BATH COUNTY WATER DISTRICT

POST OFFICE BOX 369
SALT LICK, KENTUCKY 40371
TELEPHONE: (606) 683-6363

TDD/TTY 1-800-648-6056

December 1, 2011

Public Service Commission
Jeff Deroun
P. O. Box 615
Frankfort, Kentucky 40602-0615

RE: Line Extension

Mr. Jeff Deroun:

Bath County Water District has submitted plans to the Kentucky Division of Water to install 4,585 LF of 2-inch water main. This extension will not impact rates; it will be financed by one customer on Star Shader Lane.

The District request the Public Service Commission's opinion on the enclosed plans and a Certificate of Public Confidence and Necessity if needed.

If you need further information please call.

Sincerely,

Kenny Barber, Co-Manager

Enclosures

1. Letter to Division of Water
2. Letter from Engineer to Division of Water
3. Letter from Division of Water
4. Copy of Plans

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October 15, 2011

Kentucky Division of Water
Drinking Water Branch – Review Section
200 Fair Oaks Road
Frankfort, KY 40601

RE: Starshader Lane Water Main Extension

Dear Sir/Madam:

The Bath County Water District has reviewed the plans and specifications for the above referenced project. This project consists of the installation of approximately 4,585 LF of 2-inch water main. The Bath County Water District will own and maintain the water main upon the completed installation.

We realize the Division of Water normally prefers at least a 3-inch water line be used for a main line. This 2-inch will only be serving one residential customer with no possibility of future development or additional customers being connected due to its remote location.

If you have any questions or would like to request additional information please contact myself or Mr. James C. Thompson, PE of Kentucky Engineering Group, PLLC at 859-251-4127.

Sincerely,

Kenny Barber
Bath County Water District

pc: Kentucky Engineering Group, PLLC
James C. Thompson, PE

File

KENTUCKY ENGINEERING GROUP, PLLC

October 31, 2011

Bath County Water District
Attn. Mr. Kenny Barber
P.O. Box 369
Salt Lick, KY 40371

RE: Water Main Extension
Starshader Ln

Kenny,

We have completed our design of the water main extension along Starshader Lane off of Pine Grove Rd. As requested this extension will consist of a 2" PVC water main of approximately 4,585 lf. It is our understanding this extension is to serve one (1) residential customer with no additional connections planned for the future.

The Water District should be aware that 4,585 lf of 2" water main has a capacity of approximately 960 gallon of water. The average residential customer uses between 150 and 200 gallons per day, meaning it would take one residential customer approximately five (5) days to use the amount of water stored in the line. It has been our experience that chlorine will maintain its residual for approximately three (3) days. Therefore in order to maintain the proper amount of chlorine in the water line the Water District may have to flush the line regularly. The amount of flushing would be based on actual chlorine levels taken in the field.

Please feel free to contact me with any questions or concerns.

Sincerely,

KENTUCKY ENGINEERING GROUP, PLLC

James C. Thompson

James C. Thompson, PE

Pc: File

Mr. Mike Campbell

P.O. Box 1034
Versailles, Kentucky 40383
Phone: (859) 251.4127
Fax: (859) 251.4137
Email: info @ kyengr.com
www.kyengr.com

STEVEN L. BESHEAR
GOVERNOR

LEONARD K. PETERS
SECRETARY

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

November 18, 2011

Mr. Kenney Barber,
Bath Co Water District
PO Box 369
Salt Lick, KY 40371

RE: Bath Co Water District
AI # 33781, APE20110004
PWSID # 0060022-11-004
Starshader Lane Water main Ext
Bath County Health Department, KY

Dear Mr. Barber:

We have reviewed the plans and specifications for the above referenced project. The plans include the construction of approximately 4,585 LF of 2-inch PVC Waterline. This is to advise that plans and specifications for the above referenced project are APPROVED with respect to sanitary features of design, as of this date with the requirements contained in the attached construction permit.

For the purpose of review, DOW will not approve lines less than 3-inches for distribution. When 2-inch lines are proposed for distribution they are approved on a case-by-case basis with the stipulations that such cannot be extended. In areas where lines may be extended in the future, DOW reserves the right to approve 3-inch waterlines as a minimum diameter.

If you have any questions concerning this project, please contact Mr. Mohammed Mohiuddin at 502-564-8158 x4827.

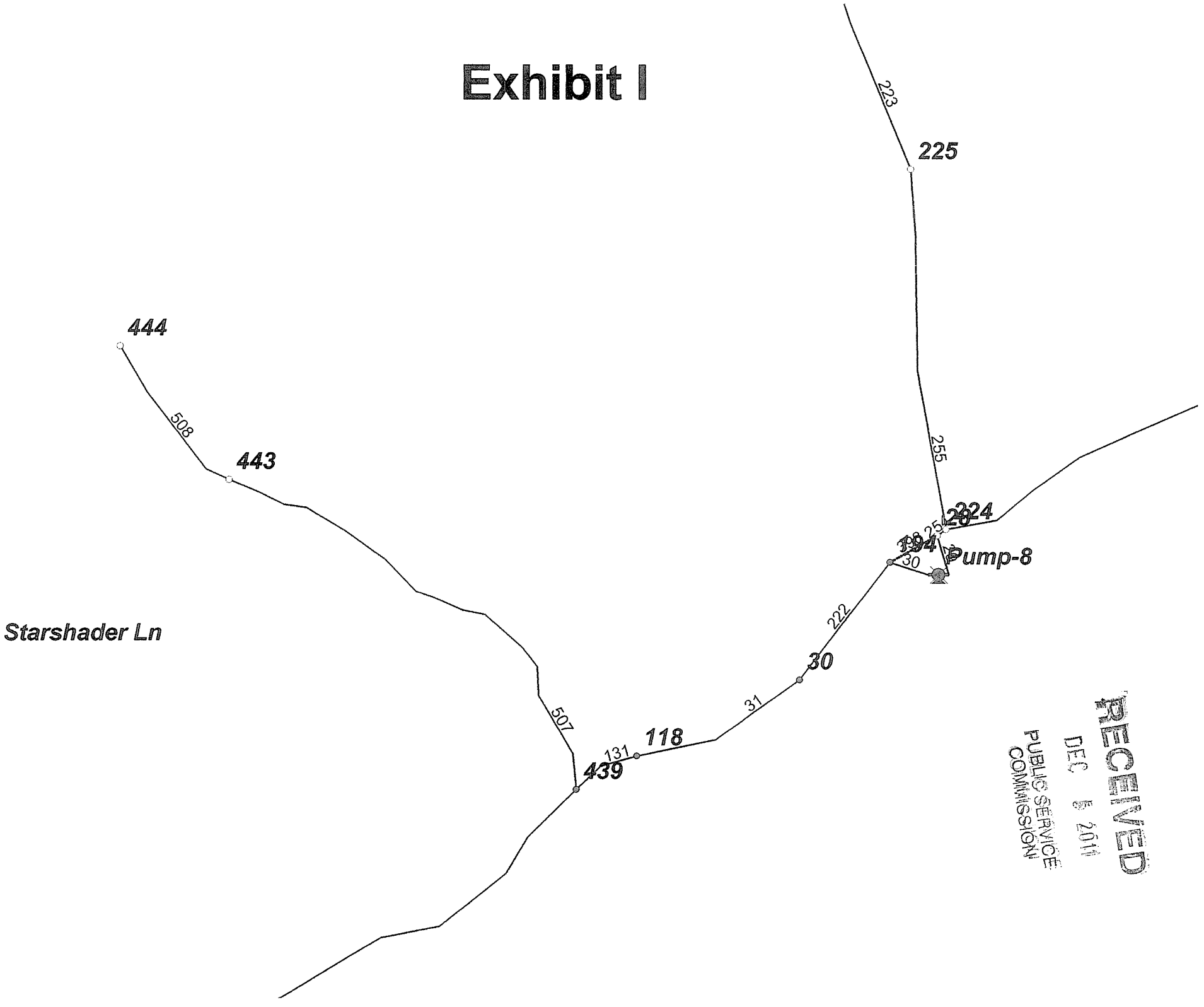
Sincerely,

Mark Rasche

Mark Rasche, PE
Supervisor, Engineering Section
Water Infrastructure Branch
Division of Water

MR: MM
Enclosures
C: Kentucky Engineering Group, PLLC
Bath County Health Department
Public Service Commission
Division of Plumbing

Exhibit I



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*                                                       *
*              Pipe Network Modeling Software           *
*                                                       *
*                Copyrighted by KYPIPE LLC              *
*                  Version 4 - April 2008               *
*                                                       *
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Date & Time: Thu Oct 20 10:33:16 2011

INPUT DATA FILENAME ---------- C:\Projects\HYDRAU~1\BCWD\BCWD_Str.DT2
TABULATED OUTPUT FILENAME ------- C:\Projects\HYDRAU~1\BCWD\BCWD_Str.OT2
POSTPROCESSOR RESULTS FILENAME --- C:\Projects\HYDRAU~1\BCWD\BCWD_Str.RS2

PEAK DEMAND CALCULATIONS

U N I T S S P E C I F I E D

FLOWRATE ..... = gallons/minute
HEAD (HGL) ..... = feet
PRESSURE ..... = psig

O U T P U T O P T I O N D A T A

OUTPUT SELECTION: ALL RESULTS ARE INCLUDED IN THE TABULATED OUTPUT
MAXIMUM AND MINIMUM PRESSURES = 5
MAXIMUM AND MINIMUM VELOCITIES = 5
MAXIMUM AND MINIMUM HEAD LOSS/1000 = 5

S U P P L Y Z O N E D A T A

THIS SYSTEM HAS MULTIPLE SUPPLY ZONES

ZONE NO. 1 IS SUPPLIED THROUGH THE FOLLOWING PIPES:

	~@RV-1	~@RV-5	~@T-8
~@T-2	~@RV-6	~@T-9	~@T-10
~@T-3	~@T-6	~@RV-7	~@RV-2
~@T-7	~@RV-4	~@R-4	~@RV-3

ZONE NO. 2 IS SUPPLIED THROUGH THE FOLLOWING PIPES:
~@R-2

ZONE NO. 3 IS SUPPLIED THROUGH THE FOLLOWING PIPES:
~@R-3

S Y S T E M C O N F I G U R A T I O N

NUMBER OF PIPES .....(p) = 519
NUMBER OF END NODES .....(j) = 473
NUMBER OF PRIMARY LOOPS .....(l) = 38
NUMBER OF SUPPLY NODES .....(f) = 11
NUMBER OF SUPPLY ZONES .....(z) = 3

Case: 0

RESULTS OBTAINED AFTER 17 TRIALS: ACCURACY = 0.00457

S I M U L A T I O N D E S C R I P T I O N (L A B E L)

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* * * * * * * * * *   K Y P I P E 4   * * * * * * * * * *
*                                                       *
*              Pipe Network Modeling Software           *
*                                                       *
*                Copyrighted by KYPIPE LLC              *
*                  Version 4 - April 2008               *
*                                                       *
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Date & Time: Thu Oct 20 09:47:40 2011

INPUT DATA FILENAME ---------- C:\Projects\HYDRAU~1\BCWD\BCWD_Str.DT2
TABULATED OUTPUT FILENAME ------- C:\Projects\HYDRAU~1\BCWD\BCWD_Str.OT2
POSTPROCESSOR RESULTS FILENAME --- C:\Projects\HYDRAU~1\BCWD\BCWD_Str.RS2

AVERAGE USAGE AND FLUSHING VELOCITY CALCULATIONS

U N I T S S P E C I F I E D

FLOWRATE ..... = gallons/minute
HEAD (HGL) ..... = feet
PRESSURE ..... = psig

O U T P U T O P T I O N D A T A

OUTPUT SELECTION: ALL RESULTS ARE INCLUDED IN THE TABULATED OUTPUT
MAXIMUM AND MINIMUM PRESSURES = 5
MAXIMUM AND MINIMUM VELOCITIES = 5
MAXIMUM AND MINIMUM HEAD LOSS/1000 = 5

S U P P L Y Z O N E D A T A

THIS SYSTEM HAS MULTIPLE SUPPLY ZONES

ZONE NO. 1 IS SUPPLIED THROUGH THE FOLLOWING PIPES:

	~@RV-1	~@RV-5	~@T-8
~@T-2	~@RV-6	~@T-9	~@T-10
~@T-3	~@T-6	~@RV-7	~@RV-2
~@T-7	~@RV-4	~@R-4	~@RV-3

ZONE NO. 2 IS SUPPLIED THROUGH THE FOLLOWING PIPES:
~@R-2

ZONE NO. 3 IS SUPPLIED THROUGH THE FOLLOWING PIPES:
~@R-3

S Y S T E M C O N F I G U R A T I O N

NUMBER OF PIPES .....(p) = 519
NUMBER OF END NODES .....(j) = 473
NUMBER OF PRIMARY LOOPS .....(l) = 38
NUMBER OF SUPPLY NODES .....(f) = 11
NUMBER OF SUPPLY ZONES .....(z) = 3
Case: 0

RESULTS OBTAINED AFTER 16 TRIALS: ACCURACY = 0.00010

S I M U L A T I O N D E S C R I P T I O N (L A B E L)

KENTUCKY ENGINEERING GROUP, PLLC

Preliminary Project Cost Estimate

Project : Starshadrer Lane

Date : 10/12/11 **Job No. : 11016**

Revised : 10/12/11 **Est. By: JCT**

ITEM NO.	SUMMARY OF:	QUANTITY NO. OF UNITS	UNIT MEAS.	COST PER UNIT		TOTAL COST
1	2" PVC, SDR 21 Water Main	4,585	LF	$ 5.00		$ 22,925.00
2	Connection to Existing W.M.	1	EA	$ 1,500.00		$ 1,500.00
3	2" G.V. & Box	2	EA	$ 650.00		$ 1,300.00
4	Roadbore w/PVC Casing	30	LF	$ 75.00		$ 2,250.00
5	Creek Crossing	40	LF	$ 75.00		$ 3,000.00
6	Flushing Hydrant	1	EA	$ 2,000.00		$ 2,000.00
7	Customer Connection	1	EA	$ 500.00		$ 500.00
	SUBTOTAL AMOUNT					**$ 33,475.00**
	ENGINEERING DESIGN					**$ 500.00**
	TOTAL ESTIMATED CONSTRUCTION COST					**$ 33,975.00**