Jacobson Helgoth
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January 19, 2006

Ms. Tami Rice
Contaminated Sites Section
Iowa Department of Natural Resources
Wallace State Office Building
502 East 9th Street
Des Moines, IA 50319

Re: Work Plan for Soil and Ground Water Sampling at Ready Mix Concrete Facilities - Council Bluffs and Missouri Valley, Iowa
JHC Project No. 483-28

Dear Ms. Rice:

On behalf of our client, Lyman-Richey Corporation, Jacobson Helgoth Consultants, Inc. (JHC) is pleased to present this work plan to the Iowa Department of Natural Resources (IDNR) for review. The work plan is based on a letter from the IDNR dated October 21, 2005 stating that additional soil and ground water investigations need to be completed at the concrete facilities located at 1201 South 16th Street, Council Bluffs, Iowa, and 116 East Erie Street, Missouri Valley, Iowa.

Please call me at (402) 697-0701 if there are any questions concerning this work plan.

Respectfully submitted,

Steven D. Jorgensen
Project Manager

SDJ/ner

Cc: Kevin Schmidt, P.E.
Lyman-Richey Corporation

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DATE STAMP

WORK PLAN

for

SOIL AND GROUND WATER INVESTIGATIONS

at

116 East Erie Street, Missouri Valley, Iowa
and
1201 South 16th Street, Council Bluffs, Iowa

Prepared For

Lyman-Richey Corporation
Omaha, Nebraska

JHC Project No. 483-28

January 2006
Revision 0

Prepared by: _____
Steven D. Jorgensen, Project Manager

Reviewed by: _____
Roger H. Helgoth, P.E., Principal

Accepted by: _____
Lyman-Richey Corporation

Jacobson Helgoth
CONSULTANTS

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SECTION 1.0
INTRODUCTION

Jacobson Helgoth Consultants, Inc. (JHC) was retained by Lyman-Richey Corporation of Omaha, Nebraska (Client) to provide professional environmental consulting services at two ready mix concrete facilities. The facilities are located at 116 East Erie Street, Missouri Valley, Iowa and 1201 South 16th Street, Council Bluffs, Iowa (Figures 1 and 2). Field activities associated with this project include drilling four soil borings at each facility and collecting soil and ground water samples for field screening and laboratory analysis. Additionally, water samples will be collected from two to three municipal water wells in Missouri Valley, Iowa that occur within 1,000 feet of the Missouri Valley ready-mixed concrete facility.

1.1 Background

Both of the facilities to be investigated were formerly Wilson Concrete facilities prior to being purchased by the Client. In February 2000, Terracon drilled four soil borings and collected soil and ground water samples at each facility. The results of the previous investigations were reported in "Wilson Concrete Facilities Multi-Site Phase II Assessment – Teracon Project No. 40007032, March 30, 2000."

In a letter to the Client dated October 21, 2005, the Iowa Department of Natural Resources (IDNR) stated that additional soil and ground water samples must be collected at each facility for field screening and laboratory analysis.

1.2 Site Description

The Missouri Valley facility is located on a portion the SW 1/4 of Section 15, Township 78 North, Range 44 East of the 6th Principal Meridian, Harrison County, Iowa. A Site Map (Figure 1) is located in Appendix A. The legal description of this site is included in Appendix B.

The Council Bluffs facility is located on a portion the SE 1/4 of Section 35, Township 75 North, Range 44 East of the 6th Principal Meridian, Pottawattamie County, Iowa. A Site Map (Figure 2) is located in Appendix A. The legal description of this site is included in Appendix B.

1.3 Scope of Services

The services provided under this Work Plan include the following:

- Drill four soil borings to ground water at each of the two facilities;
- Collect the required soil and ground water samples from the soil borings for field screening and laboratory analysis;
- Collect water samples from the municipal wells in Missouri Valley that are within 1,000 feet of the Missouri Valley ready-mixed facility;
- Field testing of pH at boring SB-1 near washout area at Council Bluffs, Iowa site; and
- Report the findings of the soil and ground water analysis.

SECTION 2.0
FIELD ACTIVITIES

2.1 Selection of Drilling Locations

In a second letter from the IDNR dated November 28, 2005, the soil borings are to be drilled as close as possible to the locations sampled in 2000 in order to compare results to the 2000 sampling event. Figures 3 and 4 show the approximate locations where the soil borings were drilled in 2000, and approximately where they will be drilled in 2006.

2.2 Soil Sampling

A "Geoprobe" drilling rig will push a one-inch inside diameter (ID), five-foot long continuous sampler into the soil to provide an undisturbed soil sample. The soil samples will be described and otherwise evaluated as described in subsequent sections of this Work Plan.

2.3 Soil Description

For purposes of describing and classifying the soils at each of the soil boring locations, soil samples will be collected continuously from the ground surface to approximately 20 feet below ground surface, or a maximum of five feet below the discernable water table. It is anticipated that the water table will be approximately 15 feet below the grade of each Site.

Subsurface investigations will be supervised and directed by the Project Geologist who will describe and classify the soil samples according to the Unified Soil Classification System. Drilling operations will be performed by a qualified driller.

2.4 Field Screening of Soil Samples

Soil samples representing each two-foot interval of each soil boring will be placed in individual one-quart glass jars. A single-thickness sheet of aluminum foil will be placed over the top of each jar and the retainer ring will be tightly secured. The soil sample in the jar will be allowed to volatilize at the ambient

temperature for approximately 20 minutes before being field screened for the presence of volatile organic compounds (VOCs) and hydrocarbons with a photoionization detector (PID). The PID will be equipped with a 10.6 eV UV lamp. The tip of the PID probe will be used to puncture the aluminum foil during insertion into the sample jar. The maximum relative response units (RRU) for each sample will be recorded for the corresponding depth interval on the boring log.

2.5 Soil Sample Collection

A second soil sample from each two-foot interval in each soil boring will be placed in a laboratory-supplied glass sample container(s) equipped with a teflon-lined lid. The samples will be preserved using an Environmental Protection Agency (EPA) approved preservation technique, which requires the samples to be stored in coolers containing bagged ice and maintained below 40 degrees Fahrenheit.

2.6 Ground Water Sample Collection

2.6.1 The IDNR has requested that one ground water sample is to be collected from near the washout area at the Council Bluffs facility. This sample will be field tested for pH only. No laboratory analysis will be performed on this sample. The water sample will be collected through a factory-cleaned plastic tube, equipped with a check valve at the bottom, which will be used to lift the water to the surface.

2.6.2 Personnel from the City of Missouri Valley will provide access and will assist with collecting the water samples from the municipal wells. Each ground water sample collected from the municipal wells in Missouri Valley will be placed in a laboratory-supplied sample container and preserved using the EPA-approved preservation technique, which requires the samples to be stored in coolers containing bagged ice and maintained below 40 degrees Fahrenheit.

2.7 Laboratory Analytical Parameters

Soil samples will be collected from each of the eight soil borings from the interval 0 to 4 feet below grade. These soil samples will be laboratory analyzed for the concentrations of the eight Resource Conservation and Recovery Act (RCRA) metals utilizing EPA Methods 6010 and 7470. These metals include Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, and Silver.

To evaluate the potential VOC impacts to the soils beneath the Site, one soil sample from each soil boring will be laboratory analyzed using EPA Method 8260 for VOCs, which includes chlorinated solvents.

The soil sample collected from each boring exhibiting the highest field screening results in relative response units (RRUs) will be submitted for laboratory analysis. If PID screening indicates that no VOCs are present, a soil sample from directly above the water table, as determined at the time of drilling, will be collected for laboratory analysis.

Ground water samples collected from each of the municipal wells in Missouri Valley located within 1,000 feet of the facility will be laboratory analyzed using the following methods:

- Iowa Method OA-1 for the following parameters:
  - Benzene
  - Toluene
  - Ethylbenzene
  - Xylenes
- Iowa Method OA-2 for Total Extractable Hydrocarbons (TEH) as follows:
  - TEH (diesel)
  - TEH (waste oil)
  - TEH (kerosene)
  - TEH (gasoline)
- EPA Method 8260 for VOCs which includes chlorinated solvents; and
- EPA Methods 6010 and 7470 for the eight RCRA metals.

2.8 Labeling of Samples

All soil and ground water samples will be placed in the appropriate laboratory-supplied jars or bottles. Each sample will be labeled using preprinted labels. The following information will be provided on each label:

1. Jacobson Helgoth Consultants, Inc.
2. Project Number
3. Project Name
4. Sample I.D. Number
5. Date Collected
6. Time Collected
7. Collected By
8. Preservative(s)
9. Required Analysis

Each container may be wrapped in clear tape to protect the sample label from water damage during field activities and transport.

2.9 Chain-of-Custody Document

Soil and ground water samples will be transported to Midwest Laboratories of Omaha, Nebraska under a chain-of-custody document. The chain-of-custody documentation will be completed as soon as practical after sample collection and prior to delivery of the samples to Midwest Laboratories. The chain-of-custody document will be signed and dated when samples are passed between personnel responsible for collection, transportation and/or sample analysis.

2.10 Decontamination Activities

Prior to sampling at each location, all non-dedicated downhole sampling equipment will be decontaminated using an Alconox detergent/potable water wash and potable water rinse.

The drilling rig and all associated equipment will be high-temperature pressure washed prior to arrival on-site. All other non-disposable equipment will be decontaminated on site as required.

2.11 Calibration Procedures

2.11.1 Field Instruments

The PID will be calibrated daily and the data will be recorded in the calibration record book for that instrument. The method and frequency of calibration will be according to the manufacturer's calibration instructions.

2.11.2 Laboratory Equipment

Midwest Laboratories will be responsible for the calibration of laboratory equipment.

2.12 Surveying of Drilling Locations

The locations of the soil borings will be determined with a measuring wheel with reference to buildings at the Facility.

2.13 Disposal of Cuttings

All cuttings generated during the drilling activities will remain on each respective facility.

2.14 Abandonment of Soil Borings

The soil borings will be abandoned immediately after sampling at each location is complete.

2.15 Health and Safety Plan

Since sampling activities may result in contact with potentially harmful liquids or vapors, a Site-Specific Health and Safety Plan has been prepared as a separate document. All JHC personnel involved with Site activities are trained in accordance with the health and safety requirements of the Occupational Safety and Health Administration (OSHA) regulations contained in 29 CFR 1910.120.

SECTION 3.0
REPORTING

3.1 Laboratory Results

Laboratory results will be presented in the standard Midwest Laboratories, Inc. format.

3.2 Project Report

JHC will provide a Report of the Soil and Ground Water Sampling based on the field activities and laboratory analytical results.

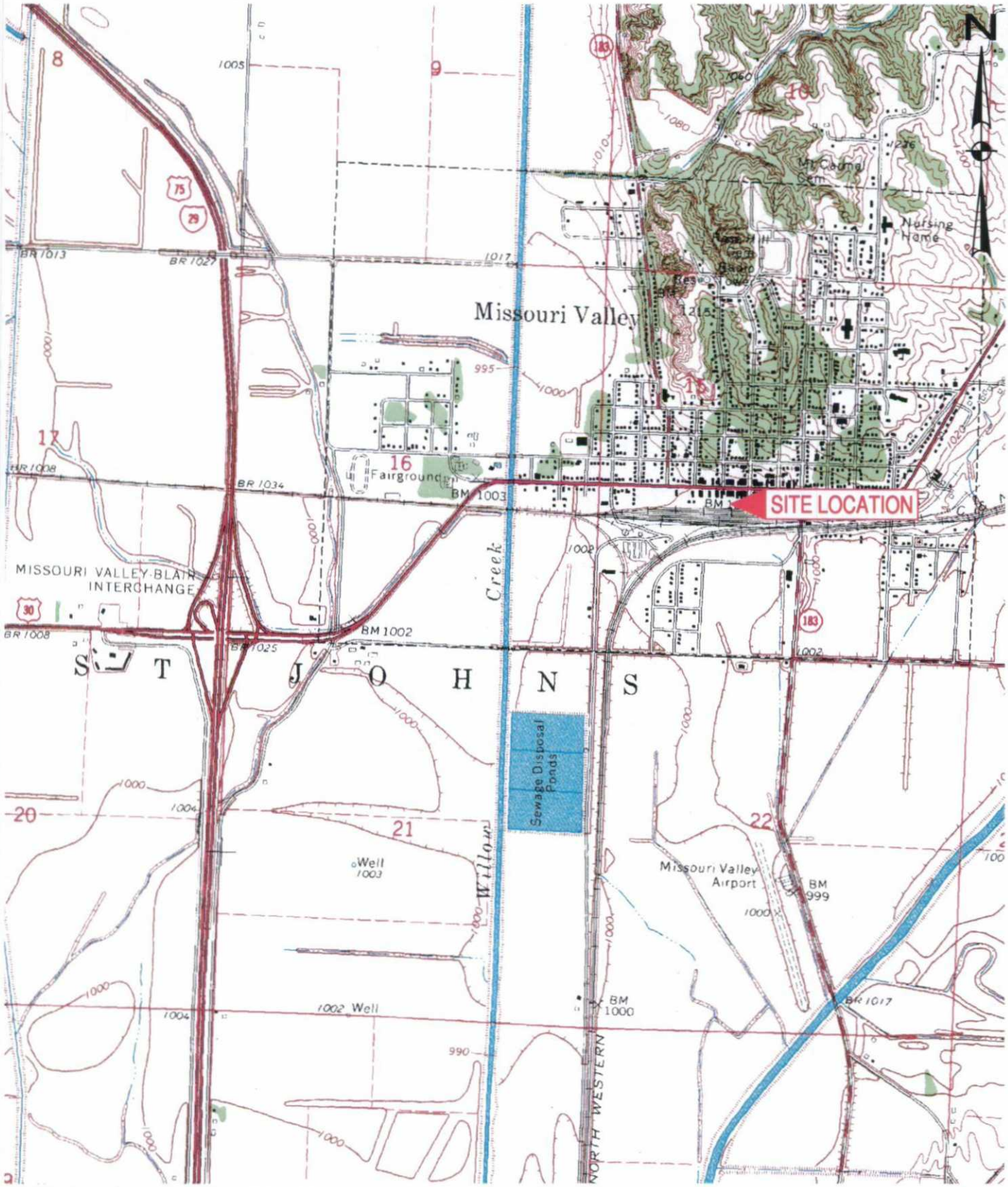
APPENDIX A

FIGURE 1: SITE MAP FOR THE MISSOURI VALLEY, IOWA, FACILITY

FIGURE 2: SITE MAP FOR THE COUNCIL BLUFFS, IOWA, FACILITY

FIGURE 3: SOIL BORING LOCATION MAP FOR THE MISSOURI VALLEY, IOWA, FACILITY

FIGURE 4: SOIL BORING LOCATION MAP FOR THE COUNCIL BLUFFS, IOWA, FACILITY



DATE: 12/20/05	SITE MAP LYMAN RICHEY CORP. 116 EAST ERIE STREET MISSOURI VALLEY, IA
SCALE: NOT TO SCALE	
PROJ. NO.: 483-28	
DRAWN: SLK	
CHECKED: SDJ	
FIG 1	

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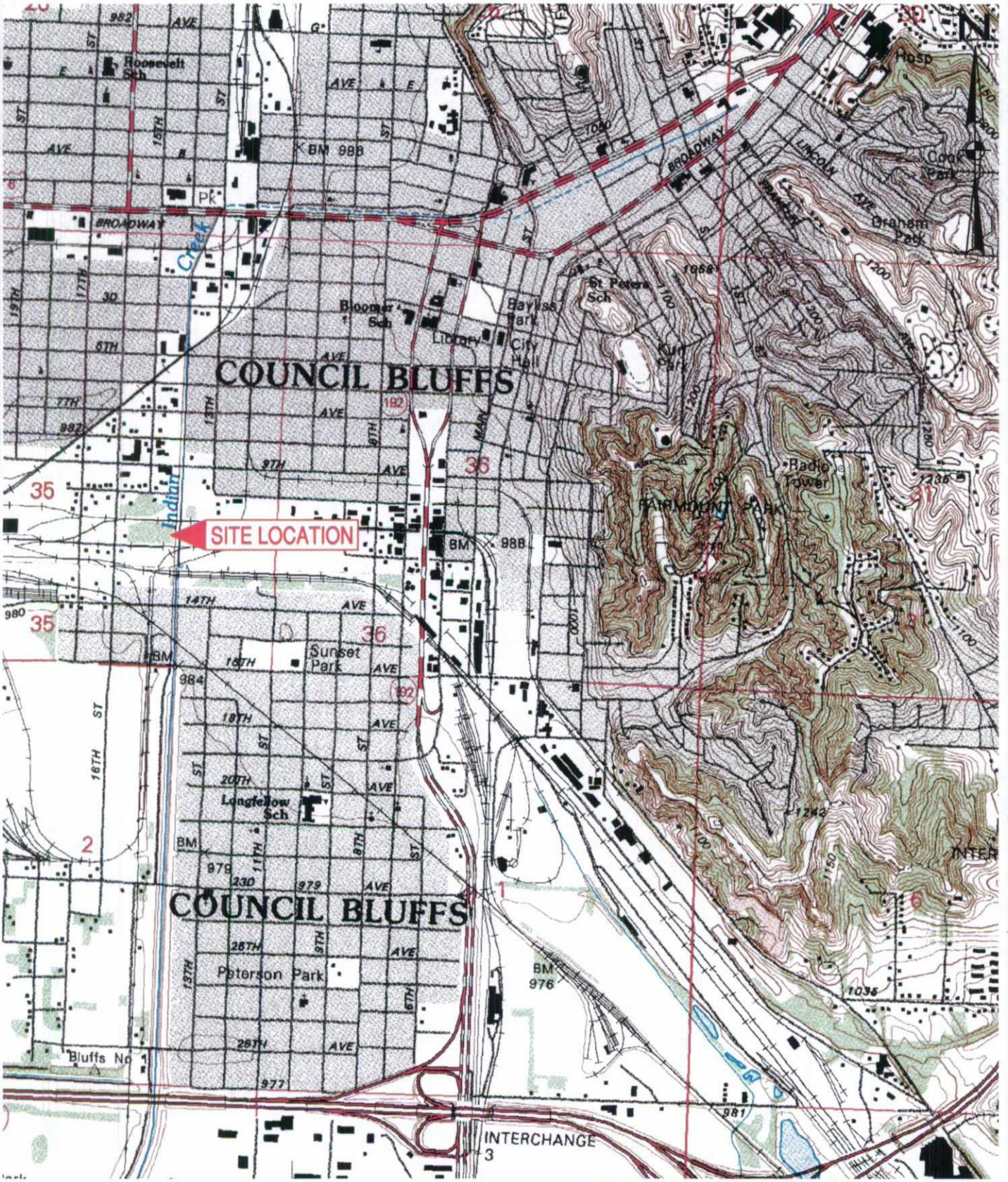

DATE: 12/20/05	SITE MAP LYMAN RICHEY CORP. 116 EAST ERIE STREET MISSOURI VALLEY, IA
SCALE: NOT TO SCALE	
PROJ. NO.: 483-28	
DRAWN: SLK	
CHECKED: SDJ	
FIG 2	

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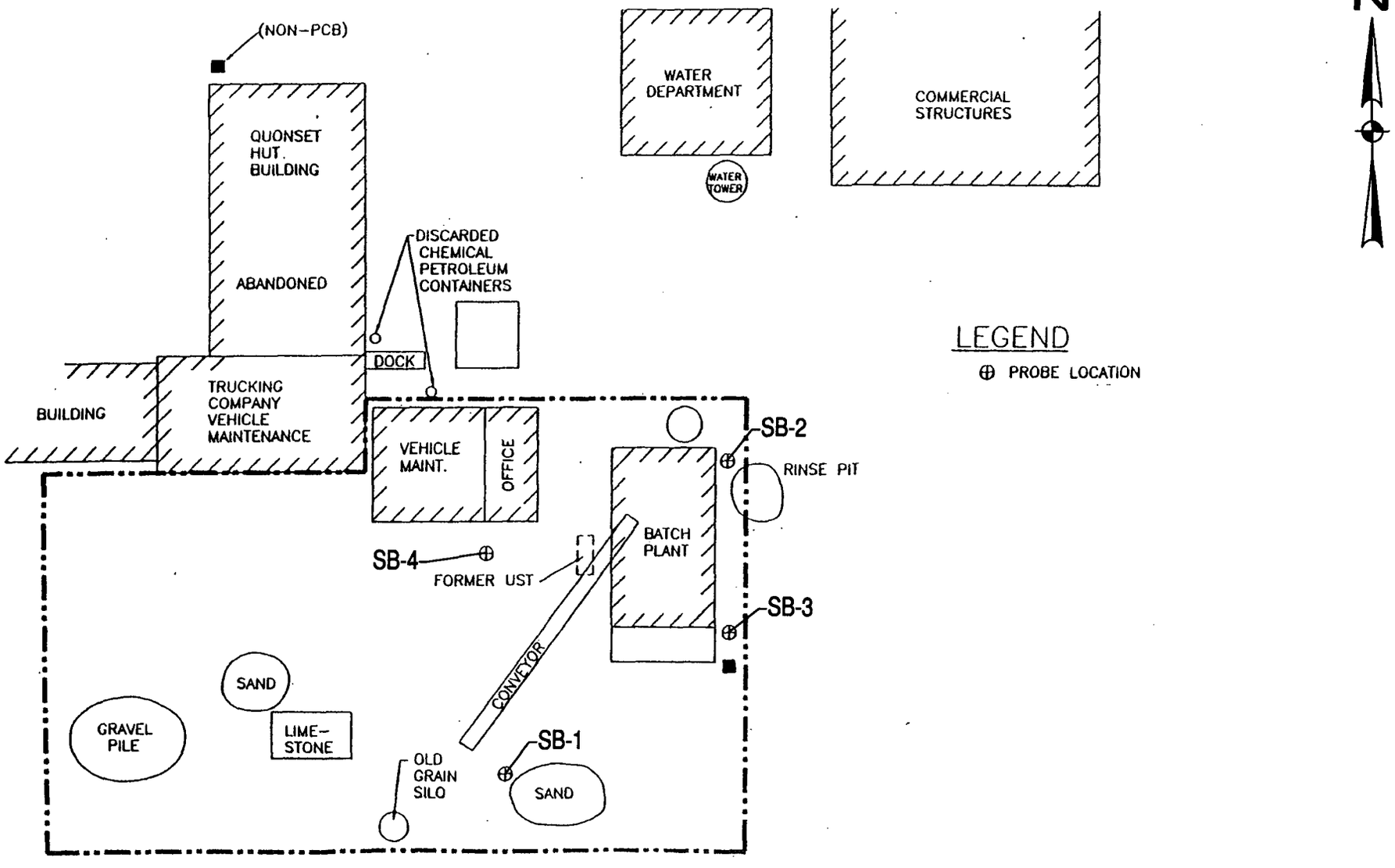
FILE NO.: 48328R(A).dwg



Jacobson Helgoth CONSULTANTS

FILE NO.: 48328R(A).dwg

DATE: 12/20/05
SCALE: NOT TO SCALE
PROJ. NO.: 483-28
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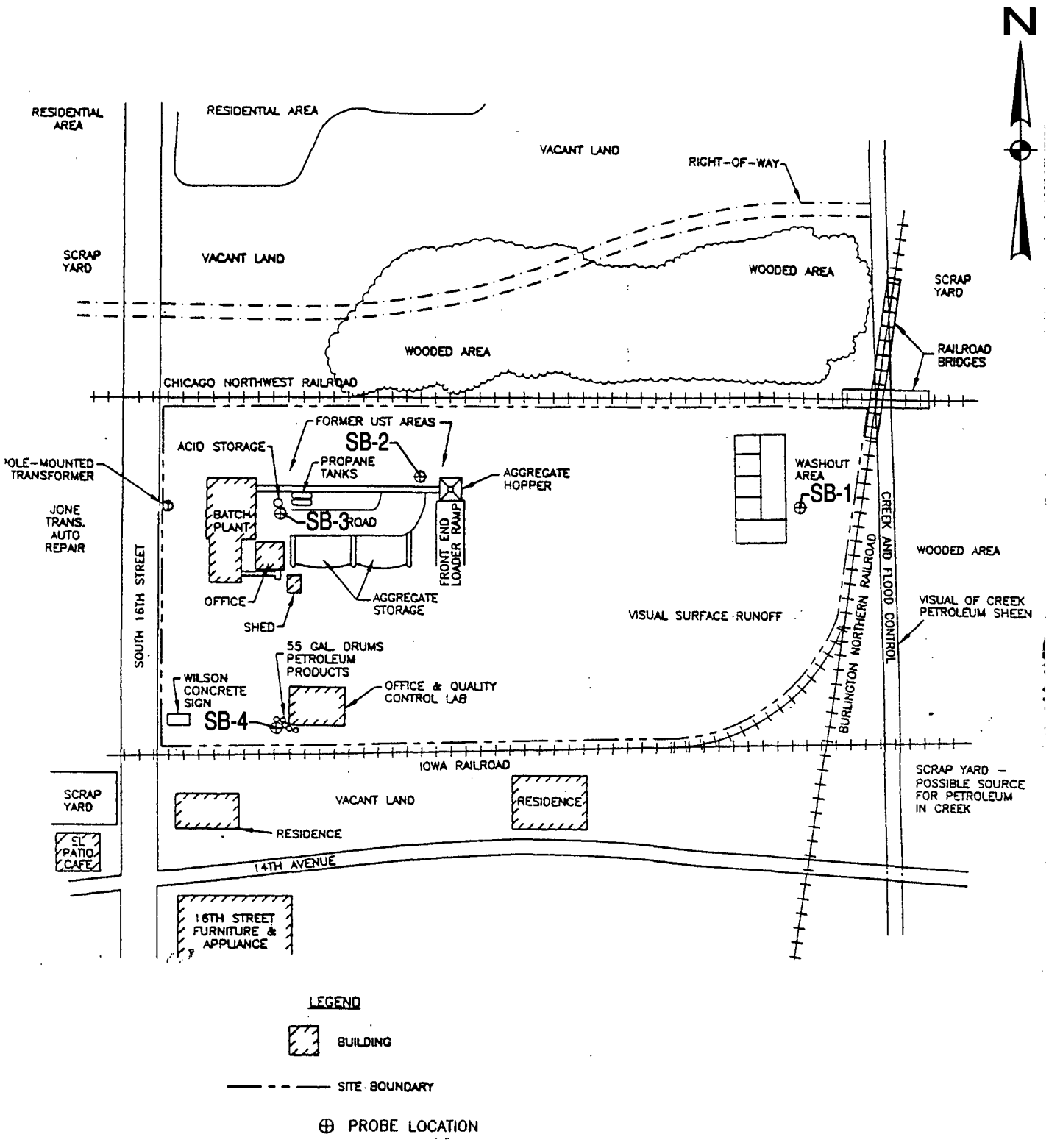
CHECKED: SDJ
FIG 3

SOIL BORING LOCATION MAP - SEE FIG. 2
LYMAN RICHEY CORP.
116 EAST ERIE STREET
MISSOURI VALLEY, IA



Jacobson Helgoth CONSULTANTS	DATE: 12/20/05
	SCALE: NOT TO SCALE
	PROJ. NO.: 483-28
	DRAWN: SLK
	CHECKED: SDJ
FILE NO.: 48328R(A).dwg	FIG 4

SOIL BORING MAP - SEE FIG 4
LYMAN RICHEY CORP.
116 EAST ERIE STREET
MISSOURI VALLEY, IA

APPENDIX B

LEGAL DESCRIPTION FOR EACH FACILITY

EXHIBIT A

All of Lots 4 and 7, together with part of Lots 3, 5, 6 and 8, all in Block 9 of the Town of Missouri Valley, Harrison County, Iowa, and of that part of First Street and the alley in said Block 9, all bounded as follows:

On the East by the East line of said Block 9; on the North by a line parallel with and distant 8.5 feet Southerly, measured at right angles and radially, from the centerline, and the Westerly extension thereof, of Chicago and North Western Railway Company Spur Track ICC No. 186, as said spur track is now located, on the East by the East line of said Block 9; on the South by a line parallel with an distant 40 feet Northerly, measured at right angles from the center line of Chicago and North Western Railway Company Spur Track ICC No. 167, as now located; and on the West by the East line of the West 30 feet of said First Street, except that part described as all that part of Lot 8, Block 9, and that part of vacated First Street adjacent to said Block 9, in the City of Missouri Valley, Harrison County, Iowa, bounded on the North by a line 8.5 feet South of the centerline of former Chicago & North Western Railway Company Spur Track ICC No. 186, or its projection extended West to the Easterly line of the West 60 feet of vacated First Street, bounded on the east by a line parallel to and distant 18 feet West of the East line of said Lot 8, bounded on the South by a line 19 feet North of and parallel to the South line of said Lot 8, and on the West by the East line of the West 60 feet of vacated First Street;

Together with all that part of Lot 2 and part of Lot 3 in Block 9, City of Missouri Valley, Harrison County, Iowa, bounded on the North by the South line of the North 50.40 feet of Lot 2, bounded on the East by the East line of Lots 2 and 3, in said Block 9, bounded on the South by a line 8.5 feet South of the center line of former Chicago & Northwestern Railway Company Spur Track ICC No. 186, bounded on the West by the West line of Lots 2 and 3 in said Block 9.

COMPARED

EXHIBIT A

All of Block 18, and all of Lots 1 through 6, both inclusive, in Block 17, all in Fleming and Davis Addition to Council Bluffs, Pottawattamie County, Iowa, according to the recorded plat thereof; together with those portions of Railroad Avenue and platted South 15th Street, in Council Bluffs, Iowa, described as beginning at the Southwest corner of Lot 1, in Block 18, Fleming and Davis Addition to the City of Council Bluffs, Iowa; thence East approximately 360 feet to the Southeast corner of Lot 15, in Block 18; thence North to the Northeast corner of Lot 15 in Block 18; thence East 66 feet to the Northwest corner of Lot 1 in Block 17; thence South to the Southwest corner of Lot 1 in Block 17; thence East to the Southeast corner of Lot 6 in Block 17; thence South to the Northeast corner of Lot 6 in Block 24; thence West approximately 575 feet to the Northwest corner of Lot 1 in Block 23; thence North to the Point of Beginning, all in Fleming and Davis Addition to the City of Council Bluffs.