

September 17, 2008

Don Hellar, P.E.
EBH Engineers
306 S. Main St.
Pratt, KS 67124

Re: Water Line Improvements – Pratt, Kansas

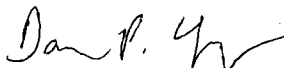
Dear Mr. Hellar,

The Kansas Geological Survey (KGS) has received your August 19, 2008 letter requesting us to review the above referenced project. The project consists of replacing water lines in the City of Pratt, Kansas and is contained within the present City Limits. The project includes installing new water lines under South Main St. (U.S. 281 Highway), from First Street to Sixth Street in conjunction with a street improvement project.

A review of regional geologic information and project information provided by you indicates that there are no unduly adverse geologic conditions that should affect this project. A completed project review form is enclosed.

This letter is an assessment based on information about the regional geologic conditions available via the KGS 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 of the project. 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.

Sincerely,


David P. Young,
Hydrologist

Encl

cc: Dan Suchy, KGS Data Resources Library

Water Line Improvements Pratt, Kansas

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
☐	US Dept. of Agriculture – Natural Resources Conservation Service
☐	Kansas Department of Health and Environment
☐	US Dept. of the Interior – Fish and Wildlife Service

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

Comments: Please see cover letter

Recommended Action: (to be completed by the review 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, by the applicant (in the application) address or clarify the questions or concerns indicated above.)

<u>D. Young</u>	<u>KGS</u>	<u>9/17/08</u>
Reviewer's Name	Division/Agency/Commission	Date

Project Title: Public Water Supply Loan Fund Application

Applicant: City of Pratt, Kansas

Contact Person: Don Hellar, P.E.

Address: 306 S. Main St.

City, State, Pratt, KS Zip 67124 Phone: 620-672-1112

EBH & Associates

Evans - Bierly - Hutchison & Associates, P.A.

306 S. Main
Pratt, Kansas 67124
(620) 672-1112
FAX (620) 672-1909

ENGINEERS • SURVEYORS

E-Mail: alant@ebhengineering.com

August 19, 2008

Kansas Geological Survey
University of Kansas
1930 Constant Ave., Campus West
Lawrence, KS 66047

Re: City of Pratt, Kansas
Water System Improvements
KPWSRLF Project No. 2528

Dear Sir,

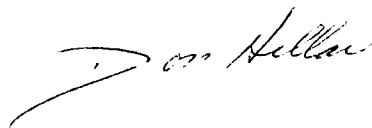
The City of Pratt, Kansas is preparing an application to the Kansas Department of Health and Environment for a loan from the Kansas Public Water Supply Loan Fund for a water system improvement project. The Project Description, Site Map, Opinion of Probable Cost and Project Review Form are enclosed.

We would appreciate your review of the project description and location, and any comments you may have, by September 19, 2008. A project review form is enclosed for your use.

Please return the Project Review Form to me at the address on the project review form.

Please call Don Hellar at 620-672-1112 if you have any questions.

Sincerely,



Don Hellar, P.E.
EBH Engineers

encl.

PROJECT DESCRIPTION
WATER LINE IMPROVEMENTS
PRATT, KANSAS

Owner: City of Pratt, Kansas
P.O. Box 807
Pratt, KS 67124
Location: Sections 3 and 4, Twp. 28 South, Range 13 West
Longitude: 37°38'45.18" N to 37°38'26.37" N
Latitude: 98°44'22.22" W

This project consists of replacing water lines in the City of Pratt, Kansas and is contained within the present City Limits. The project includes:

- Install new 12", 10", 6" and 4" water lines under South Main St. (U.S. 281 Highway), from First Street to Sixth Street, in conjunction with a street improvement project.
- Install new service line and connections to business within the construction area.
- New gate valves and valve boxes.
- Remove and replace Fire Hydrants.
- Install new water meters.
- Appurtenances as required for complete water line replacement under new street construction project.

The existing water lines under Main St. were installed in the 1920's making them just under 90 years old. During the past several decades, the City has been experiencing a great deal of water line breaks under the entire length of Main St. causing the City to remove the bricks and sub-base, excavate to the broken water line, de-water the excavation, install a patch on the broken water line, fill in the excavated hole, lay a concrete sub-base and re-lay and seal the bricks. Over time, this has caused a great deal of expense in labor and materials, and an uneven driving surface. (See attached photos.)

The current water line under Main St. is 10" cast iron. Over time the cast iron has deteriorated causing a buildup on the bottom of the pipe resulting in a reduction of flow through the pipe. (See attached photo.) The new water line will be AWWA C-900, PVC pipe. The design uses a combination of 12", 10", 6" and 4" water line. The service lines to business in the construction area will be 1", 2" or other, as required. New gate valves, valve boxes and water meters will be installed as required. Fire hydrants will be removed and replaced. The City anticipates that construction on the street project and water line improvement project will begin January, 2011, and will take 365 days.

See the attached drawing for the location of the proposed water improvements.
See attached photographs of existing brick streets and underlayment.
See attached photograph of cross section of City's existing waterline, on Main St.

OPINION OF PROBABLE COST:

The Opinion of Probable Cost for implementing the recommended solution outlined above is **\$1,292,926.25**. The attached Opinion of Probable Costs presents a breakdown of these anticipated costs.

EBH & Associates

Evans - Bierly - Hutchison & Associates, P.A.

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ENGINEERS • SURVEYORS

E-Mail: alanl@ebhengineering.com

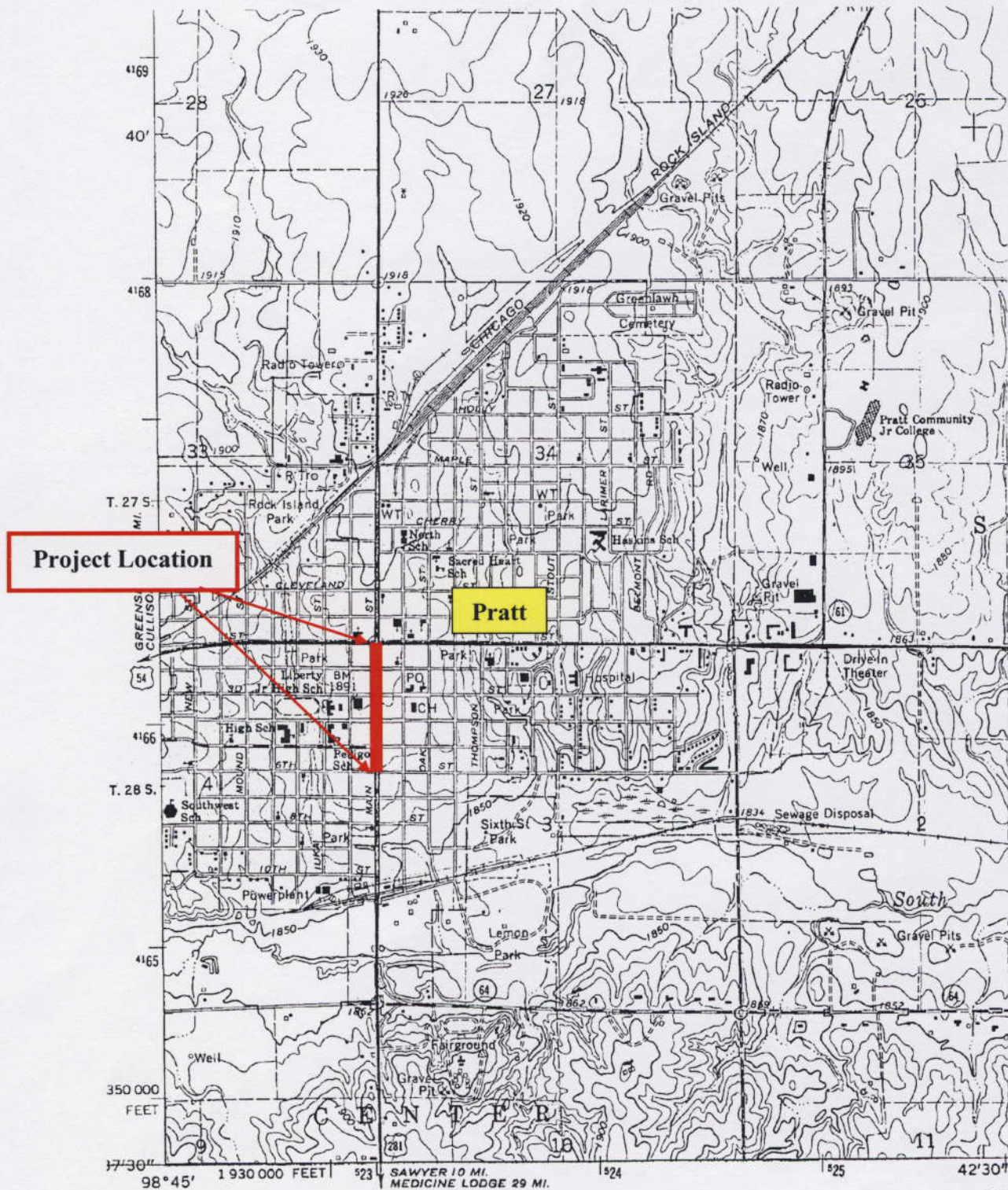
**OPINION OF PROBABLE COST
WATER LINE IMPROVEMENTS
MAIN STREET FROM FIRST STREET TO SIXTH STREET
PRATT, KANSAS
October 1, 2007**

Scope of Work: The following is our Opinion of Probable Cost to Construct Water Line Improvements on Main Street from First Street south to Sixth Street. This Opinion of Probable Cost is based on the assumption that the improvements are done in conjunction with the street improvement project.

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	EXTENSION
1	12" Water Line	80	LF	\$ 40.00	\$ 3,200.00
2	10" Water Line	2260	LF	\$ 30.00	\$ 67,800.00
3	6" Water Line	660	LF	\$ 25.00	\$ 16,500.00
4	4" Water Line	80	LF	\$ 20.00	\$ 1,600.00
5	Service Line	4150	LF	\$ 20.00	\$ 83,000.00
6	12" Gate Valve W/Box	1	EA	\$ 1,500.00	\$ 1,500.00
7	10" Gate Valve W/Box	15	EA	\$ 1,200.00	\$ 18,000.00
8	6" Gate Valve W/Box	12	EA	\$ 750.00	\$ 9,000.00
9	4" Gate Valve W/Box	1	EA	\$ 700.00	\$ 700.00
10	Water Line Connection	13	EA	\$ 3,500.00	\$ 45,500.00
11	Rem/Repl Fire Hydrants	11	EA	\$ 4,000.00	\$ 44,000.00
12	Water Meters	80	EA	\$ 1,000.00	\$ 80,000.00
13	Construction Staking	1	EA	\$ 4,000.00	\$ 4,000.00
14	Rem. & Repl. Street Base Paving	1600	SY	\$ 50.00	\$ 80,000.00
15	Rem. & Repl. Sidewalk	1200	SY	\$ 40.00	\$ 48,000.00
16	Flowable Fill	1800	CY	\$ 65.00	\$ 117,000.00
17	Service Line Bore	2750	LF	\$ 25.00	\$ 68,750.00
18	Traffic Control	1	LS	\$ 22,000.00	\$ 22,000.00
19	Contingencies	1	LS	\$ 71,200.00	\$ 71,200.00
Construction Cost					\$ 781,750.00
Legal, Engineering, Fiscal & Insp.					\$ 273,700.00
Subtotal					\$ 1,055,450.00
KDOT Inflation Factor of 1.225					\$ 237,476.25
Opinion of Probable Cost					\$ 1,292,926.25

EVANS, BIERLY, HUTCHISON & ASSOC., P.A.

Project Location Map



Mapped, edited, and published by the Geological Survey
Control by USGS and USC&GS
Topography by photogrammetric methods from aerial
photographs taken 1965. Field checked 1968









