

Honeywell
301 Plainfield Road
Suite 330
Syracuse, NY 13212
315-552-9700
315-552-9780 Fax

File

August 27, 2014

Mr. Timothy Larson
New York State Department of Environmental Conservation
Remedial Bureau D
625 Broadway, 12th Floor
Albany, NY 12233-7016

June
RE: Geotechnical Monitoring Data Summary (with data through May 30, 2014)
Sediment Consolidation Area,
Onondaga Lake, Syracuse, New York

Dear Mr. Larson:

June Enclosed you will find one bound copy of the Geotechnical Monitoring Data Summary (with data through May 30, 2014).

Please feel free to contact Tom Drachenberg at (315) 741-3708 or me if you have any questions.

Sincerely,



Larry Somer
Manager – Remediation Design & Construction

Enclosure

cc: Paul Blue, Parsons (cover ltr only)
Tom Drachenberg, Parsons (cover ltr only)
Keith Neijstrom, AECOM
Marleiah O'Neill, YEC
Michael Spera, Earth Tech
Michelle McDonald, Honeywell
Robert Edwards, NYSDEC
Tom Annal, NYSDEC
Robert Rule, deMaximis

**ONONDAGA LAKE CAPPING, DREDGING,
HABITAT AND PROFUNDAL ZONE (SMU 8)
FINAL DESIGN**

**ONONDAGA CREEK NAVIGATIONAL CHANNEL
DESIGN ADDENDUM**

Prepared for:

Honeywell

301 Plainfield Road, Suite 330
Syracuse, NY 13212

Prepared by:

PARSONS

301 Plainfield Road, Suite 350
Syracuse, NY 13212



290 Elwood Davis Road, Suite 318
Liverpool, NY 13088

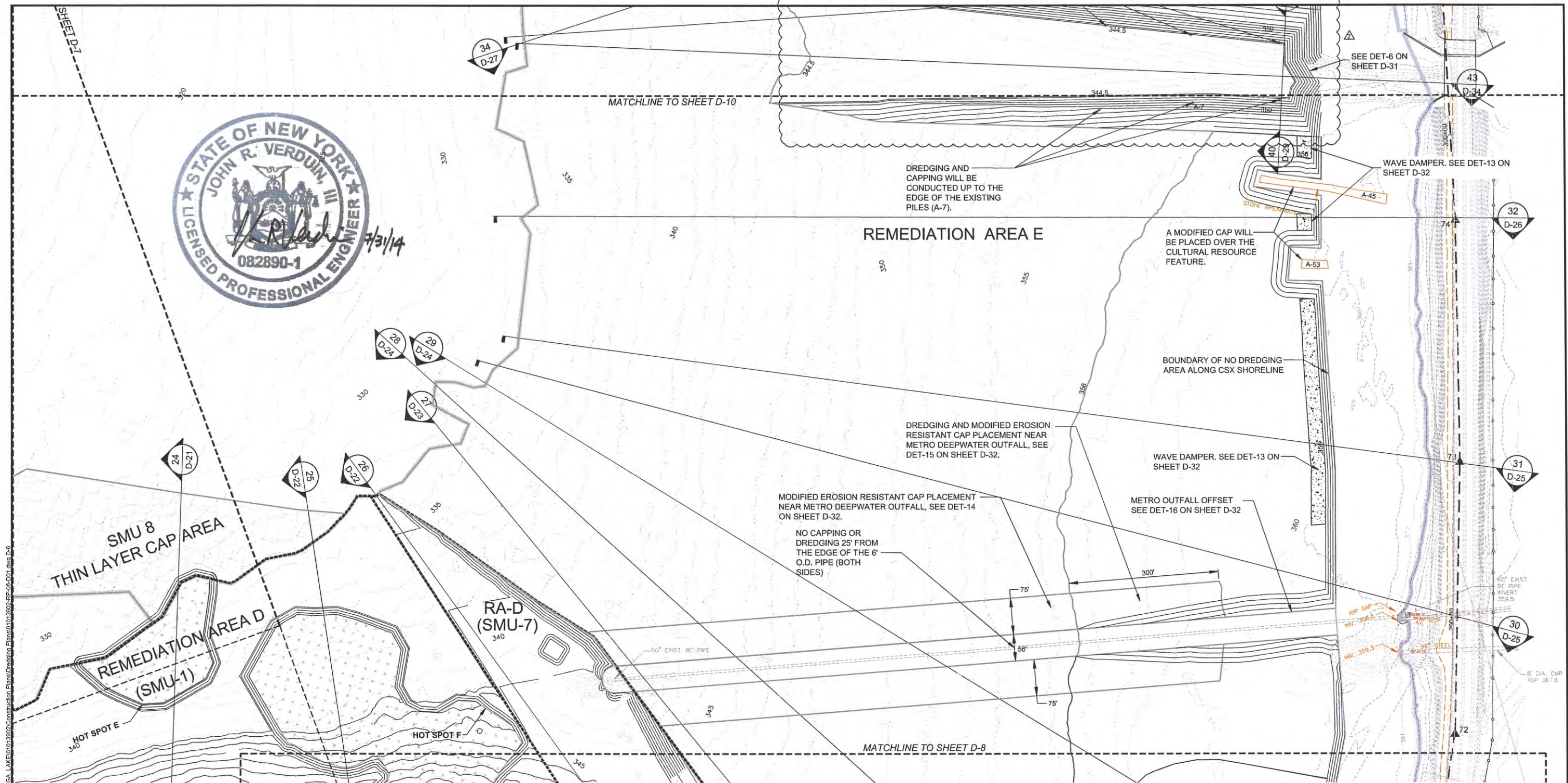
AUGUST 2014

SUMMARY OF DESIGN REVISIONS

This addendum provides design revisions associated with the dredge prism within the Remediation Area E (RA-E) navigational channel leading to Onondaga Creek. The channel depth leading to Onondaga Creek must be sufficient to accommodate commercial boat traffic that uses Onondaga Creek and the Inner Harbor. Therefore, the proposed approach in the Final Design for this area was to dredge to a sufficient depth to allow cap placement while maintaining minimum required navigational depths as provided by the New York State Canal Corporation (NYSCC). Subsequent to the Final Design, the NYSCC requested that the post-capping bathymetry be consistent with the original 1915 canal design, for which they provided design drawings. The original channel was wider and slightly shallower than the channel included in the Final Design. Therefore, the design has been modified to comply with this request. Consistent with the Final Design, the revised design includes dredging to a sufficient depth such that the final cap surface is 2 feet below the navigational depth to prevent dredge-induced damage to the cap during future navigational dredging. The revised plan is presented in the attached revised design sheet.

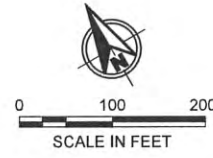
Three active rail lines are located immediately adjacent to the shoreline in the area of the navigational channel. Geotechnical analysis indicates that dredging adjacent to the shoreline in this area, including the navigational channel within this area, could result in an unacceptable factor of safety for the shoreline and rail line stability, which could result in movement of the rail lines. Therefore, no dredging or capping is included in this area within the navigational channel. The detailed evaluation documenting the basis for this offset is provided in the Technical Support Document for the Explanation of Significant Differences for this area.

This addendum also addresses the six sets of pilings in the lake marking the entrance into the Syracuse Inner Harbor (Cultural Resource Feature A-7) and the set of pilings approximately 700 feet north of the navigational channel (Cultural Resource Feature A-72). These pilings will be left in place and capping and dredging will be conducted up to the pilings.



- LEGEND:
- LIMITS OF DREDGING AND CAPPING
 - LIMITS OF CAP ONLY
 - HOT SPOT
 - THIN LAYER CAP
 - PROJECT BASELINE
 - EXISTING CONTOUR
 - PROPOSED DREDGING CONTOUR
 - SHORELINE (ELEV. 362.5)
 - REMEDIATION AREA BOUNDARY
 - SMU BOUNDARY
 - CROSS SECTION LOCATION AND DESIGNATION
 - CULTURAL RESOURCES
 - LIMITS OF MODIFIED EROSION RESISTANT CAP IN CAP ONLY AREA
 - LIMITS OF MODIFIED EROSION RESISTANT CAP IN DREDGE AND CAP AREA
 - LIMITS OF MODIFIED CAP FOR CULTURAL RESOURCES

BASELINE COORDINATES		
POINT #	NORTHING	EASTING
72	1116827.31	927868.29
73	1117307.31	928159.49
74	1117742.79	928403.32



NOTE: SEE SHEET D-10X FOR GENERAL NOTES AND LEGEND.

290 Elwood Davis Road, Suite 340 | Liverpool, NY 13088 | (315) 453-9009

301 Plainfield Road, Suite 350
Syracuse, New York 13212

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE SEAL OF AN ENGINEER OR LAND SURVEYOR IS ALTERED, THE ALTERING ENGINEER OR LAND SURVEYOR SHALL AFFIX TO THE ITEM HIS SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS				
REV	DATE	BY	APPD	DESCRIPTION
0	03/05/12	WJD	JRV	ISSUED FOR CONSTRUCTION
1	08/07/13	WJD	JRV	ADDED CULTURAL RESOURCE A13 AND 25-FT NO CAP BUFFER
2	06/08/14	WJD	JRV	REVISED REMEDIATION AREA E

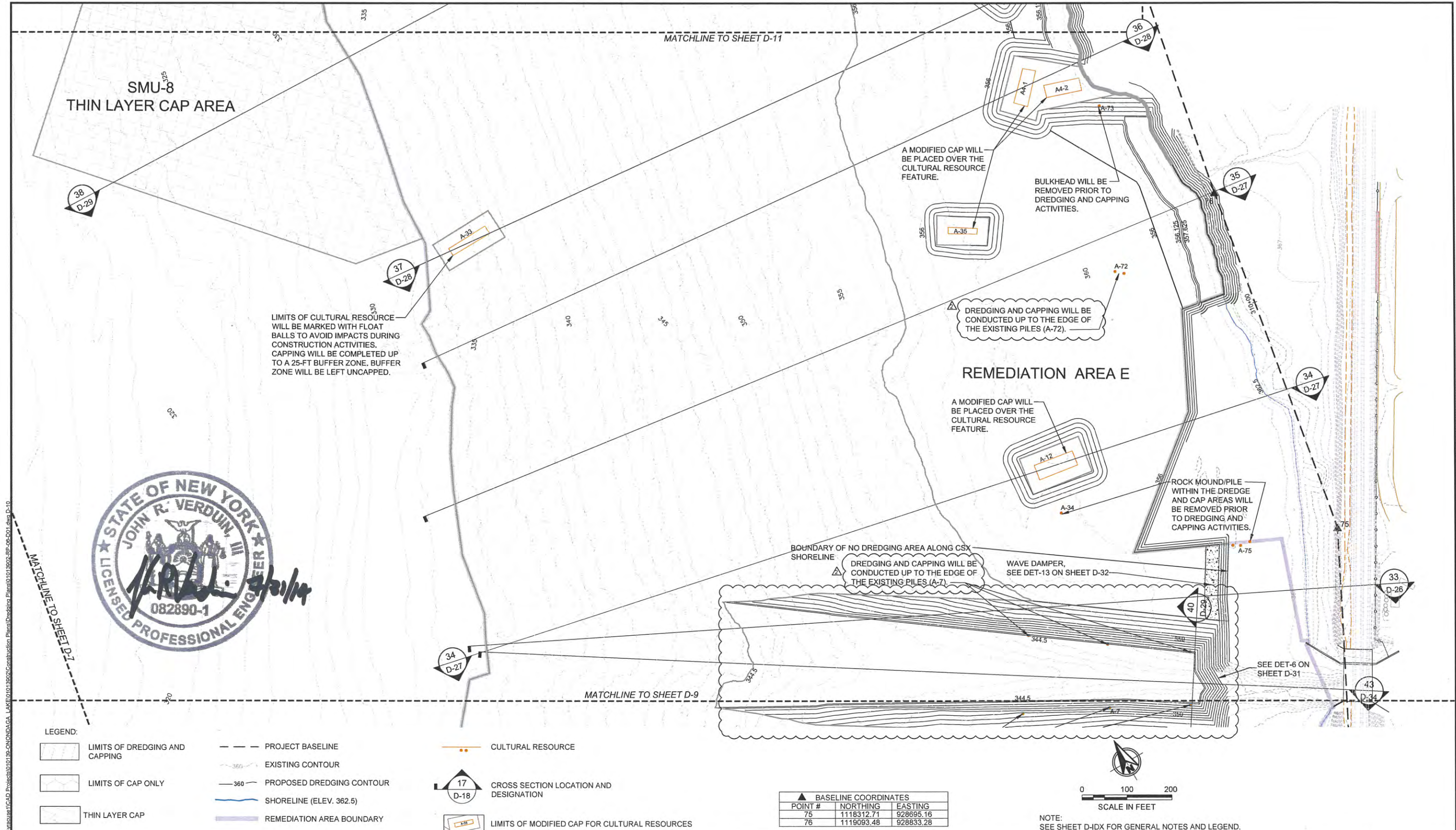
DESIGNED BY: K. POWELL / W. DINICOLA
DRAWN BY: G. HOWELL
CHECKED BY: P. LA ROSA / D. SMITH
APPROVED BY: J. VERDUIN
SCALE: AS NOTED
DATE: MARCH 5, 2012

ONONDAGA LAKE CAPPING, DREDGING, HABITAT AND PROFUNDAL ZONE (SMU 8) FINAL DESIGN

REMEDIATION AREA D & E DREDGING AND CAPPING PLAN

D-9

SHEET NO. 11 OF 35



- LEGEND:
- LIMITS OF DREDGING AND CAPPING
 - LIMITS OF CAP ONLY
 - THIN LAYER CAP
 - PROJECT BASELINE
 - EXISTING CONTOUR
 - PROPOSED DREDGING CONTOUR
 - SHORELINE (ELEV. 362.5)
 - REMEDIATION AREA BOUNDARY
 - CULTURAL RESOURCE
 - CROSS SECTION LOCATION AND DESIGNATION
 - LIMITS OF MODIFIED CAP FOR CULTURAL RESOURCES

BASELINE COORDINATES		
POINT #	NORTHING	EASTING
75	1118312.71	928695.16
76	1119093.48	928833.28



NOTE: SEE SHEET D-10X FOR GENERAL NOTES AND LEGEND.

250 Elwood Davis Road, Suite 340 | Liverpool, NY 13088 | (315) 453-9009

301 Plainfield Road, Suite 350
Syracuse, New York 13212

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE SEAL OF AN ENGINEER OR LAND SURVEYOR IS ALTERED, THE ALTERING ENGINEER OR LAND SURVEYOR SHALL AFFIX TO THE ITEM HIS SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS				
REV	DATE	BY	APPD	DESCRIPTION
0	03/05/12	WJD	JRV	ISSUED FOR CONSTRUCTION
1	08/07/13	WJD	JRV	ADDED CULTURAL RESOURCE A13 AND 25-FT NO CAP BUFFER
2	08/08/14	WJD	JRV	REVISED REMEDIATION AREA E

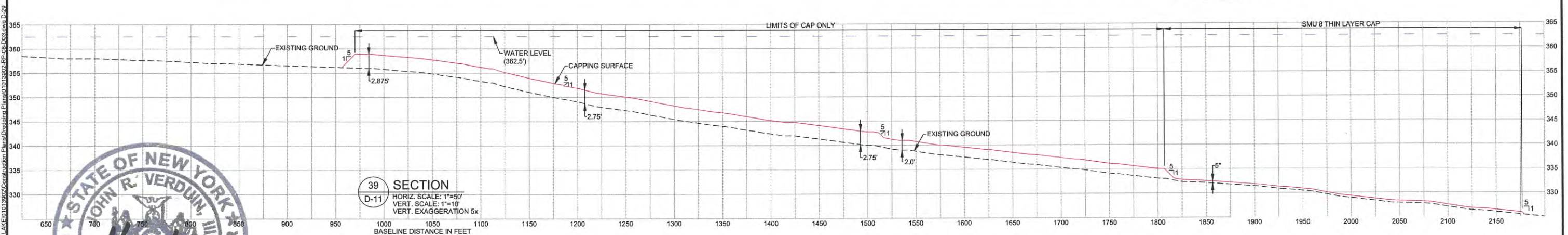
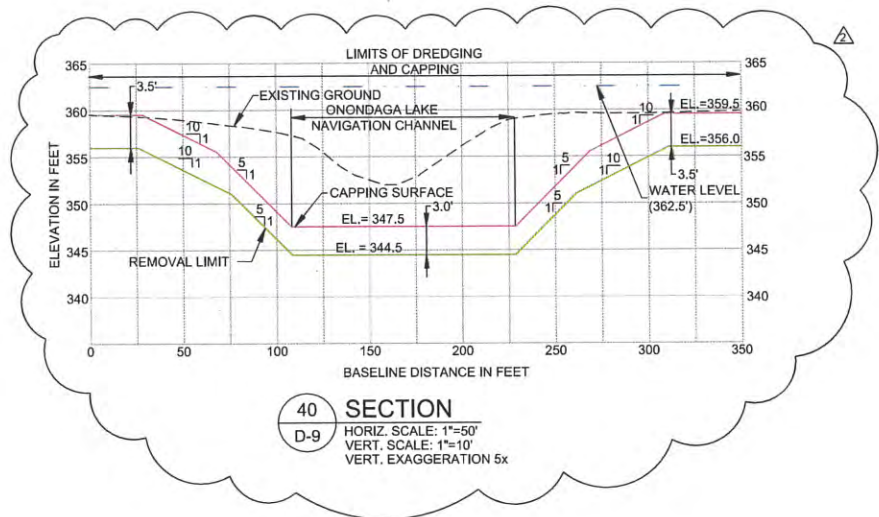
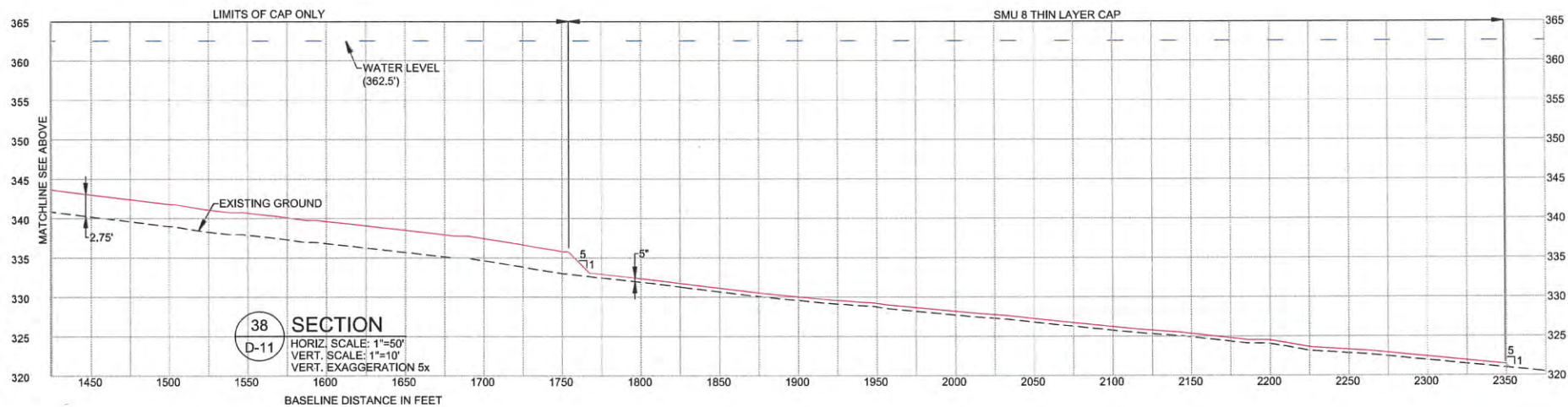
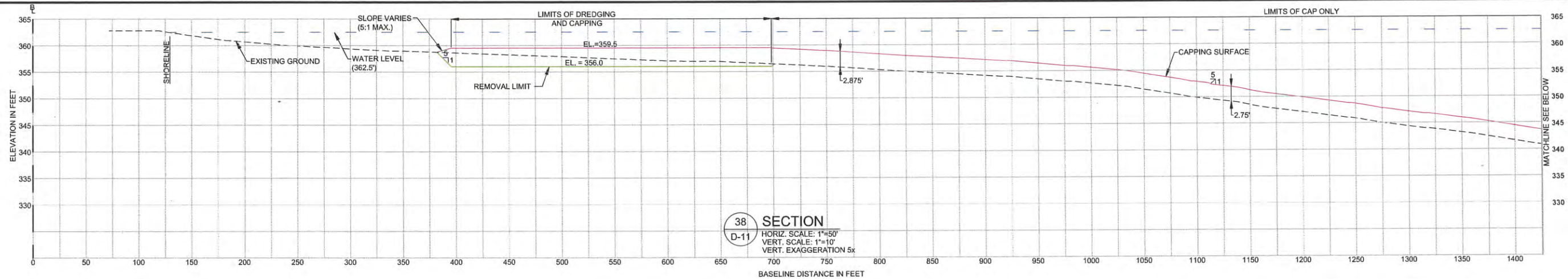
DESIGNED BY: K. POWELL / W. DINICOLA
DRAWN BY: G. HOWELL
CHECKED BY: P. LA ROSA / D. SMITH
APPROVED BY: J. VERDUIN
SCALE: AS NOTED
DATE: MARCH 5, 2012

ONONDAGA LAKE CAPPING, DREDGING, HABITAT AND PROFUNDAL ZONE (SMU 8)
FINAL DESIGN

REMEDIATION AREA E
DREDGING AND CAPPING PLAN

D-10

SHEET NO. 12 OF 35



- NOTES:
1. SEE SHEET D-IDX FOR GENERAL NOTES AND LEGEND.
 2. WATER LEVEL 362.5 FT NAVD 88 IS THE AVERAGE LAKE LEVEL DURING AQUATIC PLANT GROWING SEASON.
 3. THE TYPICAL DREDGING AND CAPPING SLOPE FOR EDGES AND TRANSITIONS IS 5H:1V.
 4. CAP THICKNESS AND ELEVATION ARE BASED ON MAXIMUM OVER-PLACEMENT WITHOUT SETTLEMENT CONSIDERATIONS FOR HABITAT MODULES 5 AND 6 IN PORTIONS OF REMEDIATION AREAS C AND D CORRESPONDING TO THE FIRST YEAR OF CAPPING. CAP THICKNESS AND ELEVATION ARE BASED ON MEAN OVER-PLACEMENT WITHOUT SETTLEMENT FOR ALL REMAINING AREAS.



290 Elwood Davis Road, Suite 340 | Liverpool, NY 13088 | (315) 453-9009



301 Plainfield Road, Suite 350
Syracuse, New York 13212

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE SEAL OF AN ENGINEER OR LAND SURVEYOR IS ALTERED, THE ALTERING ENGINEER OR LAND SURVEYOR SHALL AFFIX TO THE ITEM HIS SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS					
REV	DATE	BY	APP'D	DESCRIPTION	
0	03/05/12	WJD	JRV	ISSUED FOR CONSTRUCTION	
1	08/07/13	WJD	JRV	ADDED CULTURAL RESOURCE A13 AND 25-FT NO CAP BUFFER	
2	06/06/14	WJD	JRV	REVISED REMEDIATION AREA E	

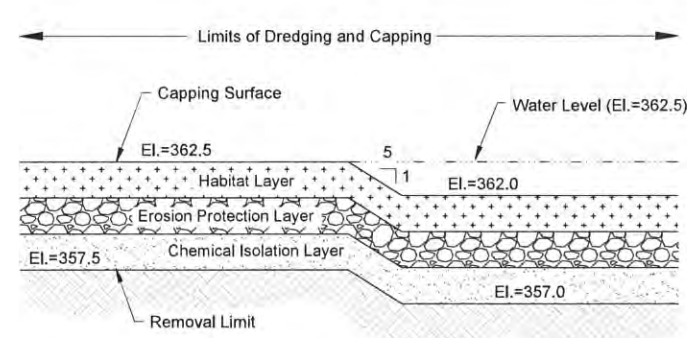
DESIGNED BY: K. POWELL / W. DINICOLA
DRAWN BY: G. HOWELL
CHECKED BY: P. LA ROSA / D. SMITH
APPROVED BY: J. VERDUIN
SCALE: AS NOTED
DATE: MARCH 5, 2012

ONONDAGA LAKE CAPPING, DREDGING,
HABITAT AND PROFUNDAL ZONE (SMU 8)
FINAL DESIGN

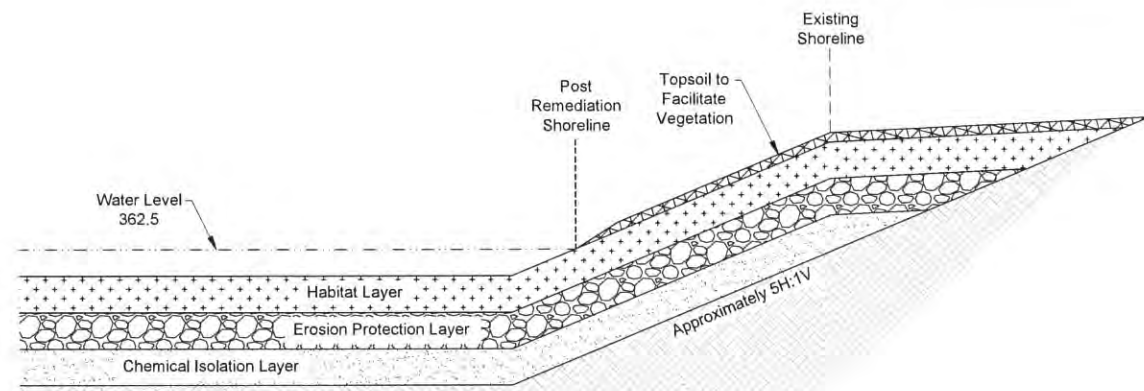
REMEDATION AREA E
DREDGING AND CAPPING CROSS SECTIONS 38, 39, & 40

D-29

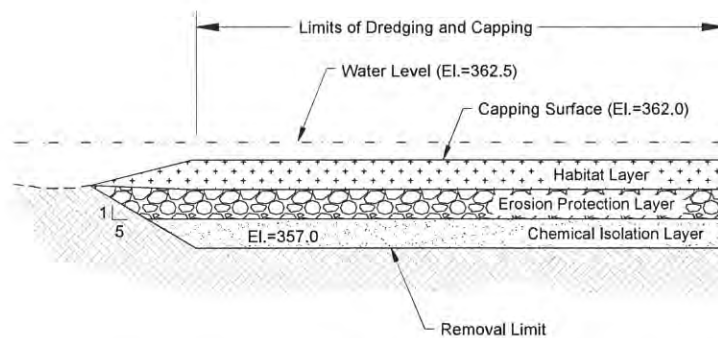
SHEET NO. 31 OF 35



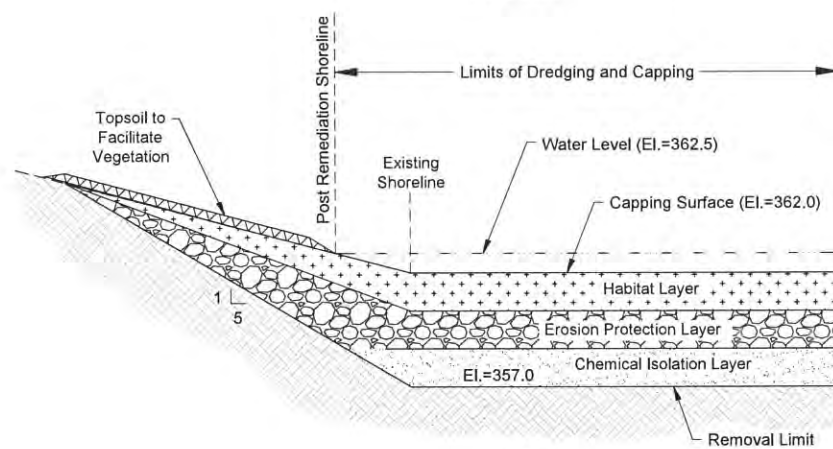
DET-1
Transition Between Dredging Elevations/Cuts
(TYP.)
Not to Scale



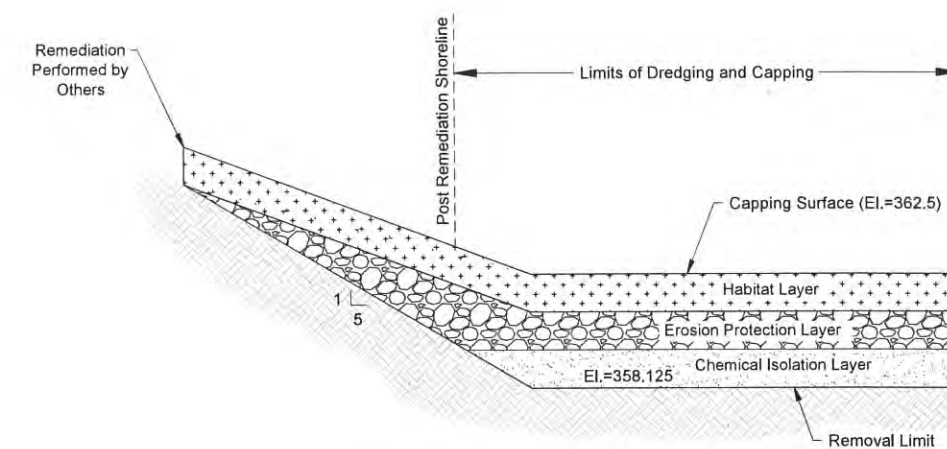
DET-4
Transition Between Shoreline and Dredging Without Full
Depth Removal at Shoreline
(TYP.)
Not to Scale



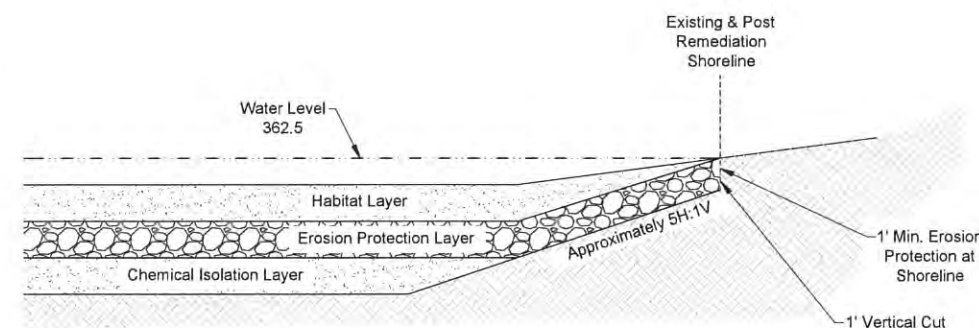
DET-2
Transition Between Elevation-Based Dredging Areas and
Sediments Outside Remediation Area Boundary
(TYP.)
Not to Scale



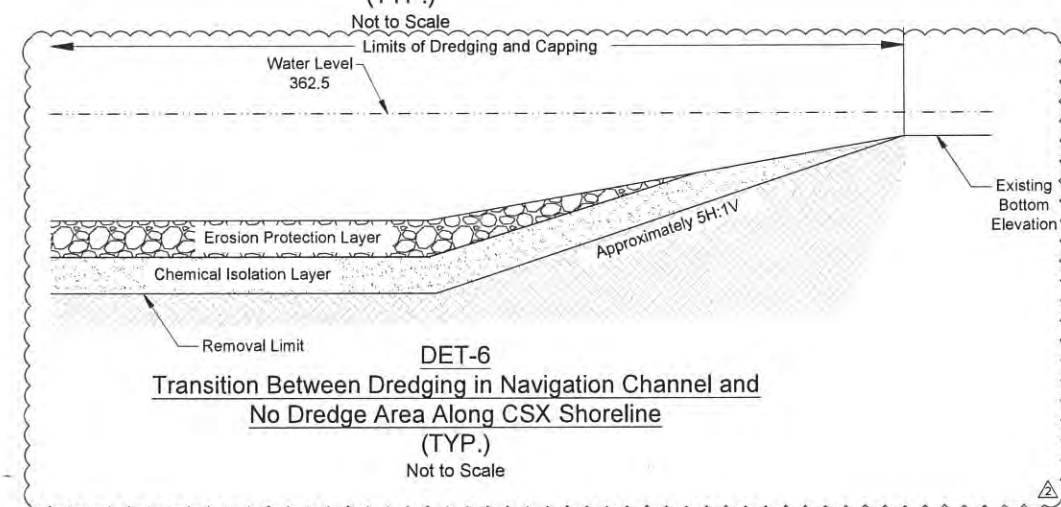
DET-5
Transition Between Shoreline and Dredging With Full Depth
Removal at Shoreline
(TYP.)
Not to Scale



DET-7
Transition Between Shoreline and Dredging With Full Depth
Removal at Remediation Area A Shoreline
(TYP.)
Not to Scale



DET-3
Remediation Area A / Ninemile Creek Special Shoreline Dredge and
Cap Section
(TYP.)
Not to Scale



DET-6
Transition Between Dredging in Navigation Channel and
No Dredge Area Along CSX Shoreline
(TYP.)
Not to Scale

NOTE: THE FOLLOWING CROSS SECTIONS
ARE FOR ILLUSTRATIVE PURPOSES ONLY



PARSONS
COMMERCIAL TECHNOLOGY GROUP
301 Plainfield Road, Suite 350
Syracuse, New York 13212

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS HE IS
ACTING UNDER THE DIRECTION OF A LICENSED
PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER
AN ITEM IN ANY WAY, IF AN ITEM BEARING THE SEAL OF AN
ENGINEER OR LAND SURVEYOR IS ALTERED, THE ALTERING
ENGINEER OR LAND SURVEYOR SHALL AFFIX TO THE ITEM
HIS SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY
HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND
A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION
0	03/05/12	WJD	JRV	ISSUED FOR CONSTRUCTION
1	08/07/13	WJD	JRV	ADDED CULTURAL RESOURCE A13 AND 25-FT NO CAP BUFFER
2	08/06/14	WJD	JRV	REVISED REMEDIATION AREA E

DESIGNED BY: K. POWELL / W. DINICOLA
DRAWN BY: G. HOWELL
CHECKED BY: P. LaROSA / D. SMITH
APPROVED BY: J. VERDUIN
SCALE: AS NOTED
DATE: MARCH 5, 2012

ONONDAGA LAKE CAPPING, DREDGING,
HABITAT AND PROFUNDAL ZONE (SMU 8)
FINAL DESIGN

TYPICAL DETAILS AND NOTES

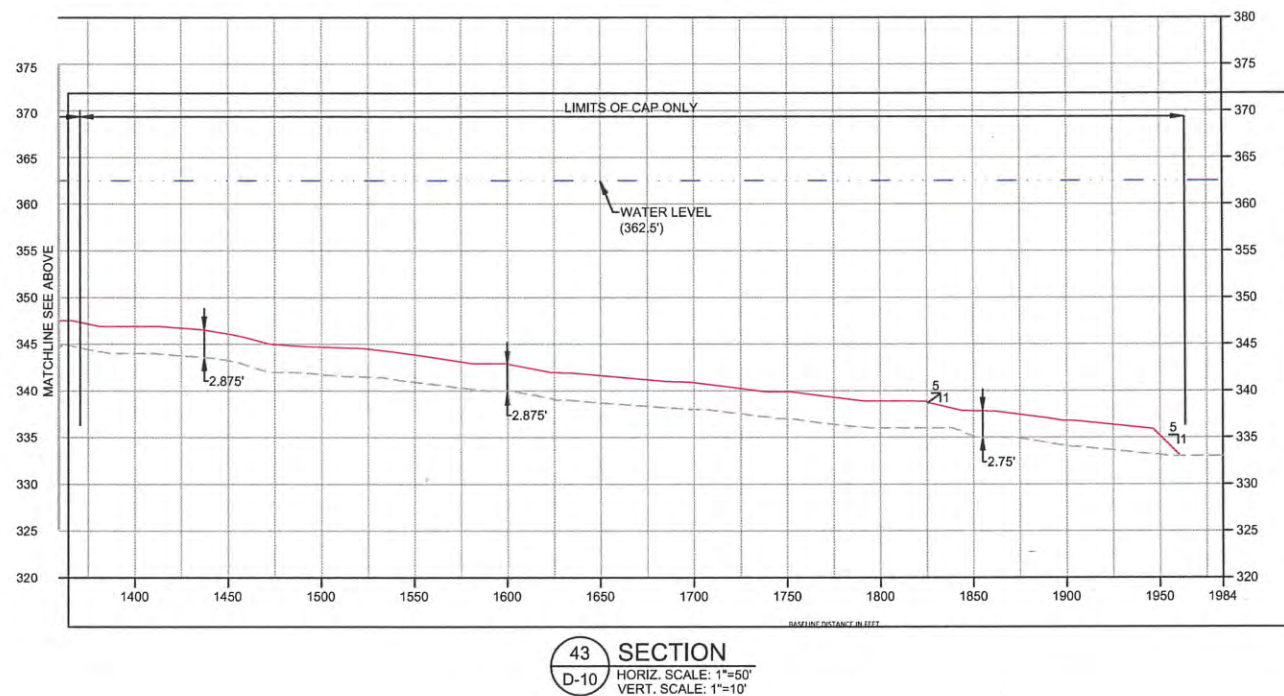
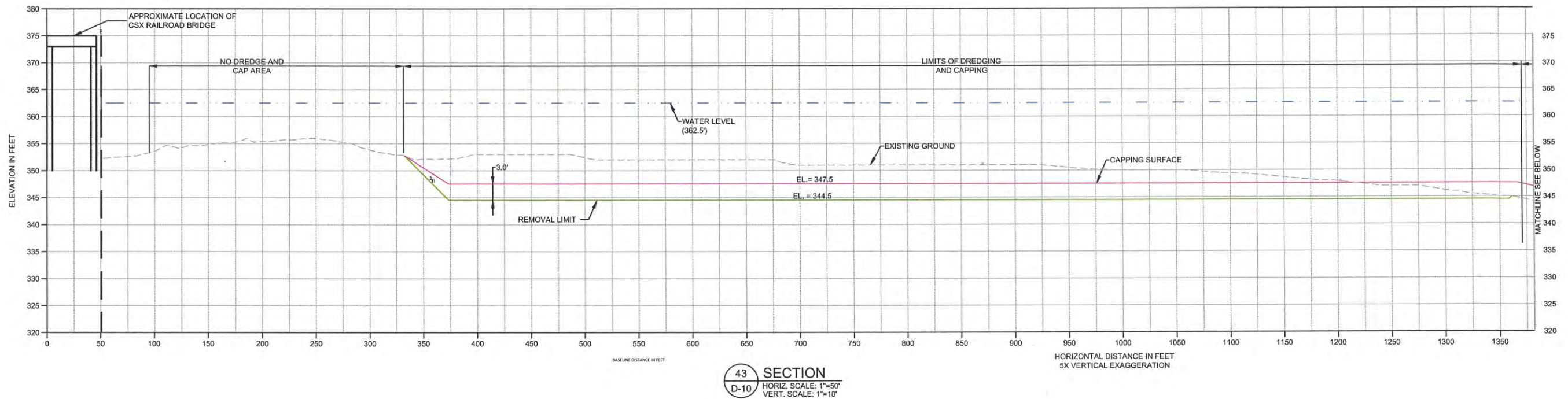
D-31

SHEET NO. 33 OF 35



H:\Syracuse\CAD Projects\010139-ONONDAGA_LAKE\01013902\Construction Plans\Dredging Plans\01013902-RP-08-D03.dwg D-34

JUL 02, 2014 4:39pm C:\gd



THIS ENTIRE SHEET IS NEW

- NOTES:
1. SEE SHEET D-IDX FOR GENERAL NOTES AND LEGEND.
 2. WATER LEVEL 362.5 FT NAVD 88 IS THE AVERAGE LAKE LEVEL DURING AQUATIC PLANT GROWING SEASON.
 3. THE TYPICAL DREDGING AND CAPPING SLOPE FOR EDGES AND TRANSITIONS IS 5H:1V.
 4. CAP THICKNESS AND ELEVATION ARE BASED ON MAXIMUM OVER-PLACEMENT WITHOUT SETTLEMENT CONSIDERATIONS FOR HABITAT MODULES 5 AND 6 IN PORTIONS OF REMEDIATION AREAS C AND D CORRESPONDING TO THE FIRST YEAR OF CAPPING. CAP THICKNESS AND ELEVATION ARE BASED ON MEAN OVER-PLACEMENT WITHOUT SETTLEMENT FOR ALL REMAINING AREAS.



290 Elwood Davis Road, Suite 340 | Liverpool, NY 13088 | (315) 453-9009



301 Plainfield Road, Suite 350
Syracuse, New York 13212

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE SEAL OF AN ENGINEER OR LAND SURVEYOR IS ALTERED, THE ALTERING ENGINEER OR LAND SURVEYOR SHALL AFFIX TO THE ITEM HIS SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS				
REV	DATE	BY	APPD	DESCRIPTION
0	03/05/12	WJD	JRV	ISSUED FOR CONSTRUCTION
1	08/07/13	WJD	JRV	ADDED CULTURAL RESOURCE A13 AND 25-FT NO CAP BUFFER
2	06/08/14	WJD	JRV	REVISED REMEDIATION AREA E

DESIGNED BY: K. POWELL / W. DINICOLA
DRAWN BY: G. HOWELL
CHECKED BY: P. LaROSA / D. SMITH
APPROVED BY: J. VERDUN
SCALE: AS NOTED
DATE: MARCH 5, 2012

ONONDAGA LAKE CAPPING, DREDGING,
HABITAT AND PROFUNDAL ZONE (SMU 8)
FINAL DESIGN

REMEDIATION AREA E
DREDGING AND CAPPING CROSS SECTION 43

D-34

SHEET NO. 35 OF 35