Periodic Review Report

441 Ohio Street Site (BCP Site No. C915285) Buffalo, New York

August 2018

0292-018-001

Prepared For:

441 Ohio Street LLC

Prepared By:



PERIODIC REVIEW REPORT

441 OHIO STREET SITE (BCP SITE No. C915285)

BUFFALO, NEW YORK

August 2018 0292-018-001

Prepared for:

441 OHIO STREET, LLC

Prepared By:



Benchmark Environmental Engineering & Science, PLLC 2558 Hamburg Turnpike, Suite 300 Buffalo, NY 14218 (716)856-0599

PERIODIC REVIEW REPORT

441 Ohio Street Site (C915285)

Table of Contents

1.0	INTRODU	JCTION	1
	1.1 Site	Background	1
		nedial History	
	1.3 Com	npliance	2
		ommendations	
2.0	SITE OVE	ERVIEW	3
3.0	REMEDY	PERFORMANCE	4
4.0	SITE MAN	NAGEMENT PLAN	5
		itutional and Engineering Control (IC/EC) Plan	
	4.1.1		5
	4.1.2	? Institutional Controls	
	4.2 Ann	ual Inspection and Certification Program	5
		er System – Surface Modifications	
	4.3.1	1 Imported Materials	
5.0	Conclus	SIONS AND RECOMMENDATIONS	8
6.0	DECLARA	ATION/LIMITATION	9
7.0	REFEREN	NCES	10



PERIODIC REVIEW REPORT

441 Ohio Street Site (C915285)

Table of Contents

FIGURES

Figure 1 Site Location and Vicinity Map

Figure 2 Site Plan

APPENDICIES

Appendix A Institutional & Engineering Controls Certification Form

Appendix B Photographic Log



1.0 Introduction

Benchmark Environmental Engineering and Science, PLLC (Benchmark) has prepared this Periodic Review Report (PRR), on behalf of 441 Ohio Street, LLC, to summarize the post-remedial status of New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) 441 Ohio Street (C915285).

This PRR has been prepared in accordance with the NYSDEC DER-10 *Technical Guidance for Site Investigation and Remediation* (May 2010) and the NYSDEC's Institutional and Engineering Controls (IC/EC) Certification Form has been prepared for the Site. This PRR and the associated IC/EC Form (see Appendix A) have been completed for the post-remedial period from March 30, 2017 to August 30, 2018.

1.1 Site Background

The BCP Site is located at 441 Ohio Street (aka 9 South Street), in the City of Buffalo, Erie County, New York (see Figures 1 and 2).

The 1.8 acre BCP Site is bounded by South Street to the north, roadway access and parking lot area to the south, parking lot with Ohio Street beyond to the east, and the Buffalo River to the west (see Figures 1 and 2).

The site was historically used for warehousing purposes. The previous warehouse building was constructed in 1892 and condemned in 2011. Previous site occupants historically included Erie Railroad Flour Warehouse, Erie Railroad Exchange – Lake and Transfer Warehouse, Great Lakes Paper Stock, Inc., Seaboard Great Lakes, Buffalo Waterfront Corp., and Erie Railroad Corp.

1.2 Remedial History

441 Ohio Street, LLC entered into a Brownfield Cleanup Agreement (BCA) on April 30, 2014 with the NYSDEC to investigate and remediate the Site. 441 Ohio Street, LLC completed the investigation and remediation of the Site under the supervision of the NYSDEC and NYSDOH. The Remedial Investigation (RI) was performed between February 2015 and July 2016, and remedial activities were completed in January 2017.

The remedial program was successful in achieving the remedial objectives for the Site, and the Site Management Plan (SMP) and Final Engineering Report (FER) were

1



B0292-018-001

approved by the Department. The NYSDEC issued the Certificate of Completion (COC) for the Site on March 30, 2017.

1.3 Compliance

At the time of the Site inspection, the Site was compliant with the NYSDEC-approved Site Management Plan (SMP).

1.4 Recommendations

Based on the results of the site inspection and certification, Benchmark makes the following recommendations:

• Modification of the annual certification reporting requirement from annual to triennial (every three years).

Beyond those changes described above, no modifications to the current SMP are recommended at this time.



2.0 SITE OVERVIEW

Previous environmental investigations completed at the Site identified contamination from past uses of the Site that required remediation. 441 Ohio Street, LLC entered into the BCP to further investigate and remediate the Site for future redevelopment. The remedial activities were completed between February 2016 and January 2017, including:

- Excavation and off-site disposal of impacted soil/fill and historic railroad ties.
- Construction and maintenance of a cover system consisting of the new building, pavement (asphalt and concrete), and soil cover in all other areas at a minimum of two-feet-thick over the demarcation layer, to prevent human exposure to remaining contaminated soil/fill remaining at the Site.

The Site Management Plan (SMP) and Final Engineering Report (FER) were approved in March 2017. The Certificate of Completion (COC) was issued for the Site on March 30, 2017.



3.0 REMEDY PERFORMANCE

The site inspection completed during the current reporting period indicates that the controls are in-place and functioning as intended in accordance with the SMP. Details related to work completed during the reporting period are provided below.

The completed IC/EC Certification forms and site photographs are included in Appendices A and B, respectively.



4.0 SITE MANAGEMENT PLAN

A SMP was prepared and approved by the Department in March 2017. The SMP provides a detailed description of all procedures required, including: (1) implementation and management of all Institutional and Engineering Controls; and (2) performance of periodic inspections, certification of results, and submittal of Periodic Review Reports.

A brief description of the SMP components is presented below.

4.1 Institutional and Engineering Control (IC/EC) Plan

As detailed in the SMP, several Engineering and Institutional Controls (EC/ICs) need to be maintained as a requirement of the BCA for the Site.

4.1.1 Engineering Controls

 Cover System – The cover system is being maintained in compliance with the SMP.

4.1.2 Institutional Controls

- Groundwater-Use Restriction the use of groundwater for potable and nonpotable purposes is prohibited without additional treatment;
- Land-Use Restriction: The controlled property may be used for restricted residential, commercial and industrial use; and,
- Implementation of the SMP.

4.2 Annual Inspection and Certification Program

The Annual Inspection and Certification Program outlines requirements for certifying and attesting that the institutional controls and engineering controls employed on the Site are unchanged from the original design and/or previous certification. The Annual Certification includes a Site Inspection and completion of the NYSDEC's IC/EC Certification Form. The Site inspection is intended to verify that the IC/ECs:

• Are in place and effective.



- Are performing as designed.
- That nothing has occurred that would impair the ability of the controls to protect the public health and environment.
- That nothing has occurred that would constitute a violation or failure to comply with any operation and maintenance plan for such controls.
- Access is available to the Site to evaluate continued maintenance of such controls.

Inspection of the Site was conducted by benchmark on August 3, 2018. At the time of the inspection, the Site was being used as a residential apartment building, with surface parking, concrete sidewalks, and landscaped areas. No observable indication of intrusive activities was noted during the Site inspection, and no observable use of groundwater was noted during the Site inspection.

The completed Site Management Periodic Review Report Notice – Institutional and Engineering Controls Certification Form is included in Appendix A. A photographic log of the August 2018 Site inspection is included in Appendix B.

4.3 Cover System – Surface Modifications

During this reporting period, modification of the cover system was completed. As previously noticed to the Department, modification was primarily limited to completion of redevelopment design elements, including concrete patio along the western side of the building, and landscape plantings that were previously unable to be completed due to seasonal weather limitation. It should be noted that there was no disturbance beneath the demarcation layer as part of the surface cover modification.

Between June and October 2017, 441 Ohio Street, LLC completed planned landscaping and construction of concrete patio. Benchmark completed routine site inspections of the cover system modifications throughout the process.

Details of the concrete patio (designed by other) were previously provided to the Department. Photo documentation of the surface modification are provided in the photolog (see Appendix B). Revised cover system drawings and details are attached.



4.3.1 Imported Materials

During the reporting period, the following materials were imported to the Site.

<u>Topsoil</u> – Approximately 200 cubic yards of DEC approved topsoil was brought to the Site from Rammer Nursery located on Genesee Street, Lancaster NY. The topsoil was analyzed in accordance with the SMP and DER-10 requirements. The Request to Import Soil was submitted to the DEC Project Manager for review and approved on May 24, 2017.



5.0 CONCLUSIONS AND RECOMMENDATIONS

Conclusions and recommendations are as follows:

• At the time of the site inspection, the Site was compliant with engineering and institutional control requirements.

The following modifications are recommended for the Site.

• Modification of the annual certification reporting requirement from annual to triennial (every three years).



6.0 DECLARATION/LIMITATION

Benchmark Environmental Engineering and Science, PLLC personnel conducted the annual site inspection for BCP Site No. C915285, located in Buffalo, New York, according to generally accepted practices. This report complied with the scope of work provided to 441 Ohio Street, LLC by Benchmark Environmental Engineering & Science, PLLC.

This report has been prepared for the exclusive use of 441 Ohio Street, LLC. The contents of this report are limited to information available at the time of the site inspection. The findings herein may be relied upon only at the discretion of 441 Ohio Street, LLC. Use of or reliance upon this report or its findings by any other person or entity is prohibited without written permission of Benchmark Environmental Engineering and Science, PLLC.



7.0 REFERENCES

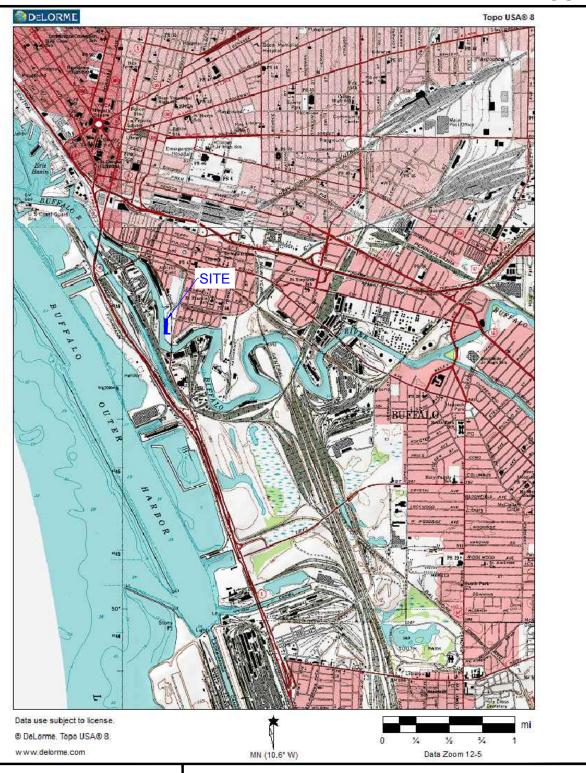
- 1. New York State Department of Environmental Conservation. DER-10; Technical Guidance for Site Investigation and Remediation. May 2010.
- 2. Site Management Plan, 441 Ohio Street Site, BCP Site No. C915285, Buffalo, New York, dated March 2017, prepared by Benchmark Environmental Engineering and Science, PLLC.
- 3. Final Engineering Report, 441 Ohio Street Site, BCP Site No. C915285, Buffalo, New York, dated March 2017, prepared by Benchmark Environmental Engineering and Science, PLLC.



FIGURES



FIGURE 1





2558 HAMBURG TURNPIKE SUITE 300 BUFFALO, NY 14218 (716) 856-0599

PROJECT NO.: 0292-018-001

DATE: AUGUST 2018

DRAFTED BY: CMC

SITE LOCATION AND VICINITY MAP

PERIODIC REVIEW REPORT

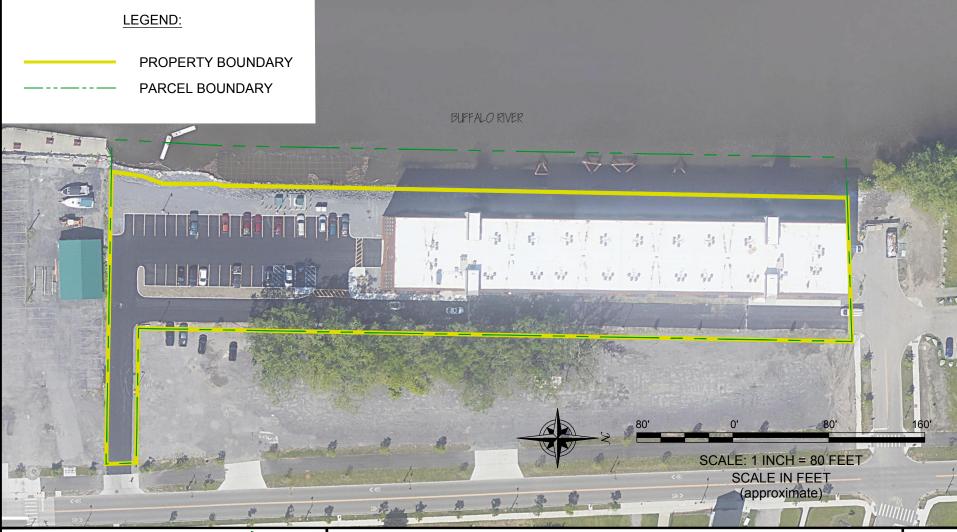
441 OHIO STREET SITE BCP SITE NO. C915285 BUFFALO, NEW YORK

PREPARED FOR

441 OHIO STREET, LLC

DISCLAIMER

PROPERTY OF BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC. IMPORTANT: THIS DRAWING PRINT IS LOANED FOR MUTUAL ASSISTANCE AND AS SUCH IS SUBJECT TO RECALL AT ANY TIME. INFORMATION CONTAINED HEREON IS NOT TO BE DISCLOSED OR REPRODUCED IN ANY FORM FOR THE BENEFIT OF PARTIES OTHER THAN NECESSARY SUBCONTRACTORS & SUPPLIERS WITHOUT THE WRITTEN CONSENT OF BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC.





TURNKEY

ENVIRONMENTAL
RESTORATION, LLC

2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218, (716) 856-0599

PROJECT NO.: 0292-018-001

DATE: AUGUST 2018

DRAFTED BY: CMC

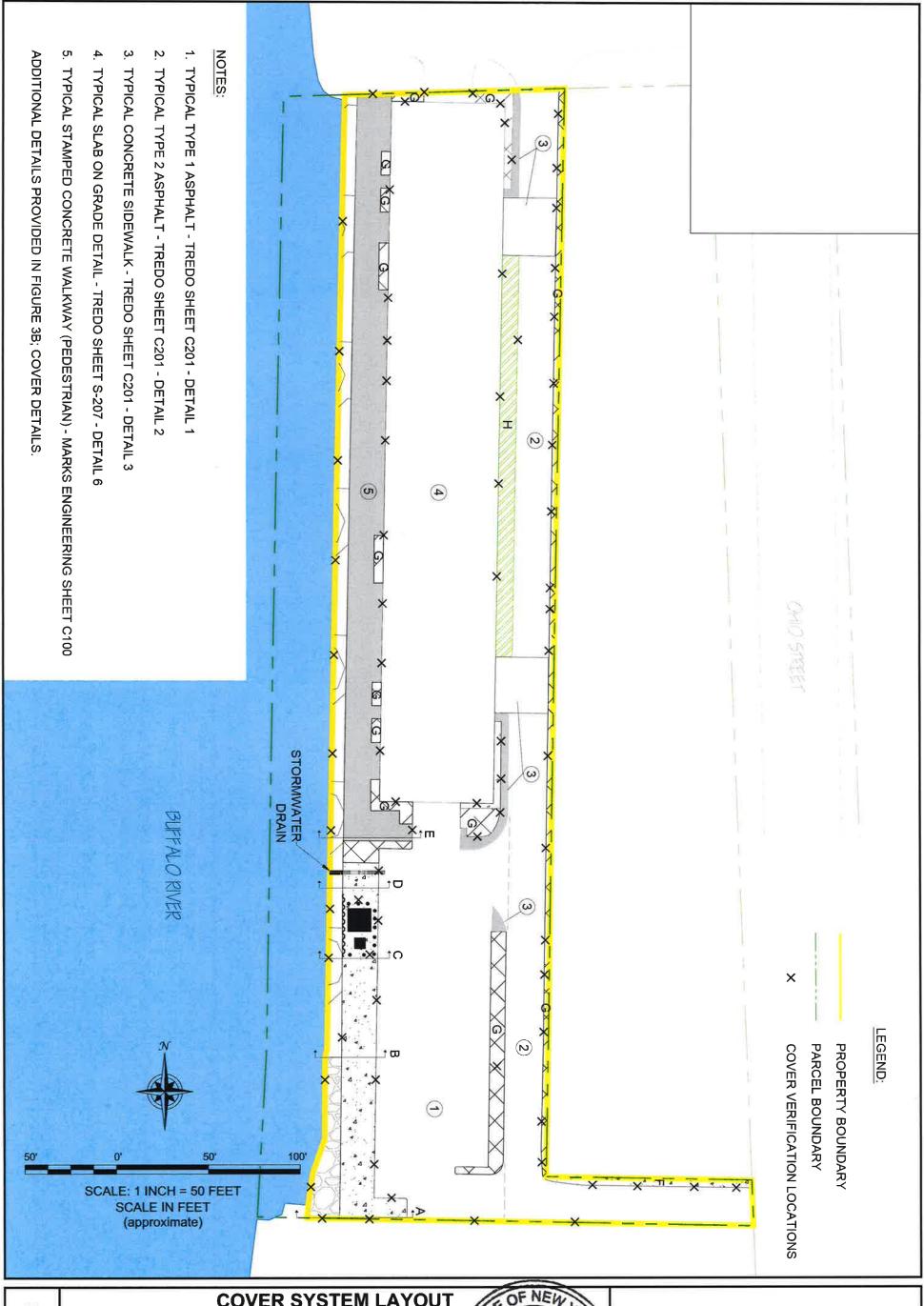
SITE PLAN (AERIAL)

PERIODIC REVIEW REPORT

441 OHIO STREET SITE BCP SITE NO. C915285 BUFFALO, NEW YORK PREPARED FOR

441 OHIO STREET, LLC

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GURE

COVER SYSTEM LAYOUT (RECORD DRAWING)

PERIODIC REVIEW REPORT

441 OHIO STREET SITE BCP SITE NO. C915285 **BUFFALO, NEW YORK** PREPARED FOR



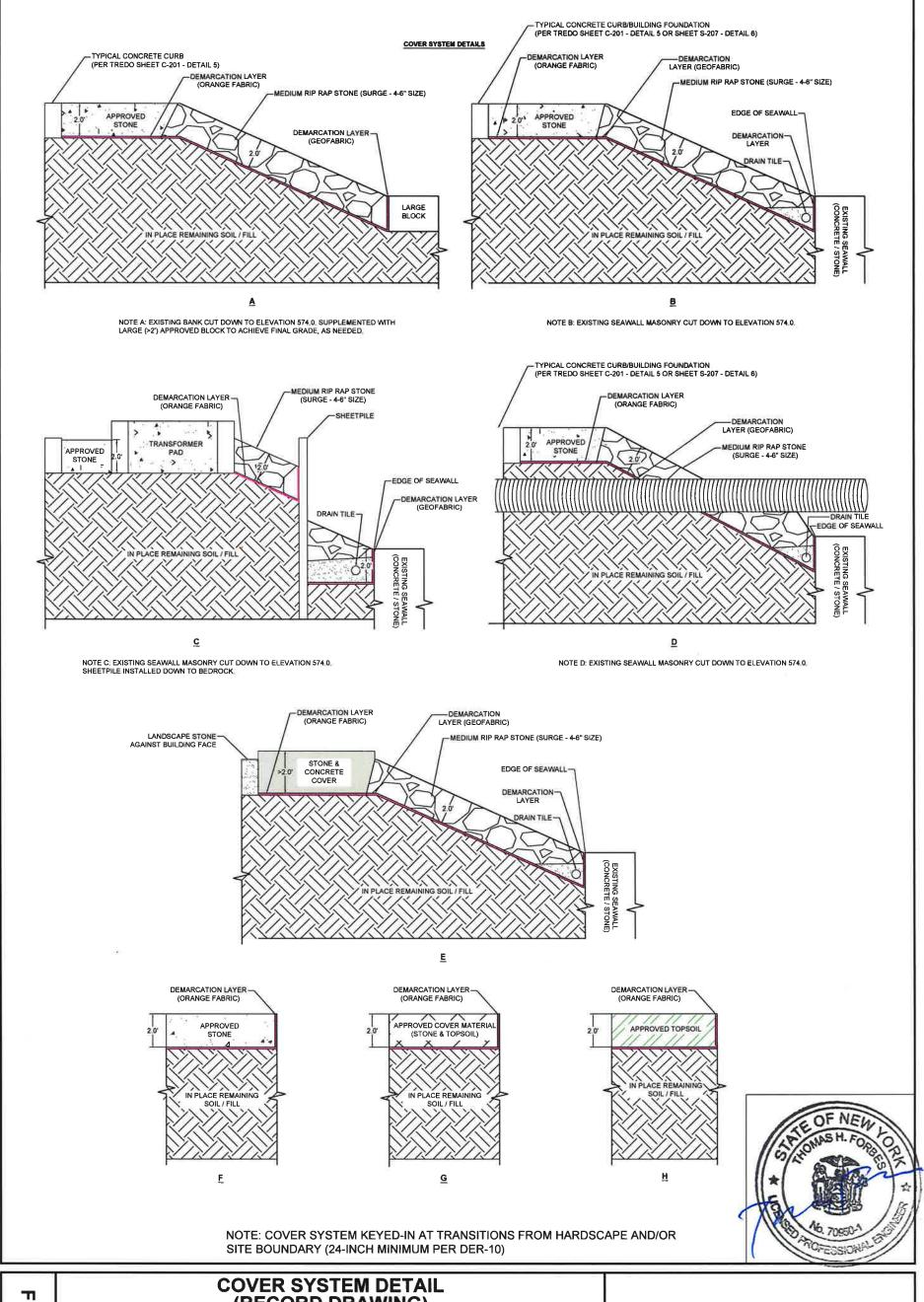


SUTTE 300 BUFFALO, NY 14218 (716) 856-0599

JOB NO.: B0292-018-001

441 OHIO STREET, LLC

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GURE \Box

COVER SYSTEM DETAIL (RECORD DRAWING)

PERIODIC REVIEW REPORT

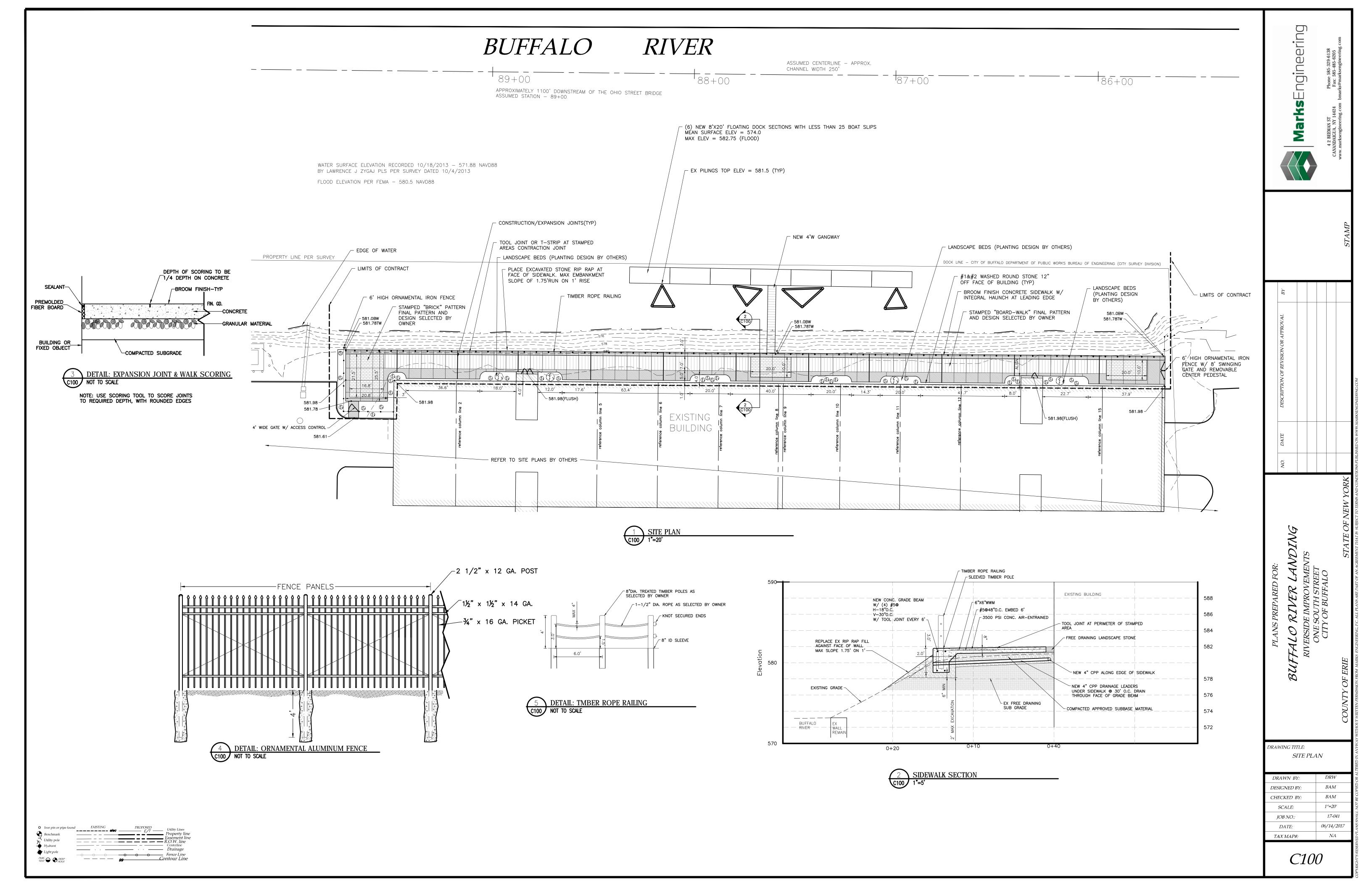
441 OHIO STREET SITE BCP SITE NO. C915285 **BUFFALO, NEW YORK** PREPARED FOR

441 OHIO STREET, LLC



2558 HAMBURG TURNPIKE SUITE 300 BUFFALO, NY 14218 (716) 856-0599

JOB NO.: B0292-018-001



APPENDIX A

INSTITUTIONAL & ENGINEERING CONTROLS CERTIFICATION FORM





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



Site	No	C915285	Site Details		Box 1		
Site	Name 441	Ohio Street Site					
City/ Cour	Address: 9 Town: Buf nty:Erie Acreage: 1		Zip Code: 14203	-			
Répo	orting Perio	ed: March 30, 2017 to	July 30, 2018				
					YES	NO	
1. 1:	s the inforn	nation above correct			√		
11	f NO, includ	de handwritten above	or on a separate sheet.				
		or all of the site proper endment during this	rty been sold, subdivided, merge Reporting Period?	ed, or undergone a		\checkmark	
		een any change of u RR 375-1.11(d))?	se at the site during this Reportin	ng Period		\checkmark	
		ederal, state, and/or l property during this	ocal permits (e.g., building, disch Reporting Period?	narge) been issued		\checkmark	
			ons 2 thru 4, include documen previously submitted with this				
5. Is	s the site c	urrently undergoing o	evelopment?			\checkmark	
	-						
					Box 2		
		And the property	and the second s	entropy of the second s	YES	NO	
		nt site use consistent Residential, Commerc	with the use(s) listed below? ial, and Industrial		\checkmark		
7. A	re all ICs/E	ECs in place and fund	tioning as designed?		\checkmark		
			ER QUESTION 6 OR 7 IS NO, sig THE REST OF THIS FORM. Oth		nd		
A Coi	rrective Me	easures Work Plan m	ust be submitted along with this	s form to address th	ese issı	ies.	
Signa	ture of Own	ner, Remedial Party or	Designated Representative	 Date			

		· · · · · · · · · · · · · · · · · · ·	
	,		Box 2A
	nation revealed that assumption ling offsite contamination are no	ns made in the Qualitative Exposure o longer valid?	YES NO
	ES to question 8, include doo on has been previously submi	cumentation or evidence itted with this certification form.	
	is in the Qualitative Exposure A posure Assessment must be ce		
	O to question 9, the Periodic re Exposure Assessment bas	Review Report must include an ed on the new assumptions.	
SITE NO. C915285			Box 3
Description of Insti	tutional Controls		
<u>Parcel</u>	<u>Owner</u>	Institutional Contro	<u>l</u>
122.14-1-1	441 Ohio Street, LLC	O M Dien	
		O&M Plan Ground Water Use Soil Management F Landuse Restriction Site Management F IC/EC Plan	Plan n
an environmental easemeEnvironmental Easem	nt and a site management plan ent		position of a
o requires the remedial properties of certification of institutional or allows the use and defindustrial uses as defined or restricts the use of group quality treatment as determined to the certification of the certific	and engineering controls in acc velopment of the controlled prop by Part 375-1.8(g), although lar	and submit to the Department a perior cordance with Part 375-1.8 (h)(3); perty for restricted residential, commend and use is subject to local zoning laws; e or process water, without necessary ty DOH; and	rcial and
o an Institutional and En for the site and details the institutional and/or engined Institutional Controls: (ICs	which includes the following: gineering Control Plan that ider steps and media-specific requir ering controls remain in place ar) discussed in Paragraph 5. cussed in engineering control d		
		anagement of future excavations in ar	eas of
	visions of the environmental ea	sement including any land use and gro	oundwater
provisions for the manmaintaining site acces	s controls and Department notif	identified engineering controls Paragra fication; and fication of the institutional and/or engir	
•		 	Box 4
			'
Description of Engir	neering Controls		

Parcel 122,14-1-1

Engineering Control

Cover System

1. SITE COVER

A site cover was installed to allow for restricted residential use of the site. The cover consists either of the structures such as buildings and improvements such as pavement, sidewalks comprising the site development or a soil cover in areas where the upper two feet of exposed surface soil exceeds the applicable soil cleanup objectives (SCOs). Where the soil cover was installed, it consists of a minimum of two feet of soil placed over a demarcation layer, with the upper six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d).

2. RETAINING WALL AND RIVER EMBANKMENT

The site remediation involved partial reuse of the existing former building foundation wall along the river as an integral part of the final remedy to structurally support and separate remaining contaminated material from the Buffalo River. Reuse of the former foundation wall involved partial removal of the wall, sloping back the embankment, and stabilizing the embankment with rock armor and soil cover.

For the segment of the riverbank previously covered with concrete rubble armored embankment, the concrete rubble was removed, the embankment was sloped back to a more stable slope configuration, and stabilizing the embankment with rock armor.

	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 compete.
	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. C915285

Box 6 .

SITE OWNER OR DESI I certify that all information and statemen statement made herein is punishable as Penal Law.		e. I understand that a false
Samuel Savarino	_{at} 500 Seneca Street, I	Buffalo New York
print name	print business ac	ldress
am certifying as Owner Repre	sentative	(Owner or Remedial Party)
for the Site named in the Site Details Sec Signature of Owner, Remedial Party, or I Rendering Certification		9/14/18 Date

IC/EC CERTIFICATIONS Site No. C915285

Professional Engineer Signature

Box 7

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.

Thomas H. Forbes Be	nchmark Environmental Engineering &	Science, PLLC
print name	print business address	
m certifying as a Professional Engineer for th	e	
ū.	Owner or Remedial	Party)
	SE OF NEW L	
	Sixon Solar	
	NET WELL ST	
1 postes	10, 705 34 36 9	7-27-18
gnature of Professional Engineer, for the Ow		Date
emedial Party, Rendering Certification	(Required for PE)	

APPENDIX B

PHOTOGRAPHIC LOG



Photo 1:

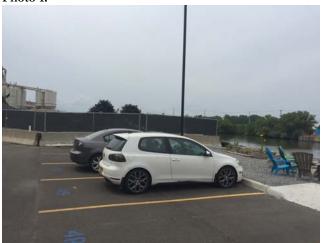


Photo 2:



Photo 3:



Photo 4:



- Photo 1: Inaccessible portion of the site due to jersey barriers and fencing for Buffalo River Project.
- Photo 2: Parking lot (looking north).
- Photo 3: Parking lot and parking lot island with landscaping (looking north).
- Photo 4: Concrete walkway and landscaping along the southwest corner of the on-site building (looking northwest).

Photo 5:

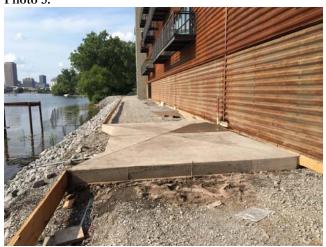


Photo 6:

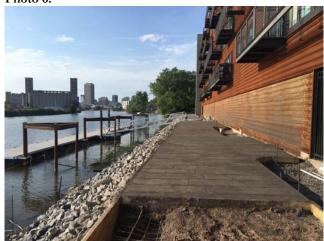


Photo 7:



Photo 8:



- Photo 5: Concrete dock launch pad construction along the western portion of the Site (looking north).
- Photo 6: Stamped concrete construction along the western portion of the Site (looking north).
- Photo 7: Stamped concrete, landscape bed, and stone drainage cover at southwest corner of building (looking northeast).
- Photo 8: New concrete boardwalk along the western side of the on-site building (looking north).

Photo 9:



Photo 11:



Photo 10:



Photo 12:



Photo 9: New concrete boardwalk along the western side of the property with greenspace areas (looking south).

- Photo 10: New concrete boardwalk and rip-rap stone cover along the western portion of the site (looking south).
- Photo 11: Stone and greenspace cover north of the on-site building (looking east).
- Photo 12: Stone and landscape cover north of the on-site building (looking east).

Photo 13:



Photo 15:



Photo 14:



Photo 16:



Photo 13: Landscape cover along eastern side of the on-site building (looking south).

- Photo 14: Asphalt driveway and landscape cover along the eastern side of the building (looking south).
- Photo 15: Asphalt and landscape cover along the eastern side of the building (looking south).
- Photo 16: Landscape and concrete cover at southeast corner of the building (looking east).