINE "F" - STA. 0+00 TO STA. 18+00
                                          CHARLIE PILE ROAD
C-29 LINE "F" - STA. 18+00 TO STA. 36+00
                                         CHARLIE PILE ROAD
C-30 LINE "F" - STA. 36+00 TO STA. 42+50
                                         CHARLIE PILE ROAD
C-31 LINE "F1" - STA. 0+00 TO STA. 25+00
                                         GUY COURT
                                         FALLEN ROAD / OAKS LANE
C-32 LINE "F2" - STA. 0+00 TO STA. 23+00
C-33 LINE "G" - STA. 0+00 TO STA. 11+00
C-34 LINE "H" - STA. 0+00 TO STA. 15+50
                                         FORREST HILLS ROAD
C-35 LINE "I" - STA. 0+00 TO STA. 15+50
                                          GREEN MEADOWS ROAD
GRID TIES
                                          FRED FACKLER ROAD
C-36 LINE "1" - STA. 0+00 TO STA. 13+00
C-37 LINE "1" - STA. 13+00 TO STA. 35+00
                                         FRED FACKLER ROAD
                                         FRED FACKLER ROAD
C-38 LINE "1" - STA. 35+00 TO STA. 57+00
                                         FRED FACKLER ROAD
C-39 LINE "1" - STA. 57+00 TO STA. 66+50
C-40 LINE "2" - STA. 0+00 TO STA. 24+50
                                          TAMMY LANE & WILLARDS LANE
                                          BUCK GROVE ROAD
C-41 LINE "3" - STA. 0+00 TO STA. 21+00
C-42 LINE "4" - STA. 0+00 TO STA. 6+50
                                         M. CAIN ROAD / KY 1638 - OLD MILL ROAD
C-43 LINE "5" - STA. 0+00 TO STA. 19+00
                                          WHELAN ROAD
C-44 LINE "6" - STA. 0+00 TO STA. 18+00
                                          US 60
C-45 LINE "6" - STA. 18+00 TO STA. 37+00
C-46 LINE "7" - STA. 0+00 TO STA. 18+00
C-47 LINE "7" - STA. 18+00 TO STA. 36+50
                                         FARRIS ROAD
C-48 LINE "8" - STA. 0+00 TO STA. 16+00
                                         KY 1238 - GARRETT ROAD
C-49 LINE "8" - STA. 16+00 TO STA. 33+00
                                         KY 1238 - GARRETT ROAD
C-50 LINE "8" - STA. 33+00 TO STA. 50+00
                                         KY 1238 - GARRETT ROAD
C-51 LINE "8" - STA. 50+00 TO STA. 65+00 KY 1238 - GARRETT ROAD
C-52 LINE "9" - STA. 0+00 TO STA. 13+00 & LINE "9A" - STA. 0+00 TO STA. 9+50 SPIKE BUCK DRIVE & FORK HORN LANE / DOE COURT
C-53 LINE "10" - STA. 0+00 TO STA. 12+50 & LINE "10A" - STA. 0+00 TO STA. 4+50 FAWN LANE & WHITE TAIL COURT
STANDARD DETAILS
C-54 STANDARD DETAILS
C-55 MAINTENANCE OF TRAFFIC DETAILS
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GENERAL NOTES:

- 1. LOCATIONS SHOWN FOR EXISTING UTILITIES ARE APPROXIMATE AND ARE BASED ON AVAILABLE DRAWINGS AND FIELD INFORMATION. OTHER UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THE PLANS. CONTRACTOR SHALL DETERMINE EXACT LOCATIONS BEFORE EXCAVATING FOR NEW FACILITIES. CONTRACTOR SHALL INVESTIGATE ALL AREAS FOR THE PRESENCE OF EXISTING UTILITIES PRIOR TO ANY EXCAVATION.
- 2. KENTUCKY STATUTE (KRS 367) REQUIRES THAT ALL EXCAVATORS PLANNING EXCAVATION OR DEMOLITION WORK SHALL NOTIFY AND ALERT ALL UTILITY COMPANIES IN THE AREA AND/OR UNDERGROUND PROTECTION SERVICE SUCH AS KENTUCKY811 (811) AT LEAST TWO (2) WORKING DAYS BEFORE COMMENCING THE PLANNED EXCAVATION OR DEMOLITION ACTIVITIES.
- 3. WHERE THE WATERLINE IS OUTSIDE OF RIGHT—OF—WAY THE PERMANENT EASEMENT IS TYPICALLY 15 FEET WIDE, UNLESS OTHERWISE NOTED ON THE PLANS.
- 4. THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER TWO (2) WORKING DAYS IN ADVANCE OF ANY WORK THAT REQUIRES EXISTING UTILITIES TO BE TEMPORARILY TAKEN OUT OF SERVICE.
- 5. LOCATIONS SHOWN FOR AIR RELEASE VALVES ARE APPROXIMATE. ACTUAL HIGH POINTS SHALL BE FIELD LOCATED AND APPROVED BY THE ENGINEER PRIOR TO VALVE INSTALLATION.
- 6. STATIONS SHOWN ON THE WATER LINE ARE FOR REFERENCE ONLY AND DO NOT REFLECT THE EXACT LENGTH OF PIPE REQUIRED FOR CONSTRUCTION.

KENTUCKY DEPARTMENT OF HIGHWAYS (KDOH) GENERAL NOTES:

- 1. WATER MAIN INSTALLED INSIDE STATE RIGHT-OF-WAY SHALL BE LOCATED WITHIN 3 TO 5 FEET OF THE RIGHT-OF-WAY UNLESS OTHERWISE SHOWN ON THE PLANS.
- 2. WATER MAIN LOCATED MORE THAN 5 FEET FROM THE EDGE OF THE RIGHT—OF—WAY SHALL BE INSTALLED WITH A MINIMUM DEPTH OF COVER OF 42 INCHES.
- 3. WATER VALVES, HYDRANTS AND OTHER APPURTENANCES SHALL BE INSTALLED NO CLOSER THAN 3-FEET FROM DITCH LINE.
- 4. UNDERGROUND UTILITIES CROSSING ANY ENTRANCE OR CROSSROADS PAVED WITH CONCRETE OR ASPHALT SURFACE INSIDE STATE RIGHT—OF—WAY SHALL BE INSTALLED BY FREE BORING. OPEN CUTTING OF THESE ENTRANCES WILL BE CONSIDERED ON A CASE BY CASE BASIS. WRITTEN CONSENT MUST BE OBTAINED FROM THE PROPERTY OWNER AND APPROVED BY KDOH AND MCWD.
- 5. WATER MAIN SHALL NOT BE INSTALLED IN EMBANKMENT FILLS OR BETWEEN EDGE OF PAVEMENT AND DITCH LINE UNLESS SPECIFICALLY NOTED ON PERMITTED PLANS.
- 6. HYDRANTS OR UTILITY SERVICE BOXES SHOULD BE LOCATED WITHIN 2 FEET OF RIGHT-OF-WAY LINE OR OUTSIDE THE RIGHT-OF-WAY.
- 7. CONTACT STEVE HALL AT KDOH DISTRICT #4, ELIZABETHTOWN, KY. AT (270) 766-5066 PRIOR TO BEGINNING WORK.

UTILITY INFORMATION:

WATER:	MEADE COUNTY WATER DISTRICT HARDIN COUNTY WATER DISTRICT NO. 1	(270) 422-5006 (270) 351-3222
ELECTRIC:	MEADE COUNTY RECC	(270) 422-2162
CABLE:	INTERMEDIATE	(270) 422-4994
TELEPHONE:	BRANDENBURG TELEPHONE COMPANY	(270) 422-2121
GAS:	ELIZABETHTOWN GAS CONTACT: MATTHEW HOBBS TEXAS GAS MONUMENT CHEMICAL CONTACT: DANNY WILLIAMS	(270) 765-6121 (270) 926-8686 (270) 422-6233

TRANSPORTATION INFORMATION:

STATE:	KDOH DISTRICT #4
317112.	ELIZABETHTOWN, KY.

CONTACT: CHARLES MASON

(270) 766-5066

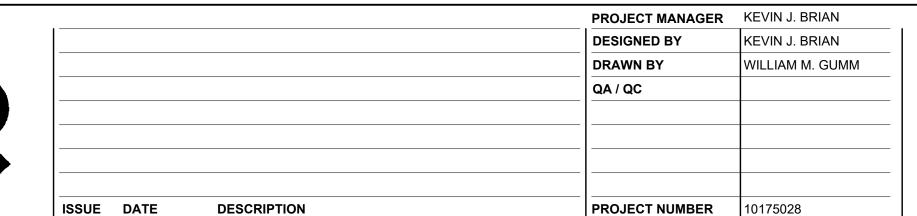
COUNTY: MEADE COUNTY ROAD DEPARTMENT BRANDENBURG, KY.

CONTACT: JEFF PADGETT (270) 422-3577

SOURCE OF CONTROL

KENTUCKY STATE PLANE SINGLE ZONE NORTH AMERICAN DATUM OF 1983 (NAVD83)





<u>LEGEND</u>

<u>PROPOSED</u> **EXISTING** WATER LINE — w — w — w — GATE VALVE & BOX ____ w → WV ___ w ___ FIELD LOCATED WATER VALVE WATER METER -- w -- w -- $\stackrel{\frown}{M}$ FIELD LOCATED WATER METER FLUSHING HYDRANT ASSEMBLY (INCLUDES VALVE) AIR RELEASE VALVE PRESSURE REDUCING VALVE (PRV) BENDS (90°, 45°, 22-1/2°, 11-1/4°) REDUCER LEAK DETECTION ASSEMBLY FREE BORE PROPOSED EASEMENT BORE AND JACK/OPEN CUT LINE MARKER RIGHT-OF-WAY PROPERTY LINE CREEK GAS MAIN —— G —— G —— OVERHEAD UTILITY LINE FIBER OPTIC CABLE ____ _ _ CTV ____ UNDERGROUND CABLE TV UNDERGROUND TELEPHONE ____ UGT ___ STORM PIPE EDGE OF PAVEMENT EDGE OF SHOULDER GRAVEL DRIVE

> GENERAL GENERAL NOTES AND LEGEND



ASPHALT PAVEMENT DRIVE

CONCRETE PAVEMENT DRIVE

G-02

MEADE COUNTY WATER DISTRICT WATER SYSTEM IMPROVEMENTS MEADE COUNTY, KENTUCKY

