C&S Companies
499 Col. Eileen Collins Blvd.
Syracuse, NY 13212
p: (315) 455-2000
f: (315) 455-9667
www.cscos.com

October 16, 2008

OCT 17 2008

Kevin J. Kelly, P.E.
Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation
615 Erie Boulevard West
Syracuse, New York 13204-2400

Re: Proposed Work Plan for TCE Plume Delineation
Sims Matchplate Brownfields Site
NYSDEC Site No. B-00072-7

File: 119.334.006

Dear Mr. Kelly:

C&S Engineers, Inc., on behalf of our client, the City of Syracuse, submits this proposed work plan for finalizing the determination of appropriate remedial work at the Sims Matchplate Brownfields site. Based on completion of the recent building demolition, and as set forth in the July 2006 Supplemental Site Investigation and Remedial Alternatives Report, this work to complete delineation of the vertical and areal extent of subsurface soils and groundwater exhibiting evidence of trichloroethene (TCE) may now be efficiently and safely conducted.

Area of Concern

Figure 1 attached shows the anticipated areal extent of investigation around the courtyard in the northern section of the site. This site plan also shows the locations of previous soil borings and monitoring wells as well as analytical laboratory results for TCE associated with soil explorations

Delineation of the TCE plume in this area will be accomplished by the direct push drilling method using a truck-mounted or track-mounted GeoProbe™ unit. Although the actual number of explorations to be made will be determined by field conditions, the objective of this effort is to make a reasonable and practical number of boreholes to facilitate the selection and design of an appropriate remedy for TCE-impacted soils and groundwater.

Based on our current understanding of the site, these boreholes will be terminated at a maximum depth of approximately twenty feet, at which depth the presence of TCE within the glacial till unit has not been exhibited. If PID screening suggests that measurable volatile vapors remain present at the 20-foot depth, the boring will be extended until the presence of such elevated

volatile vapors desists. Excess spoils generated will be placed in 55-gallon drums. Those containers will be staged on-site until characterized and disposed.

During the field effort, each borehole will be sampled continuously using the method identified above. Retrieved soil samples will be visually examined to assess subsurface conditions and physical properties of the strata. These properties include: color, moisture content, grain size, density and visual evidence of volatile organic vapors via conventional headspace analysis techniques using a photoionization detector (PID) equipped with a 10.6 eV lamp.

Sampling and Analyses

A maximum of two soil samples (depending on field conditions) per borehole will be collected for analysis. The sampling interval will be determined in the field based on visual examination of the samples and the results of PID screening. Analysis of the soil samples will be for volatile organic compounds consistent with ASP protocols. We will also submit a maximum of seven samples for analysis of Total Organic Carbon (TOC). TOC results will be used to facilitate a determination as to whether a site-specific clean-up level for TCE via TAGM No. 4046 methodology may be appropriate.

In addition to the subsurface explorations and soil sampling, we propose purging and sampling the four existing monitoring wells within and proximate to the area of interest (monitoring wells MW-3, MW-5, MW-6, and MW-7). Groundwater samples will be submitted for analysis of volatile organic compounds consistent with ASP protocols. We also propose conducting hydraulic conductivity testing for the two wells previously determined to be impacted by TCE (MW-3 and MW-7); results of hydraulic conductivity testing will then be used to facilitate determination of appropriate remedial work (if any) for groundwater.

Prior to conducting this delineation program, C&S will contact UFPO to locate utilities along Erie Boulevard (northern limit of the Area of Interest). Borings will not be advanced within a minimum of five feet from any such utility identified.

Upon completion of this delineation program, each location will be surveyed to allow accurate placement on the existing site plan.

Reporting

Field and analytical data generated during the proposed investigation effort will be summarized in a letter report to the Department. That report will include an update to the Remedial Alternatives Analysis (RAA) for the site based on the data generated.

We anticipate that sufficient GeoProbe™ borings to delineate the area can be conducted within a period of approximately four eight-hour work days. Attachment A provides C&S's estimate of the costs for conducting the activities proposed here-in. After receiving your approval of this work plan, we will contact several drilling firms for price quotes and tentative schedules for the work.

Should you have any questions regarding this proposed work plan, please contact me or Tom Barba.

Sincerely yours,

C&S ENGINEERS, INC.

Rory Woodmansee

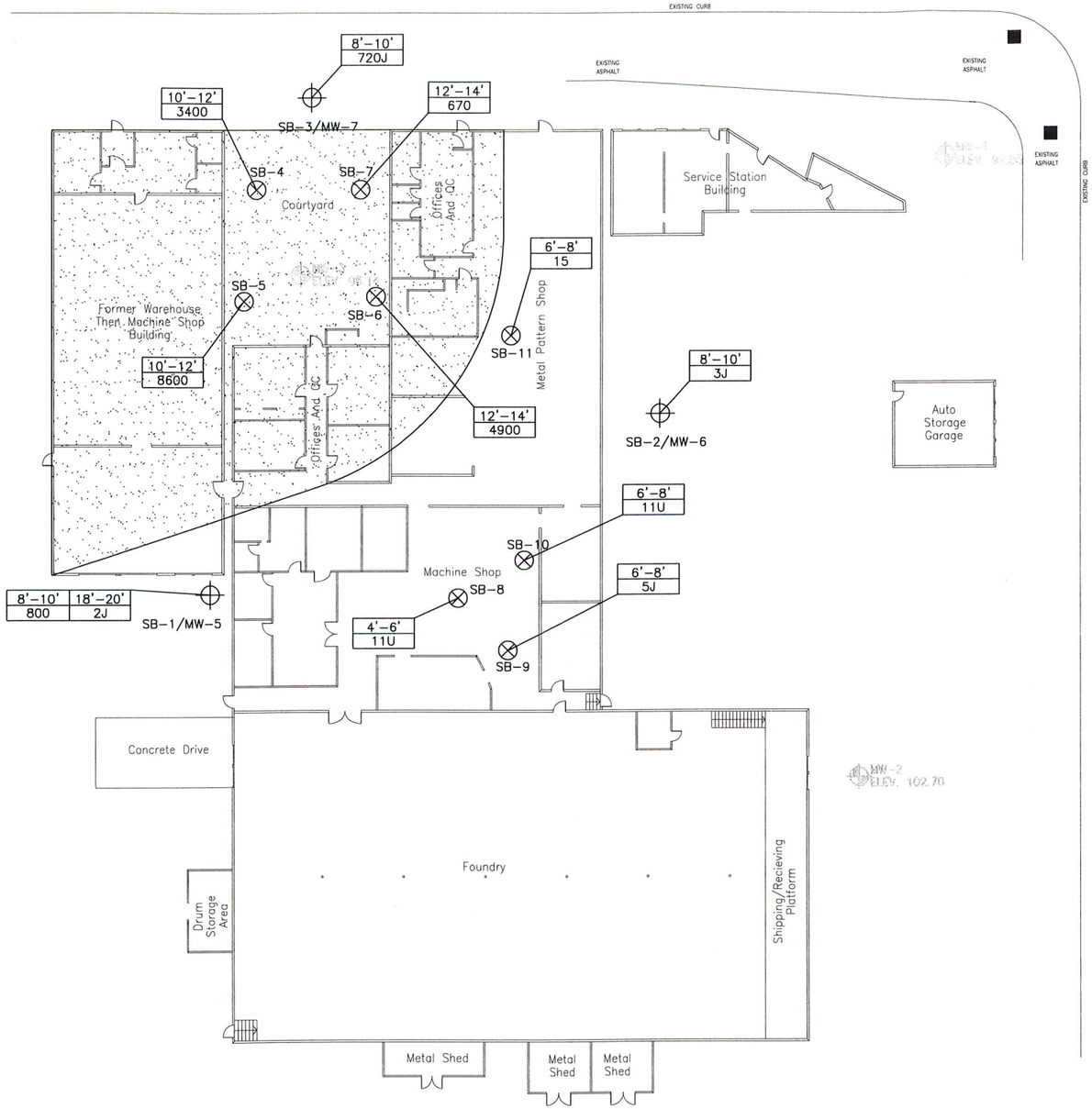
Rory Woodmansee
Senior Engineer

Enclosure

cc: Dominic Vacca, City of Syracuse
Brian Pincelli, City of Syracuse
Richard Jones, NYSDOH
Tom Barba, C&S

F:\Project\119A - CITY OF SYRACUSE\119.332.003_4 Sims\SSI_IRM\TCE plume delineation work plan.doc

ERIE BOULEVARD EAST



N

LEGEND

1998 SI Soil Boring and Monitoring Well Location

2003 SSI Soil Boring Location

SB–3/MW–7 — 2003 SSI Soil Boring Completed as Monitoring Well

12'–14' / 4900 — SAMPLE DEPTH IN FEET; TCE CONNECTION IN ug/kg or ppb

APPROXIMATE AREA OF INVESTIGATION (SHADED)

NOTE:
ALL STRUCTURES SHOWN IN THIS FIGURE WERE REMOVED IN THE 2007 INTERIM REMEDIAL MEASURES.

30 0 30 60 FT.
30'

NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK EDUCATION LAW

C&S ENGINEERS, INC.
499 Col. Eileen Collins Blvd.
Syracuse, New York 13212
Phone: 315-455-2000
Fax: 315-455-9667
Toll Free: 1-877 CS SOLVE
WWW. CSCOS.COM

SIMS MATCHPLATE BROWNFIELD PROJECT NYSDEC SITE #B-00072-7 SSI REPORT

MARK	DATE	DESCRIPTION
REVISIONS		

PROJECT NO:	
DATE:	
SCALE:	3/16' = 1'-0"
DRAWN BY:	S.J. KOWALCZYK
DESIGNED BY:	CAD SMITH
CHECKED BY:	CAD SMITH

TCE PLUME DELINEATION

FIGURE 1

Oct 16, 2008 – 10:51am
F:\Project\119A – CITY OF SYRACUSE\119.332.003_4 Sims\CADD\FIGURE 1.dwg

ATTACHMENT A

Sims Matchplate Brownfields Site

TCE Plume Delineation

Estimate of Probable Costs

Task	Estimated Cost (basis)
Installation of Boreholes (drilling subcontractor)	$5,600 (4 days @ $1,400/day)
Installation of Boreholes (C&S oversight and direct expenses)	$3,088 (4 days @ $672/day + PID + supplies)
Soil Analyses (analytical laboratory subcontractor, includes QA/QC samples)	$2,815 (24 VOCs [ASP 2000] samples @$110/sample + 7 TOC [non ASP] samples @ $25/sample)
Hydraulic Conductivity Testing (C&S, field and office)	$1,008 (6 hours per location + instrumentation)
Groundwater Analyses (analytical laboratory subcontractor, includes QA/QC samples)	$880 (eight VOCs [ASP 2000] @ $110/sample)
Data Validation (subcontractor)	$960 (32 ASP 2000 samples @ $30/sample)
Coordination and Reporting	$3,776 (32 hours @ $118/hour)
Site Survey	$558 (6 hours @ $93/hr)
TOTAL ESTIMATED COST	$18,685