

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF NORTHERN KENTUCKY )  
WATER DISTRICT FOR A CERTIFICATE OF )  
CONVENIENCE AND NECESSITY FOR THE ) CASE NO. 2014-00149  
CONSTRUCTION OF SUB DISTRICT I WATER MAIN )  
EXTENSIONS, FINANCING AND SURCHARGE )  
PHASE 2 )

**PETITION**

Northern Kentucky Water District (Northern), by counsel, petitions the Commission for an order authorizing the construction of various water main extensions in an area to be known as Sub District I, Phase 2, financing of the project, approval of a surcharge for the customers to be served by these extensions and approval of the expansion of the sub district. The following information is filed in accordance with the Commission's regulations.

1. Northern's office address is 2835 Crescent Spring Rd., Box 18640, Erlanger, KY 41018-0640. Its principal officers are listed in its current Annual Report, which is filed with the Commission as are its prior years Reports. Its contact officer is:

Jack Bragg, Vice President Finance  
2835 Crescent Spring Rd.  
Erlanger, KY 41018-0640  
(859) 578 9898 Phone  
(859) 578-3668 fax  
jbragg@nkywater.org

2. Northern is a non-profit water district organized under Chapter 74 and has no separate articles of incorporation or by-laws.

3. A description of Northern's water system and its property stated at original cost by accounts

is contained in its Annual Report, which is incorporated by reference. All required financial schedules and other data are in that exhibit and Exhibits F and G.

4. Northern serves retail customers in Kenton, Campbell and Boone Counties and sells water at wholesale to non-affiliated water distribution systems in Pendleton, Boone and Grant Counties.

5. The proposed project is necessary to provide service to unincorporated areas of Kenton County and to maintain quality water service to the general area of Kenton County. The District seeks an order allowing the expansion formation of the sub district associated with the construction approved in the order. The purpose of the sub district is to aggregate sufficient customers to make the extension of facilities to the residents of the affected areas feasible. There are limited areas in Northern's service area that are unserved. Those areas are widely separated and sparsely populated. The approximately 700 households in Kenton County without access to a potable water distribution system are widely dispersed. By combining the proposed areas into sub district I, the District is able to provide water service to high density areas which helps spread the cost among sufficient customers to make the project financially feasible for the District and affordable to the residents. This is the same methodology the District has used for other sub district projects.

The District has always used household density as the primary criterion for the establishment of a sub district. See Exhibit I. In order to maximize the number of customers served with the limited dollars available from all funding sources, the District determines where the highest number of households per mile can be feasibly served. The cost per mile of any extension dictates that the District maximize the number of customers served along each extension. Because of the limited resources available to extend service, the District attempts to get the most value from each dollar spent.

To standardize the sub district process, the District formulated a tariff that specifies the criteria for establishing a sub district:

## SECTION XIV-D - DISTRIBUTION MAIN EXTENSION POLICY FOR SUBDISTRICTS.

2.

- a. There must be a demand for the extension of the service sufficient to make the extension hydraulically and financially feasible as determined by the District.
- b. There must be funds available to the District from third party sources, such as governmental loans and grants, customer contributions or other non-rate based revenue to supplement the District's financial contribution to the extension to make the extension financially feasible in the discretion of the District.
- c. The demand for service must be within an area or areas in which the potential customers share common geographic characteristics or can be served through common utility plant and facilities. The area of the proposed subdistrict may include non-contiguous locations of potential customers.
- d. Common geographic characteristics include but are not limited to greater customer population density when compared to other unserved areas within the District's service area. In areas where customer density may be lower than other potentially served areas, factors such as location of customers along the route needed to connect higher density areas, hydraulic improvements to the District's system, geotechnical factors, location of existing distribution facilities, adequate customer participation in the project, financial contributions by a customer or group of customers to fund the extension, availability of sewer service in an area or other similar factors may be used by the District in assessing the feasibility of the subdistrict.

As the exhibits filed with this application show, all criteria have been met.

6. The construction is in the public interest and is required to allow Northern to continue to provide adequate service to its customers. The areas included in sub district I are all rural, remote from existing water distribution facilities and have no access to potable water other than cisterns and wells. Given the need to develop financially and technically feasible projects, location of these residents, the distance between the properties, the sparse number of residents in the affected areas and the demand for safe, affordable, piped water supplies, all of the residents of the proposed sub district are in a similar situation as to geographic characteristics, water supply inadequacy, and need for affordable service. The proposed project consists of 1,537 LF of 8-inch PVC water main along Bird Road in Kenton County, Kentucky. This project is the second Phase of the Northern's Sub-District I project. The first phase was previously approved in PSC Order

2012-00583. The total project budget for Sub-District I, including Phase 2, is \$919,323.00. Phase 1 was completed at a cost of \$799,291.22, which now leaves \$120,031.78 for the completion of Phase 2. This phase was originally intended to extend water to portions of Bird Road and Northcutt Road. However, after receiving bids for both areas, it was determined that funds were only sufficient to extend a water main along Bird Road.

This project will extend water mains to make public water available to 7 additional residences in a rural area that currently has no access to public water supply. This area was chosen based on population density. The estimated cost of the total project is \$99,733.18 (\$86,724.50 Bid Price plus 15% contingencies). There are no low/moderate income requirements for the financing of this project, therefore, income levels are not a factor in the selection of geographic areas. This area has similar characteristics to other areas included the Sub district I project, such as rural location, sparse population density, lack of potable water supply and inability to connect to a water distribution system without the extension of a water line.

<b>Street Name</b>	<b>Total Residents</b>	<b>Total Signups</b>	<b>% Signups</b>
Bird Road	7	4	57%

The funds obtained in a number of prior sub districts were predicated on the economic status of the affected areas' residents. The funds in this case are not so encumbered. There is no low/moderate income requirements for the financing of this project, therefore, income levels are not a factor in the selection of geographic areas. There is no low/moderate income funding associated with this project. No customers or areas have been designated a part of this sub district based on income criteria.

7. The project will be financed with a grant approved in the 2008 state budget administered through the Kentucky Infrastructure Authority in the amount of \$500,000.00; a contribution from the Kenton County Fiscal Court of \$25,000.00; the District's Five Year Capital Budget, PSC No. 81

“Mains into Unserved Areas 2007 – Sub district I Kenton County” with a budget of \$250,000.00 – Bond Anticipation Note (BAN) 2007; and a customer contribution of \$169,323.00, which will be repaid through a maximum monthly surcharge of \$30.00 per customer as reflected on the monthly bill.

The total project cost of \$919,323.00 includes:

Engineering:	\$ 50,456.00
KIA costs	\$ 2,500.00
Contractor’s bid	\$ 752,737.85
Misc. & contingencies	\$ 113,629.15

All costs and financing information is contained in Exhibit D. See also Exhibit A. All project costs will be included in NARUC Accounts shown on Exhibit D.

There is a potential of 7 new customers to be added. It is estimated that 50% (4) of these customers will request service, so the projected revenue is \$3,687 a year as a result of the Sub district I — Phase 2 Water Main Extension project (assuming each customer uses 6,000 gallons a month). The total net revenue effect for the entire Sub district I Project (all phases) is \$21,595.00 per year for an estimated 37 customers.

The customer contribution will be paid back through a maximum monthly surcharge of \$30.00 on the customer's water bill. The total project budget is \$919,323 which includes construction cost, engineering, materials, and contingencies. A summary of the project costs is provided below:

Engineering	\$ 50,456.00
KIA Cost	\$ 2,500.00
Contractor's Bids	
Phase 1 -	\$ 752,737.85
Phase 2 -	\$ 86,724.50
Misc. & Contingencies	\$ 26,904.65
Total Project Cost	\$ 919,323.00

All phases of the Sub district I project are already funded through BAN 2007 in the amount of \$250,000. Bids for this project were opened on April 9, 2014 and are subject to acceptance for

90 days. Therefore, the bids will expire on July 8, 2014.

8. Easements are being obtained and finalized for the facilities;

9. This service will not compete with any other utility in the area;

10. Based on these facts, Northern believes that it is in the public interest that this certificate be granted.

11. General rates to Northern's customers are not affected by this project. No adjustment of rates is being requested. If approved, the customers in the areas designated as sub district I would pay the District's tariffed rate, plus \$30.00 per month for water service. This \$30.00 surcharge is the same as is typically applied to the District's other sub districts. Because many of these customers are served by wells or cisterns, the \$30.00 per month surcharge is generally less than the cost of water deliveries per month. A copy of the public notice of the surcharge is included with exhibit G.

In contrast to the relatively inexpensive cost of water service to customers based on the proposed sub district, there is a very large and often prohibitive cost to those residents if the sub district is not approved. The alternative to extending facilities to these residents by virtue of the sub district financing, is the extension of facilities pursuant to the District's main line extension tariff. That tariff allows the District to initiate the extension of mains, but only if the customer pays for 100 feet of the main extension based on the cost of an eight inch main. The cost each customer in the proposed sub district I would be forced to pay is approximately \$6,584. That payment is a lump sum required to be made at the time of application for service. The District believes that such payments are prohibitive for most residents and discourage the extension of potable water service, which has a direct impact on the public health by depriving unserved rural areas of safe, clean, readily accessible potable water. The general rate customers benefit from the revenue generated by the sub district customers and from the lower debt cost that results from grants and government subsidized loans.

12. The following information is provided in response to 807 KAR 5:001 (8):

a. Articles of Incorporation - None, Northern is a statutorily created water district under KRS Chapter 74.

13. The following information is supplied pursuant to 807 KAR 5:001(9):

a. Facts relied upon to show that the application is in the public interest: see Exhibits A, B, and C.

b. No new franchises are required. Copies of permits, including the DOW permit are attached as Exhibit B;

c. Diagrams of the proposed construction and construction specifications, description of the location, route, description of facilities, manner of construction are all included in the preliminary and final engineering reports attached as Exhibit A.

d. Maps of the area showing the location of the proposed facilities are in Exhibits A and H.

e. The construction costs will be funded from several sources as detailed in Exhibits B and D.

f. Additional operating costs for operation and maintenance are minimal due to the relative size of the project and the type of facilities constructed.

g. Description the facilities and operation of the system is in Exhibit A. A current hydraulic analysis is included in Exhibit A.

14. The following information is provided as required by 807 KAR 5:001 (11):

a. A general description of the property is contained in the Annual Report.

b. Financing and sources of funds for the project are described in Exhibit D.

c. All funds are to be used for the construction of the proposed water main extensions as described in Exhibits A and D.

d. The property to be constructed is described in Exhibits A and D.

- e. The funds are not for refunding or refinancing existing debt.
- f. There are no trust deeds or mortgages.
- g. No property is to be acquired.
- h. No stock has been or will be issued.
- i. All existing bonds are listed in Exhibits F and G.
- j. All existing notes are listed in Exhibits F and G.
- k. All other indebtedness is listed in Exhibits F and G.
- l. No dividends have been paid or accrued.
- m. A balance sheet and income statement are included in Exhibits F and G.

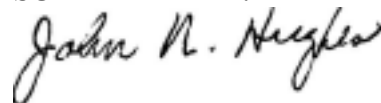
15. Customer notice of the proposed project, proposed tariff and surcharge, which are being published in the newspapers of record in the service area, are attached as Exhibit H. The notice to the local governing body of a rate change as required by 807 KAR 5:001(16)(6) is no longer applicable.

16. A copy of this petition has been served on the Attorney General.

17. Northern requests that it be granted a deviation under 807 KAR 5:001(21), if necessary to accommodate any situation where inflexible compliance with a regulation would be impracticable, onerous or which would hinder the District's daily operations, including the filing of financial data less than 90 days old.

For these reasons, Northern requests that it be granted an order prior to February 6, 2013 authorizing creation and construction of the sub district I facilities, financing as proposed and an imposition of a surcharge on sub district I customers.

SUBMITTED BY:



John N. Hughes  
124 W. Todd St.  
Frankfort, KY 40601  
jnhughes@fewpb.net  
ATTORNEY FOR NORTHERN



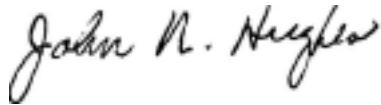
KENTUCKY WATER DISTRICT

Affidavit of Jack Bragg, Vice President Finance - See Exhibit B

CERTIFICATE OF SERVICE:

I certify that a copy of this Petition was served electronically on the parties listed below the 29<sup>th</sup> day of April, 2014.

Jennifer Hans  
Assistant Attorney General  
1024 Capital Center Drive  
Frankfort, KY 4060



**LIST OF EXHIBITS**

Section 8(1)	Full name and post office address of applicant and a reference to the particular provision of law requiring Commission approval.	Application
Section 8(2)	The original and 10 copies of the application with an additional copy for any party named therein as an interested party.	yes
Section 8(3)	If applicant is a corporation, a certified copy of the Articles of Incorporation and all amendments thereto <u>or</u> if the articles were filed with the PSC in a prior proceeding, a reference to the style and case number of the prior proceeding.	n/a
Section 9(2)	1. The facts relied upon to show that the proposed new construction is or will be required by public convenience or necessity.	Exhibit A
	2. 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.	Exhibit B

<p>3. A full description of the proposed location, route, or routes of the new construction or extension, including a description of the manner in which same will be constructed, and also the names of all public utilities, corporations, or persons with whom the proposed new construction or extension is likely to compete.</p>	<p>Exhibit A</p>
<p>4. Three (3) maps to suitable scale (preferably not more than two (2) 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.</p>	<p>Exhibit A</p>
<p>5. The manner, in detail, in which it is proposed to finance the new construction or extension.</p>	<p>Exhibits A, D</p>
<p>6. An estimated cost of operation after the proposed facilities are completed.</p>	<p>Exhibit D</p>

<p>KRS 322.340</p>	<p>Engineering plans, specifications, plats and report for the proposed construction. The engineering documents prepared by a registered engineer, requires that they be signed, sealed, and dated by an engineer registered in Kentucky.</p>	<p>Exhibit A</p>
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<p>Section 8(1)</p>	<p>Full name and post office address of applicant and a reference to the particular provision of law requiring Commission approval.</p>	<p>Application</p>
<p>Section 8(2)</p>	<p>The original and 10 copies of the application with an additional copy for any party named therein as an interested party.</p>	<p>yes</p>
<p>Section 8(3)</p>	<p>If applicant is a corporation, a certified copy of the Articles of Incorporation and all amendments thereto <u>or</u></p>	<p>n/a</p>

	if the articles were filed with the PSC in a prior proceeding, a reference to the style and case number of the prior proceeding.	
KRS 278.300(2)	Every financing application shall be made under oath, and shall be signed and filed on behalf of the utility by its president, or by a vice president, auditor, comptroller or other executive officer having knowledge of the matters set forth and duly designated by the utility.	Application
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.	Annual Rpt
Section 11(1)(b)	If stock is to be issued: and kinds to be issued.	none
	--Description of amount and kinds to be issued.	
	--If preferred stock, a description of the preferences.	none
	If Bonds or Notes or Other Indebtedness is proposed:	Exhibits E, F
	--Description of the amount(s)	
	--Full description of all terms	
	--Interest rates(s)	
	--Whether the debt is to be secured and if so a description of how it's secured.	
Section 11(1)(c)	Statement of how proceeds are to be used. Should show amounts for each type of use (i.e., property, debt refunding, etc.)	Exhibit A
807 KAR 5:001: Section 11(1)(d)	If proceeds are for property acquisition, give a full description thereof. Supply any contracts.	n/a
Section 11(1)(e)	If proceeds are to refund outstanding obligations, give:	n/a
	--Par value	

	--Amount for which actually sold	
	--Expenses and application of proceeds	
	--Date of obligations	
	--Total amount	
	--Time held	
	--Interest rate	
	--Payee	
Section 11(2)(a)	Financial Exhibit (see below)	
Section 11(2)(b)	Copies of all trust deeds or mortgages. If previously filed, state case number.	Annual Rpt
Section 11(2)(c)	If Property to be acquired:  --Maps and plans of property.	Exhibit A
Section 11(2)(c)	--Detailed estimates by USOA account number.	Exhibit D

**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:**

807 KAR 5:001		
Section 6(1)	Amount and types of stock authorized.	None
Section 6(2)	Amount and types of stock issued and outstanding.	None
Section 6(3)	Detail of preference terms of preferred stock.	None
Section 6(4)	<u>Mortgages:</u>  --Date of Execution  --Name of Mortgagor  --Name of Mortgagee or Trustee  --Amount of Indebtedness Secured	Exhibits E F

	--Sinking Fund Provisions	
Section 6(5)	<u>Bonds</u>	Exhibits E, F
	--Amount Authorized	
	--Amount Issued	
	--Name of Utility Who Issued	
	--Description of Each Class Issued	
	--Date of Issue	
	--Date of Maturity	
	--How Secured	
	--Interest Paid in Last Fiscal Year	
Section 6(6)	<u>Notes Outstanding:</u>	Exhibits E, F
	--Date of Issue	
	--Amount	
	--Maturity Date	
	--Rate of Interest	
	--In Whose Favor	
	--Interest Paid in Last Fiscal Year	
Section 6(7)	<u>Other Indebtedness:</u>	
	--Description of Each Class	
	--How Secured	
	--Description of Any Assumption of Indebtedness by Outside Party (i.e., any transfer)	
	--Interest Paid in Last Fiscal Yr.	none

Section 6(8) Rate and amount of dividends paid during the five (5) previous fiscal years and the amount of capital stock on which dividends were paid each year.

None
Exhibit F

Section 6(9) Detailed income statement and balance sheet.

**NORTHERN KENTUCKY WATER DISTRICT  
Subdistrict I – Phase 2 Water Main Extension  
184-655**

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Project Description

<b><u>EXHIBIT</u></b>	<b><u>TITLE</u></b>
A	ENGINEERING REPORTS AND INFORMATION (1) Project map (2) Engineer's opinion of probable total construction cost; (3) System Hydraulic Model (4) Plans titled "Proposed 8" Water Main Extensions Sub-district I - Addition, Bird and Northcutt Road, Kenton County, Kentucky" dated April 2014, sealed by a P.E. (5) Specifications titled "Sub-district I Water Main Extension Project along Northcutt and Bird Road, Kenton County, Kentucky" dated April 2014 and sealed by a P.E.
B	Certified statement from an authorized utility Official confirming: (1) Affidavit (2) Franchises (3) Plan review and permit status (4) Easements and Right-Of-Way status (5) Construction dates and proposed date in service (6) Plant retirements
C	BID INFORMATION AND BOARD RESOLUTION Bid tabulation, Engineer's recommendation of award, Board Meeting Minutes.
D	PROJECT FINANCE INFORMATION Customers added and revenue effect, Debt issuance and source of debt, Additional costs and operating and maintenance, USoA plant account, Depreciation cost and debt service after construction.
E	SCHEDULE OF MORTGAGES, BONDS, NOTES, AND OTHER INDEBTEDNESS
F	CURRENT BALANCE SHEET AND INCOME STATEMENT
G	CUSTOMER NOTICE, RATE SCHEDULE, PROPOSED TARIFF
H	STREET DENSITY TABLE

NORTHERN KENTUCKY  
WATER DISTRICT

*Project*

*Subdistrict I - Phase 2 Water Main Extension*

Kenton County  
184-0655



**Subdistrict I – Phase 2 Water Main Extension**

Project 184-0655

**Project Description:**

The proposed project consists of 1,537 LF of 8-inch PVC water main along Bird Road in Kenton County, Kentucky.

This project is the second Phase of the Northern Kentucky Water District's (NKWD) Sub-District I project. The first phase was previously approved in PSC Order 2012-00583. The total project budget for Sub-District I, including Phase 2, is \$919,323.00. Phase 1 was completed at a cost of \$799,291.22, which now leaves \$120,031.78 left over for the completion of Phase 2. This phase was originally intended to extend water to portions of Bird Road and Northcutt Road. However, after receiving bids for both areas, it was determined that funds were only sufficient to extend a water main along Bird Road.

This project will extend water mains to make public water available to 7 additional residences in a rural area that currently has no access to public water supply. This area was chosen based on population density. The estimated cost of the total project is \$99,733.18 (\$86,724.50 Bid Price plus 15% contingencies). There are no low/moderate income requirements for the financing of this project, therefore, income levels are not a factor in the selection of geographic areas. This area has similar characteristics to other areas included the Subdistrict I project, such as rural location, sparse population density, lack of potable water supply and inability to connect to a water distribution system without the extension of a water line.

<b>Street Name</b>	<b>Total Residents</b>	<b>Total Signups</b>	<b>% Signups</b>
Bird Road (Wyne Wood Trail to #1684)	7	4	57%

Bids for this project were opened on April 9, 2014 and are subject to acceptance for 90 days. Therefore, the bids will expire on July 8, 2014.

NORTHERN KENTUCKY  
WATER DISTRICT

*Project*  
*Subdistrict I - Phase 2 Water Main Extension*

Kenton County  
184-0655

ENGINEERING REPORTS AND INFORMATION

Project Map

Engineer's Opinion of Probable Total Construction Cost

System Hydraulic Model

Plans titled "Proposed 8" Water Main Extensions Subdistrict I – Addition, Bird and Northcutt Road, Kenton County, Kentucky" dated April 2014.

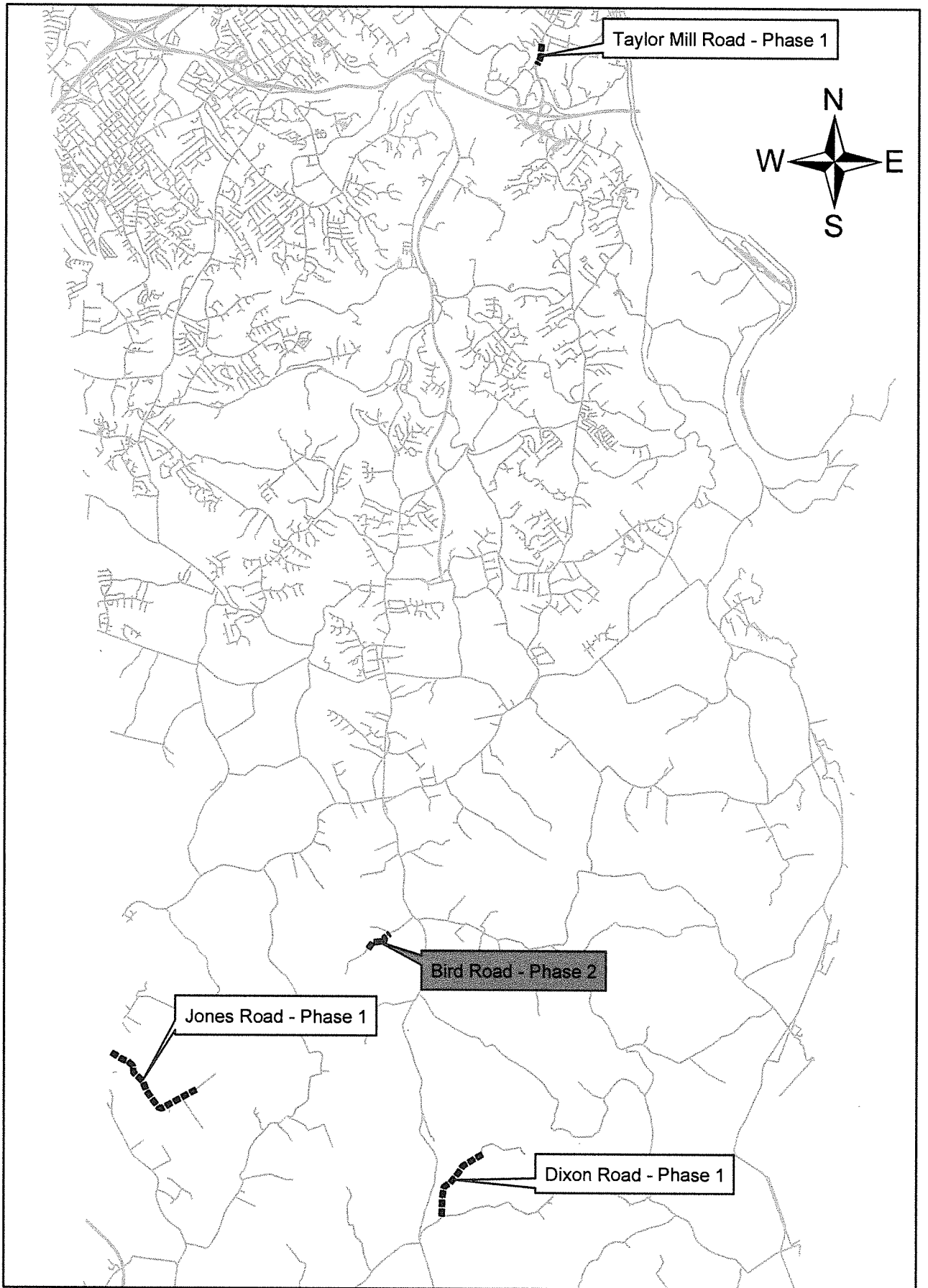
Specifications titled "Subdistrict I Water Main Extension Project along Northcutt and/or Bird Road, Kenton County, Kentucky" dated April 2014.

NORTHERN KENTUCKY  
WATER DISTRICT

*Project*  
*Subdistrict I - Phase 2 Water Main Extension*

Kenton County  
184-0655

Project Map



# Sub District I Water Main Extension Phase 2

NORTHERN KENTUCKY  
WATER DISTRICT

*Project*  
*Subdistrict I - Phase 2 Water Main Extension*

Kenton County  
184-0655

Engineer's Opinion  
Of Probable  
Construction Cost



# VIOX & VIOX

Civil Engineers, Surveyors, and Landscape Architects

466 Erlanger Road  
Erlanger, Kentucky 41018

Tel: 859.727.3293  
Fax: 859.727.8452  
www.vioxandviox.com

## ENGINEER'S ESTIMATE SUB-DISTRICT I - EXTENSION BIRD ROAD 3/7/2014

ITEM No.	DESCRIPTION	UNIT OF MEASURE	ESTIMATED QUANTITY	UNIT COST TOTAL	TOTAL COST
1	6.03 8" C-900{DR14} POLYVINYL CHLORIDE (PVC). (Detail 103, 103a, 104, 104a, 110)	LF	1497	\$60.00	\$89,820.00
1	6.03B 8" C-900{DR14} POLYVINYL CHLORIDE (PVC). (Detail 103, 103a, 104, 104a, 110) RESTRAINED JOINT	LF	40	\$70.00	\$2,800.00
2	7.01 CONNECT TO EX. 8" MAIN	LF	1	\$2,500.00	\$2,500.00
3	8.01 INSTALL FIRE HYDRANT ASSEMBLY	EA	2	\$3,800.00	\$7,600.00
4	9.01 8" DUCTILE IRON RESILIENT SEATED GATE VALVE	EA	1	\$2,500.00	\$2,500.00
5	11.04 8" PLUG AND BLOCK	EA	1	\$500.00	\$500.00
5	11.05 AIR RELEASE VALVE {MATERIALS SUPPLIED BY NKWD}	EA	1	\$1,500.00	\$1,500.00
6	11.06 8"x8"x6" ANCHORING TEES AND BLOCKS	EA	2	\$475.00	\$950.00
7	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	338	\$14.00	\$4,732.00
8	12.06 ASPHALTIC CONCRETE {TRENCH}	SY	45	\$60.00	\$2,700.00
9	12.07 ASPHALTIC DRIVEWAY	SY	70	\$50.00	\$3,500.00
10	12.14 SWPPP	LS		\$2,500.00	\$2,500.00
<b>TOTAL ESTIMATED CONSTRUCTION</b>					<b>\$121,602.00</b>

NORTHERN KENTUCKY  
WATER DISTRICT

***Project***

***Subdistrict I - Phase 2 Water Main Extension***

Kenton County  
184-0655

System Hydraulic Model



## FIRE FLOW CERTIFICATION

**Sub-District I - Addition  
Bird Road & Northcutt Road  
Kenton County, KY  
October 25, 2013**

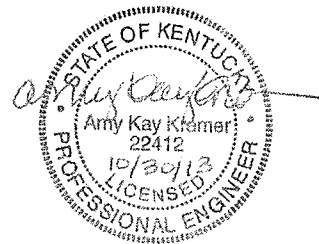
I certify that the proposed improvements meet the 807 KAR 5:066, Section 10b regulation for fire flow protection relating to KRS Chapter 278. I am certifying that "the system can provide a minimum fire flow of 250 gallons per minute; and the water system supporting this flow has the capability of providing this flow for a period of not less than two (2) hours plus consumption at the maximum daily rate". This certification is based on the information available and is not a guarantee of any precise results.

This certification is based on hydraulic modeling performed using InfoWater, the program available from MWHSoft. Supporting documentation and operating conditions are attached and are the basis for this certification.

It should be noted that input data used for modeling is based on available data. Results can change and are dependent on the demand conditions, which can vary at any given time. These values will impact the final results when adjusted. The certification is based on estimated conditions and contains many assumptions based on historical data.

With this certification, the Northern Kentucky Water District will permit the construction of fire hydrants within this development.

Fire flow analyses were made using a hydrant within the subdivision that would provide a representative result that should simulate the results at other hydrants within the system. Minor variations at different hydrants would still provide a flow rate that meets the minimum standard.







## HYDRAULIC AND FLUSHING VELOCITY CERTIFICATION

### **Sub-District I - Addition Bird Road & Northcutt Road Kenton County, KY October 25, 2013**

I certify that the proposed improvements will meet the American Water Works Association Standard C651 standard for flushing velocity in the main meeting 2.5 feet per second while maintaining at least 20 psi pressure in accordance with 401 KAR 8:100.

The maximum flow rate that can reliably be supplied to the main and meet 20 psi in the system under maximum hour conditions is:

- 1,300 gpm on Bird Road
- 600 gpm on Northcutt Road

At least 30 psi can be maintained under the peak domestic demand for the 60 customers affected. The peak domestic demand using the D.R. Taylor formula is:

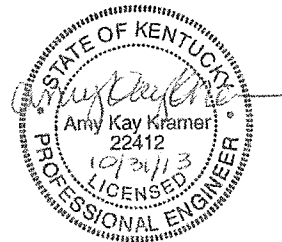
- 26.5 gpm on Bird Road (7 customers)
- 30.0 gpm on Northcutt Road (9 customers)

This certification is based on the information available and is not a guarantee of any precise results. Results are based on hydraulic modeling performed using InfoWater, the program available from MWHSoft. Supporting documentation and operating conditions are attached and are the basis for this certification.

It should be noted that input data used for modeling is based on available data which includes flow test results acquired from the City of Walton's system which were used to analyze the proposed water main on Northcutt Road. Results can change and are dependent on the demand conditions, which can vary at any given time. These values will impact the final results when adjusted. The certification is based on estimated conditions for maximum hour demand conditions and contains many assumptions based on historical data.

With this certification, the Northern Kentucky Water District will permit the construction of the proposed development.

The assumed Hazen-Williams roughness coefficient for all new pipe was 120, which is suitable for ductile iron or PVC. The Northcutt Road area is fed by the City of Walton's distribution system. The water level in the Independence Tank was one-half full when analyzing Bird Road.



Sub-District I - Addition  
 Bird Road & Northcutt Road  
 Kenton County, Kentucky  
 Output from InfoWater model - copied to Excel  
 October 25, 2013



**Maximum Hour Run for Potential Customers**

**Bird Road**

Maximum Hour Run, 7 affected Customers = 26.5 GPM				
ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
9143	8.8	896	1081.7	80.5
J266	8.8	886	1081.7	84.8
J268	8.8	908	1081.7	75.3

**Northcutt Road**

Maximum Hour Run, 9 affected Customers = 30.0 GPM				
ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
J260	10.0	888	1038.6	65.3
J262	10.0	898	1038.6	60.9
J264	10.0	898	1038.6	60.9

**Flushing Velocities Under Maximum Hour**

**Bird Road**

Flushing velocity 2.5 fps for new 8" pipe (under max hour)				
ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
9143	8.8	896	1064.0	72.8
J266	392.0	886	1058.3	74.6
J268	8.8	908	1062.3	66.9

Pipe Information for flushing velocity at 2.5 fps for new 8" pipe					
Pipe ID	Length, ft	Diam, inch	Flow, gpm	Velocity, fps	Roughness
P419	438	8	401	2.6	120
P421	1088	8	392	2.5	120

**Northcutt Road**

Flushing velocity 2.5 fps for new 8" pipe (under max hour)				
ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
J260	392.0	888	994.1	46.0
J262	10.0	898	994.8	42.0
J264	10.0	898	1002.6	45.3

Pipe Information for flushing velocity at 2.5 fps for new 8" pipe					
Pipe ID	Length, ft	Diam, inch	Flow, gpm	Velocity, fps	Roughness
P415	1968	8	402	2.6	120
P417	204	8	392	2.5	120

## Maximum Available Flow Under Maximum Hour

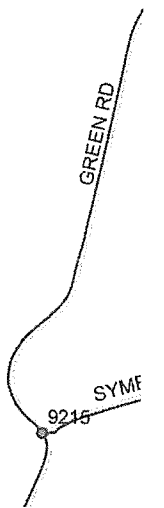
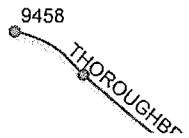
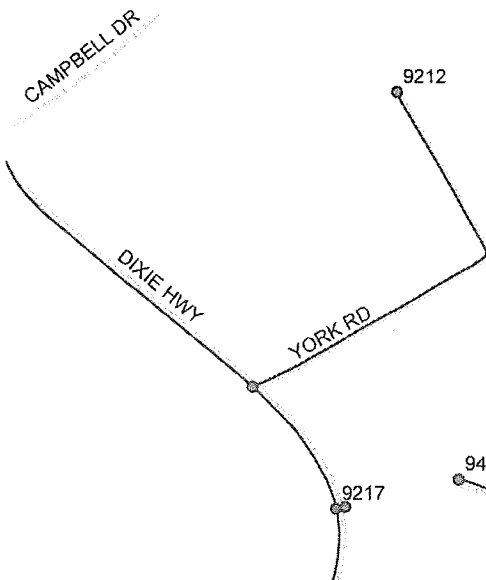
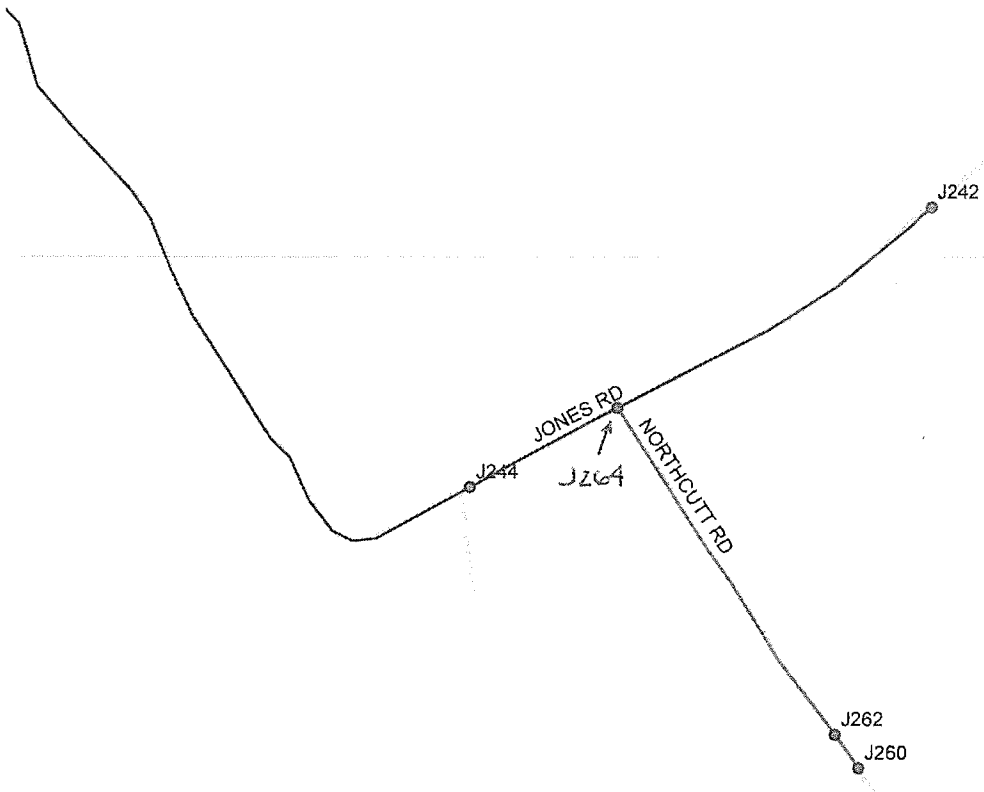
### Bird Road

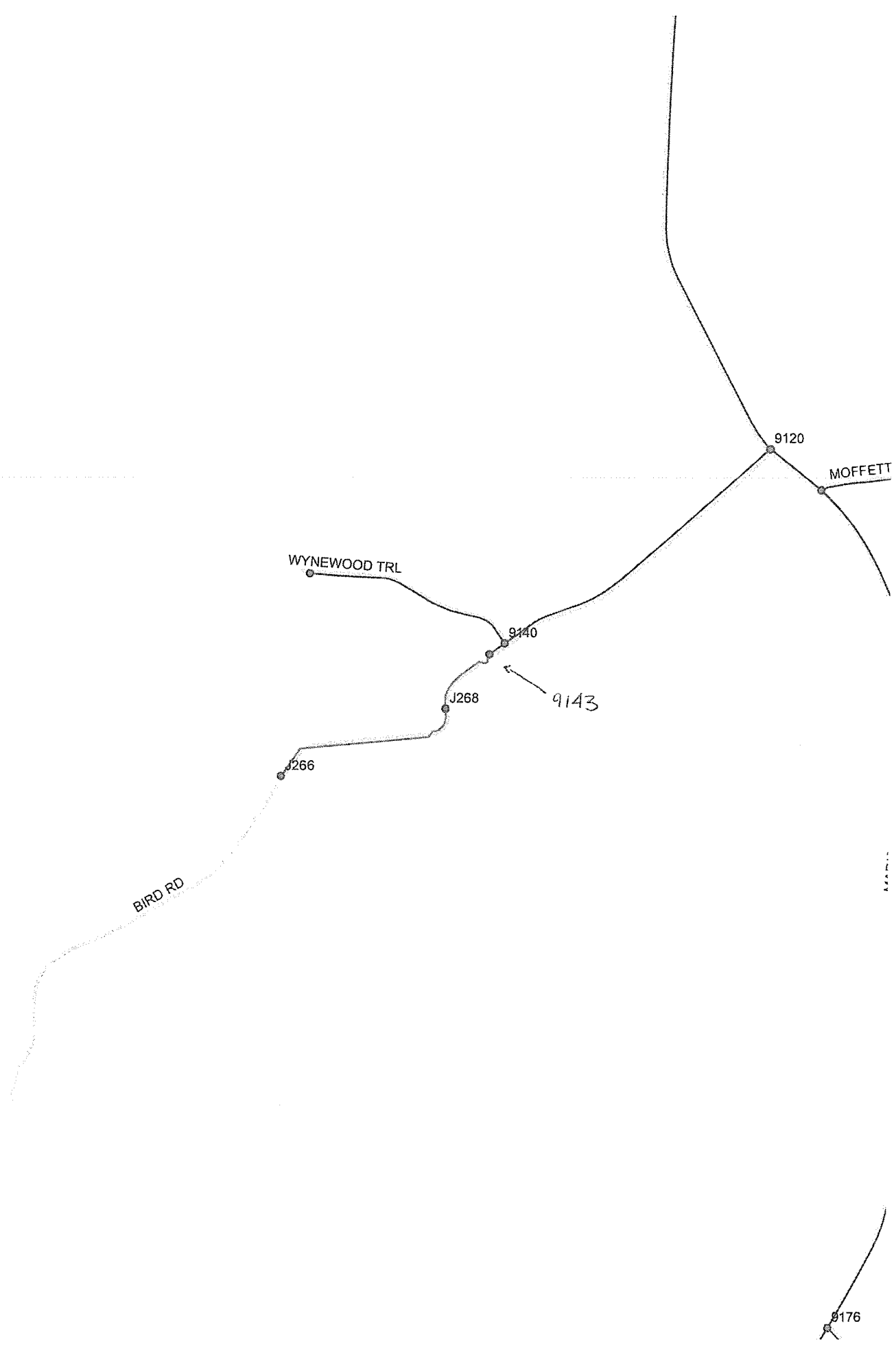
Maximum Hour Run, Maximum Available Flow				
ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
9143	8.8	896	987.2	39.5
J266	1300.0	886	934.5	21.0
J268	8.8	908	971.9	27.7

### Northcutt Road

Maximum Hour Run, Maximum Available Flow				
ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
J260	600.0	888	946.7	25.4
J262	10.0	898	948.4	21.8
J264	10.0	898	965.1	29.1

<u>Pipe ID</u>	<u>From Node</u>	<u>To Node</u>	
P419	9143	J268	Bird Road
P421	J268	J266	
P415	J264	J262	Northcutt Road
P417	J262	J260	





NORTHERN KENTUCKY  
WATER DISTRICT

**Project**

**Subdistrict I - Phase 2 Water Main Extension**

Kenton County  
184-0655

Plans titled "Proposed 8" Water Main Extensions  
Subdistrict I – Addition, Bird and Northcutt Road,  
Kenton County, Kentucky" dated April 2014.

and

Specifications titled "Subdistrict I Water Main  
Extension Project along Northcutt and/or Bird  
Road, Kenton County, Kentucky" dated April  
2014.

# Northern Kentucky Water District

---

The following items are enclosed separately from this volume in hard copy.

- Plans titled "Proposed 8" Water Main Extensions Subdistrict I – Addition, Bird and Northcutt Road, Kenton County, Kentucky" dated April 2014.
- Specifications titled "Subdistrict I Water Main Extension Project along Northcutt and/or Bird Road, Kenton County, Kentucky" dated April 2014.

NORTHERN KENTUCKY  
WATER DISTRICT

*Project*  
*Subdistrict I - Phase 2 Water Main Extension*

Kenton County  
184-0655

CERTIFIED STATEMENTS

Affidavit

Franchises

Plan Review and Permit Status

Easements and Right-of-Way Status

Construction Dates and Proposed Date In Service

Plant Retirements



NORTHERN KENTUCKY  
WATER DISTRICT

*Project*

*Subdistrict I - Phase 2 Water Main Extension*

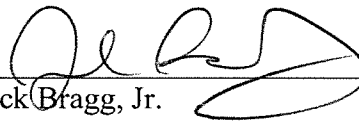
· Kenton County  
184-0655

Affidavit

**AFFIDAVIT**

**Subdistrict I – Phase 2 Water Main Extension Project**

Affiant, Jack Bragg, Jr., being the first duly sworn, deposes and says that he is the Vice President of Finance of the Northern Kentucky Water District, which he is the Applicant in the proceeding styled above; that he has read the foregoing “Subdistrict I – Phase 2 Water Main Extension Project” Application and knows the contents thereof, and that the same is true of his own knowledge, except as to matters which are therein stated on information or belief, and that as to those matters he believes them to be true.

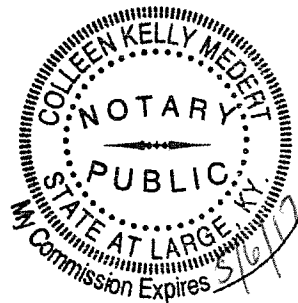


\_\_\_\_\_  
Jack Bragg, Jr.  
Vice President - Finance  
Northern Kentucky Water District

Subscribed and sworn to before me in said County to be his act and deed by  
Jack Bragg, Jr., Vice President of Finance of the Northern Kentucky Water District, this  
23<sup>rd</sup> day of APRIL 2014.



\_\_\_\_\_  
NOTARY PUBLIC  
Kenton County, Kentucky  
My commission expires 5/6/17



NORTHERN KENTUCKY  
WATER DISTRICT

**Project**  
**Subdistrict I - Phase 2 Water Main Extension**

Kenton County  
184-0655

Franchises

Plan Review and Permit Status

Easements and Right-of-Way Status

Construction Dates and Proposed Date In Service

Plant Retirements

Franchises required – None

Plan Review and Permit Status - The District has reviewed and approved the plans and specifications prepared by Viox & Viox titled “Proposed 8” Water Main Extensions, Subdistrict I – Addition, Bird and Northcutt Road” dated October 2013 and “Sub-District I Water main Extension Project along Northcutt Road and/or Bird Road, Kenton County, Kentucky” dated April 2014, respectively.

The District received approval from the Division of Water on April 11, 2014 (see attached letter).

Easements and Right-of-Way Status - Easement for the project (two) are being secured and all right-of-way statements have been submitted (permits attached).

Start date of construction – July 2014

Proposed date in service – September 2014

Plant retirements – There are no retirements as a result of this project.

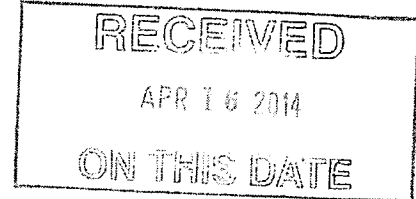
STEVEN L. BESHEAR  
GOVERNOR



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](http://www.kentucky.gov)

April 11, 2014



Mr. Jeff Schuchter  
Northern KY Water Service  
2835 Crescent Springs Rd  
Erlanger, KY 41018

RE: Northern KY Water Service  
AI # 2485, APE20140004  
PWSID # 0590220-14-004  
Sub District I WME - Addition - (Bird Rd &  
Northcutt Rd)  
Kenton County, KY

Dear Mr. Schuchter:

We have reviewed the plans and specifications for the above referenced project. The plans include the construction of approximately 1,537 feet of 8-inch PVC and 2,200 feet of 8-inch ductile iron water main. 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.

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

Sincerely,

A handwritten signature in cursive script that reads "Mark Rasche".

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

MR: MM  
Enclosures

C: Viox & Viox  
Northern Kentucky District (Kenton County) Health Department  
Division of Plumbing (by e-mail only)  
Public Service Commission (by e-mail only)

**Distribution-Water Line Extension**

Northern KY Water Service  
Facility Requirements

Activity ID No.: APE20140004

**GACT000000232 (Sub District I WME- Addition (Bird Rd&Northcut Rd)) 1,537 feet of 8-inch PVC and 2,200 feet of 8-inch DI Watermain:**

**Monitoring Requirements:**

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Condition No.	Parameter	Condition
M-1	Coliform	The presence or absence of total Coliform monitored by sampling and analysis as needed shall be determined for the new or relocated water line(s). Take samples at connection points to existing lines, at 1 mile intervals, and at dead ends without omitting any branch of the new or relocated water line. Sample bottles shall be clearly identified as "special" construction tests. [401 KAR 8:100 Section 1(7), 401 KAR 8:150 Section 4, Recommended Standards for Water Works 8.5.6] This requirement is applicable during the following months: All Year. Statistical basis: Instantaneous determination.

**Submittal/Action Requirements:**

**Coliform:**

---

Condition No.	Condition
S-1	Coliform For new construction projects, the distribution system, using the most expedient method, shall submit Coliform test results to the Cabinet: Due immediately following disinfection and flushing. [401 KAR 8:150 Section 4(2)]

---

Condition No.	Condition
S-2	For proposed changes to the approved plan, submit information: Due prior to any modification to the Cabinet for approval. Changes to the approved plan shall not be implemented without the prior written approval of the Cabinet. [401 KAR 8:100 Section 1(8)]
S-3	The person who presented the plans shall submit the professional engineer's certification: Due when construction is complete to the Division of Water. The certification shall be signed by a registered professional engineer and state that the water project has been constructed and tested in accordance with the approved plans, specifications, and requirements. [401 KAR 8:100 Section 1(8)]

**Distribution-Water Line Extension**

Northern KY Water Service  
Facility Requirements

Activity ID No.: APE20140004

**GACT000000232 (continued):**

**Narrative Requirements:**

**Additional Limitations:**

---

Condition No.	Condition
T-1	Additional Limitations: Chlorinated water resulting from disinfection of project components shall be disposed in a manner which will not violate 401 KAR 5:031. [401 KAR 8:020 Section 2(20)]

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Condition No.	Condition
T-2	This project has been permitted under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. Issuance of this permit 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. Further, this permit does not address the authority of the permittee to provide service to the area to be served. [401 KAR 8:100 Section 1(7)]
T-3	Unless construction of this project is begun within 2 years from the issuance date of this permit, the permit shall expire. If this permit expires, the original plans and specifications may be resubmitted for a new comprehensive review. If you have any questions concerning this project, please contact the Engineering Section at 502/564-3410. [401 KAR 8:100 Section 1(9)]
T-4	Final approval of facility. Upon completion of construction, the person who presented the plans shall certify in writing that the project has been completed in accordance with the "approved" plans and specifications. The public water supply shall operate the facility consistent with the approved plans and specifications. Any proposed change to the approved plan shall be submitted to the cabinet for approval. The public water supply shall not implement any change to the approved plan without the prior written approval of the cabinet. [401 KAR 8:100 Section 401 KAR 8:100(1)(8)]
T-5	During construction, a set of approved plans and specification shall be available at the job site at all times. All work shall be performed in accordance with the approved plans and specifications. [401 KAR 8:100 Section 1(7)(a)]

## Distribution-Water Line Extension

Northern KY Water Service  
Facility Requirements

Activity ID No.: APE20140004

Page 3 of 8

**PORT0000000234 (Waterline Ext) 1,537 feet of 8-inch PVC and 2,200 feet of 8-inch DI Watermain:**

### Limitation Requirements:

Condition No.	Parameter	Condition
L-1	Depth	A continuous and uniform bedding shall be provided in the trench for all buried pipe. Backfill material shall be tamped in layers around the pipe and to a sufficient height above the pipe to adequately support and protect the pipe. Stones found in the trench shall be removed for a Depth $\geq 6$ in below the bottom of the pipe. [Recommended Standards for Water Works 8.5.2] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable.
L-2	Depth	All water lines shall be covered to a Depth $\geq 30$ in to prevent freezing. [Recommended Standards for Water Works 8.5.3, 401 KAR 8:100 Section 1(7)] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
L-3	Diameter	All new and existing water lines serving fire hydrants or where fire protection is provided shall have Diameter $\geq 6$ in. [Recommended Standards for Water Works 8.1.2] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
L-4	Distance	Water lines shall have a sufficient quantity of valves so that inconvenience and sanitary hazards will be minimized during repairs. A valve spacing Distance $\leq 800$ feet should be utilized in non-commercial districts. Alternatively, non-commercial districts should utilize a valve spacing Distance $\leq 1$ block. Commercial districts should utilize a valve spacing Distance $\leq 500$ ft. [Recommended Standards for Water Works 8.2] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable.
L-5	Distance	Hydrant drains shall not be connected to sanitary sewers or storm drains and shall be located a Distance $> 10$ ft from sanitary sewers and storm drains. [Recommended Standards for Water Works 8.3.4] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable.
L-6	Distance	Except when not practical, water lines shall be laid a horizontal Distance $\geq 10$ ft from any existing or proposed sewer. The distance shall be measured edge to edge. In cases where it is not practical to maintain a 10 foot separation, water lines may be installed closer to a sewer provided that the water lines shall be laid in a separate trench or on an undisturbed shelf located on one side of the sewer at such an elevation that the bottom of the water line is at least 18 inches above the top of the sewer. [Recommended Standards for Water Works 8.6.2] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable.



## Distribution-Water Line Extension

Northern KY Water Service  
Facility Requirements

Activity ID No.: APE20140004

Page 4 of 8

### PORT000000234 (continued):

#### Limitation Requirements:

Condition No.	Parameter	Condition
L-7	Distance	<p>When water lines and sewers cross,</p> <ol style="list-style-type: none"><li>1) water lines shall be laid such that either<ol style="list-style-type: none"><li>a) the the top of the water line is a vertical Distance <math>\geq 18</math> in below the bottom of the sewer line or</li><li>b) the bottom of the water line is a vertical Distance <math>\geq 18</math> in above the top of the sewer line,</li></ol></li><li>2) 1 full length of the water pipe shall be located so that both joints of the water pipe will be as far from the sewer as possible, and</li><li>3) special structural support for the water and sewer pipes may be required. [Recommended Standards for Water Works 8.6.3] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable.</li></ol>
L-8	Distance	<p>The open end of an air relief pipe from automatic valves shall be extended a Distance <math>\geq 1.0</math> ft above grade and provided with a screened, downward-facing elbow. The pipe from a manually operated valve shall be extended to the top of the pit. Use of manual air relief valves is recommended wherever possible. [Recommended Standards for Water Works 8.4.2] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable.</p>
L-9	Pressure	<p>Pipes shall not be installed unless all points of the distribution system remain designed for ground level Pressure <math>\geq 20</math> psi under all conditions of flow. [Recommended Standards for Water Works 8.1.1] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.</p>
L-10	Pressure	<p>Pressure <math>\geq 30</math> psi must be available on the discharge side of all meters. [401 KAR 8:100 Section 4(2)] This requirement is applicable during the following months: All Year. Statistical basis: Instantaneous determination.</p>
L-11	Residual Disinfection	<p>New or relocated water lines shall be thoroughly disinfected (in accordance with AWWA Standard C651) upon completion of construction and before being placed into service. To disinfect the new or relocated lines use chlorine or chlorine compounds in such amounts as to produce an initial disinfectant concentration of at least 50 ppm and a Residual Disinfection <math>\geq 25</math> ppm at the end of 24 hours. Follow the line disinfection with thorough flushing and place the lines into service if, and only if, Coliform monitoring applicable to the line does not show the presence of Coliform.</p> <p>If Coliform is detected, repeat flushing of the line and Coliform monitoring. If Coliform is still detected, repeat disinfection and flushing as if the line has never been disinfected. Continue the described process until monitoring does not show the presence of Coliform. [401 KAR 8:150 Section 4(1), Recommended Standards for Water Works 8.5.6] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.</p>

**Distribution-Water Line Extension**

Northern KY Water Service  
Facility Requirements

Activity ID No.: APE20140004

**PORT0000000234 (continued):**

Limitation Requirements:

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Condition No.	Parameter	Condition
L-12	Velocity	Each blow-off or fire hydrant shall be sized so that Velocity $\geq$ 2.5 ft/sec can be achieved in the water main served by the blow-off or hydrant during flushing. [Recommended Standards for Water Works 8.1.6.b, 401 KAR 8:100 Section 1(7)] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.

Monitoring Requirements:

---

Condition No.	Parameter	Condition
M-1	leaks	The presence or absence of leaks monitored by physical testing as needed shall be determined in all types of installed pipe. Pressure testing and leakage testing shall be in accordance with the latest edition of AWWA Standard C600. [Recommended Standards for Water Works 8.5.5] This requirement is applicable during the following months: All Year. Statistical basis: Instantaneous determination.

Narrative Requirements:

**Asbestos (Friable):**

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Condition No.	Condition
T-1	Asbestos (Friable): If the existing water line to be tapped is asbestos concrete, then the contractor shall conform to OSHA regulations governing the handling of hazardous waste during the process of tapping the asbestos concrete line. Pieces of asbestos concrete resulting from the tap shall be double bagged, placed in a rigid container and disposed of in an approved landfill. [401 KAR 8:100 Section 1(7)]

## Distribution-Water Line Extension

Northern KY Water Service  
Facility Requirements

Activity ID No.: APE20140004

Page 6 of 8

### PORT000000234 (continued):

#### Narrative Requirements:

##### Additional Limitations:

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Condition No.	Condition
T-2	Additional Limitations: Water line installation shall be in accordance with AWWA standards or manufacturer recommendations. [Recommended Standards for Water Works 8.5.1]
T-3	Additional Limitations: Pipes, fittings, valves and fire hydrants shall conform to the latest standards issued by the AWWA or NSF (if such standards exist). [Recommended Standards for Water Works 8.0.1]
T-4	Additional Limitations: At high points in water lines, where air can accumulate, provisions shall be made to remove the air by means of hydrants or air relief valves. Automatic air relief valves shall not be used in situations where manhole or chamber flooding may occur. [Recommended Standards for Water Works 8.4.1]
T-5	Additional Limitations: All tees, bends, plugs and hydrants shall be provided with reaction blocking, tie rods or joints designed to prevent movement. [Recommended Standards for Water Works 8.5.4]
T-6	Additional Limitations: A fire hydrant or blow-off shall be required at the end of each dead end line. [Recommended Standards for Water Works 8.1.6]
T-7	Additional Limitations: For each fire hydrant, auxiliary valves shall be installed in the hydrant lead pipe. [Recommended Standards for Water Works 8.3.3]
T-8	Additional Limitations: No flushing device, blow-off, or air relief valve shall be directly connected to any sewer. Chambers, pits or manholes containing valves, blow-offs, meters, or other such appurtenances shall not be directly connected to any storm drain or sanitary sewer. Such chambers, pits or manholes shall be drained to absorptions pits underground or to the surface of the ground where they are not subject to flooding by surface water. [Recommended Standards for Water Works 8.1.6, Recommended Standards for Water Works 8.4.3]
T-9	Additional Limitations: If water lines are installed or replaced in areas of organic contamination or in areas within 200 ft of underground or petroleum storage tanks, ductile iron or other nonpermeable materials shall be used in all portions of the water line installation or replacement. [401 KAR 8:100 Section 1(5)(d)6, Recommended Standards for Water Works 8.0.2]

## Distribution-Water Line Extension

Northern KY Water Service  
Facility Requirements

Activity ID No.: APE20140004

Page 7 of 8

### PORT000000234 (continued):

#### Narrative Requirements:

##### Additional Limitations:

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Condition	
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No.	Condition
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T-10	Additional Limitations: No water pipe shall pass through or come in contact with any part of a sewer manhole. [Recommended Standards for Water Works 8.6.6]
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T-11	Additional Limitations: If a fire sprinkler system is to be installed, a double check detector assembly approved for backflow prevention shall be utilized. The double check detector assembly of the system shall be accessible for testing. [401 KAR 8:100 Section 1(7)]
------	---

T-12	Additional Limitations: If water lines cross a stream or wetland, the provisions in the attached Water Quality Certification shall apply. If you have any questions please contact the Water Quality Certification Supervisor of the Water Quality Branch at (502) 564-2225. [401 KAR 8:100 Section 1(7)]
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##### Subfluvial Pipe Crossings:

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Condition	
-----------	--

No.	Condition
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T-13	Subfluvial Pipe Crossings: For subfluvial pipe crossings, a floodplain construction permit will not be required pursuant to KRS 151.250 if the following requirements of 401 KAR 4:050 Section 2 are met. 1) No material may be placed in the stream or in the flood plain of the stream to form construction pads, coffer dams, access roads, etc. during construction of pipe crossings. 2) Crossing trenches shall be backfilled as closely as possible to the original contour. 3) All excess material resulting from construction displacement in a crossing trench shall be disposed of outside the flood plain. 4) For erodible channels, there shall be at least 30 inches of backfill on top of all pipe or conduit points in the crossing. 5) For nonerodible channels, pipes or conduits in the crossing shall be encased on all sides by at least 6 inches of concrete with all pipe or conduit points in the crossing at least 6 inches below the original contour of the channel. [401 KAR 8:100 Section 1(7)]
------	--

**Distribution-Water Line Extension**

Northern KY Water Service

Facility Requirements

Activity ID No.: APE20140004

**PORT000000234 (continued):**

**Narrative Requirements:**

**Subfluvial Pipe Crossings:**

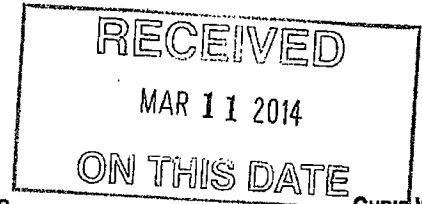
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Condition

No.            Condition

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- T-14            Subfluvial Pipe Crossings:  
For subfluvial pipe crossings greater than 15 feet in width,
- 1) the pipe shall be of special construction, having flexible, restrained, or welded watertight joints, and
  - 2) valves shall be provided at both ends of water crossings so that the section can be isolated for testing or repair.
- Valves shall
- a) be easily accessible,
  - b) not be subject to flooding, and
  - c) if closest to the supply source, be in a manhole with permanent taps made on each side of the valve to allow insertion of a small meter to determine leakage and for sampling purposes. [Recommended Standards for Water Works 8.7.2]



**STEVE ARLINGHAUS**  
County Judge/Executive  
859.392.1415

**DEPARTMENT OF PUBLIC WORKS**

420 Independence Station Road  
Independence, KY 41051

**CHRIS WARNEFORD**  
Director  
859.392.1920  
859.392.1923 (fax)  
Chris.Warneford@KentonCounty.org

**ALEX KENWRIGHT**  
Asst. Director  
859.392.1920  
859.392.1923 (fax)  
Alex.Kenwright@KentonCounty.org

March 10, 2014

Brendan O'Bryan  
Northern Kentucky Water District  
3049 Dixie Highway  
PO Box 17010  
Covington, KY 41017

**RE: Right-of-Way Permit  
Northcutt and Bird Roads**

Dear Mr. O'Bryan,

Be advised that this office has reviewed the Water Main Replacement Construction Plans submitted for Northcutt & Bird Roads (March 5, 2014) and do hereby approve same for Construction as submitted.

Please follow the list below during construction;

1. Erosion control methods must be used to control run-off.
2. Maintain proper drainage during and after construction.
3. Must keep Road/Street clean during construction.
4. After project completion, all restorations must be restored to original condition or better.
5. County reserves the right to inspect project during construction and a final inspection when project is finished.
6. Contractor/Northern Ky. Water must provide all signage and traffic control as needed for the project.

If you have any questions or need additional information concerning our review and approval please contact me at 859-392-1920.

Respectfully,

Chris Warneford  
Superintendent  
Kenton County Public Works

Cc:file



[www.KentonCounty.org](http://www.KentonCounty.org)



NORTHERN KENTUCKY  
WATER DISTRICT

**Project**  
**Subdistrict I - Phase 2 Water Main Extension**

Kenton County  
184-0655

BID INFORMATION AND BOARD RESOLUTION

Bid Tabulation

Engineer's Recommendation of Award

Board Resolution

NORTHERN KENTUCKY  
WATER DISTRICT

*Project*  
*Subdistrict I - Phase 2 Water Main Extension*

Kenton County  
184-0655

Bid Tabulation



# BID TAB

Northern Kentucky Water District  
Sub-District "I"  
Phase 2

April 9, 2014

<u>CONTRACTOR</u>	<u>Bird Rd. Only BID AMOUNT</u>
Michels Construction	\$86,724.50
Smithcorp, Inc.	\$92,910.87
G M Pipeline, Inc.	\$100,433.25
Howell Contractors	\$100,756.00
R B South, Inc.	\$102,167.81
Larry Smith, Inc.	\$102,339.00
Smith & Brown Contractors	\$113,726.50
Lonkard Construction	\$115,214.00
Jack Gemmer & Sons	\$125,570.00
Dudley Construction Co.	\$128,548.95

**BID TABULATIONS FOR SUB-DISTRICT I, PH 2  
 OPTION 3 (BIRD ONLY)  
 8" WATER MAIN EXTENSIONS  
 NKWD**

ITEM NO.	ITEM	UNIT	QTY	PAUL MICHEL'S & SONS, INC		SMITHCORP, INC		GM PIPELINE, INC		HOWELL CONTRACTORS	
				UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST
1	6.03 8" C-900(DR14) POLYVINYL CHLORIDE (PVC). (Detail 103, 103a, 104, 104a, 110)	LF	1497	\$43.50	\$65,119.50	\$44.71	\$66,930.87	\$52.30	\$78,293.10	\$48.00	\$71,856.00
2	6.03B 8" C-900(DR14) POLYVINYL CHLORIDE (PVC). (Detail 103, 103a, 104, 104a, 110) RESTRAINED JOINT	LF	40	\$51.00	\$2,040.00	\$55.00	\$2,200.00	\$55.00	\$2,200.00	\$50.00	\$2,000.00
3	7.01 CONNECT TO EX. 8" MAIN	LF	1	\$275.00	\$275.00	\$1,500.00	\$1,500.00	\$1,000.00	\$1,000.00	\$2,500.00	\$2,500.00
4	8.01 INSTALL FIRE HYDRANT ASSEMBLY	EA	2	\$3,350.00	\$6,700.00	\$3,000.00	\$6,000.00	\$2,800.00	\$5,600.00	\$3,500.00	\$7,000.00
5	9.01 8" DUCTILE IRON RESILIENT SEATED GATE VALVE	EA	1	\$1,350.00	\$1,350.00	\$750.00	\$750.00	\$900.00	\$900.00	\$1,000.00	\$1,000.00
6	11.04 8" PLUG AND BLOCK	EA	1	\$175.00	\$175.00	\$300.00	\$300.00	\$100.00	\$100.00	\$150.00	\$150.00
7	11.05 AIR RELEASE VALVE (MATERIALS SUPPLIED BY NKWD)	EA	1	\$950.00	\$950.00	\$300.00	\$300.00	\$600.00	\$600.00	\$250.00	\$250.00
8	11.06 8"x8x6" ANCHORING TEES AND BLOCKS	EA	2	\$350.00	\$700.00	\$250.00	\$500.00	\$300.00	\$600.00	\$200.00	\$400.00
9	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	340	\$15.00	\$5,100.00	\$27.00	\$9,180.00	\$26.35	\$9,699.00	\$25.00	\$8,500.00
10	12.06 ASPHALTIC CONCRETE (TRENCH)	SY	45	\$45.00	\$2,025.00	\$30.00	\$1,350.00	\$0.01	\$0.45	\$50.00	\$2,250.00
11	12.07 ASPHALTIC DRIVEWAY	SY	70	\$27.00	\$1,890.00	\$20.00	\$1,400.00	\$0.01	\$0.70	\$55.00	\$3,850.00
12	12.14 SWPPP	LS	1	\$400.00	\$400.00	\$2,500.00	\$2,500.00	\$1,500.00	\$1,500.00	\$1,000.00	\$1,000.00
	<b>TOTAL CONTRACTOR BID FOR OPTION #3</b>				<b>\$86,724.50</b>		<b>\$92,910.87</b>		<b>\$100,433.25</b>		<b>\$100,756.00</b>

**BID TABULATIONS FOR SUB-DISTRICT I, PH 2  
OPTION 3 (BIRD ONLY)  
8" WATER MAIN EXTENSIONS  
NKWD**

ITEM NO.	ITEM	UNIT	QTY	RB SOUTH, INC		LARRY SMITH, INC		SMITH & BROWN CONTRACTORS, INC		LONKARD CONSTRUCTION COMPANY	
				UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST
1	6.03 8" C-900(DR14) POLYVINYL CHLORIDE (PVC). (Detail 103, 103a, 104, 104a, 110)	LF	1497	\$45.73	\$68,457.81	\$52.00	\$77,844.00	\$53.50	\$80,089.50	\$57.00	\$85,329.00
2	6.03B 8" C-900(DR14) POLYVINYL CHLORIDE (PVC). (Detail 103, 103a, 104, 104a, 110) RESTRAINED JOINT	LF	40	\$50.00	\$2,000.00	\$56.00	\$2,240.00	\$75.00	\$3,000.00	\$80.00	\$3,200.00
3	7.01 CONNECT TO EX. 8" MAIN	LF	1	\$500.00	\$500.00	\$750.00	\$750.00	\$1,740.00	\$1,740.00	\$2,100.00	\$2,100.00
4	8.01 INSTALL FIRE HYDRANT ASSEMBLY	EA	2	\$3,485.00	\$6,970.00	\$3,500.00	\$7,000.00	\$3,435.00	\$6,870.00	\$3,700.00	\$7,400.00
5	9.01 8" DUCTILE IRON RESILIENT SEATED GATE VALVE	EA	1	\$920.00	\$920.00	\$1,200.00	\$1,200.00	\$1,015.00	\$1,015.00	\$1,200.00	\$1,200.00
6	11.04 8" PLUG AND BLOCK	EA	1	\$75.00	\$75.00	\$150.00	\$150.00	\$225.00	\$225.00	\$350.00	\$350.00
7	11.05 AIR RELEASE VALVE (MATERIALS SUPPLIED BY NKWD)	EA	1	\$700.00	\$700.00	\$250.00	\$250.00	\$375.00	\$375.00	\$750.00	\$750.00
8	11.06 8"x8x"6" ANCHORING TEES AND BLOCKS	EA	2	\$240.00	\$480.00	\$450.00	\$900.00	\$478.00	\$956.00	\$350.00	\$700.00
9	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	340	\$30.00	\$10,200.00	\$22.00	\$7,480.00	\$28.40	\$9,656.00	\$30.00	\$10,200.00
10	12.06 ASPHALTIC CONCRETE (TRENCH)	SY	45	\$85.00	\$3,825.00	\$45.00	\$2,025.00	\$80.00	\$3,600.00	\$45.00	\$2,025.00
11	12.07 ASPHALTIC DRIVEWAY	SY	70	\$72.00	\$5,040.00	\$35.00	\$2,450.00	\$60.00	\$4,200.00	\$23.00	\$1,610.00
12	12.14 SWPPP	LS	1	\$3,000.00	\$3,000.00	\$50.00	\$50.00	\$2,000.00	\$2,000.00	\$350.00	\$350.00
	<b>TOTAL CONTRACTOR BID FOR OPTION #3</b>				<b>\$102,167.81</b>		<b>\$102,339.00</b>		<b>\$113,726.50</b>		<b>\$115,214.00</b>

**BID TABULATIONS FOR SUB-DISTRICT I, PH 2  
OPTION 3 (BIRD ONLY)  
8" WATER MAIN EXTENSIONS  
NKWD**

ITEM NO.	ITEM	UNIT	QTY	JACK GEMMER & SONS, INC		DUDLEY CONSTRUCTION COMPANY, INC	
				UNIT COST	TOTAL COST	UNIT COST	TOTAL COST
1	6.03 8" C-900(DR14) POLYVINYL CHLORIDE (PVC). (Detail 103, 103a, 104, 104a, 110)	LF	1497	\$64.00	\$95,808.00	\$50.35	\$75,373.95
2	6.03B 8" C-900(DR14) POLYVINYL CHLORIDE (PVC). (Detail 103, 103a, 104, 104a, 110) RESTRAINED JOINT	LF	40	\$80.00	\$3,200.00	\$54.00	\$2,160.00
3	7.01 CONNECT TO EX. 8" MAIN	LF	1	\$400.00	\$400.00	\$1,395.00	\$1,395.00
4	8.01 INSTALL FIRE HYDRANT ASSEMBLY	EA	2	\$3,400.00	\$6,800.00	\$3,750.00	\$7,500.00
5	9.01 8" DUCTILE IRON RESILIENT SEATED GATE VALVE	EA	1	\$1,100.00	\$1,100.00	\$1,510.00	\$1,510.00
6	11.04 8" PLUG AND BLOCK	EA	1	\$350.00	\$350.00	\$255.00	\$255.00
7	11.05 AIR RELEASE VALVE (MATERIALS SUPPLIED BY NKWD)	EA	1	\$200.00	\$200.00	\$1,005.00	\$1,005.00
8	11.06 8"x8"x6" ANCHORING TEES AND BLOCKS	EA	2	\$375.00	\$750.00	\$495.00	\$990.00
9	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	340	\$28.00	\$9,520.00	\$26.50	\$9,010.00
10	12.06 ASPHALTIC CONCRETE (TRENCH)	SY	45	\$45.00	\$2,025.00	\$111.00	\$4,995.00
11	12.07 ASPHALTIC DRIVEWAY	SY	70	\$56.00	\$3,920.00	\$26.50	\$1,855.00
12	12.14 SWPPP	LS	1	\$1,497.00	\$1,497.00	\$22,500.00	\$22,500.00
	<b>TOTAL CONTRACTOR BID FOR OPTION #3</b>				<b>\$125,570.00</b>		<b>\$128,548.95</b>

NORTHERN KENTUCKY  
WATER DISTRICT

*Project*

*Subdistrict I - Phase 2 Water Main Extension*

Kenton County  
184-0655

Engineer's Recommendation of Award



# VIOX & VIOX

Civil Engineers, Surveyors, and Landscape Architects

466 Erlanger Road  
Erlanger, Kentucky 41018

Tel: 859.727.3293  
Fax: 859.727.8452

[www.viox.com](http://www.viox.com)

April 11, 2014

Northern Kentucky Water District  
P.O. Box 18640  
2835 Crescent Springs Road  
Erlanger, KY 41018

ATTN: John Scheben  
Design Engineering Supervisor

RE: Sub-District I – Phase 2  
Bird Road and Northcutt Road

Dear Mr. Scheben,

We have reviewed the bids received April 9, 2014, for the Sub-District I – Phase 2, 8" Water Main Extensions on Bird Road and Northcutt Road, Kenton County, KY. The breakdown of the bids has been provided to your staff and to the contractors. Three options were provided to the bidders/contractors. Of the three options, Option 3 (Bird Road) was within the budget allowed.

**OPTION 3 {Bird Road Only}:**

The low bidder was Paul Michels & Sons, Inc. with a bid of \$86,724.50, well under our estimate of \$121,602.00 and \$6,186.37 less than the second lowest bid received. Eight of the ten bidders were under our estimate dated 3/07/2014.

Paul Michels & Sons, Inc. has been a contractor for the NKWD in the past. Therefore, it is our recommendation that the contract should be awarded to them for \$86,724.50.

Hopefully, this recommendation is sufficient for your Commission to make a decision.

Yours truly,

James H. Viox, III, P.E., P.L.S.

NORTHERN KENTUCKY  
WATER DISTRICT

*Project*  
*Subdistrict I - Phase 2 Water Main Extension*

Kenton County  
184-0655

Board Meeting Minutes

DRAFT  
**Northern Kentucky Water District  
Board of Commissioners Meeting  
April 17, 2014**

A regular meeting of the Board of Commissioners of the Northern Kentucky Water District was held on April 17, 2014 at the District's facility located at 2835 Crescent Springs Road in Erlanger, Kentucky. All Commissioners were present, except for Commissioner Collins. Also present were Ron Lovan, Jack Bragg, Richard Harrison, Dave Enzweiler, Rusty Collinsworth, Kyle Ryan, Steve Broering, Amy Kramer, John Scheben, Colleen Medert, Lindsey Rehtin, Jim Sparrow of Rankin, Rankin & Company, Greg Eubank, and Mendy Ruby.

Commissioner Sommerkamp called the meeting to order at 12:35 p.m., and Amy Kramer led the pledge of allegiance.

Mr. Greg Eubank and Ms. Mendy Ruby addressed the Board regarding the District's Sub-District I, Phase 2 project in Kenton County. They expressed their interest in having a water line extended along Northcutt Road as part of the project. At the completion of their comments and prior to their departure, Chair Sommerkamp thanked the individuals for attending the meeting and making their thoughts and concerns known to the Board and invited them to stay to hear the presentation of Item # 15, Consideration of Bids for Sub-District I Phase 2 Water Main Extension Project. Mr. Harrison departed the meeting at 12:40 p.m. to discuss the project with them briefly, and returned at 12:50 p.m.

Commissioner Sommerkamp proposed amending the agenda to: 1) drop Item #14, Consideration of CSX Facility Right-of-Entry Resolution for Camp Road, because CSX agreed that Item #13, Consideration of CSX Facility Encroachment Resolution for Rich Road, encompasses this same action; and 2) add Item #17, Consideration of Continuance of Legal Services with Brian Dunham During His Transition to Frost, Brown, Todd, LLC. On motion of Commissioner Spaulding, seconded by Commissioner Wagner, the Commissioners unanimously approved the amended agenda.

The Commissioners reviewed correspondence received and articles published since the special Board meeting on March 24, 2014.

On motion of Commissioner Cunningham, seconded by Commissioner Spaulding, the Commissioners unanimously approved the December 31, 2013 audit report as presented by Jim Sparrow of Rankin, Rankin & Company.

Jack Bragg provided a summary of the quarterly financial meeting attended by the Chair, the Treasurer, the President/CEO, the CFO, the Finance Manager, and the auditor on April 16, 2014, which included: 1) review of 2013 Audit Report; 2) an overview of quarterly operations; 3) credit card use procedures and updated SOG; 4) reconciliation procedures for gas receipts; 5) use of pool vehicles and proposed credit card tracking through use of individual PIN numbers; and 6) review of scrap and other controls by VonLehman & Associates.



On motion of Commissioner Macke, seconded by Commissioner Spaulding, the Commissioners unanimously approved the minutes for the special Board meeting held on March 24, 2014, which replaced the regular meeting of March 20, 2014.

The Board was provided a copy of the District's check registers, which included the check number, check date, payee, check amount and description of the reason for each payment, detailing the District's expenditures for the period March 1, 2014 through March 31, 2014. On motion of Commissioner Wagner, seconded by Commissioner Cunningham, and after discussion, the Commissioners unanimously approved the expenditures of the District for the month of March 2014.

On motion of Commissioner Wagner, seconded by Commissioner Spaulding, the Commissioners unanimously approved the District's acceptance of the bid by and awarding a contract to Layne Christensen Company for Pump Maintenance Services, and authorized staff to execute the appropriate contract documents for a one (1) year agreement with the District's option to extend the contract for up to two additional one year terms.

On motion of Commissioner Wagner, seconded by Commissioner Cunningham, the Commissioners unanimously approved the District's acceptance of the bid by and awarding a contract to Hall's Paving and Sealing, Inc. for the 2014 Asphalt Restoration, and authorized staff to execute the appropriate contract documents with an option to renew the contract for an additional one-year term.

On motion of Commissioner Cunningham, seconded by Commissioner Spaulding, the Commissioners unanimously approved the District's acceptance of the bid by and awarding a contract to Bray Trucking, Inc. for 2014 Aggregate Materials, and authorized staff to execute the appropriate contract documents.

On motion of Commissioner Spaulding, seconded by Commissioner Wagner, the Commissioners unanimously approved the District's acceptance of the bid by and awarding a contract to Ideal Supplies, Inc. for the purchase of flowable fill and concrete, and authorized staff to execute the appropriate contract documents with the option to renew the contract for one additional one-year term.

On motion of Commissioner Macke, seconded by Commissioner Cunningham, the Commissioners unanimously approved the District's acceptance of the bid by and awarding a contract to Fred A. Nemann Company for the Beechwood Road and Page Road Water Main Replacement Project with a project budget of \$385,000, and authorized staff to execute the appropriate documents.

On motion of Commissioner Wagner, seconded by Commissioner Spaulding, the Commissioners unanimously approved the District's acceptance of the bid by and awarding a contract to Jack Gemmer and Sons, Inc. for the Dale Road Water Main Replacement Project with a project budget of \$125,000, and authorized staff to execute the appropriate documents.

On motion of Commissioner Cunningham, seconded by Commissioner Spaulding, the Commissioners unanimously approved the District's acceptance of the bid by and awarding a contract to G.M. Pipeline, Inc. for the Kenridge Drive 8" Water Main Replacement Project with a project budget of \$310,000, and authorized staff to execute the appropriate documents.

On motion of Commissioner Wagner, seconded by Commissioner Cunningham, the Commissioners unanimously approved the District's acceptance of the bid by and awarding a contract to Building Crafts, Inc. for the Taylor Mill Water Treatment Plant Electrical and Basin Improvements Project and accept the second bid alternate deduction with a project budget of \$4,000,000, and authorized staff to execute the appropriate documents.

On motion of Commissioner Spaulding, seconded by Commissioner Wagner, the Commissioners unanimously approved the District's adoption and authorization of the Resolution for CSX Facility Encroachment for Rich Road, and authorized the District's President/CEO or his designee to execute the agreement needed to install water mains crossing under CSX's train tracks at Rich Road.

On motion of Commissioner Cunningham, seconded by Commissioner Spaulding, the Commissioners unanimously approved the District's acceptance of the bid by and awarding a contract to Smith & Brown Contracting for the NKWD-Kenton County Unserved Water Project 2012 (Sub-District M) Water Main Extension Project with a project budget of \$3,400,000, and authorized staff to execute the appropriate documents.

On motion of Commissioner Wagner, seconded by Commissioner Cunningham, the Commissioners unanimously approved the District's acceptance of the bid by and awarding a contract to Michels Construction for the Sub-District I Phase 2 Water Main Extension Project with a project budget of \$919,323, and authorized staff to execute the appropriate documents.

On motion of Commissioner Spaulding, seconded by Commissioner Wagner, the Commissioners unanimously approved the District's authorization to purchase the following vehicles and equipment:

<u>Vehicle or Equipment</u>	<u>Vendor</u>	<u>Price</u>
20-Ton Drag	Southeastern Equip.	\$19,500
(2) Backhoes	Southeastern Equip.	\$177,800
¾ ton 4x4 Pickup	Crossroads Ford/Linc	\$24,157.60
1-Ton Flatbed	McCluskey Chev.	\$55,865
Mid-Size 4-door Sedan	McCluskey Chev.	\$17,602
Compact 4x4 Pickup	Crossroads Ford/Linc	\$25,122.40

On motion of Commissioner Spaulding, seconded by Commissioner Cunningham, the Commissioners moved to authorize staff to finalize the negotiation of an agreement with Frost, Brown, Todd, LLC for general legal services and authorized the President/CEO to execute said agreement.

After discussion, on motion of Commissioner Wagner, seconded by Commissioner Cunningham, the Commissioners unanimously approved an amendment to the main motion to add the words “and further upon the execution of Frost, Brown, Todd, LLC agreement, notify Hemmer, DeFrank Attorneys at Law of termination of current agreement”. The Commissioners unanimously approved the main motion as amended to read: that the Board authorize staff to finalize the negotiation of an agreement with Frost, Brown, Todd, LLC for general legal services, and authorize the President/CEO to execute said agreement and further upon the execution of Frost, Brown, Todd, LLC agreement, notify Hemmer, DeFrank Attorneys at Law of termination of current agreement.

Commissioner Spaulding departed the meeting at 2:17 p.m.

The Commissioners reviewed the District’s financial reports and Department reports. As part of his report, Mr. Bragg updated the Commissioners on salaries and 2014 increases included in the budget approved on October 24, 2013, from a pool of \$152,428. Increases were based on evaluations: 1) exemplary – 2.60%; 2) commendable – 2.25%; and 3) meets expectations – 2.00%. As part of his report, Mr. Harrison reviewed with the Commissioners the status of on-going projects within the 2014 5-Year Capital Budget, including highlighting change orders and expenses incurred to date.

On motion of Commissioner Wagner, seconded by Commissioner Cunningham, the Commissioners unanimously agreed to cancel the June 19, 2014 and July 17, 2014 regular meetings and schedule special meetings for June 26, 2014 and July 31, 2014 at 12:30 p.m. to replace them.

Other matters of a general nature were discussed.

On a motion by Commissioner Wagner, seconded by Commissioner Macke, the meeting was adjourned at 2:32 p.m.

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CHAIRMAN

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SECRETARY

NORTHERN KENTUCKY  
WATER DISTRICT

*Project*  
*Subdistrict I - Phase 2 Water Main Extension*

Kenton County  
184-0655

PROJECT FINANCE INFORMATION

Customers Added and Revenue Effect

Debt Issuance and Source of Debt

Additional Costs for Operating and Maintenance

USoA Plant Account

Depreciation Cost and Debt Service After Construction

# Northern Kentucky Water District

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Customers Added and Revenue Effect: There is a potential of 7 new customers to be added. It is estimated that 50% (4) of these customers will request service, so the projected revenue is \$3,687 a year as a result of the Subdistrict I – Phase 2 Water Main Extension project (assuming each customer uses 6,000 gallons a month). The total net revenue effect for the entire Subdistrict I Project (all phases) is \$21,595.00 per year for an estimated 37 customers.

Debt Issuance and Source of Debt: The project grand funding was finalized with the approval of the 2008 State of Kentucky Budget in the amount of \$500,000. The remainder of the project will be paid from the District's Five-Year Capital Budget, PSC No. 81 "Mains into Unserved Areas 2007 – Subdistrict I Kenton County" with a budget of \$250,000 and a customer contribution of \$169,323. The customer contribution will be paid back through a maximum monthly surcharge of \$30.00 on the customer's water bill. The total project budget is \$919,323 which includes construction cost, engineering, materials, and contingencies. A summary of the project costs is provided below:

○ Engineering	\$ 50,456.00
○ KIA Cost	\$ 2,500.00
○ Contractor's Bids	
▪ Phase 1 -	\$ 752,737.85
▪ Phase 2 -	\$ 86,724.50
○ Misc. & Contingencies	\$ 26,904.65
Total Project Cost	\$ 919,323.00

All phases of the Subdistrict I project are already funded through BAN 2007 in the amount of \$250,000.

USoA Accounts: The anticipated amounts for all phases of the Subdistrict I project cost of \$28,350,000 will fall under the following Uniform System of Accounts Codes:

Code 331 "Transmission & Distribution Mains"	\$838,962
Code 334 "Meter & Meter Installation "	\$ 15,388
Code 335 "Hydrants"	\$ 64,973

Additional Costs and O&M: No additional operating and maintenance costs are anticipated from the project.

Depreciation and Debt Service: Annual depreciation and debt service after construction are as follows:

Depreciation: \$14,709/year over 62.5 years

Debt Service: \$58,848 over 25 years (conventional 3.8% loan).

NORTHERN KENTUCKY  
WATER DISTRICT

*Project*  
*Subdistrict I - Phase 2 Water Main Extension*

Kenton County  
184-0655

SCHEDULE OF MORTGAGES, BONDS, NOTES, AND  
OTHER INDEBTEDNESS

Northern Kentucky Water District Schedule of Outstanding Debt As of March 31, 2014		
Description	Amount	
<b>Bonds</b>		
2003 C		9,300,000
2004		7,415,000
2006		23,045,000
2009		24,810,000
2011		28,280,000
2012		51,315,000
2013A		25,785,000
2013B		22,120,000
<b>Total Bonds</b>	<b>\$</b>	<b>192,070,000</b>
<b>Notes</b>		
KIA Loans		34,846,375
Taylor Mill purchase note	\$	750,000
Deferred note payable		100,000
BAN 2009		29,160,000
<b>Total Notes</b>	<b>\$</b>	<b>64,856,375</b>
<b>Total Debt</b>	<b>\$</b>	<b>256,926,375</b>





Account 221, BONDS

Line No.	Par Value of Actual Issue 1	Cash Realized on Actual Issue 2	Par Value of Amount Held by or for Respondent 3	Actually Outstanding at Close of year 4	Interest During Year	
					Accrued 5	Actually Paid 6
1	11,225,000	11,131,694		-	-	-
2	11,355,000	11,141,619		-	-	-
3	2,287,000	2,287,000		1,951,000	98,150	98,450
4	16,325,000	15,835,250		-	-	-
5	45,485,000	44,121,624		-	-	-
6	10,575,000	10,525,204		-	104,708	175,768
7	1,615,000	1,583,553		-	41,689	65,491
8	30,270,000	30,068,115		-	632,181	995,314
9	23,790,000	23,532,357		10,805,000	441,397	462,469
10	10,455,000	10,195,116		7,760,000	336,918	341,628
11	29,000,000	28,736,444		23,945,000	1,000,588	1,015,088
12	29,290,000	27,430,236		25,560,000	1,443,912	1,455,163
13	30,830,000	28,862,016		29,155,000	1,215,837	1,226,463
14	54,840,000	-		53,115,000	2,605,150	2,633,900
15	28,165,000	25,807,113		26,400,000	571,231	105,553
16	26,570,000	-		24,120,000	337,444	-
Total	362,077,000	271,257,341	-	202,811,000	8,829,205	8,575,287

Schedule of Bond Maturities

Line No.	Bond Numbers 7	Maturity Date 8	Interest Rate 9	Principal Amount 10	Amount Paid 11	Remaining Bonds Outstanding 12
1						
2	<b>See Attachments 23.1 Through 23.10</b>					
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						

**Notes Payable (Acct. 232 & 234)**

2013 a	Nominal Date of Issue b	Date of Maturity c	INTEREST		Principal Amount per Balance Sheet f
			Rate d	Amount of payment e	
<b>Account 232 - Note Payable</b>					
Campbell Co. Fiscal Court			0.00%	\$	\$ 100,000
			0.00%		
<b>Total Account 232</b>				\$	\$ 100,000
<b>Account 234 - Notes Payable To Associated Companies</b>					
		N/A		\$	\$
<b>Total Account 234</b>				\$	\$

**Accounts Payable to Associated Companies (Acct. 233)**

Show Payable to Each Associated Company Separately	Amount
	\$
N/A	
<b>Total</b>	\$

NORTHERN KENTUCKY  
WATER DISTRICT

*Project*

*Subdistrict I - Phase 2 Water Main Extension*

Kenton County  
184-0655

CURRENT BALANCE SHEET AND  
INCOME STATEMENT

# Northern Kentucky Water District

## Balance Sheet As of March 31, 2014

<b>Assets</b>	<b>2014</b>	<b>2013</b>
<b>Current Assets</b>		
Cash and Cash Equivalents	\$21,790,412	\$19,690,704
Accrued Interest Receivable	\$4,848	\$6,348
Accounts Receivable Customers	\$5,268,793	\$4,750,931
Accounts Receivable Unbilled Customers	\$5,700,000	\$5,500,000
Accounts Receivable Other	\$58,288	\$83,828
Assessments Receivable	\$110,953	\$100,584
 Inventory Supplies for New Installation and Maintenance, at Cost	 \$1,399,343	 \$1,410,093
 Prepaid Expenses	 <u>\$1,044,507</u>	 <u>\$306,772</u>
<b>Total Current Assets</b>	<b>\$35,377,144</b>	<b>\$31,849,060</b>
<b>Restricted Assets</b>		
Bond Proceeds Fund	\$7,927,698	\$12,602,981
Debt Service Reserve Account	\$18,255,577	\$16,536,244
Debt Service Account	\$6,876,927	\$6,176,972
Improvement, Repair, & Replacement Boone/Florence Settlement Account	\$10,951,091	\$11,257,869
	<u>\$307,911</u>	<u>\$744,535</u>
<b>Total Restricted Assets</b>	<b>\$44,319,204</b>	<b>\$47,318,401</b>
<b>Non Current Assets</b>		
Miscellaneous Deferred Charges	(\$5,207,990)	(\$2,374,463)
<b>Capital Assets:</b>		
Land, System, Buildings, and Equipment	\$429,412,859	\$388,794,350
Construction in Progress	\$16,697,315	\$45,220,986
<b>Total Capital Assets before Accumulated Depreciation</b>	<b>\$446,110,174</b>	<b>\$434,015,336</b>
<b>Less: Accumulated Depreciation</b>	<b><u>(\$114,150,895)</u></b>	<b><u>(\$104,202,113)</u></b>
<b>Capital Assets Net of Accumulated Depreciation</b>	<b>\$331,959,279</b>	<b>\$329,813,223</b>
<b>Total Noncurrent Assets</b>	<b><u>\$326,751,289</u></b>	<b><u>\$327,438,760</u></b>
<b>Total Assets</b>	<b><u>\$406,447,637</u></b>	<b><u>\$406,606,221</u></b>

Northern Kentucky  
**Water District**

**Balance Sheet  
As of March 31, 2014**

<b>Liabilities and Retained Earnings</b>	<b>2014</b>	<b>2013</b>
<b>Current Liabilities</b>		
Current Portion of Long Term Debt	\$10,968,754	\$9,160,441
Accounts Payable	\$1,726,824	\$1,236,336
Accrued Payroll & Liabilities	\$372,914	\$456,508
Other Accrued Liabilities	<u>\$213,371</u>	<u>\$198,192</u>
<b>Total Current Liabilities</b>	<b>\$13,281,863</b>	<b>\$11,051,477</b>
<b>Current Liabilities From Restricted Assets</b>		
Accounts Payable	\$1,317,429	\$295,498
Accrued Interest Payable	<u>\$1,799,253</u>	<u>\$1,701,524</u>
<b>Total Current Liabilities From Restricted Assets</b>	<b>\$3,116,682</b>	<b>\$1,997,022</b>
<b>Long Term Debt</b>		
Long Term Portion of Bonded Indebtedness	\$217,932,344	\$204,633,309
Bond Anticipation Notes Payable	\$0	\$25,615,000
Note Payable-Taylor Mill Purchase	\$575,000	\$750,000
Deferred Note Payable	<u>\$100,000</u>	<u>\$100,000</u>
<b>Total Long Term Debt</b>	<b>\$218,607,344</b>	<b>\$231,098,309</b>
<b>Total Liabilities</b>	<b>\$235,005,889</b>	<b>\$244,146,808</b>
<b>Retained Earnings</b>	<b><u>\$171,441,748</u></b>	<b><u>\$162,469,413</u></b>
<b>Total Liabilities and Retained Earnings</b>	<b><u>\$406,447,637</u></b>	<b><u>\$406,606,221</u></b>

# Northern Kentucky Water District

## Income and Expenses Report-Detail For the Three Months ending March 31, 2014

	March 2014	March 2013	March Budget	Variance Over (Under)	YTD 2014	YTD 2013	YTD Budget	Variance Over (Under)
<b>Operating Income</b>								
Water Sales	\$5,028,824	\$4,669,654	\$5,059,314	-0.6%	\$11,513,993	\$10,784,034	\$11,777,104	-2.2%
Forfeited Discounts	\$61,761	\$59,688	\$61,180	0.9%	\$226,846	\$204,828	\$209,948	8.0%
Rents from Water Property	\$42,789	\$40,843	\$40,000	7.0%	\$154,421	\$154,097	\$150,000	2.9%
Other Water Revenues	\$27,830	\$23,190	\$20,000	39.2%	\$50,840	\$85,100	\$81,260	-37.4%
<b>Total Operating Income</b>	<b>\$5,161,204</b>	<b>\$4,793,375</b>	<b>\$5,180,494</b>	<b>-0.4%</b>	<b>\$11,946,100</b>	<b>\$11,228,059</b>	<b>\$12,218,312</b>	<b>-2.2%</b>
<b>Non Operating Income</b>								
Interest Income	\$57,610	\$57,648	\$65,000	-11.4%	\$199,067	\$190,636	\$192,000	3.7%
Miscellaneous	\$18,395	\$14,416	\$13,734	33.9%	\$38,181	\$140,683	\$50,110	-23.8%
<b>Total Non Operating Income</b>	<b>\$76,005</b>	<b>\$72,064</b>	<b>\$78,734</b>	<b>-3.5%</b>	<b>\$237,248</b>	<b>\$331,319</b>	<b>\$242,110</b>	<b>-2.0%</b>
<b>Boone Florence Settlement Transfer</b>	<b>\$25,610</b>	<b>\$36,549</b>	<b>\$25,610</b>	<b>0.0%</b>	<b>\$76,830</b>	<b>\$109,647</b>	<b>\$76,830</b>	<b>0.0%</b>
<b>Total Income</b>	<b>\$5,262,819</b>	<b>\$4,901,988</b>	<b>\$5,284,838</b>	<b>-0.4%</b>	<b>\$12,260,178</b>	<b>\$11,669,025</b>	<b>\$12,537,252</b>	<b>-2.2%</b>
<b>O&amp;M Expenses</b>								
<b>Source of Supply, Water</b>								
Treatment, Pumping, & Storage	\$905,774	\$803,033	\$1,005,313	-9.9%	\$2,809,510	\$2,370,541	\$3,012,618	-6.7%
Engineering & Distribution	\$563,742	\$539,048	\$586,414	-3.9%	\$1,819,850	\$1,694,405	\$1,846,843	-1.5%
Customer Service	\$230,904	\$268,539	\$291,791	-20.9%	\$784,369	\$926,606	\$986,953	-20.5%
Administration	\$298,388	\$261,544	\$303,527	-1.7%	\$858,798	\$833,688	\$888,700	-3.4%
<b>Total O&amp;M Expenses</b>	<b>\$1,998,808</b>	<b>\$1,872,164</b>	<b>\$2,187,045</b>	<b>-8.6%</b>	<b>\$6,272,527</b>	<b>\$5,825,240</b>	<b>\$6,735,114</b>	<b>-6.9%</b>
<b>Transfer to Debt Service</b>	<b>\$1,590,000</b>	<b>\$1,800,000</b>	<b>\$1,590,000</b>	<b>0.0%</b>	<b>\$4,770,000</b>	<b>\$4,800,000</b>	<b>\$4,770,000</b>	<b>0.0%</b>
<b>Total Expenses</b>	<b>\$3,588,808</b>	<b>\$3,472,164</b>	<b>\$3,777,045</b>	<b>-5.0%</b>	<b>\$11,042,527</b>	<b>\$10,625,240</b>	<b>\$11,505,114</b>	<b>-4.0%</b>
<b>Avail. to Transfer to Oper. Capital</b>	<b>\$1,674,011</b>	<b>\$1,429,824</b>	<b>\$1,507,793</b>	<b>11.0%</b>	<b>\$1,217,651</b>	<b>\$1,043,785</b>	<b>\$1,032,138</b>	<b>18.0%</b>

NORTHERN KENTUCKY  
WATER DISTRICT

*Project*

*Subdistrict I - Phase 2 Water Main Extension*

Kenton County  
184-0655

CUSTOMER NOTICE, RATE SCHEDULE,  
PROPOSED TARIFF

## NOTICE OF FUTURE WATER SERVICE AND SURCHARGE

Northern Kentucky Water District will seek approval of the Public Service Commission of Kentucky to furnish potable water service to Subdistrict I – Phase 2 Water Main Extension Project. This project is located in the rural area in Kenton County which includes the following streets or portions thereof:

Subdistrict I – Phase 2 Streets
Bird Road (From Wyne Wood Trail to #1684 Bird Road)

Total construction costs for this project will be approximately \$99,733.18. The proposed consumer rates will be:

### PRELIMINARY NORTHERN KENTUCKY WATER DISTRICT MONTHLY WATER RATES FOR PROPOSED SUB-DISTRICT I – PHASE 2 WATER MAIN EXTENSION PROJECT

**ESTIMATED MONTHLY SURCHARGE OF \$30.00  
SHALL BE ADDED TO THE MINIMUM MONTHLY BILL**

#### SECTION II – RETAIL WATER RATES

##### Monthly Service Rate

First 1,500 cubic feet used per month	\$4.25 per 100 cubic feet
Next 163,500 cubic feet used per month	\$3.53 per 100 cubic feet
Next 165,500 cubic feet used per month	\$2.72 per 100 cubic feet

##### Fixed Monthly Service Charge

<u>Meter Size</u>	<u>Monthly Service Charge</u>	<u>Meter Size</u>	<u>Monthly Service Charge</u>
5/8"	\$14.20	3"	\$54.90
3/4"	\$14.60	4"	\$68.80
1"	\$16.00	6"	\$101.90
1-1/2"	\$18.00	8"	\$137.60
2"	\$22.70	10" & larger	\$183.00

Sample Monthly Bill Amount for a 5/8" meter is as follows:

Estimated Monthly Usage of 2,000 Gallons	Estimated Monthly Bill = \$55.56
Estimated Monthly Usage of 3,000 Gallons	Estimated Monthly Bill = \$61.25
Estimated Monthly Usage of 4,000 Gallons	Estimated Monthly Bill = \$66.93
Estimated Monthly Usage of 5,000 Gallons	Estimated Monthly Bill = \$72.61
Estimated Monthly Usage of 6,000 Gallons	Estimated Monthly Bill = \$78.29

Note: Actual bill will vary according to actual measured usage

Note: The estimated monthly bill includes the \$30.00 surcharge amount.



The proposed surcharge may be changed by the Ky. Public Service Commission and may be higher or lower than proposed.

Any corporation, association, body politic or person may by timely motion, within 30 days of the initial notice, request intervention in the case. The motion must be submitted in writing to the Public Service Commission, 211 Sower Blvd., Box 615 Frankfort, KY 40602 and should state the grounds for the request, including the interest and status of the party. Intervention may be granted beyond 30 days for good cause. Customers may obtain without cost a copy of the Application and any testimony filed by contacting Northern Kentucky Water District at the address below, or at the District web site [www.nkywater.org](http://www.nkywater.org). Any person may obtain a copy of the Application or examine the application and supporting documents at the District's web site, or at the Public Service Commission web site [www.psc.ky.gov](http://www.psc.ky.gov). A copy of the Application and testimony is available for public review and examination at the district's office or the Public Service Commission office. Written comments regarding the proposed rates may be submitted to the Public Service Commission by mail or through the Public Service Commission's website listed below.

For further information contact the PSC of Kentucky at  
PO Box 615  
Frankfort, KY 40602  
Tel: (502) 564 3940  
[www.psc.ky.gov](http://www.psc.ky.gov)

Or contact the undersigned.

Northern Kentucky Water District  
2835 Crescent Springs Road  
PO Box 18640  
Erlanger, KY 41018  
Tel: (859) 578-9898  
[www.nkywater.org](http://www.nkywater.org)

**SECTION II – RETAIL WATER RATES**

**Northern Kentucky Water District Service Area**

1. Monthly Service Rate

First	1,500 cubic feet	\$4.25 per 100 cubic feet
Next	163,500 cubic feet	\$3.53 per 100 cubic feet
Over	165,000 cubic feet	\$2.72 per 100 cubic feet

- Customers in Subdistrict A** \*shall be assessed a monthly surcharge in the amount of \$8.17 (R)
- Customers in Subdistrict B** \*shall be assessed a monthly surcharge in the amount of \$17.10 (I)
- Customers in Subdistrict C** \*shall be assessed a monthly surcharge in the amount of \$17.82 (I)
- Customers in Subdistrict D** \*shall be assessed a monthly surcharge in the amount of \$30.00
- Customers in Subdistrict E** \*shall be assessed a monthly surcharge in the amount of \$30.00
- Customers in Subdistrict F** \*shall be assessed a monthly surcharge in the amount of \$24.71 (R)
- Customers in Subdistrict G** \*shall be assessed a monthly surcharge in the amount of \$28.01 (R)
- Customers in Subdistrict H** \*shall be assessed a monthly surcharge in the amount of \$30.00
- Customers in Subdistrict I** \*shall be assessed a monthly surcharge in the amount of \$30.00
- Customers in Subdistrict K** \*shall be assessed a monthly surcharge in the amount of \$ 9.94 (R)
- Customers in Subdistrict R** \*shall be assessed a monthly surcharge in the amount of \$19.91 (I)
- Customers in Subdistrict RF** \*shall be assessed a monthly surcharge in the amount of \$23.77
- Customers in Subdistrict RL** \*shall be assessed a monthly surcharge in the amount of \$35.81 (R)

\*Subdistrict charges are reviewed annually.

\*Detailed street listing within each Subdistrict can be found under Appendix A.

\*Service connections on extensions or laterals from a subdistrict street will be assessed the appropriate Subdistrict charge.

2. Quarterly Rates

First	4,500 cubic feet	\$4.25 per 100 cubic feet
Next	490,500 cubic feet	\$3.53 per 100 cubic feet
Over	495,000 cubic feet	\$2.72 per 100 cubic feet

DATE OF ISSUE 1-1-2014

DATE EFFECTIVE 01-01-2014

ISSUED BY

TITLE Vice-President - Finance

**KENTUCKY  
PUBLIC SERVICE COMMISSION**

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**JEFF R. DEROUEN  
EXECUTIVE DIRECTOR**

---

TARIFF BRANCH

---

EFFECTIVE  
**1/1/2014**

PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

**SECTION II – RETAIL WATER RATES – Cont’d**

3. Fixed Service Charge

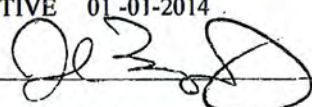
<u>Meter Size</u>	<u>Monthly Service Charge</u>	<u>Quarterly Charge</u>
5/8"	\$14.20	\$28.40
3/4"	\$14.60	\$29.90
1"	\$16.00	\$34.30
1 1/2"	\$18.00	\$40.50
2"	\$22.70	\$56.90
3"	\$54.90	\$177.00
4"	\$68.80	\$221.80
6"	\$101.90	\$327.80
8"	\$137.60	\$447.90
10" and Larger	\$183.00	\$584.80

**SECTION III – WHOLESALE WATER SALES**

Bullock Pen Water District	\$3.26 per 1,000 gallons (or) \$2.44 per 100 cubic feet
City of Walton	\$3.26 per 1,000 gallons (or) \$2.44 per 100 cubic feet
Pendleton County	\$3.26 per 1,000 gallons (or) \$2.44 per 100 cubic feet

**SECTION IV – MISCELLANEOUS SERVICE FEES**

Returned Check Charge	\$20.00
Water Hauling Station	\$5.68 per 1,000 gallons
Service Charge	\$25.00 (See Definitions in Section I-A)
Overtime Charge	\$60.00 (To be applied to Customer account for Request for water turned On or Off outside the normally business hours.)

DATE OF ISSUE 1-1-2014  
 DATE EFFECTIVE 01-01-2014  
 ISSUED BY   
 TITLE Vice-President - Finance

<b>KENTUCKY PUBLIC SERVICE COMMISSION</b>
<b>JEFF R. DEROUEN EXECUTIVE DIRECTOR</b>
TARIFF BRANCH

EFFECTIVE <b>1/1/2014</b>
PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

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**APPENDIX A – Subdistrict Street Names – Cont’d**

**Customer in Subdistrict G Cont’d**

- Upton Drive Cody Road to dead end
- Sugar Camp address 2760 to Fowler Creek
- Wolf from Valley View to KY 17
- Hollyhock Wolf to address 641
- Lieberman Libscomb to address 5619
- Banklick from Walton Nickolson to Maher
- Independence Road from address 1068 to Banklick Road

**Customers in Subdistrict H**

- Rifle Range Road (Licking Pike to the Bridge)
- Enzweiler Road
- Orlando Drive
- Bars Branch (End of line to Address #9677)
- Creektrace Road (Licking Pike to John Miller)
- Creektrace Road (John Miller to Indian Trace)
- Creektrace Road (Indian Trace to Pond Creek)
- Indian Trace Road (Creek Trace to JoAnn Lane)
- Indian Trace Road (JoAnn to the end of the Road)
- JoAnn Lane
- Lauren Lane
- John Miller Road (Creektrace to address #9807)
- Pleasant Ridge Road (End of Line to address #11138)
- Maddox Rd. (End of Line to the end of the Road)
- Cory Drive
- Wesley Chapel (California Cross Roads to Schababerle Hill Road)
- Wesley Chapel (Schbaberle Hill to address #12635)
- Schababerle Hill Road (Wesley Chapel to Daniels Road)
- Daniels Road (from Schababerle Hill to address #3185)
- Low Gap Road (from address #954 to #878)
- Mystic Rose (Nine Mile to dead end)
- Pond Creek Road (from Bridge to address #10365)
- Washington Trace (from address #10998 to #11236)

**Customers in Subdistrict I**

- Jones Road (American Legion to D.E.)
- Dixon Drive (Rich Road to #14361)
- Taylor Mill Road (#4868 to Grand Ave)
- Bird Road (Wyne Wood Trail to #1684)

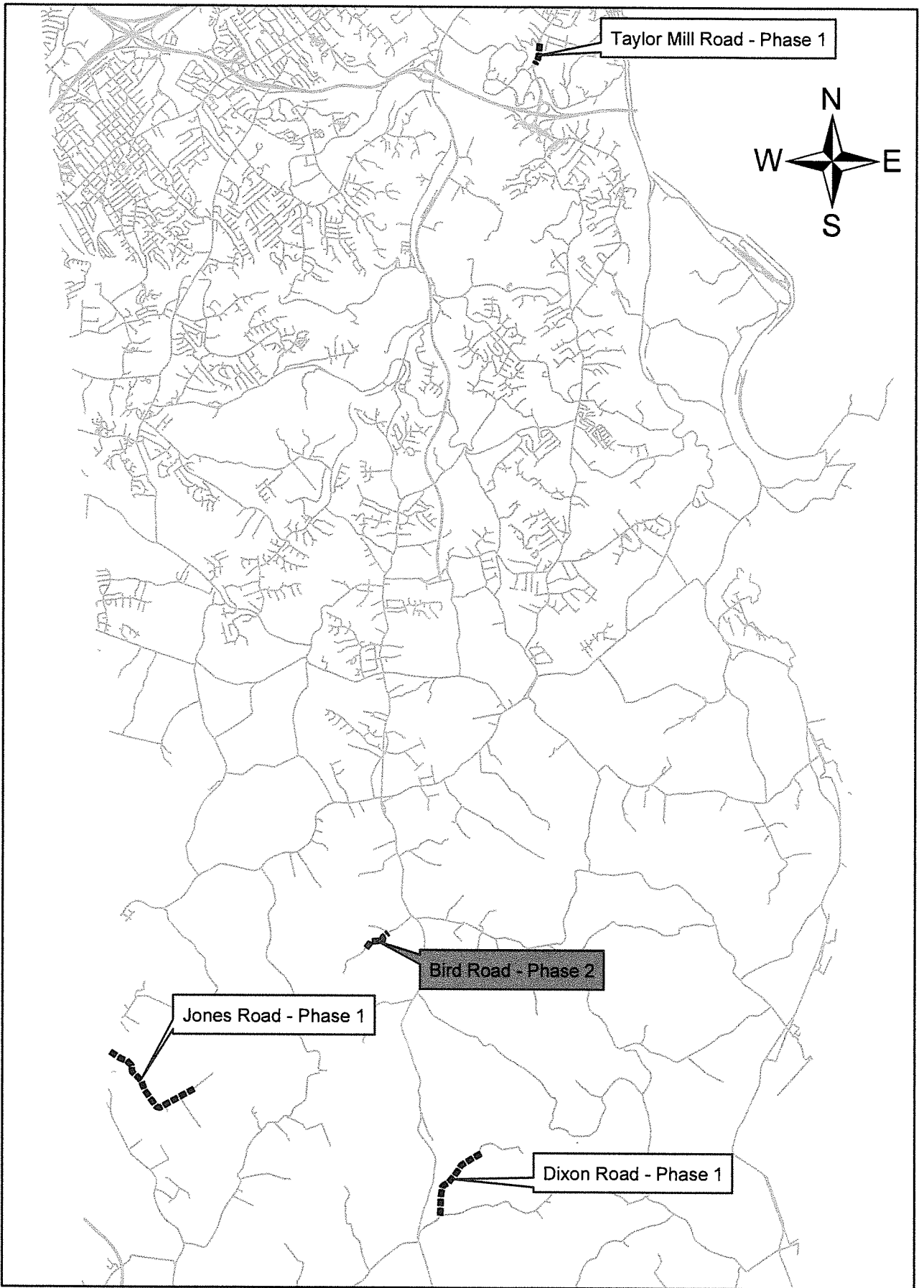
**Customers in Subdistrict K**

- Klette Road
- Rice Road
- Saylor Court
- Tamber Ridge Drive

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Date of Issue: 01-08-2013  
Date Effective: 02-08-2013

Issued by: \_\_\_\_\_  
Officer & Title Jack Bragg, Jr. CPA, CMA  
Vice President - Finance



# Sub District I Water Main Extension Phase 2

NORTHERN KENTUCKY  
WATER DISTRICT

*Project*  
*Subdistrict I - Phase 2 Water Main Extension*

Kenton County  
184-0655

STREET DENSITY TABLE

Kenton County Unserved Street Listing

Sorted by "Weighted Customers Per Mile"

Full Listing

Street	Comment:	House Count	Distance (Miles)	Est. Cost	City	Est \$ Foot Per	Actual Per Mile Customers	Weighted Per Mile Customers	Comment
James Road	North of Moffett	4	0.1	\$ 36,960.00	SKC	70	40.00	40.00	2009 declined interest in water, houses located on long gravel driveway
Webster Road	Richardson Road to D.E.	18	0.7	\$ 258,720.00	Independe	70	25.71	25.71	Letter of interest sent 2009 - no interest - creek crossing
Bird Road	D.E. near Wynewood to end of road	6	0.3	\$ 110,880.00	SKC	70	20.00	20.00	
Northcut Road	Jones Road to D.E.	9	0.45	\$ 166,320.00	SKC	70	20.00	20.00	Depends on Jones Road
Sawgrass Road	Off Green Road	2	0.1	\$ 36,960.00	SKC	70	20.00	20.00	Letter of interest sent 2009 - no interest
Mason Road	hydrant at #460 to Decoursey	4	0.2	\$ 73,920.00	Taylor Mill	70	20.00	20.00	geotech issues
Wright Road/Graven Road	Graven to D.E., End of Sub-C to Wright Rd	7	0.39	\$ 144,144.00	SKC	70	17.95	17.95	depends on graven
Goshorn Road	Fiskburg to D.E.	14	0.8	\$ 295,680.00	SKC	70	17.50	17.50	repaved 2006
Scenic Ridge Drive	Off Pelly Road	5	0.3	\$ 110,880.00	Independe	70	16.67	16.67	#4958 and #4959 are served
Highwater Road	River Heights Lane to #1873	1	0.06	\$ 22,176.00	Villa Hills	70	16.67	16.67	
Carlisle Road	Fron #15379 to Parker Grove	15	1.00	\$ 369,600.00	SKC	70	15.00	15.00	Bullock Pen
Old Fowler Creek Road	Off KY 17	3	0.2	\$ 73,920.00	Covington	70	15.00	15.00	
Hempfling Road	Navaho Road to slide area	20	0.8	\$ 295,680.00	SKC	70	25.00	14.09	depends on Oak Island, Hempfling
Hempfling Road	Navaho to Oak Island	10	0.6	\$ 221,760.00	SKC	70	16.67	14.09	depends on Oak Island
Oak Island	Moffett to Hempfling	1	0.8	\$ 295,680.00	SKC	70	1.25	14.09	Letter of interest sent 2009 - no interest - 14014 is served
Pruett	Marshall to Petty	6	0.44	\$ 162,624.00	SKC	70	13.64	13.64	#3715 is served
Steep Creek	Marshall to #3382 at bridge	8	0.6	\$ 221,760.00	SKC	70	13.33	13.33	
Locust Lane	KY 17 to D.E.	2	0.15	\$ 55,440.00	SKC	70	13.33	13.33	
Worthington Drive	Off KY 17, South of Hands Pike	2	0.15	\$ 55,440.00	Covington	70	13.33	13.33	owned by city of covington
Vises's Trail	From KY177 go North 0.77 miles(south end)	10	0.77	\$ 284,592.00	SKC	70	12.99	12.99	many across railroad tracks
Fiskburg Road	Pfanstiehl to Alexander	6	0.5	\$ 184,800.00	SKC	70	12.00	12.89	depends on Fiskburg Road
Fiskburg Road	Goshorn to Pfanstiehl Road	1	0.2	\$ 73,920.00	SKC	70	5.00	12.89	depends on Fiskburg Road or Rich
Alexander Road	Fiskburg Road to KY 177	42	3.1	\$ 1,145,760.00	SKC	70	13.55	12.89	depends on Fiskburg Road
Ernst Bridge Road	From hydrant at #4262 to #4425 (Ryland CC)	7	0.55	\$ 203,280.00	SKC	70	12.73	12.73	4262 is served
Mann Road	Steep Creek to/inc. 11606	12	0.8	\$ 295,680.00	SKC	70	15.00	12.67	depends on Steep Creek or Mann
Mann Road	Visalia to #11606	7	0.7	\$ 258,720.00	SKC	70	10.00	12.67	#11950 is served
Trace Run Road	Off of Moffett	10	0.8	\$ 295,680.00	SKC	70	12.50	12.50	
Case Road	Steep Creek to KY 177	5	0.3	\$ 110,880.00	SKC	70	16.67	12.50	depends on steep creek
Steep Creek	Ryland Cty Clb/KY 177 to #3704 at bridge	13	1.14	\$ 421,344.00	SKC	70	11.40	12.50	From Ryland Country Club (hydrant on KY 177)
Webster Road	South of Independence Station to D.E.	5	0.4	\$ 147,840.00	Independe	70	12.50	12.50	
Bethel Grove Road	End of Sub E to D.E.	3	0.25	\$ 92,400.00	Visalia	70	12.00	12.00	
Gene Street	Off Walton Nicholson Road	3	0.25	\$ 92,400.00	SKC	70	12.00	12.00	#12035 is served
Elliot Road	KY 17 to D.E.	18	1.5	\$ 554,400.00	SKC	70	12.00	12.00	
Fowler Creek Road	Old Madison to new Madison connector road	13	1.1	\$ 406,560.00	Independe	70	11.82	11.82	geotech issues
Conley Road	KY 177 to #3953	6	0.3	\$ 110,880.00	SKC	70	20.00	11.54	depends on conley road
Conley Road	Kenton Station to #3953	9	1	\$ 369,600.00	SKC	70	9.00	11.54	
Grassy Creek Road	Gardnersville to D.E.	19	1.1	\$ 112,321.00	SKC	70	17.27	11.15	
Anderson Road	Gardnersville to D.E.	7	0.9	\$ 105,891.00	SKC	70	7.78	11.15	
River Road (Route 8)	Chevron to #486 (towards Bromley)	10	0.9	\$ 332,640.00	Villa Hills	70	11.11	11.11	Chevron is served
Wright Road	Banklick to Graven	13	1.2	\$ 443,520.00	SKC	70	10.83	10.83	
Gleason Road	KY 17 to D.E.	3	0.3	\$ 110,880.00	SKC	70	10.00	10.00	14192,14252,14291 are served
Rich Road	End of Sub C to Hempfling	7	0.7	\$ 258,720.00	SKC	70	10.00	10.00	
KY 177	End of Sub E, past Conley to 13361	15	1.5	\$ 554,400.00	Visalia	70	10.00	10.00	
Moffett Road	George W. Bach (Armstrong) to #3628	3	0.3	\$ 110,880.00	SKC	70	10.00	10.00	#3612, 3618 and 3776 are served
Forest View Lane	Last hydrant on Cleveland Ave to D.E.	3	0.3	\$ 110,880.00	Taylor Mill	70	10.00	10.00	
Fuchs Road	Garvey Avenue to D.E.	1	0.1	\$ 36,960.00	Elsmere	70	10.00	10.00	rr tracks
Independence Station Rd	Justice to RR Tracks	3	0.3	\$ 110,880.00	Independe	70	10.00	10.00	
McHugh Lane	Off Independence Station Road	3	0.3	\$ 110,880.00	Independe	70	10.00	10.00	depends on Independence Station Road
Ishmael	End of existing hydrant to #14072	1	0.1	\$ 36,960.00	SKC	70	10.00	10.00	trailer can be served from decorsey

Kensington Road	Off Green Road	2	0.2	\$	73,920.00	SKC	70	10.00	10.00	0
Kenton Station Road	Martin to Rector	18	1.8	\$	665,280.00	SKC	70	10.00	10.00	0
Wayman Branch	Between old T.M. system and NKWD system	5	0.5	\$	184,800.00	Taylor Mill	70	10.00	10.00	
Webster Road	North of Independence Station	2	0.2	\$	73,920.00	Independence	70	10.00	10.00	#2750, 2880, 2900, 3010, 3020 not served
Montague Road	Fire Hydrant to #1770	1	0.1	\$	36,960.00	Covington	70	10.00	10.00	#621 is served
Pfanstiehl Road	Fiskburg to D.E.	13	1.4	\$	517,440.00	SKC	70	9.29	9.29	#1770 is served
Paxton Road	End of Sub C #1773 to #1756	9	1	\$	78,070.00	SKC	70	9.00	9.00	depends on Fiskburg Road
Alexander Road	KY 177 to D.E.	9	1	\$	369,600.00	SKC	70	9.00	9.00	depends Fiskburg and Alexander Road
Steep Creek	#3382 at bridge to #3709 at bridge	9	1	\$	369,600.00	SKC	70	9.00	9.00	depends on Steep Creek from either direction
Saint Marys Road	Alexander to KY 177	7	0.8	\$	295,680.00	SKC	70	8.75	8.75	depends on Fiskburg Road and Alexander Road
Hempfling Road	Sub C D.E. to slide area #2713	6	0.7	\$	258,720.00	SKC	70	8.57	8.57	
Eads Road	US 25 to I-71/75	6	0.7	\$	258,720.00	SKC	70	6.57	8.57	
Hempfling Road	Oak Island to Rich	11	1.3	\$	480,480.00	SKC	70	8.46	8.46	depends on Hempfling/Oak Island
KY 177	St. Mary Rd to Alexander Road	9	1.3	\$	480,480.00	SKC	70	6.92	6.92	depends on Fiskburg and Alexander Roads
Marshall Road	Klette to #9440	1	0.15	\$	55,440.00	Covington	70	6.67	6.67	geotech issues
Fiskburg Road	Alexander to Rich Road	4	0.6	\$	221,760.00	SKC	70	6.67	6.67	depends on Fiskburg Road or Rich Road
Locust Pike/Lawnmower Road	Feiser Road to # 9684	16	2.5	\$	924,000.00	Ryland He	70	6.40	6.40	#9014 is served
KY 177	#14443 south of Kenton Station to bridge	3	0.6	\$	221,760.00	SKC	70	5.00	6.00	
Washboard Road	KY 177 to D.E.	3	0.4	\$	147,840.00	SKC	70	7.50	6.00	depends on Ky 177
Decoursey	I-275 to hydrant at #7900	4	0.7	\$	258,720.00	Fairview	70	5.71	5.71	
Lamb's Ferry Road	Whites Road to Whites Road	10	1.8	\$	665,280.00	Ryland He	70	5.56	5.56	
George W. Bach (Armstrong Road)	Off Moffett to D.E.	2	0.4	\$	147,840.00	SKC	70	5.00	5.00	#14235 is served
Erlanger Road	Turfway to dead end	2	0.4	\$	147,840.00	Erlanger	70	5.00	5.00	
Rouse	KY 177 to Rich	1	0.2	\$	73,920.00	SKC	70	5.00	5.00	dependent on Little Cruises Creek/Rich Road
Key West Road	US 25 to D.E. (Bullock Pen)	1	0.2	\$	73,920.00	SKC	70	5.00	5.00	Bullock Pen
River Road (Route 8)	Amsterdam to Chevron	9	2	\$	739,200.00	Villa Hills	70	4.50	4.50	Chevron is served
Madison Pike	Old Richardson Road to Far Hills	3	0.7	\$	258,720.00	Independence	70	4.29	4.29	
Decoursey	Marshall to end of Sub-R	3	0.7	\$	258,720.00	Ryland He	70	4.29	4.29	
Campbell Drive	US 25 to D.E.	3	0.7	\$	258,720.00	SKC	70	4.29	4.29	
Porter Road	Hydrant at #8924 to hydrant at #9028	1	0.28	\$	103,488.00	Ryland He	70	3.57	3.57	8924, 8975 not served - could be served by spiderline or interconnect
Navaho Road	Hempfling to D.E.	1	0.3	\$	110,880.00	SKC	70	3.33	3.33	depends on Hempfling/Oak Island
Fowler Creek Road	New Madison connector road to Pelly	2	0.6	\$	221,760.00	Covington	70	3.33	3.33	
KY 177	Ryland Lakes C.C. to #11282	4	1.4	\$	517,440.00	SKC	70	2.86	2.86	
Lipscomb	Lieberman to D.E.	1	0.4	\$	147,840.00	Covington	70	2.50	2.50	geotech issues
Carter Chapel Road		0	1	\$	61,833.00	SKC	70	2.50	2.50	Bullock Pen
Eubanks Road	Erlanger-Crs.Spgs. Road to D.E.	1	0.4	\$	147,840.00	Crescent C	70	2.50	2.50	multiple spider lines, #774 not served
Stephens Drive	Don Victor to Oliver	1	0.4	\$	147,840.00	Independence	70	2.50	2.50	
Marshall Road	Coleman to Stewart	2	0.8	\$	295,680.00	Ryland He	70	2.50	2.50	
Decoursey	Grand to I-275	1	0.6	\$	221,760.00	Covington	70	1.67	1.67	
Moffett Road	Kenton Station to #3628	1	0.7	\$	258,720.00	SKC	70	1.43	1.43	
Wehrman Road	KY 16 to D.E.	0	0.3	\$	110,880.00	Independence	70	0.00	0.00	
Rich Road	Hempfling to Cruise Creek	0	0.4	\$	147,840.00	SKC	70	0.00	0.00	dependent on Hempfling, Rich Road or Little Cruises Creek
Fowler Creek Road	Cox to Stephens	0	0.5	\$	184,800.00	Independence	70	0.00	0.00	multiple spider lines, #5420 and 5494 unserved
Amsterdam Road	12" CC to Sanitation Plant Entrance	0	0.65	\$	240,240.00	Villa Hills	70	0.00	0.00	
Horsebranch	Rhine Valley to Thomas More Parkway	0	0.35	\$	129,360.00	Crestview	70	0.00	0.00	
Independence Road	#1068 to End of Sub C	0	0.27	\$	99,792.00	SKC	70	0.00	0.00	future interconnect
KY 177	#15112 to St. Marys Road	0	0.8	\$	295,680.00	SKC	70	0.00	0.00	depends on Little Cruises, Rich
KY 177	Alexander Road to Pendleton County Line	0	0.3	\$	110,880.00	SKC	70	0.00	0.00	depends on Fiskburg and Alexander Roads (not necessary to serve this portion)
Locust Pike	#9684 To end of Sub R near Whites	0	0.5	\$	184,800.00	Ryland He	70	0.00	0.00	
Menefee Road	Shady Lane to county line	0	0.3	\$	56,856.00	SKC	70	0.00	0.00	Bullock Pen
Narrows Road	Thomtree to Nelson (served by spiderline)	0	0.2	\$	73,920.00	Erlanger	70	0.00	0.00	
Narrows Road	Richardson to Thomtree	0	0.2	\$	73,920.00	Erlanger	70	0.00	0.00	
Shady Lane	Bagby Rd to county line	0	0.5	\$	68,455.00	SKC	70	0.00	0.00	Bullock Pen
Sleepy Hollow Road	Existing D.E. near #1556 to Ludlow	0	1	\$	369,600.00	Covington	70	0.00	0.00	Lookout Heights Lane
Total		579	66.3	\$	23,435,586.00					



**Combined Streets**

KY 177/Washboard Rd	#14443 south of Kenton Station to bridge/Washboard Rd	6	1	\$ 369,600.00	SKC	70	6.00	6.00	Washboard dependent upon KY 177 Letter of Interest sent 2009 for Oak Island - no interest - 14014 is served,
Oak Island/Hempfling Rd	Moffett to west on Hempfling to slide area	31	2.2	\$ 813,120.00	SKC	70	14.09	14.09	Hempfling depends on Oak Island
Gardnersville/Rogers Road	End of Sub C to Anderson Road	14	1.1	\$ 192,391.00	SKC	70	12.73	12.73	Bullock Pen

**Private Roads**

Adams Lane	KY 536 to dead end	5	0.5	\$ 184,800.00	SKC	70	10.00	10.00		0
Brewster Lane	KY 536 to dead end	3	0.3	\$ 110,880.00	SKC	70	10.00	10.00		0
Harrisburg Road	Klein to D.E.	6	0.4	\$ 147,840.00	SKC	70	15.00	15.00	gravel road	
Hergott Drive	Off KY 17, Norther of Callant	4	0.6	\$ 221,760.00	SKC	70	6.67	6.67	residents have Madison addresses	
Holdsbranch	End of existing pipe to D.E. of street	4	0.4	\$ 147,840.00	Taylor Mill	70	10.00	10.00	private drive	
James Road	South of Moffett	3	0.2	\$ 73,920.00	SKC	70	15.00	15.00	house located on private road	
Justice Lane	Last hydrant to D.E.	4	0.3	\$ 110,880.00	Independe	70	13.33	13.33	#4915, #4930 is served	
Rosanna Lane	Off of Callant	2	0.4	\$ 147,840.00	SKC	70	5.00	5.00	#2183 and 2277 are served	
Stafford Heights Lane	Off Harris Pike	5	0.2	\$ 73,920.00	Independe	70	25.00	25.00	#11047 is served	
Tamarita Lane	Harris to KY 16	1	0.12	\$ 44,352.00	Independe	70	8.33	8.33	#32 not served	