



June 29, 2012

Mr. Frank Sowers
New York State Department of Environmental Conservation
Region 8
6274 East Avon-Lima Road
Avon, NY 14414

Subject: CSX Transportation, Inc. (CSXT)- River Street Derailment Project
480 River Street
Rochester, New York
NYS DEC V00524
CSXT Project Number: 0200358
AMEC Project Number: 64300-8511

Dear Mr. Sowers:

AMEC Environment & Infrastructure, Inc. (AMEC) has prepared this Periodic Review Report (PRR) and the required associated certification forms (Attachment A), on behalf of CSX Transportation, Inc. (CSXT), for the CSXT-River Street Derailment Site located in Rochester, NY.

BACKGROUND

On December 23, 2001, at 3:40 PM EST, a CSXT train derailed 27 of its cars (24 hoppers loaded with coal, 2 tank cars loaded with acetone, and 1 tank car loaded with methylene chloride). As a result of the derailment coal, 3,000 gallons of diesel, 14,000 gallons of acetone, and 16,000 gallons of methylene chloride were released to the environment, including the Genesee River. CSXT entered the Voluntary Cleanup Program and was assigned site number V00528-8.

Immediately following the derailment, emergency response activities commenced including fire suppression; diesel, coal, and plastic pellet cleanup; spill delineation and containment; continuous community air monitoring; and river water quality monitoring.

Following the emergency response, interim remedial measures were initiated to address the landside and Genesee River impacts. These activities included the excavation (using traditional methods and sheet piling cells) and disposal of 1,700 tons of petroleum impacted soil, 28,000 tons of methylene chloride and/or acetone impacted soil, and collection and disposal of 1.4 million gallons of impacted groundwater. CSXT also completed the installation of temporary drinking water lines and the replacement of over 300 feet of sanitary sewer. In order to address the sediment impacts in the Genesee River, CSXT installed a sheet pile wall and dredged 3,000 tons of impacted sediment.

Subsequent subsurface investigation events included a soil gas survey, DNAPL soil sampling, installation of monitoring wells and soil borings. Based on the results of the subsurface investigation events and interim remedial measures, residual impacts were known to exist in the landside soils and Genesee River sediment. Supplemental treatment via EHC-O™ injections

were used to fully remedy the landside site soils to below calculated recommended soil cleanup objectives. A Site Management Plan was prepared to address the limited riverside residuals.

CSXT received a release and covenant not to sue from the New York State Department of Environmental Conservation (NYSDEC) in December 2010.

SITE MANAGEMENT PLAN

As mentioned previously, a Site Management Plan (SMP) was drafted to address the residual impacts in the remaining sediment hot spots within the Genesee River from the December 23, 2001 derailment. The document summarizes the site background; describes the historical field activities, the interim remedial measures, and subsequent monitoring events; and details the institutional controls to address the residual impacts in the remaining sediment hot spots.

The SMP intent is to provide guidance in the management of sediment containing methylene chloride and acetone above the site-specific cleanup levels of 773 ug/kg for acetone and 1,133 ug/kg for methylene chloride that may be disturbed in the unlikely circumstance that the United States Army Corp of Engineers (USACE) dredging limits are revised or if future development activities by the City of Rochester disturb river sediments within the interim remedial measure dredging limits.

An updated SMP is supplied with this PRR as Attachment B. The updates were completed solely to the contact table as some of the individuals have changed since 2010. No changes were made to the institutional and procedural controls detailed in the SMP.

VERIFICATION OF POTENTIAL SEDIMENT DISTURBANCES

The property contained in the SMP area is wholly within the Genesee River as shown in Figure 2 of the SMP in Attachment B. The first approximately 20-feet of the riverbed immediately adjacent to the western bank of the River is owned and maintained by the City of Rochester. The additional area between the City owned land and the navigational channel would most likely be disturbed by the City during the maintenance of their boat slips. The USACE maintains the navigational channel that makes up the remainder of the SMP area.

AMEC, on behalf of CSXT, contacted both the City of Rochester, Mr. Mark Gregor, and the USACE, Mr. Joshua Frost, to determine if either entity had plans to implement dredging or other activities that may disturb the sediments within the SMP area.

The City and the USACE indicated they had no current plans to conduct any maintenance dredging or other activities to the boat slips or navigational channel that would disturb the sediment being controlled by the SMP. The USACE does plan to dredge the navigational channel in 2012 but the depths of the dredging are consistent with past practices and are above the elevations of the SMP sediments. The City has no current plans to conduct maintenance dredging or dredging to deepen the boat slip area.

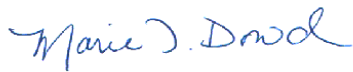
Both entities are aware of the presence of the SMP and understand the protocol described in the SMP. Additionally, the City is aware that CSXT utilized a stone backfill to cap the SMP area up to the limit of the navigational channel and that if they happened to encounter this material during maintenance dredging of the accumulated sediments or during the deepening of the boat slips that that would indicate they were approaching the SMP sediments and to immediately contact CSXT to implement the SMP protocol.

Should you have any questions regarding the enclosed information, please do not hesitate to contact me or Mr. William Parry. Our contact information is as follows:

Marie Dowd, P.E.
Project Manager
AMEC Earth & Environmental, Inc.
155 Erie Blvd., 2nd Floor
Schenectady, NY 12305
Phone: 518-372-0905
Fax: 518-372-1042
marie.dowd@amec.com

William Parry, PG, CGWP
Manager Environmental Remediation
CSX Transportation, Inc.
One Bell Crossings
Selkirk, NY 12158
Phone: 518-767-6049
Fax: 904-245-2727
William_Parry@csx.com

Sincerely,
AMEC Environment & Infrastructure, Inc.



Marie Dowd, P.E.
Project Manager

Attachments: A	Certification Forms
B	Site Management Plan- June 2012

ATTACHMENT A

Certification Forms



Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form



Site Details		Box 1
Site No.	V00524	
Site Name CSXT - Rochester NY		
Site Address: 480 River Street Zip Code: 14612-		
City/Town: Rochester		
County: Monroe		
Site Acreage: 4.7 0.5-acres for Sediment Management Plan Area		
Reporting Period: November 29, 2010 to May 31, 2012		
		YES NO
1. Is the information above correct?		<input checked="" type="checkbox"/> <input type="checkbox"/>
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?		<input type="checkbox"/> <input checked="" type="checkbox"/>
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?		<input type="checkbox"/> <input checked="" type="checkbox"/>
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period? USACE plans to dredge the navigational channel Summer 2012		<input checked="" type="checkbox"/> <input type="checkbox"/>
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form. (See attached Public Notice Appl# 2012-00183)		
5. Is the site currently undergoing development?		<input type="checkbox"/> <input checked="" type="checkbox"/>

		Box 2
		YES NO
6. Is the current site use consistent with the use(s) listed below? Unrestricted, Residential, Restricted-Residential, Commercial, and Industrial		<input checked="" type="checkbox"/> <input type="checkbox"/>
7. Are all ICs/ECs in place and functioning as designed?		<input checked="" type="checkbox"/> <input type="checkbox"/>
IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.		
A Corrective Measures Work Plan must be submitted along with this form to address these issues.		
Signature of Owner, Remedial Party or Designated Representative		Date

SITE NO. V00524

Box 3

Description of Institutional Controls

Parcel

Owner

Institutional Control

47.70-2-63.1

City of Rochester

Site Management Plan

Box 4

Description of Engineering Controls

Parcel

Engineering Control

47.70-2-63.1

Cover System

Engineering Control Details for Site No. V00524

Parcel: 47.70-2-63.1

Any disturbance of the City's underwater lands within the controlled property must be completed in accordance with a Sediment Management Plan.

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and complete.

YES NO

☒ ☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES NO

☒ ☐

**IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and
DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. V00524

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1, 2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I William Parry, PG, CGWP at 500 Water Street, J-275, Jacksonville, FL 32202
print name print business address

am certifying as the CSX Transportation, Inc. PM (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.


Signature of Owner, Remedial Party, or Designated Representative
Rendering Certification

6-29-2012
Date

IC/EC CERTIFICATIONS

Box 7

Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

AMEC Environment & Infrastructure, Inc.

Marie T. Dowd, PE at 155 Erie Blvd, Edison Plaza 2nd Floor
print name print business address Schenectady, NY 12305

am certifying as a Qualified Environmental Professional for the CSX Transportation Rochester NY Site
(Owner or Remedial Party)

Marie T Dowd

Signature of Qualified Environmental Professional, for
the Owner or Remedial Party, Rendering Certification



Stamp
(Required for PE)

06/27/12
Date



U.S. Army Corps
of Engineers
Buffalo District
CELRB-TD-R

Public Notice

Applicant:
Essroc Italcementi Group

Published: March 1, 2012
Expires: March 30, 2012

Application No: 2012-00183
Section: NY

All written comments should reference the above Application No. and be addressed to:
Buffalo District U.S. Army Corps of Engineers
Regulatory Branch (**Attn: Joshua Frost**)
1776 Niagara Street
Buffalo, New York 14207-3199

THE PURPOSE OF THIS PUBLIC NOTICE IS TO SOLICIT COMMENTS FROM THE PUBLIC REGARDING THE WORK DESCRIBED BELOW. NO DECISION HAS BEEN MADE AS TO WHETHER OR NOT A PERMIT WILL BE ISSUED AT THIS TIME.

Application for Permit under Authority of
Section 10 of the Rivers and Harbors Act of 1899 and
Section 404 of the Clean Water Act (33 U.S.C. 1344).

Essroc Italcementi Group, 3162 Bath Pike, Nazareth, Pennsylvania, 18604 proposes to mechanically or hydraulically dredge 300,000 cubic yards of accumulated sediments from the Rochester Harbor Federal navigation channel. The proposed project will be within the Federal navigation channel (21,200 linear feet) of the Genesee River, in the City of Rochester, Monroe County, New York. Essroc Italcementi Group proposes to place the dredged material by hopper aboard a ship or scow in the authorized Rochester Harbor open-lake placement area, located 1.5 miles northeast of the East Pier Light at Rochester Harbor. The Federal navigation channels would be dredged to their authorized depths for commercial and recreational vessels. Up to an additional one foot of material may be removed to ensure the minimum authorized depth and allow for inaccuracies in the dredging process. The dredging depths will be -22 and -21 feet Low Water Datum (LWD) lakeward and landward of the Federal West Pier.

Essroc Italcementi Group proposes that the dredging operations are performed during the period between May 1 and September 15 when work is performed by mechanical dredging. If hydraulic dredging is performed, the work shall occur between May 1 and August 15. These work windows are proposed to preclude adverse impacts on the spawning, nursery, and feeding activities of indigenous fish species.

The quality of Rochester Harbor Federal navigation channel material has been evaluated using 2005 data in accordance with the protocols and guidelines contained in the U.S. Environmental Protection Agency (USEPA)/USACE 1998 Great Lakes Dredged Material Testing and Evaluation Manual. This evaluation

specifically addresses the potential contaminant-related risks to aquatic life associated with placing the dredged material in open-lake waters. Based on this evaluation, all material dredged from Rochester Harbor Federal navigation channels were determined to meet Federal guidelines for open-lake placement.

To reaffirm this determination, sediment analysis has been performed in 2011 for the site in question. The Corps of Engineers is currently evaluating the results of the analyses in accordance with the U.S. Environmental Protection Agency (USEPA)/USACE 1998 Great Lakes Dredged Material Testing and Evaluation Manual. The Corps will not authorize open lake placement of material which does not meet the criteria stated in the manual. In the event that the Corps determines that some or all of the material is unsuitable for open lake placement, dredging depths and/or placement locations will be modified accordingly.

The applicant's stated purpose is to maintain sufficient depth for deep-draft commercial and recreational vessels. If a permit is issued, this office intends to authorize the dredging for a five year period.

Location and details of the above described work are shown on the attached maps and drawings.

Comments or questions pertaining to the work described in this notice should reference the Application Number and be directed to the attention of Joshua Frost, who can be contacted at the above address, by calling (716) 879-4325, or by e-mail at: joshua.w.frost@usace.army.mil. A lack of response will be interpreted as meaning that there is no objection to the work as proposed.

The applicant has certified that the proposed activity complies with New York's approved Coastal Zone Management Program and will be conducted in a manner consistent with that program. General Concurrence was issued by the New York State Department of State for this work on March 27, 2006 (DOS reference number F-2005-1059). Any comments on the consistency of the proposed activity with New York State's Coastal Zone Management Program should be forwarded to:

New York Department of State
Division of Coastal Resources
Coastal Management Program
One Commerce Plaza
99 Washington Avenue
Albany, NY 12231
Attn: Consistency Review
Telephone (518) 486-3200

The following authorization(s) may be required for this project:

Water Quality Certification (or waiver thereof) from the New York State Department of Environmental Conservation.

There are no registered historic properties or properties listed as being eligible for inclusion in the National Register of Historic Places that will be affected by this project.

Pursuant to Section 7 of the Endangered Species Act (16 U.S.C. 1531), the Corps of Engineers is consulting, under separate cover, with the USFWS to evaluate any potential impacts to the Bog Turtle (*Clemmys muhlenbergii*) and to ensure that the proposed activity is not likely to jeopardize their continued existence or result in the destruction or adverse modification of critical habitat.

This notice is promulgated in accordance with Title 33, Code of Federal Regulations, parts 320-330. Any interested party desiring to comment on the work described herein may do so by submitting their comments, in writing, so that they are received no later than 4:30 pm on the expiration date of this notice.

Comments submitted in response to this notice will be fully considered during the public interest review for this permit application. All written comments will be made a part of the administrative record which is available to the public under the Freedom of Information Act. The Administrative Record, or portions thereof, may also be posted on a Corps of Engineers internet web site. Due to resource limitations, this office will normally not acknowledge the receipt of comments or respond to individual letters of comment.

Any individual may request a public hearing by submitting their written request, stating the specific reasons for holding a hearing, in the same manner and time period as other comments.

Public hearings for the purposes of the Corps permit program will be held when the District Commander determines he can obtain additional information, not available in written comments, that will aid him in the decision making process for this application. A Corps hearing is not a source of information for the general public, nor a forum for the resolution of issues or conflicting points of view (witnesses are not sworn and cross examination is prohibited). Hearings will not be held to obtain information on issues unrelated to the work requiring a permit, such as property ownership, neighbor disputes, or the behavior or actions of the public or applicant on upland property not regulated by the Department of the Army. Information obtained from a public hearing is given no greater weight than that obtained from written comments. Therefore, you should not fail to make timely written comments because a hearing might be held.

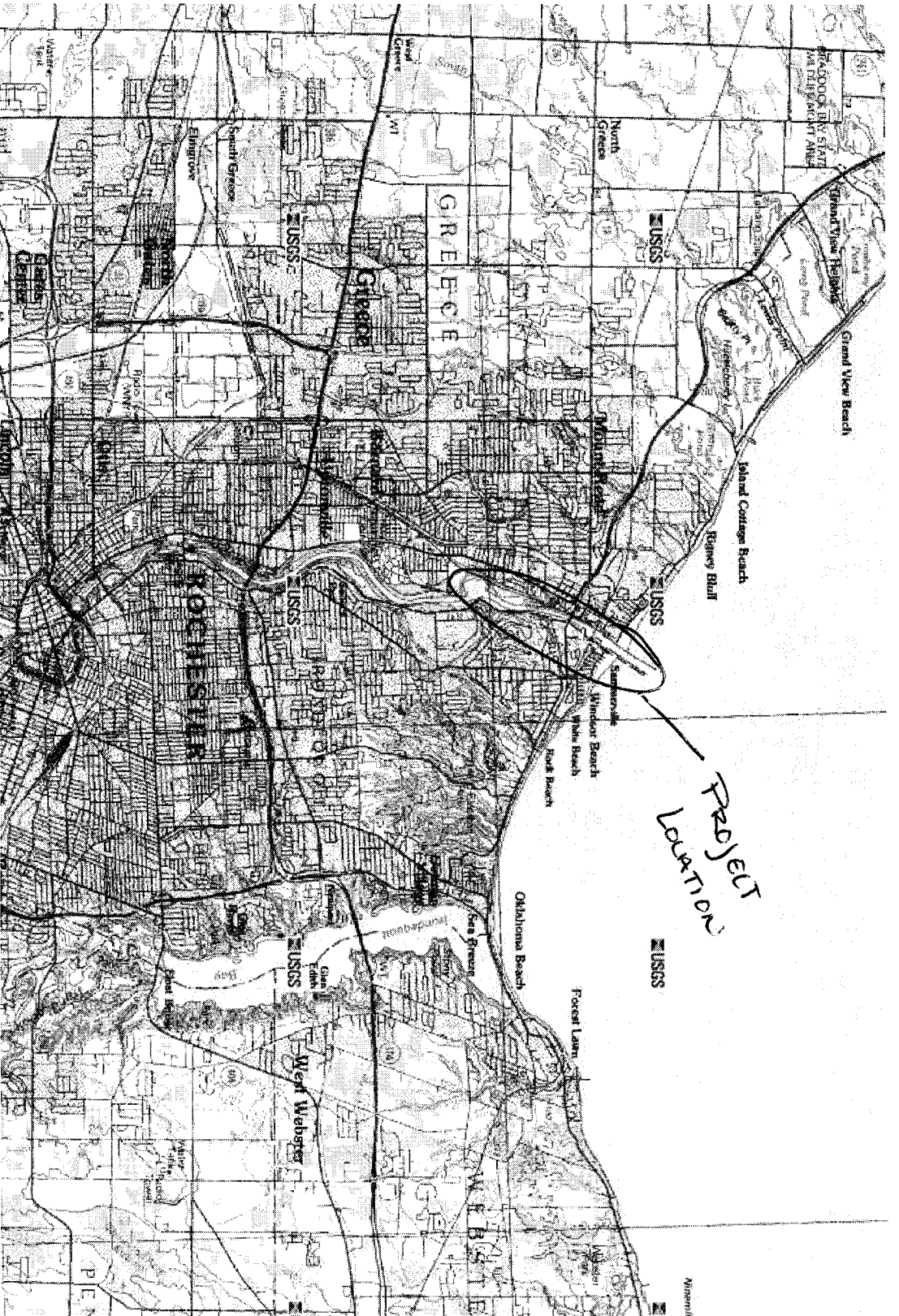
The decision to approve or deny this permit request will be based on an evaluation of the probable impact, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among these are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

SIGNED

Diane C. Kozlowski
Chief, Regulatory Branch

NOTICE TO POSTMASTER: It is requested that this notice be posted continuously and conspicuously for 30 days from the date of issuance.



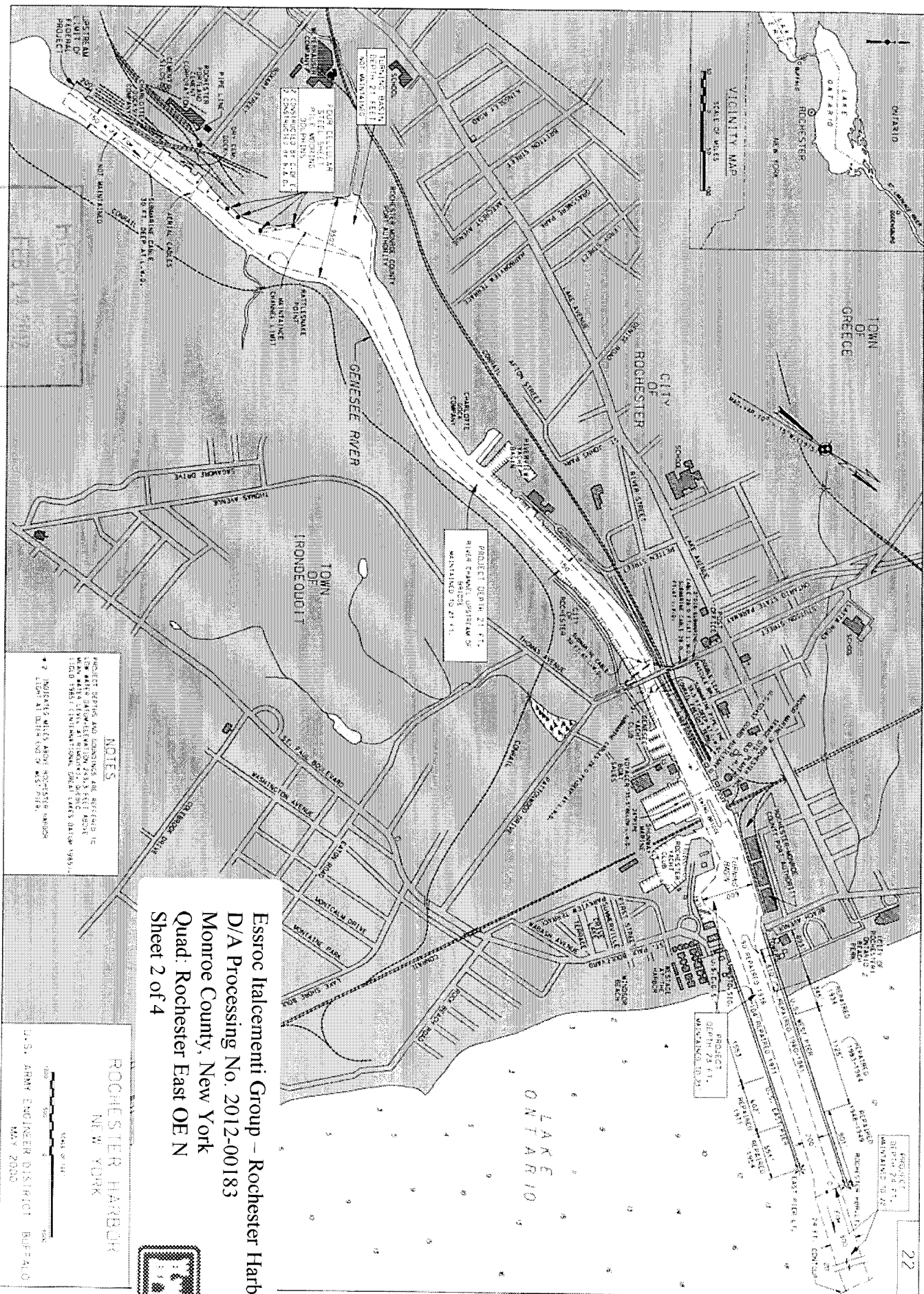


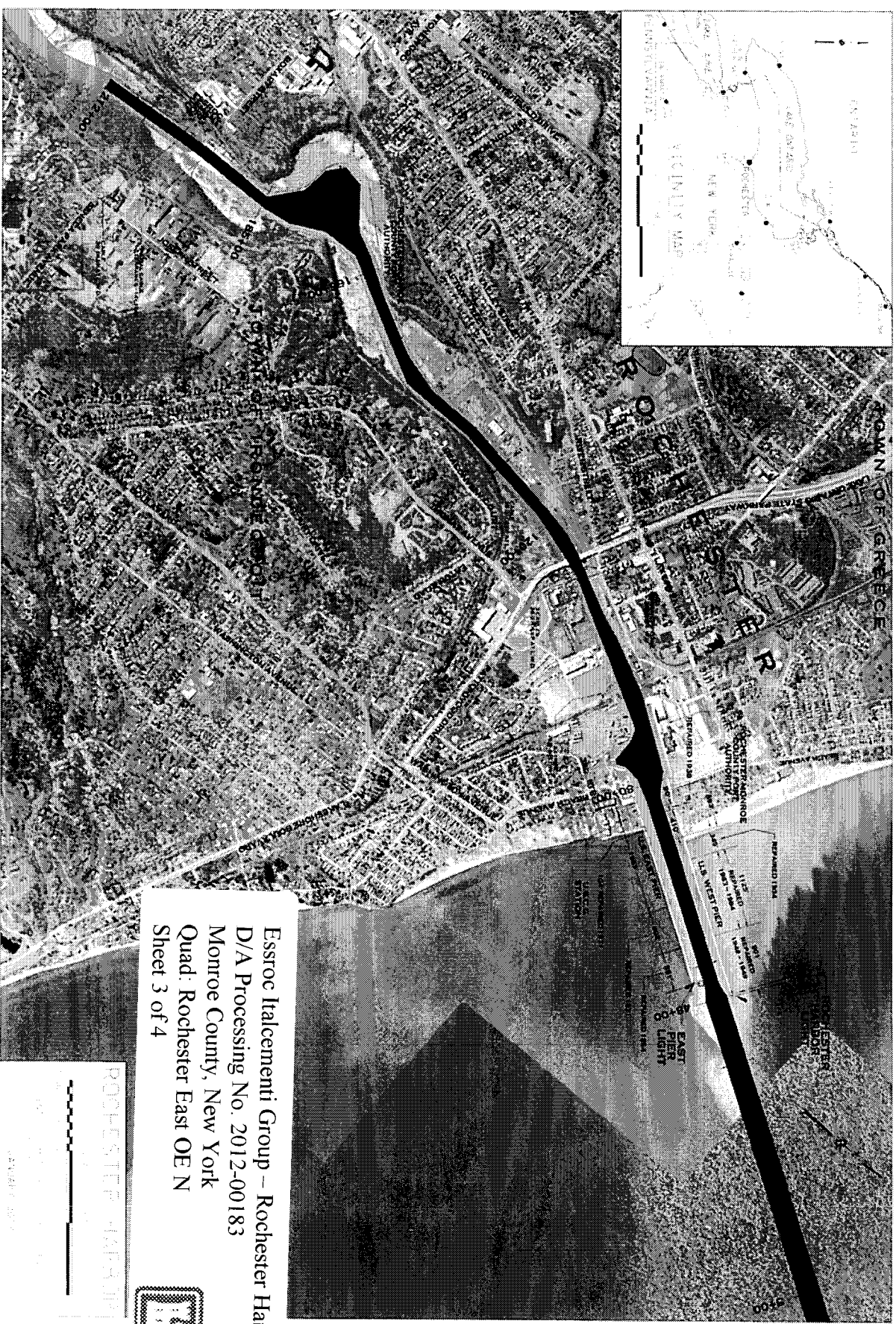
FIGURE 1 - ROCHESTER HARBOR FEDERAL PROJECT MAP

Esroc Italcementi Group – Rochester Harbor
D/A Processing No. 2012-00183
Monroe County, New York
Quad: Rochester East OE N
Sheet 2 of 4

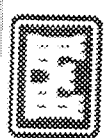


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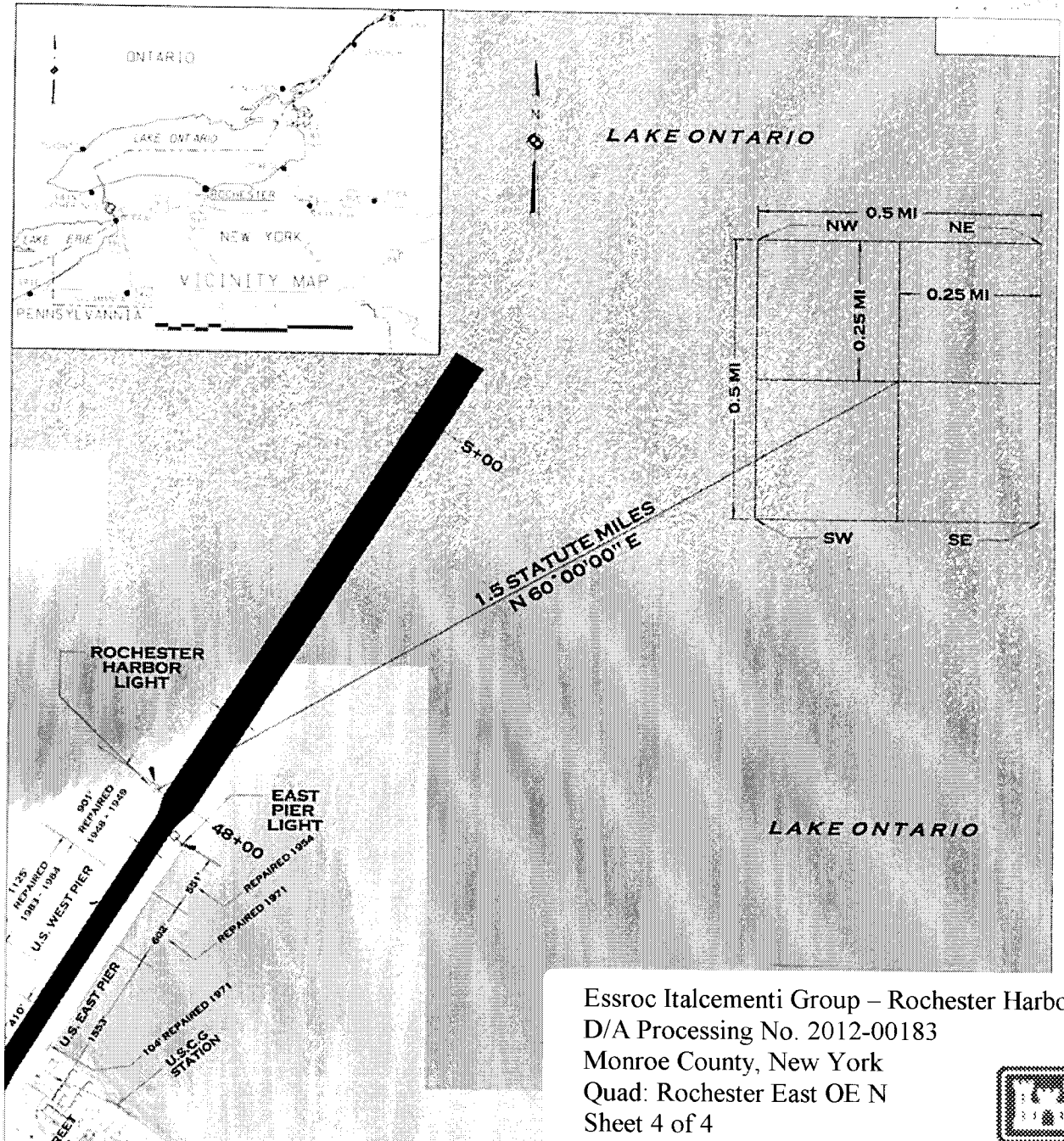
FIGURE 2 - LIMITS OF DREDGING IN FEDERAL NAVIGATION CHANNEL



Esstec Italcementi Group - Rochester Harbor
D/A Processing No. 2012-00183
Monroe County, New York
Quad: Rochester East OE N
Sheet 3 of 4



ROCHESTER EAST OE N
Scale 1:50,000
NAD 83
UTM Zone 18N
Datum: NAD 83
Units: Meters



Essroc Italcementi Group – Rochester Harbor
D/A Processing No. 2012-00183
Monroe County, New York
Quad: Rochester East OE N
Sheet 4 of 4



PROJECT DEPTHS AND SOUNDINGS ARE REFERRED TO LOW WATER DATUM ELEVATION 569.2 FEET ABOVE MEAN WATER LEVEL AT RIMOUSKI, QUEBEC (IGLD85) (INTERNATIONAL GREAT LAKES DATUM 1985)

- 12 INDICATES DEPTHS BELOW LOW WATER DATUM
- 1 MILES ABOVE SANDUSKY PIERHEAD
- 1 LIGHT AT OUTER END OF EAST JETTY
- 6 U.S. ROUTES
- 13 STATE ROUTES

BACKGROUND IMAGERY ARE 'SID' FILES (TILES) OBTAINED FROM THE OHIO GEOGRAPHICALLY REFERENCED INFORMATION PROGRAM:
([HTTP://GIS4.OIT.OHIO.GOV/OSIPTILEDOWNLOADS/DEFAULT.ASPX](http://gis4.oit.ohio.gov/osiPTILEDOWNLOADS/DEFAULT.ASPX))

OPEN LAKE PLACEMENT COORDINATES
NAD83 (DD.DDDDDDDDD)

POINT	LATITUDE	LONGITUDE
NW	43.278583333	77.577733333
NE	43.278566666	77.567983333
SE	43.271366666	77.568016666
SW	43.271366666	77.577783333

ROCHESTER HARBOR



U.S. ARMY ENGINEER DISTRICT BUFFALO
JANUARY 2012

FIGURE 3: ROCHESTER HARBOR OPEN-LAKE DISCHARGE AREA

ATTACHMENT B

Site Management Plan
June 2012



CSXT RIVER STREET DERAILEMENT PROJECT

**SITE MANAGEMENT PLAN
RIVER STREET
ROCHESTER, NEW YORK**

REVISED JUNE 2012

Prepared for:

CSX Transportation, Inc.

500 Water Street, J-275

Jacksonville, FL 32202

Submitted to:

New York State Department of Environmental Conservation

Region 8

6274 East Avon-Lima Road

Avon, New York 14414

Prepared by:

AMEC E & E, PC.

Edison Plaza, 2nd Floor

155 Erie Boulevard

Schenectady, New York 12305

Written/Submitted by:

A handwritten signature in blue ink that reads "Marie T. Dowd".

Marie T. Dowd, PE
Project Manager

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1.0 INTRODUCTION AND BACKGROUND

This Site Management Plan (SMP) was drafted to address the residual impacts in the remaining sediment hot spots within the Genesee River from the December 23, 2001 derailment of a CSXT freight train in Rochester, New York. This document summarizes the site background; describes the historical field activities, the interim remedial measures (IRM), and subsequent monitoring events; and details the proposed institutional controls to address the residual impacts in the remaining sediment hot spots.

This SMP is intended to provide guidance in the management of sediment containing methylene chloride and acetone above the site-specific cleanup levels of 773 ug/kg for acetone and 1,133 ug/kg for methylene chloride that may be disturbed in the unlikely circumstance that the United States Army Corp of Engineers (USACE) dredging limits are revised or if future development activities disturb river sediments within the interim remedial measure (IRM) dredging limits.

The landside investigative and remedial activities are not discussed in this document since evaluation of the effectiveness monitoring results following the remedial actions demonstrate that the soil and groundwater impacts resulting from the 2001 derailment have been fully addressed.

1.1 Site Description

The Site is located on River Street in the City of Rochester, County of Monroe, and State of New York. The derailment occurred along the CSXT railroad tracks adjacent to the Monroe County Public Boat Launch where the tracks make a westward change in direction. The site is located in an area comprised of mixed industrial/commercial properties with residences present to the west and south. The locations of the impacts within the Genesee River were generally located adjacent to the landside spill area extending from the shoreline to the approximate centerline of the river channel. **Figure 1** details the location of the Site.

1.2 Site History

On December 23, 2001 at 3:40 p.m., a CSXT train derailed in Rochester, New York, north of the Latta Road and River Street intersection. The train consisted of 43 cars (including two diesel locomotive engines) traveling north from Kodak Park towards the RG&E Russell Station when the accident occurred. The two engines and 28 additional cars derailed. A majority of the cars contained coal. However, two tank cars contained acetone and one contained methylene chloride. The tank cars derailed slightly northeast of the Tapecon, Inc. (Tapecon) manufacturing facility and approximately 100 feet to 150 feet west of the Genesee River. The area in which the acetone and methylene chloride was spilled is approximately one mile upstream from the mouth of the Genesee River. Approximately 14,000 gallons of acetone,

16,000 gallons of methylene chloride, and 3,000 gallons of diesel fuel were released into the environment.

1.3 Previous Field Activities

1.3.1 Emergency Response Activities

Immediately following the derailment, emergency response activities commenced including fire suppression; diesel, coal, and plastic pellet cleanup; spill delineation and containment; continuous community air monitoring; and river water quality monitoring. For a complete description of the emergency response activities refer to the *River Street Derailment Interim Remedial Measure Report*, Shaw, March 10, 2003.

1.3.2 Sediment Investigation

Ten sampling events, identified chronologically as Phases, were conducted in the Genesee River to determine the extent of impacts to the sediments and monitor COC concentrations. Samples were collected from 79 locations throughout the course of the ten sampling Phases. In total, 370 samples were collected during these events to fully characterize the sediments adjacent to the landside of the derailment Site. Although sampling locations have varied during each sampling event, a number of the sampling locations remained consistent throughout the events to monitor for possible migration or natural attenuation.

For a complete discussion of sediment and surface water monitoring activities please refer to the *River Street Derailment Interim Remedial Measure Report*, Shaw, March 10, 2003; *Remedial Action Selection/Design Report*, AMEC, October, 2 2003 and *Dredging Interim Remedial Measure Summary Report*, AMEC, May 20, 2005.

1.3.3 Interim Remedial Measures

An IRM work plan for impacted sediment was developed and implemented in the summer of 2004. The primary objectives of the IRM were to:

- Protect human health and the environment.
- Remove sediments exceeding the site-specific cleanup levels of 1,133 micrograms per kilogram (ug/kg) for methylene chloride and 773 ug/kg for acetone.
- Minimize chemicals of concern migration caused by resuspension of impacted sediments.
- Remediate the navigational channel to at or below its maintenance dredging limits and to allow for open water or lake bottom disposal of maintenance dredging spoils from subsequent USACE maintenance dredging operations.

The IRM activities included the excavation, dewatering, stabilization and disposal of approximately 3,950 tons of the acetone and methylene chloride impacted sediments. The IRM activities were successful in removing the vast majority of impacted sediment from the river. For

a complete discussion of the dredging IRM activities please refer to the *Dredging Interim Remedial Measure Summary Report*, AMEC, May 20, 2005.

1.3.4 Genesee River Water Quality Monitoring

River water quality monitoring was conducted on a regular basis following the derailment incident. A significant decrease in chemicals of concern (COC), methylene chloride and acetone, concentrations was evident during the first year. Since then the COC detection's have been either non-detect or extremely minimal. Including the last sampling event, completed in April 2005, analytical results for the last five events have been below the sample quantitation limit. This indicates that residual COCs in the sediment are not adversely affecting the water column above them.

2.0 NATURE AND EXTENT OF REMAINING RESIDUALS

A design quantity of 3,000 cubic yards (CY) of sediment was to be removed. Based on disposal certificates, project records indicate that 2,856 CY (3,950 tons) was actually removed. This is 95% of the project goal. As a result, a vast majority of impacted sediments from the bed and bank of the Genesee River were eliminated during the IRM. Factors that made the removal of all impacted sediment infeasible:

- Concerns with the stability of the sheet pile wall and shoreline prevented deeper excavations along the riverbank.
- The density of the deeper sediments within the riverbed made further removal at depth with the environmental clamshell dredge infeasible.
- Methylene chloride is the primary COC and it does not readily bind to sediment.

Based on initial IRM closure sediment sampling, two of the 10 closure sample locations exhibited concentrations that exceeded the site-specific cleanup levels of 773 ug/kg for acetone and 1,133 ug/kg for methylene chloride. Closure samples DC-4 and DC-8 were identified as being above the cleanup levels at 24,000 and 1,900 ug/kg methylene chloride, respectively. DC-4 is located outside the navigational limits and will not be disturbed by current USACE maintenance dredging protocol. Also, DC-4 is at an elevation of 218.3 feet IGLD85 that is only 0.4 feet above the 217.9 feet IGLD85 target and within the specified +/- 0.5 foot construction tolerance. Closure sample DC-8 is located within the channel limits, but at a depth three feet below the USACE dredge elevation (221.3 feet IGLD85). Therefore, the residual methylene chloride contained in the sediment should not be disturbed by current USACE maintenance dredging protocol. Also, DC-8 exhibited a methylene chloride concentration that was within the same order of magnitude as the 1,133 ug/kg site-specific cleanup level.

Due to these two dredging closure sample locations having exhibited residual methylene chloride above the site-specific cleanup level, CSXT implemented additional monitoring in April 2005. Sediment samples were collected from a total of six locations: SS-19A, SS-15, SS-24,

DC-4/SS-90, DC-8/SS-89, and SS-88. Samples DC-4/SS-90, SS-19A and SS-88 were identified as having elevated concentrations of methylene chloride. As stated above, DC-4/SS-90 is outside of the navigational channel limits. Its concentration of 2,400 ug/kg, was also a full order of ten magnitude lower than that detected in the October 2004 closure sample. Although sample SS-19A is within the navigational limits, like DC-8/SS-89, it is located below the USACE dredging limit (221.3 feet IGLD85) at an elevation of 220.7 feet IGLD85. Further, additional dredging in the vicinity of SS-19A is unlikely, as the area of SS-19A must be maintained at a 4H:1V slope to ensure upland stability of the riverbank. The sample collected at the two feet depth interval at SS-88 did not meet the 1,133 ug/kg site-specific cleanup level. However, the upper sample collected at SS-88, 0.5 feet below the sediment surface, met the level. The elevated sample from SS-88 is at an elevation of 217 feet IGLD85 which is 4.3 feet below the USACE maintenance dredge depth of 221.3 feet IGLD85.

Table 1 identifies the sample identification numbers and the corresponding historical analytical results of the locations that exhibited exceedances during the post dredging April 2005 monitoring event. **Figure 2** illustrates the locations of the exceedances and the Riverside Site Residual Boundary.

TABLE 1
Residual Methylene Chloride Analytical Results

Sample ID	June '04	October '04	April '05
SS-19A	10,000,000 E	NA	12,000,000
SS-88 – 2'	NA	8 U	52,000
DC-4/SS-90	NA	24,000	2,400

Methylene chloride cleanup criteria approved by the NYSDEC and the is 1,133 ug/kg

E – Identifies the compound exceeded the instrument's calibration range

U- Compound was analyzed for but not detected

NA – Not Applicable

All units are in ug/kg (ppb)

All concentrations are from the top 1' of sediment (except as noted).

3.0 SEDIMENT MANAGEMENT PLAN

The dredging IRM removed the impacted sediments to the extent feasible, and in doing so, removed the vast majority of the impacted sediments. The residuals are limited in nature to hot spots within the Riverside Site Residual Boundary depicted in **Figure 2**. Moreover, the IRM was completed in such a manner that future activities conducted in the river should not be adversely affected by the residuals from the 2001 CSXT derailment. The remaining methylene chloride is not expected to be resuspended during USACE maintenance dredging activities (because the sediments are below the specified dredge depth of 221.3' IGLD85) and is not of sufficient quantity to be detectable in the Genesee River water column as demonstrated by the analytical results. However, if the USACE dredging limits are revised or if future development activities

disturb river sediments within the Riverside Site Residual Boundary, management of the sediment containing residual methylene chloride impacts will be required.

3.1 Notification

If development, maintenance dredging, or any other type of work is planned within the Riverside Site Residual Boundary identified on **Figure 2** which has the potential to disturb sediment, then it is necessary to contact Bill Parry, CSXT, Manager Environmental Remediation at 1-518-767-6049.

3.2 Project Plan Review

CSXT or its representative will be supplied in full, final copies of the design plans, maintenance activities, etc. CSXT will, in a timely manner, review the project documents, to determine whether the potential of the work might disturb the residual sediment impacts.

3.3 Determination of Potential of Residual Disturbance

Based on the review of the project documents, CSXT will execute one of the following three courses of action:

1. Draft a letter to the applicable party and regulatory agencies indicating that their intended project plans were carefully reviewed and the proposed actions will not disturb the identified residual impacts.
2. Draft a letter to the applicable party and regulatory agencies indicating that their intended project plans have the potential to disturb the identified residual impacts. In addition, CSXT will promptly implement a sampling program within the area of potentially disturbed sediments to ascertain whether any residual impacts in excess of the site-specific cleanup levels remain. Included within that sampling program will be an appropriate background study, including at least one sample taken up-river of the Riverside Site Residual Boundary in order to ascertain whether background conditions have changed since the implementation of the dredging IRM. If the sampling indicates the potential for disturbing sediments containing residual impacts in excess of the site-specific cleanup levels, CSXT will also provide for a representative to be on-site during the course of the work that may disturb the residual impacts. If the activities are concluded to be within a close proximity to the residual location, CSXT will provide labor and materials or cover the costs incurred with respect to the residually impacted sediment and any associated water by the applicable party to properly handle, segregate, stage, sample, analyze, and dispose (if impacted with methylene chloride or acetone in excess of the site-specific cleanup levels) of the impacted sediment and associated water.
3. Draft a letter to the applicable party and regulatory agencies indicating that their intended plans will likely disturb the location where sediments with residual impacts have been

previously identified. CSXT will also characterize the area of disturbance in close proximity to the identified residual sediment impacts prior to the work to verify the presence or absence of residuals. CSXT will promptly implement a sampling program within the area of potentially disturbed sediments to ascertain whether any residual impacts in excess of the site-specific cleanup levels remain. Included within that sampling program will be an appropriate background study, including at least one sample taken up-river of the Riverside Site Residual Boundary in order to ascertain whether background conditions have changed since the implementation of the dredging IRM. If the sampling indicates the potential for disturbing sediments containing residual impacts in excess of the site-specific cleanup levels, CSXT will also provide for a representative to be on-site. CSXT will work closely with the applicable party, regulators, subcontracts, etc. to ensure proper plans, notifications, permits, health and safety measures, decontamination procedures, and monitoring (air, water, etc.) are in place prior to the initiation of the work as a result of the disturbance of the residuals. If necessary, CSXT will provide labor and materials or cover the costs incurred by the applicable party to: prepare and implement work plans; notifications and permits; additional health and safety measures; conduct monitoring (air, water, etc.); properly handle, segregate, stage, sample, analyze, and dispose of the impacted sediment and associated water.

4.0 CONTACT INFORMATION

Key contacts that have been involved with the CSXT-River Street Derailment Project are provided below. The list includes the CSXT Manager Environmental Remediation, CSXT's engineering consultant (AMEC E & E, PC), CSXT's internal and local legal counsel (Hiscock Barclay, LLC), NYS regulators, Monroe County officials, City of Rochester engineer's and lawyers, and the USACE representative.

COMPANY	NAME	TITLE	PHONE	E-MAIL
CSXT.	William Parry	Manager Environmental Remediation	518.767.6049	william_parry@csx.com
CSXT	Jeff Styron	Counsel Environmental	904.366.4058	jeff_styron@csx.com
AMEC	Marie Dowd	Project Manager	518.372.0905	marie.dowd@amec.com
Hiscock Barclay	Tom Walsh	Outside Counsel	585.295.4414	twalsh@hblaw.com
NYSDEC	Frank Sowers	Project Manager	585.226.5357	flsowers@gw.dec.state.ny.us
NYSDOH	Krista Anders	Public Health Specialist	716.847.4385	
MCDOH	Jeff Kosmala	Senior Public Health Engineer	585.753.5904	jkosmala@monroecounty.gov
City of Rochester	Donald Crumb	Municipal Attorney	585.428.6775	crumbd@cityofrochester.gov



COMPANY	NAME	TITLE	PHONE	E-MAIL
City of Rochester	Joe Biondolillo	Project Manager	585.428.6649	biondj@cityofrochester.gov
USACE	Steve Metivier	Chief	716.879.4314	steven.v.metivier@usace.army.mil



CSX

Public Safety
& Environment

SITE LOCATION MAP

Site Management Plan
CSXT - River Street Derailment Site
490 River Street
Rochester, NY

FIGURE # 1

Monroe County

New York



LEGEND

CSXT Rail

NOTES & SOURCES

Aerial Imagery Source: ESRI.
Projection: NAD 83 UTM Zone 18N

0200

Feet

N

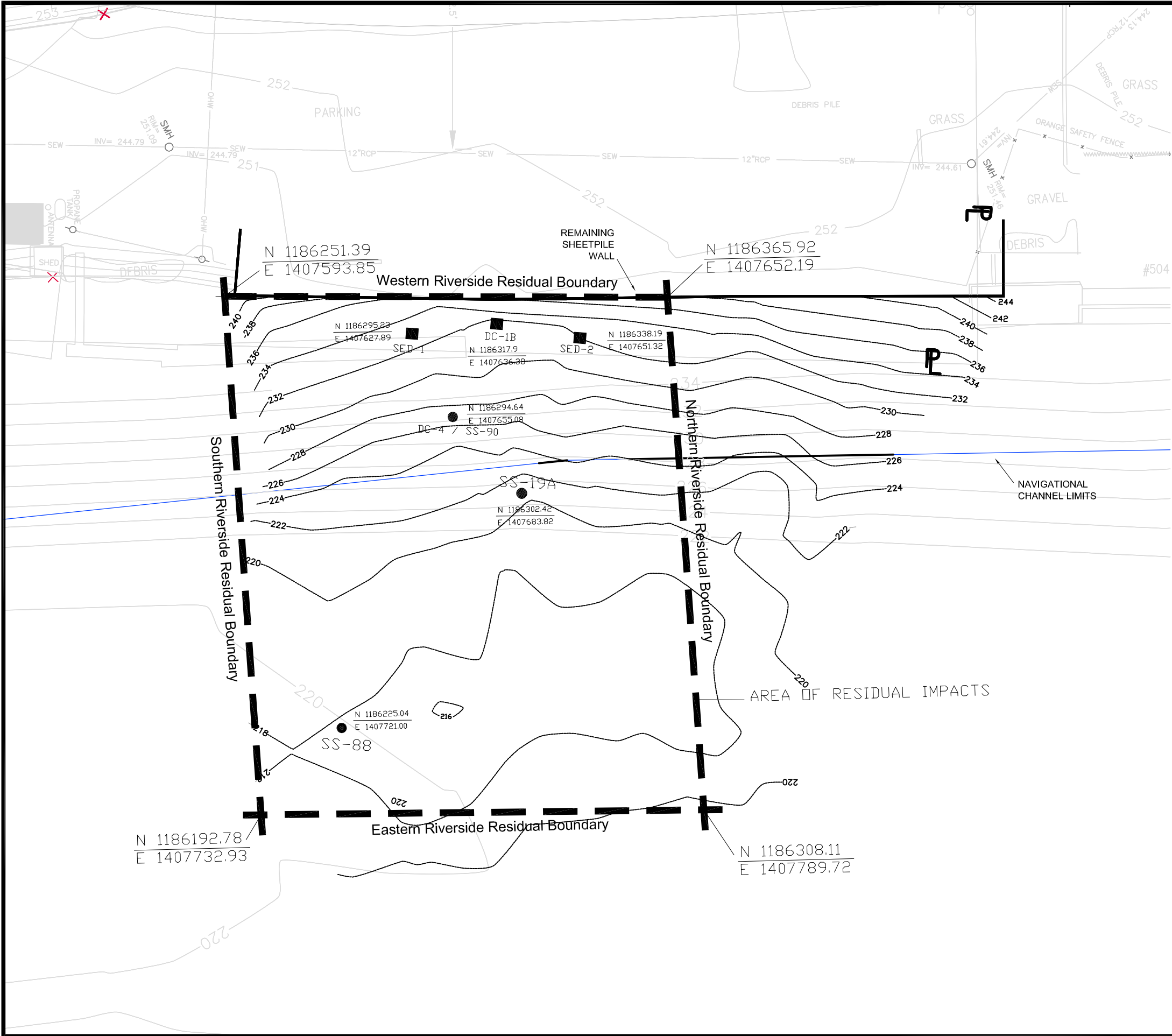
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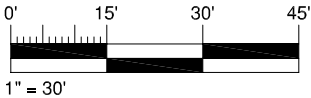
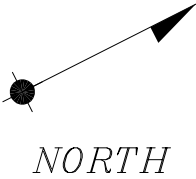
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amec

AMEC Earth & Environmental, Inc.
2 Robbins Road
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(978) 692-9090



- LEGEND:**
- POST-DREDGING RIVER BOTTOM CONTOUR
 - CSXT SEDIMENT SAMPLE LOCATION CONTAINING RESIDUAL METHYLENE CHLORIDE CONCENTRATIONS
 - CITY SEDIMENT SAMPLE LOCATION CONTAINING RESIDUAL METHYLENE CHLORIDE CONCENTRATIONS
 - BOUNDARY OF RESIDUAL IMPACTS
- NOTES:**
- BATHYMETRIC SURVEY SERVICES WERE PROVIDED BY THEW ASSOCIATES, CANTON, NY TO DOCUMENT AS-BUILT CONDITIONS.
 - THE EXISTING SHEET PILE WALL WAS LEFT IN PLACE AND CUT FLUSH WITH THE RIVER BED.
 - ORIGINAL BASE MAP PROVIDED BY LABELLA ASSOCIATES, PC, ROCHESTER, NY
 - RESIDUAL IS DEFINED IN THIS DRAWING AS: A SAMPLE LOCATION CONTAINING METHYLENE CHOLIDE CONCENTRATIONS GREATER THAN THE ESTABLISHED SCGs. SAMPLES WERE COLLECTED DURING THE POST DREDGING SAMPLING EVENT (APRIL 2005).



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CLIENT:
**CSX
TRANSPORTATION**



PROJECT:
**SITE MANAGEMENT PLAN,
CSXT - RIVER STREET
DETAILMENT SITE
ROCHESTER, NY**

REV	DATE	DESCRIPTION
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ISSUE / REVISION:	
DESIGNED BY: M. DOWD	DRAWN BY: M. YAU
CHECKED BY: M. DOWD	DATE: 2010-06-14
SCALE: AS SHOWN	ISSUE / REVISION: 0
DISCIPLINE LEAD: M. DOWD	PROJECT MANAGER: M. DOWD

PROJECT ENGINEER: M. DOWD
PROJECT NUMBER: DESIGNED BY:

TITLE: **FIGURE 2
RIVERSIDE SITE RESIDUAL BOUNDARY MAP**