

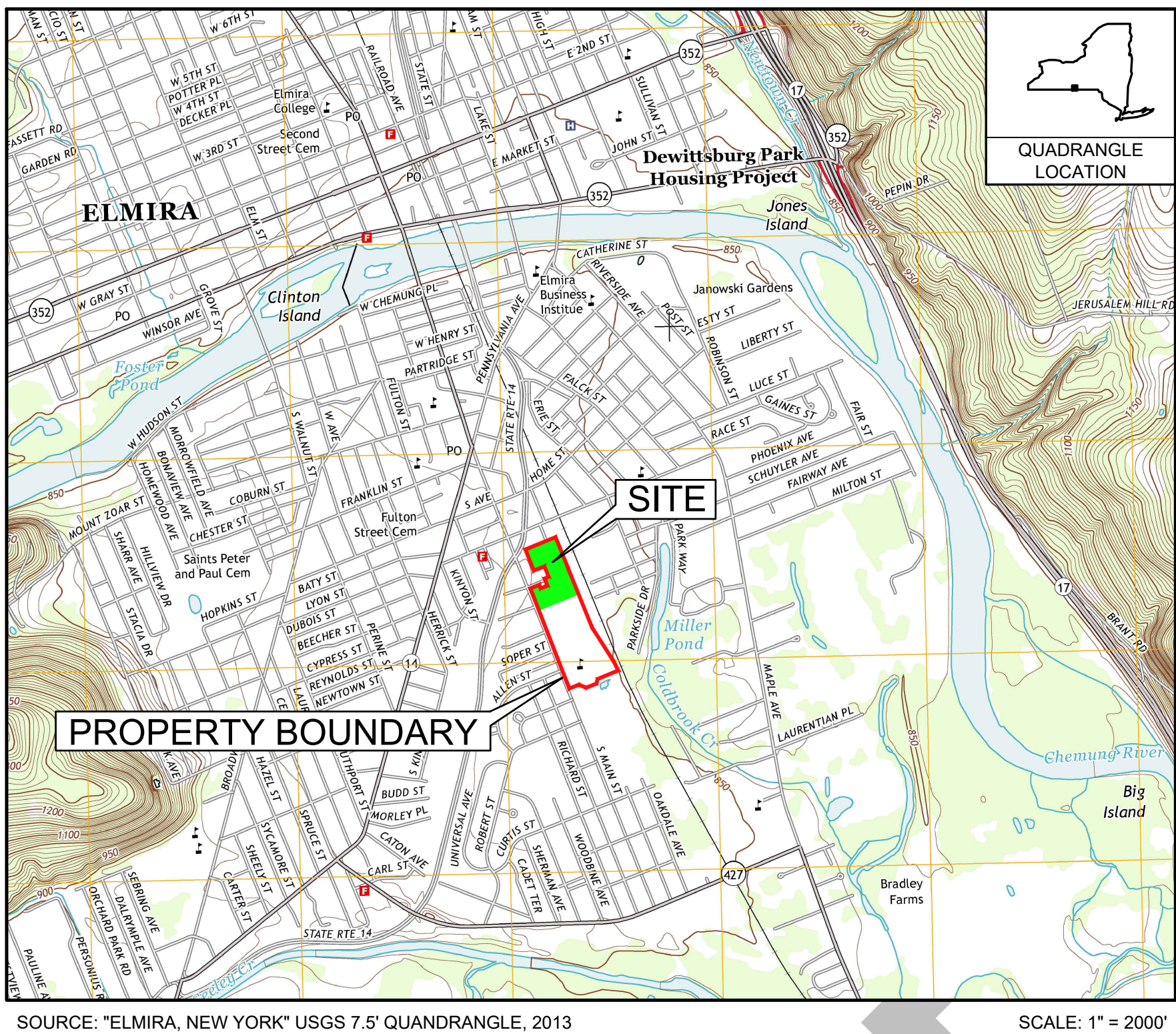
DRAFT

Appendix N

Technical Impracticabilty Structures

NORTHERN ATHLETIC FIELDS INTERIM REMEDIAL MEASURE

AS-BUILT DRAWINGS FORMER SPERRY-REMINGTON SITE - NORTH PORTION ELMIRA, NEW YORK JANUARY 2025



LOCATION MAP

Drawing List Table		Drawing List Table	
Drawing No.	Drawing Title	Drawing No.	Drawing Title
1	COVER SHEET	20A-20J	PCBS LEFT IN PLACE, 0-20 FEET BELOW FINAL GRADE - SHOT AND DISCUS
2	PROJECT OVERVIEW	21A-21J	METALS LEFT IN PLACE, 0-20 FEET BELOW FINAL GRADE - SHOT AND DISCUS
3A-3D	AS-BUILT SUB-GRADE FOR IRM #5A2	22A-22J	SVOCS LEFT IN PLACE, 0-20 FEET BELOW FINAL GRADE - SHOT AND DISCUS
4A-4C	AS-BUILT SUB-GRADE FOR ISMP	23A-23J	VOCS LEFT IN PLACE, 0-20 FEET BELOW FINAL GRADE - SHOT AND DISCUS
5A-5J	PCBS LEFT IN PLACE, 0-20 FEET BELOW FINAL GRADE - NORTHERN PRACTICE FIELD	24A-24J	PFAS LEFT IN PLACE, 0-20 FEET BELOW FINAL GRADE - SHOT AND DISCUS
6A-6J	METALS LEFT IN PLACE, 0-20 FEET BELOW FINAL GRADE - NORTHERN PRACTICE FIELD	25A-25H	PCBS LEFT IN PLACE, 0-16 FEET BELOW FINAL GRADE - ISMP NORTH
7A-7J	SVOCS LEFT IN PLACE, 0-20 FEET BELOW FINAL GRADE - NORTHERN PRACTICE FIELD	26A-26H	METALS LEFT IN PLACE, 0-16 FEET BELOW FINAL GRADE - ISMP NORTH
8A-8J	VOCS LEFT IN PLACE, 0-20 FEET BELOW FINAL GRADE - NORTHERN PRACTICE FIELD	27A-27H	SVOCS LEFT IN PLACE, 0-16 FEET BELOW FINAL GRADE - ISMP NORTH
9A-9J	PFAS LEFT IN PLACE, 0-20 FEET BELOW FINAL GRADE - NORTHERN PRACTICE FIELD	28A-28H	VOCS LEFT IN PLACE, 0-16 FEET BELOW FINAL GRADE - ISMP NORTH
10A-10J	PCBS LEFT IN PLACE, 0-20 FEET BELOW FINAL GRADE - SOFTBALL FIELD	29A-29H	PFAS LEFT IN PLACE, 0-16 FEET BELOW FINAL GRADE - ISMP NORTH
11A-11J	METALS LEFT IN PLACE, 0-20 FEET BELOW FINAL GRADE - SOFTBALL FIELD	30A-30F	PCBS LEFT IN PLACE, 0-12 FEET BELOW FINAL GRADE - ISMP SOUTH
12A-12J	SVOCS LEFT IN PLACE, 0-20 FEET BELOW FINAL GRADE - SOFTBALL FIELD	31A-31F	METALS LEFT IN PLACE, 0-12 FEET BELOW FINAL GRADE - ISMP SOUTH
13A-13J	VOCS LEFT IN PLACE, 0-20 FEET BELOW FINAL GRADE - SOFTBALL FIELD	32A-32F	SVOCS LEFT IN PLACE, 0-12 FEET BELOW FINAL GRADE - ISMP SOUTH
14A-14J	PFAS LEFT IN PLACE, 0-20 FEET BELOW FINAL GRADE - SOFTBALL FIELD	33A-33F	VOCS LEFT IN PLACE, 0-12 FEET BELOW FINAL GRADE - ISMP SOUTH
15A-15J	PCBS LEFT IN PLACE, 0-20 FEET BELOW FINAL GRADE - BASEBALL FIELD	34A-34F	PFAS LEFT IN PLACE, 0-12 FEET BELOW FINAL GRADE - ISMP SOUTH
16A-16J	METALS LEFT IN PLACE, 0-20 FEET BELOW FINAL GRADE - BASEBALL FIELD	35	SOIL COVER DEMARCATION
17A-17J	SVOCS LEFT IN PLACE, 0-20 FEET BELOW FINAL GRADE - BASEBALL FIELD	36	AS-BUILT FINAL RESTORATION AND SOIL COVER SYSTEM
18A-18J	VOCS LEFT IN PLACE, 0-20 FEET BELOW FINAL GRADE - BASEBALL FIELD	37	AS-BUILT INFILTRATION GALLERY CROSS SECTION
19A-19J	PFAS LEFT IN PLACE, 0-20 FEET BELOW FINAL GRADE - BASEBALL FIELD	38	AS-BUILT UTILITIES

PROJECT SITE ABBREVIATIONS
IRM - INTERIM REMEDIATION MEASURE
ISMP - INTERIM SITE MANAGEMENT PLAN

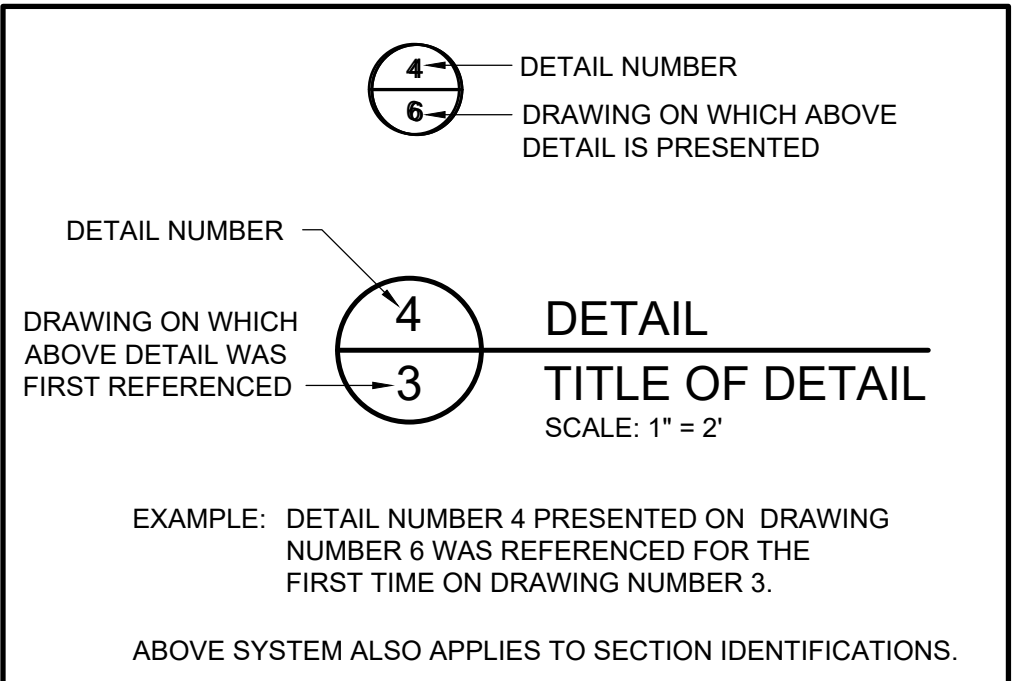
PREPARED FOR: UNISYS CORPORATION

CORPORATE ENVIRONMENTAL AFFAIRS
3199 PILOT KNOB ROAD MS F1B05
EAGAN, MN 55121

PREPARED BY: B&B Engineers & Geologists
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PHONE: (410) 381-4333



DETAIL IDENTIFICATION LEGEND

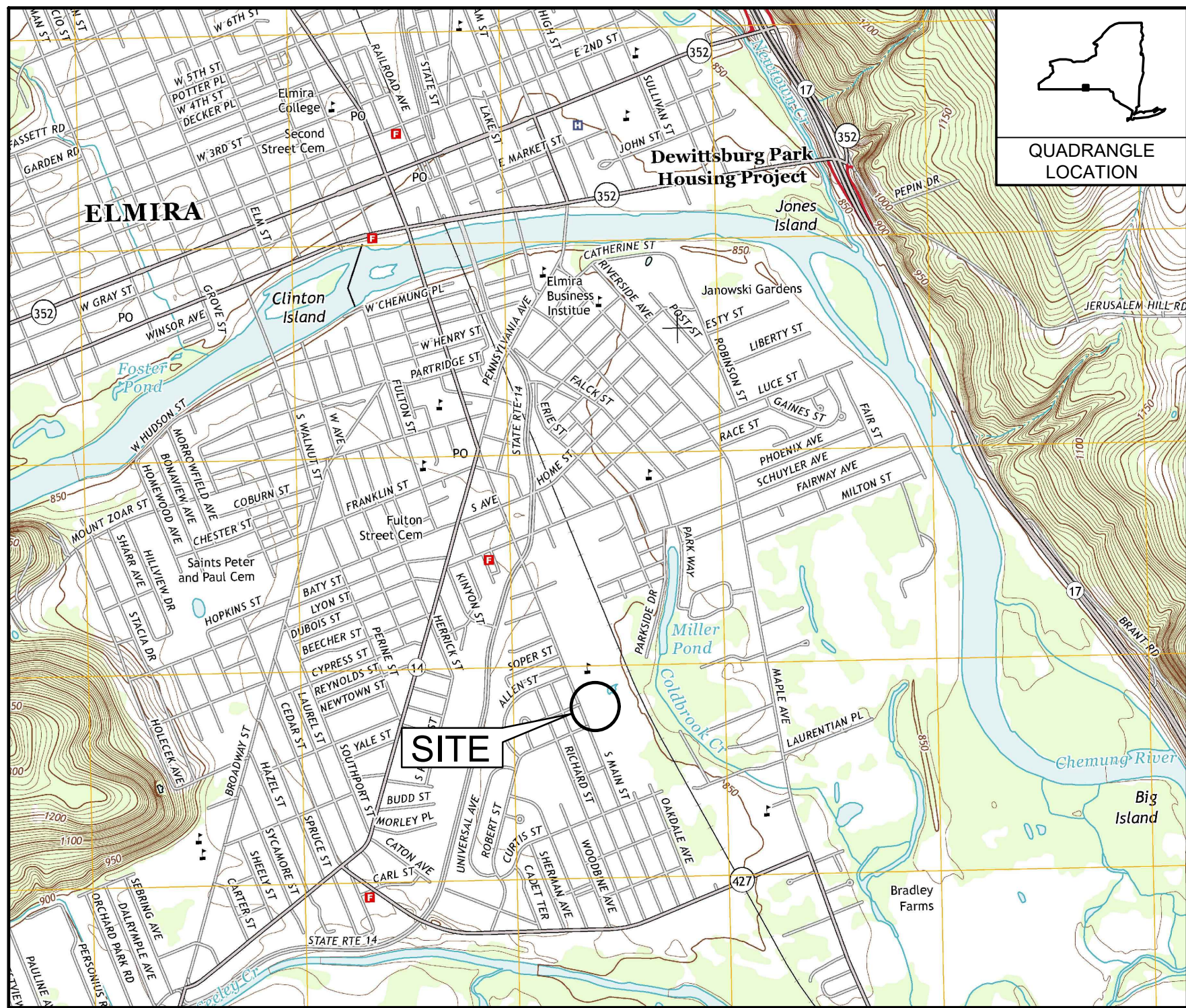
AS-BUILT DRAWING

REV	DATE	DESCRIPTION	DRN	APP
B&B Engineers & Geologists of new york, p.c. an affiliate of Geosyntec Consultants				
UNISYS				
TITLE: COVER SHEET				
PROJECT: NORTHERN ATHLETIC FIELDS INTERIM REMEDIAL MEASURE				
SITE: FORMER SPERRY-REMINGTON SITE - NORTH PORTION ELMIRA, NEW YORK				
DESIGN BY: AK		DATE: JANUARY 2025		
DRAWN BY: BEG		PROJECT NO.: MN0832L3		
CHECKED BY: MS		FILE: MN0832L D001.DWG		
REVIEWED BY: MS		DRAWING NO.: 38		
APPROVED BY: AK		1 OF 38		

Appendix N
IRM2 Concrete Structure
As-Builts

INTERIM REMEDIATION MEASURE #2

AS-BUILT DRAWINGS FORMER SPERRY-REMINGTON SITE - NORTH PORTION ELMIRA, NEW YORK FEBRUARY 2019



SOURCE: "ELMIRA, NEW YORK" USGS 7.5' QUADRANGLE, 2013

SCALE: 1" = 2000'

LOCATION MAP

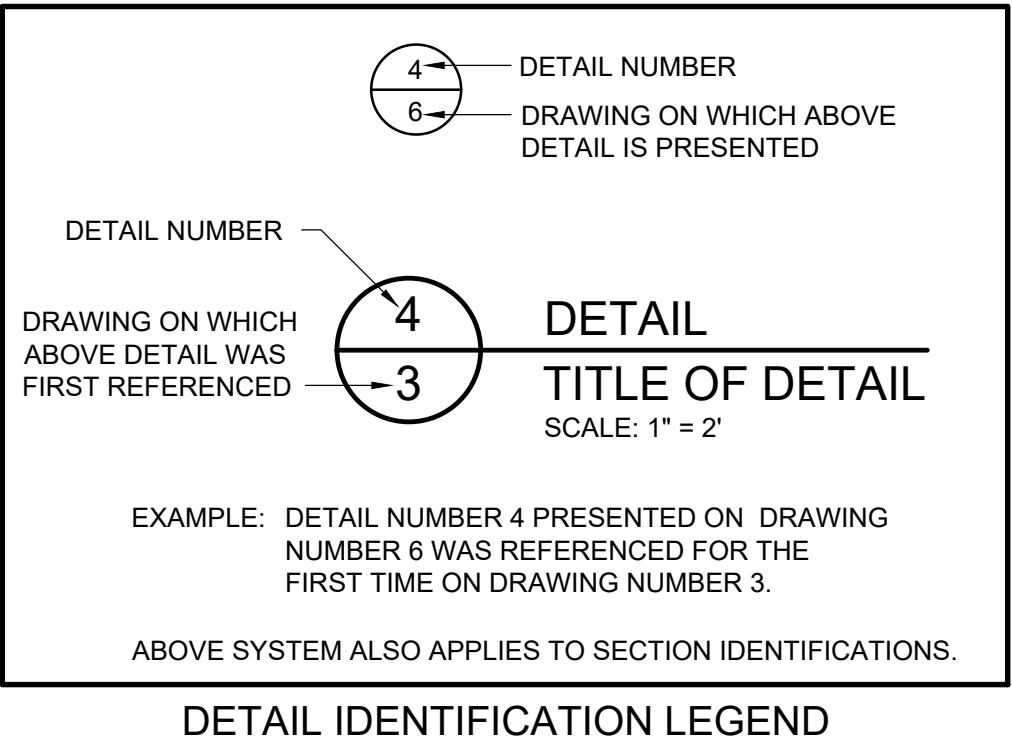
DRAWING NO.	DRAWING TITLE
1	TITLE SHEET
2	AS-BUILT EXCAVATION PLAN
3	0-2 FEET EXCAVATION
4	2-4 FEET EXCAVATION
5	4-6 FEET EXCAVATION
6	6-8 FEET EXCAVATION
7	8-10 FEET EXCAVATION
8	10-12 FEET EXCAVATION
9	12-14 FEET EXCAVATION
10	INTERMEDIATE RESTORATION
11	AS-BUILT FINAL RESTORATION
12	WATER LINE RELOCATION
13	MATERIAL STAGING AREA

PREPARED FOR: **UNISYS CORPORATION**

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3199 PILOT KNOB ROAD MS F1B05
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PREPARED BY: **Beech and Bonaparte**
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PHONE: (410) 381-4333



4	2/3/21	RESPONSE TO AGENCY COMMENTS	AM	AK
3	6/26/20	RESPONSE TO AGENCY COMMENTS	BGF	AK
2	3/20/20	RESPONSE TO AGENCY COMMENTS	BGF	AK
1	12/12/19	RESPONSE TO AGENCY COMMENTS	BGF	AK
REV	DATE	DESCRIPTION	DRN	APP

Beech and Bonaparte
engineering p.c.
an affiliate of Geosyntec Consultants

UNISYS

TITLE: TITLE SHEET

PROJECT: INTERIM REMEDIATION MEASURE
AS-BUILT DRAWINGS

SITE: FORMER SPERRY-REMINGTON SITE - NORTH PORTION
ELMIRA, NEW YORK

DESIGN BY: AK DATE: JUNE 2020

DRAWN BY: TSJ PROJECT NO.: MN0832D

CHECKED BY: JMT FILE: MN0832D101

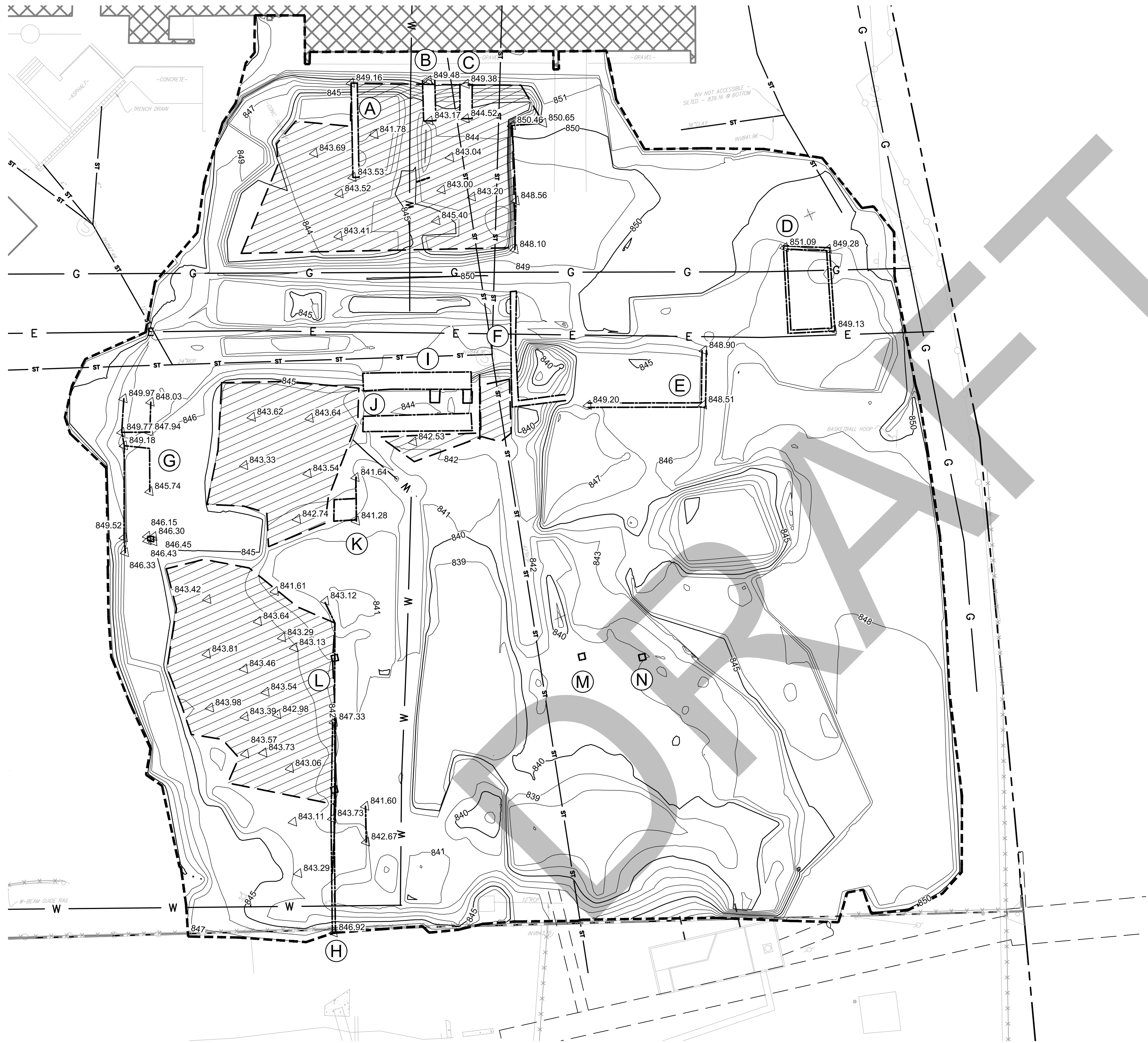
REVIEWED BY: PLB FIGURE NO.: 1 OF 13

APPROVED BY: AK

SIGNATURE: *Aron Kozlowski*
DATE: 2/3/2021

STATE OF NEW YORK
ARON KOZLOWSKI
089954-1
PROFESSIONAL ENGINEER

AS-BUILT DRAWING



LEGEND	
	SITE BUILDING
	BASIN CULVERT
	PIPE
	CHAIN LINK FENCE
	WOODEN FENCE
	PROPERTY LINE
	EDGE OF WATER
	BURIED ELECTRIC CABLE
	SANITARY SEWER
	STORM SEWER
	NATURAL GAS LINE
	WATER LINE
	SUBGRADE CONTOUR (FT. MSL)
	ENCOUNTERED CONCRETE SLAB
	ENCOUNTERED CONCRETE WALL
	CONCRETE ARTIFACT
	ELEVATION OF CONCRETE (FT. MSL)

Concrete Artifact	Area (ft ²)	Height (ft)	Volume (ft ³)	Volume (yds ³)
A	52.23	7.0	365.61	13.54
B	48.22	7.0	337.54	12.50
C	43.82	7.0	306.74	11.36
D	97.68	4.0	390.72	14.47
E	88.11	7.0	616.77	22.84
F	112.75	7.0	789.25	29.23
G	75.78	6.0	454.68	16.84
H	72.04	4.0	288.16	10.67

Concrete Artifact	Area (ft ²)	Height (ft)	Volume (ft ³)	Volume (yds ³)
I	217.67	7.0	1523.69	56.43
J	186.56	7.0	1305.92	48.37
K	53.14	7.0	371.98	13.78
L	4.52	7.0	31.64	1.17
M	4.45	7.0	31.15	1.15
N	4.51	7.0	31.57	1.17

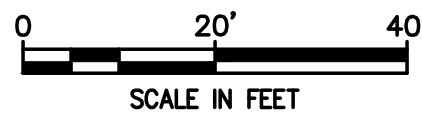
NOTES:

1. EXISTING TOPOGRAPHY IS FROM:

a. A TOPOGRAPHIC SURVEY OF ELMIRA HIGH SCHOOL BY HUNT ENGINEERS, ARCHITECTS, AND SURVEYORS IN SEPTEMBER 2016. VERTICAL CONTROL IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88/GEOD 12A), HORIZONTAL CONTROL IS REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD 83/NA 2011).

b. A TOPOGRAPHIC SURVEY OF FORMER REMINGTON RAND SITE BY WEILER ASSOCIATES, DATED 27 APRIL 2011.

2. AS-BUILT SUBGRADE ELEVATIONS BASED ON SURVEY OF SUB GRADE REMEDIATION AREA BY BY HUNT ENGINEERS, ARCHITECTS, AND SURVEYORS DATED 6 OCTOBER 2018 AND REVISED 6 NOVEMBER 2018.



1 PLAN
- AS-BUILT SUB-GRADE

AS-BUILT DRAWING

4	2/3/21	RESPONSE TO AGENCY COMMENTS	AM	AK
3	6/26/20	RESPONSE TO AGENCY COMMENTS	BGF	AK
2	3/20/20	RESPONSE TO AGENCY COMMENTS	BGF	AK
1	12/12/19	RESPONSE TO AGENCY COMMENTS	BGF	AK
REV	DATE	DESCRIPTION	DRN	APP

Beech and Bonaparte
engineering p.c.
an affiliate of Geosyntec Consultants

TITLE:
AS-BUILT EXCAVATION PLAN

PROJECT:
INTERIM REMEDIATION MEASURE
AS-BUILT DRAWINGS

SITE:
FORMER SPERRY-REMINGTON SITE - NORTH PORTION
ELMIRA, NEW YORK

SIGNATURE
2/3/2021
DATE

DESIGN BY: AK
DRAWN BY: TSJ
CHECKED BY: JMT
REVIEWED BY: PLB
APPROVED BY: AK

DATE: JUNE 2020
PROJECT NO.: MN0832D
FILE: MN0832D102
FIGURE NO.: 2 OF 13

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Appendix N
IRM2 Concrete Structure
Photos

DAILY OBSERVATION REPORT

Pg. 6 of 7

Report No.:

41

Project File:

MN0832D

Date:

7/18/2018

Photo Log

Date : 7/18/2018



Morning view of site, with excavation continuing in Phase 2 and Phase 3



Recon beginning excavation of water line area in rear area of school.



Concrete slab exposed at a depth of ~8.5 ft bgs



Scott Williams from the DEC and Recon at the water line excavation in the afternoon. Water line found at ~8 ft bgs.

DAILY OBSERVATION REPORT

Pg. 6 of 8

Report No.:

48

Project File:

MN0832D

Date:

7/26/2018

Photo Log

Date : 7/26/2018



Layout of excavation extents



Exposed concrete structure



Bottom slab of concrete structure~13.5' + below BGS



Loading of TSCA trucks

DAILY OBSERVATION REPORT

Pg. 7 of 8

Report No.:

53

Project File:

MN0832D

Date:

08/01/2018

Photo Log

Date : 08/01/2018



Miniexcavator to dig around electric and Gas lines



Concrete structure found adjacent to gas line



Dust control measures



Unloading Non Haz material within the MSA

Report No.:

54

Project File:

MN0832D

Date:

08/02/2018

Photo Log

Date : 08/02/2018



Gas line running through concrete structure



Exposed concrete slab and structure to South west of site.



Concrete foundation



Covered piles in MSA

Appendix N – Technical Impracticability Structures

Potential Residual Sources Associated with Concrete Artifacts

Concrete artifacts encountered

During IRM #2 historical concrete foundations and structures, including piers, blocks, building walls, and foundation slabs, were encountered in the Rear Parking Lot. These structures prevented installation of the planned sheet pile walls adjacent to the EHS Building and the electrical and natural gas utility corridor. An estimated 553 cubic yards of slab material and 240 cubic yards of concrete wall and pier material were infeasible to remove. Benching and sloping were used in place of sheet piling, and impacted soils adjacent to and below energized utility lines and historic foundations and structures could not be safely removed. Overall, an estimated 12,167 of 13,938 cubic yards (87 percent) of soil was removed. Demarcation layers of geotextile fabric and orange netting were placed at the base of excavations where design limits could not be reached.

Potential residual sources

The potential residual sources associated with the concrete artifacts are the soils that remain below, adjacent to, or within the benched and sloped areas left because of the concrete structures and utilities. Confirmation samples were collected on top of and adjacent to the concrete structures left in place. Based on this confirmation sampling and previous pre-design investigation sampling, PCBs above the Restricted Residential SCO of 1 mg/kg and at or above the TSCA level of 50 mg/kg remain in place adjacent to and below historic concrete structures. Metals (arsenic, barium, cadmium, chromium, copper, lead, manganese, mercury, and nickel) and SVOCs (benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene) remain in place above Restricted Residential SCOs.

Residual soils associated with the concrete artifacts are overlain by a minimum of two feet of soil cover and by the asphalt parking lot. PCBs, metals, and SVOCS have not been detected above TOGS groundwater standards in the Rear Parking Lot area. As residual sources may affect future groundwater quality, a groundwater monitoring program will be included in the SMP. The remaining impacts are limited in areal extent and depth and are not considered a significant ongoing source following remediation. The residual soils will be managed under the ISMP and future SMP.