



January 10, 2019

Jeffrey A. Danzinger  
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Rochester, New York 146064

Transmitted via email to: Jeff Danzinger <JDanzinger@daymail.net>

Dear Mr. Danzinger:

Re: Geophysical Survey Results, 101-113 Franklin St and 106 Pleasant St, Rochester, NY

## **1.0 INTRODUCTION**

This letter report presents the results of the geophysical investigation performed for Day Environmental, Inc. (DAY) in support of their environmental investigation of a property located at 101-113 Franklin St and 106 Pleasant St in Rochester, NY (the Site). We understand that historical information suggests the possibility that underground storage tank(s) (USTs) may exist on the property. The primary purpose of the investigation was to explore for anomalies indicative of (UST's).

Wood Environment & Infrastructure Solutions, Inc. (Wood E&IS) performed data acquisition on December 9, 2018. The geophysical investigation was designed to geophysically characterize the subsurface and focus a follow-up intrusive investigation, if warranted. The information provided herein is intended to assist DAY with their assessment of potential environmental concerns at the Site.

## **2.0 METHODOLOGY**

A reference grid was installed at the Site to facilitate data acquisition along parallel survey lines spaced 3 feet apart (5 ft in vegetated area). The grid was marked with orange and white spray paint with select coordinates labeled to aid in the reoccupation of stations if necessary. Grid coordinate 300N,300E was established at the southwest corner of the building bounding the Site to the north. The grid was marked with orange and white spray paint (pavement area) and wire pin flags (vegetated area). Select coordinates were labeled to aid in the reoccupation of stations if necessary.

### **Time Domain Electromagnetic Survey Methodology (EM61)**

The Geonics EM61 was used to map the distribution of buried metals at the Site. The EM61 unit is a high sensitivity, high resolution time domain electromagnetic (TDEM) metal detector that can detect both ferrous and nonferrous metallic objects. It has an approximate investigation

depth of 10 feet. The processing console is contained in a backpack worn by the operator which is interfaced to a digital data logger. The transmitter and two receiver coils are located on a two-wheeled cart that is pulled by the operator.

The device's transmitter coil generates a pulsed primary EM field at a rate of 150 pulses per second, inducing eddy currents into the subsurface. The decay rates of these eddy currents are measured by two, 3.28 foot by 1.64 foot (1 meter by ½ meter) rectangular receiver coils. By taking the measurements at a relatively long time frame after termination of the primary pulse, the response is practically independent of the survey area's terrain conductivity. Specifically, the decay rates of the eddy currents are much longer for metals than for normal soils allowing the discrimination of the two.



EM61 in use (Photo not from this site)

Data are collected from the EM61's two receiver coils. One of the receiver coils is located coincident to the transmitter coil. The other receiver coil is located 1.31 feet (0.4 meters) above the transmitter coil. Data from the top receiver coil are stored on Channel 1 of a digital data logger. Data from the bottom receiver coil are stored on Channel 2 of the data logger. Channel 1 and Channel 2 data are simultaneously recorded at each station location. The instrument responses are recorded in units of milliVolts (mV). Data were recorded digitally by a data logger at a rate of approximately 2 measurements per foot along the survey lines which were spaced 3 and 5 feet apart.

### 3.0 RESULTS

The EM61 data for the Site are shown in Figure 1. These data were subsequently overlaid onto a historic Sanborne map by DAY and the resulting figure is presented in Figure 2. Areas suspected to be free of buried metals are shown as color shades of blue. All areas exhibiting a response greater than background (0 to 30 mVolts) likely contain buried metals. Interpreted

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linear anomalies are identified with dashed red lines on the figures. Surface features encountered during the survey are noted.

Three (3) anomalies labelled **A**, **B** and **C** are identified as potential UST anomalies. None of these anomalies correspond with the location of the three Sanborn mapped USTs believed to be historically located in the northeast portion of the survey area (See Figure 2). Anomalies A, B and C may be related to USTs or miscellaneous buried metals.

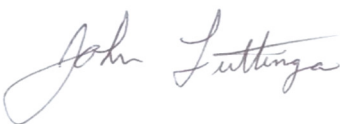
Any of the additional above background responses may be significant from an environmental perspective and these data are best used to guide/focus a subsequent intrusive investigation if deemed warranted.

#### **4.0 LIMITATIONS**

The geophysical methods used during this survey are established, indirect techniques for non-destructive subsurface reconnaissance exploration. As these instruments utilize indirect methods, they are subject to inherent limitations and ambiguities. Metallic surface features (electrical wires, scrap metal, etc.) preclude reliable non-invasive data/results beneath, and in the immediate vicinity of, the surface features. Targets such as buried drums, buried tanks, conduits, etc. are detectable only if they produce recognizable anomalies or patterns against the background geophysical data collected. As with any remote sensing technique, the anomalies identified during a geophysical survey should be further investigated by other techniques such as historical aerial photography, test pit excavation and/or test boring, if warranted.

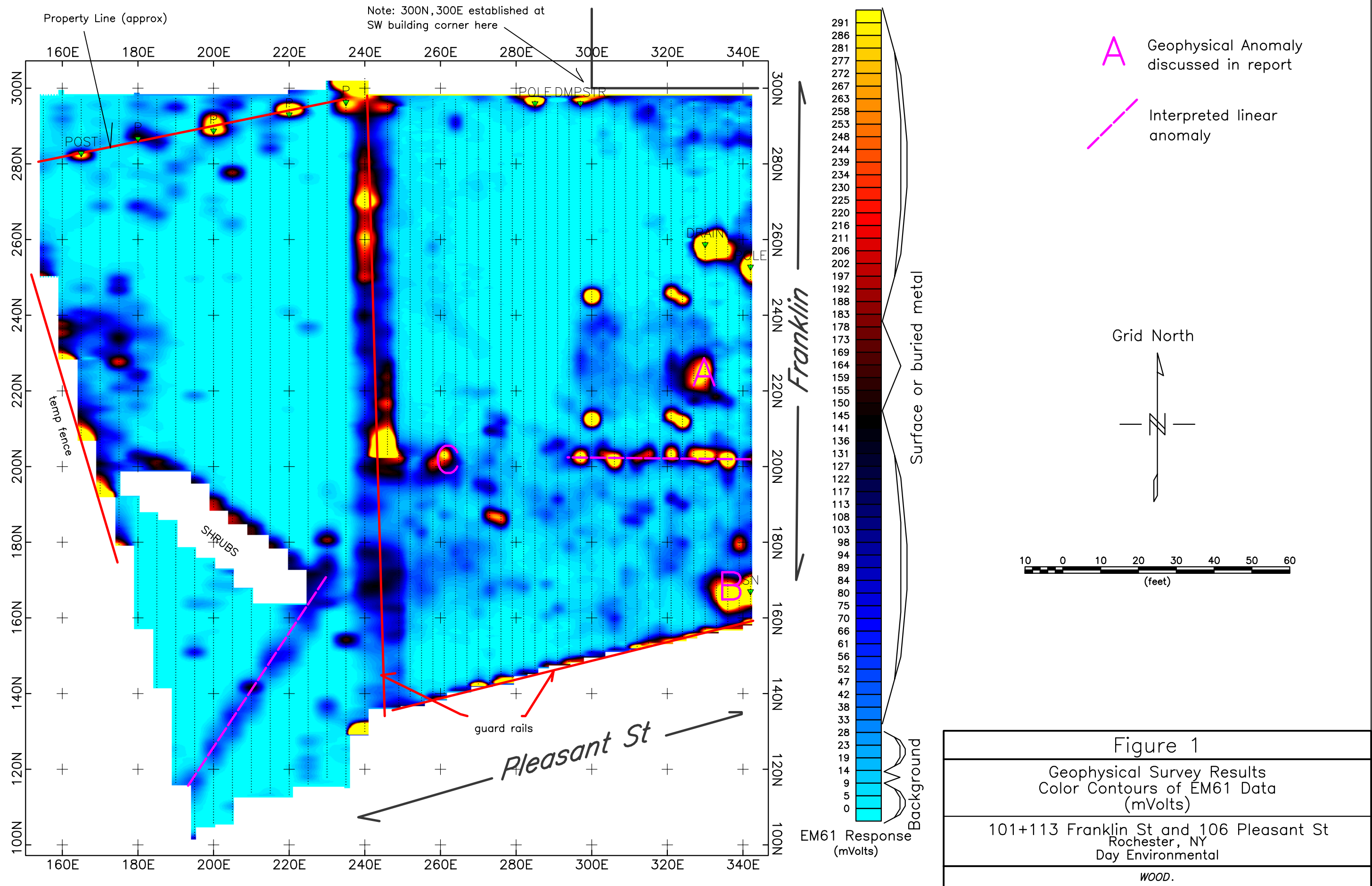
Please do not hesitate to contact us if you have any questions or require additional information.

Wood Environment & Infrastructure Solutions, Inc..

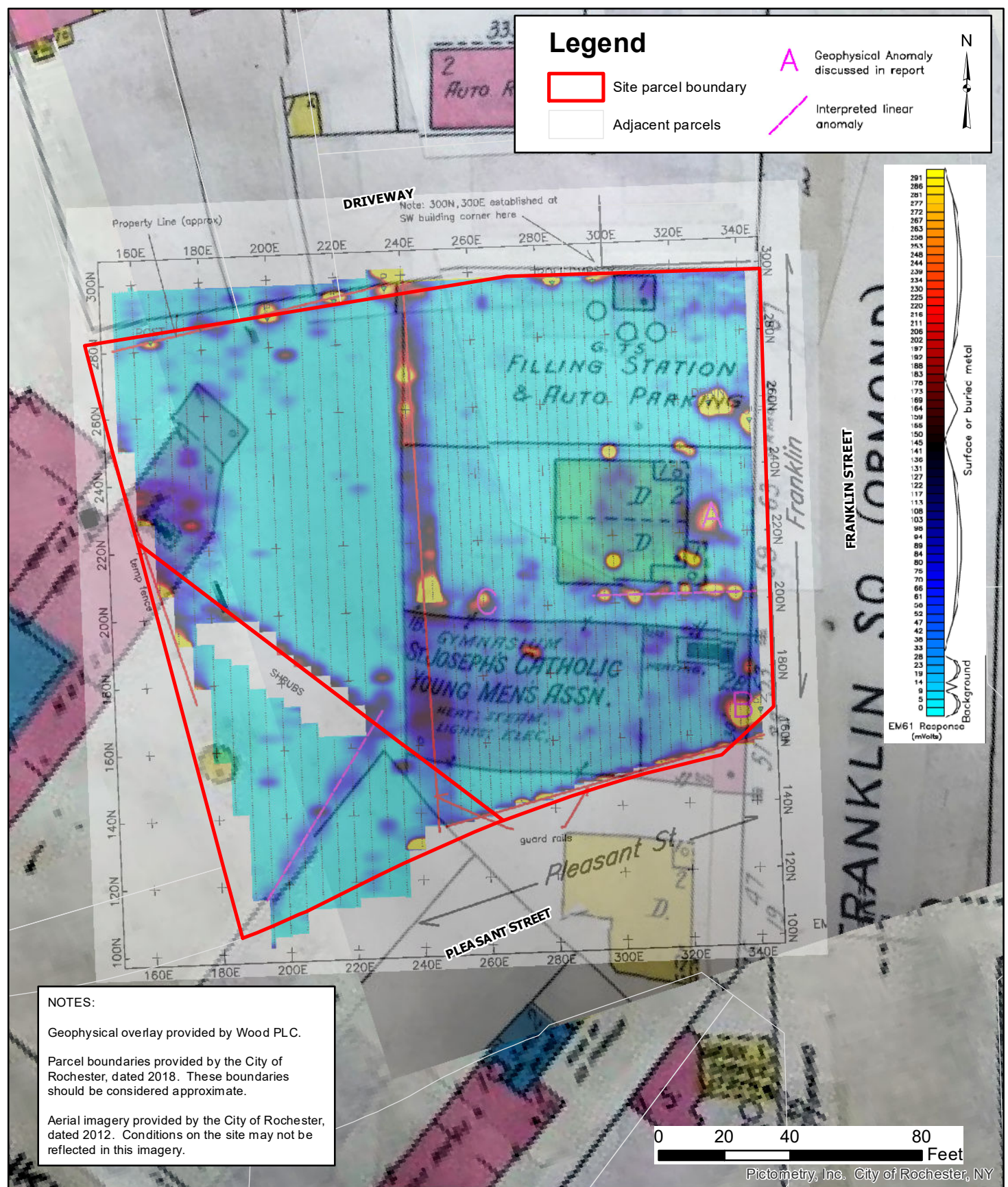


John Luttinger  
Senior Geophysicist









<p>Date</p> <p>12-17-2018</p> <p>Drawn By</p> <p>CPS</p> <p>Scale</p> <p>AS NOTED</p>	<p><b>day</b></p> <p><b>DAY ENVIRONMENTAL, INC.</b></p> <p>Environmental Consultants</p> <p>Rochester, New York 14606</p> <p>New York, New York 10170</p>	<p>Project Title</p> <p>101 &amp; 113 FRANKLIN STREET, AND 106 PLEASANT STREET ROCHESTER, NEW YORK</p> <p>PHASE II ENVIRONMENTAL SITE ASSESSMENT</p> <p>Drawing Title</p> <p>Site Plan with Geophysical Survey and Sanborn Overlay</p>	<p>Project No.</p> <p>5560S-18</p> <p>FIGURE 2</p>
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