

April 15, 2008

Rose Mary Saunders
Senior Consultant
Kansas Rural Water Finance Authority
PO Box 3608, 200 W Douglas Avenue
Wichita, KS 67201-3608

Re: RWD No. 4 - Water System Improvements
KWPCRF Project No. 2529 – Shawnee Co., KS

Dear Ms. Saunders:

The Kansas Geological Survey (KGS) has received Kansas Rural Water Finance Authority (FA) January 17, 2008, request for comments on behalf of Rural Water District No. 4 Consolidated (RWD 4). RWD 4 is preparing an application to the Kansas Department of Health & Environment for a loan from the Kansas Public Water Supply Loan Fund for a water system improvements project. The proposed project will consist of drilling and developing 9 water supply wells and installing approximately 4 mi. of 12 in. and 16 in. water lines. The water supply wells are located within Section 9, T11S, R15E and Section 16, T11S, R15E. The water lines are located in Section 10, T11S, R15E and along the section line between Sections 10 & 11 T11S, R15E, Sections 2 & 3 T11S, R15E and Section 2 T11S, R15E & Section 35, T10S, R15E in Shawnee County, KS.

A preliminary review of regional geologic information and project description provided by FA indicates that there are no unduly adverse geologic conditions that should affect this project. A WWC-5 well log (enclosed) completed in alluvial material at the "Wait Site" in Section 9 indicates that the water level and bedrock depth at the time of installation is approximately 40 and 60 ft bgs, respectively. Although aquifer yield, transmissivity or hydraulic conductivity data was not available for review, the driller's log reported coarse grained alluvium at approximately 30 ft bgs, indicating an effective saturated thickness of approximately 30 ft. The saturated thickness might increase south if depth to bedrock also increases away from the valley bluff.

This letter is an assessment based on the regional geologic conditions available at the KGS at the time of writing and cannot be used in substitute of a detailed site characterization. Other geologic conditions, not discussed herein, or for which the KGS has no knowledge, may affect the viability or safe operation of this facility or property. It is the responsibility of the applicant to provide any necessary characterization, geotechnical or environmental testing, or design by a licensed professional geologist or engineer to complete the project.

Rose Mary Saunders
April 15, 2008
Re: RWD No. 4 - Water System Improvements
Page 2 of 2

Sincerely,

A handwritten signature in black ink, appearing to read "Sh Lyle". The signature is fluid and cursive, with the first name "Sh" and last name "Lyle" clearly distinguishable.

Shane Lyle, RG
Geology Extension Coordinator

Enclosures

cc: Dan Suchy, KGS Data Resources Library

The following form may be used by the Review Agency/Commission for comments in response to the request for clearance from the proposed Public Water Supply Loan Fund Project.

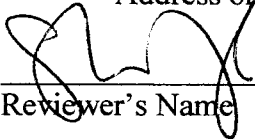
☐ Army Corps of Engineers
☐ Kansas Biological Survey
☐ State Conservation Commission
☐ Kansas Corporation Commission
☐ Division of Water Resources/Kansas Department of Agriculture
☒ Kansas Geological Survey
☐ Kansas State Historical Society/State Historic Preservation Office
☐ Kansas Water Office
☐ Kansas Department of Wildlife & Parks
☐ U.S. Dept. of Agriculture, Natural Resources Conservation Service
☐ Kansas Department of Health & Environment
☐ U.S. Department of the Interior, Fish & Wildlife Services

Agency Review Comments: (to be completed by reviewing agency and returned to applicant contact person at name and address shown below)

Comments: _____

Recommended Action: (to be completed by reviewing agency and returned to applicant contact person at name and address shown below)

☒ Clearance of project should be granted
☐ Clearance of project should not be granted
☐ Clearance of project should be delayed until the issues or questions have been clarified
☐ Clearance of project should not be delayed, but the applicant (in the application) should Address or clarify the questions or concerns indicated above.

 _____ 465 _____ 2-15-07
Reviewer's Name Division/Agency/Commission Date

Project Title: Public Water Supply Loan Fund Application

Applicant: Consolidated Rural Water District No. 4, Shawnee County, Kansas

Contact Person: Rose Mary Saunders, Kansas Rural Water Finance Authority

Address: P. O. Box 3608, 200 W. Douglas Avenue

City, State: Wichita, KS 67201-3608

CBA
~~CBD~~
NE
~~SE~~

WATER WELL RECORD
KSA 82a-1201-1215

Kansas Department of Health and
Environment-Division of Environment
(Water well Contractors)
Topeka, Kansas 66620

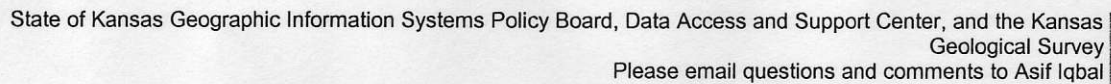
County <u>Shawnee</u>	Fraction <u>N E 1/4 S W 1/4</u>	Section number <u>9</u>	Township number T <u>11</u>	Range number S R <u>15</u>
2. Distance and direction from nearest town or city: <u>2 M 1 West</u>		3. Owner of well: <u>Ed Gadbrey</u>		
Street address of well location if in city: <u>Topeka</u>		R.R. or street: <u>3222 Sena</u>		
		City, state, zip code: <u>Topeka, Kansas 66604</u>		
4. Locate with "X" in section below: N NW NE SW SE E S 1 Mile		Sketch map: <u>NW 35th</u> <u>other owners</u> <u>X Well</u> <u>New Home Site</u>		
5. Type and color of material		From	To	
<u>Top Soil</u>		<u>0</u>	<u>1</u>	
<u>Brown Fine Sand</u>		<u>1</u>	<u>3</u>	
<u>Brown Clay Sandy</u>		<u>3</u>	<u>14</u>	
<u>Brown Sandy Gravelly Clay</u>		<u>14</u>	<u>19</u>	
<u>Tan Flower Sand</u>		<u>19</u>	<u>30</u>	
<u>Brown Flint Gravel</u>		<u>30</u>	<u>33</u>	
<u>Brown Coarse sand</u>		<u>33</u>	<u>37</u>	
<u>Brown River Gravel</u>		<u>37</u>	<u>60</u>	
<u>Gray Shale</u>			<u>60</u>	
(Use a second sheet if needed)				
18. Elevation: <u>940</u> Topography: Hill _____ Slope _____ Upland _____ Valley _____	19. Remarks: <u>Owner will construct concrete slab ground</u> <u>16.- New Home Site - Proposed loterels</u> <u>200' S.E.</u>		20. Water well contractor's certification: This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief. <u>Shader Delg Co Inc</u> License No. _____ Address <u>RTI Walton, KS</u> Signed <u>Dale Gibson</u> Date <u>7-11-</u> Authorized representative	

Forward the white, blue and pink copies to the Department of Health and Environment

Form WWC-5

$$BR = 880$$
$$\underline{\underline{\Delta}} = 900$$

956
60



Section Township Range Range Direction [show](#)

 Single well
 Multiple wells
 Yield (in gpm)
 between 0.00 and 5.00
 between 5.00 and 10.00
 between 10.00 and 1000.00
 unknown Yield
 Township Boundary
 PLSS
 Roads
 Rivers and Streams
 County Boundary

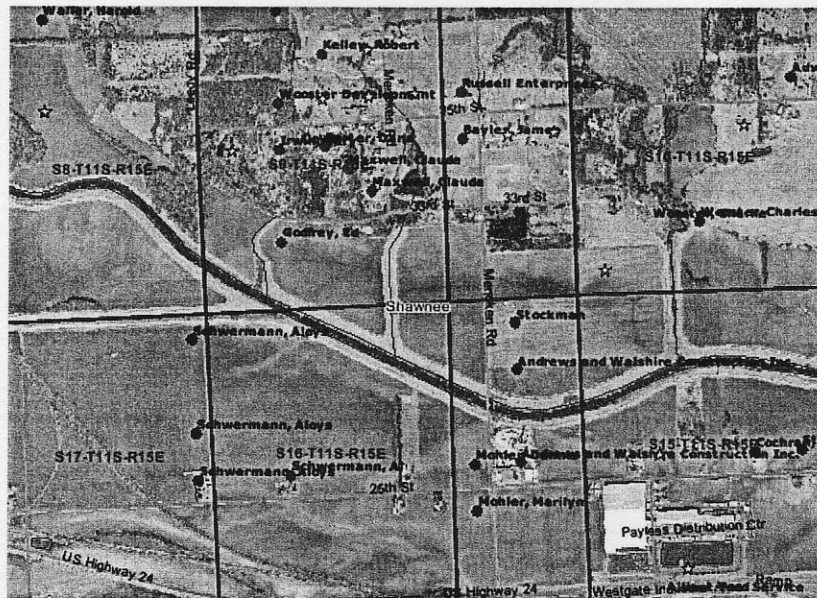
Color wells based on ☒ Estimated yield ☐ Well Depth ☐ Static water level
Choose Labelling on zoom-in ☒ Owner Name ☐ Well Depth/Estimated yield ☐ Static water level
Zoom Level: ☐ Zoom In ☒ Zoom Out ☐ Pan ☐ Identify
[Show Entire State](#)

Visible

- ☒ Township Boundary
- ☒ PLSS
- ☒ Roads
- ☐ Railroads
- ☐ Zip Code
- ☒ Rivers and Streams
- ☐ Major Streams
- ☐ City Boundary
- ☒ County Boundary
- ☒ View Aerials 2002
- ☐ View Aerials 1991
- ☐ View Topo

update
map

print
map



Kansas Rural Water
FINANCE AUTHORITY



P.O. Box 111 • Seneca, KS 66538
Ph: 785-336-3760 • Fax: 785-336-2751

P.O. Box 3608 • Wichita, KS 67201-3608
Ph: 316-265-4855 • Fax: 316-265-5403

January 17, 2008

Mr. William Harrison, Director
Kansas Geological Survey
University of Kansas
1930 Constant Avenue, Campus West
Lawrence, KS 66047

RE: Rural Water District No. 4 Consolidated
Shawnee County, Kansas
Water System Improvements
KWPCRF Project No. 2529

Dear Mr. Harrison:

Rural Water District No. 4 Consolidated, Shawnee County, Kansas is preparing an application to the Kansas Department of Health & Environment for a loan from the Kansas Public Water Supply Loan Fund for the water system improvements project.

The proposed project will consist of drilling and developing 9 wells, increasing the capacity of the water treatment plant to between 3.0 and 4.0 MGD and installing approximately 4 miles of 12" and 16" water lines including appurtenances. The estimated project cost is \$13,339,154.93.

South and
The water treatment plant is located in Section 9, T11, R15E, Shawnee County, Kansas along with 5 of the proposed well sites. The latitude of the plant site is 39°05'17.9221" and the longitude of the plant site is 95°45'0.96883". The plant site is located just south and west of 33rd Street North Menoken in the northern part of Topeka. The other three wells are located directly east of the other proposed wells in Section 16, T22S, R15E, Shawnee County, Kansas. The proposed 16" water line will be installed on 46th Street at Hiawatha going west to Brickyard and south to 35th Street and then west to Menoken and south to the water treatment plant. The 12" line will be installed on Button between 54th Street and 62nd Street North. Enclosed for your information are copies of the Improvement District Map and the project location map.

The District has acquired the easements for the additional wells and easements for the proposed project. No persons will need to be relocated due to the construction of this project. If there are any special permits or conditions that apply, please let us know.

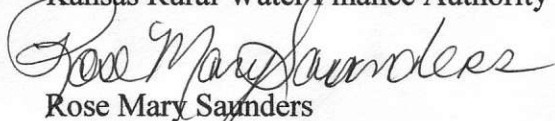
We would appreciate receiving your comments by February 16, 2008 regarding this project. If you wish to respond to this letter via e-mail, my address is rsaunders@ransonfinancial.com. A Project Review Form has been enclosed for your convenience.

Page Two
Kansas Geological Survey
January 17, 2008

If you have any questions regarding the construction, please contact Louis Funk, PE or Jeff Shamburg EI at Bartlett & West Engineers at (785) 272-2252. If you have any questions regarding the District's application, please feel free to call me at (316) 264-3400.

Sincerely,

Kansas Rural Water Finance Authority



Rose Mary Saunders
Senior Consultant

Enc.

5/10/2005 F:\2000\12117.200\ARCMAP\12117200_Web4.MXD Layout: XXXX Plotted by: CAR00648 Plotted on: Mar 16, 2005



S8-T11S-R15E

S9-T11S-R15E

WAIT
SITE

S17-T11S-R15E

S16-T11S-R15E

25th

Pipkin

Proposed Tr
Plant Site
39-06-17.9
- 95-45-0.96

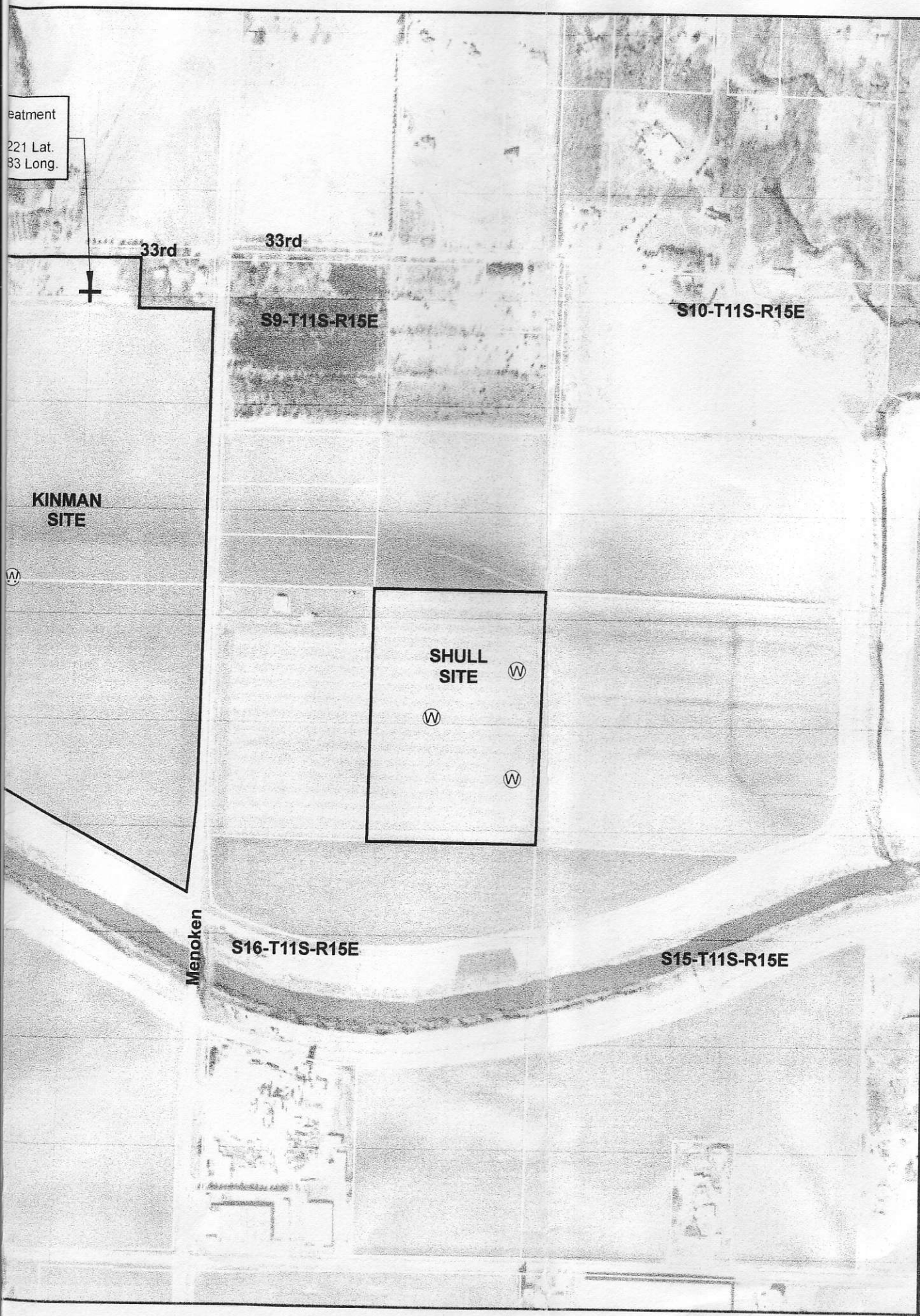


FIGURE NO:	7
PROJ NO:	12117.200
CONST	
SCALE	1" = 500'
DATE	MAY 2007
PAGE NO:	14

WELL FIELD PROPERTY MAP

CONSOLIDATED RURAL WATER DISTRICT NO.4
SHAWNEE COUNTY, KANSAS

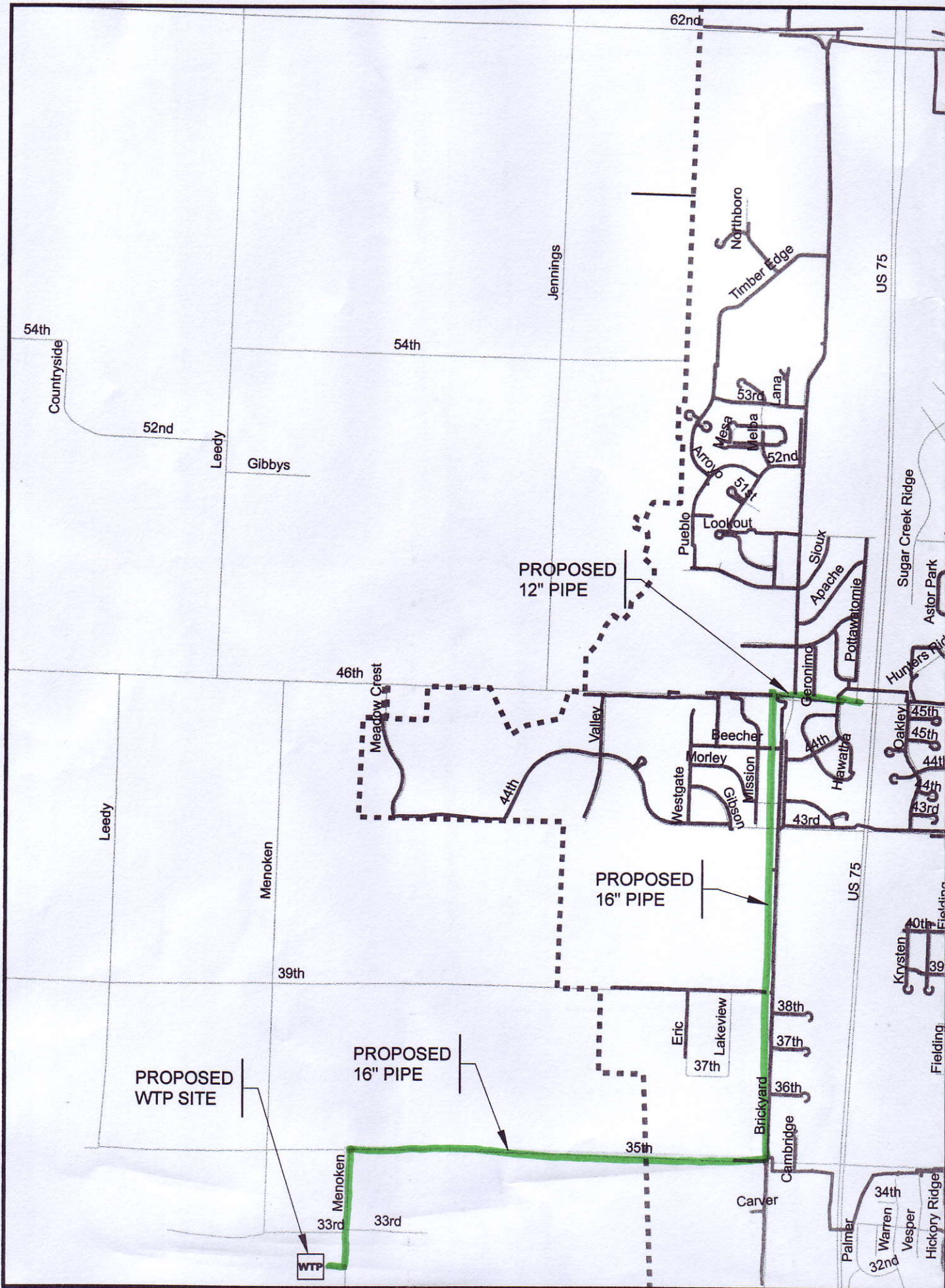
BARTLETT & WEST

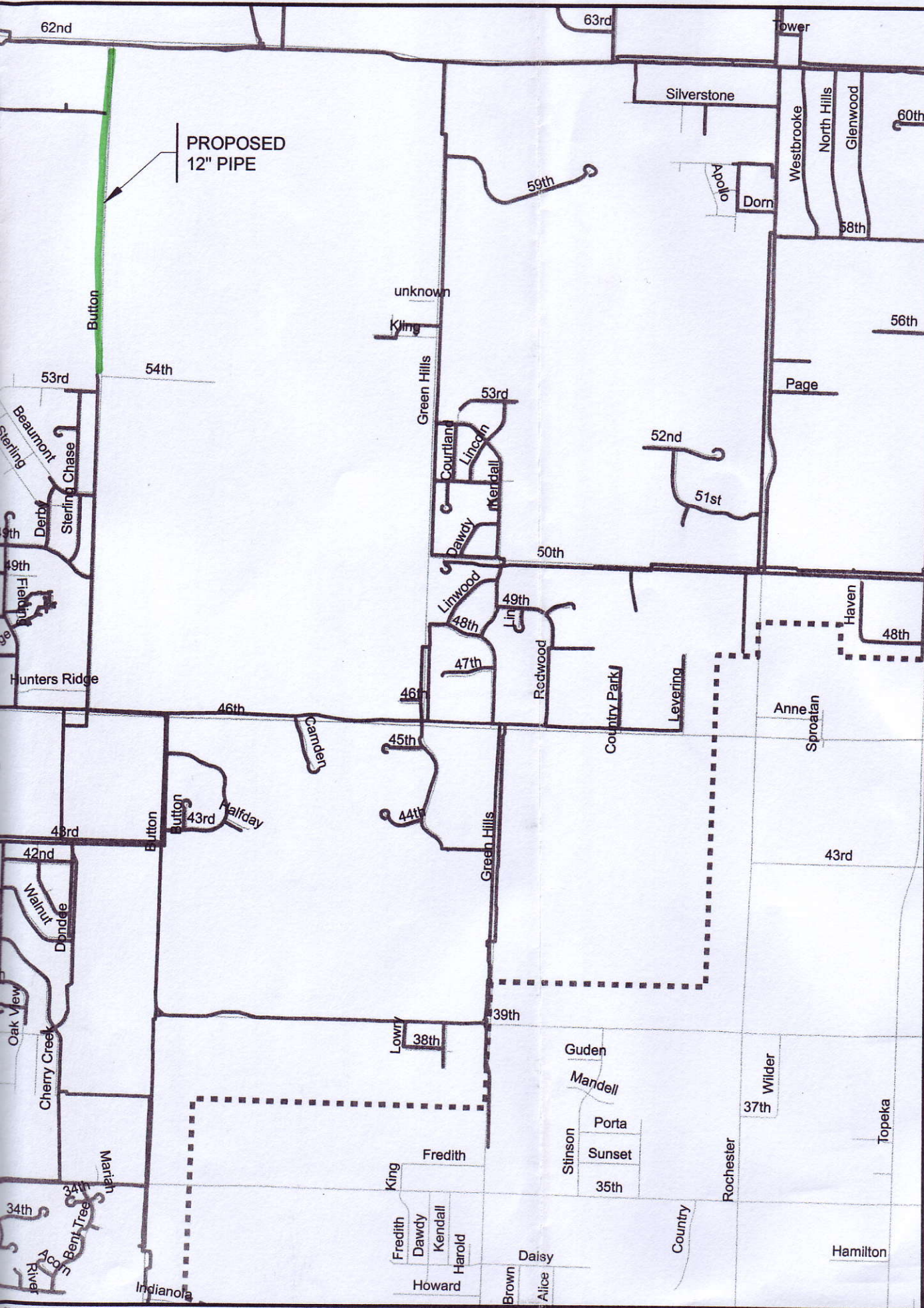
1000 S. BENTLEY STREET, SUITE 200, LAWRENCE, KS 66044
PHONE: 785.840.1234 FAX: 785.840.1235
WWW.BARTLETTWEST.COM

DESIGNED:	LPF
DRAWN BY:	ALB
CHECKED BY:	LPF
PROJECT ENGR:	LPF



Last edit on: 12:05:00 AM A05 F:\2000\12117.200\ARCMAP\12117200_imp_Master.mxd Layout: 11x17 Plotted by: ALB00077 Plotted on: Oct 10, 2005





PROPOSED
12" PIPE

FIGURE NO:	8	PAGE NO:	19
PROJ NO:	12117.200	CONST:	
SCALE:	1" = 2000'	DATE:	MAY 2007

PHASE 1 - IMPROVEMENT PROJECT

CONSOLIDATED RURAL WATER DISTRICT NO.4
SHAWNEE COUNTY, KANSAS

BARTLETT & WEST
1000 W. 10TH ST. SUITE 100, LAWRENCE, KS 66044
TEL: 781-682-1234 FAX: 781-682-1235
WWW.BARTLETTWEST.COM

DESIGNED:	LPF
DRAWN BY:	ALB
CHECKED BY:	LPF
PROJECT ENGINEER:	LPF

