

**CASE**

**NUMBER:**

99-442

HISTORY INDEX FOR CASE: 1999-442  
MEADE COUNTY WATER DISTRICT  
Construct, Financing  
NEW FACILITIES/EXTEND SERVICE TO PAYNEVILLE-BATTLETOWN

IN THE MATTER OF APPLICATION OF THE MEADE COUNTY WATER  
DISTRICT FOR A CERTIFICATE OF CONVENIENCE AND NECESSITY TO  
CONSTRUCT NEW FACILITIES AND EXTEND WATER SERVICE TO THE  
PAYNEVILLE-BATTLETOWN AREA OF MEADE COUNTY

SEQ NBR	ENTRY DATE	REMARKS
0001	10/29/1999	Application.
0002	11/02/1999	Acknowledgement letter.
0003	12/01/1999	Filing deficiencies letter, response due 12/16/99.
0004	12/09/1999	Order denying Meade County's Motion for deviation.
M0001	12/15/1999	DAVID WILSON MEADE CO WD-RESPONSE TO FILING DEFICIENCIES
M0002	01/14/2000	MICHAEL PIKE PAYNEVILLE BATTLETOWN W-PREMININARY DESIGN REPORT PER FILING DEFICIENCIES
0005	01/26/2000	Order granting request to deviate from the 90-day restriction.
0006	02/02/2000	Filing deficiencies cured letter
M0003	02/09/2000	KEVIN BRIAN QUEST-SUMMARY OF PROJECT COSTS
0007	02/28/2000	Final Order granting Certificate to construct and approving financing plan.
M0004	02/28/2000	MICHAEL PIKE-AMENDED ATTACHMENT F
M0005	09/12/2000	JON WHITFIELD/MEADE CO. WD-ADVISING OF STATUS OF PYNEVILLE-BATTLETOWN PROJECT

**MEADE COUNTY WATER DISTRICT**

4135 FLAHERTY ROAD  
VINE GROVE, KY 40175

Phone 270-828-3399  
Fax 270-828-3377

September 9, 2000

RECEIVED

SEP 12 2000

PUBLIC SERVICE  
COMMISSION

Mr. Tom Dorman  
Executive Director  
Public Service Commission  
730 Schenkel Lane  
Frankfort, Ky. 40602

Dear Mr. Dorman:

RE: Case No. 99-442  
PAYNEVILLE-BATTLETOWN PROJECT  
CONTRACTS 3 & 4

This communication is to advise you of the status of the above mention project. On August 4, 2000 HP Contracting Co., Inc. (the CONTRACTOR) for Contracts 3 & 4 notified their Surety Co. (MID STATE SURETY CORP.) that they lacked the sufficient resources to complete the projects.

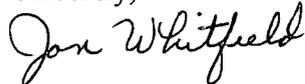
August 21, 2000 HP Contracting Co., Inc. filed Chapter 11 paperwork in U. S. Bankruptcy Court in Lexington, Kentucky.

We are currently working with Quest Engineers, David Wilson, our Attorney and the Attorney for Mid-State Surety Co. to resolve this issue and to get the project started again.

The Tank and Pump Projects are under construction and are on schedule.

If you have any questions please call JoAnn Thomas at 270-828-3399.

Sincerely,



Jon Whitfield  
Chairman

SKEETERS, BENNETT AND WILSON

RECEIVED

ATTORNEYS AT LAW  
550 W. LINCOLN TRAIL BLVD.  
P.O. BOX 610  
RADCLIFF, KENTUCKY 40160

FEB 28 2000

DONALD E. SKEETERS  
R. TERRY BENNETT  
DAVID T. WILSON II  
DAVID T. GRAY  
LORI A. LODGE-LANE  
TROY A. McPEAK

GENERAL COUNSEL

TEL: (502) 351-4404

FAX: (502) 352-4626

REAL ESTATE DEPT:

TEL: (502) 352-4406

FAX: (502) 352-4421

February 24, 2000

RECEIVED

FEB 28 2000

PUBLIC SERVICE  
COMMISSION

Public Service Commission  
Attn: Anita Mitchell  
730 Schenkel Lane  
P.O. Box 615  
Frankfort, Ky 40602

Re: Case No. 99-442 Filing Deficiency

Dear Ms. Mitchell:

Enclosed please find the Amended Attachment F which we previously faxed to you on Friday, February 24, 2000. Should you have any questions or need additional information, please call.

Sincerely,

SKEETERS, BENNETT & WILSON

Michael Pike

MP:dnf  
Enclosure

**ATTACHMENT F (amended)**

**PROPOSED FINANCING FOR PAYNEVILLE/BATTLETOWN  
WATER SYSTEM EXPANSION**

1. The KIA Fund C Loan shall not exceed \$407,608. The loan amount is based on the project cost financed by this loan, a proportional share of the bond financing expenses and a 10% debt service reserve. This amount will be adjusted based on the actual results of the bond sale. The financing expenses will be a cost to the Meade County Water District for the loan. Construction funds advanced to the District will not exceed \$356,657.
2. The loan shall be repaid over a period of 20 years at an annual rate of 6.5% from the date bonds are sold. The estimated annual payment is \$37,523.
3. (same)
4. (same)
5. (same)

ATTACHMENT F (amended, continued)**PROJECT BUDGET**

A. Acquisition	15,000
B. Administration & Legal	20,000
Preliminary Engineering	20,000
C. Engineering Design	211,905
D. Engineering Inspection	99,020
E. Construction	2,269,196
F. O&M Reserve	10,000
G. Capitalized Interest	30,000
H. Contingencies	181,536.00
<b>Total Budget</b>	<u>2,856,657</u>

**PROJECT FUNDING****A. Funding Sources**

KIA Fund B1	2,500,000
KIA Fund C Loan	356,657
<b>Total Funding</b>	<u>2,856,657</u>

**B. KIA Debt Service**

Construction Loan	356,657
Debt Service Reserve Fund (10%)	40,761
Cost of Issuance (2.5%)	10,190
<b>Total KIA Fund C Loan</b>	<u>407,608</u>

Interest Rate	6.50%
Loan Term (Years)	20

Estimated Annual Debt Service	36,707
Administrative Fee (.2%)	815
<b>Total Estimated Annual Debt Service</b>	<u>37,523</u>

ATTACHMENT F (amended, continued)

2/15/00

**PAYNEVILLE-BATTLETOWN WATER SYSTEM EXPANSION  
MEADE COUNTY FISCAL COURT AND MEADE COUNTY WATER DISTRICT  
KENTUCKY INFRASTRUCTURE AUTHORITY FUND B1 AND FUND C**

<u>REVISED PROJECT BUDGET (AS BID)</u>	<u>Fund B1</u>	<u>Fund C</u>	<u>Total Project</u>
Acquisition	15,000	0	15,000
Administration & Legal	20,000	0	20,000
Preliminary Engineering	20,000	0	20,000
Engineering Design	170,415	41,490	211,905
Engineering Inspection	0	99,020	99,020
Construction	2,205,000	64,196	2,269,196
O&M Reserve	0	10,000	10,000
Capitalized Interest	0	30,000	30,000
Contingencies	69,585	111,951	181,536
Total Project Cost	\$2,500,000	\$356,657	\$2,856,657

**FAX TRANSMITTAL COVER SHEET**

**Quest Engineers, Inc.**  
455 South Fourth Avenue  
Suite 790  
Louisville, KY 40202  
(502) 584-6056  
(502) 581-1544 (Fax)  
kbrian@questeng.com

**Kevin J. Brian, P.E.**  
Project Manager

JAN 28 2000

**RECEIVED**

DIVISION OF UTILITY  
ENGINEERING & SERVICES

**RECEIVED**  
~~FEB 09 2000~~  
PUBLIC SERVICE  
COMMISSION

FEB 09 2000

PUBLIC SERVICE  
COMMISSION  
DATE: January 27, 2000

TIME: 12:54 PM

PAGE 1 OF 2

ATTENTION : James Rice

COMPANY : Public Service Commission

FAX NUMBER : 502-564-1582

FROM : Kevin J. Brian, P.E.

PROJECT : MCWD Payneville-Battletown Water System 99-442

SUBJECT : Summary of Project Costs

Copy to: JoAnn Thomas, MCWD via fax/270-828-3377  
Michael Pike, Skeeter, Bennet and Wilson via fax/270-352-4626

Per your request see the attached. The original will follow in the mail. If you have any questions please give me a call.

**Payneville-Battletown Water System Improvements**  
**Meade County Water District**  
**Meade County, Kentucky Water**  
January 27, 2000

Summary of Project Costs

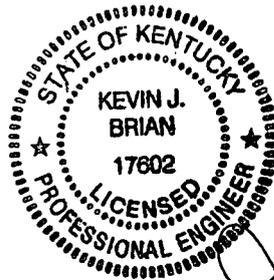
1 Acquisitions (property/easements)	\$ 9,100
2 Administration & Legal <sup>1</sup>	\$ 20,000
3 Preliminary Engineering	\$ 20,000
4 Engineering Design	\$ 211,905
5 Engineering Inspection	\$ 99,020
6 Construction	\$ 2,269,196
7 Construction Contingency (8%)	\$ 181,536
8 O&M Reserve	\$ 10,000
9 Capitalized Interest <sup>2</sup>	\$ 30,000
<b>Total Project Cost</b>	<b><u>\$ 2,850,757</u></b>

Summary of Project Funding

1 Infrastructure Grant (Fund B1)	\$ 2,500,000
2 Loan (Fund C) <sup>3</sup>	\$ 350,757
<b>Total Project Funding</b>	<b><u>\$ 2,850,757</u></b>

Notes

- (1) Estimated cost - outstanding costs/expenses for ongoing services.
- (2) Projected cost - final amount to be determined on loan amount/duration.
- (3) Loan amount approved for \$1,704,225.



*Kevin J. Brian*  
1/27/2000



COMMONWEALTH OF KENTUCKY  
PUBLIC SERVICE COMMISSION  
211 SOWER BOULEVARD  
POST OFFICE BOX 615  
FRANKFORT, KY. 40602  
(502) 564-3940

CERTIFICATE OF SERVICE

RE: Case No. 1999-442  
MEADE COUNTY WATER DISTRICT

I, Stephanie Bell, Secretary of the Public Service Commission, hereby certify that the enclosed attested copy of the Commission's Order in the above case was served upon the following by U.S. Mail on February 28, 2000.

Parties of Record:

Jon Whitfield  
Chairman  
Meade County Water District  
4135 Flaherty Road  
Vine Grove, KY. 40175

Honorable David T. Wilson  
Attorney for Meade County Water  
Skeeters, Bennett & Wilson  
550 W. Lincoln Trail Blvd.  
P.O. Box 610  
Radcliff, KY. 40160

  
Secretary of the Commission

SB/hv  
Enclosure

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF THE MEADE COUNTY )  
WATER DISTRICT FOR A CERTIFICATE OF )  
CONVENIENCE AND NECESSITY TO CONSTRUCT ) CASE NO. 99-442  
NEW FACILITIES AND EXTEND WATER SERVICE )  
TO THE PAYNEVILLE-BATTLETOWN AREA OF )  
MEADE COUNTY )

O R D E R

On January 27, 2000, Meade County Water District ("Meade District") applied for a Certificate of Public Convenience and Necessity to construct a \$2,850,757 waterworks improvement project. The proposed project involves the construction of approximately 33 miles of 10, 8, and 6-inch water transmission mains, a 300,000 gallon elevated water storage tank, a 350 gallon per minute booster pump station, a pressure reducing vault, and an upgrade of the existing Brandenburg pump station and will provide service to approximately 670 new customers. Project funding is a \$2,500,000 grant from the Kentucky Infrastructure Authority ("KIA") Grant Program and a \$407,608 Fund C loan from KIA at an interest rate of 6.5 percent per annum and a loan term of 20 years.<sup>1</sup>

Plans and specifications for the proposed improvements prepared by Quest Engineers, Inc. of Louisville, Kentucky, have been approved by the Division of Water of the Natural Resources and Environmental Protection Cabinet.

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<sup>1</sup> Revised Attachment F.

The Commission, having reviewed the evidence of record and being otherwise sufficiently advised, finds that:

1. Public convenience and necessity require that the construction proposed be performed and that a Certificate of Public Convenience and Necessity be granted.
2. Meade District should obtain approval from the Commission prior to performing any additional construction not expressly authorized by this Order.
3. Any deviation from the construction or financing approved should be undertaken only with the prior approval of the Commission.
4. Meade District should furnish documentation of the total costs of this project including the cost of construction and all other capitalized costs (engineering, legal, administrative, etc.) within 60 days of the date that construction is substantially completed. Construction costs should be classified into appropriate plant accounts in accordance with the Uniform System of Accounts for water utilities prescribed by the Commission.
5. Meade District shall require construction to be inspected under the general supervision of a professional engineer with a Kentucky registration in civil or mechanical engineering to ensure that the construction work is done in accordance with the contract drawings and specifications and in conformance with the best practices of the construction trades involved in the project.
6. The financing plan proposed by Meade District is for lawful objects within the corporate purpose of its utility operation, is necessary and appropriate for and consistent with the proper performance of the utility's service to the public and will not impair its ability for such purpose. It should, therefore, be approved.

IT IS THEREFORE ORDERED that:

1. Meade District is granted a Certificate of Public Convenience and Necessity to proceed with the proposed construction project consisting of approximately 33 miles of 10, 8, and 6-inch water transmission mains, a 300,000 gallon elevated water storage tank, a 350 gallon per minute booster pump station, a pressure reducing vault, an upgrade of the existing Brandenburg pump station and related appurtenances.

2. Meade District shall comply with the requirements contained in Findings 3 through 6 as if the same were individually so ordered.

3. The financing plan proposed by Meade District be and it hereby is approved. Nothing contained in this Order shall be deemed a warranty of the Commonwealth of Kentucky, or any agency, thereof of the financing herein accepted.

Done at Frankfort, Kentucky, this 28th day of February, 2000.

By the Commission

ATTEST:

  
Executive Director



COMMONWEALTH OF KENTUCKY  
PUBLIC SERVICE COMMISSION  
211 SOWER BOULEVARD  
POST OFFICE BOX 615  
FRANKFORT, KY. 40602  
(502) 564-3940

February 2, 2000

Jon Whitfield  
Chairman  
Meade County Water District  
4135 Flaherty Road  
Vine Grove, KY. 40175

Honorable David T. Wilson  
Attorney for Meade County Water  
Skeeters, Bennett & Wilson  
550 W. Lincoln Trail Blvd.  
P.O. Box 610  
Radcliff, KY. 40160

RE: Case No. 1999-442  
MEADE COUNTY WATER DISTRICT

The Commission staff has reviewed your response of January 27, 2000 and has determined that your application in the above case now meets the minimum filing requirements set by our regulations. Enclosed please find a stamped filed copy of the first page of your filing. This case has been docketed and will be processed as expeditiously as possible.

If you need further information, please contact my staff at 502/564-3940.

Sincerely,

*Stephanie D. Bell*

Stephanie Bell  
Secretary of the Commission

SB/hv  
Enclosure

**SKEETERS, BENNETT AND WILSON**

ATTORNEYS AT LAW  
550 W. LINCOLN TRAIL BLVD.  
P.O. BOX 610  
RADCLIFF, KENTUCKY 40160

RECEIVED  
OCT 29 1999  
PUBLIC SERVICE  
COMMISSION

TEL: (502) 351-4404  
FAX: (502) 352-4626  
REAL ESTATE DEPT:  
TEL: (502) 352-4406  
FAX: (502) 352-4421

DONALD E. SKEETERS  
R. TERRY BENNETT  
DAVID T. WILSON II  
DAVID T. GRAY  
LORI A. LODGE-LANE  
TROY A. McPEAK

October 28, 1999

**FILED**

JAN 27 2000  
PUBLIC SERVICE  
COMMISSION

Public Service Commission  
730 Schenkel Lane  
P.O. Box 615  
Frankfort, Ky 40602

Re: Meade County Water District Application for  
Certificate of Public Convenience and Necessity

*Case No. 99-442*

To Whom It May Concern:

Enclosed please find an original Application and ten (10) copies of the Meade County Water District for a Certificate of Convenience and Necessity to Construct New Facilities and Extend Water Service to the Payneville-Battletown Area of Meade County. Pursuant to a phone conversation of today's date with your office, I am enclosing one copy of the exhibits with the Application, as they were too voluminous to copy.

For your information, the contact persons for any questions that may arise during your review of this Application are: for **engineering** related items: Kevin J. Brian-Quest Engineers, Inc., (502) 584-6056; for **financial** information: Joann Thomas-Meade County Water District, (270) 828-3399; and for **legal** issues: David Wilson-Skeeters, Bennett & Wilson, (270) 351-4404.

At this time, I request that any deficiencies in the application be treated informally for resolution, or in the alternative that any requirements not met in the PSC checklist provided earlier be waived at this time if at all possible.

Please do not hesitate to contact me should you have questions, and thank you for your assistance in this matter.

Sincerely,

SKEETERS, BENNETT & WILSON



David T. Wilson II

DTW/dnf  
Enclosure



COMMONWEALTH OF KENTUCKY  
**PUBLIC SERVICE COMMISSION**

730 SCHENKEL LANE  
POST OFFICE BOX 615  
FRANKFORT, KY. 40602  
(502) 564-3940

January 26, 2000

Jon Whitfield  
Chairman  
Meade County Water District  
4135 Flaherty Road  
Vine Grove, KY. 40175

Honorable David T. Wilson  
Attorney for Meade County Water  
Skeeters, Bennett & Wilson  
550 W. Lincoln Trail Blvd.  
P.O. Box 610  
Radcliff, KY. 40160

RE: Case No. 1999-442

We enclose one attested copy of the Commission's Order in  
the above case.

Sincerely,

*Stephanie Bell*

Stephanie Bell  
Secretary of the Commission

SB/hv  
Enclosure

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF THE MEADE COUNTY WATER	)	
DISTRICT FOR A CERTIFICATE OF PUBLIC	)	
CONVENIENCE AND NECESSITY TO CONSTRUCT	)	CASE NO.
NEW FACILITIES AND EXTEND WATER SERVICE	)	99-442
TO THE PAYNEVILLE-BATTLETOWN AREA OF	)	
MEADE COUNTY	)	

ORDER

On December 15, 1999, Meade County filed a request to deviate from the 90-day restriction of 807 KAR 5:001, Section 6(1) through 6(9). According to 807 KAR 5:001, Section 6, financial exhibits attached to an application must cover the 12-month period ending not more than 90 days prior to the filing date of the application. In support of its request, Meade County states that it is audited annually and that where possible it has provided information documented since its last audit.

The Commission, having reviewed the record and being otherwise sufficiently advised, finds that good cause has been shown by Meade County for its request to deviate from the 90-day requirement of 807 KAR 5:001, Section 6, and that the motion should be granted.

IT IS THEREFORE ORDERED that Meade County's request for permission to deviate from the 90-day restriction of 807 KAR 5:001, Section 6(1) through 6(9), is granted.

Done at Frankfort, Kentucky, this 26th day of January, 2000.

By the Commission

ATTEST:

  
Executive Director

**SKEETERS, BENNETT AND WILSON**

ATTORNEYS AT LAW  
550 W. LINCOLN TRAIL BLVD.  
P.O. BOX 610  
RADCLIFF, KENTUCKY 40160

DONALD E. SKEETERS  
R. TERRY BENNETT  
DAVID T. WILSON II  
DAVID T. GRAY  
LORI A. LODGE-LANE  
TROY A. McPEAK

January 4, 2000

RECEIVED

JAN 1 9 2000

PUBLIC SERVICE  
COMMISSION TEL: (502) 351-4404

FAX: (502) 352-4626

REAL ESTATE DEPT:

TEL: (502) 352-4406

FAX: (502) 352-4421

Public Service Commission  
Attn: Anita Mitchell  
730 Schenkel Lane  
P.O. Box 615  
Frankfort, Ky 40602

RECEIVED

JAN 5 2000

GENERAL COUNSEL AM

Re: Case No. 99-442 Filing Deficiency

Dear Ms. Mitchell:

Enclosed please find a copy of the Payneville-Battletown Water System Improvement preliminary design report with the original engineers stamp, signature and date for the referenced project. Because we are submitting this stamped design report in compliance KRS 322.340, please at this time accept our request to withdraw our prior request for a waiver regarding the preliminary design report being unsigned and unsealed by the original engineer.

Also enclosed are photo copies of the preliminary bid tabulations for the projects construction. Bids were dated December 17, 1999 and obviously have not been finalized, however, the total project bid came in approximately one million dollars under the proposed budget for the project. We felt it appropriate to bring this favorable news to the Commission's attention. If you need additional information, have questions, or if you see deficiencies that can be easily corrected, please feel free to contact me.

Sincerely,

SKEETERS, BENNETT & WILSON



Michael Pike

MP:dnf  
Enclosure

**BID TABULATIONS**  
**Contract No. 1 - Elevated Water Storage Tank**  
**Payneville-Battletown Water System Improvements**  
**Meade County Water District**  
**Meade County, Kentucky**

Bid Date: December 17 1999/11:00 a.m.

Item No.	Description	Unit	Approx. Quantity	Caldwell Tanks		Phoenix Fabricators and Erectors, Inc.	
				Unit Price	Total Item Amount	Unit Price	Total Item Amount
1	For construction of the reinforced concrete foundation for the tank, access road and turn around, security fence and site restoration.	LS	1	\$52,000.00	\$52,000.00	\$43,000.00	\$43,000.00
2	For furnishing, erecting, testing, painting and sterilizing one 300,000 gallon welded steel elevated water storage tank of the oblatoid type, complete with all accessories.	LS	1	\$279,000.00	\$279,000.00	\$351,434.00	\$351,434.00
<b>TOTAL BASE BID AMOUNT</b>					<b>\$331,000.00</b>		<b>\$394,434.00</b>

Item No.	Description	Unit	Approx. Quantity	Caldwell Tanks		Phoenix Fabricators and Erectors, Inc.	
				Unit Price	Total Item Amount	Unit Price	Total Item Amount
1	For construction of the reinforced concrete foundation for the tank, access road and turn around, security fence and site restoration.	LS	1	\$75,000.00	\$75,000.00	\$69,000.00	\$69,000.00
2	For furnishing, erecting, testing, painting and sterilizing one 300,000 gallon welded steel elevated water storage tank of the pedisphere type, complete with all accessories.	LS	1	\$362,000.00	\$362,000.00	\$470,273.00	\$470,273.00
<b>TOTAL ALTERNATE BID AMOUNT</b>					<b>\$437,000.00</b>		<b>\$539,273.00</b>

**BID TABULATIONS**  
**Contract No. 2 - Booster Pump/PRV Stations and Related Work**  
**Payneville-Battletown Water System Improvements**  
**Meade County Water District**  
**Meade County, Kentucky**

Bid Date: December 17 1999/11:00 a.m.

Item No.	Description	Unit	Approx. Quantity	Kenney Inc.		Willmott Construction		Gadcon		Salmon Construction, Inc.	
				Unit Price	Total Item Amount	Unit Price	Total Item Amount	Unit Price	Total Item Amount	Unit Price	Total Item Amount
1	KV 228 Pressure Reducing Valve Station	LS	1	\$21,150.00	\$21,150.00	\$25,500.00	\$25,500.00	\$43,500.00	\$43,500.00	\$21,528.00	\$21,528.00
2	Payneville Booster Pump/ Pressure Reducing Valve Sta.	LS	1	\$161,435.00	\$161,435.00	\$147,500.00	\$147,500.00	\$152,650.00	\$152,650.00	\$160,290.00	\$160,290.00
3	Brandenburg Pump Station Modifications	LS	1	\$93,165.00	\$93,165.00	\$95,000.00	\$95,000.00	\$99,400.00	\$99,400.00	\$129,700.00	\$129,700.00
4	Telemetry for Tank and Pump Stations	LS	1	\$54,100.00	\$54,100.00	\$70,000.00	\$70,000.00	\$49,750.00	\$49,750.00	\$64,310.76	\$64,310.76
<b>TOTAL BID AMOUNT</b>					<b>\$329,850.00</b>		<b>\$338,000.00</b>		<b>\$345,300.00</b>		<b>\$375,828.76</b>

**BID TABULATIONS**  
**Contract No. 3 - Ky 1692, Ky 144 and Ky 1644 Water Line Extensions**  
**Payneville-Battistown Water System Improvements**  
**Meade County Water District**  
**Meade County, Kentucky**

Bid Date: December 17 1999/1:00 a.m.

Item No.	Description	Unit	Approx. Quantity	HP Contracting		Stotts Construction Company, Inc.		Willmott Construction Co. Inc.		Salmon Construction, Inc.	
				Unit Price	Total Item Amount	Unit Price	Total Item Amount	Unit Price	Total Item Amount	Unit Price	Total Item Amount
1	Mobilization	LS	1	\$ 12,500.00	\$ 12,500.00	\$ 1,200.00	\$ 1,200.00	\$ 2,500.00	\$ 2,500.00	\$ 1,000.00	\$ 1,000.00
2	General Conditions	LS	1	\$ 11,000.00	\$ 11,000.00	\$ 2,000.00	\$ 2,000.00	\$ 15,000.00	\$ 15,000.00	\$ 1,000.00	\$ 1,000.00
3	10" PVC Water Line (SDR21)	LF	42,508	\$ 10.35	\$ 440,785.00	\$ 11.75	\$ 500,409.00	\$ 12.50	\$ 532,350.00	\$ 14.96	\$ 637,116.48
4	8" PVC Water Line (SDR21)	LF	35,381	\$ 7.80	\$ 288,895.60	\$ 9.00	\$ 318,429.00	\$ 10.50	\$ 371,500.50	\$ 9.79	\$ 346,379.99
5	6" PVC Water Line (SDR21)	LF	10	\$ 15.00	\$ 150.00	\$ 6.40	\$ 64.00	\$ 8.50	\$ 85.00	\$ 19.51	\$ 195.10
6	4" PVC Water Line (SDR21)	LF	16,951	\$ 4.00	\$ 67,804.00	\$ 5.00	\$ 84,755.00	\$ 6.50	\$ 110,181.50	\$ 7.58	\$ 128,488.58
7	10" DI Water Line	LF	400	\$ 16.25	\$ 6,500.00	\$ 18.00	\$ 7,200.00	\$ 20.00	\$ 8,000.00	\$ 30.00	\$ 12,000.00
8	8" DI Water Line	LF	800	\$ 14.25	\$ 11,400.00	\$ 17.00	\$ 13,600.00	\$ 15.00	\$ 12,000.00	\$ 30.00	\$ 24,000.00
9	16" X 0.25" Steel Encasement Pipe (B&J)	LF	66	\$ 110.00	\$ 7,260.00	\$ 150.00	\$ 9,900.00	\$ 160.00	\$ 10,560.00	\$ 200.00	\$ 13,200.00
10	14" X 0.25" Steel Encasement Pipe (B&J)	LF	33	\$ 400.00	\$ 3,300.00	\$ 135.00	\$ 4,455.00	\$ 120.00	\$ 3,960.00	\$ 200.00	\$ 6,600.00
11	16" X 0.25" Steel Encasement Pipe (OC)	LF	439	\$ 51.00	\$ 22,389.00	\$ 50.00	\$ 21,950.00	\$ 50.00	\$ 21,950.00	\$ 40.00	\$ 17,560.00
12	14" X 0.25" Steel Encasement Pipe (OC)	LF	261	\$ 46.00	\$ 12,006.00	\$ 45.00	\$ 11,745.00	\$ 45.00	\$ 11,745.00	\$ 40.00	\$ 10,440.00
13	8" x 0.25" Steel Encasement Pipe (OC)	LF	100	\$ 35.00	\$ 3,500.00	\$ 40.00	\$ 4,000.00	\$ 25.00	\$ 2,500.00	\$ 40.00	\$ 4,000.00
14	10" Gate Valve	EA	18	\$ 1,050.00	\$ 18,900.00	\$ 800.00	\$ 14,400.00	\$ 1,250.00	\$ 22,500.00	\$ 1,000.00	\$ 18,000.00
15	8" Gate Valve	EA	13	\$ 765.00	\$ 9,945.00	\$ 550.00	\$ 7,150.00	\$ 750.00	\$ 9,750.00	\$ 600.00	\$ 7,800.00
16	6" Gate Valve	EA	1	\$ 565.00	\$ 565.00	\$ 425.00	\$ 425.00	\$ 500.00	\$ 500.00	\$ 450.00	\$ 450.00
17	4" Gate Valve	EA	9	\$ 450.00	\$ 4,050.00	\$ 350.00	\$ 3,150.00	\$ 300.00	\$ 2,700.00	\$ 300.00	\$ 2,700.00
18	Flushing Hydrant Assembly	EA	11	\$ 1,200.00	\$ 13,200.00	\$ 950.00	\$ 10,450.00	\$ 1,200.00	\$ 13,200.00	\$ 1,000.00	\$ 11,000.00
19	Fire Hydrant Assembly	EA	1	\$ 2,150.00	\$ 2,150.00	\$ 1,500.00	\$ 1,500.00	\$ 1,500.00	\$ 1,500.00	\$ 1,500.00	\$ 1,500.00
20	Combination Air Valves	EA	3	\$ 750.00	\$ 2,250.00	\$ 850.00	\$ 2,550.00	\$ 350.00	\$ 1,050.00	\$ 500.00	\$ 1,500.00
21	Bituminous Pavement Replacement	LF	533	\$ 8.00	\$ 4,264.00	\$ 10.00	\$ 5,330.00	\$ 40.00	\$ 21,320.00	\$ 40.00	\$ 21,320.00
22	Concrete Pavement Replacement	LF	75	\$ 24.00	\$ 1,800.00	\$ 12.00	\$ 900.00	\$ 50.00	\$ 3,750.00	\$ 60.00	\$ 4,500.00
23	Line Markers	EA	33	\$ 88.00	\$ 2,904.00	\$ 28.00	\$ 924.00	\$ 25.00	\$ 825.00	\$ 50.00	\$ 1,650.00
24	Demobilization	LS	1	\$ 6,250.00	\$ 6,250.00	\$ 600.00	\$ 600.00	\$ 1,250.00	\$ 1,250.00	\$ 1,000.00	\$ 1,000.00
<b>TOTAL BID AMOUNT</b>					<b>\$ 933,788.40</b>		<b>\$ 1,027,086.00</b>		<b>\$ 1,180,677.00</b>		<b>\$ 1,273,400.15</b>

**BID TABULATIONS**  
 Contract No. 3 - Ky 1692, Ky 144 and Ky 1644 Water Line Extensions  
 Payneville-Bartletown Water System Improvements  
 Meade County Water District  
 Meade County, Kentucky

Bid Date: December 17 1999 11:00 a.m.

Item No.	Description	Unit	Approx. Quantity	Raynolds, Inc.		Kernrey Inc.		James Parsons Construction		MAC Construction & Excavating, Inc.	
				Unit Price	Total Item Amount	Unit Price	Total Item Amount	Unit Price	Total Item Amount	Unit Price	Total Item Amount
1	Mobilization	LS	1	\$ 5,000.00	\$ 5,000.00	\$ 2,750.00	\$ 2,750.00	\$ -	\$ -	\$ 40,000.00	\$ 40,000.00
2	General Conditions	LS	1	\$ 10,000.00	\$ 10,000.00	\$ 5,800.00	\$ 8,800.00	\$ -	\$ -	\$ 120,000.00	\$ 120,000.00
3	10" PVC Water Line (SDR21)	LF	42,588	\$ 14.65	\$ 623,914.20	\$ 18.15	\$ 768,796.20	\$ 16.00	\$ 681,408.00	\$ 17.00	\$ 723,996.00
4	6" PVC Water Line (SDR21)	LF	35,381	\$ 10.95	\$ 387,421.95	\$ 12.50	\$ 442,262.50	\$ 14.00	\$ 495,334.00	\$ 13.00	\$ 459,953.00
5	6" PVC Water Line (SDR21)	LF	10	\$ 10.20	\$ 102.00	\$ 11.30	\$ 113.00	\$ 12.00	\$ 120.00	\$ 24.00	\$ 240.00
6	4" PVC Water Line (SDR21)	LF	16,951	\$ 8.25	\$ 139,824.75	\$ 4.00	\$ 67,804.00	\$ 10.00	\$ 169,510.00	\$ 10.40	\$ 176,290.40
7	10" DI Water Line	LF	400	\$ 18.85	\$ 7,540.00	\$ 22.80	\$ 9,040.00	\$ 18.00	\$ 7,200.00	\$ 25.00	\$ 10,000.00
8	6" DI Water Line	LF	800	\$ 13.85	\$ 11,080.00	\$ 19.20	\$ 15,360.00	\$ 17.00	\$ 13,600.00	\$ 22.00	\$ 17,600.00
9	16" X 0.25" Steel Encasement Pipe (8&J)	LF	88	\$ 335.00	\$ 29,480.00	\$ 137.50	\$ 12,080.00	\$ 180.00	\$ 15,840.00	\$ 180.00	\$ 15,840.00
10	14" X 0.25" Steel Encasement Pipe (8&J)	LF	33	\$ 135.00	\$ 4,455.00	\$ 130.00	\$ 4,290.00	\$ 180.00	\$ 5,940.00	\$ 180.00	\$ 5,940.00
11	16" X 0.25" Steel Encasement Pipe (OC)	LF	439	\$ 50.00	\$ 21,950.00	\$ 49.50	\$ 21,730.50	\$ 60.00	\$ 26,340.00	\$ 34.00	\$ 14,928.00
12	14" X 0.25" Steel Encasement Pipe (OC)	LF	261	\$ 50.00	\$ 13,050.00	\$ 47.30	\$ 12,345.30	\$ 60.00	\$ 15,660.00	\$ 38.00	\$ 9,996.00
13	6" X 0.25" Steel Encasement Pipe (OC)	LF	100	\$ 40.00	\$ 4,000.00	\$ 44.00	\$ 4,400.00	\$ 50.00	\$ 5,000.00	\$ 32.00	\$ 3,200.00
14	10" Gate Valve	EA	18	\$ 860.00	\$ 15,480.00	\$ 935.00	\$ 16,830.00	\$ 900.00	\$ 16,200.00	\$ 740.00	\$ 13,320.00
15	8" Gate Valve	EA	13	\$ 580.00	\$ 7,540.00	\$ 715.00	\$ 9,295.00	\$ 600.00	\$ 7,800.00	\$ 490.00	\$ 6,370.00
16	6" Gate Valve	EA	1	\$ 400.00	\$ 400.00	\$ 485.00	\$ 485.00	\$ 400.00	\$ 400.00	\$ 300.00	\$ 300.00
17	4" Gate Valve	EA	9	\$ 345.00	\$ 3,105.00	\$ 385.00	\$ 3,465.00	\$ 300.00	\$ 2,700.00	\$ 270.00	\$ 2,430.00
18	Flushing Hydrant Assembly	EA	11	\$ 1,000.00	\$ 11,000.00	\$ 1,100.00	\$ 12,100.00	\$ 1,500.00	\$ 16,500.00	\$ 1,000.00	\$ 11,000.00
19	Fire Hydrant Assembly	EA	1	\$ 1,750.00	\$ 1,750.00	\$ 1,540.00	\$ 1,540.00	\$ 1,600.00	\$ 1,600.00	\$ 2,100.00	\$ 2,100.00
20	Combination Air Valves	EA	3	\$ 635.00	\$ 1,905.00	\$ 550.00	\$ 1,650.00	\$ 500.00	\$ 1,500.00	\$ 1,900.00	\$ 5,700.00
21	Billuminous Pavement Replacement	LF	533	\$ 18.00	\$ 9,594.00	\$ 22.00	\$ 11,726.00	\$ 10.00	\$ 5,330.00	\$ 26.00	\$ 13,858.00
22	Concrete Pavement Replacement	LF	75	\$ 12.50	\$ 937.50	\$ 38.50	\$ 2,867.50	\$ 20.00	\$ 1,500.00	\$ 41.00	\$ 3,075.00
23	Line Markers	EA	33	\$ 80.00	\$ 2,640.00	\$ 55.00	\$ 1,815.00	\$ 55.00	\$ 1,815.00	\$ 85.00	\$ 2,805.00
24	Demobilization	LS	1	\$ 2,000.00	\$ 2,000.00	\$ 2,200.00	\$ 2,200.00	\$ -	\$ -	\$ 20,000.00	\$ 20,000.00
<b>TOTAL BID AMOUNT</b>					<b>\$ 1,322,971.40</b>		<b>\$ 1,349,770.00</b>		<b>\$ 1,487,987.00</b>		<b>(*) \$ 1,674,738.40</b>

(\*) MAC stated bid amount was \$1,875,258.40

**BID TABULATIONS**  
**Contract No. 3 - Ky 1692, Ky 144 and Ky 1844 Water Line Extensions**  
**Paymerville-Barkstowm Water System Improvements**  
**Meade County Water District**  
**Meade County, Kentucky**

**Bid Date: December 17 1999/11:00 a.m.**

Item No.	Description	Unit	Approx. Quantity	Laurel Construction Co. Inc.	
				Unit Price	Total Item Amount
1	Mobilization	LS	1	\$ 8,000.00	\$ 8,000.00
2	General Conditions	LS	1	\$ 18,000.00	\$ 18,000.00
3	10" PVC Water Line (SDR21)	LF	42,588	\$ 18.00	\$ 766,584.00
4	8" PVC Water Line (SDR21)	LF	35,381	\$ 16.00	\$ 566,096.00
5	6" PVC Water Line (SDR21)	LF	10	\$ 11.00	\$ 110.00
6	4" PVC Water Line (SDR21)	LF	16,951	\$ 8.60	\$ 145,778.80
7	10" DI Water Line	LF	400	\$ 24.00	\$ 9,600.00
8	8" DI Water Line	LF	800	\$ 20.00	\$ 16,000.00
9	16" X 0.25" Steel Encasement Pipe (B&J)	LF	66	\$ 120.00	\$ 7,920.00
10	14" X 0.25" Steel Encasement Pipe (B&J)	LF	33	\$ 100.00	\$ 3,300.00
11	16" X 0.25" Steel Encasement Pipe (OC)	LF	439	\$ 50.00	\$ 21,950.00
12	14" X 0.25" Steel Encasement Pipe (OC)	LF	261	\$ 40.00	\$ 10,440.00
13	8" x 0.25" Steel Encasement Pipe (OC)	LF	100	\$ 40.00	\$ 4,000.00
14	10" Gate Valve	EA	18	\$ 1,000.00	\$ 18,000.00
15	8" Gate Valve	EA	13	\$ 500.00	\$ 6,500.00
16	6" Gate Valve	EA	1	\$ 350.00	\$ 350.00
17	4" Gate Valve	EA	9	\$ 300.00	\$ 2,700.00
18	Flushing Hydrant Assembly	EA	11	\$ 900.00	\$ 9,900.00
19	Fire Hydrant Assembly	EA	1	\$ 1,500.00	\$ 1,500.00
20	Combination Air Valves	EA	3	\$ 300.00	\$ 900.00
21	Bituminous Pavement Replacement	LF	533	\$ 15.00	\$ 7,995.00
22	Concrete Pavement Replacement	LF	75	\$ 30.00	\$ 2,250.00
23	Line Markers	EA	33	\$ 75.00	\$ 2,475.00
24	Demobilization	LS	1	\$ 8,000.00	\$ 8,000.00
<b>TOTAL BID AMOUNT</b>					<b>(?) \$ 1,838,348.60</b>

(?) Stated bid amount was \$1,679,01.00

**BID TABULATIONS**  
 Contract No. 4 - Ky 228 Water Line Extension  
 Payneville-Battletown Water System Improvements  
 Meade County Water District  
 Meade County, Kentucky

Bid Date: December 17 1999/11:00 a.m.

Item No	Description	Unit	Approx. Quantity	H.P. Contracting, Inc		Stott's Construction Co., Inc.		Willmott Construction, Inc.		Reynolds, Inc	
				Unit Price	Total Item Amount	Unit Price	Total Item Amount	Unit Price	Total Item Amount	Unit Price	Total Item Amount
1	Mobilization	LS	1	\$ 12,000.00	\$ 12,000.00	\$ 1,200.00	\$ 1,200.00	\$ 2,500.00	\$ 2,500.00	\$ 5,000.00	\$ 5,000.00
2	General Conditions	LS	1	\$ 18,000.00	\$ 18,000.00	\$ 2,000.00	\$ 2,000.00	\$ 5,000.00	\$ 5,000.00	\$ 7,000.00	\$ 7,000.00
3	10" PVC Water Line (SDR21)	LS	2,262	\$ 10.25	\$ 23,185.50	\$ 11.75	\$ 26,578.50	\$ 12.50	\$ 28,275.00	\$ 14.75	\$ 33,364.50
4	8" PVC Water Line (SDR21)	LF	8,915	\$ 7.50	\$ 66,862.50	\$ 9.00	\$ 80,235.00	\$ 10.50	\$ 93,607.50	\$ 10.80	\$ 94,499.00
5	8" PVC Water Line (SDR17)	LF	26,313	\$ 8.70	\$ 228,923.10	\$ 8.40	\$ 224,342.20	\$ 12.50	\$ 328,912.50	\$ 11.70	\$ 307,862.10
6	6" PVC Water Line (SDR21)	LF	35,298	\$ 5.25	\$ 185,314.50	\$ 6.40	\$ 225,907.20	\$ 9.50	\$ 335,331.00	\$ 9.15	\$ 322,976.70
7	4" PVC Water Line (SDR21)	LF	11,840	\$ 4.00	\$ 47,360.00	\$ 5.00	\$ 59,200.00	\$ 7.00	\$ 82,880.00	\$ 8.55	\$ 101,232.00
8	28" x 0.25" Steel Encasement Pipe (8&J)	LF	35	\$ 225.00	\$ 7,875.00	\$ 180.00	\$ 6,300.00	\$ 200.00	\$ 7,000.00	\$ 350.00	\$ 12,250.00
9	14" x 0.25" Steel Encasement Pipe (8&J)	LF	66	\$ 100.00	\$ 6,600.00	\$ 125.00	\$ 8,250.00	\$ 120.00	\$ 7,920.00	\$ 335.00	\$ 22,110.00
10	12" x 0.25" Steel Encasement Pipe (8&J)	LF	33	\$ 87.00	\$ 2,871.00	\$ 120.00	\$ 3,960.00	\$ 110.00	\$ 3,630.00	\$ 334.00	\$ 11,022.00
11	16" x 0.25" Steel Encasement Pipe (OC)	LF	35	\$ 47.00	\$ 1,645.00	\$ 45.00	\$ 1,575.00	\$ 50.00	\$ 1,750.00	\$ 49.00	\$ 1,715.00
12	14" x 0.25" Steel Encasement Pipe (OC)	LF	152	\$ 43.00	\$ 6,536.00	\$ 45.00	\$ 6,840.00	\$ 45.00	\$ 6,840.00	\$ 49.00	\$ 7,448.00
13	12" x 0.25" Steel Encasement Pipe (OC)	LF	161	\$ 41.00	\$ 6,601.00	\$ 40.00	\$ 6,440.00	\$ 35.00	\$ 5,635.00	\$ 47.00	\$ 7,567.00
14	8" x 0.25" Steel Encasement Pipe (OC)	LF	93	\$ 40.00	\$ 3,720.00	\$ 35.00	\$ 3,255.00	\$ 25.00	\$ 2,325.00	\$ 40.00	\$ 3,720.00
15	6" Gate Valve	EA	12	\$ 785.00	\$ 9,180.00	\$ 525.00	\$ 6,300.00	\$ 750.00	\$ 9,000.00	\$ 580.00	\$ 6,960.00
16	6" Gate Valve	EA	13	\$ 575.00	\$ 7,475.00	\$ 410.00	\$ 5,330.00	\$ 500.00	\$ 6,500.00	\$ 400.00	\$ 5,200.00
17	4" Gate Valve	EA	4	\$ 475.00	\$ 1,900.00	\$ 335.00	\$ 1,340.00	\$ 300.00	\$ 1,200.00	\$ 345.00	\$ 1,380.00
18	Flushing Hydrant Assembly	EA	15	\$ 1,300.00	\$ 16,950.00	\$ 975.00	\$ 14,625.00	\$ 1,200.00	\$ 18,000.00	\$ 1,000.00	\$ 15,000.00
19	Combination Air Valves	EA	2	\$ 650.00	\$ 1,300.00	\$ 800.00	\$ 1,600.00	\$ 350.00	\$ 700.00	\$ 635.00	\$ 1,270.00
20	Check Valve, Vaul & By-Pass	LS	1	\$ 3,750.00	\$ 3,750.00	\$ 5,000.00	\$ 5,000.00	\$ 15,000.00	\$ 15,000.00	\$ 4,350.00	\$ 4,350.00
21	Bituminous Pavement Replacement	LF	368	\$ 14.00	\$ 5,152.00	\$ 10.00	\$ 3,680.00	\$ 40.00	\$ 14,720.00	\$ 18.00	\$ 6,624.00
22	Concrete Pavement Replacement	LF	30	\$ 50.00	\$ 1,500.00	\$ 12.00	\$ 360.00	\$ 50.00	\$ 1,500.00	\$ 12.50	\$ 375.00
23	Tagging Sleeve & Valve	EA	1	\$ 1,550.00	\$ 1,550.00	\$ 1,500.00	\$ 1,500.00	\$ 2,000.00	\$ 2,000.00	\$ 1,700.00	\$ 1,700.00
24	Line Markers	EA	26	\$ 89.00	\$ 2,314.00	\$ 30.00	\$ 780.00	\$ 25.00	\$ 650.00	\$ 80.00	\$ 2,080.00
25	Demobilization	LS	1	\$ 6,000.00	\$ 6,000.00	\$ 600.00	\$ 600.00	\$ 1,250.00	\$ 1,250.00	\$ 2,000.00	\$ 2,000.00
<b>TOTAL BID AMOUNT</b>					<b>\$ 674,578.60</b>		<b>\$ 720,207.80</b>		<b>\$ 982,166.00</b>		<b>\$ 984,722.30</b>

**BID TABULATIONS**  
 Contract No. 4 - Ky 228 Water Line Extension  
 Payneville-Battletown Water System Improvements  
 Meade County Water District  
 Mead County, Kentucky

Bid Date: December 17 1999 11:00 a.m.

Item No.	Description	Unit	Approx. Quantity	Kenney, Inc.		Salmon Construction, Inc.		James Parsons Construction Co., Inc.		Laurel Construction Co., Inc.	
				Unit Price	Total Item Amount	Unit Price	Total Item Amount	Unit Price	Total Item Amount	Unit Price	Total Item Amount
1	Mobilization	LS	1	\$ 3,000.00	\$ 3,000.00	\$ 1,000.00	\$ 1,000.00	\$ -	\$ -	\$ 8,000.00	\$ 8,000.00
2	General Conditions	LS	1	\$ 15,000.00	\$ 15,000.00	\$ 1,000.00	\$ 1,000.00	\$ -	\$ -	\$ 18,000.00	\$ 18,000.00
3	10" PVC Water Line (SDR21)	LS	2,262	\$ 17.00	\$ 38,454.00	\$ 14.96	\$ 33,838.52	\$ 16.00	\$ 36,192.00	\$ 18.00	\$ 40,716.00
4	8" PVC Water Line (SDR21)	LF	8,915	\$ 13.00	\$ 115,895.00	\$ 9.79	\$ 87,277.85	\$ 14.00	\$ 124,810.00	\$ 16.50	\$ 147,097.50
5	6" PVC Water Line (SDR17)	LF	26,313	\$ 14.30	\$ 376,275.90	\$ 11.30	\$ 297,336.80	\$ 15.50	\$ 407,851.50	\$ 18.20	\$ 426,270.60
6	6" PVC Water Line (SDR21)	LF	35,298	\$ 9.00	\$ 317,682.00	\$ 11.75	\$ 414,751.50	\$ 12.00	\$ 423,576.00	\$ 13.00	\$ 458,874.00
7	4" PVC Water Line (SDR21)	LF	11,840	\$ 4.50	\$ 53,280.00	\$ 11.50	\$ 136,160.00	\$ 10.00	\$ 118,400.00	\$ 12.00	\$ 142,080.00
8	28" x 0.25" Steel Encasement Pipe (B&J)	LF	35	\$ 340.00	\$ 11,900.00	\$ 200.00	\$ 7,000.00	\$ 190.00	\$ 6,650.00	\$ 130.00	\$ 4,550.00
9	14" x 0.25" Steel Encasement Pipe (B&J)	LF	66	\$ 140.00	\$ 9,240.00	\$ 200.00	\$ 13,200.00	\$ 180.00	\$ 11,880.00	\$ 100.00	\$ 6,600.00
10	12" x 0.25" Steel Encasement Pipe (B&J)	LF	33	\$ 120.00	\$ 3,960.00	\$ 200.00	\$ 6,600.00	\$ 170.00	\$ 5,610.00	\$ 90.00	\$ 2,970.00
11	15" x 0.25" Steel Encasement Pipe (OC)	LF	35	\$ 55.00	\$ 1,925.00	\$ 40.00	\$ 1,400.00	\$ 60.00	\$ 2,100.00	\$ 65.00	\$ 2,275.00
12	14" x 0.25" Steel Encasement Pipe (OC)	LF	152	\$ 50.00	\$ 7,600.00	\$ 40.00	\$ 6,080.00	\$ 60.00	\$ 9,120.00	\$ 50.00	\$ 7,600.00
13	12" x 0.25" Steel Encasement Pipe (OC)	LF	161	\$ 45.00	\$ 7,245.00	\$ 40.00	\$ 6,440.00	\$ 50.00	\$ 8,050.00	\$ 50.00	\$ 8,050.00
14	8" x 0.25" Steel Encasement Pipe (OC)	LF	93	\$ 40.00	\$ 3,720.00	\$ 40.00	\$ 3,720.00	\$ 50.00	\$ 4,650.00	\$ 40.00	\$ 3,720.00
15	8" Gate Valve	EA	12	\$ 680.00	\$ 8,160.00	\$ 600.00	\$ 7,200.00	\$ 800.00	\$ 7,200.00	\$ 500.00	\$ 6,000.00
16	6" Gate Valve	EA	13	\$ 450.00	\$ 5,850.00	\$ 450.00	\$ 5,850.00	\$ 400.00	\$ 5,200.00	\$ 350.00	\$ 4,550.00
17	4" Gate Valve	EA	4	\$ 365.00	\$ 1,460.00	\$ 300.00	\$ 1,200.00	\$ 300.00	\$ 1,200.00	\$ 300.00	\$ 1,200.00
18	Flushing Hydrant Assembly	EA	15	\$ 1,075.00	\$ 16,125.00	\$ 1,000.00	\$ 15,000.00	\$ 1,500.00	\$ 22,500.00	\$ 500.00	\$ 7,500.00
19	Combination Air Valves	EA	2	\$ 480.00	\$ 960.00	\$ 500.00	\$ 1,000.00	\$ 500.00	\$ 1,000.00	\$ 300.00	\$ 600.00
20	Check Valve, Vault & By-Pass	LS	1	\$ 5,800.00	\$ 5,800.00	\$ 4,000.00	\$ 4,000.00	\$ 8,000.00	\$ 8,000.00	\$ 5,000.00	\$ 5,000.00
21	Bituminous Pavement Replacement	LF	369	\$ 20.00	\$ 7,380.00	\$ 40.00	\$ 14,760.00	\$ 10.00	\$ 3,690.00	\$ 20.00	\$ 7,380.00
22	Concrete Pavement Replacement	LF	30	\$ 45.00	\$ 1,350.00	\$ 60.00	\$ 1,800.00	\$ 20.00	\$ 600.00	\$ 30.00	\$ 900.00
23	Tapping Sleeve & Valve	EA	1	\$ 2,250.00	\$ 2,250.00	\$ 2,000.00	\$ 2,000.00	\$ 2,500.00	\$ 2,500.00	\$ 2,000.00	\$ 2,000.00
24	Line Markers	EA	26	\$ 61.00	\$ 1,586.00	\$ 50.00	\$ 1,300.00	\$ 55.00	\$ 1,430.00	\$ 75.00	\$ 1,950.00
25	Demobilization	LS	1	\$ 2,400.00	\$ 2,400.00	\$ 1,000.00	\$ 1,000.00	\$ -	\$ -	\$ 8,000.00	\$ 8,000.00
<b>TOTAL BID AMOUNT</b>					<b>\$1,018,237.80</b>		<b>\$7,070,915.77</b>		<b>\$1,212,208.50</b>		<b>\$1,327,883.10</b>

(\*) Laurel Construction stated bid amount was \$1,268,477.00

**BID TABULATIONS**  
**Contract No. 4 - Ky 228 Water Line Extension**  
**Payneville-Battletown Water System Improvements**  
**Meade County Water District**  
**Meade County, Kentucky**

Bid Date: December 17 1999/11:00 a.m.

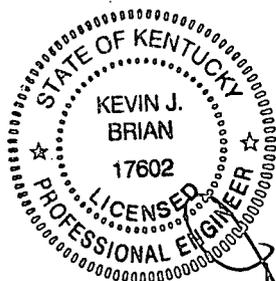
Item No.	Description	Unit	Approx. Quantity	MAC Construction and Excavating	
				Unit Price	Total Item Amount
1	Mobilization	LS	1	\$ 30,000.00	\$ 30,000.00
2	General Conditions	LS	1	\$ 99,000.00	\$ 99,000.00
3	10" PVC Water Line (SDR21)	LS	2,282	\$ 24.00	\$ 54,288.00
4	8" PVC Water Line (SDR21)	LF	8,915	\$ 17.00	\$ 151,555.00
5	8" PVC Water Line (SDR17)	LF	26,313	\$ 17.00	\$ 447,321.00
6	6" PVC Water Line (SDR21)	LF	35,298	\$ 11.40	\$ 402,397.20
7	4" PVC Water Line (SDR21)	LF	11,840	\$ 9.90	\$ 117,216.00
8	28" x 0.25" Steel Encasement Pipe (B&J)	LF	35	\$ 330.00	\$ 11,550.00
9	14" x 0.25" Steel Encasement Pipe (B&J)	LF	66	\$ 210.00	\$ 13,860.00
10	12" x 0.25" Steel Encasement Pipe (B&J)	LF	33	\$ 210.00	\$ 6,930.00
11	16" x 0.25" Steel Encasement Pipe (OC)	LF	35	\$ 85.00	\$ 3,010.00
12	14" x 0.25" Steel Encasement Pipe (OC)	LF	152	\$ 62.00	\$ 9,424.00
13	12" x 0.25" Steel Encasement Pipe (OC)	LF	161	\$ 59.00	\$ 9,499.00
14	8" X 0.25" Steel Encasement Pipe (OC)	LF	93	\$ 102.00	\$ 9,486.00
15	8" Gate Valve	EA	12	\$ 510.00	\$ 6,120.00
16	6" Gate Valve	EA	13	\$ 350.00	\$ 4,550.00
17	4" Gate Valve	EA	4	\$ 280.00	\$ 1,120.00
18	Flushing Hydrant Assembly	EA	15	\$ 1,030.00	\$ 15,450.00
19	Combination Air Valves	EA	2	\$ 2,100.00	\$ 4,200.00
20	Check Valve, Vault & By-Pass	LS	1	\$ 7,800.00	\$ 7,800.00
21	Bituminous Pavement Replacement	LF	369	\$ 29.00	\$ 10,701.00
22	Concrete Pavement Replacement	LF	30	\$ 52.00	\$ 1,560.00
23	Tapping Sleeve & Valve	EA	1	\$ 2,200.00	\$ 2,200.00
24	Line Markers	EA	26	\$ 89.00	\$ 2,314.00
25	Demobilization	LS	1	\$ 15,000.00	\$ 15,000.00
<b>TOTAL BID AMOUNT</b>					<b>\$ 1,436,351.20</b>

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**Preliminary Design Report  
Payneville-Battletown Water Main Extension Project**

**Meade County Water District  
Meade County, Kentucky**

*Prepared By:  
Quest Engineers, Inc.  
310 West Liberty Street  
Louisville, Kentucky 40202  
(502) 584-6056*



*[Handwritten signature]*  
*12/28/99*

**November 1998**



## **Introduction**

### ***Scope of Work***

The Payneville-Battletown Water Main Extension Project includes a preliminary study and design of approximately 31 miles of water main that will connect to Meade County Water District's (MCWD) existing system near Highway 79 and Turner Road and run to Payneville and Battletown and back to Brandenburg. This Preliminary Design Report will document the following:

- Background information;
- Projected water consumption in the county extension area;
- Recommendations for the most cost effective location, size, and type of facilities;
- Preliminary opinion of probable costs;
- Project schedule to achieve MCWD goals for the project.

A computer model of MCWD system will be developed for engineering evaluations. Funding assistance and coordination with regulatory agencies will also be provided.

### ***Proposed Extension***

In March of 1998, MCWD was notified that they would receive \$2.5 million from the Commonwealth of Kentucky. This money will be provided to the Meade County Fiscal Court as a grant from the Infrastructure Grant Program Fund, which is administered by the Kentucky Infrastructure Authority (KIA). Additional funding for the project will be in the form of a loan from KIA Fund "C". KIA will be in charge of administering, regulating, and dispersing funds. The area designated for expansion is presented in Figure 2.

### ***Brandenburg Agreement***

The City of Brandenburg has committed to sell MCWD with 400,000 gallons per day through the existing connection point once their water system improvements are made. Discussions with Brandenburg officials indicate their system can provide 350 GPM at the existing connection point while maintaining pressures above the 30 psi minimum requirement in their system under Phase I improvements. Once Phase II improvements are made, MCWD can take water at a rate of 500 GPM.

## **Background Information**

### ***Existing Water Distribution System***

MCWD currently serves 1,838 residential and commercial customers in southern Meade County. In 1997, MCWD produced and purchased 116,642,800 gallons of water. Water sales to customers totaled 99,423,192 gallons. Unaccounted for water which includes water not metered and line losses totaled 17,219,608 gallons, or 15%. MCWD produced 5,047,000 gallons from their two operating wells, purchased approximately 80,909,800 gallons from Hardin County

---

Water District No. 1 and purchased approximately 30,686,000 gallons from the City of Brandenburg.

The existing distribution system is comprised of the following:

- 2 miles of 10-inch polyvinyl chloride (PVC)
- 46 miles of 8-inch PVC
- 31 miles of 6-inch PVC
- 35 miles of 4-inch PVC
- 1.5 miles of 3-inch PVC

The distribution system is divided into two sub-systems: The Flaherty System and the Brandenburg System. The Flaherty System serves 1,401 residential and commercial customers. Storage for the Flaherty System is provided from the 200,000 gallon Flaherty Standpipe at an overflow elevation of 952.50 feet. The Flaherty System is characterized by an undulating topography with elevation changes of approximately 100 feet with most elevations ranging between 750 feet to 850 feet. The water supply source for the Flaherty System comes from two wells located in Flaherty and water is also purchased from Hardin County Water District No. 1 and pumped to the Flaherty Standpipe through the Flaherty Pump Station. The pump station contains one 15 horsepower pump rated at approximately 210 gallons per minute (GPM). Flow to the standpipe is limited by a 1.2 mile segment of 4-inch line which results in an inability to keep the standpipe filled during periods of high consumption.

The Brandenburg System serves 437 residential and commercial customers. Storage for the Brandenburg System is provided from the 200,000 gallon Garrett Ground Storage Tank at an overflow elevation of 870.00 feet. The Brandenburg System is characterized by a sinkhole plain topography with elevation changes of approximately 150 feet with most elevations ranging from 600 feet to 750 feet. Water for the Brandenburg System is purchased from the City of Brandenburg and pumped to the Garrett Ground Storage Tank through the Brandenburg Pump Station which contains two 20 horsepower pumps rated at 200 GPM. The pumps are valved down to 110 GPM to prevent Brandenburg's Tanks from dropping too rapidly.

### Water Consumption

#### *Existing Demands*

The average day demand (ADD) on the MCWD system was estimated from 1997 customer billing data supplied by MCWD. The billing data was separated into the Flaherty System and the Brandenburg System. The 1997 water consumption and the ADD's for each system and the total system are summarized in Table 1.

The 1997 MCWD ADD was 272,392 gallons per day, or 189 GPM. The ADD of the Flaherty System was 207,380 gallons per day or 144 GPM and the ADD of the Brandenburg System was 65,012 gallons per day, or 45 GPM. The consumption changes with the seasons, varies from day-to-day in the week, and fluctuates from hour-to-hour in the day.

**Table 1**  
**1997 Water Consumption**

Month	Flaherty System		Brandenburg System		Total Water Consumption	
	Consumption (gallons)	Average Day Demand (gallons per day)	Consumption (gallons)	Average Day Demand (gallons per day)	Consumption (gallons)	Average Day Demand (gallons per day)
January	4,809,140	155,133	1,786,220	57,620	6,595,360	212,754
February	5,581,950	199,355	2,203,790	78,707	7,785,740	278,062
March	4,348,130	140,262	1,842,620	59,439	6,226,750	200,863
April	4,896,490	163,216	1,741,330	58,044	6,637,820	221,261
May	6,505,850	209,866	2,008,480	64,790	8,514,330	274,656
June	8,802,580	293,419	1,640,840	54,695	10,443,420	348,114
July	8,500,380	274,206	2,198,490	70,919	10,698,870	345,125
August	8,892,390	286,851	2,359,360	76,108	11,251,750	362,960
September	6,171,730	205,724	2,100,110	70,004	8,271,840	275,728
October	6,086,180	196,328	1,986,860	64,092	8,073,040	260,421
November	6,472,590	215,753	2,287,770	76,259	8,760,360	292,012
December	4,626,440	149,240	1,573,470	50,757	6,199,910	199,997
<b>1997 Total</b>	<b>75,693,850</b>	<b>207,380</b>	<b>23,729,340</b>	<b>65,012</b>	<b>99,423,190</b>	<b>272,392</b>

**Population Trends and Projections**

Projected demands for the Payneville-Battletown extension area were developed using population projections taken from the Meade County Comprehensive Plan. Meade County is divided into three census divisions: the Flaherty division, Brandenburg division, and Battletown-Payneville division. Growth trends for each division are summarized in Table 2.

**Table 2**  
**Meade County Census Division Trends**

Census Division	1960	1970	1980	1990	Percent Change (1960-1990)
Battletown-Payneville	2,786	2,751	3,448	3,491	20.2%
Brandenburg	4,778	5,594	7,298	8,501	43.8%
Flaherty	11,374	10,451	12,108	12,178	6.6%

Source: U.S. Department of Commerce, Bureau of the Census

The Meade County Comprehensive Plan, prepared by the Lincoln Trail Area Development District, 1996, projected a growth in population from 1990 to the year 2020 to be an additional 7,000 residents at a rate of 28 to 29 percent growth. In 1990, the Flaherty division had 50.4 percent of the total residents living within its boundaries, with the Brandenburg division having 35.2 percent of the total residents, and the Battletown-Payneville division having only

14.4 percent of the total residents. Table 3 summarizes the population projections for Meade County including the Battletown-Payneville division, the Brandenburg division, and the Flaherty division.

**Table 3**  
**Population Projections**

Year	Meade County	Battletown-Payneville	Brandenburg	Flaherty
1960 <sup>1</sup>	18,938	2,786	4,778	11,374
1970 <sup>1</sup>	18,796	2,751	5,594	10,451
1980 <sup>1</sup>	22,854	3,448	7,298	12,108
1990 <sup>1</sup>	24,170	3,491	8,501	12,178
1996 <sup>2</sup>	27,522	3,963 <sup>4</sup>	9,689 <sup>5</sup>	13,871 <sup>6</sup>
1997 <sup>1</sup>	28,140	4,052 <sup>4</sup>	9,905 <sup>5</sup>	14,183 <sup>6</sup>
2020 <sup>3</sup>	31,170	4,489 <sup>4</sup>	10,972 <sup>5</sup>	15,710 <sup>6</sup>

Notes: <sup>1</sup>U.S. Census Data

<sup>2</sup>Ky. State Data Center

<sup>3</sup>Projected from Comprehensive Plan

<sup>4</sup>Based on 14.4% of Meade County Population

<sup>5</sup>Based on 35.2% of Meade County Population

<sup>6</sup>Based on 50.4% of Meade County Population

### **Projected Demands**

Projected demands for the Payneville-Battletown extension were estimated based on the following assumptions:

- 3.31 persons per household (Meade County Comprehensive Plan)
- 200 gallons per household per day
- 1998 projected demand based on existing house count along proposed water line route
- 2020 projected ultimate demand based on serving all residents within the Battletown-Payneville census division

A summary of the existing house count along the proposed water line route is summarized in Table 4.

**Table 4**  
**Existing House Count**

Road	Length (miles)	No. of Homes	Average Homes/mile
Highway 144	6	120	20
Highway 1692 and branches off Highway 1692	7.9	205	26
Highway 79	1.3	20	15
New Highland Church Road	3.1	51	17
Highway 1844	4.1	65	16
Highway 228 and branches off Highway 228	10.6	202	19
<b>TOTALS</b>	<b>33</b>	<b>663</b>	<b>20</b>

Based on the existing house count, the 1998 projected ADD for the Payneville-Battletown extension is 132,600 (663 homes x 200) gallons per day or 92 GPM. The projected 2020 ADD based on serving all residents within the Payneville-Battletown census division is 271,240 (4,489 / 3.31 x 200) gallons per day, or 188 GPM. A summary of the projected demands is presented in Table 5.

**Table 5**  
**Projected Demands for the Payneville-Battletown Extension Area**

Year	Population Projection	Projected Average Day Demand (gallons)
1998	2,195 <sup>1</sup>	- 132,600
2020	4,489 <sup>2</sup>	271,240

<sup>1</sup>Population based on house count of 663 homes at 3.31 persons per household

<sup>2</sup>Projected from Comprehensive Plan

### Design Alternatives

#### **General Design Guidelines**

A general design recommendation is to provide looped feeders verses dead end lines whenever possible. Looped feeders are commonly referred to as "backbone" lines because they essentially serve as the backbone of the system from which expansion can occur. There are several advantages of backbone lines:

- Flow is supplied from at least two directions, thus reducing pressure losses in the pipes as a result of reduced friction losses.
- Provides constant flow at all times thus minimizing the possibility of stagnation or deterioration of the water quality at the extreme ends of the system.
- Allows for uninterrupted water service during periods of repairs, breaks, etc., at which time only small sections may be taken out of service until repairs are completed.

- 
- Provides the flexibility to design for future expansion.

The system configuration for the proposed extension project is separated into supply, storage, and distribution configurations. The supply configuration focuses on obtaining the required flowrates and volumes of water from Brandenburg's system and pumping into MCWD's system. Storage and distribution configurations focus on the ability to deliver water to MCWD customers through MCWD's distribution system.

### *Supply Configuration*

The City of Brandenburg is currently upgrading their distribution system. The upgrades will be completed in phases. Phase I improvements will increase the available supply rate from current conditions of 110 GPM to approximately 300-350 GPM. Brandenburg officials anticipate Phase I improvements to be completed sometime between December 1999 and June 2000 assuming no major delays during construction. Phase II Improvements will increase the available supply rate from 300-350 GPM to approximately 500 GPM. At this time, no completion date has been set for Phase II improvements.

The City of Brandenburg has committed to sell MCWD 400,000 gallons per day through the existing connection point once their Phase I water system improvements are made. Discussions with Brandenburg officials indicate their system can provide 350 GPM at the existing connection point while maintaining pressures above the 30 psi minimum requirement in their system under Phase I improvements. Obtaining 400,000 gallons per day at a flowrate of 350 GPM would result in 19 hours of pumping per day. If the Brandenburg Pump Station operates only 10 hours per day at 350 GPM, which is typical for a pump station, MCWD could obtain 210,000 gallons per day from Brandenburg. 210,000 gallons of water could supply an equivalent of approximately 1,050 households assuming average consumption 200 gallons per household per day. When demands exceed 210,000 gallons per day, the Brandenburg Pump Station could be modified to pump approximately 500 GPM if Brandenburg's Phase II improvements have been made, or increase the pumping times of the station up to 19 hours per day until the Phase II improvements have been made.

The supply configuration was developed based on Brandenburg having the capability to supply 400,000 gallons at 350 GPM initially and at 500 GPM once Phase II improvements are made. The configuration consists of upgrading the existing Brandenburg Pump Station to obtain the 350 GPM flowrate initially and allow for future expansion of the station up to 500 GPM. The upgrades would consist of either:

- Replacing the existing pumps with two new pumps rated at 350 gpm at 215 foot total dynamic head (TDH), or;
- Modifying the existing pumps from 200 GPM at 191 foot TDH to 350 GPM at 215 foot TDH.
- Future expansion to 500 GPM could be accomplished by either replacing the 350 GPM pumps with two new pumps rated at 500 GPM at 240 TDH, or modifying the 350 GPM pumps to 500 GPM at 240 TDH.

An opinion of probable cost to upgrade the existing Brandenburg pump station to 350 GPM is presented in Table 6. Figure 1 shows one possible configuration for the upgraded station.

**Table 6**  
***Upgrade Existing Brandenburg Pump Station***

ITEM DESCRIPTION	OPINION OF PROBABLE COST
Pumps	\$ 50,000
Piping Modifications	\$ 80,000
Door Relocation	\$ 3,000
Electrical	\$ 27,000
<b>ESTIMATED CONSTRUCTION COST</b>	<b>\$160,000</b>

***Storage and Distribution System Configurations***

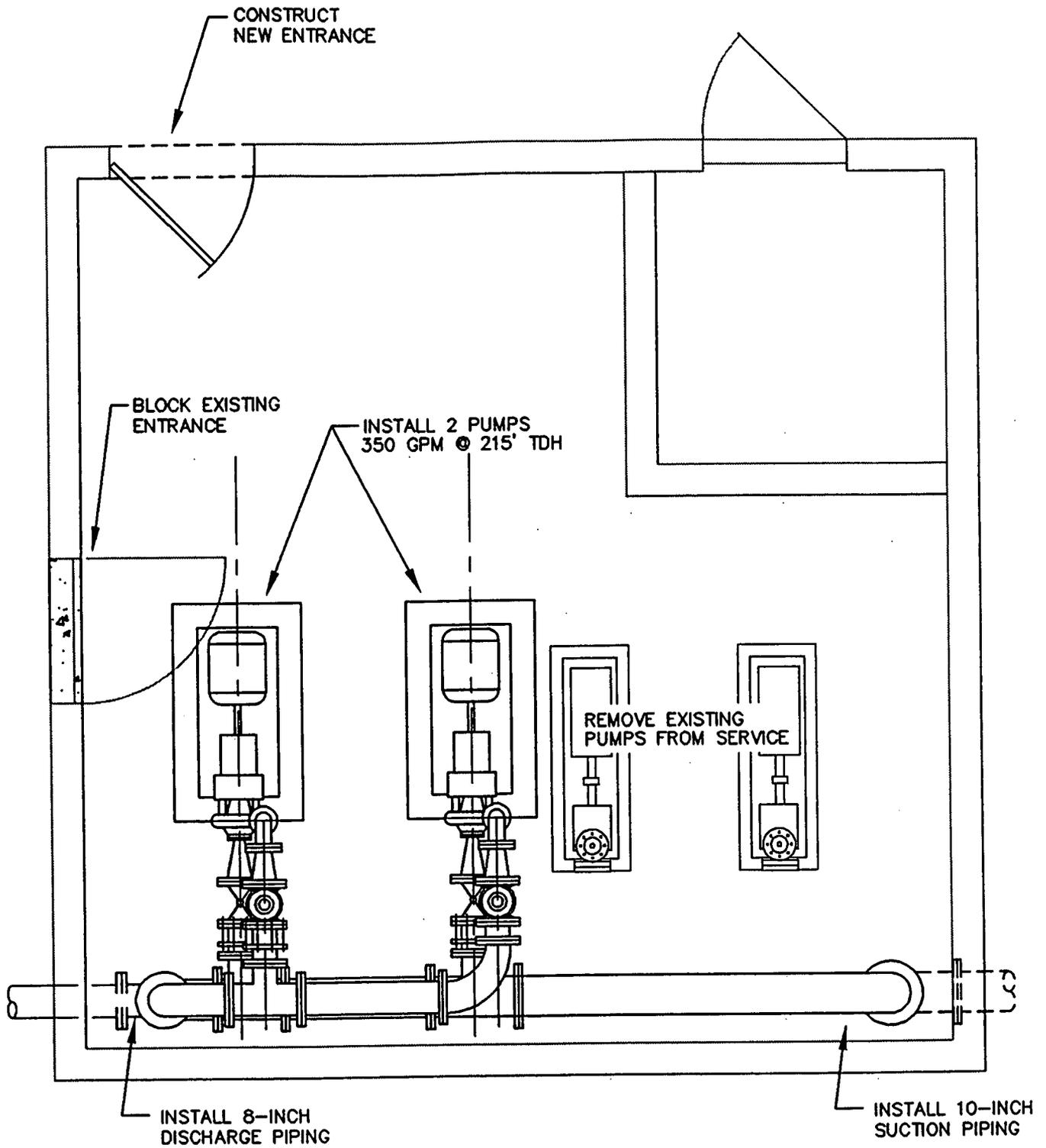
There are two viable options for supplying customers in the proposed extension area with adequate flows and pressures. Due to the elevation changes in the extension area, the configurations focus on maintaining two pressure planes (952.50' and 870.00') in MCWD's system versus adding a third pressure plane for the extension area. Elevations along the ridge between Payneville and Battletown are similar to the elevations in the Flaherty System. The remainder of the extension area has elevations most similar to the Brandenburg System. The advantages of maintaining two pressure planes are:

- The existing Brandenburg System will be extended into the Payneville-Battletown extension area thus allowing the Garrett Tank to be more effectively utilized. Low pressure problems near the Garrett Tank can be resolved by transferring some customers to the Flaherty System. Also, customers north of Highway 1238 can be transferred to the Brandenburg System from the Flaherty System to more effectively utilize the Garrett Tank.
- A new storage tank is recommended at an overflow elevation of 952.50 feet to serve customers in the higher elevations of the extension area. This tank will offer the ability to loop back to the existing Flaherty system on the south side of Ekron in the future to serve customers living in the higher elevations of Meade County along the Meade County/Breckenridge County Line.

The storage and distribution configurations are described below. The proposed piping routes are the same for both configurations.

**Storage and Distribution Configuration 1**

Storage and Distribution Configuration 1 consists of constructing an elevated tank and booster pump station in the Payneville-Battletown Extension Area. The general philosophy of



Quest Engineers, Inc.  
Lexington, Kentucky  
Louisville, Kentucky

MEADE COUNTY WATER DISTRICT

SEPTEMBER 1998

FIGURE 1  
SUPPLY CONFIGURATION  
UPGRADE EXISTING  
BRANDENBURG PUMP STATION

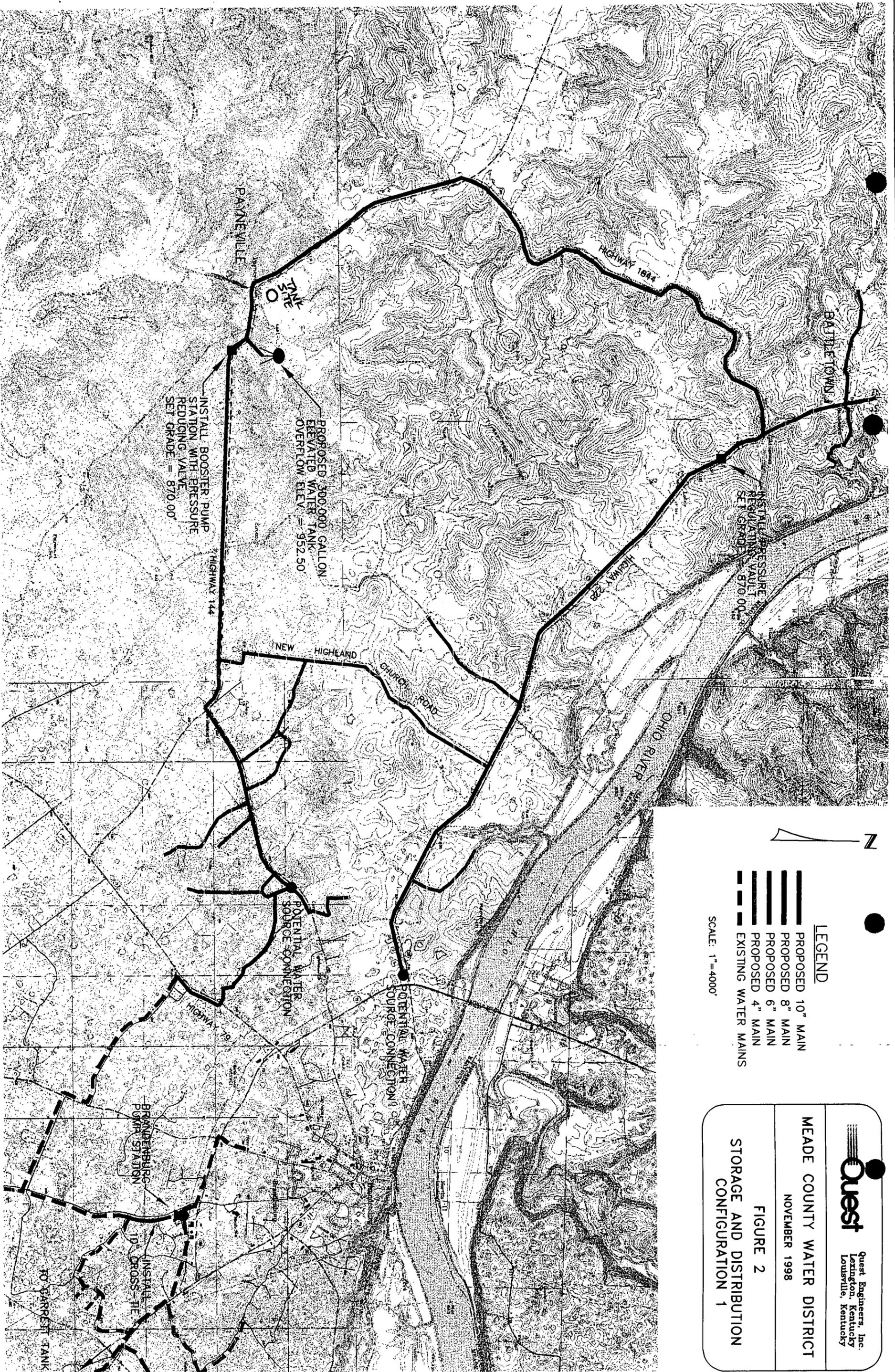
the configuration is to construct the tank at the same overflow elevation as the existing Flaherty Standpipe, 952.50 feet. Customers along the ridge between Payneville and Battletown will be served directly from the elevated tank. Two pressure reducing valve (PRV) vaults will be constructed in the main lines along Highway 144 and Highway 228 to reduce the hydraulic grade to 870.00 feet, the same elevation as the Garrett Tank, so the remaining customers in the extension area will be on the same pressure plane as the existing Garrett Tank. The following is a detailed description of the configuration:

- Size proposed elevated storage at 300,000 gallons for projected 2020 ADD of approximately 272,000 gallons per day.
- Set proposed tank overflow elevation equal to 952.50 feet and the minimum water level equal to 930.00 feet. This overflow elevation will supply an average operating pressure of 50 psi when the tank is full and a minimum pressure of 35 psi when tank is operating near its minimum water level of 930.00 feet to the customers located along the ridge between Payneville and Battletown.
- The system will be designed to serve customers at high elevations on the ridge between Payneville and Battletown from the 952.50 foot pressure plane. Two PRV vaults will be constructed on the main water line to reduce pressures to the 870.00 foot pressure plane. All customers located below elevation 725 feet will be served from the 870.00 foot pressure plane. This design will offer the potential to loop back to the Flaherty System on the south side of Ekron. All customers on the north side of Ekron can be served from the 870.00 foot pressure plane.
- Install a booster pump station in the line to the proposed tank equipped with a by-pass line. The pump station will be designed to fill the proposed tank at a rate of approximately 350 GPM. At flowrates above 350 GPM, pressures on the suction side of the booster station approach 30 psi.

An opinion of probable cost for Storage and Distribution Configuration 1 is presented in Table 7 and a schematic of the proposed configuration is shown in Figure 2.

**Table 7**  
**300,000 Gallon Tank, Booster Pump Station, and PRV Vaults**

ITEM DESCRIPTION	OPINION OF PROBABLE COST
300,000 Gallon Elevated Tank	\$450,000
350 GPM Booster Pump Station with PRV	\$291,000
PRV Vault	\$ 30,000
<b>ESTIMATED CONSTRUCTION COST</b>	<b>\$771,000</b>



- LEGEND**
- PROPOSED 10" MAIN
  - PROPOSED 8" MAIN
  - PROPOSED 6" MAIN
  - PROPOSED 4" MAIN
  - EXISTING WATER MAINS

SCALE: 1"=4000'

  
 Quest Engineers, Inc.  
 Lexington, Kentucky  
 Louisville, Kentucky

**MEADE COUNTY WATER DISTRICT**  
 NOVEMBER 1998  
**FIGURE 2**  
**STORAGE AND DISTRIBUTION**  
**CONFIGURATION 1**

Storage and Distribution Configuration 2

Storage and Distribution Configuration 2 consists of constructing two elevated tanks and one booster pump station in the Payneville-Battletown Extension Area. The general philosophy of the configuration is to construct one tank at the same overflow elevation as the existing Flaherty Standpipe, 952.50 feet. The second tank would be constructed at the same overflow elevation as the Garrett Tank, 870.00 feet and would eliminate the need for the two pressure reducing vaults as described in Configuration 1. Customers along the ridge between Payneville and Battletown will be served from the 952.50 foot tank while the rest of the extension area will be served from the 870.00 foot tank. An opinion of probable cost for Storage and Distribution Configuration 2 is presented in Table 8 and a schematic showing the proposed configuration is shown in Figure 3.

**Table 8**  
*200,000 Gallon Tank, 100,000 Gallon Tank and Booster Pump Stations*

ITEM DESCRIPTION	OPINION OF PROBABLE COST
200,000 and 100,000 Gallon Tanks	\$602,000
350 GPM Booster Pump Station	\$280,000
<b>ESTIMATED CONSTRUCTION COST</b>	<b>\$882,000</b>

The opinion of probable cost for the distribution piping is presented in Table 9. The proposed piping routes were the same for both alternatives.

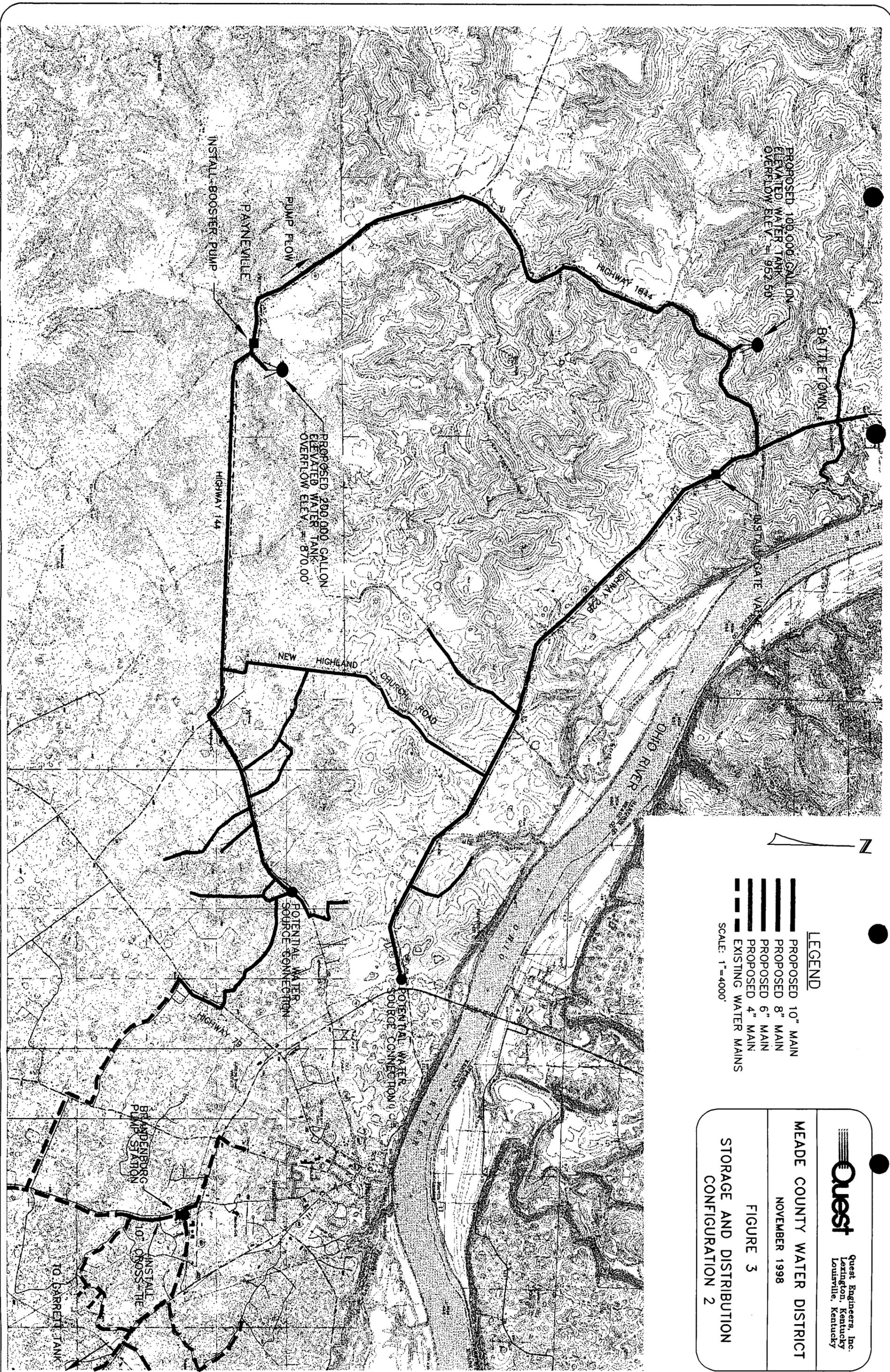
**Table 9**  
*Distribution Piping*

ACTUAL  
45,170  
65,640

ITEM DESCRIPTION	OPINION OF PROBABLE COST
10-inch PVC Water Main (41,200 Lineal Feet) 45,250	\$ 858,600
8-inch PVC Water Main (62,830 Lineal Feet) 41,409	\$ 991,400
6-inch PVC Water Main (25,870 Lineal Feet) 32,308	\$ 335,800
4-inch PVC Water Main (33,260 Lineal Feet) 28,711	\$ 345,300
<b>ESTIMATED CONSTRUCTION COST</b> 163,160	<b>\$2,531,100</b>

163,160 if  
179,620  
33,000  
176,320

13,160  
Δ = 16,460 if  
Jordan Ave.



**LEGEND**

- PROPOSED 10" MAIN
- PROPOSED 8" MAIN
- PROPOSED 6" MAIN
- PROPOSED 4" MAIN
- EXISTING WATER MAINS

SCALE: 1"=4000'



Quest Engineers, Inc.  
Lexington, Kentucky  
Louisville, Kentucky

MEADE COUNTY WATER DISTRICT

NOVEMBER 1998

FIGURE 3

STORAGE AND DISTRIBUTION  
CONFIGURATION 2

## Recommendations

After reviewing the various system configurations, the recommendations for the proposed Payneville-Battletown extension project are:

- Upgrade the existing Brandenburg Pump Station from an existing flowrate of 200 GPM to a proposed flowrate of 350 GPM while allowing for future expansion of the station to 500 GPM.
- Storage and Distribution Configuration 1, which includes constructing a 300,000 gallon elevated tank with an overflow elevation of 952.50 feet. Construct a 350 GPM booster pump station to fill the proposed tank and construct two pressure reducing valve vaults to reduce the hydraulic grade from 952.50 feet to 870.00 feet.
- Construct approximately 41,200 lineal feet of 10-inch water main, approximately 62,830 lineal feet of 8-inch water main, approximately 25,870 lineal feet 6-inch water main, and approximately 33,260 lineal feet of 4-inch water main.

The opinion of probable cost for the recommended system configuration is presented in Table 10.

**Table 10**  
*Recommended Alternatives*

<b>ITEM DESCRIPTION</b>	<b>OPINION OF PROBABLE COST</b>
Upgrade Existing Brandenburg Pump Station	\$ 160,000
300,000 Gallon Elevated Tank	\$ 450,000
350 GPM Booster Pump Station and PRV Vault	\$ 291,000
PRV Vault	\$ 30,000
10-inch PVC Water Main (41,200 Lineal Feet)	\$ 858,600
8-inch PVC Water Main (62,830 Lineal Feet)	\$ 991,400
6-inch PVC Water Main (25,870 Lineal Feet)	\$ 335,800
4-inch PVC Water Main (33,260 Lineal Feet)	\$ 345,300
<b>ESTIMATED CONSTRUCTION COST</b>	<b>\$3,462,100</b>
Project Related Cost at 15%	\$ 519,300
<b>TOTAL ESTIMATED PROJECT COST</b>	<b>\$3,981,400</b>

The recommended system configuration will meet the immediate demands of the Payneville-Battletown extension area while providing the capacity to expand to the 2020 projected ADD of approximately 272,000 gallons per day in the proposed extension area. The recommendations were based on Brandenburg having the capability to supply 400,000 gallons at 350 GPM under their Phase I improvements and at 500 GPM once Phase II improvements are made.

**Proposed Schedule**

4/15/00

The proposed schedule to complete the Payneville-Battletown Water Main Extension Project is presented in Table 11. The target completion date for the project is ~~December 31, 1999~~. Based on information provided by KIA, all Fund "B" money must be spent by June 30, 2000.

Table 11  
Project Schedule

ACTIVITY	1998				1999												2000								
	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	
Property and Easement Acquisition																									
Final Design																									
Reviews and Approvals																									
Bidding and Contract Award																									
Construction																									
Training and Start-Up																									

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY  
IN THE MATTER OF:

RECEIVED  
DEC 16 1999

PUBLIC SERVICE  
COMMISSION

APPLICATION OF THE MEADE COUNTY WATER DISTRICT FOR A  
CERTIFICATE OF CONVENIENCE AND NECESSITY TO CONSTRUCT  
NEW FACILITIES AND EXTEND WATER SERVICE TO THE PAYNEVILLE-  
BATTLETOWN AREA OF MEADE COUNTY.

APPLICATION

The Petition of the MEADE COUNTY WATER DISTRICT respectfully shows:

1. Applicant is a duly organized and operating Water District organized and existing under the laws of the Commonwealth of Kentucky (KRS 74 et seq) and is engaged in the business of distributing potable water and maintaining a water distribution system. The applicant now operates and does business in an existing service area which includes the City of Flaherty, and other areas of Meade County. The entire service area is within the boundaries of the Commonwealth of Kentucky.

2. The Post office address of the applicant is 4135 Flaherty Road, Vine Grove, Ky 40175.

3. A certified copy of the Order of the Meade County Fiscal Court establishing the water district and all amendments thereto is attached to this application and are labeled "Exhibit A."

4. Meade County Water District is currently constructing a new headquarters as authorized by the PSC via previous application. Meade County Water District now proposes to extend water service to the Payneville-Battletown area of Meade County. This will increase the number of customers from approximately 2,042 to 2,712 customers.

5. The facts relied upon to show that the proposed new construction is required by public convenience and necessity are: (a) the Flaherty area and surrounding areas have grown rapidly since water mains were originally laid in the 1980's; (b) the Rock Ridge-Rockhaven area of Meade

County along Highway 1638 has grown rapidly since 1994, when mains were extended to service those areas; (c) based on existing U.S. Census data and population data projections made from the Meade County Comprehensive Plan, engineers have estimated that the Average Day Demand for potable water in the Battletown-Payneville area of Meade County will increase from 132,000 gallons (92 gallons per minute (GPM)) in 1998 to 271,240 gallons (188 GPM) in 2020, an estimated increase of one hundred five percent (105%) over twenty-two years.

6. Meade County Water District, as Applicant, seeks the issuance of a Certificate of Convenience and Necessity to construct an additional 33 miles of line consisting of six (6), eight (8) and ten (10) inch water mains; a 300,000 storage tank; a 350 gallons per minute booster pump station with PRV; a PRV vault; and an upgrade of the existing Brandenburg Pump Station. This request is in compliance with KRS 278.020(1) and 807 KAR §§ 8 and 9.

7. There are no franchises required for this proposed construction project.

8. The various construction documents are attached as Exhibits B1 to B-7 as prepared by the architectural/engineering firm of Quest Engineers, Inc., of Louisville, Kentucky, and include:

- (a) three (3) sets of plans for Project Contracts 1-4 (Exhibits B-1);
- (b) three (3) sets of specifications for Contracts 1-4 (Exhibits B-2, B-3, B-4, B-5);
- (c) one (1) hydraulic analysis for the referenced project (Exhibit B-6); and
- (d) one (1) copy of the design report (Exhibit B-7).

9. The current Project costs have been identified at approximately \$4.2 million. The Water District intends to finance the proposed project by means of a grant from the Kentucky Infrastructure Grant Program Fund of \$2.5 million and a Kentucky Infrastructure Authority "Fund C" Loan of \$1.7 million.

10. A full description of the proposed location of the new extension is as follows: The Payneville-Battletown Water System Improvements Project includes approximately 31 to 33 miles of water main that will connect to the Meade County Water District's existing system near Highway 79 and Turner Road and run to Payneville and Battletown and back to Brandenburg.

11. There are no public utilities or corporations with whom the proposed new water district extension is likely to compete.

12. A rate increase to Meade County Water District customers will not be necessary. Attached as "Exhibit C" is the Audited Financial Statements of the Meade County Water District dated December 31, 1998.

13. The proposed project is expected to provide tremendous benefits to current and anticipated customers of the Meade County Water District. The proposed construction will increase the number of customers the Water District services immediately by approximately 33% without a rate increase.

14. The Meade County Water is currently in the process of contracting with the City of Brandenburg to purchase 400,000 gallons of water per day. This contract is currently under consideration by the Public Service Commission.

WHEREFO, the Meade County Water Commission requests that the Public Service Commission of the Commonwealth of Kentucky consider this application and issue a Certificate of Public Convenience and Necessity for the construction of facilities to extend water service to the communities of Payneville and Battletown and to upgrade existing facilities to expedite this extension.

Dated at Radcliff, Kentucky this 27 day of October, 1999.

MEADE COUNTY WATER DISTRICT

By: David T. Wilson II  
David T. Wilson II  
Skeeters, Bennett & Wilson

I, Jon Whitfield, Chairman of the Meade County Water District, state that I have read and understand the foregoing application and that the statements therein are true to the best of my knowledge.

Jon Whitfield  
Jon Whitfield

STATE OF KENTUCKY

COUNTY OF Hardin

Subscribed, sworn to and acknowledged before me by Jon Whitfield on this 27 day of October, 1999 to be his true act and deed.  
My Commission Expires: 11-29-99

Mary Gallant  
Notary Public, Kentucky State at Large

RECEIVED

DEC 15 1999

PUBLIC SERVICE  
COMMISSION

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY  
IN THE MATTER OF:

APPLICATION OF THE MEADE COUNTY WATER DISTRICT FOR A  
CERTIFICATE OF CONVENIENCE AND NECESSITY TO CONSTRUCT  
NEW FACILITIES AND EXTEND WATER SERVICE TO THE PAYNEVILLE-  
BATTLETOWN AREA OF MEADE COUNTY.

C.N. 99-442

APPLICATION

The Petition of the MEADE COUNTY WATER DISTRICT respectfully shows:

1. Applicant is a duly organized and operating Water District organized and existing under the laws of the Commonwealth of Kentucky (KRS 74 et seq) and is engaged in the business of distributing potable water and maintaining a water distribution system. The applicant now operates and does business in an existing service area which includes the City of Flaherty, and other areas of Meade County. The entire service area is within the boundaries of the Commonwealth of Kentucky.
2. The Post office address of the applicant is 4135 Flaherty Road, Vine Grove, Ky 40175.
3. A certified copy of the Order of the Meade County Fiscal Court establishing the water district and all amendments thereto is attached to this application and are labeled "Exhibit A."
4. Meade County Water District is currently constructing a new headquarters as authorized by the PSC via previous application. Meade County Water District now proposes to extend water service to the Payneville-Battletown area of Meade County. This will increase the number of customers from approximately 2,042 to 2,712 customers.
5. The facts relied upon to show that the proposed new construction is required by public convenience and necessity are: (a) the Flaherty area and surrounding areas have grown rapidly since water mains were originally laid in the 1980's; (b) the Rock Ridge-Rockhaven area of Meade

County along Highway 1638 has grown rapidly since 1994, when mains were extended to service those areas; (c) based on existing U.S. Census data and population data projections made from the Meade County Comprehensive Plan, engineers have estimated that the Average Day Demand for potable water in the Battletown-Payneville area of Meade County will increase from 132,000 gallons (92 gallons per minute (GPM)) in 1998 to 271,240 gallons (188 GPM) in 2020, an estimated increase of one hundred five percent (105%) over twenty-two years.

6. Meade County Water District, as Applicant, seeks the issuance of a Certificate of Convenience and Necessity to construct an additional 33 miles of line consisting of six (6), eight (8) and ten (10) inch water mains; a 300,000 storage tank; a 350 gallons per minute booster pump station with PRV; a PRV vault; and an upgrade of the existing Brandenburg Pump Station. This request is in compliance with KRS 278.020(1) and 807 KAR §§ 8 and 9.

7. There are no franchises required for this proposed construction project.

8. The various construction documents are attached as Exhibits B1 to B-7 as prepared by the architectural/engineering firm of Quest Engineers, Inc., of Louisville, Kentucky, and include:

(a) three (3) sets of plans for Project Contracts 1-4 (Exhibits B-1);

(b) three (3) sets of specifications for Contracts 1-4 (Exhibits B-2, B-3, B-4, B-5);

(c) one (1) hydraulic analysis for the referenced project (Exhibit B-6); and

(d) one (1) copy of the design report (Exhibit B-7).

9. The current Project costs have been identified at approximately \$4.2 million. The Water District intends to finance the proposed project by means of a grant from the Kentucky Infrastructure Grant Program Fund of \$2.5 million and a Kentucky Infrastructure Authority "Fund C" Loan of \$1.7 million.

10. A full description of the proposed location of the new extension is as follows: The Payneville-Battletown Water System Improvements Project includes approximately 31 to 33 miles of water main that will connect to the Meade County Water District's existing system near Highway 79 and Turner Road and run to Payneville and Battletown and back to Brandenburg.

11. There are no public utilities or corporations with whom the proposed new water district extension is likely to compete.

12. A rate increase to Meade County Water District customers will not be necessary. Attached as "Exhibit C" is the Audited Financial Statements of the Meade County Water District dated December 31, 1998.

13. The proposed project is expected to provide tremendous benefits to current and anticipated customers of the Meade County Water District. The proposed construction will increase the number of customers the Water District services immediately by approximately 33% without a rate increase.

14. The Meade County Water is currently in the process of contracting with the City of Brandenburg to purchase 400,000 gallons of water per day. This contract is currently under consideration by the Public Service Commission.

WHERETO, the Meade County Water Commission requests that the Public Service Commission of the Commonwealth of Kentucky consider this application and issue a Certificate of Public Convenience and Necessity for the construction of facilities to extend water service to the communities of Payneville and Battletown and to upgrade existing facilities to expedite this extension.

Dated at Radcliff, Kentucky this 27 day of October, 1999.

MEADE COUNTY WATER DISTRICT

By: *David T. Wilson II*  
David T. Wilson II  
Skeeters, Bennett & Wilson

I, Jon Whitfield, Chairman of the Meade County Water District, state that I have read and understand the foregoing application and that the statements therein are true to the best of my knowledge.

*Jon Whitfield*  
Jon Whitfield

STATE OF KENTUCKY

COUNTY OF *Hardy*

Subscribed, sworn to and acknowledged before me by Jon Whitfield on this 27 day of October, 1999 to be his true act and deed.  
My Commission Expires: 11-29-99

*Mary Gallant*  
Notary Public, Kentucky State at Large

RECEIVED  
DEC 15 1999  
PUBLIC SERVICE  
COMMISSION

**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY  
IN THE MATTER OF:**

**Meade County Water District Application for Certificate of Public  
Convenience and Necessity**

**Case No. 99-442**

**Responses to Notice of Filing Deficiencies (to be filed with original  
application)**

1. Filing deficiency pursuant to KRS 322.340:

*Response:* Enclosed please find one copy of the preliminary and final engineering report for the project. The final engineering report is signed, sealed and dated by the registered professional engineer. The preliminary report dated September 1998 is unsigned. The Meade County Water District requests that the Commission **waive** the requirement that the preliminary report dated September 1998 be signed, sealed and dated by the registered professional engineer, as the current version of KRS 322.340 came into effect subsequent to the issuing of the September 1998 preliminary design report.

2. Filing deficiencies pursuant to 807 KAR 5:001, Section 6:

*Response:* (Note: All information below in Sections 6(1) through 6(9) covers the period ending more than 90 days prior to the date on which the application was filed. Because the Meade County Water District is audited and issues its financial statements annually, the District requests that the Commission **waive** the requirement that the above-referenced information cover the period ending not more than 90 days prior to the application filing date. When possible, the District has provided information documented subsequent to the December 31, 1998 financial statements.)

(4) Mortgages: *Response:* The Meade County Water District has no outstanding mortgages at this time.

(5) Bonds: *Response*:: See "Attachment A" to this document, said attachment being fully incorporated by reference as if fully set out herein.

(6) Notes Outstanding: *Response*: See "Attachment B" to this document, said attachment being fully incorporated by reference as if fully set out herein.

(7) Other Indebtedness: *Response*: See "Attachment C" to this document, said attachment being fully incorporated by reference as if fully set out herein.

(8) Dividends/capital stock information: *Response*: There were no dividends paid and no capital stock on which dividends were paid by the District within the previous five fiscal years.

(9) Income statement and balance sheet: *Response*: A detailed income statement and balance sheet for the District is attached as "Attachment D" to this document, said attachment being fully incorporated by reference as if fully set out herein.

3. Filing deficiency pursuant to 807 KAR 5:001, Section 8(2):

*Response*: Enclosed please find 11 copies of the original application.

4. Filing deficiencies pursuant to 807 KAR 5:001, Section 9(2):

(b) Copies of franchises or permits, if any, from the proper public authority for the proposed new construction or extension: *Response*: Attached as "Attachment E" are copies of proper permits required for the new construction. No franchises are required for this construction.

(d) Copies of maps to suitable scale: *Response*: Enclosed please find two additional maps to suitable scale showing the location of the proposed new construction.

(e) The manner of proposed financing of new construction: *Response*: See "Attachment F" to this document, said attachment being fully incorporated by reference as if fully set out herein.

(f) An estimated cost of operation after the proposed facilities are completed.

**Response:** The projected initial annual Operation and Maintenance Cost for the new system is \$11,222. The operations portion of this cost is based on an initial water demand generated from 317 customers. For the entire Water District, annual Operation and Maintenance Cost is projected to be increased to \$525,000 annually plus the cost of water per new customer. The District obtains its water supply from Hardin County Water District #1 (400,000 gallons/day) and from City of Brandenburg (100,000 gallons/day) at a cost of \$1.15 per 1,000 gallons. This current price is expected to remain at that level.

5. Filing deficiencies pursuant to 807 KAR 5:001, Section 11(1):

(a) Description of applicant's property. **Response:** The Meade County Water District owns the following property (including insurable values for personal property):

- 0.09 acre tract, Flaherty (contains well no longer used); @ \$1,000
- 5.345 acre tract, Brandenburg (site of new office building); \$25,060
- <1.5 acre tract, Flaherty (old Flaherty Water Company); \$33,500
- 2500 sq. ft. tract, Payneville (lift station site); \$1,750
- 1858 sq. ft. tract, Battletown (pressure reducing valve site); \$2,000
- <2.0 acre tract, Payneville (water tank site); \$2,000
- <0.5 acre tract, Brandenburg (pumping station site); \$2,500
- @ 2.0 acre tract, Garrett (water tank site); \$5,000
- Four water pumps: \$2,205 each
- Hydraulic equipment: \$37,500
- Pipe line: \$840,000
- Air compressor: \$500
- 7 ½ HSP: \$1,700
- Sharp copier: \$6,000
- Pump Stations: \$7,500
- Case backhoe: \$42,300
- Kerosene Heaters: \$225

- Pump Station and Contents: \$156,275
- Water Tanks: \$331,800
- Storage Building and contents: \$28,875
- Computer equipment: \$6,077
- Transmission and Distribution Facilities: \$1,526,084
- Waterline Extensions: \$1,749,615
- Trucks: \$113,367
- Buildings: \$12,262

(b) New Bond/Note/Other Indebtedness description. *Response:* See "Attachment F" to this document, said attachment being fully incorporated by reference as if fully set out herein.

(c) Statement of how proceeds are to be used. *Response:* See "Attachment G" to this document, said attachment being fully incorporated by reference as if fully set out herein. "Attachment G" outlines the project budget allocation of grant and loan funds for the new construction referenced herein.

6. Filing deficiencies pursuant to 807 KAR 5:001, Section 11(2):

(b) Copies of all trust deeds or mortgages. *Response:* There are no trust deeds or mortgages on MCWD property.

(d) If property to be acquired, detailed estimates by USOA account number. *Response:* See "Attachment H" to this document, said attachment being fully incorporated by reference as if fully set out herein.

WHERETO, the Meade County Water District requests issuance of a Certificate of Public Convenience and Necessity for the construction of facilities to extend water service to the communities of Payneville and Battletown and to upgrade existing facilities.

Dated at Radcliff, Kentucky this 10<sup>th</sup> day of December, 1999.

MEADE COUNTY WATER DISTRICT

By: 

David T. Wilson II  
Counsel for Applicant  
Skeeters, Bennett & Wilson  
550 W. Lincoln Trail Blvd.  
P.O. Box 610  
Radcliff, KY 40160  
(270) 351-4404

I, Jon Whitfield, Chairman of the Meade County Water District, state that I have read and understand the foregoing amended application and that the statements therein are true and accurate to the best of my knowledge.

Jon A Whitfield  
Jon Whitfield

STATE OF KENTUCKY

COUNTY OF Hardin

Subscribed, sworn to and acknowledged before me by Jon Whitfield on this 7<sup>th</sup> day of December, 1999 to be his free act and deed.

My commission expires: 9-8-2002

Jayme Groubi  
Notary Public, Kentucky State at Large

ATTACHMENT A

Bonds of the Meade County Water District

<u>Amt.</u> <u>Authorized</u>	<u>Amt.</u> <u>Issued</u>	<u>Issuing</u> <u>Utility</u>	<u>Description--</u> <u>Class Issued</u>	<u>Date</u> <u>Issued</u>	<u>Maturity</u> <u>Date</u>	<u>Interest pd.</u> <u>Last FY</u>
(a) \$480,000	\$480,000	MCWD	Series A	6/23/87	2026	\$29,510
(b) 159,000	159,000	MCWD	Series B	6/23/87	2026	\$9,620
(c) 415,000	415,000	MCWD	Series R	2/4/93	2032	\$20,200

**Notes:**

(a) A \$480,000 Series A Waterworks Revenue Bond was authorized and issued by the Meade County Water District on 06/23/87 to finance the 1986 Water District Waterworks construction project.

(b) A \$159,000 Series B Waterworks Revenue Bond was authorized and issued by the Meade County Water District on 06/23/87 to finance the 1986 Water District Waterworks construction project.

For the 1986 Waterworks Revenue Bonds, a first statutory mortgage lien upon the Meade County Water District's waterworks System per KRS 106.080 and the 1986 Meade County Water District Bond Resolution, to and in favor of the registered owner of the Bond, the Farmer's Home Administration of the United States Department of Agriculture. The waterworks System,

**ATTACHMENT A (continued)**

all appurtenances thereof, and all extensions, additions, and improvements thereto, remain subject to said statutory lien (in addition to a waterworks revenue pledge) until payment in full of the principal of and interest on these Bonds.

(c) A \$415,000 Series R Waterworks Revenue Bond was authorized and issued by the Meade County Water District on 02/04/93 to finance the 1992 Water District Waterworks construction project.

A first statutory mortgage lien has been created and granted by the Meade County Water District in the District's 1992 Bond Resolution, and more specifically by KRS 106.080, to and in favor of the registered owner of the Bond, the Farmer's Home Administration of the United States Department of Agriculture, ranking on a parity with the 1986 Waterworks Bonds. The District's waterworks System, all appurtenances thereof, and all extensions, additions, and improvements thereto, remain subject to said statutory mortgage lien (in addition to a waterworks revenue pledge) until payment in full of the principal of and interest on the 1986 Bonds and the 1992 Bond.

MEADE COUNTY WATER DISTRICT  
 SUPPLEMENTAL SCHEDULE  
 WATER WORKS REVENUE BONDS OF 1986  
 DECEMBER 31, 1998

<u>YEAR</u>	<u>Principal Installments, Series A Bonds</u>	<u>Principal Installments, Series B Bonds</u>	<u>Total Annual Principal Installments</u>
1999	\$ -0-	\$ -0-	\$ -0-
2000	4,000	2,000	6,000
2001	5,000	2,000	7,000
2002	5,000	2,000	7,000
2003	6,000	2,000	8,000
2004	6,000	2,000	8,000
2005	7,000	3,000	10,000
2006	7,000	3,000	10,000
2007	8,000	3,000	11,000
2008	9,000	4,000	13,000
2009	10,000	4,000	14,000
2010	10,000	4,000	14,000
2011	11,000	4,000	15,000
2012	12,000	5,000	17,000
2013	14,000	5,000	19,000
2014	15,000	5,000	20,000
2015	16,000	6,000	22,000
2016	18,000	6,000	24,000
2017	19,000	6,000	25,000
2018	21,000	6,000	27,000
2019	23,000	7,000	30,000
2020	25,000	8,000	33,000
2021	27,000	9,000	36,000
2022	30,000	9,000	39,000
2023	32,000	9,000	41,000
2024	35,000	10,000	45,000
2025	36,000	10,000	46,000
2026	39,000	10,000	49,000
	<u>\$ 450,000</u>	<u>\$ 146,000</u>	<u>\$ 596,000</u>

"ATTACHMENT A" (continued)

MEADE COUNTY WATER DISTRICT  
SUPPLEMENTAL SCHEDULE  
WATER WORKS REVENUE BONDS OF 1992  
DECEMBER 31, 1998

<u>YEAR</u>	<u>Principal Installments, Series A Bonds</u>
1999	\$ -0-
2000	4,000
2001	4,000
2002	4,000
2003	4,000
2004	5,000
2005	5,000
2006	5,000
2007	6,000
2008	6,000
2009	6,000
2010	7,000
2011	7,000
2012	8,000
2013	8,000
2014	9,000
2015	9,000
2016	10,000
2017	11,000
2018	11,000
2019	13,000
2020	13,000
2021	14,000
2022	15,000
2023	16,000
2024	17,000
2025	18,000
2026	20,000
2027	20,000
2028	22,000
2029	23,000
2030	25,000
2031	27,000
2032	29,000
	<u>\$ 401,000</u>

**ATTACHMENT B**

**Outstanding Notes of the Meade County Water District**

<u>Amount Of Note</u>	<u>Note Holder</u>	<u>Date Issued</u>	<u>Maturity Date</u>	<u>Interest Rate</u>	<u>Interest pd. Last FY</u>
\$480,000*	FHA**	6/23/87	2026	6.5%	\$29,510
\$159,000*	FHA**	6/23/87	2026	6.5%	\$9,620
\$415,000*	FHA**	2/4/93	2032	5.0%	\$20,200
\$795,000	Meade Co. Fiscal Court	11/1995	11/2015	6.174%	\$46,782

**Notes: \*** These notes are obligation to repay under the 1986 and 1992 Waterworks Revenue Bonds described in Attachment A of this document.

**\*\*** "FHA" is the Farmer's Home Administration of the U.S. Dept. of Agriculture.

"ATTACHMENT B" (continued)

MEADE COUNTY WATER DISTRICT  
 SUPPLEMENTAL SCHEDULE  
 NOTE PAYABLE TO MEADE COUNTY FISCAL COURT  
 DECEMBER 31, 1998

<u>YEAR</u>	<u>Principal Payments</u>	<u>Interest and Fees</u>	<u>Projected Annual Total Payments</u>
1999	\$ 29,000	\$ 45,064	\$ 74,064
2000	30,000	43,248	73,248
2001	32,000	41,344	73,344
2002	33,000	39,343	72,343
2003	35,000	37,254	72,254
2004	37,000	35,042	72,042
2005	38,000	32,732	70,732
2006	40,000	30,334	70,334
2007	42,000	27,813	69,813
2008	45,000	25,143	70,143
2009	47,000	22,313	69,313
2010	49,000	19,360	68,360
2011	52,000	16,258	68,258
2012	54,000	12,996	66,996
2013	57,000	9,585	66,585
2014	60,000	5,989	65,989
2015	62,000	2,233	64,233
	<u>\$ 742,000</u>	<u>\$ 446,051</u>	<u>\$ 1,188,051</u>

See Note 2 in the financial statements.

**ATTACHMENT C**

**Other Indebtedness of the Meade County Water District**

<u>Amount Of Debt</u>	<u>Lease Holder</u>	<u>Date Issued</u>	<u>Maturity Date</u>	<u>Interest Rate</u>	<u>Interest pd. Last FY</u>
\$43,900	Meade Co. Bank	2/98	2/2002	6.60%	\$1,927

**Note:** During February 1998, the District entered into a capital lease agreement with Meade County Bank for \$43,900 to purchase one (1) GMC C74012 1998 Dump Truck. This is a 48-month capital lease at 6.60%.

"ATTACHMENT D"

MEADE COUNTY WATER DISTRICT  
BALANCE SHEET  
DECEMBER 31, 1998

<u>ASSETS</u>	<u>1998</u>
Current Assets:	
Cash	\$ 269,616
Prepaid Insurance	7,025
Accounts Receivable	69,181
Inventory - Water	3,200
Inventory - Parts	31,410
	<hr/>
Total Current Assets	380,432
	<hr/>
Fixed Assets:	
Transmission and Distribution Facilities	1,526,084
Waterline Extensions	1,749,615
Equipment	332,912
Trucks	113,367
Buildings	12,262
	<hr/>
	3,734,240
	<hr/>
Less accumulated depreciation	(780,066)
	<hr/>
Net Fixed Assets	2,954,174
	<hr/>
Other Assets:	
Land	43,560
	<hr/>
Total Other Assets	43,560
	<hr/>
<b>TOTAL ASSETS</b>	<b><u><u>\$ 3,378,166</u></u></b>

The notes to the financial statements are an integral part of this statement.

"ATTACHMENT D'" (continued)  
**MEADE COUNTY WATER DISTRICT**  
**BALANCE SHEET (CONTINUED)**  
**DECEMBER 31, 1998**

<u>LIABILITIES AND EARNINGS</u>	<u>1998</u>
<b>Current Liabilities:</b>	
Accounts Payable	\$ 38,307
Notes payable - Current Portion	43,988
Customer Deposits	13,462
Accrued Expenses	5,555
Accrued Retirement Payable	1,509
Accrued Wages	2,782
Accrued Vacation & Sick Leave	25,999
Total Current Liabilities	<u>131,602</u>
<b>Long-Term Liabilities:</b>	
Notes Payable	<u>1,734,302</u>
Total Liabilities	1,865,904
<b>Retained Earnings:</b>	
Contributed Capital in Aid of Construction	752,369
Retained Earnings	<u>759,893</u>
Retained Earnings	<u>1,512,262</u>
<b>TOTAL LIABILITIES AND RETAINED EARNINGS</b>	<b><u><u>\$ 3,378,166</u></u></b>

The notes to the financial statements are an integral part of this statements.

"ATTACHMENT D" (continued)  
**MEADE COUNTY WATER DISTRICT**  
**STATEMENTS OF REVENUE, EXPENSES, AND RETAINED EARNINGS**  
**FOR THE YEAR ENDED DECEMBER 31, 1998**

	1998
Revenues:	
Water Service	\$ 788,114
Operating Expenses:	
Water test	4,987
Meter and meter installations	2,462
Tools	1,873
Testing supplies	893
Depreciation expense	119,324
Payroll taxes	12,605
Utility tax	20,992
Other taxes and licenses	2,441
Salaries and wages	167,236
Commissioners pay	10,800
Employees pension and benefits	11,346
Water purchase	143,119
Purchased power	13,128
Repairs and maintenance	19,421
Billing expense	7,743
Materials and supplies	4,583
Engineering fees	55,654
Professional fees	4,900
Contractual services	2,677
Transportation expense	21,658
Health insurance	23,916
Other insurance	13,983
Bad debts	9,950
Advertising	962
Public service assessment	1,282
Equipment rental	8,405
Rent	4,500
Office supplies	3,412
Uniforms	3,880
Communications	939
Telephone	3,901
Dues, fees and training	1,948
Gravel	2,800
Miscellaneous	5,152
Total Operating Expenses	712,872
Operating Income (Loss)	75,242
Nonoperating revenue (expenses)	
Interest Income	12,525
Meter Hook-up Fees	87,050
State Grant	34,649
Debt service-interest	(100,919)
Total Nonoperating revenues (expenses)	33,305
Net Income	108,547
Retained Earnings, January 1, 1998	651,346
Retained Earnings, December 31, 1998	\$ 759,893

The notes to the financial statements are an integral part of this statements.

MEADE COUNTY WATER DISTRICT  
STATEMENTS OF CASH FLOWS  
YEAR ENDED DECEMBER 31, 1998

	<u>1998</u>
Cash Flow From Operating Activities	
Net Income (Loss)	\$ 108,547
Adjustments To Reconcile Net Income	
To Net Cash Provided By Operations:	
Depreciation	119,324
(Increase) Decrease In:	
Accounts Receivable	(9,540)
Inventory	(9,187)
Prepaid Expenses	466
Increase (Decrease) In:	
Accounts Payable	20,007
Customer Deposits	800
Accrued Liabilities	<u>6,215</u>
Net Cash Provided By (Used By) Operating Activities	<u>236,632</u>
Cash Flows From Investing Activities	
Purchase of Land	(25,060)
Purchases of Fixed Assets	<u>(162,754)</u>
Net Cash Provided By (Used By) Investing Activities	<u>(187,814)</u>
Cash Flows From Financing Activities	
Current -	3,671
Long-Term	<u>(18,153)</u>
Net Cash Provided By (Used By) Financing Activities	<u>(14,482)</u>
Net Increase (Decrease) in Cash	34,336
Cash at January 1, 1998	<u>235,280</u>
Cash at December 31, 1998	<u><u>\$ 269,616</u></u>
Supplemental Disclosures:	
Cash paid for interest	<u><u>\$ 100,919</u></u>

The notes to the financial statements are an integral part of this statement.

"ATTACHMENT D" (continued)  
**MEADE COUNTY WATER DISTRICT**  
**STATEMENTS OF REVENUE, EXPENSES, AND RETAINED EARNINGS -**  
**BUDGETED AND ACTUAL**  
**FOR THE YEAR ENDED DECEMBER 31, 1998**

	<u>Budgeted</u>	<u>Actual</u>	Variance - Favorable (Unfavorable)
Revenues:			
Water Service	\$ 787,000	\$ 788,114	\$ 1,114
Operating Expenses:			
Water test	5,030	4,987	43
Meter and meter installations	2,500	2,462	38
Tools	1,900	1,873	27
Testing supplies	1,000	893	107
Depreciation expense	120,000	119,324	676
Payroll taxes	13,000	12,605	395
Utility tax	21,000	20,992	8
Other taxes and licenses	2,500	2,441	59
Salaries and wages	168,000	167,236	764
Commissioners pay	10,800	10,800	-0-
Employees pension and benefits	11,400	11,346	54
Water purchase	143,500	143,119	381
Purchased power	14,400	13,128	1,272
Repairs and maintenance	20,000	19,421	579
Billing expense	8,000	7,743	257
Materials and supplies	5,000	4,583	417
Engineering fees	56,000	55,654	346
Professional fees	5,000	4,900	100
Contractual services	2,800	2,677	123
Transportation expense	22,000	21,658	342
Health insurance	24,000	23,916	84
Other insurance	14,000	13,983	17
Bad debts	10,000	9,950	50
Advertising	1,000	962	38
Public service assessment	1,300	1,282	18
Equipment rental	8,500	8,405	95
Rent	4,600	4,500	100
Office supplies	3,500	3,412	88
Uniforms	3,900	3,880	20
Communications	950	939	11
Telephone	4,000	3,901	99
Dues, fees and training	2,000	1,948	52
Gravel	2,900	2,800	100
Miscellaneous	5,300	5,152	148
Total Operating Expenses	<u>719,780</u>	<u>712,872</u>	<u>6,908</u>
Operating Income (Loss)	67,220	75,242	8,022
Nonoperating revenue (expenses)			
Interest Income	12,250	12,525	275
Meter Hook-up Fees	87,000	87,050	50
State grant	34,650	34,649	(1)
Debt service-interest	(101,000)	(100,919)	81
Total Nonoperating revenues (expenses)	<u>32,900</u>	<u>33,305</u>	<u>405</u>
Net Income (Loss)	100,120	108,547	8,427
Retained Earnings, January 1, 1998	651,346	651,346	-0-
Retained Earnings, December 31, 1998	<u>\$ 751,466</u>	<u>\$ 759,893</u>	<u>\$ 8,427</u>

The notes to the financial statements are an integral part of this statement.

JAMES E. BICKFORD  
SECRETARY

PAUL E. PATTON  
GOVERNOR



COMMONWEALTH OF KENTUCKY  
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET  
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

FRANKFORT OFFICE PARK  
14 REILLY RD  
FRANKFORT KY 40601  
September 24, 1999

Meade County Water District  
3600 Flaherty Road  
Vine Grove, Kentucky 40175

RE: DW #0820369-99-009  
WLE, Storage Tank, Pump Sta.  
Payneville-Battletown Water Sys  
Meade County, Kentucky

Dear Sirs:

We have reviewed the plans and specifications for the above referenced project. The plans include approximately 163,160 feet of 10-inch, 8-inch, 6-inch and 4-inch PVC water line. This is to advise that plans and specifications covering the above referenced subject are APPROVED with respect to sanitary features of design as of this date with the following stipulations:

1. If PVC piping is used, it must be NSF approved and manufactured in accordance with ASTM standards.
2. All dead end lines must be provided with a properly sized blow-off assembly, flush hydrant or fire hydrant (minimum 2 1/2 inch diameter outlet) for flushing purposes.
3. New or repaired water distribution lines shall not be placed into service until bacteriological samples taken at the points specified in 401 KAR 8:150 Section 4 (2) are examined and are shown to be negative following disinfection.
4. The gate valve/fire hydrant configuration shall be set up in the order as shown on page four of contract 2.
5. A minimum pressure of 30 psi must be available on the discharge side of all meters.
6. Appropriate measures shall be taken to insure that the one customer located at node 495 in your network will be provided with adequate pressure. A proposal to do this shall be submitted to this office.



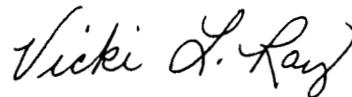
Payneville-Battletown Water System  
September 24, 1999  
Page two

- 7. The storage tank vent shall be screened to prevent the ingress of birds, animals and insects and shall be of a design to prevent freezing that may restrict the flow of air.
- 8. The minimum size of water main for providing fire protection and serving fire hydrants shall be six inch diameter. Larger size mains will be required, if necessary, to allow the withdrawal of the required fire flow while maintaining the minimum residual pressure. Hydrants on lines either less than six inches in diameter or served by other lines less than six inches in diameter shall be for flushing purposes only.
- 9. When this project is completed, the owner shall submit a written certification to the Division of Water that the above referenced water supply facilities have been constructed and tested in accordance with the approved plans and specifications and the above stipulations. Such certification shall be signed by a registered professional engineer.

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

Unless construction of this project is begun within one year from the date of approval, the approval shall expire. If you have any questions concerning this project, please contact Brian Howell at 502/564-2225, extension 574.

Sincerely,



Vicki L. Ray, Branch Manager  
Drinking Water Branch  
Division of Water

VLR:BKH:lm

Enclosures

Payneville-Battletown Water System  
September 24, 1999  
Page three

C: Quest Engineers  
Meade County Health Department  
Public Service Commission  
Louisville Regional Office  
Drinking Water Files



Commonwealth of Kentucky  
**Transportation Cabinet**  
Department of Highways, District Four  
634 East Dixie, P.O. Box 309  
Elizabethtown, KY 42702-0309  
502/766-5066 (Fax) 502/766-5069

**James C. Codell, III**  
Secretary of Transportation

**T. Kevin Flanery**  
Deputy Secretary

**Paul E. Patton**  
Governor

August 17, 1999

MEADE COUNTY WATER DISTRICT  
3600 FLAHERTY ROAD  
VINE GROVE, KY 40175

SUBJECT: Meade County, MP-82-144-10  
KY 144 ()  
Permit Number 04-0565-99

Dear JOANN THOMAS:

Your application for an encroachment permit has been approved by the Department of Highways. We are returning two copies of the approved permit so one may be kept in your record files. The other copy must be given to the party responsible for completing the project and must be kept at the jobsite at all times.

Please see that the work is done in strict conformity with the permit and any other applicable conditions (See Form TC99-21 and any other attached documents, conditions or specifications). The work should be completed no later than July 1, 2001. When the permitted work and any necessary restoration have been completed please notify this office by using the attached form which will serve as notification for final inspection.

If there are any questions regarding this permit, please do not hesitate to contact John A. Wallace, Permits Engineer, at 502-766-5066 or fax number 502-766-5069.

Sincerely,

*for* *John A Wallace*

S.R. Smith  
Chief District Engineer  
Department of Highways  
District 4 -Elizabethtown  
Post Office Box 309  
Elizabethtown, KY 42702-0309

**KENTUCKY TRANSPORTATION CABINET**  
 Department of Highways  
 Permits Branch

E-5  
 TC 99-1  
 Rev. 7/85

Released Date \_\_\_\_\_

**ENCROACHMENT PERMIT**

PERMIT NO. 04-0564-99

<b>APPLICANT IDENTIFICATION:</b> NAME: <u>Meade County Water District</u> CONTACT PERSON: <u>Joann Thomas</u> ADDRESS: <u>4135 Flaherty Rd.</u> CITY: <u>Vine Grove</u> STATE: <u>KY</u> ZIP CODE: <u>40175</u> PHONE: area code ( <u>502</u> ) <u>828-3399</u>	<b>PROJECT IDENTIFICATION:</b> ACCESS CONTROL <input checked="" type="checkbox"/> By Permit <input type="checkbox"/> Partial <input type="checkbox"/> Full COUNTY: <u>Meade</u> PRIORITY ROUTE NO: <u>Ky. 144</u> MILEPOINT: <u>Various</u> <input checked="" type="checkbox"/> Left <input checked="" type="checkbox"/> Right <input checked="" type="checkbox"/> X-ing PROJECT STATUS: <input type="checkbox"/> Maint. <input type="checkbox"/> Const. <input checked="" type="checkbox"/> Design PROJECT # STATE: <u>MP082-0144-10.0</u> PROJECT # FEDERAL: <u>N/A</u> ROAD/ STREET NAME: <u>See attached</u>
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<b>TYPE OF ENCROACHMENT:</b> <input checked="" type="checkbox"/> <b>COMMERCIAL ENTRANCE - BUSINESS</b> <u>See attached</u> <input type="checkbox"/> PRIVATE ENTRANCE: <input type="checkbox"/> Single Family <input type="checkbox"/> Farm <input checked="" type="checkbox"/> UTILITY: <input type="checkbox"/> Overhead <input checked="" type="checkbox"/> Underground <input type="checkbox"/> GRADE: <input type="checkbox"/> Fill <input type="checkbox"/> Landscape on R/W <input type="checkbox"/> AIRSPACE: <input type="checkbox"/> Agreement <input type="checkbox"/> Lease <input type="checkbox"/> OTHER: (Specify) _____ _____ _____	<b>ATTACHMENTS:</b> <input type="checkbox"/> Standard Drawings (List on TC 99-21 under Misc.) <input checked="" type="checkbox"/> Applicant's Plans <input type="checkbox"/> Highway Plan and Profile Sheets <input type="checkbox"/> TC 99-3 (Ponding Encroachment Specs. & Conditions) <input type="checkbox"/> TC 99-4 (Rest Area Usage Specs. & Conditions) <input type="checkbox"/> TC 99-5 (Tree Cutting/Trimming Specs. & Conditions) <input type="checkbox"/> TC 99-8 (Chemical Use of Specs. & Conditions) <input checked="" type="checkbox"/> TC 99-10 (Typical Hwy. Boring Crossing Detail) <input type="checkbox"/> TC 99-12 (Overhead Utility Encroachment Diagram) <input type="checkbox"/> TC 99-13 (Surface Restoration Methods) <input checked="" type="checkbox"/> TC 99-21 (Encroachment Permit General Notes & Specs.) <input type="checkbox"/> TC 99-22 (Agreement for Services to be Performed) <input type="checkbox"/> TC 99-23 (Mass Transit Shelter Specs. & Conditions) <input checked="" type="checkbox"/> Other Attachments (Specify): <u>Highway Boring Crossing Detail</u> <u>Brief Description of Work</u> _____ _____
--	--

<b>TYPE OF INDEMNITY:</b> <input type="checkbox"/> Bond <input type="checkbox"/> Cash <input type="checkbox"/> SELF-INSURED AMOUNT ENCUMBERED \$ <u>50,000</u> <input type="checkbox"/> OTHER _____	
---	--

NAME AND ADDRESS OF LOCAL INSURANCE AGENCY OR SELF-INSURED REPRESENTATIVE: \_\_\_\_\_

**INDEMNITY:** The applicant, in order to secure this obligation, has deposited with the Transportation Cabinet as a guarantee of conformance with the Department's Encroachment Permit requirements, an indemnity in the amount of \$ \_\_\_\_\_ as determined by the Department. It shall be the responsibility of the applicant or permittee, his heirs and assignees to keep all indemnities in full force until construction or reconstruction has been completed and duly accepted by an authorized agent of the Transportation Cabinet, Department of Highways.

**BRIEF DESCRIPTION OF WORK TO BE DONE:** (If private entrance, show sketch with pipe location. Separate attached drawings required for encroachments other than private entrances.)

SEE ATTACHED.

*Paralleldines to be a maximum of 5' on state R/W.  
 Plans filed in drawer.*

**IMPORTANT (PLEASE READ):** Applicant  does  does not intend to apply for excess R/W

When the work is completed in accordance with the terms of this encroachment permit, your idemnity will be released. However, the permit is effective until revoked by the Transportation Cabinet and the terms on the permit accompanying permit documents and drawings remain in effect as long as the encroachment exists. **FUTURE MAINTENANCE OF THE ENCROACHMENT IS THE RESPONSIBILITY OF THE PERMITTEE.** It is important that you understand the requirements of this encroachment permit application and accompanying documents. If you have not done so, it is suggested that you review these documents and place the permit package in a safe place for future reference.

A copy of this permit and all documents shall be given to your contractor and shall be readily available at the work site for the encroachment permit inspector to review at all times. Failure to meet this requirement may result in cancellation of this permit.

IN THE EVENT THIS APPLICATION IS APPROVED, THIS DOCUMENT SHALL CONSTITUTE A PERMIT FOR THE APPLICANT TO USE THE RIGHT-OF-WAY, BUT ONLY IN THE MANNER AUTHORIZED BY THIS DOCUMENT AND REGULATIONS OF THE DEPARTMENT AND THE DRAWINGS, PLANS, ATTACHMENTS, AND OTHER PERTINENT DATA ATTACHED HERETO AND MADE A PART HEREOF.

PERMIT NO. \_\_\_\_\_

KENTUCKY TRANSPORTATION CABINET  
Department of Highways  
Permits Branch

**ENCROACHMENT PERMIT GENERAL NOTES & SPECIFICATIONS**

**I. SAFETY**

A. General Requirements

- 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 ditchline areas of a state highway is to 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 is to be blocked or obstructed during normal working hours. All signs and flagmen during lane closure shall conform to the Manual on Uniform Traffic Control Devices.
- When it is necessary to block one (1) traveled-lane of a state highway, the normal working hours shall be as directed by the Department. No lanes are to be blocked or obstructed during adverse weather conditions (i.e., rain, snow, fog, etc.) without specific permission from the Department. Working hours shall be between \_\_\_\_\_ and \_\_\_\_\_.
- 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 will 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 Kentucky Department of Mines and Minerals, Explosive Division.

C. Other Safety Requirements

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**II. UTILITIES**

- \*All work necessary within the right-of-way shall be 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 control of access immediately restored to original condition, in accordance with applicable Kentucky Department of Highways Standard Drawings.
  - \*All vents, valves, manholes, etc. are to be located outside 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 30" deep.
  - Encasement 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 30" cover above top of pipe or conduit. (30" preferred)
  - All pavement cuts shall be restored per Kentucky Transportation Cabinet Form No. 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 Fahrenheit).
  - The 30' clear zone requirement will be met to the extent possible in accordance with Chapter 99-02.0313 of the Permits Manual.
  - Special Requirements:
- 
- 
- 

\*Applies to Fully Controlled Access Highways **ONLY**

**VI. PAVING**

- No bituminous pavement is to be installed within the right-of-way between November 15 and April 1, nor when the temperature is below 40°F, without the express consent of the Department. No bituminous pavement is to 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 accommodate 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 Specifications for Road and Bridge Construction, latest edition.
- 24 hours notice to the Department is required prior to beginning paving operations:  
Phone: \_\_\_\_\_ Name \_\_\_\_\_
- To insure proper surface drainage the new pavement is to be flush with the edge of existing highway pavement and is to slope away from the existing edge of the pavement as specified on 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 pavement.

**VII. SIDEWALKS SPECIFICATIONS****A. New Sidewalks**

- Sidewalks are to be constructed of Class A concrete (3,500 p.s.i. test), are to be \_\_\_\_\_ feet in width, are to be 6" in thickness across the bituminous entrance and 4" in thickness across the remaining sections.
- Sidewalks are to have tooled joints, not less than 1" in depth at four (4) foot intervals, and ½ preformed expansion joints extending entirely through the sidewalk at intervals not to exceed fifty (50) feet.
- \* This dimension should be equal to the width of the sidewalk
- All materials and methods of construction, including curing, is to be in accordance with 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 is not to be blocked or obstructed, and a usable walkway is to be maintained across the construction area at all times.
- All damaged sections of the sidewalks are to be entirely replaced to match existing sections.

**VIII. DENSE GRADED SHOULDERS**

- Any existing dense graded aggregate shoulders in the entire frontage within the construction area, which have been disturbed, damaged, or on which dirt has been placed or mud is deposited or tracked, are to 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 on the plan are to consist of 5" compacted dense graded aggregate 2½ pounds per square yard calcium chloride.
- All dense graded aggregate shoulders are to slope away from the new edge of pavement at the rate of ¼" 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 of the rolled curb type with a minimum base width of 8" 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.

**PAYNEVILLE-BATTLETOWN WATER SYSTEM IMPROVEMENTS  
MEADE COUNTY WATER DISTRICT**

The following are general descriptions of the encroachment areas:

Contract 1:

- 1. A commercial entrance is needed for an elevated water storage tank. The proposed entrance follows an existing drive and is located on the north side of KY 144, approximately 240' east of KY 376 in Payneville. See attached plans.

Contract 2:

- 1. A commercial entrance is needed for a booster pump/PRV station. The proposed entrance is located on the north side of KY 144, approximately 3200' east of KY 1239. See attached plans.

Contract 3:

- 1. 10" water main crossing KY 79 at centerline station 21+25, near the junction of KY 79 and Kirchdorfer Rd. Bore and jack 33 L.F. of 16" encasement pipe. See Contract 3, Dwg. 3 and highway boring crossing detail attached.
- 2. 10" water main crossing KY 1692 at centerline station 159+15, approximately 150' east of Echo Trail. Bore and jack 33 L.F. of 16" encasement pipe. See Contract 3, Dwg. 5 and highway boring crossing detail attached.
- 3. 10" water main crossing KY 2731 at centerline station 209+30, approximately 200' north of the junction of KY 2731 and KY 144. Bore and jack 30 L.F. of 16" encasement pipe. See Contract 3, Dwg. 6 and highway boring crossing detail attached.
- 4. 8" water main crossing KY 1844 at centerline station 531+85, approximately 200' east of the junction of KY 1844 and KY 144. Bore and jack 33 L.F. of 14" encasement pipe. See Contract 3, Dwg. 12 and highway boring crossing detail attached.
- 5. Various underground utility encroachments along right-of-way.
  - a. 10" water main parallels to KY 144 from station 269+50 to 271+50, approximately 1200' east of Sirocco-Midway Rd. See Contract 3, Dwg. 7. 200'
  - b. 10" water main parallels to KY 144 from station 285+25 to 285+75, approximately 250' west of Sirocco-Midway Rd. See Contract 3, Dwg. 7. 50'
  - c. 10" water main parallels to KY 144 from station 296+00 to 299+50, approximately 1200' west of Sirocco-Midway Rd. See Contract 3, Dwg. 8. 250'
  - d. 10" water main parallels to KY 144 from station 364+00 to 364+50, approximately 2800' east of KY 1239. See Contract 3, Dwg. 9. 50'
  - e. 10" water main parallels to KY 144 from station 406+00 to 415+00, approximately 500' east of KY 376. See Contract 3, Dwg. 10. 900'

200'  
 50'  
 250'  
 50'  
 900'  


---

 1450'

Contract 4:

- 1. 8" and 6" water main crossing KY 228 at centerline station 0+50, approximately 150' north of KY 1844. Bore and jack 35 L.F. of 28" encasement pipe. See Contract 4, Dwg. 3 and highway boring crossing detail attached.

- 2. 8" water main crossing KY 228 at centerline station 20+40, approximately 1800' south KY 1844. Bore and jack 33 L.F. of 14" encasement pipe. See Contract 4, Dwg. 3 and highway boring crossing detail attached.
- 3. 8" water main crossing KY 2731 at centerline station 218+50, near the junction of KY 228 and KY 2731. Bore and jack 33 L.F. of 14" encasement pipe. See Contract 4, Dwg. 6 and highway boring crossing detail attached.
- 4. 8" water main crossing KY 228 at centerline station 254+00, approximately 2750' northwest of Vinson Rd. Bore and jack 33 L.F. of 14" encasement pipe. See Contract 4, Dwg. 7 and highway boring crossing detail attached.
- 5. 4" water main crossing KY 228 at centerline station 0+50, approximately 150' north of Pine Ridge Rd. Bore and jack 33 L.F. of 8" encasement pipe. See Contract 4, Dwg. 11 and highway boring crossing detail attached.
- 6. 4" water main crossing KY 2731 at centerline station 0+50, approximately 6400' north of KY144. Bore and jack 30 L.F. of 8" encasement pipe. See Contract 4, Dwg. 18 and highway boring crossing detail attached.
- 7. Various underground utility encroachments along right-of-way.
  - a. 8" water main parallels to KY 228 from station 3+00 to 5+00, approximately 50' south of KY 1844. See Contract 4, Dwg. 3.
  - b. 8" water main parallels to KY 228 from station 15+75 to 18+25, approximately 1325' south of KY 1844. See Contract 4, Dwg. 3.
  - c. 8" water main parallels to KY 228 from station 20+50 to 22+75 approximately 1800' south of KY 1844. See Contract 4, Dwg. 3.
  - d. 8" water main parallels to KY 228 from station 55+50 to 56+50, approximately 5300' south of KY 1844. See Contract 4, Dwg. 4.
  - e. 8" water main parallels to KY 228 from station 112+00 to 112+50, approximately 1850' southeast of Crosier Rd. (Dwg. 4). See Contract 4, Dwg. 5.
  - f. 8" water main parallels to KY 228 from station 131+00 to 139+00, approximately 3750' southeast of Crosier Rd. (Dwg. 4). See Contract 4, Dwg. 5.
  - g. 8" water main parallels to KY 228 from station 168+75 to 169+25, approximately 1600' northwest of Milan Rd. See Contract 4, Dwg. 6.
  - h. 8" water main parallels to KY 228 from station 173+50 to 174+00, approximately 1100' northwest of Milan Rd. See Contract 4, Dwg. 6.
  - i. 8" water main parallels to KY 228 from station 233+75 to 234+50, approximately 1500' southeast of KY 2731. See Contract 4, Dwg. 7.
  - j. 8" water main parallels to KY 228 from station 259+75 to 260+50, approximately 1700' northwest of Vinson Rd. See Contract 4, Dwg. 7.

200'

250'

225'

100'

50'

800'

50'

50'

75'

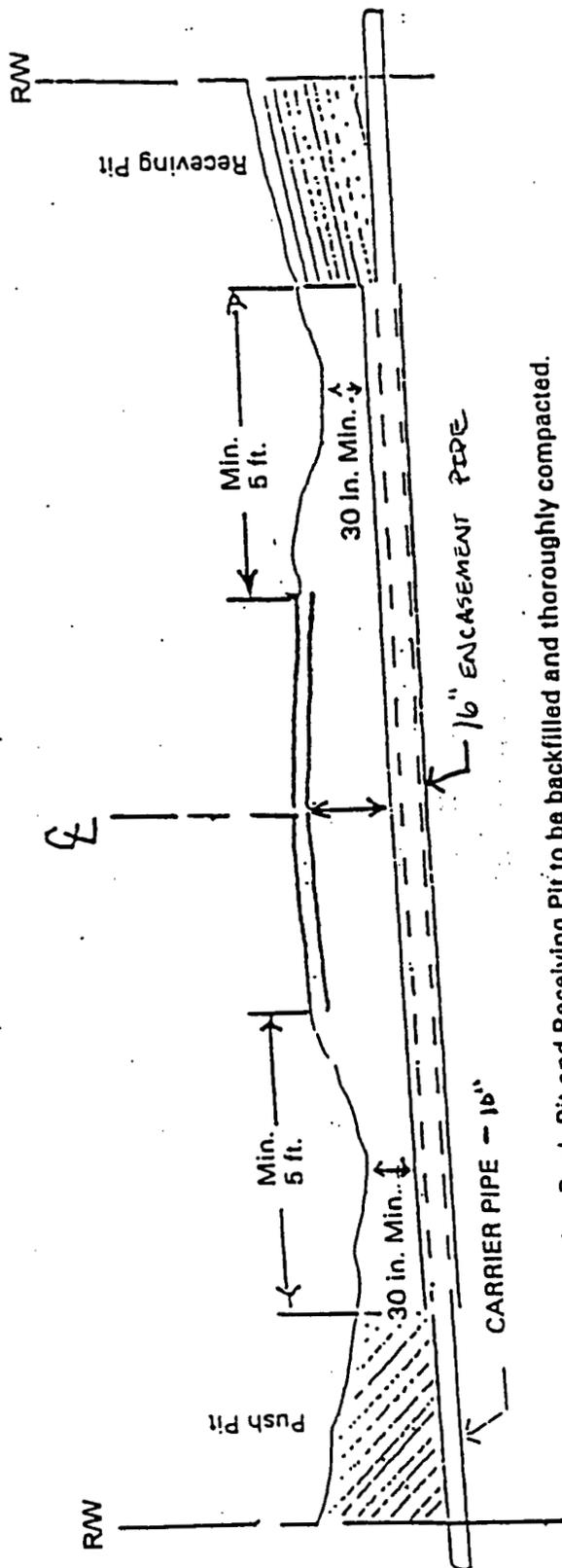
75'

1875'

**Typical Highway Boring Crossing Detail**

SEE: CONTRACT 3, DWG 3  
SEE ALSO: CONTRACT 3, ITEM 1 DESCRIPTION

Permit No. \_\_\_\_\_  
Route No. KY 79  
Pavement Width 23'



1. Push Pit and Receiving Pit to be backfilled and thoroughly compacted.
2. All Ditch Lines to be left open.
3. Seed and straw all areas disturbed by this work.

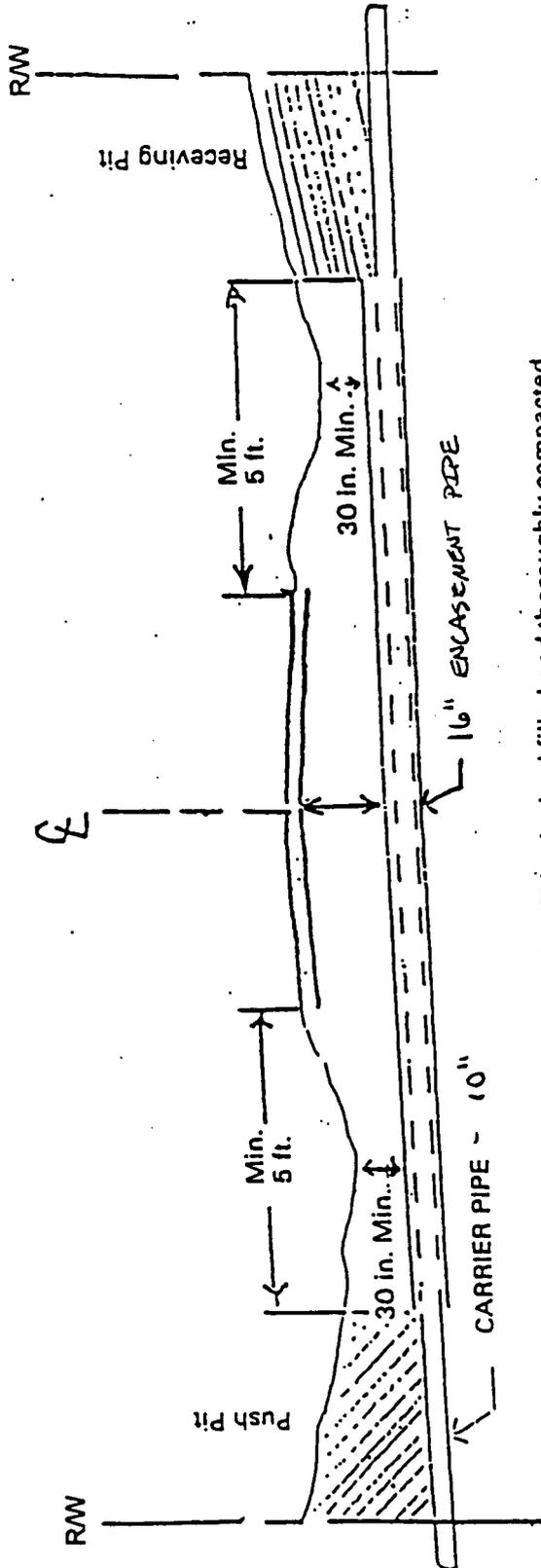
Services over 2" to be encased or exempt under Chapter 2 of the Permits Guidance Manual

E-11

**Typical Highway Boring Crossing Detail**

SEE: CONTRACT 3, DWG. 5  
SEE ALSO: CONTRACT 3, ITEM 2 DESCRIPTION

Permit No. \_\_\_\_\_  
Route No. KY 1692  
Pavement Width 23'



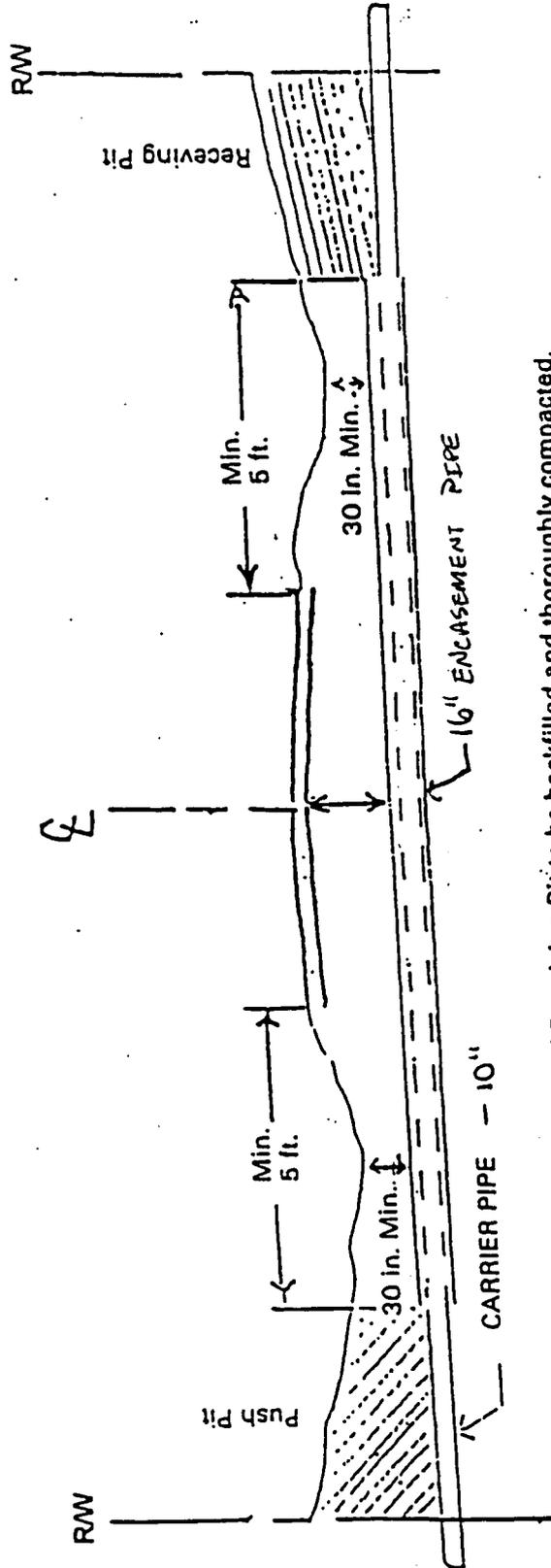
1. Push Pit and Receiving Pit to be backfilled and thoroughly compacted.
2. All Ditch Lines to be left open.
3. Seed and straw all areas disturbed by this work.

Services over 2" to be encased or exempt under Chapter 2 of the Permits Guidance Manual

**Typical Highway Boring Crossing Detail**

SEE: CONTRACT 3, DWG. 6  
SEE ALSO: CONTRACT 3, ITEM 3 DESCRIPTION

Permit No. \_\_\_\_\_  
Route No. KY 2731  
Pavement Width 20'

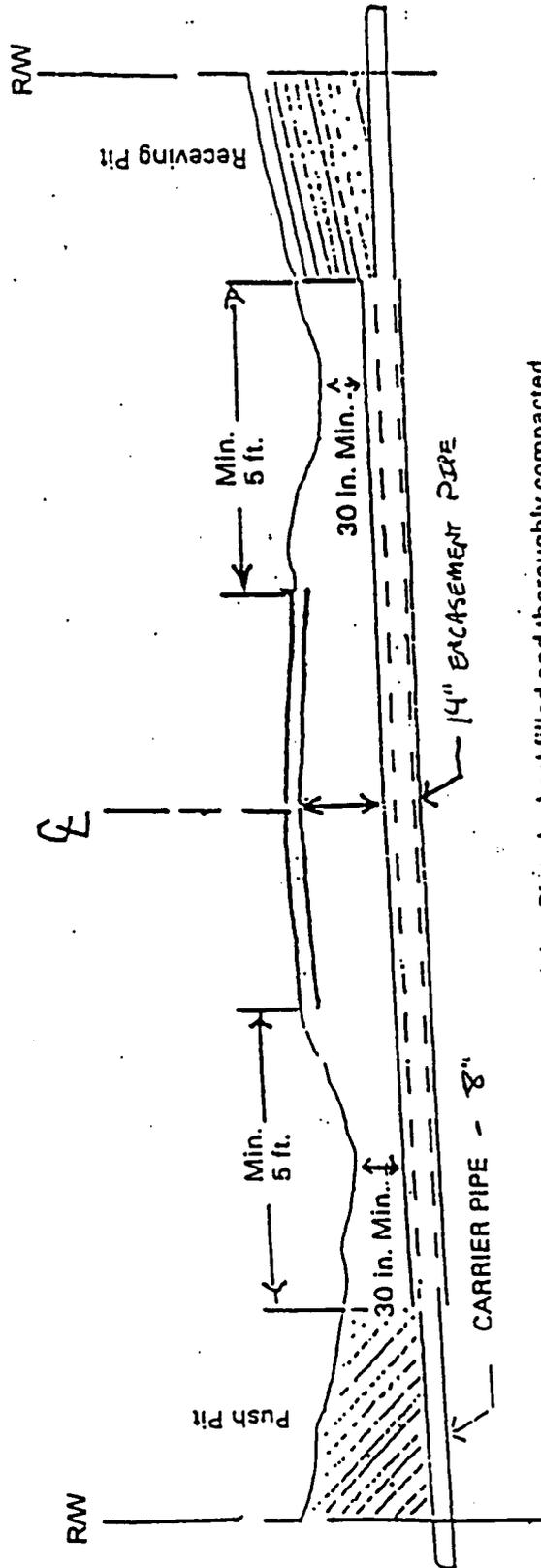


1. Push Pit and Receiving Pit to be backfilled and thoroughly compacted.
2. All Ditch Lines to be left open.
3. Seed and straw all areas disturbed by this work.

Services over 2" to be encased or exempt under Chapter 2 of the Permits Guidance Manual

**Typical Highway Boring Crossing Detail**

SEE: CONTRACT 3, DWG. 12  
SEE ALSO: CONTRACT 3, ITEM 4 DESCRIPTION  
Permit No. \_\_\_\_\_  
Route No. KY 1844  
Pavement Width 23'



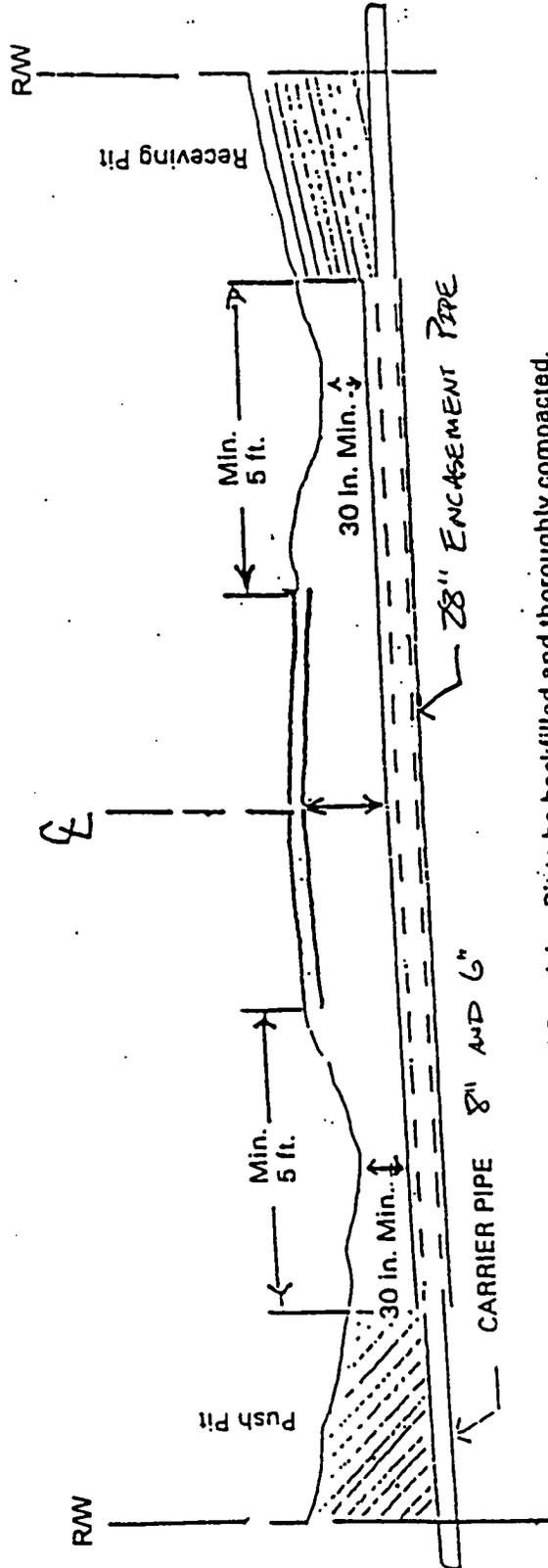
1. Push Pit and Receiving Pit to be backfilled and thoroughly compacted.
2. All Ditch Lines to be left open.
3. Seed and straw all areas disturbed by this work.

Services over 2" to be encased or exempt under Chapter 2 of the Permits Guidance Manual

**Typical Highway Boring Crossing Detail**

SEE: CONTRACT 4, DWG. 3  
SEE ALSO: CONTRACT 4, ITEM 1 DESCRIBED

Permit No. \_\_\_\_\_  
Route No. KY 228  
Pavement Width 25'



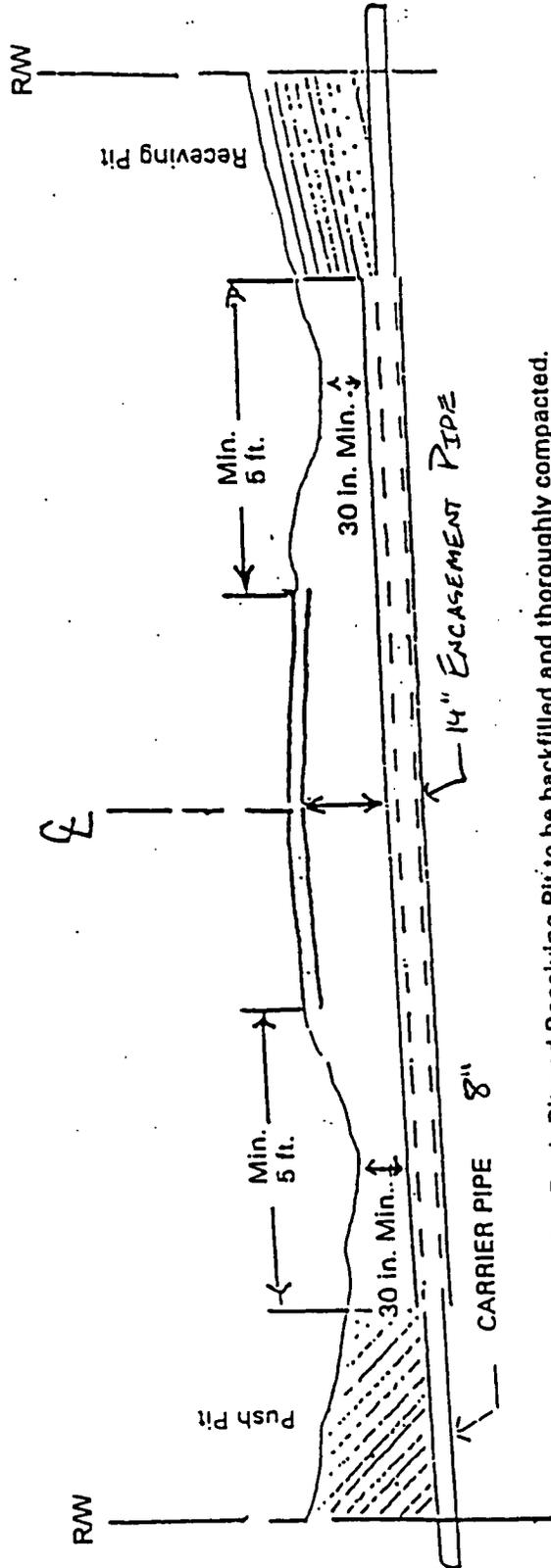
1. Push Pit and Receiving Pit to be backfilled and thoroughly compacted.
2. All Ditch Lines to be left open.
3. Seed and straw all areas disturbed by this work.

Services over 2" to be encased or exempt under Chapter 2 of the Permits Guidance Manual

**Typical Highway Boring Crossing Detail**

SEE: CONTRACT 4, DWG. 3  
SEE ALSO: CONTRACT 4, ITEM 2 DESCRIPTION

Permit No. \_\_\_\_\_  
Route No. KY 228  
Pavement Width 23'



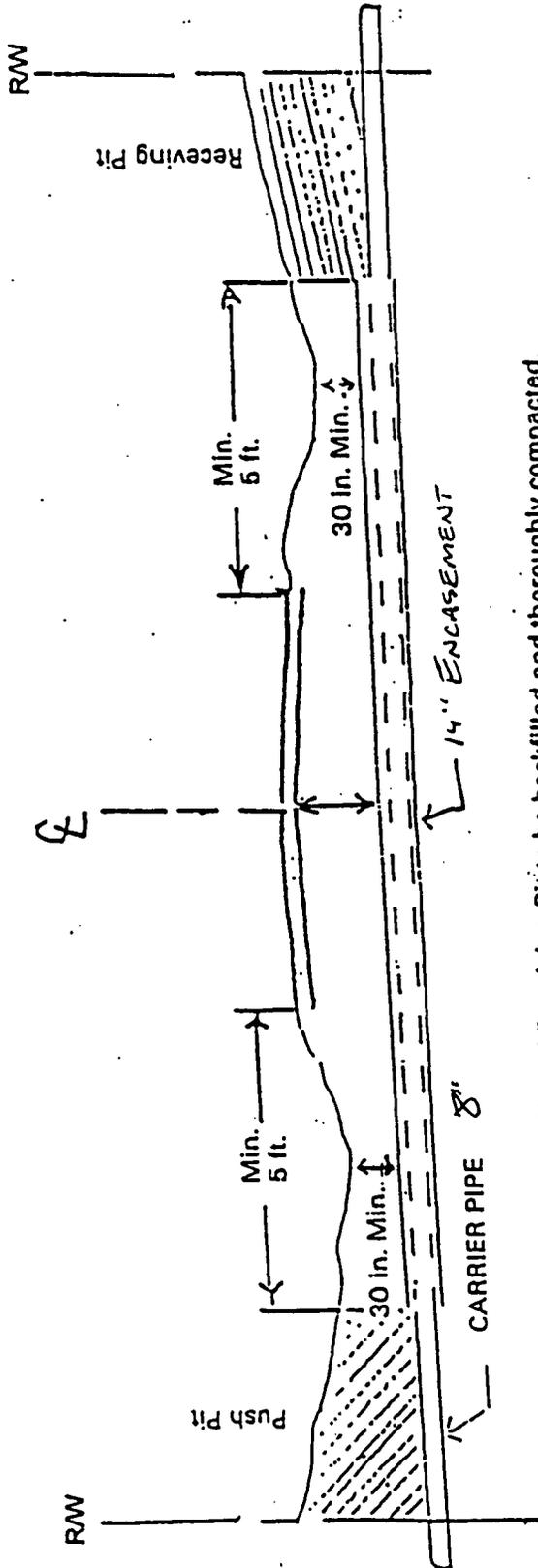
1. Push Pit and Receiving Pit to be backfilled and thoroughly compacted.
2. All Ditch Lines to be left open.
3. Seed and straw all areas disturbed by this work.

Services over 2" to be encased or exempt under Chapter 2 of the Permits Guidance Manual

**Typical Highway Boring Crossing Detail**

SEE: CONTRACT 4, DWG. 4  
SEE ALSO: CONTRACT 4, ITEM 3 DESCRIPTION

Permit No. \_\_\_\_\_  
Route No. KY 2731  
Pavement Width 23'



1. Push Pit and Receiving Pit to be backfilled and thoroughly compacted.
2. All Ditch Lines to be left open.
3. Seed and straw all areas disturbed by this work.

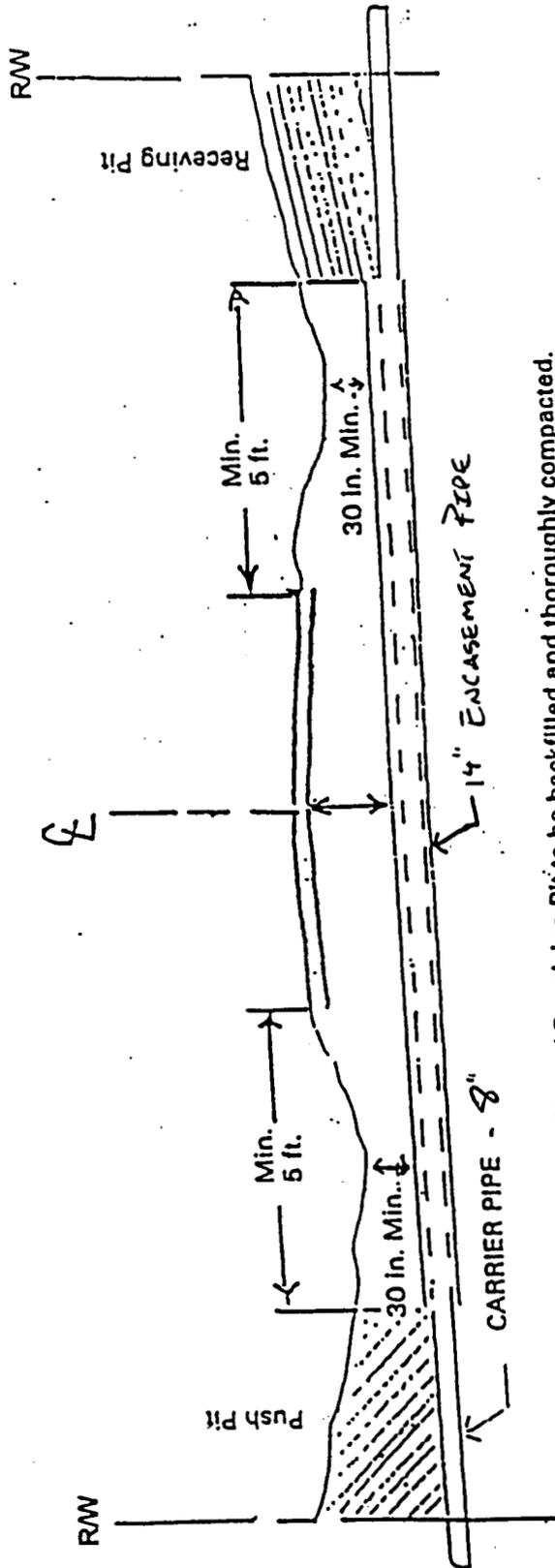
Services over 2" to be encased or exempt under Chapter 2 of the Permits Guidance Manual

**Typical Highway Boring Crossing Detail**

SEE: CONTRACT 4, DWG. 7

SEE ALSO: CONTRACT 4, ITEM 4 DESCRIPTION

Permit No. \_\_\_\_\_  
Route No. KY 228  
Pavement Width 23'



1. Push Pit and Receiving Pit to be backfilled and thoroughly compacted.
2. All Ditch Lines to be left open.
3. Seed and straw all areas disturbed by this work.

Services over 2" to be encased or exempt under Chapter 2 of the Permits Guidance Manual

**Typical Highway Boring Crossing Detail**

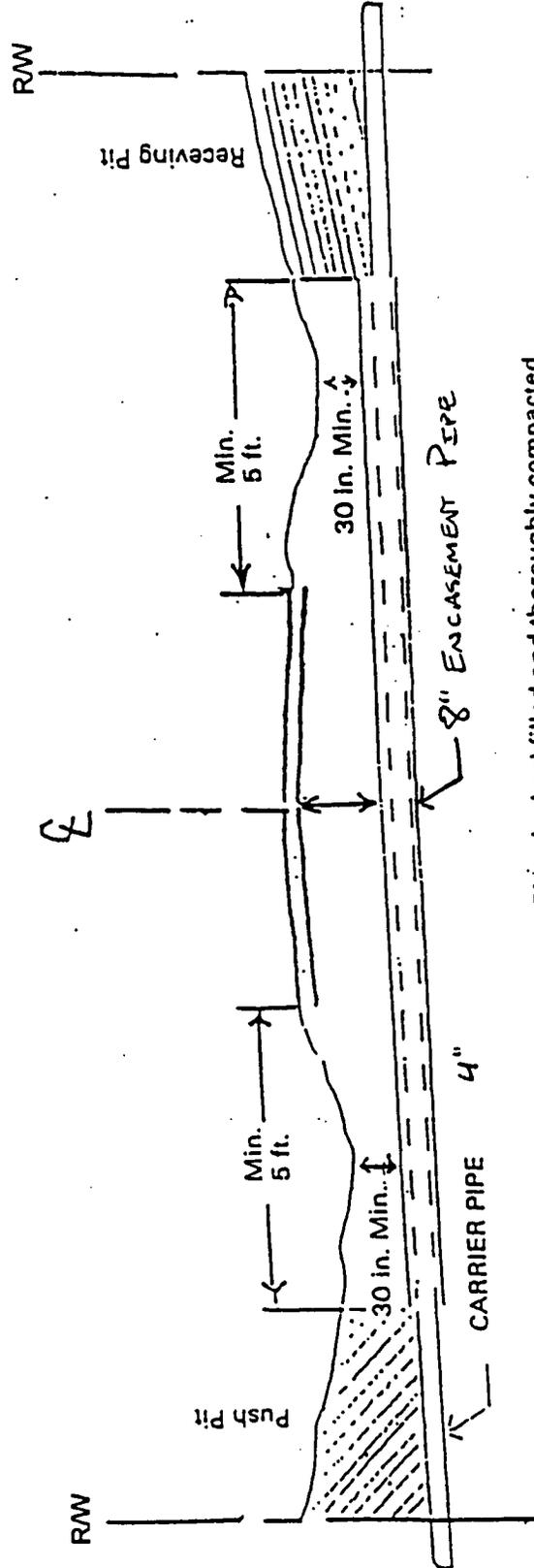
SEE: CONTRACT 4, DWG. 11

SEE ALSO: CONTRACT 4, ITEM 5 DESCRIPTION

Permit No. \_\_\_\_\_

Route No. KY 228

Pavement Width 23'



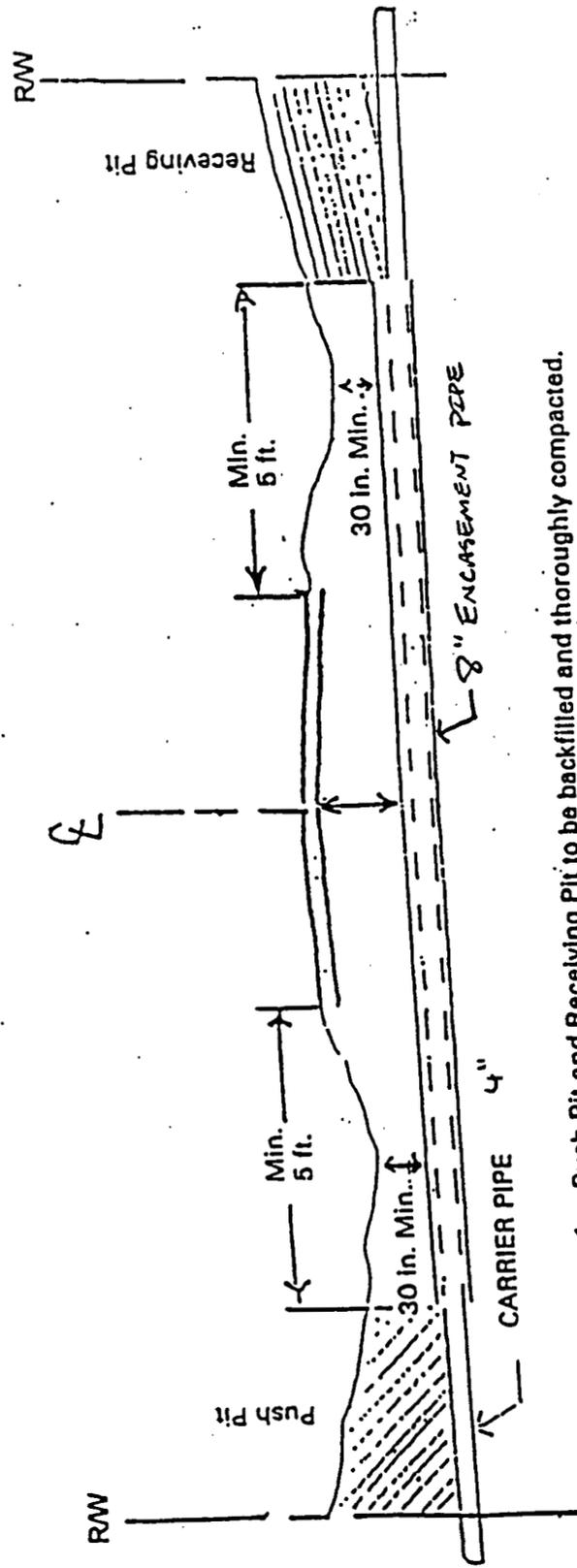
1. Push Pit and Receiving Pit to be backfilled and thoroughly compacted.
2. All Ditch Lines to be left open.
3. Seed and straw all areas disturbed by this work.

Services over 2" to be encased or exempt under Chapter 2 of the Permits Guidance Manual

**Typical Highway Boring Crossing Detail**

SEE: CONTRACT 4, PWG. 18  
 SEE ASS: CONTRACT 4, ITEM 6 DESCRIPTION

Permit No. \_\_\_\_\_  
 Route No. KY 2731  
 Pavement Width 20'



1. Push Pit and Receiving Pit to be backfilled and thoroughly compacted.
2. All Ditch Lines to be left open.
3. Seed and straw all areas disturbed by this work.

Services over 2" to be encased or exempt under Chapter 2 of the Permits Guidance Manual

EXECUTIVE SUMMARY  
 KENTUCKY INFRASTRUCTURE AUTHORITY  
 FUND B1, WATER RESOURCES GRANT  
 FUND C, GOVERNMENTAL AGENCIES PROGRAM

ANALYST: Sandy Williams  
 DATE: 12/4/98

<b>BORROWER:</b>	Meade County Water District - Fund C Loan			
<b>GRANTEE:</b>	Meade County Fiscal Court - Fund B1 Grant			
<b>BRIEF DESCRIPTION:</b>	The Payneville / Battletown water system expansion will extend ~ 30 miles of new water lines to ~ 600 new households.			
<b>PROJECT REFINANCE:</b>		<b>PROJECT BUDGET:</b>		
KIA Fund B1 Grant	\$2,500,000	Acquisition	\$25,000	
KIA Fund C Loan	\$1,704,225	Construction	\$3,462,100	
<b>Total</b>	<b>\$4,204,225</b>	Engineering	\$310,925	
<b>REPAYMENT - FUND C LOAN</b>		Operation & Maint.	\$10,000	
Rate	5.5%	Interest	\$30,000	
Term	20 Years	Legal	\$20,000	
Est. Annual Payment	\$165,676	Contingencies	\$346,200	
Payments Begin 6 months after last draw		<b>Total</b>	<b>\$4,204,225</b>	
<b>Professional Services</b>				
Engineer	Quest Engineers, Inc. Lexington, Kentucky			
Bond Counsel	Peck, Shaffer & Williams			
<b>Project Schedule</b>				
Advertise Bids	June 15, 1999			
Bid Opening	July 15, 1999			
Construction Start	August 15, 1999			
Construction Completion	April 15, 2000			
<b>Other Debt</b>	<b>Prin. Outstanding</b>	<b>Annual Pmt.</b>	<b>Maturity</b>	
USDA - Rural Dev.	\$404,000	\$24,050	2032	
USDA - Rural Dev.	\$454,000	\$33,250	2026	
USDA - Rural Dev.	\$148,000	\$11,490	2026	
Liberty National	\$4,841	\$5,100	1998	
Meade Co. Fiscal Court	\$769,000	\$73,782	2015	
Bank One Leasing	\$12,931	\$8,774	1999	
<b>Other State-Funded</b>	N/A			
<b>Projects in Previous 5 yrs</b>				
<b>Residential Rates</b>	<b>Number of Users</b>	<b>Avg Monthly Bill</b>		
Current	1,809	\$36.30		
New	600	\$36.30		
<b>Jobs</b>	Number of Jobs: N/A			
<b>Cashflow</b>	<b>Cash Avail for</b>	<b>Total Debt</b>	<b>Cashflow</b>	<b>Coverage</b>
	<b>Debt Svc (\$000)</b>	<b>Service (\$000)</b>	<b>(\$000)</b>	<b>Ratio</b>
(Audit) 1995	149,311	76,411	72,900	1.95
(Audit) 1996	279,624	76,826	202,798	3.64
(Audit) 1997	354,479	154,699	199,780	2.29
(Proforma) 1998	403,693	88,225	315,468	4.58
(Proforma) 1999	357,007	146,607	210,400	2.44
(Proforma) 2000	456,189	224,286	231,903	2.03
(Proforma) 2001	533,175	307,565	225,610	1.73

**ATTACHMENT F (continued)**

**PROPOSED FINANCING FOR PAYNEVILLE/BATTLETOWN  
WATER SYSTEM EXPANSION**

1. The KIA Fund C Loan shall not exceed \$1,947,686. The loan amount is based on the project cost financed by this loan, a proportional share of the bond financing expenses and a 10% debt service reserve. This amount will be adjusted based on the actual results of the bond sale. The financing expenses will be a cost to the Meade County Water District for the loan. Construction funds advanced to the District will not exceed \$1,704,225.
2. The loan shall be repaid over a period of 20 years at an annual rate of 5.5% from the date bonds are sold. The estimated annual payment is \$165,676.
3. During the interim loan, advances will be made from proceeds of the Kentucky Infrastructure Authority's Notes in an amount not to exceed the loan amount. Such interim advances shall bear interest at the rate or rates established for the Notes or other source of funding, or from funds available to the Authority for such purposes, until repaid from either borrower revenues or the proceeds of the Assistance Agreement upon issuance of bonds.
4. Prior to the bond sale for the loan, interest shall be payable on the 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 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 shall be due each six months thereafter until the loan is paid. When bonds are sold full principal and interest payments will commence on the following June 1 or December 1. Principal and interest payments will be due each six months thereafter until the loan is repaid.
5. A loan servicing fee of two-tenths of one percent (0.2%) of the annual outstanding loan balance shall be payable to the Authority as a part of each payment after bonds are sold for the project.

**PROJECT FUNDING**

**Funding Sources**

KIA Fund B1 Grant	\$ 2,500,000
KIA Fund C Loan	<u>1,704,225</u>
<b>Total Funding</b>	<b>\$ 4,204,225</b>

Analyst: Sandy Williams  
December 4, 1998

**KENTUCKY INFRASTRUCTURE AUTHORITY  
INFRASTRUCTURE GRANT (FUND B1)  
GOVERNMENTAL AGENCIES PROGRAM (FUND C)  
MEADE COUNTY FISCAL COURT AND MEADE COUNTY WATER DISTRICT  
CREDIT ANALYSIS**

**I. PROJECT DESCRIPTION**

The proposed project will allow the Meade County Water District (MCWD) to extend approximately 30 miles of new water lines into the currently unserved northwest section of Meade County. This project will include a water main that will extend to Payneville along KY 144, continue to Battletown along KY 1844, and return to Brandenburg along KY 228. The proposed project will make potable water available to approximately 600 households that currently use wells and cisterns for their domestic supply.

Land will be purchased for the proposed tank and booster pump station near Payneville and for a pressure-regulating valve near Battletown. These locations have not been finalized.

The Division of Water has not reviewed or approved the plans and specifications. However, a contract for engineering services has been approved by the MCWD and a design kick-off meeting was held on November 19, 1998. The PSC will review the hydraulics of the project and the proposed facilities. By statute they have 5 months to complete their review.

<b>II. <u>PROJECT BUDGET</u></b>	<b>Fund B1</b>	<b>Fund C</b>	<b>Total Project</b>
Acquisition	\$25,000	\$0	\$25,000
Administration & Legal	20,000	0	20,000
Engineering Design *	170,415	41,490	211,905
Engineering Inspection *	0	99,020	99,020
Construction	2,284,585	1,177,515	3,462,100
O & M Reserve	0	10,000	10,000
Capitalized Interest	0	30,000	30,000
Contingencies	0	346,200	346,200
<b>Total Project Cost</b>	<b>\$2,500,000</b>	<b>\$1,704,225</b>	<b>\$4,204,225</b>

\* Based on USDA-RD Fee Scale

**ATTACHMENT H**

**Property to be acquired, detailed estimates by USOA account number**

<u>USOA#</u>	<u>Description</u>	<u>Estimate of Probable Cost</u>
0303	<b>Land</b>	\$ 25,000
0311	<b>Pumps</b>	
	• 400 GPM Pumps for Brandenburg Pumping Station	160,000
0331	<b>Transmission &amp; Distribution Mains, Waterlines &amp; Extensions</b>	
	• 300,000 Gallon Elevated Tank	450,000
	• 400 GPM Booster Pump Station & PRV Vault	291,000
	• PRV Vault	30,000
	• 10-inch PVC Main (41,200 lineal ft.)	858,600
	• 8-inch PVC Main (62,830 lineal ft.)	991,400
	• 6-inch PVC Main (25,870 lineal ft.)	335,800
	• 4-inch PVC Main (33,260 lineal ft.)	345,300

**SKEETERS, BENNETT AND WILSON**

ATTORNEYS AT LAW  
550 W. LINCOLN TRAIL BLVD.  
P.O. BOX 610  
RADCLIFF, KENTUCKY 40160

DONALD E. SKEETERS  
R. TERRY BENNETT  
DAVID T. WILSON II  
DAVID T. GRAY  
LORI A. LODGE-LANE  
TROY A. McPEAK

December 13, 1999

RECEIVED  
DEC 15 1999  
PUBLIC SERVICE  
COMMISSION  
TEL: (502) 351-4404  
FAX: (502) 352-4626  
REAL ESTATE DEPT:  
TEL: (502) 352-4406  
FAX: (502) 352-4421

Public Service Commission  
730 Schenkel Lane  
P.O. Box 615  
Frankfort, Ky 40602

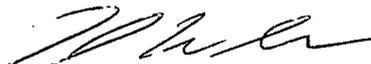
Re: Meade County Water District Application for  
Certificate of Public Convenience and Necessity  
Case No. 99-442

Dear Ms. Bell:

Pursuant to your letter of December 1, 1999 regarding the filing deficiencies in the above referenced action, please find enclosed the necessary documents which you have requested. Should you need additional information, please contact me. Thank you for your cooperation in this matter.

Sincerely,

SKEETERS, BENNETT & WILSON



David T. Wilson II

DTW/dnf  
Enclosure

RECEIVED  
DEC 15 1999  
PUBLIC SERVICE  
COMMISSION

**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY  
IN THE MATTER OF:**

**Meade County Water District Application for Certificate of Public  
Convenience and Necessity**

**Case No. 99-442**

**Responses to Notice of Filing Deficiencies (to be filed with original  
application)**

1. Filing deficiency pursuant to KRS 322.340:

*Response:* Enclosed please find one copy of the preliminary and final engineering report for the project. The final engineering report is signed, sealed and dated by the registered professional engineer. The preliminary report dated September 1998 is unsigned. The Meade County Water District requests that the Commission **waive** the requirement that the preliminary report dated September 1998 be signed, sealed and dated by the registered professional engineer, as the current version of KRS 322.340 came into effect subsequent to the issuing of the September 1998 preliminary design report.

2. Filing deficiencies pursuant to 807 KAR 5:001, Section 6:

*Response:* (Note: All information below in Sections 6(1) through 6(9) covers the period ending more than 90 days prior to the date on which the application was filed. Because the Meade County Water District is audited and issues its financial statements annually, the District requests that the Commission **waive** the requirement that the above-referenced information cover the period ending not more than 90 days prior to the application filing date. When possible, the District has provided information documented subsequent to the December 31, 1998 financial statements.)

(4) Mortgages: *Response:* The Meade County Water District has no outstanding mortgages at this time.

(5) Bonds: *Response:* See "Attachment A" to this document, said attachment being fully incorporated by reference as if fully set out herein.

(6) Notes Outstanding: *Response:* See "Attachment B" to this document, said attachment being fully incorporated by reference as if fully set out herein.

(7) Other Indebtedness: *Response:* See "Attachment C" to this document, said attachment being fully incorporated by reference as if fully set out herein.

(8) Dividends/capital stock information: *Response:* There were no dividends paid and no capital stock on which dividends were paid by the District within the previous five fiscal years.

(9) Income statement and balance sheet: *Response:* A detailed income statement and balance sheet for the District is attached as "Attachment D" to this document, said attachment being fully incorporated by reference as if fully set out herein.

3. Filing deficiency pursuant to 807 KAR 5:001, Section 8(2):

*Response:* Enclosed please find 11 copies of the original application.

4. Filing deficiencies pursuant to 807 KAR 5:001, Section 9(2):

(b) Copies of franchises or permits, if any, from the proper public authority for the proposed new construction or extension: *Response:* Attached as "Attachment E" are copies of proper permits required for the new construction. No franchises are required for this construction.

(d) Copies of maps to suitable scale: *Response:* Enclosed please find two additional maps to suitable scale showing the location of the proposed new construction.

(e) The manner of proposed financing of new construction: *Response:* See "Attachment F" to this document, said attachment being fully incorporated by reference as if fully set out herein.

(f) An estimated cost of operation after the proposed facilities are completed.

**Response:** The projected initial annual Operation and Maintenance Cost for the new system is \$11,222. The operations portion of this cost is based on an initial water demand generated from 317 customers. For the entire Water District, annual Operation and Maintenance Cost is projected to be increased to \$525,000 annually plus the cost of water per new customer. The District obtains its water supply from Hardin County Water District #1 (400,000 gallons/day) and from City of Brandenburg (100,000 gallons/day) at a cost of \$1.15 per 1,000 gallons. This current price is expected to remain at that level.

5. Filing deficiencies pursuant to 807 KAR 5:001, Section 11(1):

(a) Description of applicant's property. **Response:** The Meade County Water District owns the following property (including insurable values for personal property):

- 0.09 acre tract, Flaherty (contains well no longer used); @ \$1,000
- 5.345 acre tract, Brandenburg (site of new office building); \$25,060
- <1.5 acre tract, Flaherty (old Flaherty Water Company); \$33,500
- 2500 sq. ft. tract, Payneville (lift station site); \$1,750
- 1858 sq. ft. tract, Battletown (pressure reducing valve site); \$2,000
- <2.0 acre tract, Payneville (water tank site); \$2,000
- <0.5 acre tract, Brandenburg (pumping station site); \$2,500
- @ 2.0 acre tract, Garrett (water tank site); \$5,000
- Four water pumps: \$2,205 each
- Hydraulic equipment: \$37,500
- Pipe line: \$840,000
- Air compressor: \$500
- 7 ½ HSP: \$1,700
- Sharp copier: \$6,000
- Pump Stations: \$7,500
- Case backhoe: \$42,300
- Kerosene Heaters: \$225

- Pump Station and Contents: \$156,275
- Water Tanks: \$331,800
- Storage Building and contents: \$28,875
- Computer equipment: \$6,077
- Transmission and Distribution Facilities: \$1,526,084
- Waterline Extensions: \$1,749,615
- Trucks: \$113,367
- Buildings: \$12,262

(b) New Bond/Note/Other Indebtedness description. *Response:* See "Attachment F" to this document, said attachment being fully incorporated by reference as if fully set out herein.

(c) Statement of how proceeds are to be used. *Response:* See "Attachment G" to this document, said attachment being fully incorporated by reference as if fully set out herein. "Attachment G" outlines the project budget allocation of grant and loan funds for the new construction referenced herein.

6. Filing deficiencies pursuant to 807 KAR 5:001, Section 11(2):

(b) Copies of all trust deeds or mortgages. *Response:* There are no trust deeds or mortgages on MCWD property.

(d) If property to be acquired, detailed estimates by USOA account number. *Response:* See "Attachment H" to this document, said attachment being fully incorporated by reference as if fully set out herein.

WHEREFORE, the Meade County Water District requests issuance of a Certificate of Public Convenience and Necessity for the construction of facilities to extend water service to the communities of Payneville and Battletown and to upgrade existing facilities.

Dated at Radcliff, Kentucky this 10<sup>th</sup> day of December, 1999.

MEADE COUNTY WATER DISTRICT

By: 

David T. Wilson II  
Counsel for Applicant  
Skeeters, Bennett & Wilson  
550 W. Lincoln Trail Blvd.  
P.O. Box 610  
Radcliff, KY 40160  
(270) 351-4404

I, Jon Whitfield, Chairman of the Meade County Water District, state that I have read and understand the foregoing amended application and that the statements therein are true and accurate to the best of my knowledge.

Jon A. Whitfield  
Jon Whitfield

STATE OF KENTUCKY

COUNTY OF Hardin

Subscribed, sworn to and acknowledged before me by Jon Whitfield on this 7<sup>th</sup> day of December, 1999 to be his free act and deed.

My commission expires: 9-8-2002

Jayne Frank  
Notary Public, Kentucky State at Large

**ATTACHMENT A**

**Bonds of the Meade County Water District**

<u>Amt.</u> <u>Authorized</u>	<u>Amt.</u> <u>Issued</u>	<u>Issuing</u> <u>Utility</u>	<u>Description--</u> <u>Class Issued</u>	<u>Date</u> <u>Issued</u>	<u>Maturity</u> <u>Date</u>	<u>Interest pd.</u> <u>Last FY</u>
(a)\$480,000	\$480,000	MCWD	Series A	6/23/87	2026	\$29,510
(b) 159,000	159,000	MCWD	Series B	6/23/87	2026	\$9,620
(c) 415,000	415,000	MCWD	Series R	2/4/93	2032	\$20,200

**Notes:**

(a) A \$480,000 Series A Waterworks Revenue Bond was authorized and issued by the Meade County Water District on 06/23/87 to finance the 1986 Water District Waterworks construction project.

(b) A \$159,000 Series B Waterworks Revenue Bond was authorized and issued by the Meade County Water District on 06/23/87 to finance the 1986 Water District Waterworks construction project.

For the 1986 Waterworks Revenue Bonds, a first statutory mortgage lien upon the Meade County Water District's waterworks System per KRS 106.080 and the 1986 Meade County Water District Bond Resolution, to and in favor of the registered owner of the Bond, the Farmer's Home Administration of the United States Department of Agriculture. The waterworks System,

**ATTACHMENT A (continued)**

all appurtenances thereof, and all extensions, additions, and improvements thereto, remain subject to said statutory lien (in addition to a waterworks revenue pledge) until payment in full of the principal of and interest on these Bonds.

(c) A \$415,000 Series R Waterworks Revenue Bond was authorized and issued by the Meade County Water District on 02/04/93 to finance the 1992 Water District Waterworks construction project.

A first statutory mortgage lien has been created and granted by the Meade County Water District in the District's 1992 Bond Resolution, and more specifically by KRS 106.080, to and in favor of the registered owner of the Bond, the Farmer's Home Administration of the United States Department of Agriculture, ranking on a parity with the 1986 Waterworks Bonds. The District's waterworks System, all appurtenances thereof, and all extensions, additions, and improvements thereto, remain subject to said statutory mortgage lien (in addition to a waterworks revenue pledge) until payment in full of the principal of and interest on the 1986 Bonds and the 1992 Bond.

MEADE COUNTY WATER DISTRICT  
 SUPPLEMENTAL SCHEDULE  
 WATER WORKS REVENUE BONDS OF 1986  
 DECEMBER 31, 1998

<u>YEAR</u>	<u>Principal Installments, Series A Bonds</u>	<u>Principal Installments, Series B Bonds</u>	<u>Total Annual Principal Installments</u>
1999	\$ -0-	\$ -0-	\$ -0-
2000	4,000	2,000	6,000
2001	5,000	2,000	7,000
2002	5,000	2,000	7,000
2003	6,000	2,000	8,000
2004	6,000	2,000	8,000
2005	7,000	3,000	10,000
2006	7,000	3,000	10,000
2007	8,000	3,000	11,000
2008	9,000	4,000	13,000
2009	10,000	4,000	14,000
2010	10,000	4,000	14,000
2011	11,000	4,000	15,000
2012	12,000	5,000	17,000
2013	14,000	5,000	19,000
2014	15,000	5,000	20,000
2015	16,000	6,000	22,000
2016	18,000	6,000	24,000
2017	19,000	6,000	25,000
2018	21,000	6,000	27,000
2019	23,000	7,000	30,000
2020	25,000	8,000	33,000
2021	27,000	9,000	36,000
2022	30,000	9,000	39,000
2023	32,000	9,000	41,000
2024	35,000	10,000	45,000
2025	36,000	10,000	46,000
2026	39,000	10,000	49,000
	<u>\$ 450,000</u>	<u>\$ 146,000</u>	<u>\$ 596,000</u>

"ATTACHMENT A" (continued)

MEADE COUNTY WATER DISTRICT  
SUPPLEMENTAL SCHEDULE  
WATER WORKS REVENUE BONDS OF 1992  
DECEMBER 31, 1998

<u>YEAR</u>	<u>Principal Installments, Series A Bonds</u>
1999	\$ -0-
2000	4,000
2001	4,000
2002	4,000
2003	4,000
2004	5,000
2005	5,000
2006	5,000
2007	6,000
2008	6,000
2009	6,000
2010	7,000
2011	7,000
2012	8,000
2013	8,000
2014	9,000
2015	9,000
2016	10,000
2017	11,000
2018	11,000
2019	13,000
2020	13,000
2021	14,000
2022	15,000
2023	16,000
2024	17,000
2025	18,000
2026	20,000
2027	20,000
2028	22,000
2029	23,000
2030	25,000
2031	27,000
2032	29,000
	<hr/>
	\$ 401,000
	<hr/>

**ATTACHMENT B**

**Outstanding Notes of the Meade County Water District**

<u>Amount Of Note</u>	<u>Note Holder</u>	<u>Date Issued</u>	<u>Maturity Date</u>	<u>Interest Rate</u>	<u>Interest pd. Last FY</u>
\$480,000*	FHA**	6/23/87	2026	6.5%	\$29,510
\$159,000*	FHA**	6/23/87	2026	6.5%	\$9,620
\$415,000*	FHA**	2/4/93	2032	5.0%	\$20,200
\$795,000	Meade Co. Fiscal Court	11/1995	11/2015	6.174%	\$46,782

**Notes: \*** These notes are obligation to repay under the 1986 and 1992 Waterworks Revenue Bonds described in Attachment A of this document.

**\*\*** "FHA" is the Farmer's Home Administration of the U.S. Dept. of Agriculture.

"ATTACHMENT B" (continued)

MEADE COUNTY WATER DISTRICT  
 SUPPLEMENTAL SCHEDULE  
 NOTE PAYABLE TO MEADE COUNTY FISCAL COURT  
 DECEMBER 31, 1998

<u>YEAR</u>	<u>Principal Payments</u>	<u>Interest and Fees</u>	<u>Projected Annual Total Payments</u>
1999	\$ 29,000	\$ 45,064	\$ 74,064
2000	30,000	43,248	73,248
2001	32,000	41,344	73,344
2002	33,000	39,343	72,343
2003	35,000	37,254	72,254
2004	37,000	35,042	72,042
2005	38,000	32,732	70,732
2006	40,000	30,334	70,334
2007	42,000	27,813	69,813
2008	45,000	25,143	70,143
2009	47,000	22,313	69,313
2010	49,000	19,360	68,360
2011	52,000	16,258	68,258
2012	54,000	12,996	66,996
2013	57,000	9,585	66,585
2014	60,000	5,989	65,989
2015	62,000	2,233	64,233
	<u>\$ 742,000</u>	<u>\$ 446,051</u>	<u>\$ 1,188,051</u>

See Note 2 in the financial statements.

**ATTACHMENT C**

**Other Indebtedness of the Meade County Water District**

<u>Amount Of Debt</u>	<u>Lease Holder</u>	<u>Date Issued</u>	<u>Maturity Date</u>	<u>Interest Rate</u>	<u>Interest pd. Last FY</u>
\$43,900	Meade Co. Bank	2/98	2/2002	6.60%	\$1,927

**Note:** During February 1998, the District entered into a capital lease agreement with Meade County Bank for \$43,900 to purchase one (1) GMC C74012 1998 Dump Truck. This is a 48-month capital lease at 6.60%.

MEADE COUNTY WATER DISTRICT  
BALANCE SHEET  
DECEMBER 31, 1998

<u>ASSETS</u>	<u>1998</u>
Current Assets:	
Cash	\$ 269,616
Prepaid Insurance	7,025
Accounts Receivable	69,181
Inventory - Water	3,200
Inventory - Parts	31,410
	<hr/>
Total Current Assets	380,432
	<hr/>
Fixed Assets:	
Transmission and Distribution Facilities	1,526,084
Waterline Extensions	1,749,615
Equipment	332,912
Trucks	113,367
Buildings	12,262
	<hr/>
	3,734,240
Less accumulated depreciation	<hr/>
	(780,066)
	<hr/>
Net Fixed Assets	2,954,174
	<hr/>
Other Assets:	
Land	43,560
	<hr/>
Total Other Assets	43,560
	<hr/>
<b>TOTAL ASSETS</b>	<b>\$ 3,378,166</b>
	<hr/> <hr/>

The notes to the financial statements are an integral part of this statement.

"ATTACHMENT D'" (continued)

MEADE COUNTY WATER DISTRICT  
BALANCE SHEET (CONTINUED)  
DECEMBER 31, 1998

<u>LIABILITIES AND EARNINGS</u>	<u>1998</u>
Current Liabilities:	
Accounts Payable	\$ 38,307
Notes payable - Current Portion	43,988
Customer Deposits	13,462
Accrued Expenses	5,555
Accrued Retirement Payable	1,509
Accrued Wages	2,782
Accrued Vacation & Sick Leave	25,999
	<hr/>
Total Current Liabilities	131,602
	<hr/>
Long-Term Liabilities:	
Notes Payable	1,734,302
	<hr/>
Total Liabilities	1,865,904
	<hr/>
Retained Earnings:	
Contributed Capital in Aid of Construction	752,369
Retained Earnings	759,893
	<hr/>
Retained Earnings	1,512,262
	<hr/>
<b>TOTAL LIABILITIES AND RETAINED EARNINGS</b>	<b><u><u>\$ 3,378,166</u></u></b>

The notes to the financial statements are an integral part of this statements.

"ATTACHMENT D" (continued)  
**MEADE COUNTY WATER DISTRICT**  
**STATEMENTS OF REVENUE, EXPENSES, AND RETAINED EARNINGS**  
**FOR THE YEAR ENDED DECEMBER 31, 1998**

	1998
Revenues:	
Water Service	\$ 788,114
Operating Expenses:	
Water test	4,987
Meter and meter installations	2,462
Tools	1,873
Testing supplies	893
Depreciation expense	119,324
Payroll taxes	12,605
Utility tax	20,992
Other taxes and licenses	2,441
Salaries and wages	167,236
Commissioners pay	10,800
Employees pension and benefits	11,346
Water purchase	143,119
Purchased power	13,128
Repairs and maintenance	19,421
Billing expense	7,743
Materials and supplies	4,583
Engineering fees	55,654
Professional fees	4,900
Contractual services	2,677
Transportation expense	21,658
Health insurance	23,916
Other insurance	13,983
Bad debts	9,950
Advertising	962
Public service assessment	1,282
Equipment rental	8,405
Rent	4,500
Office supplies	3,412
Uniforms	3,880
Communications	939
Telephone	3,901
Dues, fees and training	1,948
Gravel	2,800
Miscellaneous	5,152
Total Operating Expenses	712,872
Operating Income (Loss)	75,242
Nonoperating revenue (expenses)	
Interest Income	12,525
Meter Hook-up Fees	87,050
State Grant	34,649
Debt service-interest	(100,919)
Total Nonoperating revenues (expenses)	33,305
Net Income	108,547
Retained Earnings, January 1, 1998	651,346
Retained Earnings, December 31, 1998	\$ 759,893

The notes to the financial statements are an integral part of this statements.

MEADE COUNTY WATER DISTRICT  
 STATEMENTS OF CASH FLOWS  
 YEAR ENDED DECEMBER 31, 1998

	<u>1998</u>
Cash Flow From Operating Activities	
Net Income (Loss)	\$ 108,547
Adjustments To Reconcile Net Income To Net Cash Provided By Operations:	
Depreciation	119,324
(Increase) Decrease In:	
Accounts Receivable	(9,540)
Inventory	(9,187)
Prepaid Expenses	466
Increase (Decrease) In:	
Accounts Payable	20,007
Customer Deposits	800
Accrued Liabilities	<u>6,215</u>
Net Cash Provided By (Used By) Operating Activities	<u>236,632</u>
Cash Flows From Investing Activities	
Purchase of Land	(25,060)
Purchases of Fixed Assets	<u>(162,754)</u>
Net Cash Provided By (Used By) Investing Activities	<u>(187,814)</u>
Cash Flows From Financing Activities	
Current -	3,671
Long-Term	<u>(18,153)</u>
Net Cash Provided By (Used By) Financing Activities	<u>(14,482)</u>
Net Increase (Decrease) in Cash	34,336
Cash at January 1, 1998	<u>235,280</u>
Cash at December 31, 1998	<u><u>\$ 269,616</u></u>
Supplemental Disclosures:	
Cash paid for interest	<u><u>\$ 100,919</u></u>

The notes to the financial statements are an integral part of this statement.

"ATTACHMENT D" (continued)  
**MEADE COUNTY WATER DISTRICT**  
**STATEMENTS OF REVENUE, EXPENSES, AND RETAINED EARNINGS -**  
**BUDGETED AND ACTUAL**  
**FOR THE YEAR ENDED DECEMBER 31, 1998**

	<u>Budgeted</u>	<u>Actual</u>	Variance - Favorable (Unfavorable)
Revenues:			
Water Service	\$ 787,000	\$ 788,114	\$ 1,114
Operating Expenses:			
Water test	5,030	4,987	43
Meter and meter installations	2,500	2,462	38
Tools	1,900	1,873	27
Testing supplies	1,000	893	107
Depreciation expense	120,000	119,324	676
Payroll taxes	13,000	12,605	395
Utility tax	21,000	20,992	8
Other taxes and licenses	2,500	2,441	59
Salaries and wages	168,000	167,236	764
Commissioners pay	10,800	10,800	-0-
Employees pension and benefits	11,400	11,346	54
Water purchase	143,500	143,119	381
Purchased power	14,400	13,128	1,272
Repairs and maintenance	20,000	19,421	579
Billing expense	8,000	7,743	257
Materials and supplies	5,000	4,583	417
Engineering fees	56,000	55,654	346
Professional fees	5,000	4,900	100
Contractual services	2,800	2,677	123
Transportation expense	22,000	21,658	342
Health insurance	24,000	23,916	84
Other insurance	14,000	13,983	17
Bad debts	10,000	9,950	50
Advertising	1,000	962	38
Public service assessment	1,300	1,282	18
Equipment rental	8,500	8,405	95
Rent	4,600	4,500	100
Office supplies	3,500	3,412	88
Uniforms	3,900	3,880	20
Communications	950	939	11
Telephone	4,000	3,901	99
Dues, fees and training	2,000	1,948	52
Gravel	2,900	2,800	100
Miscellaneous	5,300	5,152	148
Total Operating Expenses	<u>719,780</u>	<u>712,872</u>	<u>6,908</u>
Operating Income (Loss)	67,220	75,242	8,022
Nonoperating revenue (expenses)			
Interest Income	12,250	12,525	275
Meter Hook-up Fees	87,000	87,050	50
State grant	34,650	34,649	(1)
Debt service-interest	<u>(101,000)</u>	<u>(100,919)</u>	<u>81</u>
Total Nonoperating revenues (expenses)	<u>32,900</u>	<u>33,305</u>	<u>405</u>
Net Income (Loss)	100,120	108,547	8,427
Retained Earnings, January 1, 1998	<u>651,346</u>	<u>651,346</u>	<u>-0-</u>
Retained Earnings, December 31, 1998	<u>\$ 751,466</u>	<u>\$ 759,893</u>	<u>\$ 8,427</u>

The notes to the financial statements are an integral part of this statement.

JAMES E. BICKFORD  
SECRETARY

PAUL E. PATTON  
GOVERNOR



COMMONWEALTH OF KENTUCKY  
**NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET**  
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

FRANKFORT OFFICE PARK  
14 REILLY RD  
FRANKFORT KY 40601  
September 24, 1999

Meade County Water District  
3600 Flaherty Road  
Vine Grove, Kentucky 40175

RE: DW #0820369-99-009  
WLE, Storage Tank, Pump Sta.  
Payneville-Battletown Water Sys  
Meade County, Kentucky

Dear Sirs:

We have reviewed the plans and specifications for the above referenced project. The plans include approximately 163,160 feet of 10-inch, 8-inch, 6-inch and 4-inch PVC water line. This is to advise that plans and specifications covering the above referenced subject are APPROVED with respect to sanitary features of design as of this date with the following stipulations:

1. If PVC piping is used, it must be NSF approved and manufactured in accordance with ASTM standards.
2. All dead end lines must be provided with a properly sized blow-off assembly, flush hydrant or fire hydrant (minimum 2 1/2 inch diameter outlet) for flushing purposes.
3. New or repaired water distribution lines shall not be placed into service until bacteriological samples taken at the points specified in 401 KAR 8:150 Section 4 (2) are examined and are shown to be negative following disinfection.
4. The gate valve/fire hydrant configuration shall be set up in the order as shown on page four of contract 2.
5. A minimum pressure of 30 psi must be available on the discharge side of all meters.
6. Appropriate measures shall be taken to insure that the one customer located at node 495 in your network will be provided with adequate pressure. A proposal to do this shall be submitted to this office.



Payneville-Battletown Water System  
September 24, 1999  
Page two

7. The storage tank vent shall be screened to prevent the ingress of birds, animals and insects and shall be of a design to prevent freezing that may restrict the flow of air.
8. The minimum size of water main for providing fire protection and serving fire hydrants shall be six inch diameter. Larger size mains will be required, if necessary, to allow the withdrawal of the required fire flow while maintaining the minimum residual pressure. Hydrants on lines either less than six inches in diameter or served by other lines less than six inches in diameter shall be for flushing purposes only.
9. When this project is completed, the owner shall submit a written certification to the Division of Water that the above referenced water supply facilities have been constructed and tested in accordance with the approved plans and specifications and the above stipulations. Such certification shall be signed by a registered professional engineer.

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

Unless construction of this project is begun within one year from the date of approval, the approval shall expire. If you have any questions concerning this project, please contact Brian Howell at 502/564-2225, extension 574.

Sincerely,



Vicki L. Ray, Branch Manager  
Drinking Water Branch  
Division of Water

VLR:BKH:lm

Enclosures

Payneville-Battletown Water System  
September 24, 1999  
Page three

C: Quest Engineers  
Meade County Health Department  
Public Service Commission  
Louisville Regional Office  
Drinking Water Files



Commonwealth of Kentucky  
**Transportation Cabinet**  
Department of Highways, District Four  
634 East Dixie, P.O. Box 309  
Elizabethtown, KY 42702-0309  
502/766-5066 (Fax) 502/766-5069

**James C. Codell, III**  
Secretary of Transportation

**Paul E. Patton**  
Governor

**T. Kevin Flanery**  
Deputy Secretary

August 17, 1999

MEADE COUNTY WATER DISTRICT  
3600 FLAHERTY ROAD  
VINE GROVE, KY 40175

SUBJECT: Meade County, MP-82-144-10  
KY 144 ()  
Permit Number 04-0565-99

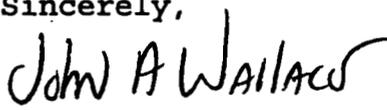
Dear JOANN THOMAS:

Your application for an encroachment permit has been approved by the Department of Highways. We are returning two copies of the approved permit so one may be kept in your record files. The other copy must be given to the party responsible for completing the project and must be kept at the jobsite at all times.

Please see that the work is done in strict conformity with the permit and any other applicable conditions (See Form TC99-21 and any other attached documents, conditions or specifications). The work should be completed no later than July 1, 2001. When the permitted work and any necessary restoration have been completed please notify this office by using the attached form which will serve as notification for final inspection.

If there are any questions regarding this permit, please do not hesitate to contact John A. Wallace, Permits Engineer, at 502-766-5066 or fax number 502-766-5069.

Sincerely,

*for*   
S.R. Smith  
Chief District Engineer  
Department of Highways  
District 4 -Elizabethtown  
Post Office Box 309  
Elizabethtown, KY 42702-0309

**KENTUCKY TRANSPORTATION CABINET**  
 Department of Highways  
 Permits Branch

E-5  
 TC 99-1  
 Rev. 7/95

Released Date \_\_\_\_\_

**ENCROACHMENT PERMIT**

PERMIT NO. 04-0564-99

**APPLICANT IDENTIFICATION:**  
 NAME: Meade County Water District  
 CONTACT PERSON: Joann Thomas  
 ADDRESS: 4135 Flaherty Rd.  
 CITY: Vine Grove  
 STATE: KY ZIP CODE: 40175  
 PHONE: area code ( 502 ) 828-3399

**PROJECT IDENTIFICATION:**  
 ACCESS CONTROL  By Permit  Partial  Full  
 COUNTY: Meade PRIORITY ROUTE NO: Ky. 144  
 MILEPOINT: Various See attach  Left  Right  X-ing  
 PROJECT STATUS:  Maint.  Const.  Design  
 PROJECT # STATE: MP082-0144-10.0  
 PROJECT # FEDERAL: N/A  
 ROAD/ STREET NAME: See attached

**TYPE OF ENCROACHMENT:**  
 **COMMERCIAL ENTRANCE - BUSINESS** See attached  
 **PRIVATE ENTRANCE:**  Single Family  Farm  
 **UTILITY:**  Overhead  Underground  
 **GRADE:**  Fill  Landscape on R/W  
 **AIRSPACE:**  Agreement  Lease  
 **OTHER: (Specify)** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**ATTACHMENTS:**  
 Standard Drawings (List on TC 99-21 under Misc.)  
 Applicant's Plans  
 Highway Plan and Profile Sheets  
 TC 99-3 (Ponding Encroachment Specs. & Conditions)  
 TC 99-4 (Rest Area Usage Specs. & Conditions)  
 TC 99-5 (Tree Cutting/Trimming Specs. & Conditions)  
 TC 99-8 (Chemical Use of Specs. & Conditions)  
 TC 99-10 (Typical Hwy. Boring Crossing Detail)  
 TC 99-12 (Overhead Utility Encroachment Diagram)  
 TC 99-13 (Surface Restoration Methods)  
 TC 99-21 (Encroachment Permit General Notes & Specs.)  
 TC 99-22 (Agreement for Services to be Performed)  
 TC 99-23 (Mass Transit Shelter Specs. & Conditions)  
 Other Attachments (Specify):  
Highway Boring Crossing Detail  
Brief Description of Work  
 \_\_\_\_\_  
 \_\_\_\_\_

**TYPE OF INDEMNITY:**  Bond  Cash  
 SELF-INSURED AMOUNT ENCUMBERED \$ 50,000  
 OTHER \_\_\_\_\_

**NAME AND ADDRESS OF LOCAL INSURANCE AGENCY OR SELF-INSURED REPRESENTATIVE:** \_\_\_\_\_

**INDEMNITY:** The applicant, in order to secure this obligation, has deposited with the Transportation Cabinet as a guarantee of conformance with the Department's Encroachment Permit requirements, an indemnity in the amount of \$ \_\_\_\_\_ as determined by the Department. It shall be the responsibility of the applicant or permittee, his heirs and assignees to keep all indemnities in full force until construction or reconstruction has been completed and duly accepted by an authorized agent of the Transportation Cabinet, Department of Highways.

**BRIEF DESCRIPTION OF WORK TO BE DONE:** (If private entrance, show sketch with pipe location. Separate attached drawings required for encroachments other than private entrances.)  

SEE ATTACHED.  
*Paralleldines to be a maximum of 5' on State R/W.  
 Plans filed in drawer.*

**IMPORTANT (PLEASE READ):** Applicant  does  does not intend to apply for excess R/W

When the work is completed in accordance with the terms of this encroachment permit, your idemnity will be released. However, the permit is effective until revoked by the Transportation Cabinet and the terms on the permit accompanying permit documents and drawings remain in effect as long as the encroachment exists. **FUTURE MAINTENANCE OF THE ENCROACHMENT IS THE RESPONSIBILITY OF THE PERMITTEE.** It is important that you understand the requirements of this encroachment permit application and accompanying documents. If you have not done so, it is suggested that you review these documents and place the permit package in a safe place for future reference.

A copy of this permit and all documents shall be given to your contractor and shall be readily available at the work site for the encroachment permit inspector to review at all times. Failure to meet this requirement may result in cancellation of this permit.

**IN THE EVENT THIS APPLICATION IS APPROVED, THIS DOCUMENT SHALL CONSTITUTE A PERMIT FOR THE APPLICANT TO USE THE RIGHT-OF-WAY, BUT ONLY IN THE MANNER AUTHORIZED BY THIS DOCUMENT AND REGULATIONS OF THE DEPARTMENT AND THE DRAWINGS, PLANS, ATTACHMENTS, AND OTHER PERTINENT DATA ATTACHED HERETO AND MADE A PART HEREOF.**

PERMIT NO. \_\_\_\_\_

KENTUCKY TRANSPORTATION CABINET  
Department of Highways  
Permits Branch

TC 99-21  
Rev. 12/95  
Page 1 of 4

**ENCROACHMENT PERMIT GENERAL NOTES & SPECIFICATIONS**

**I. SAFETY**

A. General Requirements

- 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 ditchline areas of a state highway is to 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 is to be blocked or obstructed during normal working hours. All signs and flagmen during lane closure shall conform to the Manual on Uniform Traffic Control Devices.
- When it is necessary to block one (1) traveled-lane of a state highway, the normal working hours shall be as directed by the Department. No lanes are to be blocked or obstructed during adverse weather conditions (i.e., rain, snow, fog, etc.) without specific permission from the Department. Working hours shall be between \_\_\_\_\_ and \_\_\_\_\_.
- 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 will 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 Kentucky Department of Mines and Minerals, Explosive Division.

C. Other Safety Requirements

**II. UTILITIES**

- \*All work necessary within the right-of-way shall be 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 control of access immediately restored to original condition, in accordance with applicable Kentucky Department of Highways Standard Drawings.
- \*All vents, valves, manholes, etc. are to be located outside 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 30" deep.
- Encasement 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 30" cover above top of pipe or conduit. (30" preferred)
- All pavement cuts shall be restored per Kentucky Transportation Cabinet Form No. 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 Fahrenheit).
- The 30' clear zone requirement will be met to the extent possible in accordance with Chapter 99-02.0313 of the Permits Manual.
- Special Requirements:

\*Applies to Fully Controlled Access Highways ONLY

Permit No.

**VI. PAVING**

- No bituminous pavement is to be installed within the right-of-way between November 15 and April 1, nor when the temperature is below 40°F, without the express consent of the Department. No bituminous pavement is to 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 accommodate 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 Specifications for Road and Bridge Construction, latest edition.
- 24 hours notice to the Department is required prior to beginning paving operations:
 

Phone: \_\_\_\_\_ Name \_\_\_\_\_
- To insure proper surface drainage the new pavement is to be flush with the edge of existing highway pavement and is to slope away from the existing edge of the pavement as specified on 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 pavement.

**VII. SIDEWALKS SPECIFICATIONS**

**A. New Sidewalks**

- Sidewalks are to be constructed of Class A concrete (3,500 p.s.i. test), are to be \* \_\_\_\_\_ feet in width, are to be 6" in thickness across the bituminous entrance and 4" in thickness across the remaining sections.
  - Sidewalks are to have tooled joints, not less than 1" in depth at four (4) foot intervals, and 1/2 premolded expansion joints extending entirely through the sidewalk at intervals not to exceed fifty (50) feet.
- \* This dimension should be equal to the width of the sidewalk
- All materials and methods of construction, including curing, is to be in accordance with 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 is not to be blocked or obstructed, and a usable walkway is to be maintained across the construction area at all times.
- All damaged sections of the sidewalks are to be entirely replaced to match existing sections.

**VIII. DENSE GRADED SHOULDERS**

- Any existing dense graded aggregate shoulders in the entire frontage within the construction area, which have been disturbed, damaged, or on which dirt has been placed or mud is deposited or tracked, are to 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 on the plan are to consist of 5" compacted dense graded aggregate 2 1/2 pounds per square yard calcium chloride.
- All dense graded aggregate shoulders are to slope away from the new edge of pavement at the rate of 3/4" 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 of the rolled curb type with a minimum base width of 8" 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.

**PAYNEVILLE-BATTLETOWN WATER SYSTEM IMPROVEMENTS  
MEADE COUNTY WATER DISTRICT**

The following are general descriptions of the encroachment areas:

Contract 1:

1. A commercial entrance is needed for an elevated water storage tank. The proposed entrance follows an existing drive and is located on the north side of KY 144, approximately 240' east of KY 376 in Payneville. See attached plans.

Contract 2:

1. A commercial entrance is needed for a booster pump/PRV station. The proposed entrance is located on the north side of KY 144, approximately 3200' east of KY 1239. See attached plans.

Contract 3:

1. 10" water main crossing KY 79 at centerline station 21+25, near the junction of KY 79 and Kirchdorfer Rd. Bore and jack 33 L.F. of 16" encasement pipe. See Contract 3, Dwg. 3 and highway boring crossing detail attached.
2. 10" water main crossing KY 1692 at centerline station 159+15, approximately 150' east of Echo Trail. Bore and jack 33 L.F. of 16" encasement pipe. See Contract 3, Dwg. 5 and highway boring crossing detail attached.
3. 10" water main crossing KY 2731 at centerline station 209+30, approximately 200' north of the junction of KY 2731 and KY 144. Bore and jack 30 L.F. of 16" encasement pipe. See Contract 3, Dwg. 6 and highway boring crossing detail attached.
4. 8" water main crossing KY 1844 at centerline station 531+85, approximately 200' east of the junction of KY 1844 and KY 144. Bore and jack 33 L.F. of 14" encasement pipe. See Contract 3, Dwg. 12 and highway boring crossing detail attached.
5. Various underground utility encroachments along right-of-way.
  - a. 10" water main parallels to KY 144 from station 269+50 to 271+50, approximately 1200' east of Sirocco-Midway Rd. See Contract 3, Dwg. 7. 200'
  - b. 10" water main parallels to KY 144 from station 285+25 to 285+75, approximately 250' west of Sirocco-Midway Rd. See Contract 3, Dwg. 7. 50'
  - c. 10" water main parallels to KY 144 from station 296+00 to 299+50, approximately 1200' west of Sirocco-Midway Rd. See Contract 3, Dwg. 8. 250'
  - d. 10" water main parallels to KY 144 from station 364+00 to 364+50, approximately 2800' east of KY 1239. See Contract 3, Dwg. 9. 50'
  - e. 10" water main parallels to KY 144 from station 406+00 to 415+00, approximately 500' east of KY 376. See Contract 3, Dwg. 10. 900'

---

1450'

Contract 4:

1. 8" and 6" water main crossing KY 228 at centerline station 0+50, approximately 150' north of KY 1844. Bore and jack 35 L.F. of 28" encasement pipe. See Contract 4, Dwg. 3 and highway boring crossing detail attached.

- 2. 8" water main crossing KY 228 at centerline station 20+40, approximately 1800' south KY 1844. Bore and jack 33 L.F. of 14" encasement pipe. See Contract 4, Dwg. 3 and highway boring crossing detail attached.
- 3. 8" water main crossing KY 2731 at centerline station 218+50, near the junction of KY 228 and KY 2731. Bore and jack 33 L.F. of 14" encasement pipe. See Contract 4, Dwg. 6 and highway boring crossing detail attached.
- 4. 8" water main crossing KY 228 at centerline station 254+00, approximately 2750' northwest of Vinson Rd. Bore and jack 33 L.F. of 14" encasement pipe. See Contract 4, Dwg. 7 and highway boring crossing detail attached.
- 5. 4" water main crossing KY 228 at centerline station 0+50, approximately 150' north of Pine Ridge Rd. Bore and jack 33 L.F. of 8" encasement pipe. See Contract 4, Dwg. 11 and highway boring crossing detail attached.
- 6. 4" water main crossing KY 2731 at centerline station 0+50, approximately 6400' north of KY144. Bore and jack 30 L.F. of 8" encasement pipe. See Contract 4, Dwg. 18 and highway boring crossing detail attached.
- 7. Various underground utility encroachments along right-of-way.
  - a. 8" water main parallels to KY 228 from station 3+00 to 5+00, approximately 50' south of KY 1844. See Contract 4, Dwg. 3.
  - b. 8" water main parallels to KY 228 from station 15+75 to 18+25, approximately 1325' south of KY 1844. See Contract 4, Dwg. 3.
  - c. 8" water main parallels to KY 228 from station 20+50 to 22+75 approximately 1800' south of KY 1844. See Contract 4, Dwg. 3.
  - d. 8" water main parallels to KY 228 from station 55+50 to 56+50, approximately 5300' south of KY 1844. See Contract 4, Dwg. 4.
  - e. 8" water main parallels to KY 228 from station 112+00 to 112+50, approximately 1850' southeast of Crosier Rd. (Dwg. 4). See Contract 4, Dwg. 5.
  - f. 8" water main parallels to KY 228 from station 131+00 to 139+00, approximately 3750' southeast of Crosier Rd. (Dwg. 4). See Contract 4, Dwg. 5.
  - g. 8" water main parallels to KY 228 from station 168+75 to 169+25, approximately 1600' northwest of Milan Rd. See Contract 4, Dwg. 6.
  - h. 8" water main parallels to KY 228 from station 173+50 to 174+00, approximately 1100' northwest of Milan Rd. See Contract 4, Dwg. 6.
  - i. 8" water main parallels to KY 228 from station 233+75 to 234+50, approximately 1500' southeast of KY 2731. See Contract 4, Dwg. 7.
  - j. 8" water main parallels to KY 228 from station 259+75 to 260+50, approximately 1700' northwest of Vinson Rd. See Contract 4, Dwg. 7.

200'

250'

225'

100'

50'

800'

50'

50'

75'

75'

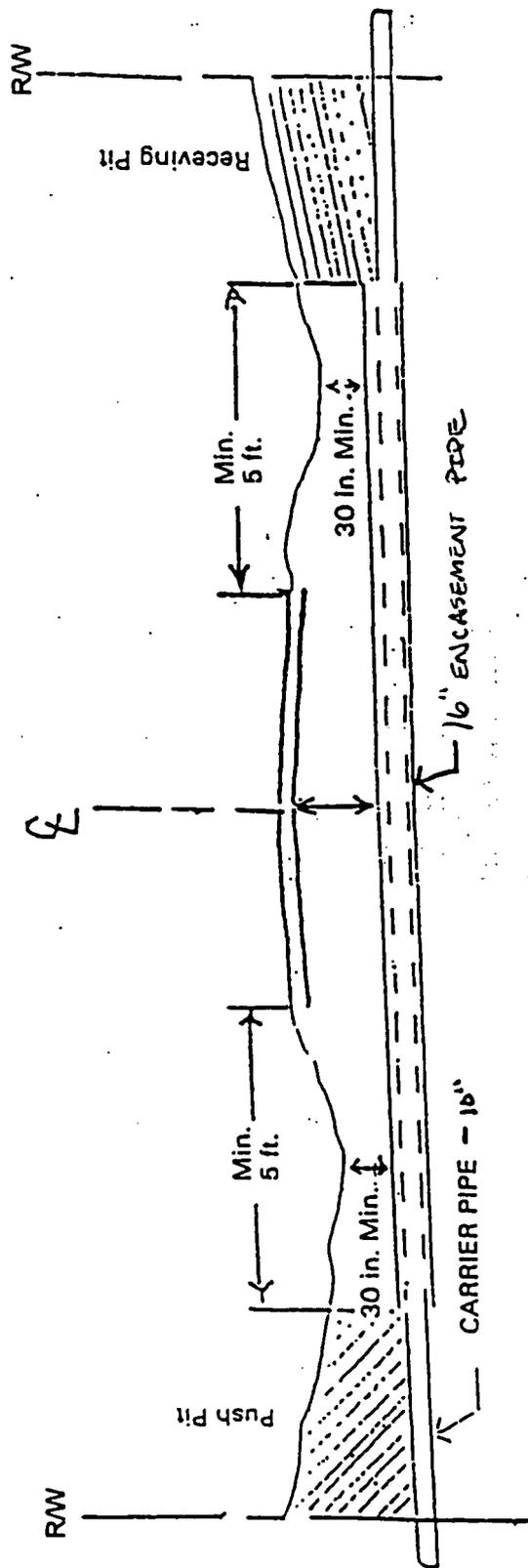
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1875'

**Typical Highway Boring Crossing Detail**

SEE: CONTRACT 3, DWG 3  
SEE ALSO: CONTRACT 3, ITEM 1 DESCRIPTION

Permit No. \_\_\_\_\_  
Route No. KY 79  
Pavement Width 23'



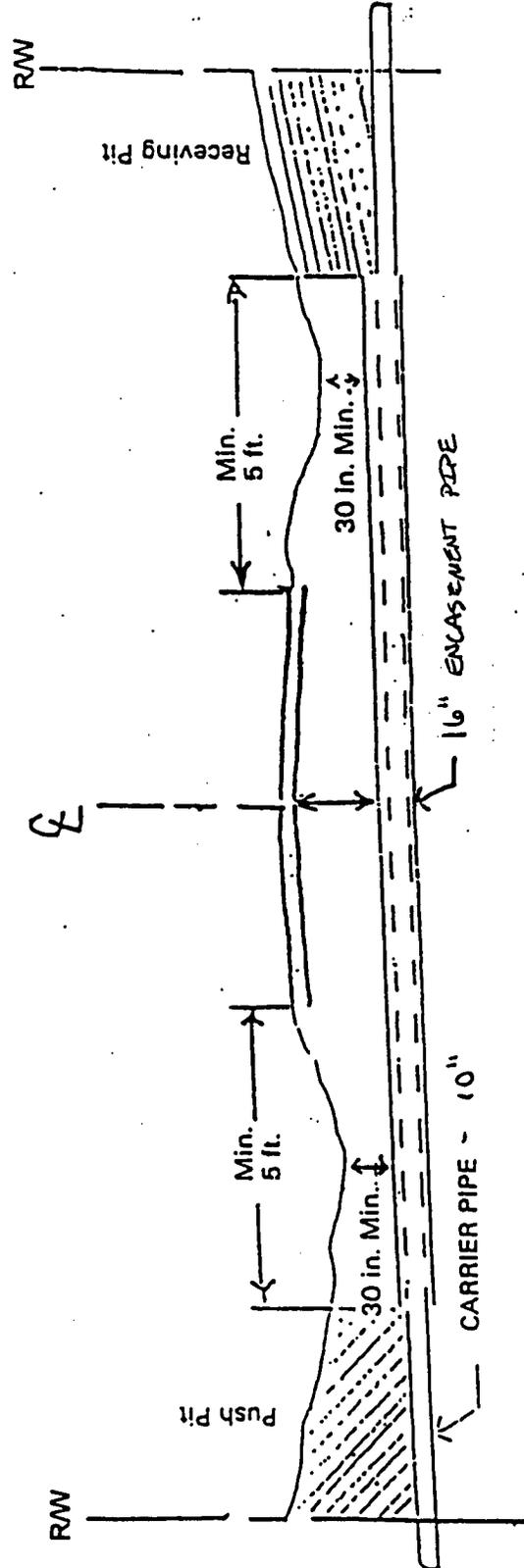
1. Push Pit and Receiving Pit to be backfilled and thoroughly compacted.
2. All Ditch Lines to be left open.
3. Seed and straw all areas disturbed by this work.

Services over 2" to be encased or exempt under Chapter 2 of the Permits Guidance Manual

**Typical Highway Boring Crossing Detail**

SEE: CONTRACT 3, DWG. 5  
 SEE ALSO: CONTRACT 3, ITEM 2 DESCRIPTION

Permit No. \_\_\_\_\_  
 Route No. KY 1692  
 Pavement Width 23'



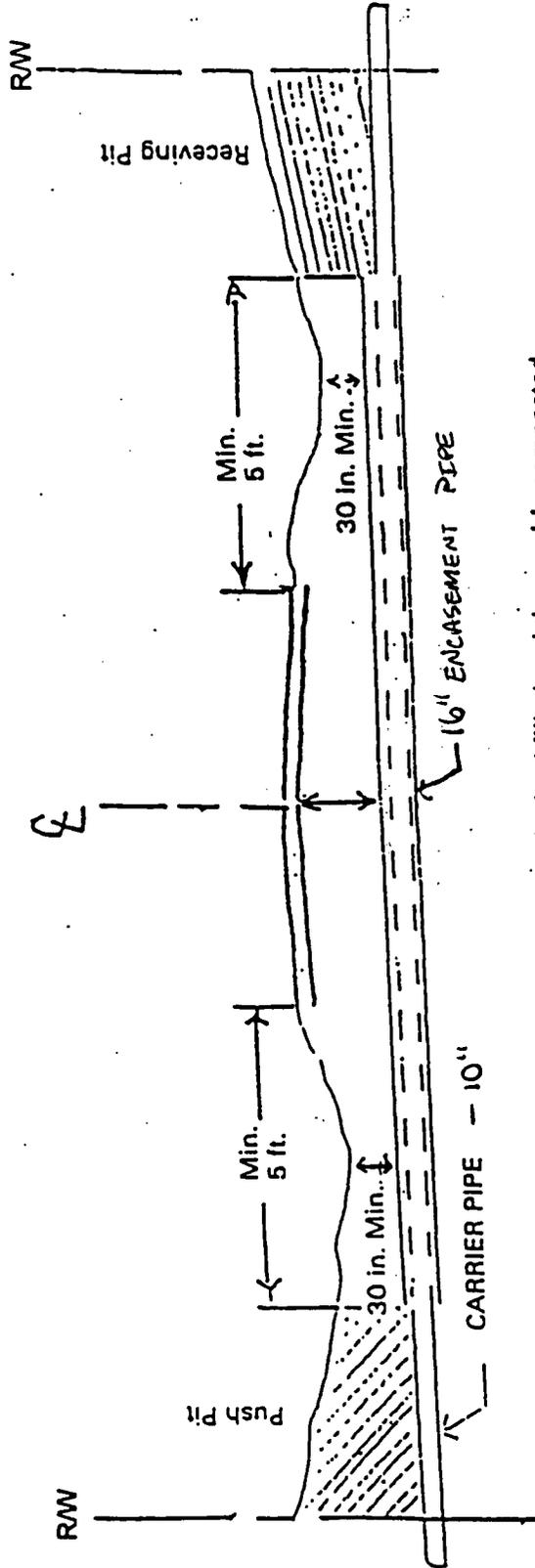
1. Push Pit and Receiving Pit to be backfilled and thoroughly compacted.
2. All Ditch Lines to be left open.
3. Seed and straw all areas disturbed by this work.

Services over 2" to be encased or exempt under Chapter 2 of the Permits Guidance Manual

**Typical Highway Boring Crossing Detail**

SEE: CONTRACT 3, DWG. 6  
SEE ALSO: CONTRACT 3, ITEM 3 DESCRIPTION

Permit No. \_\_\_\_\_  
Route No. KY 2731  
Pavement Width 20'



1. Push Pit and Receiving Pit to be backfilled and thoroughly compacted.
2. All Ditch Lines to be left open.
3. Seed and straw all areas disturbed by this work.

Services over 2" to be encased or exempt under Chapter 2 of the Permits Guidance Manual



**Typical Highway Boring Crossing Detail**

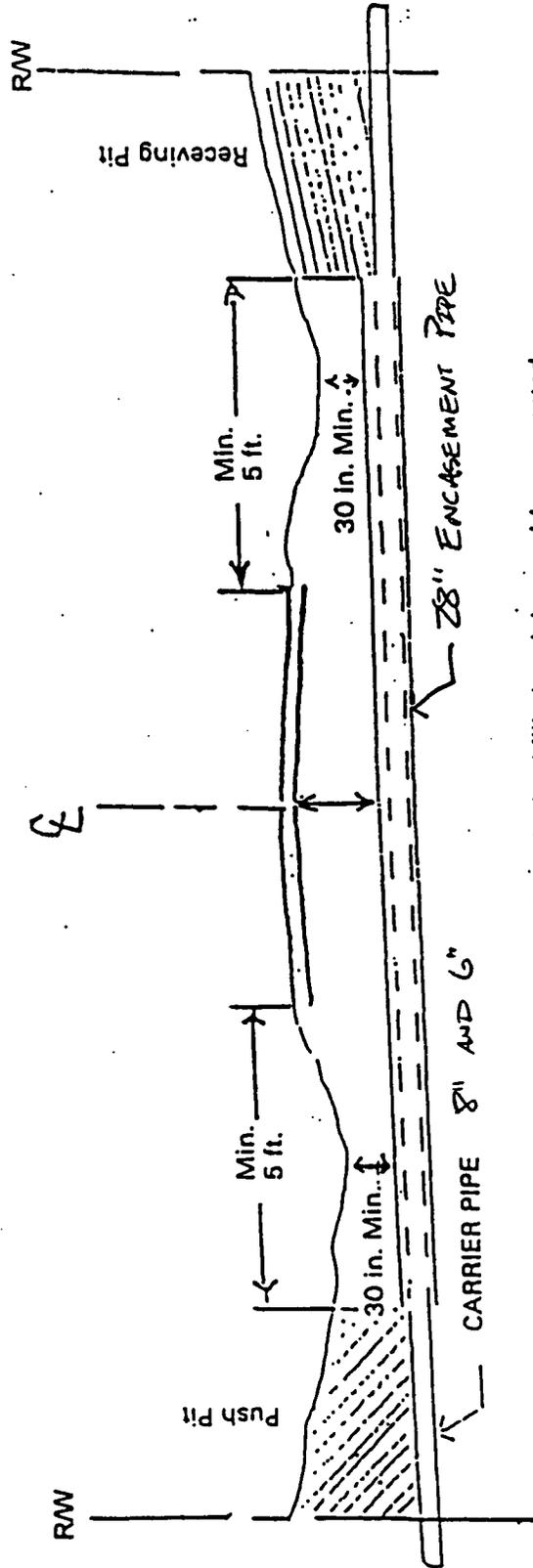
SEE: CONTRACT 4, DWG. 3

SEE ALSO: CONTRACT 4, ITEM 1 DESCRIPTION

Permit No. \_\_\_\_\_

Route No. KY 228

Pavement Width 25'



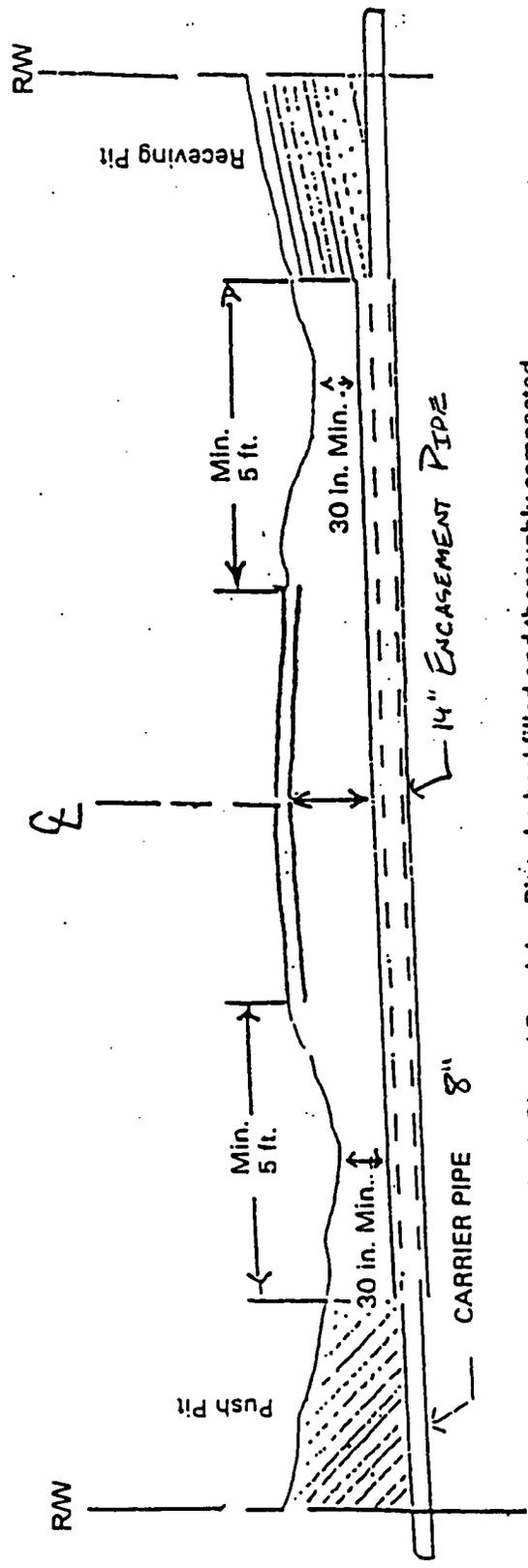
1. Push Pit and Receiving Pit to be backfilled and thoroughly compacted.
2. All Ditch Lines to be left open.
3. Seed and straw all areas disturbed by this work.

Services over 2" to be encased or exempt under Chapter 2 of the Permits Guidance Manual

**Typical Highway Boring Crossing Detail**

SEE: CONTRACT 4, DWG. 3  
 SEE ALSO: CONTRACT 4, ITEM 2 DESCRIPTION

Permit No. \_\_\_\_\_  
 Route No. KY 228  
 Pavement Width 23'



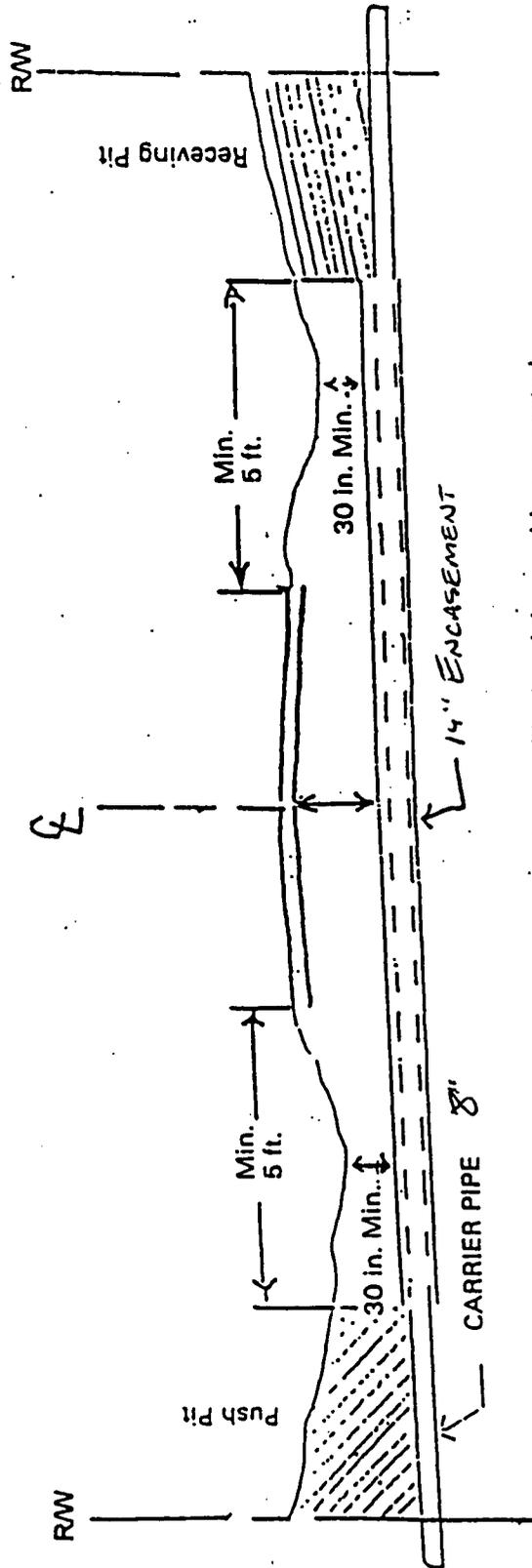
1. Push Pit and Receiving Pit to be backfilled and thoroughly compacted.
2. All Ditch Lines to be left open.
3. Seed and straw all areas disturbed by this work.

Services over 2" to be encased or exempt under Chapter 2 of the Permits Guidance Manual

**Typical Highway Boring Crossing Detail**

SEE: CONTRACT 4, DWG. 6  
SEE ALSO: CONTRACT 4, ITEM 3 DESCRIPTION

Permit No. \_\_\_\_\_  
Route No. KY 2731  
Pavement Width 23'



1. Push Pit and Receiving Pit to be backfilled and thoroughly compacted.
2. All Ditch Lines to be left open.
3. Seed and straw all areas disturbed by this work.

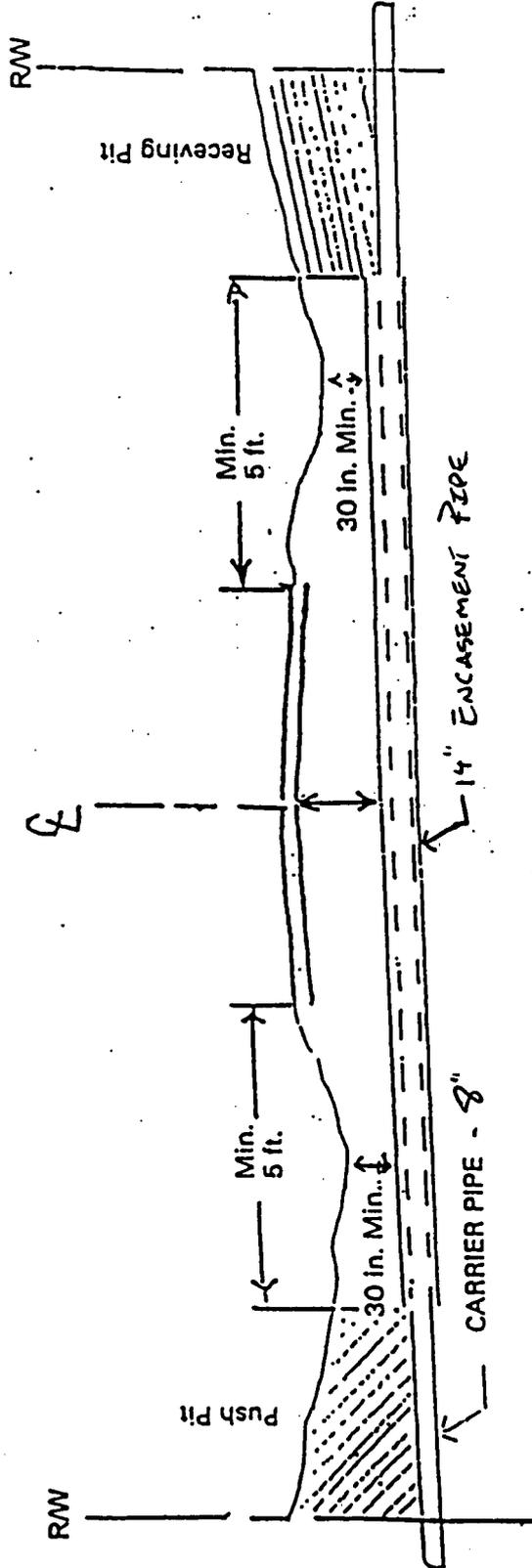
Services over 2" to be encased or exempt under Chapter 2 of the Permits Guidance Manual

**Typical Highway Boring Crossing Detail**

SEE: CONTRACT 4, DWG. 7

SEE ALSO: CONTRACT 4, ITEM 4 DESCRIPTION

Permit No. \_\_\_\_\_  
Route No. KY 228  
Pavement Width 23'



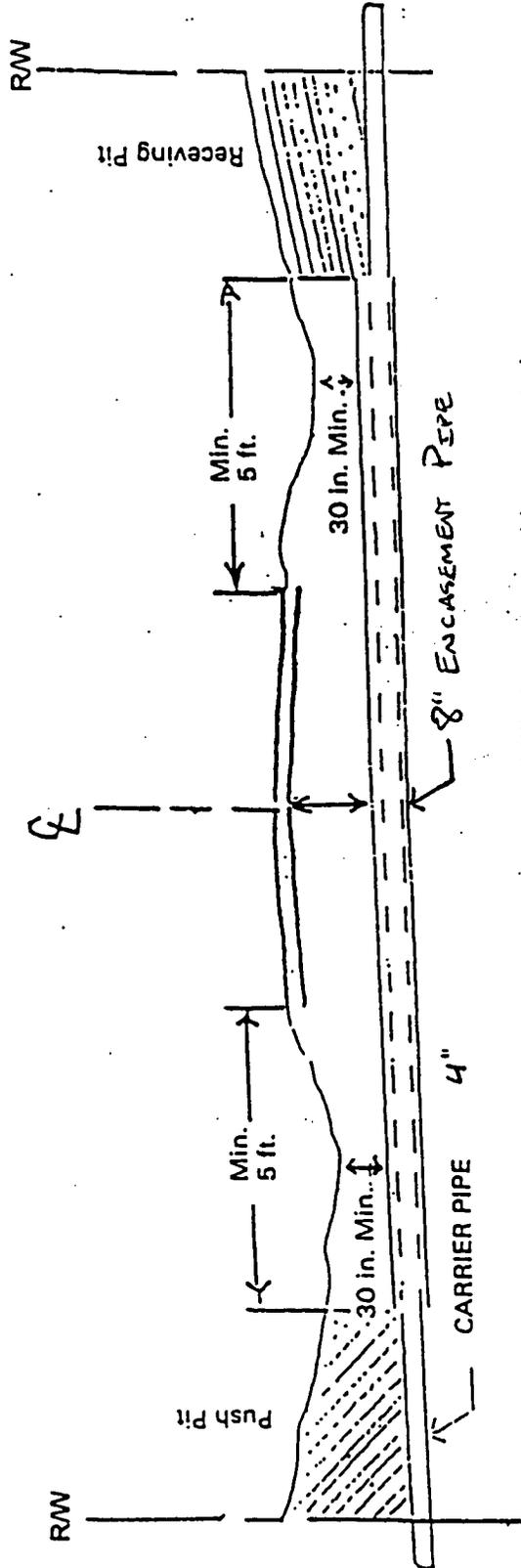
1. Push Pit and Receiving Pit to be backfilled and thoroughly compacted.
2. All Ditch Lines to be left open.
3. Seed and straw all areas disturbed by this work.

Services over 2" to be encased or exempt under Chapter 2 of the Permits Guidance Manual

**Typical Highway Boring Crossing Detail**

SEE: CONTRACT 4, DWG. 11  
SEE ALSO: CONTRACT 4, ITEM 5 DESCRIPTION

Permit No. \_\_\_\_\_  
Route No. KY 228  
Pavement Width 23'



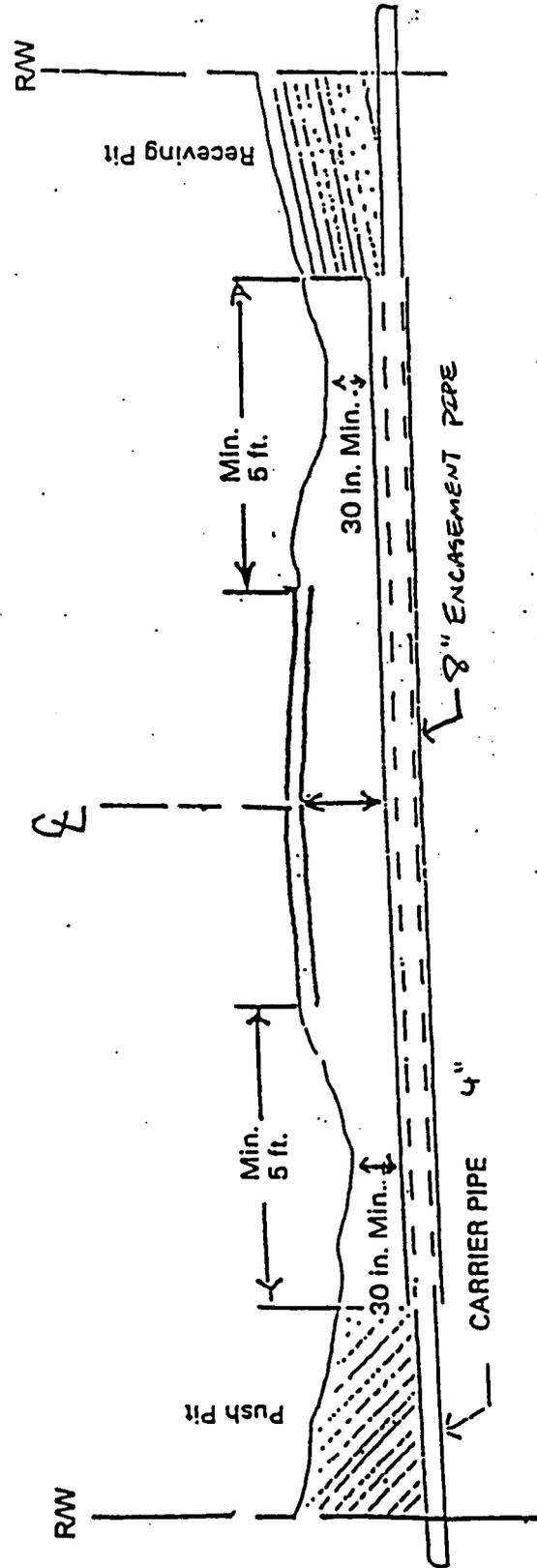
1. Push Pit and Receiving Pit to be backfilled and thoroughly compacted.
2. All Ditch Lines to be left open.
3. Seed and straw all areas disturbed by this work.

Services over 2\"' to be encased or exempt under Chapter 2 of the Permits Guidance Manual

**Typical Highway Boring Crossing Detail**

SEE: CONTRACT 4, DWG. 18  
SEE ALSO: CONTRACT 4, ITEM 6 DESCRIPTION

Permit No. \_\_\_\_\_  
Route No. KY 2731  
Pavement Width 70'



1. Push Pit and Receiving Pit to be backfilled and thoroughly compacted.
2. All Ditch Lines to be left open.
3. Seed and straw all areas disturbed by this work.

Services over 2\"' to be encased or exempt under Chapter 2 of the Permits Guidance Manual

EXECUTIVE SUMMARY  
 KENTUCKY INFRASTRUCTURE AUTHORITY  
 FUND B1, WATER RESOURCES GRANT  
 FUND C, GOVERNMENTAL AGENCIES PROGRAM

"ATTACHMENT F"

ANALYST: Sandy Williams  
 DATE: 12/4/98

<b>BORROWER:</b>		Meade County Water District - Fund C Loan		
<b>GRANTEE:</b>		Meade County Fiscal Court - Fund B1 Grant		
<b>BRIEF DESCRIPTION:</b>		The Payneville / Battletown water system expansion will extend ~ 30 miles of new water lines to ~ 600 new households.		
<b>PROJECT REFINANCE:</b>		<b>PROJECT BUDGET:</b>		
KIA Fund B1 Grant	\$2,500,000	Acquisition	\$25,000	
KIA Fund C Loan	\$1,704,225	Construction	\$3,462,100	
<b>Total</b>	<b>\$4,204,225</b>	Engineering	\$310,925	
<b>REPAYMENT - FUND C LOAN</b>		Operation & Maint.	\$10,000	
Rate	5.5%	Interest	\$30,000	
Term	20 Years	Legal	\$20,000	
Est. Annual Payment	\$165,676	Contingencies	\$346,200	
Payments Begin 6 months after last draw		<b>Total</b>	<b>\$4,204,225</b>	
<b>Professional Services:</b>				
Engineer	Quest Engineers, Inc. Lexington, Kentucky			
Bond Counsel	Peck, Shaffer & Williams			
<b>Project Schedule</b>				
Advertise Bids	June 15, 1999			
Bid Opening	July 15, 1999			
Construction Start	August 15, 1999			
Construction Completion	April 15, 2000			
<b>Other Debt</b>	<b>Prin. Outstanding</b>	<b>Annual Pmt.</b>	<b>Maturity</b>	
USDA - Rural Dev.	\$404,000	\$24,050	2032	
USDA - Rural Dev.	\$454,000	\$33,250	2026	
USDA - Rural Dev.	\$148,000	\$11,490	2026	
Liberty National	\$4,841	\$5,100	1998	
Meade Co. Fiscal Court	\$769,000	\$73,782	2015	
Bank One Leasing	\$12,931	\$8,774	1999	
<b>Other State-Funded Projects in Previous 5 yrs</b>	N/A			
<b>Residential Rates</b>	<b>Number of Users</b>	<b>Avg Monthly Bill</b>		
Current	1,809	\$36.30		
New	600	\$36.30		
<b>Jobs</b>	Number of Jobs: N/A			
<b>Cashflow</b>	<b>Cash Avail for Debt Svc (\$000)</b>	<b>Total Debt Service (\$000)</b>	<b>Cashflow (\$000)</b>	<b>Coverage Ratio</b>
(Audit) 1995	149,311	76,411	72,900	1.95
(Audit) 1996	279,624	76,826	202,798	3.64
(Audit) 1997	354,479	154,699	199,780	2.29
(Proforma) 1998	403,693	88,225	315,468	4.58
(Proforma) 1999	357,007	146,607	210,400	2.44
(Proforma) 2000	456,189	224,286	231,903	2.03
(Proforma) 2001	533,175	307,565	225,610	1.73

**ATTACHMENT F (continued)**

**PROPOSED FINANCING FOR PAYNEVILLE/BATTLETOWN  
WATER SYSTEM EXPANSION**

1. The KIA Fund C Loan shall not exceed \$1,947,686. The loan amount is based on the project cost financed by this loan, a proportional share of the bond financing expenses and a 10% debt service reserve. This amount will be adjusted based on the actual results of the bond sale. The financing expenses will be a cost to the Meade County Water District for the loan. Construction funds advanced to the District will not exceed \$1,704,225.
2. The loan shall be repaid over a period of 20 years at an annual rate of 5.5% from the date bonds are sold. The estimated annual payment is \$165,676.
3. During the interim loan, advances will be made from proceeds of the Kentucky Infrastructure Authority's Notes in an amount not to exceed the loan amount. Such interim advances shall bear interest at the rate or rates established for the Notes or other source of funding, or from funds available to the Authority for such purposes, until repaid from either borrower revenues or the proceeds of the Assistance Agreement upon issuance of bonds.
4. Prior to the bond sale for the loan, interest shall be payable on the 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 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 shall be due each six months thereafter until the loan is paid. When bonds are sold full principal and interest payments will commence on the following June 1 or December 1. Principal and interest payments will be due each six months thereafter until the loan is repaid.
5. A loan servicing fee of two-tenths of one percent (0.2%) of the annual outstanding loan balance shall be payable to the Authority as a part of each payment after bonds are sold for the project.

**PROJECT FUNDING**

**Funding Sources**

KIA Fund B1 Grant	\$ 2,500,000
KIA Fund C Loan	<u>1,704,225</u>
<b>Total Funding</b>	<b>\$ 4,204,225</b>

**ATTACHMENT F (continued)**

**KIA Debt Service (Fund C Loan)**

Loan Size	\$ 1,704,225
Debt Service Reserve Fund (10%)	194,769
Cost of Issuance (2.5%)	<u>48,692</u>
Total KIA Fund C Loan	\$ 1,947,686
Interest Rate	5.5%
Loan Term	20 years
Principal & Interest	\$ 161,781
Administrative Fee (0.2%)	<u>3,895</u>
Total Annual Debt Service	\$ 165,676

Analyst: Sandy Williams  
December 4, 1998

KENTUCKY INFRASTRUCTURE AUTHORITY  
INFRASTRUCTURE GRANT (FUND B1)  
GOVERNMENTAL AGENCIES PROGRAM (FUND C)  
MEADE COUNTY FISCAL COURT AND MEADE COUNTY WATER DISTRICT  
CREDIT ANALYSIS

I. PROJECT DESCRIPTION

The proposed project will allow the Meade County Water District (MCWD) to extend approximately 30 miles of new water lines into the currently unserved northwest section of Meade County. This project will include a water main that will extend to Payneville along KY 144, continue to Battletown along KY 1844, and return to Brandenburg along KY 228. The proposed project will make potable water available to approximately 600 households that currently use wells and cisterns for their domestic supply.

Land will be purchased for the proposed tank and booster pump station near Payneville and for a pressure-regulating valve near Battletown. These locations have not been finalized.

The Division of Water has not reviewed or approved the plans and specifications. However, a contract for engineering services has been approved by the MCWD and a design kick-off meeting was held on November 19, 1998. The PSC will review the hydraulics of the project and the proposed facilities. By statute they have 5 months to complete their review.

II. <u>PROJECT BUDGET</u>	<u>Fund B1</u>	<u>Fund C</u>	<u>Total Project</u>
Acquisition	\$25,000	\$0	\$25,000
Administration & Legal	20,000	0	20,000
Engineering Design *	170,415	41,490	211,905
Engineering Inspection *	0	99,020	99,020
Construction	2,284,585	1,177,515	3,462,100
O & M Reserve	0	10,000	10,000
Capitalized Interest	0	30,000	30,000
Contingencies	0	346,200	346,200
<b>Total Project Cost</b>	<b>\$2,500,000</b>	<b>\$1,704,225</b>	<b>\$4,204,225</b>

\* Based on USDA-RD Fee Scale

**ATTACHMENT H**

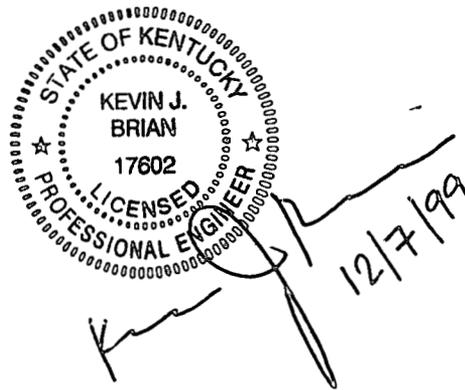
**Property to be acquired, detailed estimates by USOA account number**

<u>USOA#</u>	<u>Description</u>	<u>Estimate of Probable Cost</u>
0303	<b>Land</b>	\$ 25,000
0311	<b>Pumps</b>	
	• 400 GPM Pumps for Brandenburg Pumping Station	160,000
0331	<b>Transmission &amp; Distribution Mains, Waterlines &amp; Extensions</b>	
	• 300,000 Gallon Elevated Tank	450,000
	• 400 GPM Booster Pump Station & PRV Vault	291,000
	• PRV Vault	30,000
	• 10-inch PVC Main (41,200 lineal ft.)	858,600
	• 8-inch PVC Main (62,830 lineal ft.)	991,400
	• 6-inch PVC Main (25,870 lineal ft.)	335,800
	• 4-inch PVC Main (33,260 lineal ft.)	345,300

# DESIGN REPORT – DOW SUBMITTAL

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## PAYNEVILLE-BATTLETOWN WATER SYSTEM IMPROVEMENTS



MEADE COUNTY WATER DISTRICT  
MEADE COUNTY, KENTUCKY

JULY 1999

## **Introduction**

### ***Scope of Work***

The Payneville-Battletown Water System Improvements Project includes a preliminary study and design of approximately 31 miles of water main that will connect to Meade County Water District's (MCWD) existing system near Highway 79 and Turner Road and run to Payneville and Battletown and back to Brandenburg. This Preliminary Design Report will document the following:

- Background information;
- Projected water consumption in the county extension area;
- Recommendations for the most cost effective location, size, and type of facilities;
- Preliminary opinion of probable costs;
- Project schedule to achieve MCWD goals for the project.

A computer model of MCWD system will be developed for engineering evaluations. Funding assistance and coordination with regulatory agencies will also be provided.

### ***Proposed Extension***

In March of 1998, MCWD was notified that they would receive \$2.5 million from the Commonwealth of Kentucky. This money will be provided to the Meade County Fiscal Court as a grant from the Infrastructure Grant Program Fund, which is administered by the Kentucky Infrastructure Authority (KIA). Additional funding for the project will be in the form of a loan from KIA Fund "C". KIA will be in charge of administering, regulating, and dispersing funds. The area designated for expansion is presented in Figure 2.

### ***Brandenburg Agreement***

The City of Brandenburg has committed to sell MCWD with 400,000 gallons per day through the existing connection point once their water system improvements are made. Discussions with Brandenburg officials indicate their system can provide 350 GPM at the existing connection point while maintaining pressures above the 30 psi minimum requirement in their system under Phase I improvements. Once Phase II improvements are made, MCWD can take water at a rate of 500 GPM.

## **Background Information**

### ***Existing Water Distribution System***

MCWD currently serves 1,838 residential and commercial customers in southern Meade County. In 1997, MCWD produced and purchased 116,642,800 gallons of water. Water sales to customers totaled 99,423,192 gallons. Unaccounted for water which includes water not metered and line losses totaled 17,219,608 gallons, or 15%. MCWD produced 5,047,000 gallons from their two operating wells, purchased approximately 80,909,800 gallons from Hardin County

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Water District No. 1 and purchased approximately 30,686,000 gallons from the City of Brandenburg.

The existing distribution system is comprised of the following:

- 2 miles of 10-inch polyvinyl chloride (PVC)
- 46 miles of 8-inch PVC
- 31 miles of 6-inch PVC
- 35 miles of 4-inch PVC
- 1.5 miles of 3-inch PVC

The distribution system is divided into two sub-systems: The Flaherty System and the Brandenburg System. The Flaherty System serves 1,401 residential and commercial customers. Storage for the Flaherty System is provided from the 200,000 gallon Flaherty Standpipe at an overflow elevation of 952.50 feet. The Flaherty System is characterized by an undulating topography with elevation changes of approximately 100 feet with most elevations ranging between 750 feet to 850 feet. The water supply source for the Flaherty System comes from two wells located in Flaherty and water is also purchased from Hardin County Water District No. 1 and pumped to the Flaherty Standpipe through the Flaherty Pump Station. The pump station contains one 15 horsepower pump rated at approximately 210 gallons per minute (GPM). Flow to the standpipe is limited by a 1.2 mile segment of 4-inch line which results in an inability to keep the standpipe filled during periods of high consumption.

The Brandenburg System serves 437 residential and commercial customers. Storage for the Brandenburg System is provided from the 200,000 gallon Garrett Ground Storage Tank at an overflow elevation of 870.00 feet. The Brandenburg System is characterized by a sinkhole plain topography with elevation changes of approximately 150 feet with most elevations ranging from 600 feet to 750 feet. Water for the Brandenburg System is purchased from the City of Brandenburg and pumped to the Garrett Ground Storage Tank through the Brandenburg Pump Station which contains two 20 horsepower pumps rated at 200 GPM. The pumps are valved down to 110 GPM to prevent Brandenburg's Tanks from dropping too rapidly.

## Water Consumption

### *Existing Demands*

The average day demand (ADD) on the MCWD system was estimated from 1997 customer billing data supplied by MCWD. The billing data was separated into the Flaherty System and the Brandenburg System. The 1997 water consumption and the ADD's for each system and the total system are summarized in Table 1.

The 1997 MCWD ADD was 272,392 gallons per day, or 189 GPM. The ADD of the Flaherty System was 207,380 gallons per day or 144 GPM and the ADD of the Brandenburg System was 65,012 gallons per day, or 45 GPM. The consumption changes with the seasons, varies from day-to-day in the week, and fluctuates from hour-to-hour in the day.

**Table 1**  
**1997 Water Consumption**

Month	Flaherty System		Brandenburg System		Total Water Consumption	
	Consumption (gallons)	Average Day Demand (gallons per day)	Consumption (gallons)	Average Day Demand (gallons per day)	Consumption (gallons)	Average Day Demand (gallons per day)
January	4,809,140	155,133	1,786,220	57,620	6,595,360	212,754
February	5,581,950	199,355	2,203,790	78,707	7,785,740	278,062
March	4,348,130	140,262	1,842,620	59,439	6,226,750	200,863
April	4,896,490	163,216	1,741,330	58,044	6,637,820	221,261
May	6,505,850	209,866	2,008,480	64,790	8,514,330	274,656
June	8,802,580	293,419	1,640,840	54,695	10,443,420	348,114
July	8,500,380	274,206	2,198,490	70,919	10,698,870	345,125
August	8,892,390	286,851	2,359,360	76,108	11,251,750	362,960
September	6,171,730	205,724	2,100,110	70,004	8,271,840	275,728
October	6,086,180	196,328	1,986,860	64,092	8,073,040	260,421
November	6,472,590	215,753	2,287,770	76,259	8,760,360	292,012
December	4,626,440	149,240	1,573,470	50,757	6,199,910	199,997
<b>1997 Total</b>	<b>75,693,850</b>	<b>207,380</b>	<b>23,729,340</b>	<b>65,012</b>	<b>99,423,190</b>	<b>272,392</b>

**Population Trends and Projections**

Projected demands for the Payneville-Battletown extension area were developed using population projections taken from the Meade County Comprehensive Plan. Meade County is divided into three census divisions: the Flaherty division, Brandenburg division, and Battletown-Payneville division. Growth trends for each division are summarized in Table 2.

**Table 2**  
**Meade County Census Division Trends**

Census Division	1960	1970	1980	1990	Percent Change (1960-1990)
Battletown-Payneville	2,786	2,751	3,448	3,491	20.2%
Brandenburg	4,778	5,594	7,298	8,501	43.8%
Flaherty	11,374	10,451	12,108	12,178	6.6%

Source: U.S. Department of Commerce, Bureau of the Census

The Meade County Comprehensive Plan, prepared by the Lincoln Trail Area Development District, 1996, projected a growth in population from 1990 to the year 2020 to be an additional 7,000 residents at a rate of 28 to 29 percent growth. In 1990, the Flaherty division had 50.4 percent of the total residents living within its boundaries, with the Brandenburg division having 35.2 percent of the total residents, and the Battletown-Payneville division having only

14.4 percent of the total residents. Table 3 summarizes the population projections for Meade County including the Battletown-Payneville division, the Brandenburg division, and the Flaherty division.

**Table 3**  
**Population Projections**

Year	Meade County	Battletown-Payneville	Brandenburg	Flaherty
1960 <sup>1</sup>	18,938	2,786	4,778	11,374
1970 <sup>1</sup>	18,796	2,751	5,594	10,451
1980 <sup>1</sup>	22,854	3,448	7,298	12,108
1990 <sup>1</sup>	24,170	3,491	8,501	12,178
1996 <sup>2</sup>	27,522	3,963 <sup>4</sup>	9,689 <sup>5</sup>	13,871 <sup>6</sup>
1997 <sup>1</sup>	28,140	4,052 <sup>4</sup>	9,905 <sup>5</sup>	14,183 <sup>6</sup>
2020 <sup>3</sup>	31,170	4,489 <sup>4</sup>	10,972 <sup>5</sup>	15,710 <sup>6</sup>

Notes: <sup>1</sup>U.S. Census Data

<sup>2</sup>Ky. State Data Center

<sup>3</sup>Projected from Comprehensive Plan

<sup>4</sup>Based on 14.4% of Meade County Population

<sup>5</sup>Based on 35.2% of Meade County Population

<sup>6</sup>Based on 50.4% of Meade County Population

### **Projected Demands**

Projected demands for the Payneville-Battletown extension were estimated based on the following assumptions:

- 3.31 persons per household (Meade County Comprehensive Plan)
- 200 gallons per household per day
- 1998 projected demand based on existing house count along proposed water line route
- 2020 projected ultimate demand based on serving all residents within the Battletown-Payneville census division

A summary of the existing house count along the proposed water line route is summarized in Table 4.

**Table 4**  
**Existing House Count**

Road	Length (miles)	No. of Homes	Average Homes/mile
Highway 144	6	120	20
Highway 1692 and branches off Highway 1692	7.9	205	26
Highway 79	1.3	20	15
New Highland Church Road	3.1	51	17
Highway 1844	4.1	65	16
Highway 228 and branches off Highway 228	10.6	202	19
<b>TOTALS</b>	<b>33</b>	<b>663</b>	<b>20</b>

Based on the existing house count, the 1998 projected ADD for the Payneville-Battletown extension is 132,600 (663 homes x 200) gallons per day or 92 GPM. The projected 2020 ADD based on serving all residents within the Payneville-Battletown census division is 271,240 (4,489 / 3.31 x 200) gallons per day, or 188 GPM. A summary of the projected demands is presented in Table 5.

**Table 5**  
**Projected Demands for the Payneville-Battletown Extension Area**

Year	Population Projection	Projected Average Day Demand (gallons)
1998	2,195 <sup>1</sup>	132,600
2020	4,489 <sup>2</sup>	271,240

<sup>1</sup>Population based on house count of 663 homes at 3.31 persons per household

<sup>2</sup>Projected from Comprehensive Plan

### Design Alternatives

#### **General Design Guidelines**

A general design recommendation is to provide looped feeders verses dead end lines whenever possible. Looped feeders are commonly referred to as "backbone" lines because they essentially serve as the backbone of the system from which expansion can occur. There are several advantages of backbone lines:

- Flow is supplied from at least two directions, thus reducing pressure losses in the pipes as a result of reduced friction losses.
- Provides constant flow at all times thus minimizing the possibility of stagnation or deterioration of the water quality at the extreme ends of the system.
- Allows for uninterrupted water service during periods of repairs, breaks, etc., at which time only small sections may be taken out of service until repairs are completed.

- 
- Provides the flexibility to design for future expansion.

The system configuration for the proposed extension project is separated into supply, storage, and distribution configurations. The supply configuration focuses on obtaining the required flowrates and volumes of water from Brandenburg's system and pumping into MCWD's system. Storage and distribution configurations focus on the ability to deliver water to MCWD customers through MCWD's distribution system.

### *Supply Configuration*

The City of Brandenburg is currently upgrading their distribution system. The upgrades will be completed in phases. Phase I improvements will increase the available supply rate from current conditions of 110 GPM to approximately 300-350 GPM. Brandenburg officials anticipate Phase I improvements to be completed sometime between December 1999 and June 2000 assuming no major delays during construction. Phase II Improvements will increase the available supply rate from 300-350 GPM to approximately 500 GPM. At this time, no completion date has been set for Phase II improvements.

The City of Brandenburg has committed to sell MCWD 400,000 gallons per day through the existing connection point once their Phase I water system improvements are made. Discussions with Brandenburg officials indicate their system can provide 350 GPM at the existing connection point while maintaining pressures above the 30 psi minimum requirement in their system under Phase I improvements. Obtaining 400,000 gallons per day at a flowrate of 350 GPM would result in 19 hours of pumping per day. If the Brandenburg Pump Station operates only 10 hours per day at 350 GPM, which is typical for a pump station, MCWD could obtain 210,000 gallons per day from Brandenburg. 210,000 gallons of water could supply an equivalent of approximately 1,050 households assuming average consumption 200 gallons per household per day. When demands exceed 210,000 gallons per day, the Brandenburg Pump Station could be modified to pump approximately 500 GPM if Brandenburg's Phase II improvements have been made, or increase the pumping times of the station up to 19 hours per day until the Phase II improvements have been made.

The supply configuration was developed based on Brandenburg having the capability to supply 400,000 gallons at 350 GPM initially and at 500 GPM once Phase II improvements are made. The configuration consists of upgrading the existing Brandenburg Pump Station to obtain the 350 GPM flowrate initially and allow for future expansion of the station up to 500 GPM. The upgrades would consist of either:

- Replacing the existing pumps with two new pumps rated at 350 GPM at 215 foot total dynamic head (TDH), or;
- Keeping and isolating the existing pumps to the Brandenburg System and adding two new pumps rated at 400 GPM at 112 TDH
- Modifying the existing pumps from 200 GPM at 191 foot TDH to 350 GPM at 215 foot TDH.

- Future expansion to 500 GPM could be accomplished by either replacing the 350 GPM pumps with two new pumps rated at 500 GPM at 240 TDH, or modifying the 350 GPM pumps to 500 GPM at 240 TDH.

An opinion of probable cost to upgrade the existing Brandenburg pump station to 350 GPM is presented in Table 6. Figure 1 shows one possible configuration for the upgraded station.

**Table 6**  
*Upgrade Existing Brandenburg Pump Station*

ITEM DESCRIPTION	OPINION OF PROBABLE COST
Pumps	\$ 50,000
Piping Modifications	\$ 80,000
Door Relocation	\$ 3,000
Electrical	\$ 27,000
<b>ESTIMATED CONSTRUCTION COST</b>	<b>\$160,000</b>

*Storage and Distribution System Configurations*

There are two viable options for supplying customers in the proposed extension area with adequate flows and pressures. Due to the elevation changes in the extension area, the configurations focus on maintaining two pressure planes (952.50' and 870.00') in MCWD's system versus adding a third pressure plane for the extension area. Elevations along the ridge between Payneville and Battletown are similar to the elevations in the Flaherty System. The remainder of the extension area has elevations most similar to the Brandenburg System. The advantages of maintaining two pressure planes are:

- The existing Brandenburg System will be extended into the Payneville-Battletown extension area thus allowing the Garrett Tank to be more effectively utilized. Low pressure problems near the Garrett Tank can be resolved by transferring some customers to the Flaherty System. Also, customers north of Highway 1238 can be transferred to the Brandenburg System from the Flaherty System to more effectively utilize the Garrett Tank.
- A new storage tank is recommended at an overflow elevation of 952.50 feet to serve customers in the higher elevations of the extension area. This tank will offer the ability to loop back to the existing Flaherty system on the south side of Ekron in the future to serve customers living in the higher elevations of Meade County along the Meade County/Breckenridge County Line.

The storage and distribution configurations are described below. The proposed piping routes are the same for both configurations.

## Storage and Distribution Configuration 1

Storage and Distribution Configuration 1 consists of constructing an elevated tank and booster pump station in the Payneville-Battletown Extension Area. The general philosophy of the configuration is to construct the tank at the same overflow elevation as the existing Flaherty Standpipe, 952.50 feet. Customers along the ridge between Payneville and Battletown will be served directly from the elevated tank. Two pressure reducing valve (PRV) vaults will be constructed in the main lines along Highway 144 and Highway 228 to reduce the hydraulic grade to 870.00 feet, the same elevation as the Garrett Tank, so the remaining customers in the extension area will be on the same pressure plane as the existing Garrett Tank. The following is a detailed description of the configuration:

- Size proposed elevated storage at 300,000 gallons for projected 2020 ADD of approximately 272,000 gallons per day.
- Set proposed tank overflow elevation equal to 952.50 feet and the minimum water level equal to 930.00 feet. This overflow elevation will supply an average operating pressure of 50 psi when the tank is full and a minimum pressure of 35 psi when tank is operating near its minimum water level of 930.00 feet to the customers located along the ridge between Payneville and Battletown.
- The system will be designed to serve customers at high elevations on the ridge between Payneville and Battletown from the 952.50 foot pressure plane. Two PRV vaults will be constructed on the main water line to reduce pressures to the 870.00 foot pressure plane. All customers located below elevation 725 feet will be served from the 870.00 foot pressure plane. This design will offer the potential to loop back to the Flaherty System on the south side of Ekron. All customers on the north side of Ekron can be served from the 870.00 foot pressure plane.
- Install a booster pump station in the line to the proposed tank equipped with a by-pass line. The pump station will be designed to fill the proposed tank at a rate of approximately 400 GPM (250 GPM init). At flowrates above 400 GPM, pressures on the suction side of the booster station approach 30 psi.

An opinion of probable cost for Storage and Distribution Configuration 1 is presented in Table 7 and a schematic of the proposed configuration is shown in Figure 2.

**Table 7**  
***300,000 Gallon Tank, Booster Pump Station, and PRV Vaults***

<b>ITEM DESCRIPTION</b>	<b>OPINION OF PROBABLE COST</b>
300,000 Gallon Elevated Tank	\$450,000
400 GPM Booster Pump Station with PRV	\$291,000
PRV Vault	\$ 30,000
<b>ESTIMATED CONSTRUCTION COST</b>	<b>\$771,000</b>



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NOVEMBER 1998

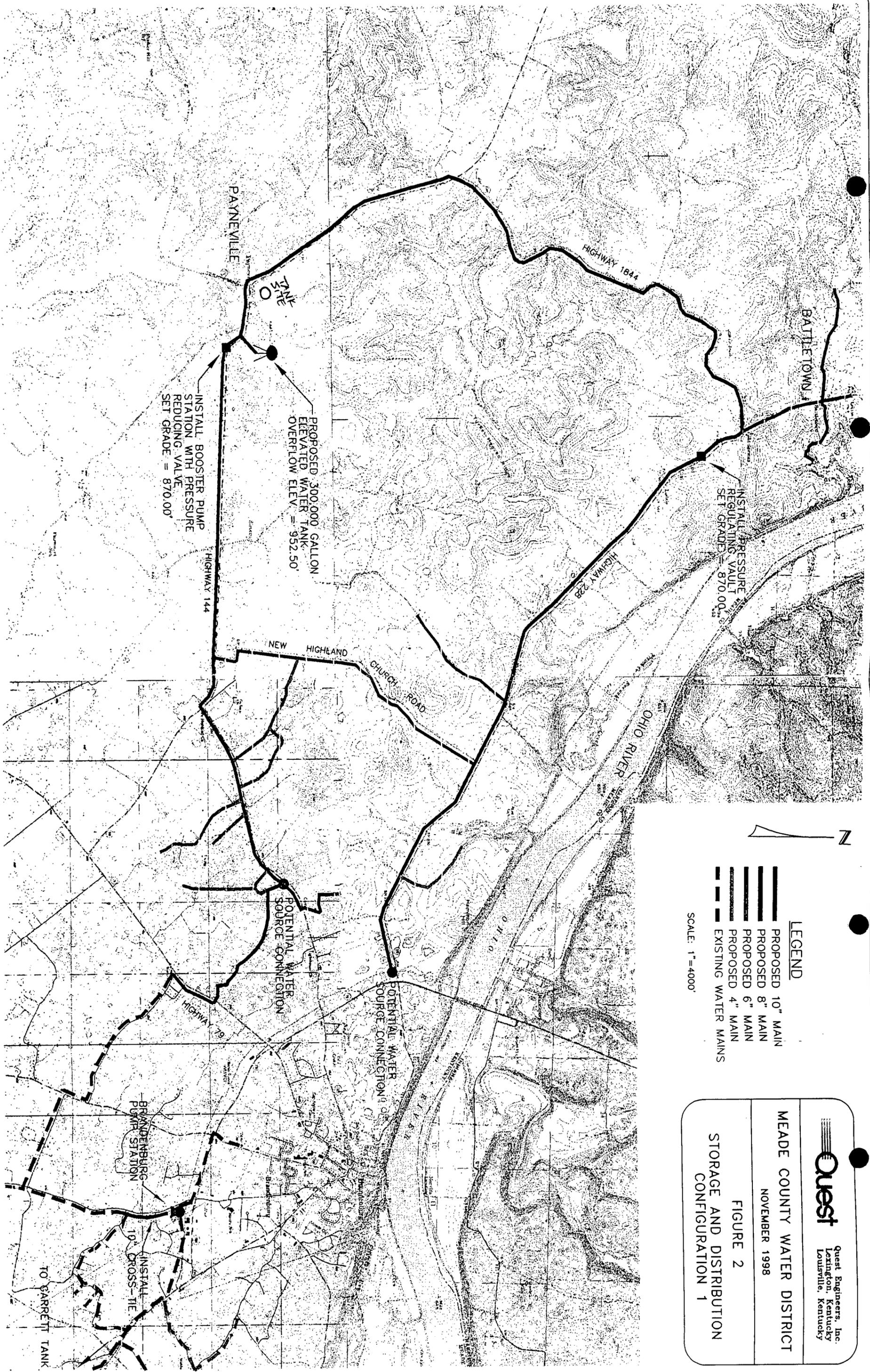
FIGURE 2

STORAGE AND DISTRIBUTION CONFIGURATION 1



- LEGEND**
- PROPOSED 10" MAIN
  - PROPOSED 8" MAIN
  - PROPOSED 6" MAIN
  - PROPOSED 4" MAIN
  - EXISTING WATER MAINS

SCALE: 1" = 4000'



Storage and Distribution Configuration 2

Storage and Distribution Configuration 2 consists of constructing two elevated tanks and one booster pump station in the Payneville-Battletown Extension Area. The general philosophy of the configuration is to construct one tank at the same overflow elevation as the existing Flaherty Standpipe, 952.50 feet. The second tank would be constructed at the same overflow elevation as the Garrett Tank, 870.00 feet and would eliminate the need for the two pressure reducing vaults as described in Configuration 1. Customers along the ridge between Payneville and Battletown will be served from the 952.50 foot tank while the rest of the extension area will be served from the 870.00 foot tank. An opinion of probable cost for Storage and Distribution Configuration 2 is presented in Table 8 and a schematic showing the proposed configuration is shown in Figure 3.

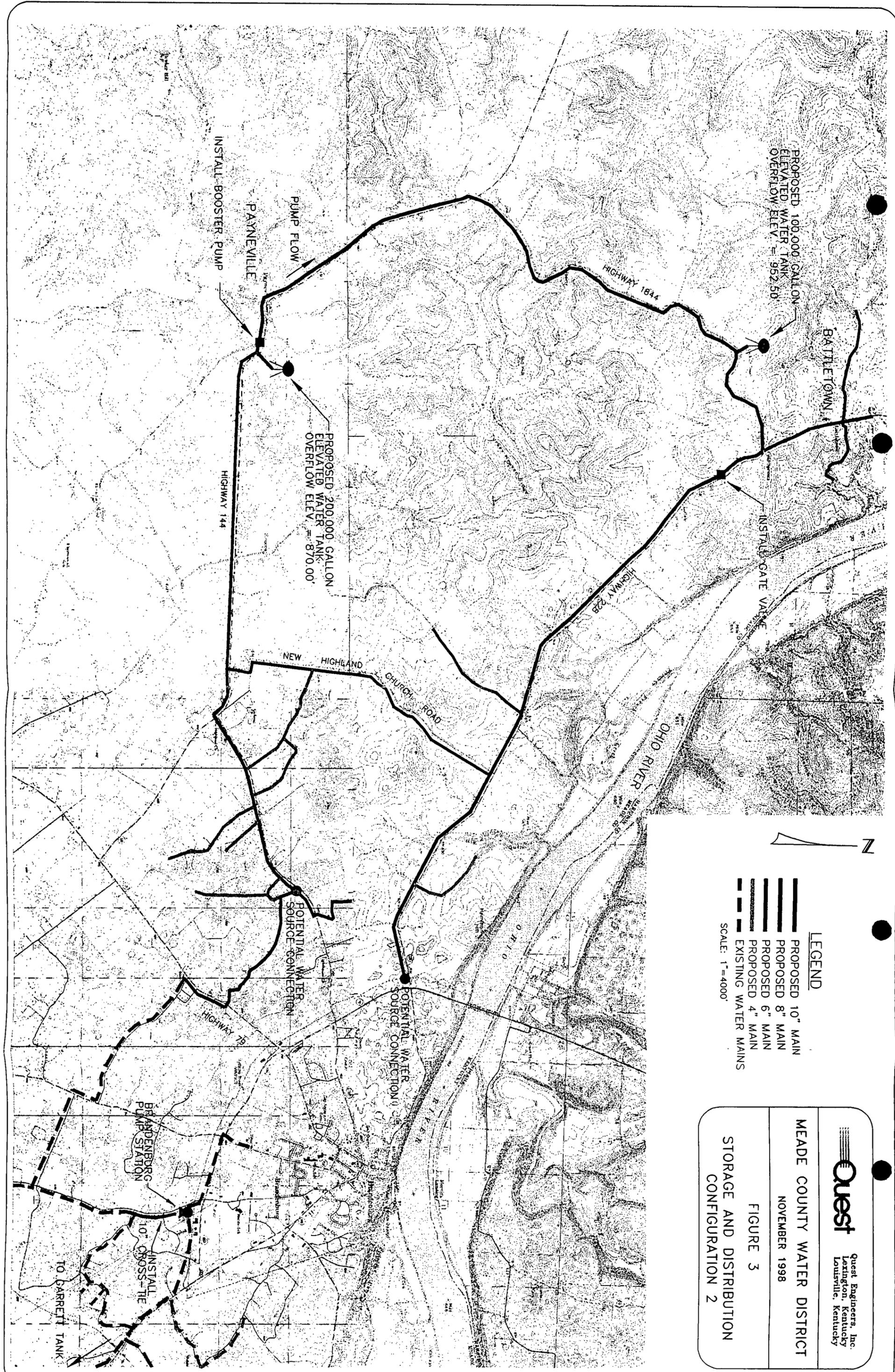
**Table 8**  
*200,000 Gallon Tank, 100,000 Gallon Tank and Booster Pump Stations*

<b>ITEM DESCRIPTION</b>	<b>OPINION OF PROBABLE COST</b>
200,000 and 100,000 Gallon Tanks	\$602,000
400 GPM Booster Pump Station	\$280,000
<b>ESTIMATED CONSTRUCTION COST</b>	<b>\$882,000</b>

The opinion of probable cost for the distribution piping is presented in Table 9. The proposed piping routes were the same for both alternatives.

**Table 9**  
*Distribution Piping*

<b>ITEM DESCRIPTION</b>	<b>OPINION OF PROBABLE COST</b>
10-inch PVC Water Main (41,200 Lineal Feet)	\$ 858,600
8-inch PVC Water Main (62,830 Lineal Feet)	\$ 991,400
6-inch PVC Water Main (25,870 Lineal Feet)	\$ 335,800
4-inch PVC Water Main (33,260 Lineal Feet)	\$ 345,300
<b>ESTIMATED CONSTRUCTION COST</b>	<b>\$2,531,100</b>



PROPOSED 100,000 GALLON  
ELEVATED WATER TANK  
OVERFLOW ELEV. = 952.50

PROPOSED 200,000 GALLON  
ELEVATED WATER TANK  
OVERFLOW ELEV. = 870.00

**LEGEND**

- PROPOSED 10" MAIN
  - PROPOSED 8" MAIN
  - PROPOSED 6" MAIN
  - PROPOSED 4" MAIN
  - - - EXISTING WATER MAINS
- SCALE: 1" = 4000'



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NOVEMBER 1998

FIGURE 3

STORAGE AND DISTRIBUTION  
CONFIGURATION 2

## Recommendations

After reviewing the various system configurations, the recommendations for the proposed Payneville-Battletown Water System Improvements Project are:

- Add new booster pumps (250 GPM init and 400 GPM ult) to the existing Brandenburg Pump Station. Maintain and isolate the existing 200 GPM booster pumps to the Brandenburg System.
- Storage and Distribution Configuration 1, which includes constructing a 300,000 gallon elevated tank with an overflow elevation of 952.50 feet. Construct a 400 GPM booster pump station to fill the proposed tank and construct two pressure reducing valve vaults to reduce the hydraulic grade from 952.50 feet to 870.00 feet.
- Construct approximately 41,200 lineal feet of 10-inch water main, approximately 62,830 lineal feet of 8-inch water main, approximately 25,870 lineal feet 6-inch water main, and approximately 33,260 lineal feet of 4-inch water main.

The opinion of probable cost for the recommended system configuration is presented in Table 10.

**Table 10**  
*Recommended Alternatives*

<b>ITEM DESCRIPTION</b>	<b>OPINION OF PROBABLE COST</b>
Add New 400 GPM Booster Pumps to Existing Brandenburg Pump Station	\$ 160,000
300,000 Gallon Elevated Tank	\$ 450,000
400 GPM Booster Pump Station and PRV Vault	\$ 291,000
PRV Vault	\$ 30,000
10-inch PVC Water Main (41,200 Lineal Feet)	\$ 858,600
8-inch PVC Water Main (62,830 Lineal Feet)	\$ 991,400
6-inch PVC Water Main (25,870 Lineal Feet)	\$ 335,800
4-inch PVC Water Main (33,260 Lineal Feet)	\$ 345,300
<b>ESTIMATED CONSTRUCTION COST</b>	<b>\$3,462,100</b>
Project Related Cost at 15%	\$ 519,300
<b>TOTAL ESTIMATED PROJECT COST</b>	<b>\$3,981,400</b>

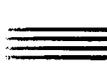
The recommended system configuration will meet the immediate demands of the Payneville-Battletown extension area while providing the capacity to expand to the 2020 projected ADD of approximately 272,000 gallons per day in the proposed extension area. The recommendations were based on Brandenburg having the capability to supply 400,000 gallons at 350 GPM under their Phase I improvements and at 500 GPM once Phase II improvements are made.

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**Preliminary Design Report  
Payneville-Battletown Water Main Extension Project**

**Meade County Water District  
Meade County, Kentucky**

**September 1998**

 **Quest**

---

Water District No. 1 and purchased approximately 30,686,000 gallons from the City of Brandenburg.

The existing distribution system is comprised of the following:

- 2 miles of 10-inch polyvinyl chloride (PVC)
- 46 miles of 8-inch PVC
- 31 miles of 6-inch PVC
- 35 miles of 4-inch PVC
- 1.5 miles of 3-inch PVC

The distribution system is divided into two sub-systems: The Flaherty System and the Brandenburg System. The Flaherty System serves 1,401 residential and commercial customers. Storage for the Flaherty System is provided from the 200,000 gallon Flaherty Standpipe at an overflow elevation of 952.50 feet. The Flaherty System is characterized by an undulating topography with elevation changes of approximately 100 feet with most elevations ranging between 750 feet to 850 feet. The water supply source for the Flaherty System comes from two wells located in Flaherty and water is also purchased from Hardin County Water District No. 1 and pumped to the Flaherty Standpipe through the Flaherty Pump Station. The pump station contains one 15 horsepower pump rated at approximately 210 gallons per minute (GPM). Flow to the standpipe is limited by a 1.2 mile segment of 4-inch line which results in an inability to keep the standpipe filled during periods of high consumption.

The Brandenburg System serves 437 residential and commercial customers. Storage for the Brandenburg System is provided from the 200,000 gallon Garrett Ground Storage Tank at an overflow elevation of 870.00 feet. The Brandenburg System is characterized by a sinkhole plain topography with elevation changes of approximately 150 feet with most elevations ranging from 600 feet to 750 feet. Water for the Brandenburg System is purchased from the City of Brandenburg and pumped to the Garrett Ground Storage Tank through the Brandenburg Pump Station which contains two 20 horsepower pumps rated at 200 GPM. The pumps are valved down to 110 GPM to prevent Brandenburg's Tanks from dropping too rapidly.

### Water Consumption

#### *Existing Demands*

The average day demand (ADD) on the MCWD system was estimated from 1997 customer billing data supplied by MCWD. The billing data was separated into the Flaherty System and the Brandenburg System. The 1997 water consumption and the ADD's for each system and the total system are summarized in Table 1.

The 1997 MCWD ADD was 272,392 gallons per day, or 189 GPM. The ADD of the Flaherty System was 207,380 gallons per day, or 144 GPM and the ADD of the Brandenburg

System was 65,012 gallons per day, or 45 GPM. The consumption changes with the seasons, varies from day-to-day in the week, and fluctuates from hour-to-hour in the day.

**Table 1**  
*1997 Water Consumption*

Month	Flaherty System		Brandenburg System		Total Water Consumption	
	Consumption (gallons)	Average Day Demand (gallons per day)	Consumption (gallons)	Average Day Demand (gallons per day)	Consumption (gallons)	Average Day Demand (gallons per day)
January	4,809,140	155,133	1,786,220	57,620	6,595,360	212,754
February	5,581,950	199,355	2,203,790	78,707	7,785,740	278,062
March	4,348,130	140,262	1,842,620	59,439	6,226,750	200,863
April	4,896,490	163,216	1,741,330	58,044	6,637,820	221,261
May	6,505,850	209,866	2,008,480	64,790	8,514,330	274,656
June	8,802,580	293,419	1,640,840	54,695	10,443,420	348,114
July	8,500,380	274,206	2,198,490	70,919	10,698,870	345,125
August	8,892,390	286,851	2,359,360	76,108	11,251,750	362,960
September	6,171,730	205,724	2,100,110	70,004	8,271,840	275,728
October	6,086,180	196,328	1,986,860	64,092	8,073,040	260,421
November	6,472,590	215,753	2,287,770	76,259	8,760,360	292,012
December	4,626,440	149,240	1,573,470	50,757	6,199,910	199,997
<b>1997 Total</b>	<b>75,693,850</b>	<b>207,380</b>	<b>23,729,340</b>	<b>65,012</b>	<b>99,423,190</b>	<b>272,392</b>

***Population Trends and Projections***

Projected demands for the Payneville-Battletown extension area were developed using population projections taken from the Meade County Comprehensive Plan. Meade County is divided into three census divisions: the Flaherty division, Brandenburg division, and Battletown-Payneville division. Growth trends for each division are summarized in Table 2.

**Table 2**  
*Meade County Census Division Trends*

Census Division	1960	1970	1980	1990	Percent Change (1960-1990)
Battletown-Payneville	2,786	2,751	3,448	3,491	20.2%
Brandenburg	4,778	5,594	7,298	8,501	43.8%
Flaherty	11,374	10,451	12,108	12,178	6.6%

Source: U.S. Department of Commerce, Bureau of the Census

The Meade County Comprehensive Plan, prepared by the Lincoln Trail Area Development District, 1996, projected a growth in population from 1990 to the year 2020 to be an additional 7,000 residents at a rate of 28 to 29 percent growth. In 1990, the Flaherty division had 50.4 percent of the total residents living within its boundaries, with the Brandenburg division having 35.2 percent of the total residents, and the Battletown-Payneville division having only 14.4 percent of the total residents. Table 3 summarizes the population projections for Meade County including the Battletown-Payneville division, the Brandenburg division, and the Flaherty division.

**Table 3**  
***Population Projections***

Year	Meade County	Battletown-Payneville	Brandenburg	Flaherty
1960 <sup>1</sup>	18,938	2,786	4,778	11,374
1970 <sup>1</sup>	18,796	2,751	5,594	10,451
1980 <sup>1</sup>	22,854	3,448	7,298	12,108
1990 <sup>1</sup>	24,170	3,491	8,501	12,178
1996 <sup>2</sup>	27,522	3,963 <sup>4</sup>	9,689 <sup>5</sup>	13,871 <sup>6</sup>
1997 <sup>1</sup>	28,140	4,052 <sup>4</sup>	9,905 <sup>5</sup>	14,183 <sup>6</sup>
2020 <sup>3</sup>	31,170	4,489 <sup>4</sup>	10,972 <sup>5</sup>	15,710 <sup>6</sup>

Notes: <sup>1</sup>U.S. Census Data

<sup>2</sup>Ky. State Data Center

<sup>3</sup>Projected from Comprehensive Plan

<sup>4</sup>Based on 14.4% of Meade County Population

<sup>5</sup>Based on 35.2% of Meade County Population

<sup>6</sup>Based on 50.4% of Meade County Population

### ***Projected Demands***

Projected demands for the Payneville-Battletown extension were estimated based on the following assumptions:

- 3.31 persons per household (Meade County Comprehensive Plan)
- 200 gallons per household per day
- 1998 projected demand based on existing house count along proposed water line route
- 2020 projected ultimate demand based on serving all residents within the Battletown-Payneville census division

A summary of the existing house count along the proposed water line route is summarized in Table 4.

**Table 4**  
*Existing House Count*

Road	Length (miles)	No. of Homes	Average Homes/mile
Highway 144	6	120	20
Highway 1692 and branches off Highway 1692	7.9	205	26
Highway 79	1.3	20	15
New Highland Church Road	3.1	51	17
Highway 1844	4.1	65	16
Highway 228 and branches off Highway 228	10.6	202	19
<b>TOTALS</b>	<b>33</b>	<b>663</b>	<b>20</b>

Based on the existing house count, the 1998 projected ADD for the Payneville-Battletown extension is 132,600 (663 homes x 200) gallons per day or 92 GPM. The projected 2020 ADD based on serving all residents within the Payneville-Battletown census division is 271,240 (4,489 / 3.31 x 200) gallons per day, or 188 GPM. A summary of the projected demands is presented in Table 5.

**Table 5**  
*Projected Demands for the Payneville-Battletown Extension Area*

Year	Population Projection	Projected Average Day Demand (gallons)
1998	2,195 <sup>1</sup>	132,600
2020	4,489 <sup>2</sup>	271,240

<sup>1</sup>Population based on house count of 663 homes at 3.31 persons per household

<sup>2</sup>Projected from Comprehensive Plan

### Design Alternatives

#### *General Design Guidelines*

A general design recommendation is to provide looped feeders verses dead end lines whenever possible. Looped feeders are commonly referred to as "backbone" lines because they essentially serve as the backbone of the system from which expansion can occur. There are several advantages of backbone lines:

- Flow is supplied from at least two directions, thus reducing pressure losses in the pipes as a result of reduced friction losses.
- Provides constant flow at all times thus minimizing the possibility of stagnation or deterioration of the water quality at the extreme ends of the system.

- 
- Allows for uninterrupted water service during periods of repairs, breaks, etc., at which time only small sections may be taken out of service until repairs are completed.
  - Provides the flexibility to design for future expansion.

The design alternatives for the proposed extension project are separated into supply alternatives, and storage and distribution alternatives. Supply alternatives focus on obtaining the required flowrates and volumes of water from Brandenburg's system and pumping into MCWD's system. Storage and distribution alternatives focus on the ability to deliver water to MCWD customers through MCWD's distribution system.

### *Supply Alternative*

The City of Brandenburg has committed to sell MCWD 400,000 gallons per day through the existing connection point once their water system improvements are made. Brandenburg would prefer MCWD to take water during off peak hours (typically 10 p.m. to 6 a.m.). Withdrawing 400,000 gallons over the 8 hour period results in a flowrate of approximately 830 GPM. Discussions with Brandenburg officials and their consulting engineer indicate their system is currently not capable of delivering the required volume during off peak hours without negatively impacting their system. Based on the information provided by Brandenburg officials, we believe approximately 400,000 gallons (equal to the contract amount) additional storage would need to be constructed near the Brandenburg pump station in order to provide the required volume during off peak hours. Additional storage would provide Brandenburg with the flexibility to fill the tank once per day during their normal operating shifts and provides MCWD the flexibility to pump from the tank when water is needed. Further coordination with Brandenburg officials is needed to resolve these supply related issues.

The supply alternative was developed based on Brandenburg having the capability to supply 400,000 gallons during off peak hours. The alternative consists of upgrading the existing Brandenburg Pump Station to obtain the flowrate required to meet MCWD's customer needs. The design flowrate was determined from a hydraulic analysis of MCWD's system. At a flowrate of 600 GPM, pressures in the low lying areas of the existing Brandenburg System approach 130 pounds per square inch (psi) with average pressures ranging from 80 to 100 psi. A design flowrate of 600 GPM would allow MCWD to obtain 400,000 gallons over an 11 hour period. Flowrates above 600 GPM can be obtained but would require extensive piping modifications between the Brandenburg Pump Station and Garrett Tank to maintain average operating pressures between 80 and 100 psi.

The most cost effective alternative to supply the extension area is to upgrade the existing Brandenburg Pump Station for a design flowrate of approximately 600 GPM. The upgrades would consist of either:

- Replacing the existing pumps with two new pumps rated at 600 GPM at 240 foot total dynamic head (TDH), or;

- Modifying the existing pumps from 200 GPM at 191 foot TDH to 200 GPM at 240 foot TDH. To obtain the desired 600 GPM flowrate, two additional pumps rated at 400 GPM at 240 TDH would need to be installed.

An opinion of probable cost to upgrade the existing Brandenburg pump station is presented in Table 6. Figure 1 shows the most cost effective configuration for the upgraded station.

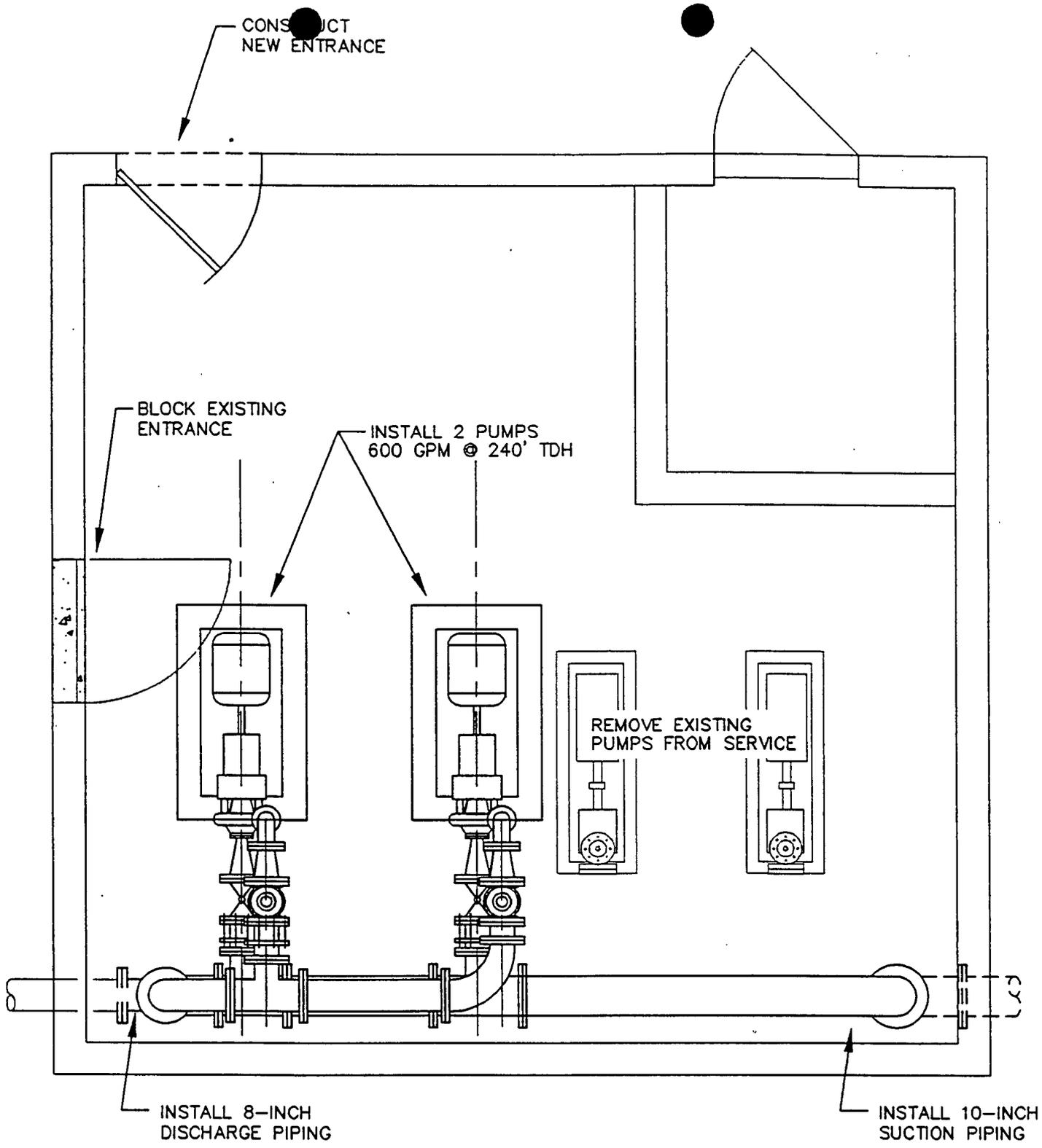
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*Upgrade Existing Brandenburg Pump Station*

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Pumps	\$ 50,000
Piping Modifications	\$ 80,000
Door Relocation	\$ 3,000
Electrical	\$ 27,000
<b>ESTIMATED CONSTRUCTION COST</b>	<b>\$160,000</b>

*Storage and Distribution System Alternatives*

There are two viable options for supplying customers in the proposed extension area with adequate flows and pressures. Due to the elevation changes in the extension area, the alternatives focus on maintaining two pressure planes (952.50' and 870.00') in MCWD's system versus adding a third pressure plane for the extension area. Elevations along the ridge between Payneville and Battletown are similar to the elevations in the Flaherty System. The remainder of the extension area has elevations most similar to the Brandenburg System. The advantages of maintaining two pressure planes are:

- The existing Brandenburg System will be extended into the Payneville-Battletown extension area thus allowing the Garrett Tank to be more effectively utilized. Low pressure problems near the Garrett Tank can be resolved by transferring some customers to the Flaherty System. Also, customers north of Highway 1238 can be transferred to the Brandenburg System from the Flaherty System to more effectively utilize the Garrett Tank.
- A new storage tank is recommended at an overflow elevation of 952.50 feet to serve customers in the higher elevations of the extension area. This tank will offer the ability to loop back to the existing Flaherty system on the south side of Ekron in the future to serve customers living in the higher elevations of Meade County along the Meade County/Breckenridge County Line.



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SEPTEMBER 1998

FIGURE 1  
SUPPLY ALTERNATIVE  
UPGRADE EXISTING  
BRANDENBURG PUMP STATION

The storage and distribution alternatives are described below. The proposed piping routes are the same for both alternatives.

#### Storage and Distribution Alternative 1

Storage and Distribution Alternative 1 consists of constructing an elevated tank and booster pump station in the Payneville-Battletown Extension Area. The general philosophy of the alternative is to construct the tank at the same overflow elevation as the existing Flaherty Standpipe, 952.50 feet. Customers along the ridge between Payneville and Battletown will be served directly from the elevated tank. Two pressure reducing valve (PRV) vaults will be constructed in the main lines along Highway 144 and Highway 228 to reduce the hydraulic grade to 870.00 feet, the same elevation as the Garrett Tank, so the remaining customers in the extension area will be on the same pressure plane as the existing Garrett Tank. The following is a detailed description of the alternative:

- Size proposed elevated storage at 300,000 gallons for projected 2020 ADD of approximately 272,000 gallons per day.
- Set proposed tank overflow elevation equal to 952.50 feet and the minimum water level equal to 930.00 feet. This overflow elevation will supply an average operating pressure of 50 psi when the tank is full and a minimum pressure of 35 psi when tank is operating near its minimum water level of 930.00 feet to the customers located along the ridge between Payneville and Battletown.
- The system will be designed to serve customers at high elevations on the ridge between Payneville and Battletown from the 952.50 foot pressure plane. Two PRV vaults will be constructed on the main water line to reduce pressures to the 870.00 foot pressure plane. All customers located below elevation 725 feet will be served from the 870.00 foot pressure plane. This design will offer the potential to loop back to the Flaherty System on the south side of Ekron. All customers on the north side of Ekron can be served from the 870.00 foot pressure plane.
- Install booster pump station in the line to proposed tank equipped with a by-pass line. The pump station will be designed to fill the proposed tank at a rate of approximately 350 GPM. At flowrates above 350 GPM, pressures on the suction side of the booster station approach 30 psi.

An opinion of probable cost for Storage and Distribution Alternative 1 is presented in Table 7 and a schematic of the proposed alternative is shown in Figure 2.

**Table 7**  
*300,000 Gallon Tank, Booster Pump Station, and PRV Vaults*

ITEM DESCRIPTION	OPINION OF PROBABLE COST
300,000 Gallon Elevated Tank	\$450,000
350 GPM Booster Pump Station with PRV	\$291,000
PRV Vault	\$ 30,000
<b>ESTIMATED CONSTRUCTION COST</b>	<b>\$771,000</b>

Storage and Distribution Alternative 2

Storage and Distribution Alternative 2 consists of constructing two elevated tanks and one booster pump station in the Payneville-Battletown Extension Area. The general philosophy of the alternative is to construct one tank at the same overflow elevation as the existing Flaherty Standpipe, 952.50 feet. The second tank would be constructed at the same overflow elevation as the Garrett Tank, 870.00 feet and would eliminate the need for the two pressure reducing vaults as described in Alternative 1. Customers along the ridge between Payneville and Battletown will be served from the 952.50 foot tank while the rest of the extension area will be served from the 870.00 foot tank. An opinion of probable cost for Storage and Distribution Alternative 2 is presented in Table 8 and a schematic showing the proposed alternative is shown in Figure 3.

**Table 8**  
*200,000 Gallon Tank, 100,000 Gallon Tank and Booster Pump Stations*

ITEM DESCRIPTION	OPINION OF PROBABLE COST
200,000 and 100,000 Gallon Tanks	\$602,000
350 GPM Booster Pump Station	\$280,000
<b>ESTIMATED CONSTRUCTION COST</b>	<b>\$882,000</b>

The opinion of probable cost for the distribution piping is presented in Table 9. The proposed piping routes were the same for both alternatives.

**Table 9**  
*Distribution Piping*

ITEM DESCRIPTION	OPINION OF PROBABLE COST
10-inch PVC Water Main (38,040 Lineal Feet)	\$ 790,000
8-inch PVC Water Main (67,260 Lineal Feet)	\$1,048,000
6-inch PVC Water Main (32,585 Lineal Feet)	\$ 423,000
<b>ESTIMATED CONSTRUCTION COST</b>	<b>\$2,261,000</b>

**Recommendations**

After reviewing the alternatives, the recommendations for the proposed Payneville-Battletown extension project are:

- Upgrade the existing Brandenburg Pump Station from an existing flowrate of 200 GPM to a proposed flowrate of 600 GPM.
- Storage and Distribution Alternative 1 which includes constructing a 300,000 gallon elevated tank with an overflow elevation of 952.50 feet. Construct a 350 GPM booster pump station to fill the proposed tank and construct two pressure reducing valve vaults to reduce the hydraulic grade from 952.50 feet to 870.00 feet.
- Construct approximately 38,040 lineal feet of 10-inch water main, approximately 67,260 lineal feet of 8-inch water main, and approximately 32,585 lineal feet 6-inch water main.

26 miles  
Battletown  
Payneville  
cont. in

The opinion of probable cost for the recommended alternatives is presented in Table 10.

**Table 10**  
*Recommended Alternatives*

ITEM DESCRIPTION	OPINION OF PROBABLE COST
Upgrade Existing Brandenburg Pump Station	\$ 160,000
300,000 Gallon Elevated Tank	\$ 450,000
350 GPM Booster Pump Station and PRV Vault	\$ 291,000
PRV Vault	\$ 30,000
10-inch PVC Water Main (38,040 Lineal Feet)	\$ 790,000
8-inch PVC Water Main (67,260 Water Main)	\$1,048,000
6-inch PVC Water Main (32,585 Lineal Feet)	\$ 423,000
<b>ESTIMATED CONSTRUCTION COST</b>	<b>\$3,192,000</b>
Project Related Cost at 15%	\$ 479,000
<b>TOTAL ESTIMATED PROJECT COST</b>	<b>\$3,671,000</b>

The recommended alternatives will meet the immediate demands of the Payneville-Battletown extension area while providing the capacity to expand to the 2020 projected ADD of approximately 272,000 gallons per day in the proposed extension area. The recommendations were based on Brandenburg having the capability to supply 400,000 gallons during off peak hours. Based on the information provided by Brandenburg officials, we believe approximately 400,000 gallons (equal to the contract amount) additional storage would need to be constructed near the Brandenburg pump station in order to provide required volume during off peak hours. An opinion of probable cost to construct 400,000 gallons additional storage is \$258,720. Further coordination with Brandenburg officials is needed to resolve these issues.

**Proposed Schedule**

The proposed schedule to complete the Payneville-Battletown Water Main Extension Project is presented in Table 11. The target completion date for the project is December 31, 1999. Based on information provided by KIA, all Fund "B" money must be spent by June 30, 2000.





COMMONWEALTH OF KENTUCKY  
**PUBLIC SERVICE COMMISSION**

730 SCHENKEL LANE  
POST OFFICE BOX 615  
FRANKFORT, KY. 40602  
(502) 564-3940

December 9, 1999

Jon Whitfield  
Chairman  
Meade County Water District  
4135 Flaherty Road  
Vine Grove, KY. 40175

Honorable David T. Wilson  
Attorney for Meade County Water  
Skeeters, Bennett & Wilson  
550 W. Lincoln Trail Blvd.  
P.O. Box 610  
Radcliff, KY. 40160

RE: Case No. 1999-442

We enclose one attested copy of the Commission's Order in  
the above case.

Sincerely,

A handwritten signature in cursive script that reads "Stephanie Bell".

Stephanie Bell  
Secretary of the Commission

SB/hv  
Enclosure

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF MEADE COUNTY	)	
WATER DISTRICT FOR A CERTIFICATE	)	
OF PUBLIC CONVENIENCE AND NECESSITY	)	CASE NO.
TO CONSTRUCT NEW FACILITIES AND EXTEND	)	99-442
WATER SERVICE TO THE PAYNEVILLE-	)	
BATTLETOWN AREA OF MEADE COUNTY	)	

O R D E R

On October 29, 1999, Meade County Water District ("Meade County") filed an application with the Commission for a Certificate of Public Convenience and Necessity to construct new facilities and extend water service to the Payneville-Battletown area of Meade County. Meade County included in its filing a letter requesting a blanket deviation from any filing requirement not met in the application.

Having reviewed the filing and being otherwise sufficiently advised, the Commission finds that:

1. For good cause shown by a utility, the Commission has the authority to grant the deviations requested.
2. Sufficient cause for a deviation from its rules and regulations has not been shown.
3. The request for deviation should be denied.

IT IS THEREFORE ORDERED that Meade County's motion for deviation is denied.

Done at Frankfort, Kentucky, this 9th day of December, 1999.

By the Commission

ATTEST:

  
Executive Director



COMMONWEALTH OF KENTUCKY  
**PUBLIC SERVICE COMMISSION**  
730 SCHENKEL LANE  
POST OFFICE BOX 615  
FRANKFORT, KENTUCKY 40602  
www.psc.state.ky.us  
(502) 564-3940  
Fax (502) 564-3460

**Ronald B. McCloud, Secretary**  
**Public Protection and**  
**Regulation Cabinet**

**Helen Helton**  
**Executive Director**  
**Public Service Commission**

**Paul E. Patton**  
**Governor**

December 1, 1999

Mr. Jon Whitfield, Chairman  
Meade County Water District  
4135 Flaherty Road  
Vine Grove, Kentucky 40175

Re: Case No. 99-442  
Filing Deficiencies

Dear Mr. Whitfield:

The Commission staff has reviewed your application in the above case. This filing is rejected pursuant to 807 KAR 5:001, Section 2, for the reasons set forth below. These items are either required to be filed with the application or to be referenced in the application if they are already on file in another case or will be filed at a later date.

1. Filing deficiency pursuant to KRS 322.340:

At least one copy of preliminary and final engineering report must be signed, sealed, and dated by registered professional engineer.

(Note: All information below in Sections 6(1) through 6(9) should cover the period ending not more than 90 days prior to date on which application was filed.)

2. Filing deficiencies pursuant to 807 KAR 5:001, Section 6:

(4) Mortgages: date of execution, name of mortgagor, name of mortgagee or trustee, amount of indebtedness secured and sinking fund provisions.

(5) Bonds: amount authorized, amount issued, name of utility who issued, description of each class issued, date of issue, date of maturity, how secured and interest paid in last fiscal year.



(6) Notes Outstanding: date of issue, amount, maturity date, rate of interest, in whose favor and interest paid in last fiscal year.

(7) Other Indebtedness: description of each class, how secured, description of any assumption of indebtedness by outside party (i.e., any transfer) and interest paid in last fiscal year.

(8) Rate and amount of dividends paid during the five previous fiscal years and the amount of capital stock on which dividends were paid each year.

(9) Detailed income statement and balance sheet.

3. Filing deficiency pursuant to 807 KAR 5:001, Section 8(2):

The original and 10 copies of the application with an additional copy for any party named therein as an interested party.

4. Filing deficiencies pursuant to 807 KAR 5:001, Section 9(2):

(b) Copies of franchises or permits, if any, from the proper public authority for the proposed new construction or extension, if not previously filed with the Commission.

(d) Three maps to suitable scale (preferably not more than two miles per inch) showing the location or route of the proposed new construction or extension, as well as the location to scale of any like facilities owned by others located anywhere within the map area with adequate identification as to the ownership of such other facilities.

(e) The manner, in detail, in which it is proposed to finance the new construction or extension.

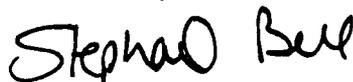
(f) An estimated cost of operation after the proposed facilities are completed.



5. Filing deficiencies pursuant to 807 KAR 5:001, Section 11(1):
  - (a) Description of applicant's property. Statement of original cost of applicant's property and the cost to the applicant, if different.
  - (b) If Bonds or Notes or Other Indebtedness is proposed, full description of all terms, interest rate(s), and whether the debt is to be secured and if so a description of how it is secured.
  - (c) Statement of how proceeds are to be used. Should show amounts for each type of use (i.e., property, debt refunding, etc.)
6. Filing deficiencies pursuant to 807 KAR 5:001, Section 11(2):
  - (b) Copies of all trust deeds or mortgages. If previously filed, state case number.
  - (d) If property to be acquired, detailed estimates by USOA account number.

The statutory time period in which the Commission must process this case will not commence until the above-mentioned information is filed with the Commission. You are requested to file six copies of this information (unless otherwise noted) within 15 days of this letter. If you need further information, please contact Anita Mitchell of my staff at 502-564-3940, extension 258.

Sincerely,



Stephanie Bell  
Secretary of the Commission

hv  
cc: Honorable David T. Wilson





COMMONWEALTH OF KENTUCKY  
**PUBLIC SERVICE COMMISSION**

730 SCHENKEL LANE  
POST OFFICE BOX 615  
FRANKFORT, KY. 40602  
(502) 564-3940

November 2, 1999

Jon Whitfield  
Chairman  
Meade County Water District  
4135 Flaherty Road  
Vine Grove, KY. 40175

Honorable David T. Wilson  
Attorney for Meade County Water  
Skeeters, Bennett & Wilson  
550 W. Lincoln Trail Blvd.  
P.O. Box 610  
Radcliff, KY. 40160

RE: Case No. 99-442  
MEADE COUNTY WATER DISTRICT  
(Construct) NEW FACILITIES/EXTEND SERVICE TO PAYNEVILLE-BATTLETOWN

This letter is to acknowledge receipt of initial application in the above case. The application was date-stamped received October 29, 1999 and has been assigned Case No. 99-442. In all future correspondence or filings in connection with this case, please reference the above case number.

If you need further assistance, please contact my staff at 502/564-3940.

Sincerely,

A handwritten signature in black ink that reads "Stephanie Bell".

Stephanie Bell  
Secretary of the Commission

SB/sh

SKEETERS, BENNETT AND WILSON

ATTORNEYS AT LAW  
550 W. LINCOLN TRAIL BLVD.  
P.O. BOX 610  
RADCLIFF, KENTUCKY 40160

RECEIVED  
OCT 29 1999  
PUBLIC SERVICE  
COMMISSION

DONALD E. SKEETERS  
R. TERRY BENNETT  
DAVID T. WILSON II  
DAVID T. GRAY  
LORI A. LODGE-LANE  
TROY A. McPEAK

October 28, 1999

TEL: (502) 351-4404

FAX: (502) 352-4626

REAL ESTATE DEPT:

TEL: (502) 352-4406

FAX: (502) 352-4421

FILED

JAN 27 2000  
PUBLIC SERVICE  
COMMISSION

Public Service Commission  
730 Schenkel Lane  
P.O. Box 615  
Frankfort, Ky 40602

Re: Meade County Water District Application for  
Certificate of Public Convenience and Necessity

Case No. 99-442

To Whom It May Concern:

Enclosed please find an original Application and ten (10) copies of the Meade County Water District for a Certificate of Convenience and Necessity to Construct New Facilities and Extend Water Service to the Payneville-Battletown Area of Meade County. Pursuant to a phone conversation of today's date with your office, I am enclosing one copy of the exhibits with the Application, as they were too voluminous to copy.

For your information, the contact persons for any questions that may arise during your review of this Application are: for **engineering** related items: Kevin J. Brian-Quest Engineers, Inc., (502) 584-6056; for **financial** information: Joann Thomas-Meade County Water District, (270) 828-3399; and for **legal** issues: David Wilson-Skeeters, Bennett & Wilson, (270) 351-4404.

At this time, I request that any deficiencies in the application be treated informally for resolution, or in the alternative that any requirements not met in the PSC checklist provided earlier be waived at this time if at all possible.

Please do not hesitate to contact me should you have questions, and thank you for your assistance in this matter.

Sincerely,

SKEETERS, BENNETT & WILSON



David T. Wilson II

DTW/dnf  
Enclosure

**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY  
IN THE MATTER OF:**

RECEIVED  
PUBLIC SERVICE  
COMMISSION  
OCT 29 1999

**APPLICATION OF THE MEADE COUNTY WATER DISTRICT FOR A  
CERTIFICATE OF CONVENIENCE AND NECESSITY TO CONSTRUCT  
NEW FACILITIES AND EXTEND WATER SERVICE TO THE PAYNEVILLE-  
BATTLETOWN AREA OF MEADE COUNTY.**

Case No. 99-442

**APPLICATION**

The Petition of the MEADE COUNTY WATER DISTRICT respectfully shows:

1. Applicant is a duly organized and operating Water District organized and existing under the laws of the Commonwealth of Kentucky (KRS 74 et seq) and is engaged in the business of distributing potable water and maintaining a water distribution system. The applicant now operates and does business in an existing service area which includes the City of Flaherty, and other areas of Meade County. The entire service area is within the boundaries of the Commonwealth of Kentucky.
2. The Post office address of the applicant is 4135 Flaherty Road, Vine Grove, Ky 40175.
3. A certified copy of the Order of the Meade County Fiscal Court establishing the water district and all amendments thereto is attached to this application and are labeled "Exhibit A."
4. Meade County Water District is currently constructing a new headquarters as authorized by the PSC via previous application. Meade County Water District now proposes to extend water service to the Payneville-Battletown area of Meade County. This will increase the number of customers from approximately 2,042 to 2,712 customers.
5. The facts relied upon to show that the proposed new construction is required by public convenience and necessity are: (a) the Flaherty area and surrounding areas have grown rapidly since water mains were originally laid in the 1980's; (b) the Rock Ridge-Rockhaven area of Meade

County along Highway 1638 has grown rapidly since 1994, when mains were extended to service those areas; (c) based on existing U.S. Census data and population data projections made from the Meade County Comprehensive Plan, engineers have estimated that the Average Day Demand for potable water in the Battletown-Payneville area of Meade County will increase from 132,000 gallons (92 gallons per minute (GPM)) in 1998 to 271,240 gallons (188 GPM) in 2020, an estimated increase of one hundred five percent (105%) over twenty-two years.

6. Meade County Water District, as Applicant, seeks the issuance of a Certificate of Convenience and Necessity to construct an additional 33 miles of line consisting of six (6), eight (8) and ten (10) inch water mains; a 300,000 storage tank; a 350 gallons per minute booster pump station with PRV; a PRV vault; and an upgrade of the existing Brandenburg Pump Station. This request is in compliance with KRS 278.020(1) and 807 KAR §§ 8 and 9.

7. There are no franchises required for this proposed construction project.

8. The various construction documents are attached as Exhibits B1 to B-7 as prepared by the architectural/engineering firm of Quest Engineers, Inc., of Louisville, Kentucky, and include:

- (a) three (3) sets of plans for Project Contracts 1-4 (Exhibits B-1);
- (b) three (3) sets of specifications for Contracts 1-4 (Exhibits B-2, B-3, B-4, B-5);
- (c) one (1) hydraulic analysis for the referenced project (Exhibit B-6); and
- (d) one (1) copy of the design report (Exhibit B-7).

9. The current Project costs have been identified at approximately \$4.2 million. The Water District intends to finance the proposed project by means of a grant from the Kentucky Infrastructure Grant Program Fund of \$2.5 million and a Kentucky Infrastructure Authority "Fund C" Loan of \$1.7 million.

10. A full description of the proposed location of the new extension is as follows: The Payneville-Battletown Water System Improvements Project includes approximately 31 to 33 miles of water main that will connect to the Meade County Water District's existing system near Highway 79 and Turner Road and run to Payneville and Battletown and back to Brandenburg.

11. There are no public utilities or corporations with whom the proposed new water district extension is likely to compete.

12. A rate increase to Meade County Water District customers will not be necessary. Attached as "Exhibit C" is the Audited Financial Statements of the Meade County Water District dated December 31, 1998.

13. The proposed project is expected to provide tremendous benefits to current and anticipated customers of the Meade County Water District. The proposed construction will increase the number of customers the Water District services immediately by approximately 33% without a rate increase.

14. The Meade County Water is currently in the process of contracting with the City of Brandenburg to purchase 400,000 gallons of water per day. This contract is currently under consideration by the Public Service Commission.

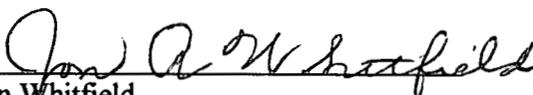
WHERETO, the Meade County Water Commission requests that the Public Service Commission of the Commonwealth of Kentucky consider this application and issue a Certificate of Public Convenience and Necessity for the construction of facilities to extend water service to the communities of Payneville and Battletown and to upgrade existing facilities to expedite this extension.

Dated at Radcliff, Kentucky this 28 day of Oct., 1999.

MEADE COUNTY WATER DISTRICT

By:   
David T. Wilson II  
Skeeters, Bennett & Wilson

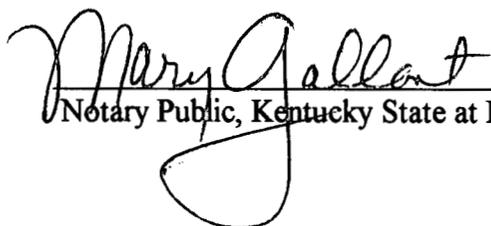
I, Jon Whitfield, Chairman of the Meade County Water District, state that I have read and understand the foregoing application and that the statements therein are true to the best of my knowledge.

  
Jon Whitfield

STATE OF KENTUCKY

COUNTY OF 

Subscribed, sworn to and acknowledged before me by Jon Whitfield on this 27 day of October, 1999 to be his true act and deed.  
My Commission Expires: 11-29-99

  
Notary Public, Kentucky State at Large

BEFORE THE COUNTY JUDGE/EXECUTIVE  
MEADE COUNTY, KENTUCKY

RECORDED  
OCT 29 1999  
COUNTY JUDGE  
COMMISSION

IN THE MATTER OF THE MEADE COUNTY WATER DISTRICT

ORDER RECITING THE CREATION OF THE MEADE COUNTY WATER DISTRICT; REVISING THE DESCRIPTION OF THE BOUNDARIES OF SAID DISTRICT; AND APPROVING ALL PROCEEDINGS HAD BY THE COUNTY JUDGE/EXECUTIVE TO DATE IN CONNECTION WITH SAID DISTRICT.

*Case No. 99-442*

The Meade County Water District, which was created by Order of the County Judge/Executive entered on May 10, 1983, having filed its Supplemental Petition herein requesting that the County Judge/Executive take the appropriate action to ratify and confirm the previous creation of said Water District, to revise the description of the boundaries of said District, and to approve all proceedings had by the County Judge/Executive to date in connection with said District,

THE COUNTY JUDGE/EXECUTIVE HEREBY MAKES THE FOLLOWING FINDINGS OF FACT:

1. That on February 25, 1983, a Petition was filed in the office of the County Judge/Executive of Meade County, Kentucky, containing the signatures of twenty-five (25) resident freeholders residing in the area described herein, requesting the County Judge/Executive to create a Water District pursuant to the provisions of Chapter 74 of the Kentucky Revised Statutes, the area of said proposed District being described in said Petition as being comprised of Meade County.

2. That thereafter there was published a "Public Notice" in THE PIONEER on March 2, 1983, and March 9, 1983, which published Notice stated that a Petition had been filed in the office of the Meade County Judge/Executive

— Exhibit A —

requesting the establishment of a Water District in accordance with the provisions of KRS Chapter 74. Said Notice further provided that any parties objecting to the creating of the District could file such objection within 30 days after the date of publication of the Notice. Said Notice did not describe the area to be embraced by the District.

3. That on May 10, 1983, the County Judge/Executive entered an Order, reciting the facts that (a) "a Petition for the establishment of a Water District was filed with the office of the Meade County Judge/Executive on the 25th day of February, 1983, said Petition requesting that a Water District be established with regards to the entire territory lying within Meade County," (b) "said Petition was duly filed and contained the signatures of 25 resident freeholders of the proposed county district," and (c) "a hearing was duly held on March 30, 1983, for the purpose of hearing an objection to the Petition filed by Ben Cox in the form of a letter," and then ordering that "there be and it is hereby established a water district which shall consist of all territory within Meade County, which shall be known as the Meade County Water District."

4. That on June 28, 1984, upon the recommendation of the County Judge/Executive, the Fiscal Court of Meade County entered an Order appointing three Commissioners of said Water District, as follows:

- A. George Thomas for a term of two years, from June 21, 1983, through June 20, 1985;
- B. Melvin Dowell for a term of three years, from June 21 1983, through June 20, 1986; and
- C. Ray Griffee for a term of four years, from June 21, 1983, through June 20, 1987.

5. That said Order further set the amount of Bond for each Commissioner at \$25,000.

6. That said District has filed an application or applications with the United States Department of Housing and Urban Development and with the Farmers Home Administration (FmHA) of the United States Department of Agriculture requesting a grant and/or a loan from each to finance the construction of a new waterworks system to serve the District, and the District has been advised that it will receive approval of an FmHA Loan and of a HUD (CDBG) Grant in amounts sufficient to accomplish the foregoing purposes. However, before any such funds may be made available, it is necessary for the County Judge/Executive to revise the boundaries of the District as set out in paragraph 7 below and to clarify the appointments of the three Water Commissioners by the County Judge/Executive, with the approval of the Fiscal Court.

7. That the following is a description of the total area which was originally intended (according to said Supplemental Petition) and which the Commissioners of the District now desire to constitute the boundaries of the District:

All of Meade County, Kentucky, except the incorporated cities of Bradenburg, Muldraugh, and Ekron.

8. That said Supplemental Petition was filed in this Court on July 25, 1984, and the County Judge/Executive has set the matter for hearing on September 17, at 10:00 A.M., E.D.T. Notice of the filing of such Supplemental Petition, of the rights of the various parties to object thereto and of the setting of the matter for hearing on the aforesaid date and hour, was duly published in both the MEADE COUNTY MESSENGER and THE PIONEER on August 15, 1984, and on September 5, 1984, and Affidavits of Publication with reference to such publications have been duly filed in this Court and made a part hereof and are duly approved hereby.

9. That all of the original Petitioners who signed the Petition filed in this Court for the creation of said Water District were at the time of signing same both residents and freeholders of the area embraced by the boundaries of said District described in paragraph 7 above.

10. That there is no recognized central water system serving the residents of the District, as originally or as now contemplated, and the only water available for use by said residents is water which may be pumped from wells or cisterns or carried from springs, which water supply is inadequate for the use of the residents of said District.

11. That it is desperately urgent and necessary that the appropriate Order be entered reciting and supplementing the previous creation of the District and revising the description of its boundaries, in order to enable the District to proceed without delay in an attempt to secure funds to finance the construction of a new waterworks system for the District, all as permitted and provided for in KRS Chapter 74.

12. That no other City, District, or other municipal corporation, or any part thereof, is located within the proposed boundaries of the District, as described herein.

13. That the Public Service Commission of Kentucky entered an Order on June 4, 1974, approving the creation of the District. A letter dated November 4, 1982, written by Mr. Richard D. Heman, Jr., Secretary of the Public Service Commission, stating that such Order was still in effect has been filed as an exhibit to the original Petition of the District.

14. That no written objections have heretofore been filed with the County Judge/Executive or with the County Clerk and no person was present in open Court on this date or prior to the stipulated deadline for the purpose of making objections to any of said proceedings or to the entry of this Order.

15. That the County Judge/Executive has further considered all pleadings and all other matters relating to the creation of said Water District, including the membership of the Board of Water Commissioners of said District, their respective terms of office, and the surety bond previously executed by each of them.

NOW, THEREFORE, IT IS HEREBY ORDERED AND ADJUDGED AND THE COUNTY JUDGE/EXECUTIVE HEREBY MAKES THE FOLLOWING CONCLUSIONS OF LAW:

A. That it is hereby acknowledged that the Meade County Water District was created by the proceedings set out above and was necessary for the public health, convenience, fire protection, and comfort of the residents of said District.

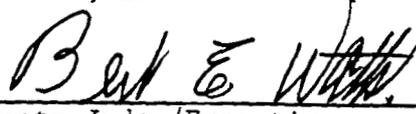
B. That the description of the area embraced by said District be and the same is hereby revised so that the boundaries of said District shall be those specified in paragraph 7 above.

C. That all Orders heretofore entered by the County Judge/Executive and/or by the Fiscal Court of Meade County, with respect to the appointment of the Commissioners of said Water District, be and the same are, hereby ratified, confirmed, and approved, and it is hereby determined that the present Commissioners of said Water District and their present terms of office are as follows:

<u>NAMES</u>	<u>EXPIRATION DATES OF CURRENT TERMS OF OFFICE</u>
George Thomas	June 20, 1985
Melvin Dowell	June 20, 1986
Ray Griffiee	June 20, 1987

D. That it is hereby determined that the appropriate oaths of office have been administered to said three members of the Board of Water Commissioners, that the appropriate surety bonds have been duly executed by said members and by their sureties, the execution of which surety bonds have been approved by this County Judge/Executive, that said Water District is a duly incorporated Water District existing under the laws of the Commonwealth of Kentucky, including KRS Chapter 74, with boundaries as specified in paragraph 7 above, and that said three members are the duly qualified and acting members of the Board of Water Commissioners of said Water District, with terms of office expiring as set out above.

Entered this 17th day of September, 1984.

  
County Judge/Executive

CERTIFICATE OF COUNTY CLERK

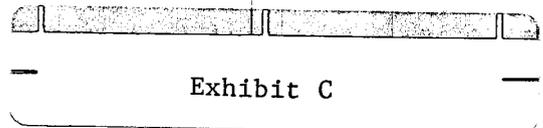
It is hereby certified that the foregoing is a true and accurate copy of an Order of the County Judge/Executive duly entered on September 17, 1984, that the Affidavits of Publication referred to in paragraph 8 of said Order have been filed with and approved by the County Judge/Executive, said Affidavits being on file in my office in Brandenburg, Kentucky, and that said Order has been duly recorded in my office and is of record in County Judge/Executive Order Book 4, Page 222.

IN TESTIMONY WHEREOF, witness my signature and official seal this 20th day of September, 1984.

(Seal)

  
\_\_\_\_\_  
County Clerk

**MEADE COUNTY WATER DISTRICT**  
**AUDITED FINANCIAL STATEMENTS**  
**DECEMBER 31, 1998**



**MEADE COUNTY WATER DISTRICT**

**AUDITED FINANCIAL STATEMENTS**

**DECEMBER 31, 1998**

*Case No. 99-442*

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Joseph E. Richardson  
R. Stephen Pennington  
Scott S. Skinner  
William A. Talley  
Harry L. Freibert  
Jon D. Chesser

Kentucky Offices:  
Louisville  
Brandenburg  
Hardinsburg  
Leitchfield

**INDEPENDENT AUDITOR'S REPORT**

Commissioners  
Meade County Water District  
Vine Grove, Kentucky

We have audited the accompanying financial statements of Meade County Water District of Vine Grove, Kentucky as of and for the year ended December 31, 1998, as listed in the table of contents. These financial statements are the responsibility of the Commission's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards and Government Auditing Standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to in the table of contents present fairly, in all material respects, the financial position of Meade County Water District at December 31, 1998 and the results of its operations for the year then ended in conformity with generally accepted accounting principles.

In accordance with Government Auditing Standards, we have also issued a report dated January 20, 1999 on our consideration of Meade County Water District's internal control and on its compliance with laws and regulations.

Our audit was made for the purpose of forming an opinion on the financial statements taken as a whole. The schedules listed in the table of contents are presented for purposes of additional analysis and are not a required part of the financial statements of Meade County Water District. Such information has been subjected to the auditing procedures applied in the audit of the financial statements and, in our opinion, is fairly presented in all material respects in relation to the financial statements taken as a whole.

*Richardson Pennington & Skinner, PSC*  
Louisville, Kentucky  
January 20, 1999

**MEADE COUNTY WATER DISTRICT  
BALANCE SHEET  
DECEMBER 31, 1998**

<u>ASSETS</u>	<u>1998</u>
Current Assets:	
Cash	\$ 269,616
Prepaid Insurance	7,025
Accounts Receivable	69,181
Inventory - Water	3,200
Inventory - Parts	31,410
	380,432
Fixed Assets:	
Transmission and Distribution Facilities	1,526,084
Waterline Extensions	1,749,615
Equipment	332,912
Trucks	113,367
Buildings	12,262
	3,734,240
Less accumulated depreciation	(780,066)
Net Fixed Assets	2,954,174
Other Assets:	
Land	43,560
	43,560
<b>TOTAL ASSETS</b>	<b>\$ 3,378,166</b>

The notes to the financial statements are an integral part of this statement.

**MEADE COUNTY WATER DISTRICT  
BALANCE SHEET (CONTINUED)  
DECEMBER 31, 1998**

<u>LIABILITIES AND EARNINGS</u>	<u>1998</u>
<b>Current Liabilities:</b>	
Accounts Payable	\$ 38,307
Notes payable - Current Portion	43,988
Customer Deposits	13,462
Accrued Expenses	5,555
Accrued Retirement Payable	1,509
Accrued Wages	2,782
Accrued Vacation & Sick Leave	25,999
<b>Total Current Liabilities</b>	<u>131,602</u>
 <b>Long-Term Liabilities:</b>	
Notes Payable	<u>1,734,302</u>
<b>Total Liabilities</b>	1,865,904
 <b>Retained Earnings:</b>	
Contributed Capital in Aid of Construction	752,369
Retained Earnings	<u>759,893</u>
<b>Retained Earnings</b>	<u>1,512,262</u>
<b>TOTAL LIABILITIES AND RETAINED EARNINGS</b>	<u><u>\$ 3,378,166</u></u>

The notes to the financial statements are an integral part of this statements.

**MUSKOGEE COUNTY WATER DISTRICT  
STATEMENTS OF REVENUE, EXPENSES, AND RETAINED EARNINGS  
FOR THE YEAR ENDED DECEMBER 31, 1998**

	1998
Revenues:	
Water Service	\$ 788,114
Operating Expenses:	
Water test	4,987
Meter and meter installations	2,462
Tools	1,873
Testing supplies	893
Depreciation expense	119,324
Payroll taxes	12,605
Utility tax	20,992
Other taxes and licenses	2,441
Salaries and wages	167,236
Commissioners pay	10,800
Employees pension and benefits	11,346
Water purchase	143,119
Purchased power	13,128
Repairs and maintenance	19,421
Billing expense	7,743
Materials and supplies	4,583
Engineering fees	55,654
Professional fees	4,900
Contractual services	2,677
Transportation expense	21,658
Health insurance	23,916
Other insurance	13,983
Bad debts	9,950
Advertising	962
Public service assessment	1,282
Equipment rental	8,405
Rent	4,500
Office supplies	3,412
Uniforms	3,880
Communications	939
Telephone	3,901
Dues, fees and training	1,948
Gravel	2,800
Miscellaneous	5,152
Total Operating Expenses	712,872
Operating Income (Loss)	75,242
Nonoperating revenue (expenses)	
Interest Income	12,525
Meter Hook-up Fees	87,050
State Grant	34,649
Debt service-interest	(100,919)
Total Nonoperating revenues (expenses)	33,305
Net Income	108,547
Retained Earnings, January 1, 1998	651,346
Retained Earnings, December 31, 1998	\$ 759,893

The notes to the financial statements are an integral part of this statements.

**MEADE COUNTY WATER DISTRICT  
STATEMENTS OF CASH FLOWS  
YEAR ENDED DECEMBER 31, 1998**

	1998
Cash Flow From Operating Activities	
Net Income (Loss)	\$ 108,547
Adjustments To Reconcile Net Income	
To Net Cash Provided By Operations:	
Depreciation	119,324
(Increase) Decrease In:	
Accounts Receivable	(9,540)
Inventory	(9,187)
Prepaid Expenses	466
Increase (Decrease) In:	
Accounts Payable	20,007
Customer Deposits	800
Accrued Liabilities	6,215
	236,632
Cash Flows From Investing Activities	
Purchase of Land	(25,060)
Purchases of Fixed Assets	(162,754)
	(187,814)
Cash Flows From Financing Activities	
Current -	3,671
Long-Term	(18,153)
	(14,482)
Net Increase (Decrease) in Cash	34,336
Cash at January 1, 1998	235,280
Cash at December 31, 1998	\$ 269,616
Supplemental Disclosures:	
Cash paid for interest	\$ 100,919

The notes to the financial statements are an integral part of this statement.

**LEADE COUNTY WATER DISTRICT**  
**STATEMENTS OF REVENUE, EXPENSES, AND RETAINED EARNINGS -**  
**BUDGETED AND ACTUAL**  
**FOR THE YEAR ENDED DECEMBER 31, 1998**

	<u>Budgeted</u>	<u>Actual</u>	Variance - Favorable (Unfavorable)
Revenues:			
Water Service	\$ 787,000	\$ 788,114	\$ 1,114
Operating Expenses:			
Water test	5,030	4,987	43
Meter and meter installations	2,500	2,462	38
Tools	1,900	1,873	27
Testing supplies	1,000	893	107
Depreciation expense	120,000	119,324	676
Payroll taxes	13,000	12,605	395
Utility tax	21,000	20,992	8
Other taxes and licenses	2,500	2,441	59
Salaries and wages	168,000	167,236	764
Commissioners pay	10,800	10,800	-0-
Employees pension and benefits	11,400	11,346	54
Water purchase	143,500	143,119	381
Purchased power	14,400	13,128	1,272
Repairs and maintenance	20,000	19,421	579
Billing expense	8,000	7,743	257
Materials and supplies	5,000	4,583	417
Engineering fees	56,000	55,654	346
Professional fees	5,000	4,900	100
Contractual services	2,800	2,677	123
Transportation expense	22,000	21,658	342
Health insurance	24,000	23,916	84
Other insurance	14,000	13,983	17
Bad debts	10,000	9,950	50
Advertising	1,000	962	38
Public service assessment	1,300	1,282	18
Equipment rental	8,500	8,405	95
Rent	4,600	4,500	100
Office supplies	3,500	3,412	88
Uniforms	3,900	3,880	20
Communications	950	939	11
Telephone	4,000	3,901	99
Dues, fees and training	2,000	1,948	52
Gravel	2,900	2,800	100
Miscellaneous	5,300	5,152	148
Total Operating Expenses	<u>719,780</u>	<u>712,872</u>	<u>6,908</u>
Operating Income (Loss)	67,220	75,242	8,022
Nonoperating revenue (expenses)			
Interest Income	12,250	12,525	275
Meter Hook-up Fees	87,000	87,050	50
State grant	34,650	34,649	(1)
Debt service-interest	(101,000)	(100,919)	81
Total Nonoperating revenues (expenses)	<u>32,900</u>	<u>33,305</u>	<u>405</u>
Net Income (Loss)	100,120	108,547	8,427
Retained Earnings, January 1, 1998	651,346	651,346	-0-
Retained Earnings, December 31, 1998	<u>\$ 751,466</u>	<u>\$ 759,893</u>	<u>\$ 8,427</u>

The notes to the financial statements are an integral part of this statement.

**MEADE COUNTY WATER DISTRICT  
NOTES TO FINANCIAL STATEMENTS  
DECEMBER 31, 1998**

**NOTE 1 - ORGANIZATION AND ACCOUNTING POLICIES**

The Meade County Water District is a water distribution system organized under the laws of the State of Kentucky. The Federal Government insures all deposited funds. The District is exempt from Federal, State and Local income taxes. It is controlled by a board of commissioners appointed by the County Judge-Executive. The District purchases its water from the Commission of Brandenburg and Hardin County #1 under a long-term contract and the sale of this water is the source of the district operating revenues.

The District is a proprietary operation and operates on the accrual basis wherein revenues are recognized in the accounting period in which they are earned and become measurable and expenses are recognized in the period incurred if measurable. Inventory is stated at cost.

Accounts receivable is stated at gross amount due. Bad debts are charged directly to expense when management determines an account to be uncollectible. Management believes that all accounts receivable are collectible and that all bad debts have been written off.

Depreciation is provided on the straight-line method over the estimated economic useful life of the depreciable property, ranging from five to forty years. Expenditures for repair and maintenance are charged to expense as incurred. Depreciation expense in 1998 was \$119,324.

**NOTE 2 - LONG-TERM DEBT**

Long-term debt at December 31, 1998 consisted of the following:

	<u>1998</u>
Note payable to Farmers Home Administration, payable in semi-annual principal and interest installments in June and December of each year with final payment in 2032. Interest is computed on a daily basis at a rate of 5.0%.	\$ 401,000
Note payable to Farmers Home Administration, payable in monthly principal and interest installments of \$2,813 final payment in December, 2026, collateralized by Water Revenue. Interest is computed on a daily basis at a rate of 6.5%.	450,000

**MEADE COUNTY WATER DISTRICT  
NOTES TO FINANCIAL STATEMENTS (CONTINUED)  
DECEMBER 31, 1998**

**NOTE 2 - LONG-TERM DEBT (CONTINUED)**

	<u>1998</u>
Note payable to Farmers Home Administration, payable in monthly principal and interest installments of \$937 final payment in December, 2026, collateralized by Water Revenue. Interest is computed on a daily basis at a rate of 6.5%.	\$ 146,000
Note payable to Meade County Bank, 48 months at 6.60%	34,835
Note payable to Meade County Fiscal Court, 20 year note, final payment due in November 2015, effective interest rate is 6.174%, collateralized by all equipment, furniture, furnishings, vehicles and other personal property comprising the construction project.	742,000
Note payable to Banc One Leasing , 36 months at 6.7%	4,455
Total Debt	1,778,290
Less: Current Portion	<u>(43,988)</u>
Long-Term Debt	<u>\$1,734,302</u>

During February 1998, the District entered into a capital lease agreement with Meade County bank for \$43,900 to purchase a Dump Truck. This is a 48-month capital lease at 6.60%. A detailed schedule of the remaining principal payments is contained in the Supplemental Data. This was the only new debt incurred during the year, and this is the total amount of assets acquired under a capital lease on the balance sheet.

**NOTE 3 - CASH AND CASH EQUIVALENT**

The District reporting entity considers highly liquid investments (including assets) with an original maturity of three months or less when purchased to be cash equivalents. The District considers cash in bank to be cash equivalents. All cash in the bank is fully insured by the FDIC or by collateral pledges from Meade County Bank.

**MEADE COUNTY WATER DISTRICT  
NOTES TO FINANCIAL STATEMENTS (CONTINUED)  
DECEMBER 31, 1998**

**NOTE 4 - CONTRIBUTED CAPITAL IN AID OF CONSTRUCTION**

The District had \$38,032 of waterline extensions installed by real estate developers during 1998.

**NOTE 5 - BUDGET**

The District follows these procedures in establishing the budgetary data reflected in the financial statements:

1. The office manager is responsible for preparing the proposed operating budget prior to each fiscal year commencing on January 1. The proposed operating budget is submitted to the Commissioners for approval.
2. Budgeted amounts are as originally adopted, or as amended by the Commissioners.

**NOTE 6 - EMPLOYEE RETIREMENT BENEFITS**

Effective October 1, 1994 the District began providing benefits for regular full-time employees with at least 100 hours of work per month. These benefits are provided under the County Employees Retirement System (CERS) of the state of Kentucky. Regular full-time employees are required to participate. The plan is included in the Annual Report of the Kentucky Retirement Systems. A copy may be obtained from the Kentucky Retirement Systems, Perimeter Park West, 1260 Louisville Road, Frankfort, Kentucky 40601.

Plan Description for Non-Hazardous - CERS is a cost-sharing multiple-employer defined benefit pension plan that covers substantially all regular full-time members employed in non-hazardous duty positions of each county and school board, and any additional eligible local agencies electing to participate in the System. The plan provides for retirement, disability, and death benefits to plan members. Retirement benefits may be extended to beneficiaries of plan members under circumstances. Cost-of-living (COLA) adjustments are provided at the discretion of the State legislature.

Contributions for Non-Hazardous - For the year ended, June 30, 1997 and 1996, plan members were required to contribute 5% of their annual creditable compensation. Participating employers were required to contribute at an actuarially determined rate. Per Kentucky Revised Statute Section 61.565(3), normal contribution and past service contribution rates shall be determined by the Board on the basis of an annual valuation last proceeding the July 1 of a new biennium. The Board may amend contribution rates as of the first day of July of the second year of a biennium, if it is determined on the basis of a subsequent actuarial valuation that amended contribution rates are necessary to satisfy requirements determined in accordance with actuarial bases adopted by the Board. For the year ended June 30, 1997 and 1996, participating employers contributed 8.65% and 8.94% of creditable compensation. Administrative costs of Kentucky Retirement System are financed through employer contributions and investment earnings.

**MEADE COUNTY WATER DISTRICT  
NOTES TO FINANCIAL STATEMENTS (CONTINUED)  
DECEMBER 31, 1999**

**NOTE 6 - EMPLOYEE RETIREMENT BENEFITS - (CONTINUED)**

8.94% of each employee's creditable compensation. The actuarially determined rate set by the Board for the Year ended June 30, 1997 and 1996, was 8.65% and 8.94% of creditable compensation. Administrative costs of Kentucky Retirement System are financed through employer contributions and investment earnings.

The District's current year payroll was \$167,236. The District made the required contributions for the fiscal year amounting to \$11,346. \$8,517 and \$9,014 were contributed for the years ending December 31, 1997 and 1996 respectively.

The following table sets forth the information required under GASB as of the latest report dated June 30, 1997 for the non-hazardous and hazardous position county employees in the state of Kentucky.

County Employees Retirement System - June 30, 1997

Number of members

Retirees and beneficiaries receiving benefits	17,797
Terminated plan members – vested	2,503
Terminated plan members – nonvested	15,223
Active plan members	<u>69,219</u>
Total	<u>104,742</u>
Number of participating employers	

Active members

Retirees and beneficiaries receiving benefits	16,208
Terminated plan members – vested	2,254
Terminated plan members – non-vested	13,519
Active plan members	<u>66,273</u>
Total	<u>98,254</u>
Number of participating employers	

**MEADE COUNTY WATER DISTRICT  
NOTES TO FINANCIAL STATEMENTS (CONTINUED)  
DECEMBER 31, 1999**

**NOTE 6 - EMPLOYEE RETIREMENT BENEFITS - (CONTINUED)**

County Employees Retirement System - June 30, 1997 (continued)

	1997 Non-Hazardous <u>Employees</u>	1996 Non-Hazardous <u>Employees</u>
Net Assets Held in Trust for Pension Benefits	<u>\$ 3,129,206</u>	<u>\$ 3,151,674</u>
Contributions:		
Employer	\$ 105,774	\$ 131,612
Member	<u>63,590</u>	<u>72,558</u>
Total Contributions	<u>\$ 169,364</u>	<u>\$ 204,170</u>

Investments

The Board of Trustees of the System (CERS) gives priority to the investment of funds in obligations considered to improve the industrial development and enhance the economic welfare of the Commonwealth. The Board enters into contracts with investment managers who use the following guidelines and restrictions in the selection and timing of transactions as long as the security is not prohibited by the Kentucky Revised Statutes.

- a. Equity Investments – Investments may be made in common stocks, securities convertible into common stocks and in preferred stocks of publicly traded corporations.
- b. Fixed Income Investments – Publicly traded bonds are to be selected and managed to assure an appropriate balance in quality and maturities consistent with the current market and economic conditions. Investment may be made in any debt instrument issued by the U.S. Government or an agency of the U.S. Government.
- c. Mortgages – Investments may be made in real estate mortgages on a direct basis or in the form of mortgage pool instruments guaranteed by an agency of the U.S. Government or the Commonwealth of Kentucky.
- d. Equity Real Estate – Investments may be made for the purpose of creating a diversified portfolio of income-producing properties with moderate to low levels of risk.

**MEADE COUNTY WATER DISTRICT**  
**NOTES TO FINANCIAL STATEMENTS (CONTINUED)**  
**DECEMBER 31, 1999**

**NOTE 6 - EMPLOYEE RETIREMENT BENEFITS - (CONTINUED)**

Investments (continued)

- e. Mutual Fund Investments – Investments may be made in mutual funds, which hold common stocks or fixed income securities.
- f. Cash Equivalent Securities – The following short-term investment vehicles, excluding commercial paper which requires specific purchase approval by the Investment Committee of Kentucky Retirement Systems, are considered acceptable:
- Securities Purchased under Agreement to resell – repurchase agreements which are collateralized by U.S. Government securities.
  - U.S. Government Issues – All obligations of the U.S. Government and its agencies.

The System's investments are categorized below to give an indication of the level of risk assumed by the System at June 30, 1997 and 1996. Category 1 includes investments that are either insured or registered or for which the investments are held by The System or its agent in the System's name. Category 2 included uninsured and unregistered investments that are held by the broker's or dealer's trust department or agent in the System's name. Category 3 includes securities purchased by and held by the System's custodial agent. The agent loans securities owned by the Systems with simultaneous receipt of cash collateral for the loaned securities. Cash collateral is reinvested in accordance with the Systems *Statement of Investment Policy*. All securities purchased with cash collateral are segregated by the custodial agent and held in the name of Kentucky Retirement Systems.

	<u>1997</u>			Market Value
	Category 1	Category 2	Category 3	
Investments – Categorized				
U.S. government Securities				
Not on securities loan	\$ 55,736,984		\$ 13,396,250	\$ 69,133,234
Loaned for securities collateral	39,704,544			39,704,544
Corporate Bonds	291,385,668		20,236,935	311,622,603
Corporate Stocks	2,554,019,056			2,554,019,056
Mortgages	147,728,799			147,728,799
Repurchase agreements	-0-	\$ 237,237,533	453,200,702	690,438,235
Subtotal	<u>\$ 3,088,575,051</u>	<u>\$ 237,237,533</u>	<u>\$486,833,887</u>	\$3,812,646,471
Investments – Not Categorized				
Investments held by broker -				
Dealers under securities loans				
U.S. Government Securities				\$ 347,166,606
Corporate bonds				13,552,509
Corporate stocks				119,937,385
Real Estate Investments				150,816,754
Total Investments				<u>\$4,444,119,725</u>

**MEADE COUNTY WATER DISTRICT  
NOTES TO FINANCIAL STATEMENTS (CONTINUED)  
DECEMBER 31, 1999**

**NOTE 6 - EMPLOYEE RETIREMENT BENEFITS - (CONTINUED)**

Investments – Categorized	<u>1996</u>			Market Value
	Category 1	Category 2	Category 3	
U.S. Government Securities				
Not on securities loan	\$ 107,272,298		\$ 41,720,482	\$ 148,992,780
Loaned for securities collateral	3,494,967			3,494,967
Corporate Bonds	120,910,543		3,466,820	124,377,363
Corporate Stocks	2,086,625,908			2,086,625,908
Mortgages	107,187,737			107,187,737
Repurchase agreements	-0-	\$ 441,436,138	50,123,815	491,559,953
Subtotal	<u>\$ 2,425,491,453</u>	<u>\$ 441,436,138</u>	<u>\$ 95,311,117</u>	2,962,238,708
Investments – Not Categorized				
Investments held by broker -				
Dealers under securities loans				
U.S. Government Securities				77,789,145
Corporate bonds				7,488,211
Corporate stocks				9,215,821
Real Estate Investments				154,900,877
Total Investments				<u>\$3,211,632,762</u>

	<u>Non-Hazardous</u>	
	<u>June 30, 1997</u>	<u>June 30, 1996</u>
Actual Value of Assets	2,750,196,558	2,237,808,033
Actuarial Accrued Liability		
Entry Age Normal	2,390,620,093	2,083,374,317
Unfunded (Overfunded)	(359,576,465)	(154,433,716)
Funded Ratio	1.150	1.074
Covered Payroll	1,297,116,204	1,137,192,560
UAAL as a % of		
Covered Payroll	(0.277)	(0.136)

**Employer Contributions**

	<u>Non-Hazardous</u>	
	<u>June 30, 1997</u>	<u>June 30, 1996</u>
Annual Required Contribution	112,200,552	101,665,015
Actual Contributions	105,773,743	95,660,478
Percentage Contributed	0.942	0.941

**MEADE COUNTY WATER DISTRICT  
NOTES TO FINANCIAL STATEMENTS (CONTINUED)  
DECEMBER 31, 1999**

**NOTE 7 - RISK MANAGEMENT**

The Meade County Water District is exposed to various risks and losses related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. The Commission currently carries property and general liability insurance through the Kentucky Municipal Risk Management Association. Workman's Compensation insurance is carried through the Kentucky Association of Counties.

**NOTE 8 - ESTIMATES**

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

**NOTE 9 - YEAR 2000 READINESS**

Meade County Water District has initiated an assessment of the possible impact of Year 2000 Issues to assure they are prepared to effectively deal with transactions in the year 2000 and beyond. This "Year 2000 Computer Problem" creates risk for the District from unforeseen sources in its own computer systems and from third parties with whom the District deals on financial transactions. Such failures of the District and/or third parties' computer systems could have material impact on the District's ability to conduct business.

As of December 31, 1998, Meade County Water District has contracted with United Systems to assist the District in addressing the year 2000 issues relating to its computer systems and other electronic equipment. The amount of the contract is approximately \$500 for training on the new software. The District is aware of the issue and United Systems will be responsible for the assessment, remediation, and testing of the system in 1999.

**NOTE 10 - RESTATEMENT OF RETAINED EARNINGS**

Retained earnings have been restated to reflect an adjustment to increase the accounts receivable, accrued vacation, and customer deposit prior period balances. This resulted in a net decrease of \$16,774 to retained earnings.

**MEADE COUNTY WATER DISTRICT  
NOTES TO FINANCIAL STATEMENTS (CONTINUED)  
DECEMBER 31, 1999**

**NOTE 11 – CAPITAL LEASE**

During 1998 Meade County Water District purchased a dump truck for \$43,900 through a capital lease. The price of the dump truck is the amount of property held under a capital lease during the year. This amount is included in the Trucks on the balance sheet.

The minimum future lease payments under the capital lease as of December 31, 1998, for each of the next four years are as follows:

<u>YEAR</u>	<u>PRINCIPAL</u>	<u>INTEREST</u>	<u>TOTAL</u>
1999	\$ 10,533	\$ 1,984	\$ 12,517
2000	11,249	1,268	12,517
2001	12,015	502	12,517
2002	<u>1,038</u>	<u>6</u>	<u>1,043</u>
TOTAL	<u>\$ 34,835</u>	<u>\$ 3,740</u>	<u>\$ 38,594</u>

The interest rate on the capital lease is 6.60%.

**NOTE 11 – NOTE PAYABLE**

The future principal payments on the note payable to Bank One are as follows:

<u>YEAR</u>	<u>PRINCIPAL</u>
1999	<u>\$ 4,455</u>
TOTAL	<u>\$ 4,455</u>

The interest rate on this note payable is 6.70%.

**SUPPLEMENTAL INFORMATION**

**MEADE COUNTY WATER DISTRICT  
SUPPLEMENTAL INFORMATION  
DECEMBER 31,1998**

1. Insurance Coverage

<u>POLICY NUMBER</u>	<u>INSURANCE COMPANY AND ADDRESS</u>	<u>EXPIRATION DATE OF POLICY</u>
Insurance Policy # 0285	Kentucky Association of Counties All Lines Fund, Frankfort, KY	6-30-98

<u>TYPE</u>	<u>COVERAGE</u>
Public Officials Liability	
Occurrence	1,000,000
General Liability	
Occurrence	3,000,000
Errors and Omissions	3,000,000
Automobile Liability	3,000,000
District Assets:	
Four pumps	2,205 Each
Hydraulic equipment	37,500
Pipe line	840,000
Pump stations and contents	156,275
Water tanks	331,800
Storage building and contents	28,875
Computer equipment	6,077
Air compressor	500
7 1/2 HSP	1,700
Sharp copier	6,000
Pump stations	7,500
Case backhoe	42,300
Kerosene heaters	225

2. Water and/or Sewer Utility Borrowers Only

A. Water purchased	116,891,600
B. Water sold	117,461,527
C. Water in storage tanks & lines	2,560,281
D. Treated waste	N/A
E. Number of users - Water	1,916
F. Number of users - Sewer	N/A

**MEADE COUNTY WATER DISTRICT  
SUPPLEMENTAL INFORMATION (CONTINUED)  
DECEMBER 31, 1998**

3. Distribution of All Cash and Investments

Appropriate bank accounts have been set up as required by grant and bond resolution agreements. All accounts are interest bearing check accounts. The FDIC insures all accounts.

4. Aged Accounts Receivable at December 31, 1998 were as follows

	DAYS				TOTAL
	0-30	31-60	61-90	OVER 90	
Dollar Values	<u>\$ 54,965</u>	<u>\$ 10,151</u>	<u>\$ 1,937</u>	<u>\$ 2,128</u>	<u>\$ 69,181</u>

5. List of commissioners

NAME	ADDRESS	TERM	
		YEARS	EXPIRATION DATE
Jon Whitfield, Chairman	1505 Milan Road Vine Grove, KY 40108	3	June 20, 2002
Joseph Bartley, Treasurer	228 St. Martin Raod Vine Grove, KY 40175	3	June 20, 1999
Patsy Thompson	50 Crossier Bottom Road Battletown, KY 40104	3	June 20, 2000

**MEADE COUNTY WATER DISTRICT  
SUPPLEMENTAL SCHEDULE  
WATER WORKS REVENUE BONDS OF 1986  
DECEMBER 31, 1998**

<u>YEAR</u>	<u>Principal Installments, Series A Bonds</u>	<u>Principal Installments, Series B Bonds</u>	<u>Total Annual Principal Installments</u>
1999	\$ -0-	\$ -0-	\$ -0-
2000	4,000	2,000	6,000
2001	5,000	2,000	7,000
2002	5,000	2,000	7,000
2003	6,000	2,000	8,000
2004	6,000	2,000	8,000
2005	7,000	3,000	10,000
2006	7,000	3,000	10,000
2007	8,000	3,000	11,000
2008	9,000	4,000	13,000
2009	10,000	4,000	14,000
2010	10,000	4,000	14,000
2011	11,000	4,000	15,000
2012	12,000	5,000	17,000
2013	14,000	5,000	19,000
2014	15,000	5,000	20,000
2015	16,000	6,000	22,000
2016	18,000	6,000	24,000
2017	19,000	6,000	25,000
2018	21,000	6,000	27,000
2019	23,000	7,000	30,000
2020	25,000	8,000	33,000
2021	27,000	9,000	36,000
2022	30,000	9,000	39,000
2023	32,000	9,000	41,000
2024	35,000	10,000	45,000
2025	36,000	10,000	46,000
2026	39,000	10,000	49,000
	<u>\$ 450,000</u>	<u>\$ 146,000</u>	<u>\$ 596,000</u>

**MEADE COUNTY WATER DISTRICT  
SUPPLEMENTAL SCHEDULE  
WATER WORKS REVENUE BONDS OF 1992  
DECEMBER 31, 1998**

<u>YEAR</u>	<u>Principal Installments, Series A Bonds</u>
1999	\$ -0-
2000	4,000
2001	4,000
2002	4,000
2003	4,000
2004	5,000
2005	5,000
2006	5,000
2007	6,000
2008	6,000
2009	6,000
2010	7,000
2011	7,000
2012	8,000
2013	8,000
2014	9,000
2015	9,000
2016	10,000
2017	11,000
2018	11,000
2019	13,000
2020	13,000
2021	14,000
2022	15,000
2023	16,000
2024	17,000
2025	18,000
2026	20,000
2027	20,000
2028	22,000
2029	23,000
2030	25,000
2031	27,000
2032	29,000
	<u>\$ 401,000</u>

**MEADE COUNTY WATER DISTRICT  
SUPPLEMENTAL SCHEDULE  
NOTE PAYABLE TO MEADE COUNTY FISCAL COURT  
DECEMBER 31, 1998**

<u>YEAR</u>	<u>Principal Payments</u>	<u>Interest and Fees</u>	<u>Projected Annual Total Payments</u>
1999	\$ 29,000	\$ 45,064	\$ 74,064
2000	30,000	43,248	73,248
2001	32,000	41,344	73,344
2002	33,000	39,343	72,343
2003	35,000	37,254	72,254
2004	37,000	35,042	72,042
2005	38,000	32,732	70,732
2006	40,000	30,334	70,334
2007	42,000	27,813	69,813
2008	45,000	25,143	70,143
2009	47,000	22,313	69,313
2010	49,000	19,360	68,360
2011	52,000	16,258	68,258
2012	54,000	12,996	66,996
2013	57,000	9,585	66,585
2014	60,000	5,989	65,989
2015	62,000	2,233	64,233
	<u>\$ 742,000</u>	<u>\$ 446,051</u>	<u>\$ 1,188,051</u>

See Note 2 in the financial statements.

Joseph E. Richardson  
R. Stephen Pennington  
Scott S. Skinner  
William A. Talley  
Harry L. Freibert  
Jon D. Chesser

**INDEPENDENT AUDITORS' REPORT ON COMPLIANCE AND ON  
THE INTERNAL CONTROL OVER FINANCIAL REPORTING  
BASED ON AN AUDIT OF FINANCIAL STATEMENTS  
PERFORMED IN ACCORDANCE WITH  
GOVERNMENT AUDITING STANDARDS**

Kentucky Offices:  
Louisville  
Brandenburg  
Hardinsburg  
Leitchfield

Commissioners  
Meade County Water District  
Vine Grove, Kentucky

We have audited the financial statements of the Meade County Water District, for the year ended December 31, 1998, and have issued our report thereon dated January 20, 1999. We conducted our audit in accordance with generally accepted auditing standards and the standards applicable to financial audits contained in Government Auditing Standards.

**Compliance**

As part of obtaining reasonable assurance about whether Meade County Water District's financial statements are free of material misstatement, we performed tests of the Commission's compliance with certain provisions of laws, regulations, contracts and grants, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance that are required to be reported under Government Auditing Standards.

**Internal Control Over Financial Reporting**

In planning and performing our audit, we considered Meade County Water District's internal control over financial reporting in order to determine our auditing procedures for the purpose of expressing our opinion on the financial statements and not to provide assurance on the internal control over financial reporting. However, we noted certain matters involving the internal control and its operation that we consider to be reportable conditions. Reportable conditions involve matters coming to our attention relating to significant deficiencies in the design or operation of the internal control structure that, in our judgment, could adversely affect the Meade County Water District's ability to record, process, summarize, and report financial data consistent with the assertions of management in the financial statements. We recognize the extent of segregation of duties is a judgment established by management. We also recognize this judgment is affected by certain circumstances beyond the Commission's control such as by budgetary constraints. Due to limited staff, a proper segregation of duties may be impossible. However, the lack of adequate segregation of duties is hereby noted as a reportable condition pursuant to professional auditing standards.

A material weakness is a condition in which the design or operation of one or more of the internal control components does not reduce to a relatively low level the risk that misstatements in amounts that would be material in relation to the financial statements being audited may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions. Our consideration of the internal control structure would not necessarily disclose all matters in the internal control structure that might be reportable conditions, and accordingly, would not necessarily disclose all reportable conditions that are also considered to be material weaknesses. However, we believe the reportable condition described above is not a material weakness.

This report is intended for the information of management and federal awarding agencies. However, this report is a matter of public record and its distribution is not limited.

*Richardson Pennington + Skinner, P.S.C.*

Louisville, Kentucky  
January 20, 1999