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September 5, 2014

Mr. David Gardner  
New York State Department of Environmental Conservation  
Division of Environmental Remediation  
625 Broadway, 12<sup>th</sup> Floor  
Albany, NY 12233-7017

RE: Lackawanna Interim Remedial Measure Letter Work Plan  
Contract/WA No: D007624-10  
Site/Spill No/Pin: Lackawanna Incinerator Site, Lackawanna, New York (915206)

Dear Mr. Gardner:

This letter Work Plan describes the activities proposed for the Lackawanna interim remedial measure (IRM). The Lackawanna Incinerator site (915206) is located in the City of Lackawanna, New York (Figure 1). The IRM will be conducted to address impacted soil at the Baker Hall property, located adjacent to the Lackawanna Incinerator site. Based on the results of a remedial investigation (RI) at the Lackawanna Incinerator site, elevated concentrations of inorganic constituents (primarily arsenic and lead) were observed on the Baker Hall Property in surface/subsurface soil associated with former operations of the incinerators.

As requested by the New York State Department of Environmental Conservation (NYSDEC), EA has developed this IRM Work Plan for removal of soil with contaminant of concern (COC) concentrations greater than the Part 375 restricted residential soil cleanup objectives (SCOs) (New York Code of Rules and Regulations [NYCRR] 2006)<sup>1</sup> at the Baker Hall property. The primary COC is lead, which occurs in association with other metals (arsenic).

## **SITE BACKGROUND**

The former Lackawanna Incinerator site includes two brick multi-story buildings and associated chimneys that housed municipal solid waste incinerators (the southern building was constructed in 1927, the northern building circa 1950). The southern incinerator operated from 1927 to 1950 and the northern incinerator operated from 1950 to 1980.

The Baker Hall property is located at 150 Martin Road, immediately east and southeast of the former Lackawanna Incinerator site (Figure 1). The 17-acre property includes the Baker Victory Services Orphan Home and Intermediate Care Facilities for the developmentally disabled. The northern portion of the Baker Hall property, approximately 10 acres, is currently an overgrown vacant field with emergent woods, while the remaining southern portion of the property includes residential group homes. The northern portion of the property, adjacent to the former incinerator site, is scheduled to be developed in fall/winter 2014.

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<sup>1</sup> 6 NYCRR. 2006. Part 375 Environmental Remediation Programs. December.

## **Remedial Investigation Summary**

As part of the phased RI associated with the former incinerator site, soil sampling has been conducted at the Baker Hall property to evaluate the nature and extent of COC exceedances of the SCOs (NYCRR 2006)<sup>1</sup>. Soil samples collected from the Baker Hall property in fall 2012 were analyzed for a full list of target compound list organics (minus herbicides), along with target analyte list metals and cyanide. Sampling results indicated that lead is the primary COC. Supplemental soil delineation sampling activities were also conducted. The supplemental soil sampling activities included field analysis using x-ray fluorescence (XRF) to delineate the extent of lead in soil greater than 400 mg/kg. Correlation samples were collected on a frequency of 1 per 10 XRF samples, and were submitted for chemical analysis of lead by U.S. Environmental Protection Agency Method 6000.

The incinerator-related contamination that exceeded SCOs at the Baker Hall property was thickest in the northwestern corner of the property where it was observed to extend from the ground surface to as much as 4 feet (ft) below ground surface (Figure 2). The impacted soil/fill thins to approximately 2-ft thick to the south along the western property line, which is shared with the former incinerator site, and along the northern property line, which is shared with the creek path. Based on the RI and supplemental delineation sampling results, an approximately 1.75-acre area of concern was identified with lead concentrations in soil greater than the restricted residential SCO (400 mg/kg).

## **INTERIM REMEDIAL MEASURE OVERVIEW**

The proposed IRM for the Baker Hall property includes excavation and off-site disposal of impacted soil located in the northwestern portion of the property. EA will serve as the contractor and will hire subcontractors (remedial subcontractor, surveyor, and analytical laboratory) to complete the IRM. A preliminary site layout for site preparation and IRM activities is shown on Figure 3. The following preliminary activities will be completed as part of the IRM:

- Remedial subcontractor bid solicitation (scope of work, bid sheet, specifications and drawings)
- Preparation and review of planning documents (work plans/schedule)
- Pre-IRM meeting with NYSDEC, EA, and remedial contractor
- Initiate coordination with the City of Lackawanna Department of Public Works (DPW), Baker Hall representatives, and National Fuel.

Once preliminary activities have been completed, site work will be performed in the following general sequence.

## **Mobilization**

The remedial subcontractor will mobilize all equipment and personnel to the site necessary to begin remediation activities. The remedial contractor will continue to coordinate with the City of Lackawanna DPW facilities personnel as necessary, verify existing site conditions, and contact Dig Safely New York for utility clearance.

## **Site Preparation / Clearing and Grubbing**

Prior to commencement of excavation activities, the remedial subcontractor will:

- Remove the chain-link fence along the northern and western areas of the excavation
- Install temporary orange construction fencing along the walking trail north of the site
- Prepare construction entrances and access roads from the DPW facility to accommodate site work
- Install temporary erosion controls
- Clear and grub the northern area of the Baker Hall property
- Construct additional remedial support areas as necessary, including staging and decontamination areas
- Decommission the existing monitoring well (MW-05) located within the footprint of the proposed excavation work areas.

## **Initial Site Survey**

The surveyor will mobilize to the site to conduct the initial site survey. This survey will provide the basis for measurement of the quantity of site restoration materials. In addition, the surveyor will mark out the excavation boundaries and the locations of the samples collected and analyzed as part of the RI that did not exceed the restricted residential SCOs.

## **Waste Characterization**

Existing characterization data will be submitted to the proposed disposal facility and additional characterization samples will be collected per the disposal facility's requirements. Any additional characterization sampling and analysis will be completed by the remedial subcontractor with oversight by EA.



## **Soil Excavation and Disposal**

The remedial subcontractor will conduct excavation within proposed boundaries identified by the surveyor and to the depths specified on Figure 3. Soil will be stockpiled as necessary prior to loading into trucks for off-site disposal. EA will manifest the waste and track the number of trucks that leave the site. Special precautions will be taken to avoid damaging both the existing storm sewer and gas line that traverses the property. The gas line will remain active for the duration of the IRM.

## **Soil Screening/Confirmation Sampling**

EA will conduct field screening using XRF handheld analyzers in conjunction with confirmatory laboratory samples to verify that remedial objectives have been met.

## **Excavation Survey**

Once the excavations are completed and boundaries have been confirmed, the surveyor will survey the excavation boundaries. The survey will be used to verify boundaries have not extended beyond the limits approved by EA and to verify the quantity of backfill materials.

## **Backfill/Restoration**

The remedial subcontractor will place geotextile along the northern and western excavation walls to mark the boundaries and backfill the excavation to within 6 inches of the original grade. Site restoration will be coordinated with Baker Hall site representatives.

## **SCHEDULE**

It is anticipated that site mobilization for IRM activities will be initiated in late-October/early-November 2014 and will be completed within 8 weeks of mobilization. The major tasks and anticipated time frames are listed below:

- Mobilization – 1 week
- Site Preparation / Clearing and Grubbing – 1 week
- Initial Site Survey – 2 days
- Waste Characterization – 1 week
- Soil Excavation and Disposal – 3 weeks
- Excavation Survey – 2 days
- Backfill/Restoration – 2 weeks.



A detailed construction schedule will be developed following selection of the remedial subcontractor.

Sincerely,

EA SCIENCE AND TECHNOLOGY

A handwritten signature in blue ink, reading 'Jennifer Bouchard', is positioned above the printed name.

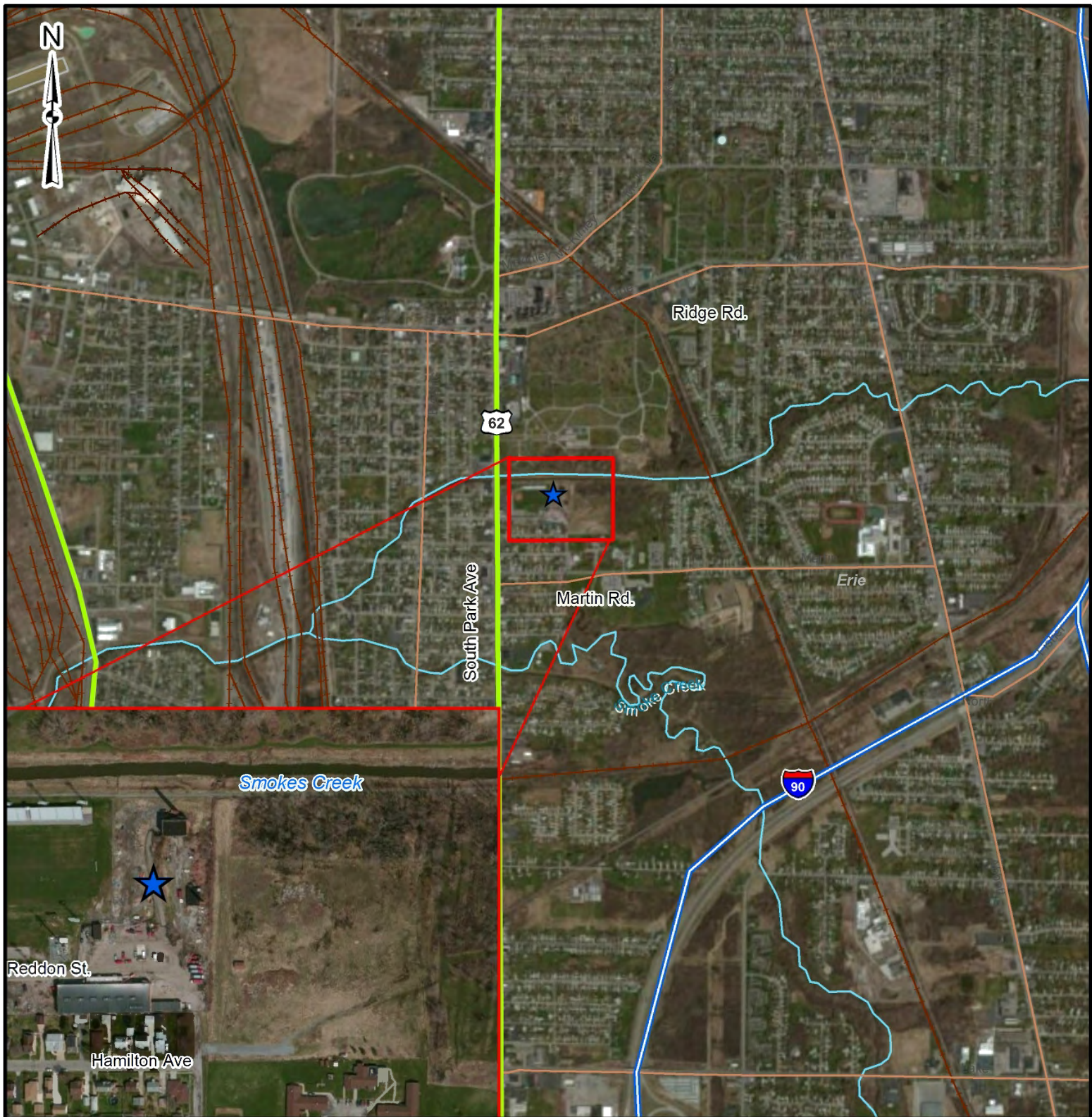
Jennifer Bouchard, P.G., PMP  
Project Manager

EA ENGINEERING, P.C.

A handwritten signature in black ink, reading 'James C. Hayward', is positioned above the printed name.

James C. Hayward, P.E.  
Senior Engineer





#### Legend

★ Lackawanna Incinerator

0 0.25 0.5 1 Miles  
1 in = 0.5 miles

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



LACKAWANNA INCINERATOR  
LACKAWANNA, NEW YORK

FIGURE 1  
SITE LOCATION

PROJECT MGR:  
JMB

DESIGNED BY:  
CJS

CREATED BY:  
HAW

CHECKED BY:  
MM

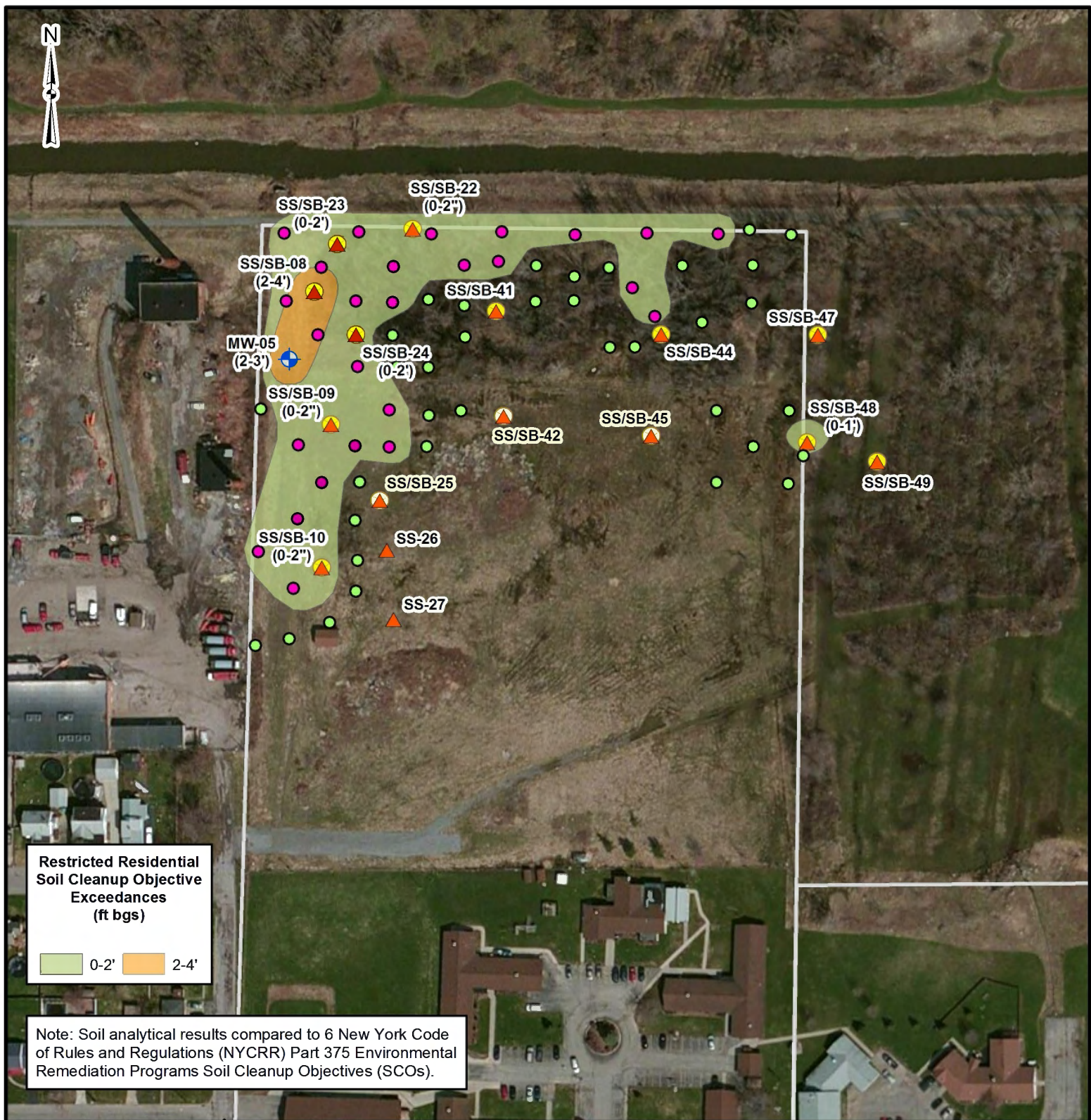
SCALE:  
AS SHOWN











DATE:  
SEPTEMBER 2014

PROJECT NO:  
1490710

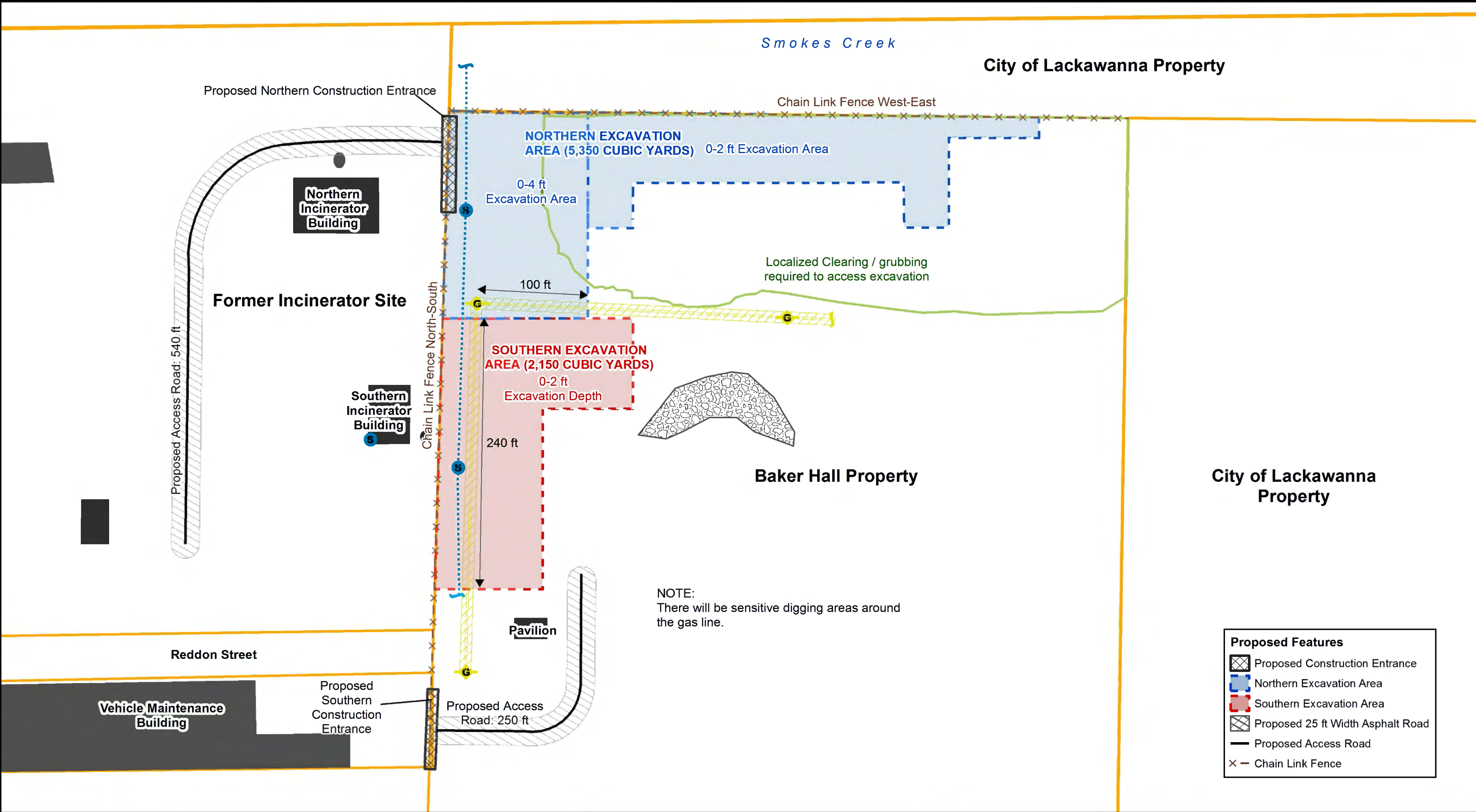
FILE NO:  
14907.10 - Lackawanna  
Incinerator/ GIS/MXD/FS





		<b>Legend</b> <div> Monitoring Well</div> <div> Surface Soil</div> <div> Soil Boring</div> <div> &lt;400 ppm</div> <div> &gt;400 ppm</div> <div> Baker Hall Property</div>		<div> 0      75      150      300 Feet 1 in = 150 ft</div> <div>Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community</div>			
<div></div>		LACKAWANNA INCINERATOR LACKAWANNA, NEW YORK		FIGURE 2 BAKER HALL SUMMARY OF LEAD IMPACTS			
PROJECT MGR: JMB	DESIGNED BY: HAW	CREATED BY: HAW	CHECKED BY: MM	SCALE: AS SHOWN	DATE: SEPTEMBER 2014	PROJECT NO: 1490710	FILE NO: 14907.10 - Lackawanna Incinerator/ GIS/MXD/FS





**Site Features**

- Tax Parcels
- Building / Structure
- Debris Pile
- Tree Area
- Gas Line Marker
- Sewer Manhole
- Gas Line
- Sewer Line
- 5 ft Gas Line Right-Of-Way

**LACKAWANNA INCINERATOR**  
**LACKAWANNA, NEW YORK**

PROJECT MGR: JMB	DESIGNED BY: ALK	CREATED BY: HAW	CHECKED BY: JAV	SCALE: AS SHOWN
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**FIGURE 3**  
**PROPOSED EXCAVATION**  
**SITE LAYOUT**

DATE: SEPTEMBER 2014	PROJECT NO: 14907.10	FILE NO: 14907.10 - Lackawanna Incinerator/ GIS/MXD/RI
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0 40 80 160 Feet  
1 inch = 80 feet