City of Cleveland
Justin M. Bibb, Mayor

Department of Finance
Division of Purchases & Supplies
601 Lakeside Avenue, Room 128
Cleveland, Ohio 44114-1080
216/664-2620 • Fax: 216/664-2177
www.cleveland-oh.gov

November 19, 2026

ADDENDUM 3

BID TITLE: File No.113-26 Kirtland Crib Rehabilitation Re-Bid

BID DUE: Wednesday, November 25, 2026 at 12 o'clock noon (Eastern Time)

Attention Bidders:

We have been requested to issue the addendum for the following:

Please ensure that a copy of this addendum is included and returned with the bid specifications furnished to you by this office, as it will have the same force and effect as if it were part of the specifications originally issued.

1. Answer questions received by the last day for questions.

If you have any questions regarding the attached, please contact Jules Gilliam at jgilliam@clevelandohio.gov. Thank you for your prompt attention and assistance in this matter. Also, please ensure that copy of this addendum is included and returned with the bid specifications furnished to you by this office, as it will have the same force and effect as if it were part of the specifications originally issued.

_____ _____

Signature of Potential Bidder & Name of Company Today's Date

Thank you,
Donia Patterson, Assistant Administrator
Purchases & Supplies
CC:

KIRTLAND CRIB REHABILITATION RE-BID – FILE NO. 113-36

ADDENDUM NO. 3

The bid due date is November 25, 2026 and bids must be date stamped by 11:59 a.m. that day.

Answers to questions received by the last day for questions:

1. The answer to question 9, in Addenda 2 about Spec Sect 10-81-13 says this section is needed. Please provide this Specification.

   Answer: Addendum No. 2 was supposed to say "not" needed.

2. Sketch S1 indicates that samples are to be taken to verify weldability. What quantity of sample are required and what elevations shall they be taken from?

   Answer: One metal sample is required and can be taken from a roof plate of the parapets.

3. Please confirm that sketches S3, S4, S5 apply to one location each. If there are multiple locations please quantify.

   Answer: Each of these sketches is applicable to one known location.

4. Will the owner accept alternate qualifications for steel erectors in lieu of the AISC CSE Certification that is listed in Specification 05 12 00?

   Answer: Possibly, a formal package will need to be submitted proving they operate at an AISC equivalent level. This will be reviewed by the Engineer for approval.

5. Sketch S1 indicates to collect samples from existing plate steel in the inner well. Given the extent of welding required a quantity of samples and locations/elevations that they are to be taken from need to be provided in order to properly estimate the level of effort required to collect the samples and to ensure the engineer of record has enough information to approve of the welding based on the results of the testing at the various locations/elevations on the crib.

   Answer: One metal sample is sufficient and can be taken from a roof plate of the parapets.

6. As the weldability of the steel is not known at this time, an AWS guideline including information on the proper electrodes, heating for welding of the steel, specialty welding rods, equipment, etc. need to be provide to price this work. Also, distinctions would need to be made between the above (dry welding) and below (wet welding) water level locations to properly price this added scope for the bid.

   Answer: Refer to the attached Kirtland Crib Welding Feasibility Test dated October 2024.

   Refer to Sketch S-2.
   - At the exterior plates:
     - Welds at Plate Courses 9 to 11 are above the water line.

  - Welds at Plate Courses 4-7 are below water.
- At the interior plates:
  - Welds at Plate Courses 1-7 are below water, 1/2 of Plate 8 is below water.
  - Welds at Plate Courses 9-11 are above water, 1/2 of Plate 8 is above water.

7. Sketch S2 indicates that courses 1,2 and 3 of the inner shell are to be welded. However, these are not accessible due to buildup of silt. Per the answer to question 2 in Addendum 2 "Assume the crib is dredged and free of sediment to perform inlet install". Does this answer also apply to the welding of the inner shell courses 1,2 and 3? At this time bids will not include dredging of any kind?

   Answer: Bidders shall assume dredging is not required to perform the welding work. Any required dredging will be paid for out of the project contingency.

8. Outer shell courses 7 and 9 have note A (Crib belt blocks all or some of the plates). Are all of the 312' of perimeter to weld on each course accessible without removal of the belt?

   Answer: The Crib Belt is to remain in place. Horizontal portions of Plate Courses 7 and 9 are above or below the Belt. The Table on Sketch S-2 accounts for partial welding at Plates 7 and 9. The exterior at Plate Course 8 requires no welding.

9. Course 8 and parts of 7 and 9 are covered by the belt on the outer shell. The assumption is that welding will not occur on the original plates located behind the belt. Confirm this is correct. Also, is any welding required on the belt?

   Answer: Welding on the Crib Belt is not required. Horizontal portions of Plate Courses 7 and 9 are above or below the Belt. The Table on Sketch S-2 accounts for partial welding at Plates 7 and 9. The exterior at Plate Course 8 requires no welding.

10. Note 3 on Sketch S3 states the detail provided for one location. Please confirm that there are not other locations this detail applies to. If so please quantify.

    Answer: Sketch S3 is applicable to one known location.

11. Note 3 on Sketch S4 states the detail provided for one location. Please confirm that there are not other locations this detail applies to. If so please quantify.

    Answer: Sketch S4 is applicable to one known location.

12. Note 3 on Sketch S5 states the detail provided for one location. Please confirm that there are not other locations this detail applies to. If so please quantify.

    Answer: Sketch S5 is applicable to one known location.

13. Sketch S2 does not indicate that the parapet is to have plates welded. Please confirm the only repairs on the parapet are shown on S-17.

Answer: Confirmed.

14. What company installed the mast on the Crib?

    Answer: See the attached monopole information.

15. Please provide a spec for the dredging of the 50' diameter well down to the bottom of the first course of inner well plating. The inner well is assumed to be full of sediment covering the first three courses of plates due to Drawing C-1 which shows this.

    Answer: Bidders shall assume dredging is not required to perform the welding work. Any required dredging will be paid for out of the project contingency.

16. Addendum 2 calls for the seam welding of the inner and outer plates with a 50% pattern of 1/4" welds. Are we to assume that all the plates have a tight connection to the structure with a gap less than 3/64"? Gaps greater than 1/16" may need a bigger welding rod. Gaps greater than 1/8" would need a bigger weld made by 2 passes of weldment.

    Answer: Some areas may require a second pass. See the welding feasibility test that is part of this addendum.

17. Addendum #2 shows the underwater welding of the structure. These welds should be coated to increase the life of the welds. Is the Project team interested in painting these welds, and the below the waterline surfaces with an underwater paint? These paints are frequently used in water plants.

    Answer: Not in the bid. If CWD decides to do it, it will be additional work during time of the project.

18. Do the underwater welding companies need to be certified as AISC Erectors?

    Answer: No, as long as qualified credentials and a log of similar jobs/experience can be provided for the welders performing the underwater work.

19. Addendum #2 calls for the accessible exterior plate structure and the entire interior plate structure to be welded with a 50% pattern. Please provide a specification for this work including Prep, Welds, Inspection, and Coatings.

    Answer:

    - Material Testing and Electrodes:
      - Follow the metal testing requirements listed on Repair Sketch S1.
      - Select electrodes and welding procedures based on the material testing.
      - Perform a bend test onsite per AWS requirements.
    - Surface Prep: Remove all marine debris, existing paint, rust, and deteriorated steel within 3" of the weld. Clean base metal as required to allow weld metal to properly fuse to the base metal.

ADDENDUM NO. 3

- Codes:
  - Above the Water Line: Follow AWS D1.1 Structural Welding Code
  - Below the Water Line: Follow AWS D3.6 Underwater Welding Code

- All welders shall be certified per AWS for above water and underwater welding.
- All weld inspectors shall be certified per AWS.
- Remove all slag from the final in-place welds so that each weld can be visually inspected.
- Visually inspect all welds per AWS requirements.
- Coatings:
- All exterior and interior steel wall plates will be field painted per project specifications and drawings.

RFI Response

GEO Metrology Tower (Monopole) Information

General Information

- Project: Lake Erie Wind Monitoring and Weather Station Project.
- Installation Date: November 2005.
- Location: Kirtland Crib, Lake Erie.

Monopole Characteristics

Parameter	Description
Weight	3-ton monopole
Overall Height	Approximately 100 ft
Elevation	165 ft above water level; 125 ft above crib deck
Configuration	Top section approximately 50 ft; bottom section connected by flange joint
Support Cables	6 cables connected at 3 points

Description and Existing Conditions

In 2005, Green Energy Ohio (GEO) and the Renaissance Group, with permission from Cleveland Water Department, installed the GEO Meteorological Tower, or Metrology Tower, at the Kirtland Crib. For purposes of the 113-26 Kirtland Crib Rehabilitation project, the tower is referred to as the "monopole." The monopole was installed in two sections and connected by a flange joint at the midpoint. Both sections were transported to the site by helicopter. See Attachment A, which depicts the second section of the monopole being flown to the Kirtland Crib by helicopter during installation.

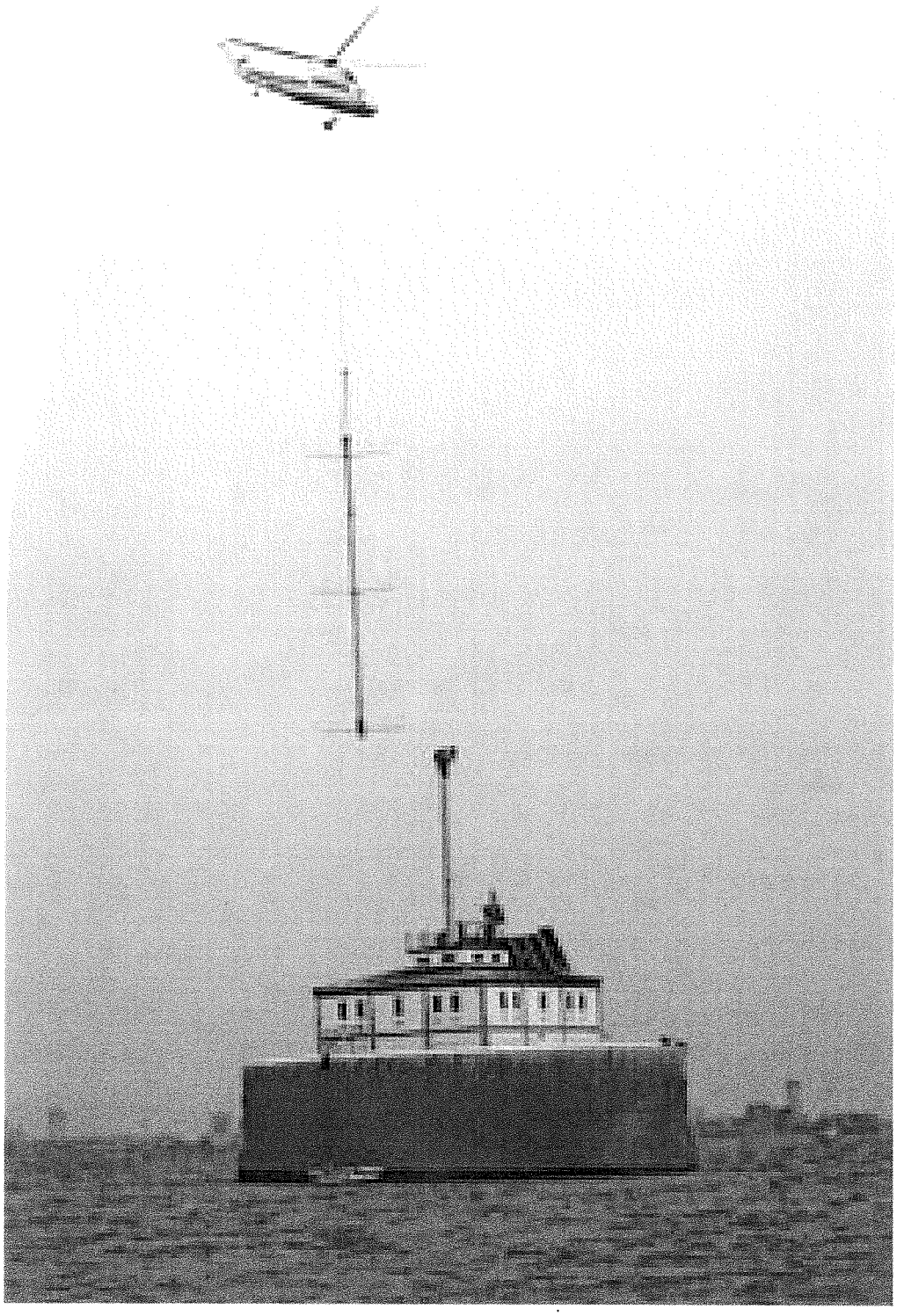
There is currently no monitoring equipment attached to the monopole. The monopole penetrates the crib building roof through a rubber boot and bears on a small concrete platform located on the third floor. The monopole is not mechanically anchored to either the concrete platform or the roof structure, allowing movement due to wind loading and tower moment forces. See Attachment B for photographs of existing monopole conditions.

Additional 2017 inspection photographs and documentation are included in Attachment C, Crib Inspection Report - The Renaissance Group.

Attachments

Attachment	Description
Attachment A	Photograph of the second section of the monopole being flown to the Kirtland Crib by helicopter during installation.
Attachment B	Photographs of existing monopole conditions.
Attachment C	Crib Inspection Report - The Renaissance Group, containing inspection photographs and supporting documentation.

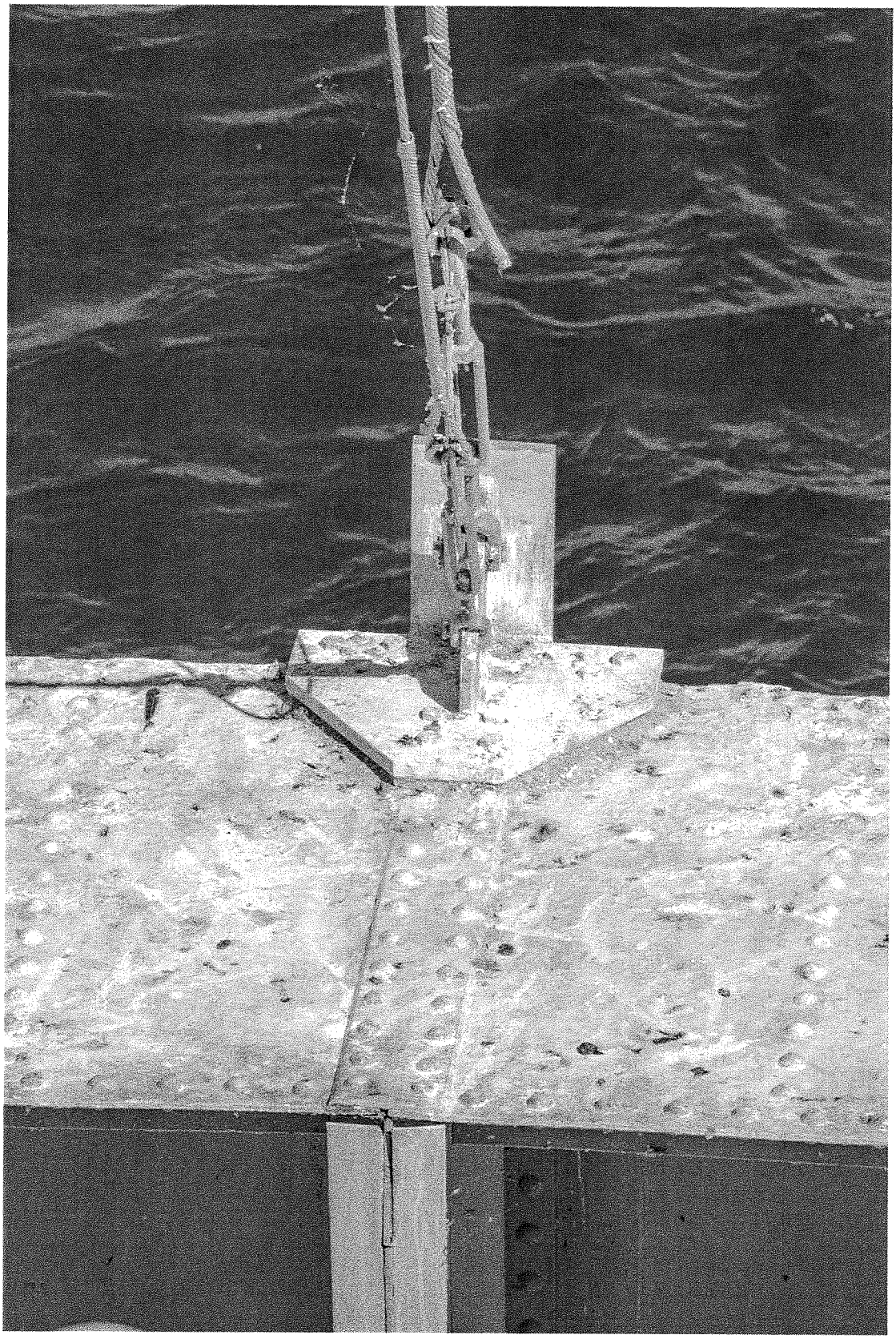
ATTACHMENT A
INSTALLATION PHOTOGRAPH



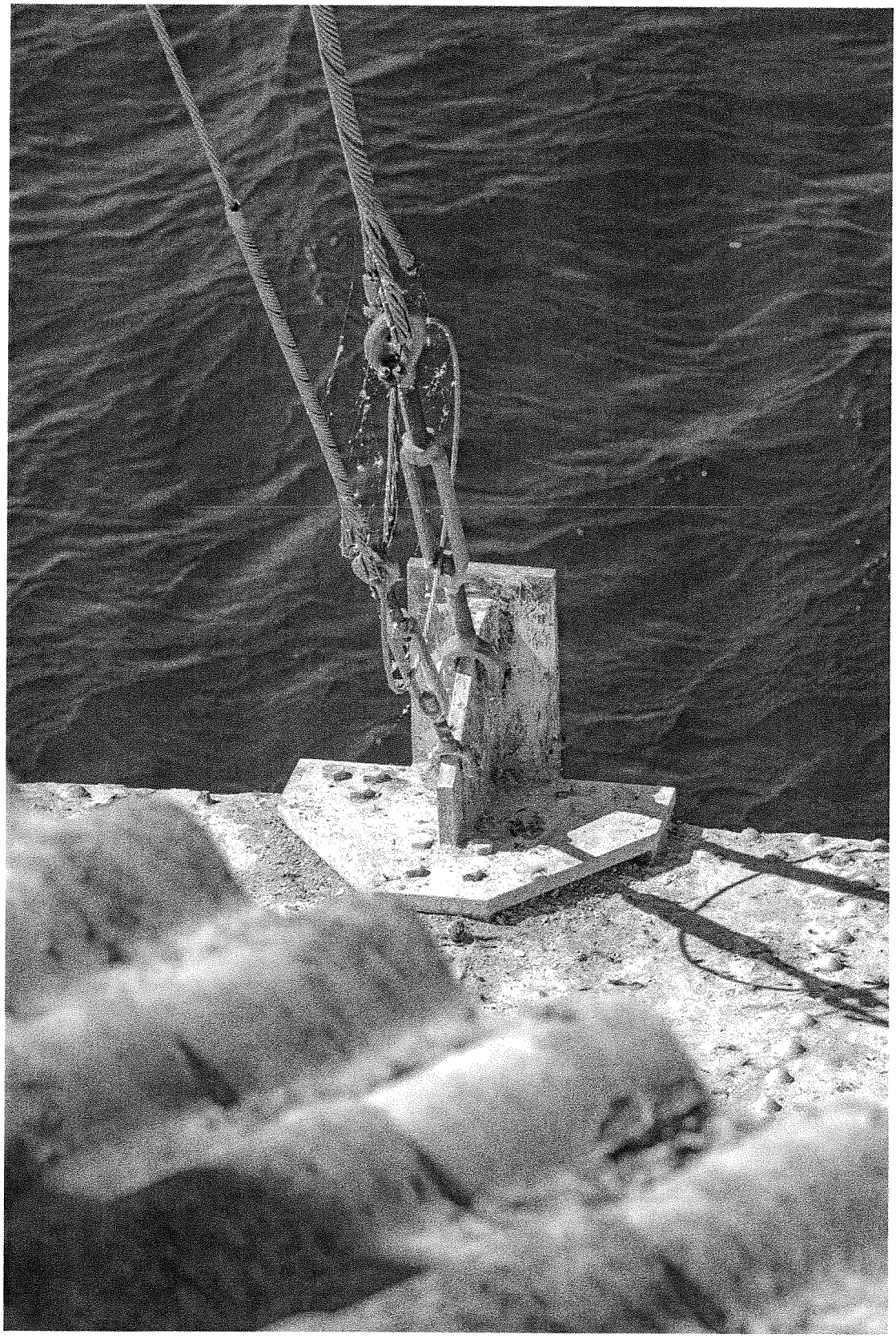
ATTACHMENT B
Existing Monopole Condition Photographs



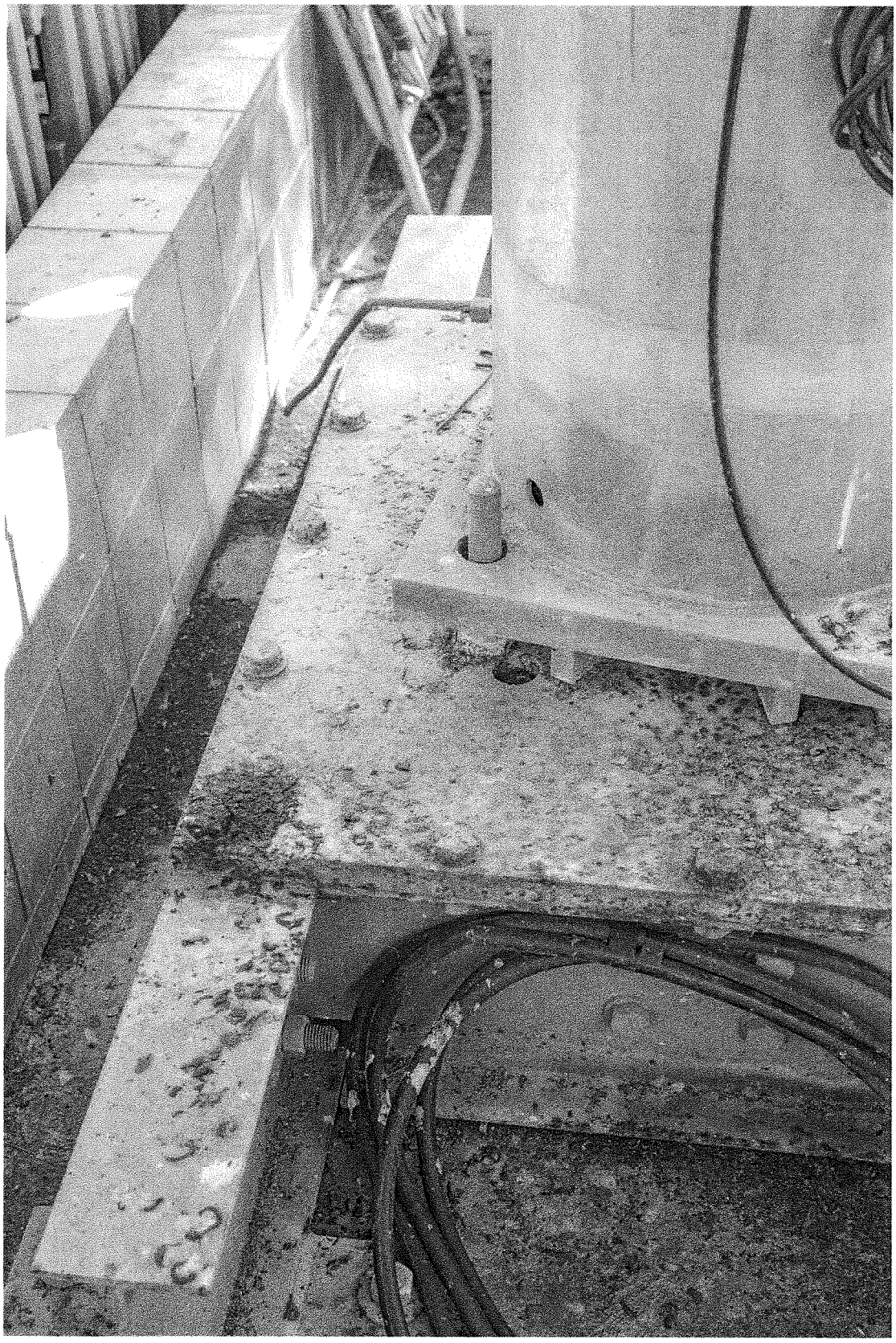


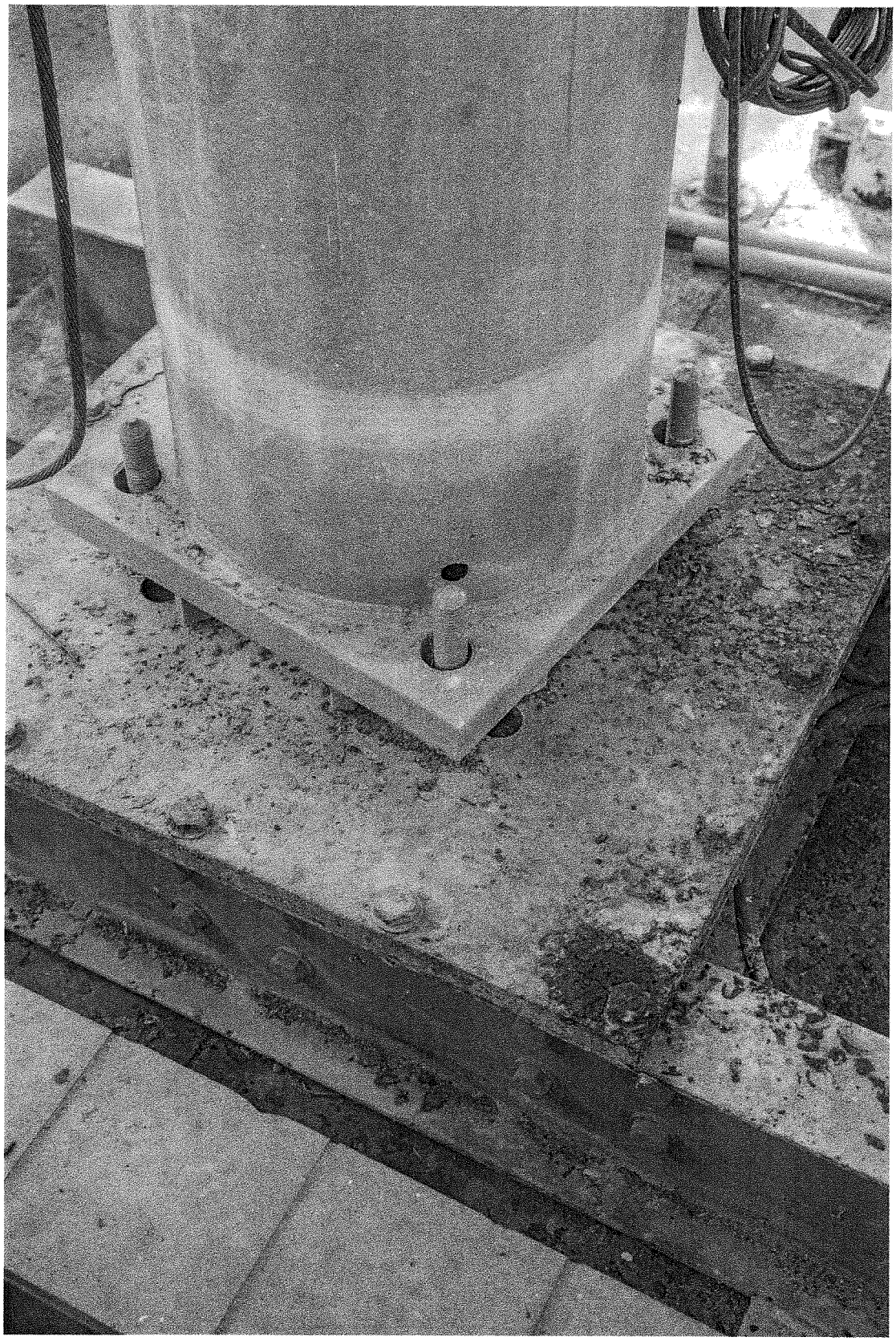




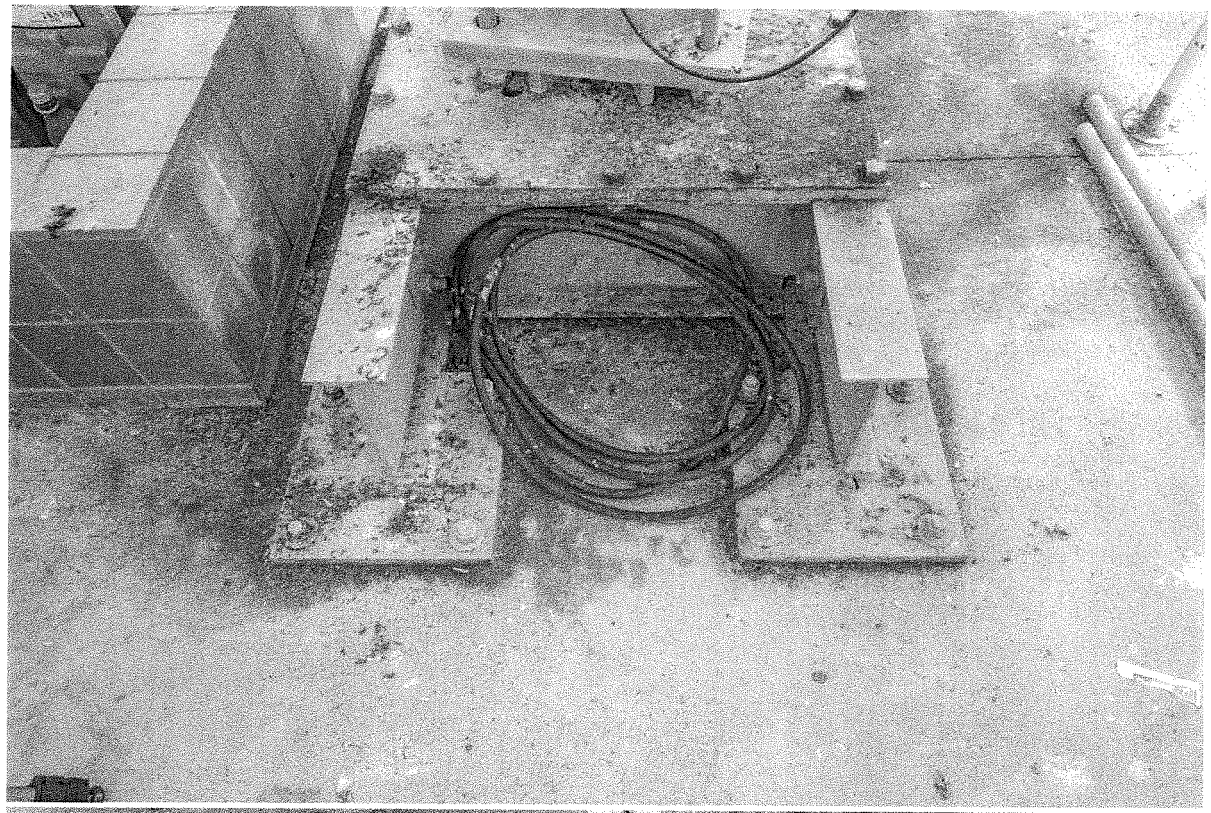


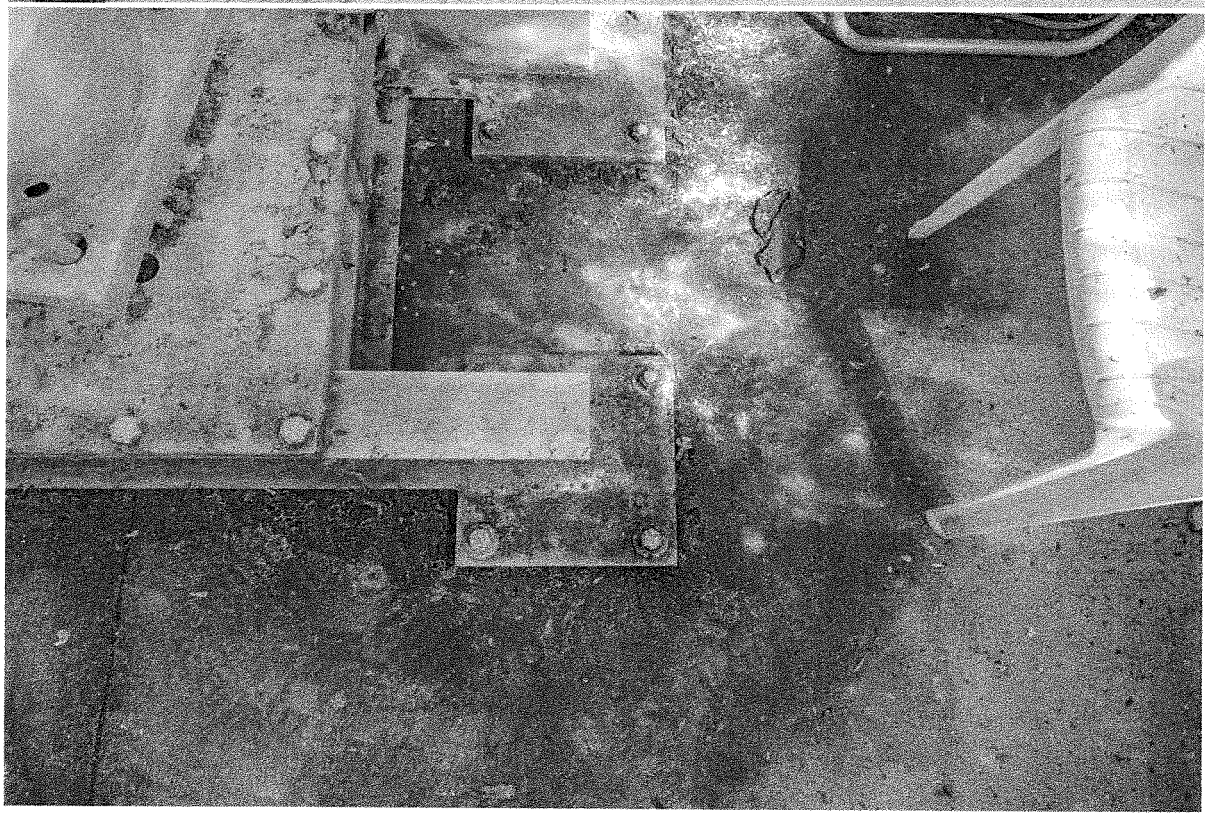












ATTACHMENT C
Crib Inspection Report
The Renaissance Group

TRG
THE RENAISSANCE GROUP
A CONSERVE FIRST LLC COMPANY

8281 Euclid Chardon Road, Suite E
Kirtland, Ohio 44094
Office: 440-256-2800
Info@ConserveFirst.com
www.ConserveFirst.com

To: Lorry Wagner, Ph.D.
President
Lake Erie Energy Development Corporation (LEEDCo)
1938 Euclid Avenue, Suite 200
Cleveland, Ohio 44115

From: The Renaissance Group
8281 Euclid Chardon Road Suite E
Kirtland, Ohio 44094
Office: (440) 256-2800
Info@ConserveFirst.com

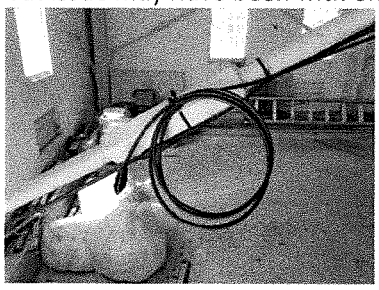
Crib Inspection Report (March 23, 2017)

Introduction: Trip was scheduled on Thursday June 1st after the upper microphone was reported defective. Two new upper bat monitoring microphones were installed and one existing upper-tower microphone was replaced and left as a spare. No defect was found on existing cabling. A general inspection of the Cleveland Water Intake Crib structures and systems was also conducted. The inspections and work-products were performed by Godwin, Hillier and Tamburino. The microphone and logger testing was done by Greg Cutrell of LimnoTech. The photos in this report are typical examples of conditions observed and do not represent all the inspections or photos taken.

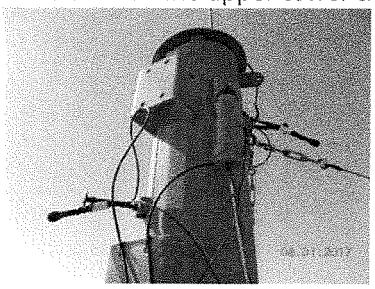
Inspection Methodology: The tower was visually inspected from the ground and through a full tower climb. Guy-line tension was evaluated using the pluck and slump methods. Upper tower details, instrumentation and cabling were evaluated using magnification and direct hands-on inspection through a full tower climb. Power systems were inspected through direct observation and measurement. Instrumentation was inspected through direct observation and data retrieval. Communications were verified through site-to-shore-to-site data transfers including the City-Cam feed.

Accomplishments:

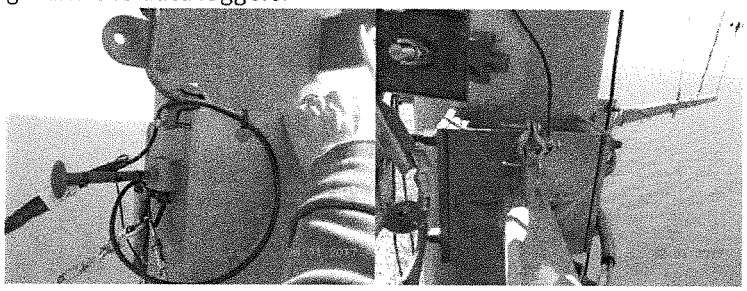
- The existing upper bat monitor microphone was replaced and tested operation but left disconnected as a spare. No existing cabling defects were found. Cable was rerouted through the building and needs about 20 meters to make it to the current logger location. The original microphone was given to LimnoTech for further evaluation, but issue may have been with one of the loggers.



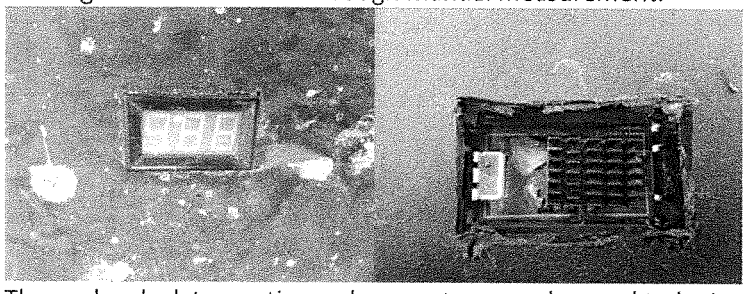
- Two new upper microphones with associated cabling were installed at the upper tower level facing Southwest. and Northeast (Tested operational). For future reference, 75-meter cables are sufficient to reach the edge of the Crib from the upper tower through the building.



- All microphones were installed with strain-relief loops and upper tower grounding. LimnoTech decided not to ground the data loggers.



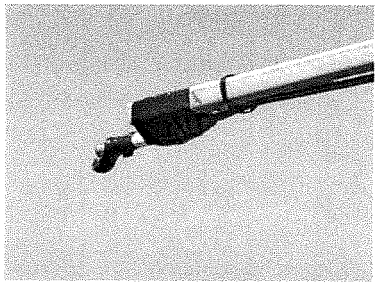
- An extra tower climb and boat redeployment were required due to the provided microphones being the wrong type (bird monitoring range, not bat) and pairing issues with the loggers. Fortunately, spares of the right type were on site. Unfortunately, the change-out resulted in sacrificing the shop performed weatherization and hardening improvements we performed. This said, we did our best to replicate these in the field on the microphone replacements.
- All microphones and cable were keyed to aid in future diagnostics. LimnoTech should provide this keying in their report.
- Logger issues were discovered. One logger was resolved onsite per LimnoTech. The other was removed for on-shore evaluation and will need to be replaced to bring all the microphones into operation.
- Overall Crib systems were inspected. The March 23, 2017 report findings hold with three additions listed below.
    - One non-critical power meter has failed on the Case Battery Bank. It was left disconnected. Power readings are still available through manual measurement.



    - The under-deck tower ties and supports were observed to be in dire need of painting. Failure to proactively deal with this will result in much more expensive repairs. This should be scheduled this summer.



    - The lower microphone wind shield has apparently been pecked away by birds. It needs to be replaced.



Recommendations:

See above. See March 23, 2017 Report for other details and recommendations.

Conclusion: Due to the cost of Crib trips, further care should be taken to pre-test and confirm site equipment before Crib mobilizations. The current installations are much more robust with all cabling being routed through the building and offer significant redundancy options for the test period.

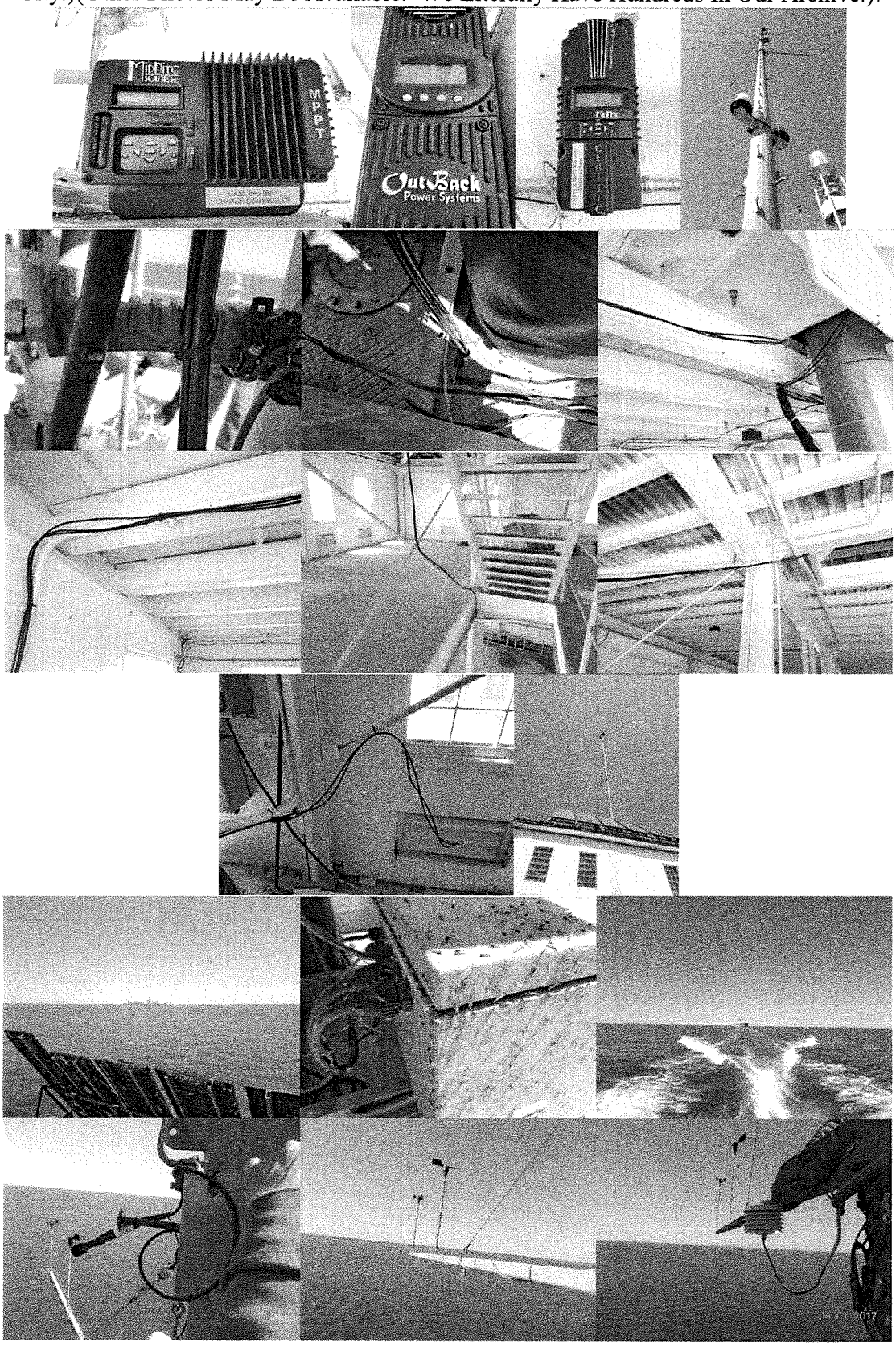
Due to the extreme time constraints of this evaluation, this report in no way should be considered conclusive and at best should be considered an overview. No warranty or certification of any aspect of the Crib or its systems is expressed or implied.

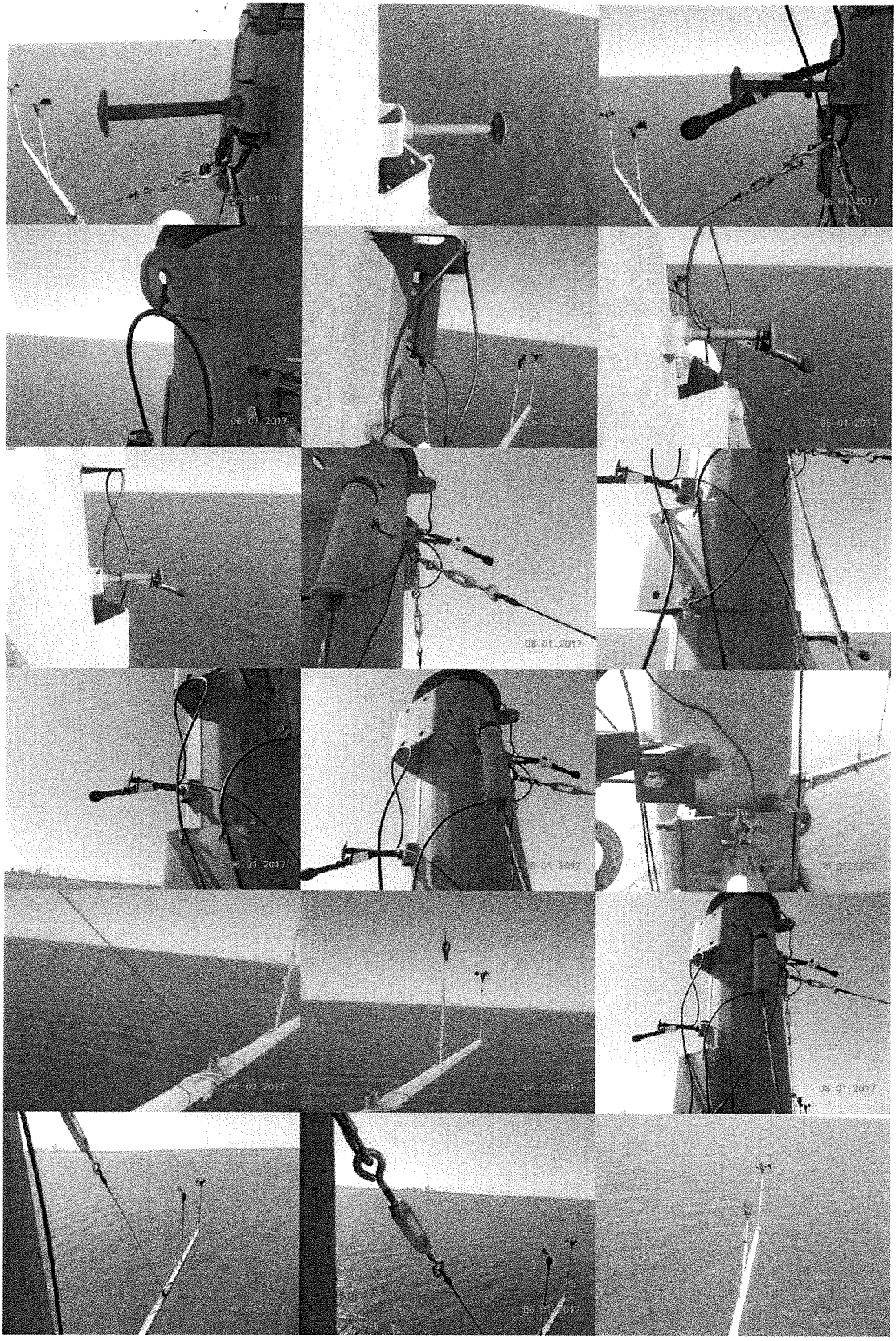
As always, feel free to call with any questions or further needs.

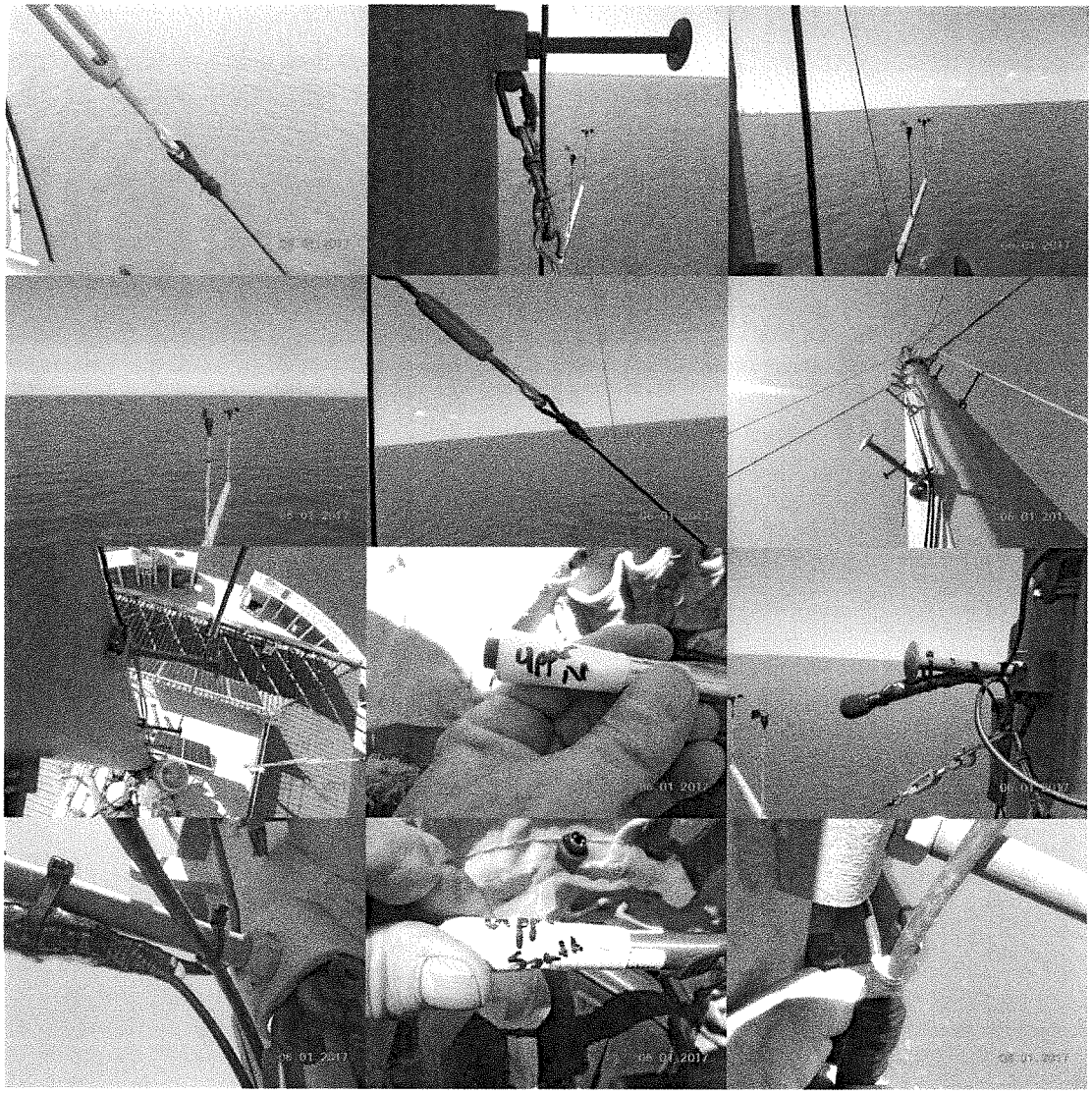
Signed,

AAron Godwin, Founder
Office: (440) 256-2800
Mobile: (216) 832-1931
AAron@ConserveFirst.com

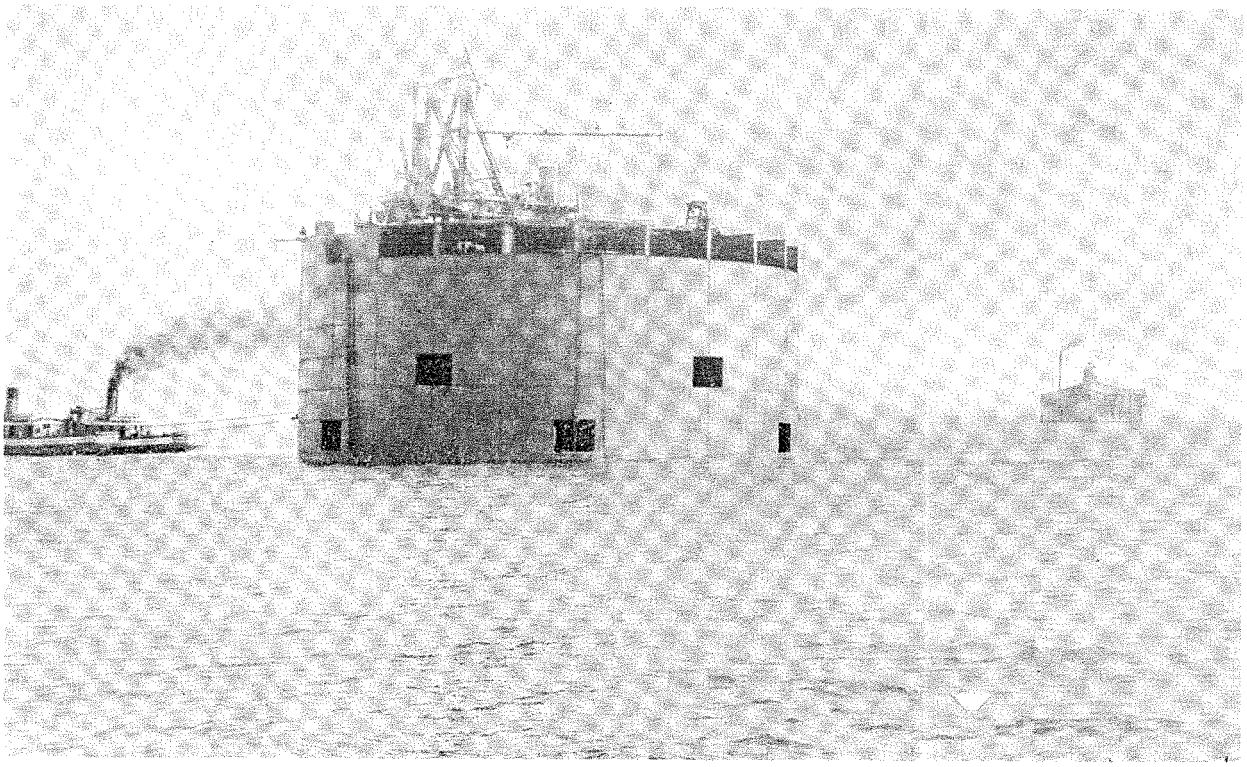
Other 6-1-17 Site Visit Photos (All Photos Available In Larger Format Upon Request.)(No Photo of Any Interior Aspects of The Crib Can Be Publically Disseminated Without The Express Written Permission of The City.)(Other Photos May Be Available. We Literally Have Hundreds In Our Archive.):






4FT N

Underwater Marine Contractors INCORPORATED



KIRTLAND CRIB WELDING FEASIBILITY TEST

OCTOBER 2024

PREPARED BY: JOEL FRAZIER

Underwater Marine Contractors Inc.

CONTACT INFORMATION

Customer Information

Customer Name: **City of Cleveland Water, Cleveland, Ohio**
Address: 1245 West 45th Street, Cleveland Ohio 44102
Contact: Tony Civittolo
Phone: (216) 664-3175
Email: tony_civittolo@clevelandwater.com

Contractor Information

Underwater Marine Contractors, Inc.

Address:9535 Clinton Rd, Cleveland, OH 44144
Website:www.uwmarine.com
Phone: (216) 883-6683
Email: uwmarine@uwmarine.com

Report prepared by: Joel Frazier
Phone: (216) 347-0083
Email:jfrazier@uwmarine.com

CREW AND DIVING CONDITIONS

Supervisor:	Joel Frazier
Tenders:	Eric Nunez, Chris Imbrigiotta
Divers/Welders	Tom Warvell, Conner O'Burke
Visibility:	5-10 feet
Water Temp:	70 degrees
Water Depth:	38 feet

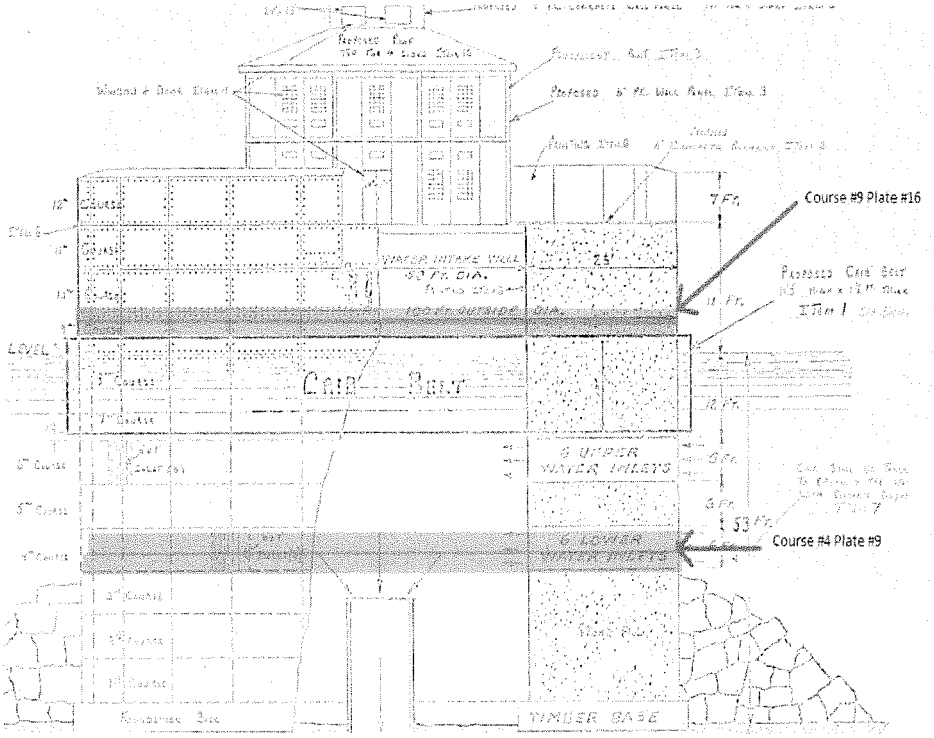
SCOPE

Underwater Marine Contractors, Inc. was tasked with conducting a welding feasibility test on the Kirtland Crib Water Intake Structure. During the test, we documented conditions, locations, welding equipment used, and the duration of the repair process.

To optimize efficiency and documentation, we selected two locations for the welding feasibility test:

- Above-water Inner Well (Course #9 Plate #16)
- Below-water Outside (Course #4 Plate #9)

All welding activities were captured on video and will be included with this report.



COURSE # 9 PLATE # 16 (Inner Well Above Water)

Preparation: Approximately 1 hour was spent preparing the weld area by removing rust and paint.

Weld Parameters: Welds were 6 inches in length with a 6-inch skip pattern (stitch weld).

Welding Process: Four passes were used: one root pass using 6011 1/8" diameter electrode and three cover passes using 7018 1/8" diameter electrode.

Welding Equipment: A Lincoln Classic welder was used, set at 250 amps with the fine-tune selector adjusted to 70.

Timeline: Two welders completed one plate in approximately 8 hours.

Rods Used: A total of 125 rods were consumed.

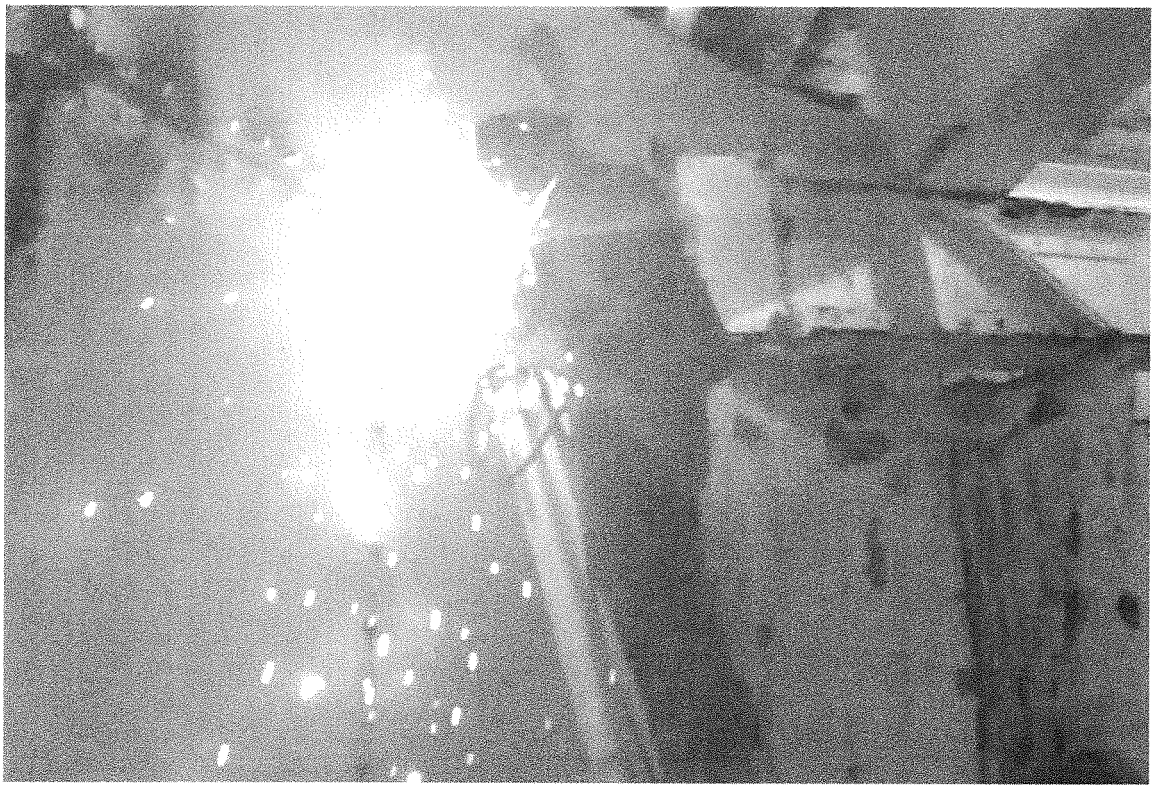


Figure 1 Course #9 Plate #16

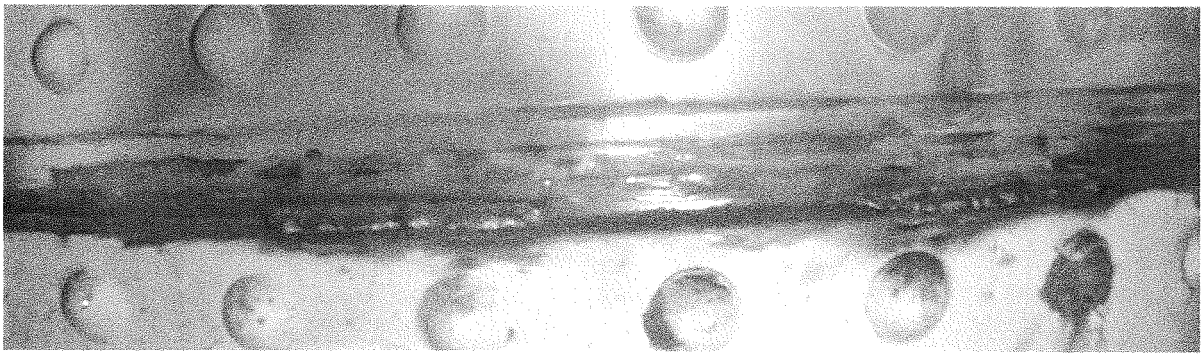


Figure 2 Horizonal Stitch Weld Example



Figure 3 Vertical Stitch Weld Example

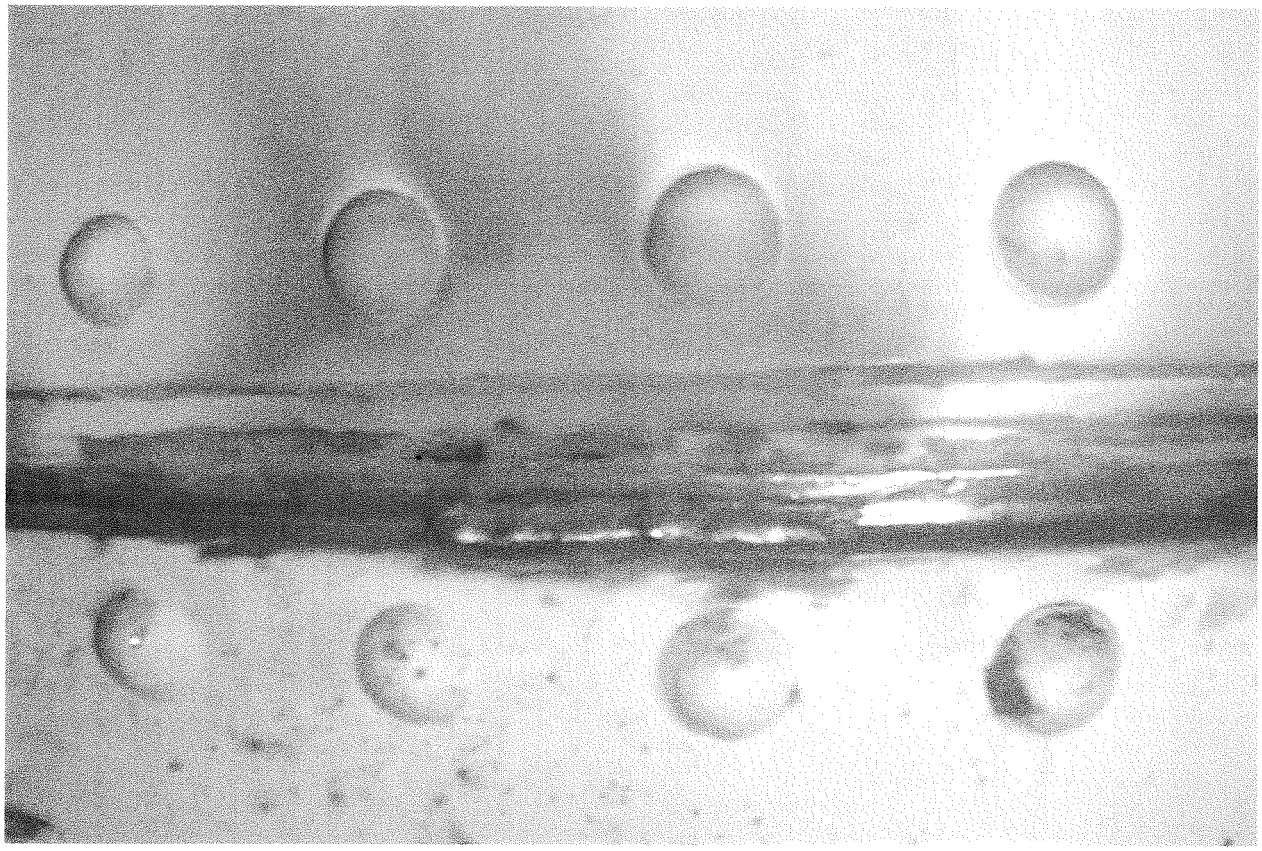


Figure 4 Typical 4 pass weld.

COURSE # 4 PLATE # 9

Preparation Time: Approximately 2 hours were allocated for diving preparation.

Weld Parameters: Welds were 6 inches in length with a 6-inch skip pattern (stitch weld).

Welding Process: Four passes were used: one root pass using Broco 3/16" diameter Easy Touch electrode and three cover passes using Broco 3/16" diameter Easy Touch electrode.

Welding Equipment: A Lincoln Classic welder was used, set at 250 amps with the fine-tune selector adjusted to 70.

Timeline: Four dives, each lasting approximately 2.5 hours, were required to complete an outside course plate.

Rods Used: A total of 70 rods were consumed.



Figure 5 U/W Course #4 Plate #9



Figure 6 Typical Horizonal Stitch Weld

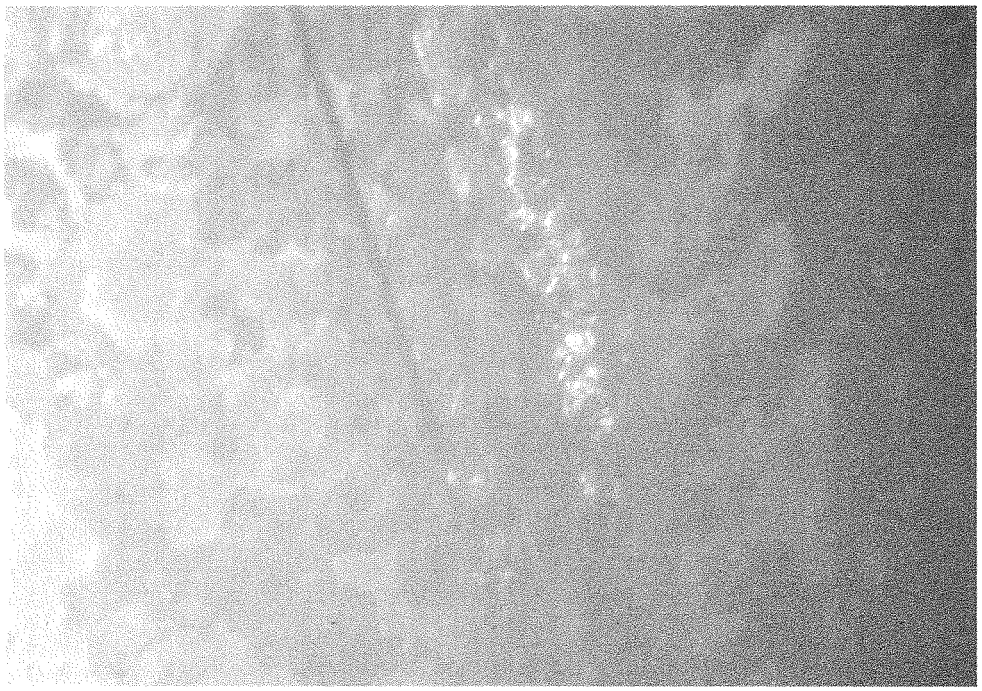


Figure 7 Typical Vertical Stitch Weld

Summary

Based on our initial assessment, welding the existing plates appears to be feasible. However, several factors will influence the project's timeline and scope:

- **Damaged Plates:** Any damaged plates will need to be addressed prior to welding.
- **Pulled-Through Rivets:** The pulled-through rivets must be repaired or replaced.
- **Preparation:** A significant amount of preparation work, including cleaning, will be required.
- **Environmental Factors:** Weather conditions and water turbidity will impact the welding process.