

CHARTER TOWNSHIP OF YPSILANTI BOARD OF TRUSTEES

Supervisor

BRENDA L. STUMBO

Clerk

HEATHER JARRELL ROE

Treasurer

STAN ELDRIDGE

Trustees

RYAN HUNTER

JOHN P. NEWMAN II

GLORIA PETERSON

DEBBIE SWANSON

April 4, 2023REVISED 04-04-2023

**Work Session – 5:00 pm
Regular Meeting – 7:00 p.m.**

**Ypsilanti Township Civic Center
7200 S. Huron River Drive
Ypsilanti, MI 48197**



**YPSILANTI
TOWNSHIP**
— WHERE YOUR FUTURE GROWS —

Charter Township of Ypsilanti

7200 S. HURON RIVER DRIVE • YPSILANTI, MI 48197

SUPERVISOR BRENDA STUMBO • CLERK HEATHER JARRELL ROE • TREASURER STAN
ELDRIDGE TRUSTEES: RYAN HUNTER • JOHN P. NEWMAN II • GLORIA PETERSON •
DEBBIE SWANSON

WORK SESSION AGENDA CHARTER TOWNSHIP OF YPSILANTI TUESDAY, APRIL 4, 2023

5:00pm

1. WRRMA COLLABORATIVE CONTRACTING DISCUSSION.....ROBERT DAVIS
2. DEPARTMENT OF ENERGY-ENERGY EFFICIENT
BLOCK GRANT.....SUPERVISOR STUMBO
3. BUILDING USE POLICY.....TREASURER ELDRIDGE AND TRUSTEE SWANSON
4. AGENDA REVIEWSUPERVISOR STUMBO
5. OTHER DISCUSSION..... BOARD MEMBERS



MEMORANDUM

To: Charter Township of Ypsilanti Board of Trustees

From: Brenda Stumbo, Township Supervisor

Date: March 28, 2023

RE: Request for Work Session Discussion: Department of Energy – Energy Efficiency Block Grant

Ypsilanti Township is eligible to receive guaranteed funding of \$113,000 from the Department of Energy - Energy Efficiency Block Grant. There is no Township match required. A voucher can be used if purchasing equipment or technical assistance, and the use of a voucher removes barriers for federal grant funds.

The proposed project is to replace outdated, non-efficient HVAC roof-top units at Community Center with more energy efficient units. The preliminary estimate is \$260,000 to replace all 27 units. The grant will cover \$101,700 of the cost for replacement, with \$11,300 or 10 percent designated for administration. Operations Manager Michael Saranen is working to prepare three competitive bids, which are required to submit for voucher approval.

A pre-award application sheet is to be submitted by April 28, 2023, which identifies the project and secures funds. This application is non-binding and can be revised after submission.

The Board will need to approve Ernat Consulting to submit the pre-award application by April 28th. Attached is a proposal from Ernat Consulting. This will be brought back to the board for formal action on April 18, 2023.

Also to be discussed is if the Township will want to fund replacement of the units that will not be covered by the grant.

Thank you for your consideration.

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ERNAT CONSULTING

March 29, 2023

Supervisor Brenda Stumbo

Ypsilanti Charter Township

7200 Huron River Dr.

Ypsilanti, MI 48197

Dear Supervisor Stumbo,

At the request of the Township Executive Team, Ernat Consulting has reviewed the Energy Efficiency Community Block Grant (EECBG) program. For 2023-24 fiscal year, The Department of Energy has identified a formula funding program for entitlement communities. Ypsilanti Township will receive approximately \$113,000 in guaranteed funding for either an energy efficiency audit, equipment replacement or a grant. Also new for this year is a voucher program. If the community selects to do an energy audit or replace equipment the community may request a voucher in lieu of a grant. The voucher is a streamline process that removes the restrictions on typical federal funds such as a Section 106 approval and Davis Bacon restrictions.

Ernat Consulting has attended two webinars on the funding and voucher program and has the final webinar scheduled for April 13th. Recipients are required to acknowledge the funding and submit preliminary commitments by April 28th.

We have met with Township staff and are recommending the replacement of out-dated and problematic HVAC units for the Community Center. Township staff will provide further information. We have checked with DOE staff and this would be an acceptable equipment replacement provided the new units are classified as more energy efficient than the current units. This project will also qualify for the voucher program which will create less burden for completing the project.

Ernat Consulting is well positioned to prepare/voucher grant application on behalf of Ypsilanti Charter Township. The team for this project will include Bill and Beth Ernat. We bring a combined 50 years of experience in writing and preparing municipal grants.

Ten percent of the total award is designated for administration of the grant, \$11,300. The total award for replacement will be \$101,700.

Proposal

Project Preparation. This section is expected to take 1-2 weeks and approximately 10-15 hours of work time and will include:

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ERNAT CONSULTING

- Review of bids
- Review of grant rules and procedure
- Creation of project narrative
- Creation of preliminary project budget and submission materials

Submission. This section is expected to last 2-3 weeks and approximately 25 hours of work time and will be on-going from start of project through formal submission.

- Creation of timeline
- Prepare an approved final budget
- Draft and presentation of proposal
- Coordination and agreements with fundings sources, project sponsors, and other agencies
- Submission of applications

Project Deliverables

The following will be provided to the Township for review and approval before final submission electronically of the grant.

- Complete grant narrative and program guide for execution of grant award.
- Complete grant budget
- Project timeline
- Complete required project reporting.

Additional Scope

Other grants and funding matches or opportunities may become available during the preparation of the grant submission. Ernat Consulting is willing to make additional applications at its hourly rate of \$100/hour or by addendum to this contract.

Fee

The fee for this project would be up to **\$6,500.00**. A lump sum of \$4,500 for the application and materials required to submit the grant would be due within 15 days of receipt of project deliverables. A lump sum of \$2,000 will be due within 15 days upon completion of voucher requirements

If you are in agreement with the above proposal, please sign and date below.

Signature of acceptance

Date

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ERNAT CONSULTING

Please feel free to reach out with any questions at 734-945-9270. We look forward to working with you.

Warm Regards,

Bill and Beth Ernat

Ernat Consulting



**YPSILANTI
TOWNSHIP**
— WHERE YOUR FUTURE GROWS —

To: Heather Jarrell Roe
From: Stan Eldridge, Township Treasurer
Debbie Swanson, Trustee
Re: Draft Policy – Building Use
Date: March 31, 2023

Could you please place on the Tuesday, April 4th, 2023 Work Session agenda an item related to a Building Use Policy. A draft policy will be discussed at that time.

Thank You

REVIEW AGENDA

- A. SUPERVISOR STUMBO WILL REVIEW BOARD MEETING AGENDA

OTHER DISCUSSION

- A. BOARD MEMBERS HAVE THE OPPORTUNITY TO DISCUSS ANY OTHER PERTINENT ISSUES



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TOWNSHIP**
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DEBBIE SWANSON

REGULAR MEETING AGENDA

TUESDAY, APRIL 4, 2023

7:00 P.M.

REVISED 04-04-2023

1. CALL TO ORDER
2. PLEDGE OF ALLEGIANCE AND INVOCATION
3. PUBLIC COMMENTS
 - THREE MINUTES PER PERSON
 - ALL COMMENTS MUST BE ADDRESSED TO THE CHAIR
 - PUBLIC COMMENTS ARE ALSO WELCOME AS THE BOARD ADDRESSES EACH AGENDA ITEM
4. CONSENT AGENDA
 - A. MINUTES OF THE MARCH 21, 2023 WORK SESSION AND REGULAR MEETING
 - B. STATEMENTS AND CHECKS
 1. STATEMENTS AND CHECKS FOR APRIL 5, 2023 IN THE AMOUNT OF \$880,658.37
5. ATTORNEY REPORT
 - A. GENERAL LEGAL UPDATE

NEW BUSINESS

1. RESOLUTION 2023-03, AUTHORIZING THE DIVISION OF PLATTED LOTS IN WATSONIA PARK SUBDIVISION
2. REQUEST TO APPROVE THE CREATION, POSTING AND FILLING OF MAINTENANCE SUPERINTENDENT POSITION WITHIN THE TEAMSTER UNION
3. REQUEST APPROVAL TO STOP FUNDING THE NATIONWIDE OBRA ACCOUNT AND TO REINSTATE THE EMPLOYER/EMPLOYEE SOCIAL SECURITY TAXES FOR TEMPORARY, SEASONAL AND COMMISSION EMPLOYEES
4. RESOLUTION, 2023-04, ESTABLISHMENT OF WATER/SEWER SUBSIDY INCOME LEVELS
5. REQUEST TO PAY ALL APPOINTED BOARD MEMBERS AND COMMISSIONERS A \$75.00 STIPEND IN THE AMOUNT OF \$5,000.00 BUDGETED IN LINE ITEM #101-101-704.000 CONTINGENT ON APPROVAL OF THE BUDGET AMENDMENT

6. REQUEST TO APPROVE THE PROPOSAL FROM MIDWESTERN CONSULTING TO PROVIDE A DRONE SURVEY IN THE AMOUNT OF \$64,000.00 BUDGETED IN LINE ITEM #213-753-801-500 CONTINGENT UPON APPROVAL OF THE BUDGET AMENDMENT
7. REQUEST TO APPROVE DESIGN ENGINEERING BY MIDWESTERN CONSULTING AND STANTEC FOR NORTH BAY PARK ACCESSIBILITY AND IMPROVEMENT STUDY IN THE AMOUNT OF \$9,962.50 BUDGETED IN LINE ITEM #213-753-801-500 CONTINGENT UPON APPROVAL OF THE BUDGET AMENDMENT
8. BUDGET AMENDMENT #4

AUTHORIZATIONS AND BIDS

1. REQUEST TO APPROVE THE PROPOSAL FROM RANDALL MASCHARKA FOR TOWNSHIP PHOTOGRAPHY SERVICES
2. REQUEST TO ACCEPT THE PROPOSAL FROM OOMA ENTERPRISE FOR AIRDIAL SERVICE
3. REQUEST TO SEEK BIDS FOR CONSTRUCTION SERVICES FOR INSPECTION OF SPILLWAY GATES AND CONCRETE REPAIRS AT THE HYDRO STATION

OTHER BUSINESS

BOARD MEMBER UPDATES

PUBLIC COMMENTS

CONSENT AGENDA

**CHARTER TOWNSHIP OF YPSILANTI
MINUTES OF THE MARCH 21, 2023 WORK SESSION**

Supervisor Stumbo called the meeting to order at approximately 5:00pm in the Ypsilanti Township Civic Center Board Room, 7200 S. Huron River Drive, Ypsilanti Township.

Members Present: Supervisor Brenda Stumbo, Clerk Heather Jarrell Roe and Treasurer Stan Eldridge
Trustees: Ryan Hunter, John Newman II, Gloria Peterson and Debbie Swanson

Members Absent: None

Legal Counsel: Wm. Douglas Winters

AGENDA

- 1. 14B COURT SECURITY WALK THROUGH.....JFR ARCHITECTS
- 2. WATER AND SEWER REBATE PROGRAM.....SUPERVISOR STUMBO
- 3. APPOINTED BOARDS AND COMMISSIONS STIPEND.....SUPERVISOR STUMBO
- 4. AGENDA REVIEWSUPERVISOR STUMBO
- 5. OTHER DISCUSSION..... BOARD MEMBERS

- 1. 14B COURT SECURITY WALK THROUGH.....JFR ARCHITECTS

James Renaud, JFR Architects, stated the idea for today’s meeting would be to do a walk through of the 14B Court to review areas where security is recommended and the type of security. He also spoke about the repairs needed to the IT office.

Mark Nelson, Magistrate 14B Court, stated that 14B and the court in Chelsea were the only courts in Washtenaw County that did not have security. He added that the Chelsea court may be moving to another location in order to add security.

Treasurer Eldridge stated that he and Mark Nelson had met with State Representative Jimmie Wilson, who now sits on the House Judiciary, to attempt to find funding for the security updates at the court.

The tour began at 5:09pm and returned at approximately 5:49pm.

Discussion and questions continued on the proposed updates.

**CHARTER TOWNSHIP OF YPSILANTI
MINUTES OF THE MARCH 21, 2023 WORK SESSION
PAGE 2**

Three public comments were given.

2. WATER AND SEWER REBATE PROGRAM.....SUPERVISOR STUMBO

Supervisor Stumbo stated she is proposing to raise the water and sewer rebate from \$20.00 to \$40.00. She stated the rebate had not been raised since 2017 and that residents had asked for the rebate to be increased due to rising costs.

The board had no objection to this being placed on the next meeting's agenda.

3. APPOINTED BOARDS AND COMMISSIONS STIPEND....SUPERVISOR STUMBO

Supervisor Stumbo stated that she did not realize that member's of certain boards or commissions did not receive a stipend for attending meetings and that the boards she is referring to is the AAATA, Huron River Watershed, Washtenaw Regional Recycling Authority and the Washtenaw Area Transportation Authority. She added that she would recommend paying these appointees \$75.00 per meeting as with all other boards and commissions that are already compensated.

The board had no objection to this being placed on the next meeting's agenda.

Supervisor Stumbo spoke about a grant the township had received to hand out naloxone spray. She stated the Treasurer's Office is handing out the naloxone.

Supervisor Stumbo stated that 98 year old Sargent William Barksdale received his World War II medals the previous week in the boardroom of the Civic Center.

Supervisor Stumbo stated that she had attended the recent meeting for the New West Willow Neighborhood Association with Trustees Swanson, Newman and Peterson. She stated there was a lot of yelling and the meeting was very concerning. Discussion continued between board members on the events at the meeting and the status of the Community Resource Center owned by the township and used by the NWWNA.

Trustee Newman stated that he was still trying to schedule a meeting with Sheriff Clayton for the Police Services Committee.

**CHARTER TOWNSHIP OF YPSILANTI
MINUTES OF THE MARCH 21, 2023 WORK SESSION
PAGE 3**

AGENDA REVIEW

CONSENT AGENDA

There was no discussion on the consent agenda.

NEW BUSINESS

1. REQUEST TO AWARD THE BID FOR DEMOLITION OF GAULT VILLAGE TO HOMRICH, INC.

Supervisor Stumbo stated this item would be discussed during the 7pm Regular Meeting.

2. REQUEST TO ACCEPT THE RESIGNATION OF KEITH JASON FROM THE YPSILANTI COMMUNITY UTILITY AUTHORITY EFFECTIVE APRIL 27, 2023

Supervisor Stumbo stated that Mr. Jason had served on the YCUA board for the previous ten years.

3. REQUEST TO APPROVE THE LEASE WITH MICHIGAN TOURNAMENT FLEET FOR THE RENTAL OF GOLF CARTS FOR THE JEL SUMMER JAZZ CONCERT SERIES IN THE AMOUNT OF \$3,760.00 BUDGETED IN LINE ITEM #230-754-963-0603

Supervisor Stumbo stated this will be funded by a grant that the township receives every year from the Visitors and Convention Bureau.

4. REQUEST TO APPROVE CHANGE ORDER #4 WITH STANTEC FOR THE LOONFEATHER POINT PARK RENOVATION PROJECT IN THE AMOUNT OF \$11,858.00 BUDGETED IN LINE ITEM #213-901-975-587

John Hines, Recreation Director, stated this change order would go until March 31, 2023 and should complete the project.

5. BUDGET AMENDMENT #3

Supervisor Stumbo reviewed the budget amendment. Javonna Neel, Accounting Director requested to make a change to the budget amendment. She added that the line item for repairs at the community center for insurance reimbursement should be changed to line item #213-000-676-012.

**CHARTER TOWNSHIP OF YPSILANTI
MINUTES OF THE MARCH 21, 2023 WORK SESSION
PAGE 4**

AUTHORIZATIONS AND BIDS

- 1. REQUEST TO SEEK SEALED BIDS FOR A FORD F-150 FOR THE BUILDING DEPARTMENT**

There was no discussion on this item.

- 2. REQUEST TO AWARD THE LOW BID FOR PLAYGROUND MULCH TO SUPERIOR GROUNDCOVER BUDGETED IN LINE ITEM #101-770-818-011**

There was no discussion on this item.

- 3. REQUEST TO AWARD THE LOW BID FOR ANNUAL SIDEWALK REPAIR TO CLI CONCRETE LEVELING, INC. BUDGETED IN LINE ITEM #213-446-982-006**

There was no discussion on this item.

- 4. REQUEST TO AWARD THE LOW BID FOR ANNUAL SIDEWALK REPLACEMENT TO SOLIDINO CONSTRUCTION CO. BUDGETED IN LINE ITEM #213-446-982-006**

There was no discussion on this item.

OTHER BUSINESS

There was no other business.

BOARD MEMBER UPDATES

There were no board member updates.

The Work Session meeting was adjourned at approximately 6:57pm.

Respectfully Submitted,

Heather Jarrell Roe, Clerk, Charter Township of Ypsilanti

**CHARTER TOWNSHIP OF YPSILANTI
MINUTES OF THE MARCH 21, 2023 REGULAR BOARD MEETING**

Supervisor Brenda Stumbo called the meeting to order at approximately 7:04pm in the Ypsilanti Township Civic Center Board Room, 7200 S. Huron River Drive, Ypsilanti Township. The Pledge of Allegiance was recited followed by a moment of silent prayer.

Members Present: Supervisor Brenda Stumbo, Clerk Heather Jarrell Roe and Treasurer Stan Eldridge
Trustees: Ryan Hunter, John Newman II, Gloria Peterson and Debbie Swanson

Members Absent: None

Legal Counsel: Wm. Douglas Winters

4. PUBLIC COMMENTS

Five public comments were given.

5. CONSENT AGENDA

A. MINUTES OF THE MARCH 7, 2023 WORK SESSION AND REGULAR MEETING

B. STATEMENTS AND CHECKS

1. STATEMENTS AND CHECKS FOR MARCH 7, 2023 IN THE AMOUNT OF \$1,387,320.18
2. CLARITY HEALTHCARE DEDUCTIBLE ACH FOR FEBRUARY 2023 IN THE AMOUNT OF \$68,299.59
3. CLARITY HEALTHCARE ADMIN FEE FOR FEBRUARY 2023 IN THE AMOUNT OF \$1,465.32

A motion was made by Clerk Jarrell Roe and seconded by Treasurer Eldridge to approve the consent agenda.

The motion passed unanimously.

ATTORNEY REPORT

A. GENERAL LEGAL UPDATE

Attorney Winters deferred his time for discussion on the proposal for demolition of Gault Village.

NEW BUSINESS

1. **REQUEST TO AWARD THE BID FOR DEMOLITION OF GAULT VILLAGE TO HOMRICH, INC.**

**CHARTER TOWNSHIP OF YPSILANTI
MINUTES OF THE MARCH 21, 2023 REGULAR BOARD MEETING
PAGE 2**

A motion was made by Clerk Jarrell Roe and seconded by Treasurer Eldridge to award the bid for demolition of Gault Village to Homrich, Inc.

Jason Iacoangeli, Planning Director, explained the bidding process for the demolition and the steps taken to get bids for the project.

Jason Lafayette, SME, stated that each company that was selected to bid was prequalified. He added that SME has worked on multiple projects like this with great success.

Discussion and questions continued about the project.

The motion passed unanimously

2. REQUEST TO ACCEPT THE RESIGNATION OF KEITH JASON FROM THE YPSILANTI COMMUNITY UTILITIES AUTHORITY BOARD EFFECTIVE APRIL 27, 2023

A motion was made by Clerk Jarrell Roe and seconded by Treasurer Eldridge to accept the resignation of Keith Jason from the Ypsilanti Community Utilities Authority Board effective April 27, 2023.

Supervisor Stumbo stated that Mr. Jason has been on the YCUA board for ten years. She added that he is resigning to spend more time with his family.

The motion carried unanimously.

3. REQUEST TO APPROVE THE LEASE WITH MICHIGAN TOURNAMENT FLEET FOR THE RENTAL OF GOLF CARTS FOR THE JEL SUMMER JAZZ CONCERT SERIES IN THE AMOUNT OF \$3,760.00 BUDGETED IN LINE ITEM #230-754-963-603

A motion was made by Trustee Peterson and seconded by Clerk Jarrell Roe to approve the lease with Michigan Tournament Fleet for the rental of golf carts for the JEL Summer Jazz Concert Series in the amount of \$3,760.00 budgeted in line item #230-754-963-603 contingent upon attorney review of the lease.

There was no discussion.

The motion passed unanimously.

4. REQUEST TO APPROVE CHANGE ORDER #4 WITH STANTEC FOR THE LOONFEATHER POINT PARK RENOVATION PROJECT IN THE AMOUNT OF \$11,858.00 BUDGETED IN LINE ITEM #213-901-975-587

A motion was made by Treasurer Eldridge and seconded by Trustee Peterson to approve change order #4 with Stantec for the Loonfeather Point Park Renovation

**CHARTER TOWNSHIP OF YPSILANTI
MINUTES OF THE MARCH 21, 2023 REGULAR BOARD MEETING
PAGE 3**

Project in the amount of \$11,858.00 budgeted in line item #213-901-975-587 (see attached).

Supervisor Stumbo stated this should be the last project to finish the park renovation and that the park will be open soon.

The motion passed unanimously.

5. BUDGET AMENDMENT #4

Clerk Jarrell Roe read the budget amendment into the record.

A motion was made by Clerk Jarrell Roe and seconded by Treasurer Eldridge to approve budget amendment #4 (see attached).

Supervisor Stumbo stated this amendment also includes funding to contract with a third party for chipper services.

The motion passed unanimously.

AUTHORIZATIONS AND BIDS

1. REQUEST TO SEEK SEALED BIDS FOR A FORD F-150 FOR THE BUILDING DEPARTMENT

A motion was made by Clerk Jarrell Roe and seconded by Treasurer Eldridge to approve the request to seek sealed bids for a Ford F-150 for the Building Department.

Supervisor Stumbo stated this will come back to the board.

John Hines, Recreation Director, stated this request came from the building department and would be for the senior building inspector.

The motion passed unanimously.

2. REQUEST TO AWARD THE LOW BID FOR PLAYGROUND MULCH TO SUPERIOR GROUNDCOVER BUDGETED IN LINE ITEM #101-770-818-011

A motion was made by Clerk Jarrell Roe and seconded by Treasurer Eldridge to award the low bid for playground mulch to Superior Groundcover budgeted in line item #101-770-818-011.

John Hines, Recreation Director, stated this was actually the second lowest bid, but the township had worked with this company the past few years and they do a great job.

The motion passed unanimously.

**CHARTER TOWNSHIP OF YPSILANTI
MINUTES OF THE MARCH 21, 2023 REGULAR BOARD MEETING
PAGE 4**

3. REQUEST TO AWARD THE LOW BID FOR ANNUAL SIDEWALK REPAIR TO CLI CONCRETE LEVELING, INC. BUDGETED IN LINE ITEM #213-446-982-006

A motion was made by Clerk Jarrell Roe and seconded by Treasurer Eldridge to award the low bid for annual sidewalk repair to CLI Concrete Leveling, Inc. budgeted in line item #213-446-982-006.

John Hines, Recreation Director, stated this was the only bid for the project. He added this is for when residents contact the township about uneven leveling in the sidewalk due to tree roots or some other type of wear and tear.

The motion passed unanimously.

4. REQUEST TO AWARD THE LOW BID FOR ANNUAL SIDEWALK REPLACEMENT TO SALIDINO CONSTRUCTION CO. BUDGETED IN LINE ITEM #213-446-982-006

A motion was made by Treasurer Eldridge and seconded by Clerk Jarrell Roe to award the low bid for annual sidewalk repair to Salidino Construction, Co. budgeted in line item #213-446-982-006.

John Hines, Recreation Director, stated this is for when the sidewalk cannot be repaired. He added that this was the only bid for the project.

Clerk Jarrell Roe stated that when the bids are viewed on MITN, they are able to see which and how many companies have viewed the bid but chose not to bid and there were quite a few contractors who viewed both sidewalk bids.

The motion passed unanimously.

OTHER BUSINESS

There was no other business.

BOARD MEMBER UPDATES

There were no board member updates.

A motion to adjourn was made by Clerk Jarrell Roe and seconded by Treasurer Eldridge.

Motion carried unanimously.

The meeting was adjourned at approximately 8:18pm.

Respectfully Submitted,

**CHARTER TOWNSHIP OF YPSILANTI
MINUTES OF THE MARCH 21, 2023 REGULAR BOARD MEETING
PAGE 5**

**Brenda L. Stumbo, Supervisor
Charter Township of Ypsilanti**

**Heather Jarrell Roe, Clerk
Charter Township of Ypsilanti**



PROFESSIONAL SERVICES AGREEMENT CHANGE ORDER

Change Order # 4 Date 1 March 2023

"Stantec" Stantec Consulting Michigan Inc.
Stantec Project # 2075154400
1168 Oak Valley Drive, Suite 100
Ann Arbor, MI 48108
Ph: (734) 761-1010
email: mark.pascoe@stantec.com

Client Charter Township of Ypsilanti
Client Project # n/a
7200 South Huron River Drive
Ypsilanti, MI 48197
Ph: (734) 544-3817
email: John Hines CPRP
jhines@ypsitownshiptown.org

Project Name and Location: Loonfeather Point Park Improvements, Ypsilanti, MI

In accordance with the original Professional Services Agreement dated 16 September 2020 and Change Orders thereto, the Agreement changes as detailed below are hereby authorized.

The Change Order 4 scope of work includes: 1. Additional site visits and construction administration to cover time from previous anticipated contractor completion date of August/September 2022 to March 31, 2023. December 1, 2021 is the contractors contract deadline. Additional Township costs are subject to reimbursement through the assessment of Liquidated Damages under the construction contract.

Total fees this Change Order		\$	11,858.00
Original agreement amount		\$	58,696.00
Change Order Number	<u>1</u>	\$	3,850.00
Change Order Number	<u>2</u>	\$	12,500.00
Change Order Number	<u>3</u>	\$	5,000.00
Change Order Number	<u> </u>	\$	-
Total Agreement		\$	<u>91,904.00</u>

Effect on Schedule: Contractor closeout anticipated March 31, 2023.

Payments shall be made in accordance with the original agreement terms. All other items and conditions of the original Agreement shall remain in full force and effect.

Stantec Consulting Michigan Inc.

Mark Pascoe, Principal

Print Name and Title

Signature

Mark D. Pascoe

Digitally signed by Mark D. Pascoe
Date: 2023.03.02 07:29:22 -05'00'

Date Signed:

Charter Township of Ypsilanti

Brenda L. Stumbo

Supervisor

Print Name and

Heather Jarrell Roe

Title Clerk

Signature

Brenda L. Stumbo

Heather Jarrell Roe

Date Signed:

March 22, 2023

**CHARTER TOWNSHIP OF YPSILANTI
2023 BUDGET AMENDMENT #3 REVISED 3/20/23**

March 21, 2023

AMOUNTS ROUNDED UP TO THE NEAREST DOLLAR

213 - BIKE, SIDEWALK, REC, ROADS FUND (BSRII)	Total Increase	<u><u>\$402,275.00</u></u>
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Request to carryforward the Loonfeather Park project. The project was scheduled to be finished in 2022 but complications have caused a run over into 2023. This will be funded by an Appropriation of Prior Year Fund Balance.

Revenues:	Prior Year Fund Balance	213-000-699.999		\$102,275.00
			Net Revenues	<u><u>\$102,275.00</u></u>
Expenditures:	Loonfeather Park	21-901-975.587		\$102,275.00
			Net Expenditures	<u><u>\$102,275.00</u></u>

Request to increase the budget for emergency repairs caused by flooding to the Community Center and Golf Shop. This is an ESTIMATED budget. The damage repair may be more extensive and any additional work will be brought back to the Board per the Township's Procurement Policy. This will be funded by an appropriation of prior year fund balance and reimbursement from the insurance company MML.

Revenues:	Insurance Reimbursement	213-000-676.012		\$100,000.00
	Prior Year Fund Balance	213-000-699.999		\$200,000.00
			Net Revenues	<u><u>\$300,000.00</u></u>
Expenditures:	Capital Outlay - Community Ctr	213-901-976.008		\$300,000.00
			Net Expenditures	<u><u>\$300,000.00</u></u>

217 - FIRE SPECIAL MILLAGE CAPITAL FUND		<u><u>\$70,000.00</u></u>
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Request to carryforward and budget for the capital improvement for concrete floor treatment and painting projects approved by the Board on August 16, 2022. These projects were not started in 2022. This will be funded by an appropriation of prior year fund balance.

Revenues:	Prior Year Fund Balance	217-000-699.999		\$70,000.00
			Net Revenues	<u><u>\$70,000.00</u></u>
Expenditures:	Capital Outlay Fire Station	217-901-976.005		\$70,000.00
			Net Expenditures	<u><u>\$70,000.00</u></u>

**CHARTER TOWNSHIP OF YPSILANTI
2023 BUDGET AMENDMENT #3 REVISED 3/20/23**

March 21, 2023

226 - ENVIRONMENTAL SERVICES FUND

Total Increase \$50,000.00

Request to increase the budget for contractual chipping service due to sever storms. Services needed for residential curbside tree chipping. This will be funded by an appropriation of prior year fund balance.

Revenues:	Prior Year Fund Balance	226-000-699.999	\$50,000.00
		Net Revenues	<u>\$50,000.00</u>
Expenditures:	Contractual Services	226-528-818.000	\$50,000.00
		Net Expenditures	<u>\$50,000.00</u>

Motion to Amend the 2023 Budget (#3) REVISED 3-20-23

Move to increase the Bike, Sidewalk, Rec, Roads (BSRII) Fund budget by \$402,275 to \$3,334,497 and approve the department line item changes as outlined.

Move to increase the Fire Special Millage Capital Fund budget by \$70,000 to \$2,199,540 and approve the department line item changes as outlined.

Move to increase the Environmental Service Fund budget by \$50,000 to \$3,744,633 and approve the department line item changes as outlined.

Supervisor
BRENDA L. STUMBO
Clerk
HEATHER JARRELL ROE
Treasurer
STAN ELDRIDGE
Trustees
RYAN HUNTER
JOHN P. NEWMAN II
GLORIA PETERSON
DEBBIE SWANSON



YPSILANTI TOWNSHIP

— WHERE YOUR FUTURE GROWS —

**Accounting
Department**

7200 S. Huron River Drive
Ypsilanti, MI 48197
Phone: (734) 544-4000 Ext 5
Fax: (734) 484-5154

STATEMENTS AND CHECKS

APRIL 4, 2023 BOARD MEETING

ACCOUNTS PAYABLE CHECKS -	\$	619,841.89
HAND CHECKS -	\$	260,816.48
CREDIT CARDS PURCHASES -	\$	0.00
GRAND TOTAL -	\$	880,658.37

03/31/2023 09:01 AM
User: mharris
DB: Ypsilanti-Twp

CHECK REGISTER FOR CHARTER TOWNSHIP OF YPSILANTI Page: 1/1
CHECK NUMBERS 193139 - 193154

HAND CHECKS

Check Date	Check	Vendor Name	Amount
Bank AP AP			
03/21/2023	193139	BYRON RANDOLPH	1,198.91
03/21/2023	193140	ROBERT RANDOLPH	1,198.91
03/24/2023	193141	UNITED STATES POST OFFICE	223.40
03/27/2023	193142	BLUE CROSS BLUE SHIELD OF MI	195,803.88
03/27/2023	193143	BLUE CROSS BLUE SHIELD OF MI	28,457.15
03/27/2023	193144	DELTA DENTAL PLAN OF MICHIGAN	12,824.19
03/27/2023	193145	STANDARD INSURANCE COMPANY	4,188.42
03/27/2023	193146	STANDARD INSURANCE COMPANY	2,861.50
03/27/2023	193147	YAMAHA MOTOR FINANCE CORPORATION	9,665.15
03/29/2023	193148	AT & T	1,401.93
03/29/2023	193149	COMCAST CABLE	31.80
03/29/2023	193150	VERIZON WIRELESS	549.21
03/29/2023	193151	WASTE MANAGEMENT	1,251.56
03/29/2023	193152	WASTE MANAGEMENT	926.93
03/29/2023	193153	WASTE MANAGEMENT	163.30
03/29/2023	193154	WASTE MANAGEMENT	70.24
AP TOTALS:			
Total of 16 Checks:			260,816.48
Less 0 Void Checks:			0.00
Total of 16 Disbursements:			260,816.48

User: mharris

CHECK NUMBERS 193155 - 193266

DB: Ypsilanti-Twp

Check Date	Check	Vendor Name	Amount
Bank AP AP			
04/04/2023	193155	4IMPRINT	319.22
04/04/2023	193156	A DESIGN LINE	550.84
04/04/2023	193157	AAA PARTS LLC	59.48
04/04/2023	193158	AAMCO TRANSMISSIONS AND	442.21
04/04/2023	193159	ACCUSHRED LLC	313.50
04/04/2023	193160	AMAZON CAPITAL SERVICES	2,239.59
04/04/2023	193161	ANN ARBOR CLEANING SUPPLY	2,170.64
04/04/2023	193162	APPLIED INNOVATION	203.40
04/04/2023	193163	AUTO VALUE YPSILANTI	668.22
04/04/2023	193164	B-BALL SKILLS LLC	454.00
04/04/2023	193165	BARR ENGINEERING COMPANY	13,727.00
04/04/2023	193166	BELFOR USA GROUP INC	1,596.81
04/04/2023	193167	BILL ERNAT CONSULTING	2,700.00
04/04/2023	193168	BRENDAN SULLIVAN	110.63
04/04/2023	193169	BRIDGESTONE GOLF INC	1,633.38
04/04/2023	193170	CARLISLE WORTMAN ASSOCIATES, INC.	700.00
04/04/2023	193171	CARLISLE WORTMAN ASSOCIATES, INC.	140.00
04/04/2023	193172	CDW GOVERNMENT INC	1,402.48
04/04/2023	193173	CISLO TITLE	1,100.00
04/04/2023	193174	CITY OF YPSILANTI	1,068.00
04/04/2023	193175	COLMAN-WOLF SANITARY SUPPLY CO	358.23
04/04/2023	193176	CONFERENCE OF WESTERN WAYNE	750.00
04/04/2023	193177	CSI EMERGENCY APPARATUS, LLC	142.00
04/04/2023	193178	DANCE WITH ELEGANCE	1,016.40
04/04/2023	193179	DANIEL KIMBALL	259.35
04/04/2023	193180	DANIELLE FIELHAUER	122.50
04/04/2023	193181	DAVID SWARTZ	360.61
04/04/2023	193182	DIVERSE REAL ESTATE LLC	16,000.00
04/04/2023	193183	EMERGENCY MEDICAL PRODUCTS	853.08
04/04/2023	193184	ERANE WASHINGTON	336.00
04/04/2023	193185	ESRI	4,070.00
04/04/2023	193186	EVERSOLE PROPERTIES LLC	1,080.00
04/04/2023	193187	G & K FLOOR COVERING	5,883.00
04/04/2023	193188	GOVERNMENTAL CONSULTANT SERVICES	3,401.79
04/04/2023	193189	GRAINGER	1,955.23
04/04/2023	193190	GRIFFIN PEST SOLUTIONS	308.00
04/04/2023	193191	GUARDIAN ALARM	5,646.43
04/04/2023	193192	GUARDIAN ALARM	30.00
04/04/2023	193193	HANNAH ARNOLD	128.00
04/04/2023	193194	HOME DEPOT	1,410.66
04/04/2023	193195	HORNUNG'S	420.15
04/04/2023	193196	IAQ MANAGEMENT SERVICES, INC	1,200.00
04/04/2023	193197	INFINITY FITNESS LLC	339.50
04/04/2023	193198	INNOVATIVE OFFICE TECHNOLOGY GROUP	213.29
04/04/2023	193199	JIBRIL NAEEM	1,284.50
04/04/2023	193200	JOSEPH STOUT	80.00
04/04/2023	193201	JOSHUA KUGLER	153.65
04/04/2023	193202	JTW PIPES LLC	600.00
04/04/2023	193203	JUMP-A-RAMA	2,380.00
04/04/2023	193204	JUNGA'S ACE HARDWARE	435.26
04/04/2023	193205	KAREN THOMAS	330.00
04/04/2023	193206	KCI	347.84
04/04/2023	193207	KEVIN LAWSON	280.00
04/04/2023	193208	LANSING SANITARY SUPPLY, INC	162.94
04/04/2023	193209	LAWRENCE HENDRICKS	230.00
04/04/2023	193210	LIAM LETZINGER	100.00
04/04/2023	193211	LOWE'S	160.81
04/04/2023	193212	LOWER HURON SUPPLY	245.89
04/04/2023	193213	MCMASTER-CARR	78.98
04/04/2023	193214	MENARDS, INC.	278.90
04/04/2023	193215	MESSENGER PRINTING	145.00
04/04/2023	193216	MICHIGAN DEPT. OF AGRICULTURE	145.00
04/04/2023	193217	MICHIGAN LINEN SERVICE, INC.	1,497.80
04/04/2023	193218	MICHIGAN STATE FIREMEN'S ASSOC	144.81
04/04/2023	193219	MIDWEST ENVIRO SOLUTIONS	1,500.00
04/04/2023	193220	MINUTES SERVICES LLC	100.00
04/04/2023	193221	MIRANDA ELEAZER	100.00
04/04/2023	193222	OKINAWAN KARATE CLUB	565.60
04/04/2023	193223	ORCHARD, HILTZ & MCCLIMENT INC	17,316.00
04/04/2023	193224	PEARLINE DAVIS	983.15
04/04/2023	193225	PEPSI BEVERAGES COMPANY	367.22
04/04/2023	193226	PM TECHNOLOGIES, LLC	550.00
04/04/2023	193227	PRIORITY ONE EMERGENCY	879.99
04/04/2023	193228	RHETT REYES	3,179.29
04/04/2023	193229	ROBERT ACTON	1,900.00
04/04/2023	193230	RUSSELL GIRBACH	780.00
04/04/2023	193231	SAM'S CLUB DIRECT	15.96
04/04/2023	193232	SHARIA RUTLEDGE	100.00

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 User: mharris
 DB: Ypsilanti-Twp

CHECK REGISTER FOR CHARTER TOWNSHIP OF YPSILANTI Page: 2/2
 CHECK NUMBERS 193155 - 193266

Check Date	Check	Vendor Name	Amount
04/04/2023	193233	SITEONE LANDSCAPE SUPPLY, LLC	2,367.71
04/04/2023	193234	SME	9,015.00
04/04/2023	193235	SPARTAN DISTRIBUTORS	22,701.81
04/04/2023	193236	SPICER GROUP	7,290.00
04/04/2023	193237	STANDARD PRINTING	260.00
04/04/2023	193238	STATE OF MICHIGAN	200.00
04/04/2023	193239	STATE OF MICHIGAN - MDOT	86,500.00
04/04/2023	193240	STATE OF MICHIGAN - MDOT	1,867.61
04/04/2023	193241	STATE OF MICHIGAN - MDOT	29,059.53
04/04/2023	193242	STEPHEN BROWN	2,150.00
04/04/2023	193243	TEAM GOLF	1,117.86
04/04/2023	193244	THEODORE HEATON	188.90
04/04/2023	193245	THERESE FOOTE	374.50
04/04/2023	193246	TRAVIS ERBY	140.00
04/04/2023	193247	U.S. BANK, N.A.	218,000.00
04/04/2023	193248	ULTIMATE REEL GRINDING	2,410.00
04/04/2023	193249	UNITED STATES POST OFFICE	670.20
04/04/2023	193250	VAN BUREN STEEL & FABRICATING	268.00
04/04/2023	193251	VICTORY LANE	56.61
04/04/2023	193252	VIRGIL MINGAS	200.00
04/04/2023	193253	W.J. O'NEIL COMPANY	3,156.00
04/04/2023	193254	WASHTENAW COUNTY LEGAL NEWS	150.00
04/04/2023	193255	WASHTENAW COUNTY ROAD COMMISSION	4,108.07
04/04/2023	193256	WASHTENAW COUNTY TREASURER#	13,301.50
04/04/2023	193257	WASHTENAW COUNTY TREASURER#	45,000.00
04/04/2023	193258	WASHTENAW COUNTY TREASURER#	39,009.56
04/04/2023	193259	WASHTENAW COUNTY WATER RESOURCES	10,084.23
04/04/2023	193260	WEINGARTZ	1,247.41
04/04/2023	193261	WILLIAM HEEGAN	180.00
04/04/2023	193262	WILLIAM SWEENEY	599.89
04/04/2023	193263	WOLVERINE FREIGHTLINER	797.79
04/04/2023	193264	YPSILANTI ACE HARDWARE	64.91
04/04/2023	193265	YPSILANTI COMMUNITY	1,500.45
04/04/2023	193266	ZEP SALES & SERVICE	502.14

AP TOTALS:

Total of 112 Checks:	619,841.89
Less 0 Void Checks:	0.00
Total of 112 Disbursements:	619,841.89

ATTORNEY REPORT

GENERAL LEGAL UPDATE

NEW BUSINESS

CHARTER TOWNSHIP OF YPSILANTI
RESOLUTION REGARDING THE DIVISION OF A PLATTED LOT

Resolution authorizing the division of platted lots in Watsonia Park Subdivision

WHEREAS, the owner of lots 173-186, lots 408-441 including vacated Edgewood Ave, Beverly Ave and vacated alley of Watsonia Park Subdivision has made a request to change lot boundaries as previously approved and recorded; and

WHEREAS, Township ordinance no. 2000-243, Article IX, Section 11.01 states that “Upon the filing of a petition, by the owner or owners of all interest therein, with the Township Board, the platted lots, outlot, or parcels of land in existing recorded plats may be partitioned or divided upon resolution of the Township Board into not more than four (4) parts, each of which shall, in regard to width, depth and area, conform to the terms and provisions of the Charter Township of Ypsilanti Zoning Ordinance, as amended; and

WHEREAS, the Township Planning Director has reviewed the division and confirmed that the resulting parcels meet the minimum requirements for lot size and road frontage as set forth by Section 2000 of the Township Zoning Ordinance.

THEREFORE, BE IT RESOLVED, that the revised property descriptions are approved as follows:

LEGAL DESCRIPTIONS:

PARCEL A:

All of Lots 408-415, part of lots 434-437, all of lots 438-441, the S ½ of vacated Edgewood Ave (60 ft. wide) adj to lots 408 and 441, part of E ½ of vacated Beverly Ave (60 ft. wide) adj to lots 437-441 all inclusive , Watsonia Park Sub, part of sec 13, T3S, R7E recorded in L 6 of plats, P 33, Wash Cty Records, Also described as, Beg at SE corner of lot 415; TH S 88-34-22 W AL S-line of lots 415 and 434 192.50 ft.; TH N 33-17-58 W AL the E-LY line of a temp work space easement, rec L 5473, P 802, Wash Cty Records, 232.18 Ft; TH N 00-00-00 E AL the C-Line of Vacated Beverly Ave, 135.82 Ft; TH N 16-27-26 E Al the E-Ly Line of right of way for Highway purposes Recorded in L 889, P 534, Wash Cty Records, 17.81 Ft; TH N 88-34-22 E AL C-Line of Vacated Edgewood Ave, 314.96 Ft; TH S 00-00-00 E AL W-Line of Watson St (60 ft. Wide) 350.01 Ft. to POB. CON 2.28 AC

PARCEL B:

All of Lots 173-186, Lots 416-433, part of lots 434-437, All of Vacated 20 ft. wide alley and part of E ½ of Vacated Beverly Ave (60 ft. wide), All Inclusive, Watsonia Park Sub being part of NW ¼ of sec 13, T3S, R7E as recorded in L6 of plats, P33, Wash Cty records, more particularly described as: Beg at SE corner of lot 186; TH S 88-34-22 W AL N-Line of State ST (86 ft. wide), 320.01 ft.; TH N 00-00-00 E AL C-line of vacated Beverly Ave, 684.24 Ft; TH S 33-17-58 E AL E-LY line of a temporary work space easement recorded L 5473, P802, Wash Cty records, 232.18 Ft; TH N 88-34-22 E AL N-Line of lots 416 and 433, 192.50 Ft; TH S 00-00-00 E AL W-line of Watson St (60 Ft wide), 487.01 Ft to the POB. Con 3.87 AC



Date: March 29, 2023

To: Ypsilanti Township Board

From: Brian McCleery
Deputy Assessor

Cc: Jason Iacoangeli
Planning Director

Re: Request to approve Resolution 2023-03 to Change Platted Lot Boundary Line in Watsonia Park Subdivision lots 173-186 and lots 408-441, dividing the parcel into two creating new parcels.

Parcel: 1250 Watson, Parcel ID K-11-13-255-002, Lots 173-186, lots 408-441 including vacated Edgewood Ave, Beverly Ave and vacated alley of Watsonia Park Subdivision.

New Parcels:

PARCEL A:

All of Lots 408-415, part of lots 434-437, all of lots 438-441, the S ½ of vacated Edgewood Ave (60 ft. wide) adj to lots 408 and 441, part of E ½ of vacated Beverly Ave (60 ft. wide) adj to lots 437-441 all inclusive, Watsonia Park Sub, part of sec 13, T3S, R7E recorded in L 6 of plats, P 33, Wash Cty Records, Also described as, Beg at SE corner of lot 415; TH S 88-34-22 W AL S-line of lots 415 and 434 192.50 ft.; TH N 33-17-58 W AL the E-LY line of a temp work space easement, rec L 5473, P 802, Wash Cty Records, 232.18 Ft; TH N 00-00-00 E AL the C-Line of Vacated Beverly Ave, 135.82 Ft; TH N 16-27-26 E Al the E-Ly Line of right of way for Highway purposes Recorded in L 889, P 534, Wash Cty Records, 17.81 Ft; TH N 88-34-22 E AL C-Line of Vacated Edgewood Ave, 314.96 Ft; TH S 00-00-00 E AL W-Line of Watson St (60 ft. Wide) 350.01 Ft. to POB. CON 2.28 AC

PARCEL B:

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Township Supervisor
Brenda L. Stumbo
Township Clerk
Heather Jarrell Roe
Township Treasurer
Stan Eldridge



**YPSILANTI
TOWNSHIP**
— WHERE YOUR FUTURE GROWS —

ASSESSMENT DEPARTMENT

(86 ft. wide), 320.01 ft.; TH N 00-00-00 E AL C-line of vacated Beverly Ave, 684.24 Ft; TH S 33-17-58 E AL E-LY line of a temporary work space easement recorded L 5473, P802, Wash Cty records, 232.18 Ft; TH N 88-34-22 E AL N-Line of lots 416 and 433, 192.50 Ft; TH S 00-00-00 E AL W-line of Watson St (60 Ft wide), 487.01 Ft to the POB. Con 3.87 AC

The Assessment Department is requesting approval for the parcel division as the division would constitute a change in the original lot line in a recorded plat.

Ypsilanti Township's local ordinance requires Township Board approval if there are any revisions to the original lot line in a recorded plat. This is required as the Board has already approved the original plat and the requested division is a revision to the previously approved boundaries

Planning Coordinator Fletcher Reyher has verified that the division will not create any non-conforming conditions.

Township Supervisor
Brenda L. Stumbo
Township Clerk
Heather Jarrell Roe
Township Treasurer
Stan Eldridge



**YPSILANTI
TOWNSHIP**
—ASSESSMENT DEPARTMENT—

Trustees
John Newman II
Gloria Peterson
Debbie Swanson
Ryan Hunter

MEMORANDUM

TO: Fletcher Reyher
Staff Planner

FROM: Collin Wagaman
MAAO/Clerk

DATE: March 17, 2023

RE: Land Division Application

K-11-13-255-002 – 1250 Watson St

An application for the division of the above parcel has been submitted to our office.

Please verify if this application complies with Zoning and Division Ordinances of the Township.

Attached are the Property Division Application, survey, and the aerial photo for the parcels.

If you have any questions, or need more information, please do not hesitate contacting me.

Attachments:
Application
Survey
Aerial Photo

Township Supervisor
Brenda L. Stumbo
Township Clerk
Heather Jarrell Roe
Township Treasurer
Stan Eldridge



**YPSILANTI
TOWNSHIP**
— PLANNING & ZONING DEPARTMENT —

Trustees
John Newman II
Gloria Peterson
Debbie Swanson
Ryan Hunter

TO: Collin Wagaman, MCAO/Clerk, Charter Township of Ypsilanti
FROM: Jason Iacoangeli AICP, Planning Director
DATE: March 29, 2023
SUBJECT: Land Split Application – 1250 Watson Street, Ypsilanti, MI 48198 – K-11-13-255-002

Per your request, we have reviewed the request for a land split of the above referenced parcel. We verify that the proposed land split complies with the Zoning Ordinance of the Township.

The referenced parcel is zoned I-C – Industrial and Commercial. The survey shows that the new parcel would meet the current ordinance requirements for the I-C – Industrial and Commercial Zoning District. The Planning Department will require that any use of the new parcel will be consistent with the Zoning Ordinance along with the standards required per the Township approved Engineering Design Standards.

Frost Cannabis is currently working through the Ypsilanti Township entitlement process for this parcel for the development of a Recreational Marijuana Dispensary. Frost Cannabis would also like to obtain a Consumption Establishment license from the State of Michigan. This license does require that the retail sale of marijuana occurs on a separate parcel and address. Splitting the property into two (2) parcels would allow Frost Cannabis to apply for a Consumption Establishment License with the State of Michigan.

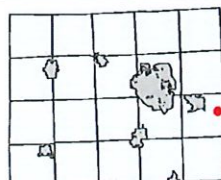
If you have any questions, or need additional information, please do not hesitate contacting me.

A handwritten signature in blue ink, appearing to read 'J. Iacoangeli', is written over a horizontal line.

Jason Iacoangeli, AICP
Charter Township of Ypsilanti
Planning Director



State St



3/17/2023



NOTE: Parcels may not be to scale.

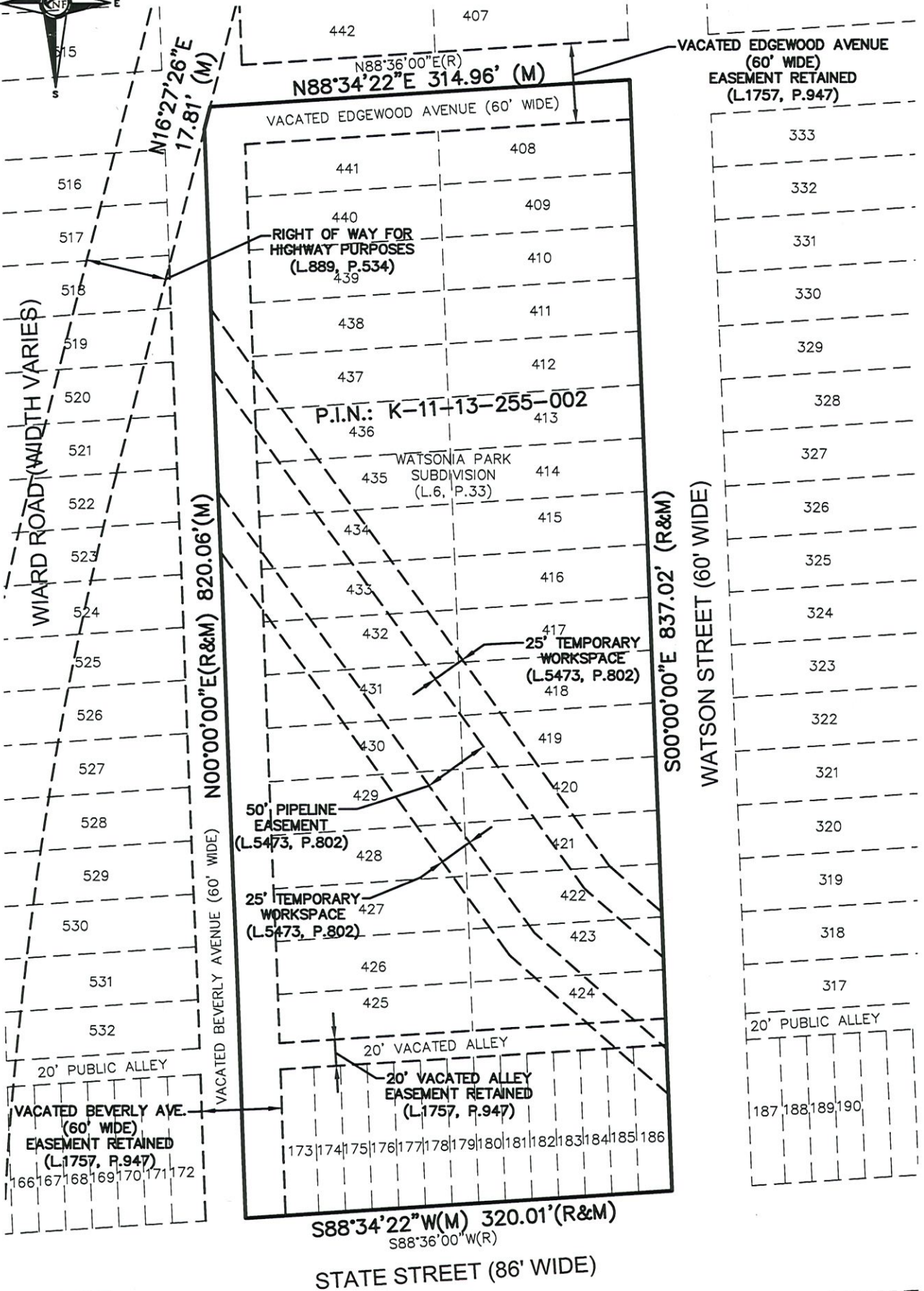
The information contained in this cadastral map is used to locate, identify and inventory parcels of land in Washtenaw County for appraisal and taxing purposes only and is not to be construed as a "survey description". The information is provided with the understanding that the conclusions drawn from such information are solely the responsibility of the user. Any assumption of legal status of this data is hereby disclaimed.

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.		
NEXUS GAS TRANSMISSION LL	LUDTKE, MICHAEL	170,000	02/17/2022	WD	03-ARM'S LENGTH	5473/802	PROPERTY TRANSFER	100.0		
MARSH PLATING	NEXUS GAS TRANSMISSION, L	200,000	12/23/2016	WD	03-ARM'S LENGTH	5188/907	PROPERTY TRANSFER	100.0		
Property Address		Class: INDUSTRIAL-VACANT		Zoning: I-C		Building Permit(s)		Date	Number	Status
1250 WATSON ST		School: VAN BUREN PUB SCHOOLS								
Owner's Name/Address		P.R.E. 0%								
LUDTKE, MICHAEL 62 SYLVAN CT PONTIAC MI 48341		MAP #: R 585 003 00		2023 Est TCV 279,152						
Tax Description		Improved X Vacant		Land Value Estimates for Land Table 00300.INDUST THROUGH OUT TWP - 300						
YP#104-173-186 LOTS 173 - 186 INCL., ALSO LOTS 408 - 441 INCL. PLUS S 30' OF VACATED EDGEWOOD AVE & E 30' OF BEVERLY AVE & VACATED ALLEY. WATSONIA PARK SUB. 6.149 ACRES.		X		* Factors * Description Frontage Depth Front Depth Rate %Adj. Reason Value INDUSTRIAL: 6.149 Acres 45,398 100 279,152 6.15 Total Acres Total Est. Land Value = 279,152						
Comments/Influences		X		Dirt Road Gravel Road Paved Road Storm Sewer Sidewalk Water Sewer Electric Gas Curb Street Lights X Standard Utilities Underground Utils. Topography of Site X Level Rolling Low High Landscaped Swamp Wooded Pond Waterfront Ravine Wetland Flood Plain						
The Equalizer. Copyright (c) 1999 - 2009. Licensed To: Township of Ypsilanti, County of Washtenaw, Michigan		Who When What		Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value
		DJD 06/27/2000 APPRAISAL		2023	139,600	0	139,600			139,600S
				2022	136,400	0	136,400			113,673C
				2021	136,900	0	136,900			110,042C
				2020	110,500	0	110,500			108,523C

*** Information herein deemed reliable but not guaranteed***

Parcel Split

EXISTING PARCEL



ENGINEERS
 NOWAK & FRAUS ENGINEERS
 46777 WOODWARD AVE.
 PONTIAC, MI 48342-5032
 TEL. (248) 332-7931
 FAX. (248) 332-8257

SCALE	DATE	DRAWN	JOB NO.	SHEET
1" = 100'	02-28-2023	K.N.	M994	1 of 4

Parcel Split

EXISTING PARCEL

LEGAL DESCRIPTION

LAND IN THE TOWNSHIP OF YPSILANTI, COUNTY OF WASHTENAW, STATE OF MICHIGAN:

LOTS 173 THROUGH 186, INCLUSIVE, AND LOTS 408 THROUGH 441, INCLUSIVE, WATSONIA PARK SUBDIVISION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN LIBER 6 OF PLATS, PAGE 33, WASHTENAW COUNTY RECORDS.

ALSO, THE SOUTH 30 FEET OF VACATED EDGEWOOD AVENUE ADJACENT TO SAID LOTS AND THE EAST 30 FEET OF VACATED BEVERLY AVENUE ADJACENT TO SAID LOTS AND THE VACATED PUBLIC ALLEY ADJACENT TO SAID LOTS.

CONTAINING 267,726.89 SQUARE FEET OR 6.15 ACRES OF LAND.

PIN: K-11-13-255-002

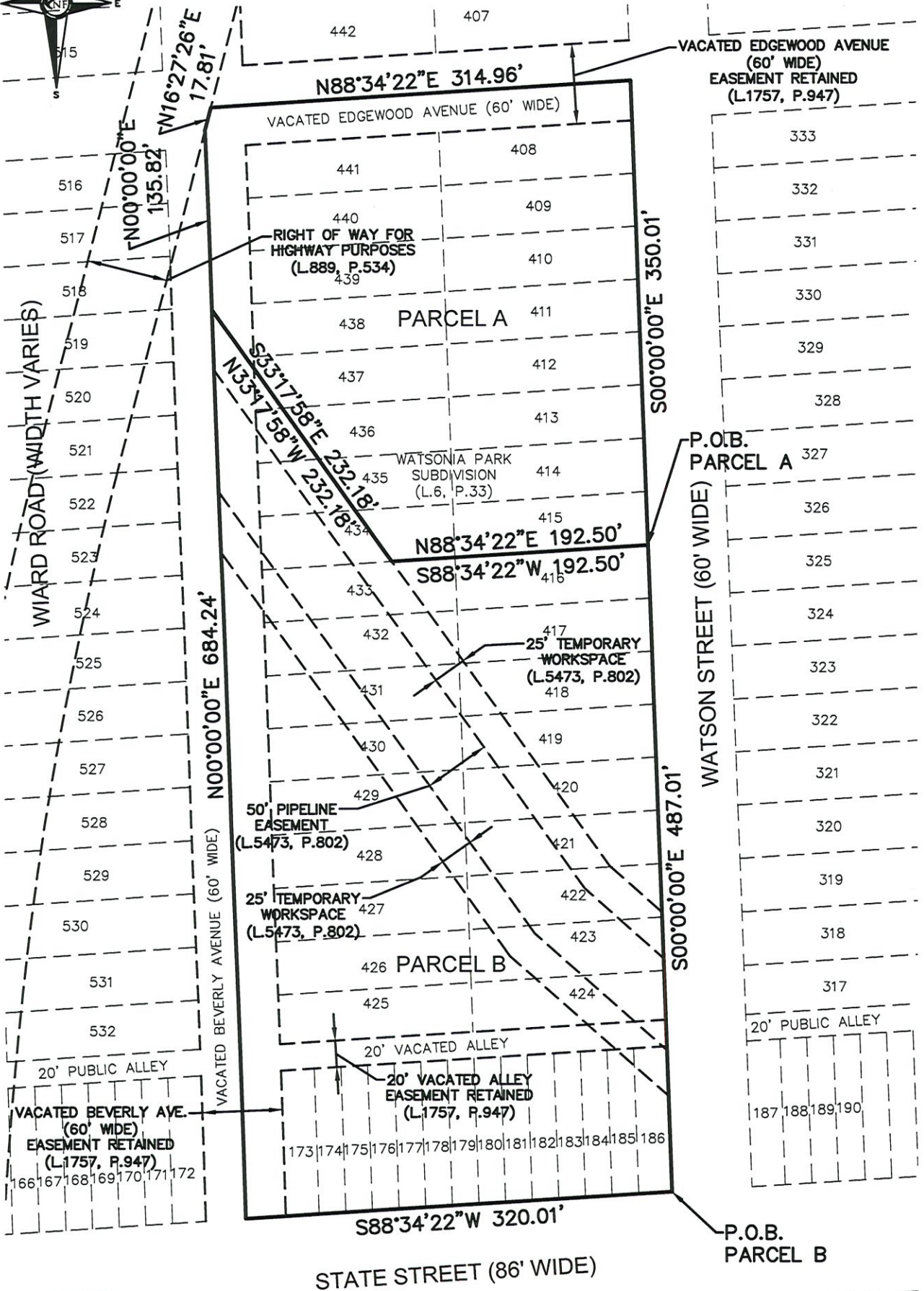


NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257

SCALE	DATE	DRAWN	JOB NO.	SHEET
N.T.S.	02-28-2023	K.N.	M994	2 of 4

Parcel Split

PROPOSED PARCELS



ENGINEERS

NOWAK & FRAUS ENGINEERS
 46777 WOODWARD AVE.
 PONTIAC, MI 48342-5032
 TEL. (248) 332-7931
 FAX. (248) 332-8257

SCALE	DATE	DRAWN	JOB NO.	SHEET
1" = 100'	02-28-2023	K.N.	M994	3 of 4

Parcel Split

PROPOSED PARCELS

LEGAL DESCRIPTION - PARCEL A

ALL OF LOTS 408 THROUGH 415, PART OF LOTS 434 THROUGH 437, ALL OF LOTS 438 THROUGH 441, THE SOUTH 1/2 OF VACATED EDGEWOOD AVENUE (60 FEET WIDE) ADJACENT TO LOTS 408 AND 441, AND PART OF THE EAST 1/2 OF VACATED BEVERLY AVENUE (60 FEET WIDE) ADJACENT TO LOTS 437 THROUGH 441, ALL INCLUSIVE, WATSONIA PARK SUBDIVISION BEING A PART OF THE NORTHWEST 1/4 OF SECTION 13, TOWN 3 SOUTH, RANGE 7 EAST AS RECORDED IN LIBER 6 OF PLATS, ON PAGE 33, WASHTENAW COUNTY RECORDS ALL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHEAST CORNER OF SAID LOT 415; THENCE SOUTH 88 DEGREES 34 MINUTES 22 SECONDS WEST ALONG THE SOUTH LINE OF SAID LOTS 415 AND 434, 192.50 FEET; THENCE NORTH 33 DEGREES 17 MINUTES 58 SECONDS WEST ALONG THE EASTERLY LINE OF A TEMPORARY WORK SPACE EASEMENT RECORDED IN LIBER 5473, PAGE 802, WASHTENAW COUNTY RECORDS, 232.18 FEET; THENCE NORTH 00 DEGREES 00 MINUTES 00 SECONDS EAST ALONG THE CENTERLINE OF SAID VACATED BEVERLY AVENUE, 135.82 FEET; THENCE NORTH 16 DEGREES 27 MINUTES 26 SECONDS EAST ALONG THE EASTERLY LINE OF RIGHT OF WAY FOR HIGHWAY PURPOSES RECORDED IN LIBER 889, PAGE 534, WASHTENAW COUNTY RECORDS, 17.81 FEET; THENCE NORTH 88 DEGREES 34 MINUTES 22 SECONDS EAST ALONG THE CENTERLINE OF SAID VACATED EDGEWOOD AVENUE, 314.96 FEET; THENCE SOUTH 00 DEGREES 00 MINUTES 00 SECONDS EAST ALONG THE WEST LINE OF WATSON STREET (60 FEET WIDE), 350.01 FEET TO THE POINT OF BEGINNING.

CONTAINING 99,357.86 SQUARE FEET OR 2.28 ACRES OF LAND.

LEGAL DESCRIPTION - PARCEL B

ALL OF LOTS 173 THROUGH 186, ALL OF LOTS 416 THROUGH 433, PART OF LOTS 434 THROUGH 437, ALL OF VACATED 20 FOOT WIDE ALLEY AND PART OF THE EAST 1/2 OF VACATED BEVERLY AVENUE (60 FEET WIDE), ALL INCLUSIVE, WATSONIA PARK SUBDIVISION BEING A PART OF THE NORTHWEST 1/4 OF SECTION 13, TOWN 3 SOUTH, RANGE 7 EAST AS RECORDED IN LIBER 6 OF PLATS, ON PAGE 33, WASHTENAW COUNTY RECORDS ALL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHEAST CORNER OF SAID LOT 186; THENCE SOUTH 88 DEGREES 34 MINUTES 22 SECONDS WEST ALONG THE NORTH LINE OF STATE STREET (86 FEET WIDE), 320.01 FEET; THENCE NORTH 00 DEGREES 00 MINUTES 00 SECONDS EAST ALONG THE CENTERLINE OF SAID VACATED BEVERLY AVENUE, 684.24 FEET; THENCE SOUTH 33 DEGREES 17 MINUTES 58 SECONDS EAST ALONG THE EASTERLY LINE OF A TEMPORARY WORK SPACE EASEMENT RECORDED IN LIBER 5473, PAGE 802, WASHTENAW COUNTY RECORDS, 232.18 FEET; THENCE NORTH 88 DEGREES 34 MINUTES 22 SECONDS EAST ALONG THE NORTH LINE OF SAID LOTS 416 AND 433, 192.50 FEET; THENCE SOUTH 00 DEGREES 00 MINUTES 00 SECONDS EAST ALONG THE WEST LINE OF WATSON STREET (60 FEET WIDE), 487.01 FEET TO THE POINT OF BEGINNING.

CONTAINING 168,369.03 SQUARE FEET OR 3.87 ACRES OF LAND.



NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257

SCALE	DATE	DRAWN	JOB NO.	SHEET
N.T.S.	02-28-2023	K.N.	M994	4 of 4



MEMORANDUM

To: Charter Township of Ypsilanti Board of Trustees

From: Karen Wallin
Human Resource Manager

Date: March 29, 2023

Subject: Request to approve the creation, posting, and filling of a “Maintenance Superintendent” as a new Teamster position with a wage range of \$65,000 - \$68,000 (DOQ)

As the Board of Trustees are aware, following the resignation of Mike Hoffmeister back in January, we have been reviewing duties within the Residential Services Department and would like to bring back our first recommendation for consideration.

A number of years ago, the Township employed both a “Parks & Grounds Superintendent” and a “Building Operations Superintendent” as part of the Teamsters union. Between the two positions they managed and supervised all of our maintenance employees including: custodians, crew leaders, laborers, mechanic/equipment operator and maintenance technicians. At the time each of these positions became vacant, a decision was made not to fill them and the day-to-day supervision fell to the Residential Services Director. As we have been reviewing the Residential Services Department, it has become apparent that the day-to-day supervisory/management duties of the maintenance employees need to be removed from the Director position, and that we need to reinstate a Superintendent position that truly oversees all maintenance operations of the Township.

The attached **draft** job description for a “Maintenance Superintendent” is being brought forth for consideration, with approval to post and fill the new Teamster position at the wage range of \$65,000 - \$68,000 (DOQ). This position would be covered by budget accounts 101-265 (RSD – Building Operations) and 101-770 (RSD – Parks & Grounds) at 50% each.

Your consideration in the matter is appreciated. Should you have any additional questions, please contact me at 544-3741 or kwallin@ypsitownship.org.

Charter Township of Ypsilanti

MAINTENANCE SUPERINTENDENT

Teamsters Position

Summary

Responsible for managing and overseeing maintenance and upkeep operations for Township parks, buildings, properties/grounds, and landscaped areas.

Supervision Received

Under the general supervision of the Director of Municipal Services, this employee conducts ongoing activities with considerable independence according to established practices and policy and is held accountable for results. The work is checked through periodic inspections, feedback of residents and visitors, and review of reports.

Supervision Exercised

Supervises all maintenance employees including: crew leaders, laborers, mechanic/equipment operator, maintenance technicians, custodians, seasonal park maintenance workers, and others as assigned.

Responsibilities and Duties

An employee in this position may do any or all of the following essential duties. (These examples do not include all of the duties the employee maybe expected to perform.)

1. Assign and oversee day-to-day workflow of employees engaged in maintenance and repair of Township parks, grounds/properties, and buildings.
2. Inspect parks, grounds, shelters, and buildings to determine maintenance needs and to detect and resolve problems.
3. Provide technical guidance and training to employees as needed to improve work performance and acquaint employees with policy and safety procedures.
4. Drafts and implements routine maintenance schedules and standards; ensures all equipment and machinery are maintained in accordance to these standards.
5. Oversee and monitor equipment and supply needs, placing orders when necessary, staying within the approved budgetary limits.
6. Document and prepare progress reports and maintenance logs to assist with cost analysis and budget development.
7. Investigate and respond to residential inquiries and concerns regarding maintenance issues of Township parks, grounds, and buildings, etc.

Responsibilities and Duties (cont'd)

8. Demonstrate continuous effort to assure entrances to Township parks and facilities are maintained (including playground inspections, landscaping, condition of sidewalks and parking lots), while meeting the townships expected standard of safety and cleanliness.
9. Demonstrate continuous effort to improve maintenance operations, and work cooperatively and jointly with other staff to provide quality seamless customer service.
10. Collaborates regularly with the Director of Municipal Services to identify renovation or construction needs.
11. Maintain training records assuring necessary memberships and licenses, etc. are received and maintained.
12. Perform other related duties as assigned.

Essential Functions, Qualifications and KSA's for Employment

The requirements listed below are representative of the knowledge, skills, abilities and minimum qualifications necessary to perform the essential functions of the position. These requirements may be accommodated for otherwise qualified individuals requiring and requesting such accommodations.

- Considerable knowledge of procedures, practices, materials, and operation of equipment utilized in the maintenance and repair of buildings, facilities, and grounds/parks.
- Maintenance knowledge to develop and maintained attractive township parks/grounds, buildings and facilities.
- Draft and implement routine maintenance schedules and standards; ensures compliance with these standards.
- Knowledge of MIOSHA safety practices to minimize injury and property damage at Township facilities.
- Leadership skill to establish and maintain effective working relationships with public officials, employees, and the general public.
- Ability to compile and analyze data and to professional present facts and recommendations effectively in written and oral form.
- Ability to compute project material, manpower and equipment needs.
- Ability to comprehend complex issues, to identify alternative solutions, and prepare appropriate recommendations.
- Ability to plan, coordinate and supervise the activities of several employees engaged in a variety of maintenance duties.
- Ability to prioritize tasks and delegate when appropriate.
- Bachelor Degree in Business Administration or related field preferred. Relevant years of management level building or grounds maintenance experience demonstrating skills needed may be substituted for degree. Must have a minimum of five years supervisory experience.
- Must possess a valid Michigan driver license and have a good driving record.

Physical Demands and Work Environment

The physical demands and work environment characteristics described here are representative of those an employee encounters while performing the essential functions of the job. These requirements may be accommodated for otherwise qualified individuals requiring and requesting such accommodations.

While performing the duties of this job, the employee may spend periods sitting at a desk and working on a computer. Employee will stand, walk, crawl, carry, climb, and maneuver where physical mobility is required. The employee is exposed to all weather conditions including temperature extremes. Exposure to muddy, icy and uneven terrain, noxious weeds, odors and noise.

Drafted 3-2023

Wage: \$65,000 - \$68,000 DOQ (NOTE: Crew Leaders = \$54,412; Maint. Tech's = \$56,929)

DRAFT

Township Supervisor
Brenda L. Stumbo
Township Clerk
Heather Jarrell Roe
Township Treasurer
Stan Eldridge



**YPSILANTI
TOWNSHIP**
— HUMAN RESOURCE DEPARTMENT —

Trustees
John Newman II
Gloria Peterson
Debbie Swanson
Jimmie Wilson Jr

MEMORANDUM

To: Charter Township of Ypsilanti Board of Trustees

From: Karen Wallin
Human Resource Manager

Date: March 24, 2023

Subject: Request to stop funding the Nationwide OBRA account and to reinstate the employer/employee social security taxes for temporary, seasonal, and commission employees.

Back in the late 1980's the Board of Trustees elected to stop the social security tax deduction from temporary, seasonal, and commission employees and to enroll these individuals into a Nationwide OBRA fixed account. At the time this decision was made, it was thought that this would save the Township money. Over the years, what little savings this brought to the Township has diminished and the additional processes required by the Human Resource Department and Accounting Department has increased.

In an effort to help streamline payroll process and alleviate fiduciary responsibilities of the Township, we are requesting that the Township stop funding these OBRA accounts and that all employees/commission members receiving compensation from the township have regular social security taxes deducted from their pay.

Your consideration in the matter is appreciated. Should you have any additional questions, please contact me at 544-3741 or kwallin@ypsitownship.org.

CHARTER TOWNSHIP OF YPSILANTI

RESOLUTION NO. 2023-04

ESTABLISHMENT OF WATER/SEWER SUBSIDY INCOME LEVELS

WHEREAS, Ypsilanti Township has established a water and sewer bill subsidy program for Township citizens of limited income; and

WHEREAS, Ypsilanti Township adopts the following guidelines for the Supervisor's Office to implement. The guidelines shall include but not be limited to the specific income and asset levels of the claimant and all persons residing in the household, filed in the immediately preceding year;

- 1) All household income cannot exceed 30% of the median income for Ann Arbor (Washtenaw County) as published annually by the Michigan State Housing Development Authority for Section 8 housing vouchers. The most recently available guidelines shall be used by the Supervisor's Office.
- 2) A copy of the applicant's completed and signed Federal Income Tax Return (if required to file), and/or Michigan Homestead Property Tax Credit Claim (1040 CR) and/or Social Security Statement for the prior year must be submitted for the application to be considered. Additionally, a copy of the prior year Federal Income Tax Return for any other occupant of the homestead is required.
- 3) Applicants are requested to black out all references to social security numbers prior to submitting necessary paperwork.
- 4) Water/Sewer subsidies must be applied for each year. If a subsidy is granted, it is for one year only.
- 5) Applicants must reside in the Charter Township of Ypsilanti and be the property owner. Verification of this shall be completed when application is submitted.
- 6) The subsidy shall show on the applicants Ypsilanti Community Utilities Authority bill as a \$40.00 credit.

NOW THEREFORE BE IT RESOLVED that Supervisor's Office shall follow the above stated policy in granting and denying subsidies, unless the Supervisor determines there are substantial and compelling reasons why there should be a deviation from the policy and these are communicated in writing to the claimant.

Township Supervisor
Brenda L. Stumbo
Township Clerk
Heather Jarrell Roe
Township Treasurer
Stan Eldridge



**YPSILANTI
TOWNSHIP**
— OFFICE OF THE SUPERVISOR —

Trustees
Ryan Hunter
John Newman II
Gloria Peterson
Debbie Swanson

MEMORANDUM

To: Charter Township of Ypsilanti Board of Trustees

From: Brenda Stumbo, Township Supervisor

Date: March 29, 2023

RE: Resolution No. 2023-04, Revision to water/sewer subsidy program

As discussed at the March 21, 2023 Board of Trustees meeting, Ypsilanti Township and the Ypsilanti Community Utilities Authority have been offering Ypsilanti Township residents a program to help subsidize water bill costs for 25+ years.

The Supervisor's Office is requesting an increase to the amount of subsidy from \$20.00 to \$40.00 for a bimonthly bill that we provide to homeowners that qualify under the federal poverty guidelines. The last increase was in 2017, where it was increased from \$15.00 to \$20.00. As we know, many homeowners are struggling, with the cost of utilities, goods and services steeply increasing.

The water and sewer rebate program is currently budgeted in line 101-272-836.100 at \$10,400. Contingent on the budget amendment, this amount would be increased double to \$20,800.

A resolution to establish these rate increases for the water and sewer subsidy program is attached, as well as the income thresholds.

Thank you for your consideration.

Township Supervisor
Brenda L. Stumbo
Township Clerk
Heather Jarrell Roe
Township Treasurer
Stan Eldridge



**YPSILANTI
TOWNSHIP**
—ASSESSMENT DEPARTMENT—

Trustees
John Newman II
Gloria Peterson
Debbie Swanson
Jimmie Wilson Jr

Income Thresholds

2023

1 Person	2 Persons	3 Persons	4 Persons	5 Persons	6 Persons	7 Persons
\$24,750	\$28,300	\$31,850	\$35,350	\$38,200	\$41,050	\$43,850

Find your household size; then find the annual income listed below it.

If the household income is more than that amount, you will not qualify for the poverty / hardship exemption.

These thresholds are authorized by local Resolution. These thresholds represent 30% of median income for the Ann Arbor area.

*Updated by HUD 06/01/2022



MEMORANDUM

To: Charter Township of Ypsilanti Board of Trustees

From: Brenda Stumbo, Township Supervisor

Date: March 29, 2023

RE: Request to pay all appointed board members and commissioners a \$75 stipend from line 101-101-704.000 in the amount of \$5,000, contingent on budget amendment

Per the work session discussion on March 21, 2023, the Supervisor's Office is requesting for all appointed board members and commissioners to receive a \$75 stipend. Currently, only some appointees are paid. Those that are not paid are as follows:

- Ann Arbor Area Transportation Authority
- Bee Committee
- Huron River Watershed Council
- Washtenaw Area Transportation Study Committee
- Washtenaw Regional Recycling Management Authority

These appointees travel to these meetings, and put their time and effort into serving our community, and we would like the board to consider allowing them to receive a stipend for their service.

For these stipends, a new line item would be created in the General Fund Township Board department 101-101-704.000 "Appointed Officials." Contingent on the budget amendment, \$5,000 will be budgeted in this line.

Thank you for your consideration.

Township Supervisor
Brenda L. Stumbo
Township Clerk
Heather Jarrell Roe
Township Treasurer
Stan Eldridge



**YPSILANTI
TOWNSHIP**
— OFFICE OF THE SUPERVISOR —

Trustees
Ryan Hunter
John Newman II
Gloria Peterson
Debbie Swanson

MEMORANDUM

To: Charter Township of Ypsilanti Board of Trustees

From: Brenda Stumbo, Township Supervisor

Date: March 29, 2023

RE: Request to approve proposal from Midwestern Consulting to provide a drone survey for the Lake Loop in the amount of \$64,000 from line 213-753-801.500, contingent on budget amendment

The Supervisor's office is requesting authorization for Midwestern Consulting to survey the Lake Loop to determine project scope and cost for the non-motorized path that would connect the eight lake parks.

A proposal is attached for detailed survey and project scoping from Midwestern. The proposal includes all work start to completion needed for the project. At this time we are only seeking to have the survey completed, which is in the amount of \$64,000.

Ernat Consulting was authorized to work on this grant proposal in August 2022. Attached is their memorandum further explaining this project and the TAP grant process.

Thank you for your consideration.



September 20, 2022

Revised – February 9, 2023

Charter Township of Ypsilanti
7200 S Huron River Drive
Ypsilanti, MI 48197
Attn: Beth and Bill Ernat
Phone: (734)945-9270
Email: Ernat.beth@gmail.com
ernat.bill@yahoo.com

Re: Ypsilanti Township Proposed Non-Motorized Facilities – Lake District

Midwestern Consulting, LLC, is pleased to present the following Project Proposal for survey, landscape architecture, planning and civil engineering services for the proposed non-motorized path project located in Ypsilanti Township, Washtenaw County, Michigan. Midwestern Consulting is a leading supplier of Project Entitlement Services in the Washtenaw County market. Additionally, Midwestern Consulting has been responsible for designing many developments in the general vicinity of the proposed non-motorized path.

Representative Projects

Midwestern Consulting and its team of professional engineers, landscape architects, planners and surveyors have a wealth of experience in feasibility analysis, data collection, conceptual planning, schematic design and engineering documentation within the field of non-motorized transportation planning and design. Our legacy of outstanding project experience can be found in numerous locations in and around the State of Michigan. The following list identifies projects that are similar in type, scope or process to the Lake District Non-Motorized Facilities project;

- Washtenaw Avenue Non-Motorized Path – City of Ann Arbor
- Riverbend Preserve Trail Improvements – Bridgewater Township
- West Park – City of Ann Arbor
- DDA Sidewalk Rehabilitation – City of Ann Arbor
- Barton Drive Boardwalk – City of Ann Arbor
- Library Brecon Park Non-Motorized Pathway – City of Saline
- Pere Marquette Rail Trail of Mid-Michigan Saginaw Valley Rail Trail – City of Evart
- Baldwin Park Master plan – City of Onondaga
- Safe Routes to School Transportation Projects – Cities of Tecumseh, Detroit and Chelsea
- Walled Lake Pedestrian Master plan – City of Walled Lake
- Gallup Canoe Livery – City of Ann Arbor
- Skate Park – City of Ann Arbor
- Costco Bike Path Ellsworth and Airport Blvd – City of Ann Arbor
- Huron Waterloo Pathways Trailhead – Lyndon Township
- MDOT Aesthetic Project Opportunities Inventory and Scenic Heritage Route Assessment Survey – State of Michigan Northern Lower Peninsula and Upper Peninsula
- Various Pedestrian Bridges and Boardwalks – Cities of Saline, Chelsea and Dexter

Qualifications

Our expert knowledge and use of state-of-the-art, sophisticated technology gives us the opportunity to provide our clients with critical research, data and mapping resources. Midwestern has the resources and tools at hand to provide Ypsilanti Township accurate base information necessary for this extensive project.

Midwestern’s experience with municipal and public projects translates to our ability to anticipate and address the unique components of a project such as this connector trail which involves numerous parks, a wide variety of users and multiple funding and design guidelines. We are prepared to assist the Township in bringing this important project from concept to completion.

Midwestern Consulting is able to address the diverse transportation needs that face municipalities including non-motorized facility development. Our ability to outperform in areas such as data collection and management and high-definition surveys enable us to provide Ypsilanti Township with a thorough analysis of existing conditions that will guide us toward understanding and illustrating how this proposed project will fit contextually within existing parameters.

Our unique multi-disciplinary approach adds value to every project. A Midwestern Consulting project team includes surveyors, environmental planners, landscape architects, and multi-faceted engineers that together have the experience and insight to maximize site efficiencies, resolve complex entitlement and infrastructure issues and prepare thoughtful designs that can result in sustainable solutions.

Midwestern Consulting is dedicated to providing cost effective and innovative solutions for our clients’ needs. We take pride in providing quality professional services and in establishing long-term relationships with our clients. We want you to remain a part of our long list of satisfied repeat clients. And equally as important, we want to be a part of the development of this critical pathway network for use by the Ypsilanti Township and surrounding community.

Project Summary and Assumptions

- This proposal acknowledges our conversation with Ernat Consulting on May 26, 2022 and a follow up meeting on August 4, 2022.
- It is our understanding from the above that the scope of work for this proposal should include the following three components;
 - Site Analysis
Includes route selection, opportunities and constraints, identification of potential easements all through desktop and on-site analysis.
 - Park Connection (Schematic) Design
Includes boundary and topographic survey preparation, schematic design of path connectors and coordination of site and park elements.
 - Final Engineering
Includes detailed design and specifications for the gaps identified and permitting as required.
- The project scope involves assuring connections between 8 parks that exist along Ford Lake’s 8 mile long trail
- The Project will be funded through multiple sources including but not limited to:
 - MDOT TAP Grant
 - Trust Fund = \$800 K to \$1 M
 - MPARKS-SPARK = \$800 K
 - SEMCOG TAP Matching Grant
 - Ypsilanti Twp. Available Funds

- HWPI/MDNR/Washtenaw County
- Ralph Wilson Foundation Grant
- Wolfpack
- Other
- A trailhead parking lot exists at North Bay Park, imagery of this area will be included in the collection of base information through the use of a drone.
- Stabilization Projects have been designed by Stantec in North Bay Park and Ford Lake Park and are therefore excluded from this project scope.
- Sea Wall Designs have been done by Stantec in Ford Lake Park and are therefore excluded from this project scope.
- Construction of the project is planned for 2024.
- This proposal acknowledges the Ypsilanti Township 2040 Non-Motorized Transportation Plan dated 2/4/2020.
- Construction Plans will be prepared for approximately 16,170 feet of gaps around Ford Lake.
- The limits of the 16,170 feet gaps that will be surveyed/designed are indicated in red on the attached exhibit.
- The Construction Design Fee below is based on an estimated cost of \$6.5 M in construction costs.
- It is assumed that a Con-Span Bridge Extension will be required on the north side of the road at Textile and Lake Drive; the design and specifications of which will be by Contech.
- Existing and proposed water trails and access points will be analyzed. Midwestern Consulting has familiarized ourselves with Ypsilanti Township’s Non-Motorized Transportation Plan and the components that relate to the water trails.
- For design services we have assumed that the project will not be phased.
- MDOT Construction Specifications will govern construction activities on the project site. Specifications for any unique site elements will be provided on the plans. The intent is that no additional construction specifications outside the plans will need to be generated.
- Midwestern Consulting makes every attempt to provide a complete and thoughtful proposal to give our clients the most accurate representation of the efforts that will be required to achieve their goals. As such, this proposal anticipates a reasonable number of unforeseen challenges, however, significant discoveries and unidentified obstacles that are unknown at this time cannot be accounted for and are not a part of this scope.

SCOPE OF SERVICES

Midwestern Consulting proposes to perform the following Scope of Services:

Task 1100 - Site Analysis:

Midwestern Consulting will prepare a site analysis of the project area. This task will include the following processes:

- Gathering background information on the project area from Midwestern Consulting sources, municipality, county agencies, and state agencies. This will include but not be limited to aerial photographs, County GIS, soil surveys, FEMA Floodplain Panels.
- Site visits with the purpose of gathering photographs, information on natural features, existing manmade features including pedestrian bridges, scenic assessments and inventories related to site opportunities, constraints, and necessity for easements.
- Site opportunities such as but not limited to fishing piers, seating areas, scenic overlooks will be identified.
- Accessibility, as well as compliance of existing paths, and replacement sections identified will be analyzed and included in the recommendations.
- Preparation of a site analysis graphic of the project area illustrating the above findings.
- Preparation of an analysis and feasibility report of findings and recommendations.

Total Estimated Task Fee \$55,000.00

Task 2100 – Survey

Midwestern will prepare a survey and schematic design of the park connections with attention to other site elements such as parking, trail heads, restrooms and signage. The scope of services will include the following;

Route Survey – Midwestern Consulting will provide a route survey for the non-motorized path ‘Gap Areas’ within the Lake District area. The areas to be surveyed will be along Ridge Road, Textile Road, S. Huron River Drive, and S. Huron Street. Also included is a +/-1000’ strip topographic survey of the existing path in the wooded area in North Bay Park, through a switch back area up to the existing parking lot. The total combined length of the surveyed routes will be roughly 17,800 linear feet. The Survey Limits are indicated in red on the attached Survey Limits Exhibit.

The routes along the roads will also consist of the following:

- full topographic survey, including spot elevations and 1-ft contouring,
- boundary surveying / road right-way determination,
- utilities based on field observations and utility maps, includes utility connectivity, not pipe inverts.
- individual trees 6” dbh and greater within route area

Aerial Photography – Using drone technology we will produce a high resolution aerial of the entire loop around the Lake District, which includes both the ‘gap areas’ and also the areas where there are existing paths. The aerial will be utilized and relied upon for various planning purposes, drawing presentations, etc., as needed.

Total Estimated Task Fee \$64,000.00

Task 2100 – Schematic Design

Schematic Design – Utilizing the boundary and topographic survey prepared in the above described services within this task and supplemented with the aerial photography, a comprehensive schematic design will be prepared utilizing a range of alternative design concepts informed by the site analysis to complete the non-motorized connections. Concepts will be explored to define the character of the completed project and an optimum realization of the project program.

The schematic design will illustrate the design development of the following areas but may not be limited to;

- Areas that require easements
- Best management practices for roadway crossings such as bridges
- Technical considerations that will require specific design detailing
- Infrastructure and existing conditions interfacing
- Natural features mitigation requirements as necessary
- Opportunity areas as identified in the site analysis phase

This document can be utilized for meetings with relevant outside agencies, for obtaining community input as required and for project funding milestones. 30% Construction Drawings defined in the scope of services below will be provided.

Total Estimated Fee \$82,000.00

Task 3100 - Construction Design Phase - Detailed Engineering / Detailed Landscape Design

Midwestern Consulting will prepare the detailed construction plans, and complete the necessary applications. Construction Plans meeting regulatory agency guidelines to fill in the 16,170 feet of gaps generally consists of the following elements:

- Cover Sheet
- Legend and Construction Notes
- Construction Notes
- Construction Notes and Contact Information
- Typical Cross Sections
- Typical Cross Sections
- Typical Cross Sections
- Typical Cross Sections
- Project Details
- Project Details
- Overall Plan
- Overall Plan
- Overall Easement Plan
- Overall Easement Plan
- Existing Conditions, Removal and SESC Plan – 28 Sheets
- Construction Path Plan – 28 Sheets
- Construction Path Profile – 28 Sheets
- Detailed Grading Plan – 6 Sheets
- Road Crossing Traffic Signal Plans – 5 Sheets
- Overall Landscape and Restoration Plan – 6 Sheets
- Application and municipal review fees to be paid by the client

Total Estimated Task Fee \$202,000.00

Task 3200 - Construction Design Phase - Modifications and Submittals

Through the course of submittal and review of the site plans through the municipal review process, Midwestern Consulting anticipates making revision to the plans and resubmitting. We prefer a consolidated revision approach which means we wait to receive all the comments from all departments and agencies prior to setting direction with the client and making plan changes. This is the most cost efficient way to incorporate municipal review comments to the plans. Midwestern Consulting will meet with the client and design team to review comments and set project direction. Please note that additional rounds of review/modification beyond the number defined here may be an additional service and provided for with an amendment to work order. This scope includes two rounds of modifications and re-submittal.

Estimated Task Fee	\$26,000.00
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Task 3300 - Meetings

Midwestern Consulting anticipates facilitating and/or participating in the following meetings as a part of the Site Planning Phase of services:

- Client/Design team meetings – 5
- Municipal meetings with staff or consultants – 3

- Community Information Meeting – 1
 - Power Point Presentation and Rendering Included

Total Estimated Task Fee	\$ 9,000.00
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Task 3400 - Permitting Assistance

Midwestern Consulting anticipates facilitating or work with the client and the contractor in pursuit of the following permits:

- EGLE Wetland Impact Permit (does not include mitigation)
- Soil Erosion Control
- NPDES
- MDEQ Water
- MDEQ Sanitary
- MDOT
- WCRC
- WCWRC

Total Estimated Task Fee	\$ 13,800.00
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Subtotal Estimated Base Fees:	\$ 451,800.00
Project Expense @ 10% of Labor Costs:	\$ 45,180.00
Total Estimated Fees and Expenses:	\$ 496,980.00

IDENTIFIED POTENTIAL ADDITIONAL SERVICES

Task 4100 - Additional Potential Survey Related Tasks: T&M Estimate:

Title Searches & Easement Exhibits- on various private properties where paths are proposed to pass through due to insufficient area within public right of way. Title searches will be utilized to determine if any existing easements are within those private properties. Easement Exhibits and legal descriptions will be produced for each parcel.

Estimated Task Fee \$950/Per Parcel

Task 4200 Rapid Flashing Beacon Signal Design: T&M Estimate:

Midwestern Consulting’s Traffic Signal Consultant will provide Road Crossing Traffic Signal Plans for five proposed crossings. It is assumed the signals will be HAWK Pedestrian Hybrid Beacons.

Estimated Task Fee \$50,000.00

Task 4300 North Bay Park Existing Trail Re-Design: T&M Estimate:

Midwestern Consulting will provide the following sheets in order to address the challenging steep slopes of approximately 1,000 feet of existing trail in North Bay Park:

- Existing Conditions, Removal and SESC Plan – 2 Sheets
- Construction Path Plan – 2 Sheets
- Construction Path Profile – 2 Sheets
- Overall Grading and Restoration Plan – 2 Sheets

Estimated Task Fee \$30,000.00

Task 4400 Hourly Services: T&M Estimate:

Midwestern Consulting will provide services hourly in accordance with the attached Standard Hourly Rates Schedule for services not included in the scope of work outlined in this proposal. Such services could include but not be limited to the following;

Estimated Task Fee Hourly

Services to be provided under this Proposal will conclude with the issuance of approvals and permits.

Midwestern Consulting proposes to perform the above Scope of Services on a time and materials basis in accordance with the General Conditions for Professional Services and the attached fee schedule.

OTHER SERVICES AND EXCLUSIONS

Midwestern Consulting will provide additional services for this Project that we are qualified to perform and that the Client requests. Such services are to be paid for on a Time and Materials basis at our Standard Rates for Time and Materials or at a fixed fee to be agreed upon prior to furnishing those services. Some examples of additional services which could be required for this Project and which are not included in the base Proposal are:

- Wetland Mapping, permitting, and modification
- Shoreline evaluation and improvement designs
- Shoreline access evaluation and improvement designs
- Bike path connection evaluation and design through Eagle Crest Golf Course has not been included. A separate scope and fee can be provided for this additional work.
- Structural Engineering, including Bridge Design
- Attendance at additional meetings
- Floodplain Determinations
- Further Topographical Survey
- Construction Observation
- Signage Design
- Geotechnical Evaluation/Soil Borings/Pavement Design Recommendation
- Preparation for or appearance in litigation on behalf of Client
- Advertising for Bids
- Title Search
- Traffic studies
- Analysis of off-site sanitary or storm sewer capacities.
- Division 2 technical specifications.
- Bid documents, review of bids or solicitation or reviews.
- Cost estimates (except for SESC plan).
- Earthwork calculations (except for SESC plan).
- Sanitary sewer flow mitigation coordination.
- Reestablishment of construction layout due to stakes being removed by contractors, carelessness, vandalism, or for any other reason.
- Any work not specifically described in the Scope of Services
- Water Quality Testing
- Inspection by a certified storm water operator to comply with NPDES permit requirements.

This Proposal specifically excludes the following:

- Redesign occasioned by decisions or requirements of the Client after approvals have been obtained
- Building design or drawings
- Structural engineering including retaining walls and bridges, boardwalks
- Irrigation design.
- Electrical design.
- Building design or drawings.
- Governmental review fees and filing fees.

The Standard Rates for payment as presented shall be valid for work completed through March 2023. The rates for any remaining Project work shall increase at the end of March for each year this Proposal is in effect. This Proposal is submitted with the intention of performing all services set forth and any services that are added or deleted will affect the proposed compensation for the remaining services. This proposal is subject to modification if not accepted within 30 days.

Midwestern Consulting is prepared to begin work on this Project upon receipt of your signed Authorization to Proceed. You will be billed monthly during the course of the Project, based on the actual effort expended during that period. Each monthly billing will be accompanied by an hourly breakdown of the charges for that period. Payment is to be made by the Client within 30 days of invoicing. Delays in making payment can delay work on the project. Midwestern Consulting appreciates the opportunity to present this Proposal of Services. The attached page of Terms and Conditions is also a part of this Proposal and is a part of the agreement that will be entered into by your signature on the Proposal.

Midwestern Consulting appreciates the opportunity to present this Proposal, and we look forward to working with you to achieve a successful project. If our Proposal is acceptable as presented, please sign and date this letter and return one (1) copy as your authorization for us to commence work on this Project. If you have any questions, please contact us at (734) 995-0200. Thank you.

Proposal Offered By:
MIDWESTERN CONSULTING, LLC



Robert C. Wagner, PE
Associate/ Senior Project Manager



Kate Bond, PLA
Senior Project Manager

Encl: General Conditions
Standard Rate Schedule

Proposal for Professional Services for charter Township of Ypsilanti

Client attests that he/she is authorized to sign this Agreement, which includes the General Conditions for Professional Services stated on the following page and the Guarantee stated below.

CLIENT ACCEPTANCE and GUARANTEE:

I / We personally guarantee the obligations of the Client.

(Legal Name of Client)

(Signature)

(Printed Name & Title)

**STANDARD HOURLY RATES
 AS OF APRIL 1, 2022**

<u>Classification</u>	<u>HOURLY RATE</u>
FIRM PRINCIPAL	\$ 204
SR. PROJECT MANAGER	\$ 204
PROJECT MANAGER	\$ 189
SR. PROJECT ENGINEER	\$ 174
PROJECT ENGINEER	\$ 154
ENGINEER II	\$ 136
ENGINEER I	\$ 117
PLANNER II	\$ 163
PLANNER I	\$ 106
LANDSCAPE ARCHITECT II	\$ 148
LANDSCAPE ARCHITECT I	\$ 106
CAD TECHNICIAN II	\$ 104
CAD TECHNICIAN I	\$ 94
TECHNOLOGY SPECIALIST	\$ 154
ENGINEERING TECHNICIAN	\$ 110
IT SERVICES / CONSULTING	\$ 149
INTERN	\$ 63
SECRETARY	\$ 79
PROJECT SURVEYOR	\$ 154
STAFF SURVEYOR	\$ 117
CONSTRUCTION OBSERVATION	\$ 107
FIELD TECHNICIAN	\$ 100
ARBORIST II	\$ 183
ARBORIST I	\$ 153
SURVEY CREW CHIEF	\$ 130
SURVEY TECH	\$ 86
2-MAN SURVEY CREW	\$ 212

In addition to the above:

* Project related expenses, such as mileage, computer time, postage/shipping, in-house reproduction, will be billed at an amount equal to ten percent (10%) of the labor charges.

* Sub-consultant billings, filing/review fees and outside reproduction costs will be billed at cost plus fifteen percent (15%).

* Rates are subject to change without prior notification



GENERAL CONDITIONS FOR PROFESSIONAL SERVICES

Payment

The Client shall pay Midwestern Consulting LLC (MC) for services performed in accordance with the rates and charges set forth in the Agreement. Invoices shall be submitted monthly and are due within thirty (30) calendar days of invoice date. If the Client objects to any portion of an invoice, the Client shall notify MC, in writing, within fourteen (14) calendar days of invoice receipt, identify the cause of disagreement, and pay when due any portion of the invoice not in dispute. Failure to provide notification shall constitute acceptance of the invoice as submitted.

The Client recognizes that it has the obligation to pay for all services performed and shall make no deductions or adjustments, or impose penalties for the Client's inability to obtain financing or any governmental approvals.

The Client shall pay an additional charge of one-and-one-half (1.5) percent of the invoiced amount per month for any undisputed portion of invoices that are unpaid for more than thirty (30) calendar days.

If Client fails to pay undisputed invoiced amounts within the thirty (30) calendar days of the invoice date, MC may at any time, without waiving any other claim against the Client (including lien rights) and without thereby incurring any liability to the Client, suspend or terminate this Agreement.

Indemnification

MC agrees, to the fullest extent permitted by law, to indemnify and hold the Client harmless from any damage, liability or cost (including reasonable attorneys' fees and costs of defense) to the extent caused by MC's negligent acts, errors or omissions in the performance of professional services under this Agreement and those of his or her subconsultants or anyone for whom MC is legally liable.

The Client agrees, to the fullest extent permitted by law, to indemnify and hold MC harmless from any damage, liability or cost (including reasonable attorneys' fees and costs of defense) to the extent caused by the Client's negligent acts, errors or omissions and those of his or her contractors, subcontractors or consultants or anyone for whom the Client is legally liable, and arising from the project that is the subject of this Agreement.

MC is not obligated to indemnify the Client in any manner whatsoever for the Client's own negligence.

Limitation of Liability

In recognition of the relative risks, rewards and benefits of the project to both the Client and MC, the risks have been allocated such that the Client agrees that, to the fullest extent permitted by law, MC's total liability to the Client for any and all injuries, claims, losses, expenses, damages or claim expenses arising out of this Agreement from any cause or causes, shall not exceed \$50,000 or the total amount of compensation received by MC, whichever is greater.

Termination

The Client may terminate this Agreement at any time with or without cause upon giving MC seven (7) calendar days prior written notice. MC may terminate this Agreement upon giving the Client written notice for any of the following reasons:

1. Breach by the Client of any material term of this Agreement, including but not limited to Payment Terms.
2. Transfer of ownership of the project by the Client to any other persons or entities not a party to this Agreement without the prior written agreement of MC.
3. Material changes in the conditions under which this Agreement was entered into, coupled with the failure of the parties hereto to reach accord on the fees and charges for any Additional Services required because of such changes.

Professional Standards

Services provided by MC under this Agreement will be performed in a manner consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances.

Assignment

Neither party to this Agreement shall transfer, sublet or assign any rights under or interest in this Agreement (including, but not limited to, monies that are due or monies that may be due) without the prior written consent of the other party.

Insurance

MC shall secure and maintain such insurance as will protect it from claims under the Worker's Compensation Act and from claims for bodily injury, death or property damage which may arise from the performance of its services. MC shall, upon request, furnish current certificates of insurance coverage to the Client covering Worker's Compensation, General Liability, Automobile Liability, and Professional Liability.

Construction Costs and Schedules

Statements of probable construction costs and/or schedules prepared by MC represent our professional judgment. MC has no control over the methods of determining bid prices and schedules. Accordingly MC does not warrant that bids, proposal, schedules or actual project costs will not vary from the projections.

Ownership of Records and Documents

All documents produced by MC under this Agreement shall remain the property of MC and may not be used by the Client for any other endeavor without the written consent of MC.

Job Site Safety

MC shall not at any time supervise, direct, or have control over any contractor's work, nor shall MC have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected or used by any contractor, for safety precautions and programs incident to a contractor's work progress, nor for any failure of any contractor to comply with laws and regulations applicable to contractor's work.

Information Provided by Client

The Client shall provide information relating to the Project that is available, and MC shall be entitled to rely upon the accuracy and completeness of such information. Accordingly, the Client agrees, to the fullest extent permitted by law, to indemnify and hold MC harmless from any claim, liability, or cost for injury or loss arising from errors, omissions or inaccuracies in documents or other information provided by the Client.

Right of Entry

The Client shall provide for MC's right to enter the property owned by the Client and/or others in order for MC to fulfill the Scope of Services included hereunder. The Client understands that use of testing or other equipment may unavoidably cause some damage, the correction of which is not part of this Agreement. The Client agrees, to the fullest extent permitted by law, to indemnify and hold MC and his or her subconsultants harmless from any claim, liability or cost (including reasonable attorneys' fees and costs of defense) for injury or loss arising or allegedly arising from procedures associated with testing or investigative activities or discovery of hazardous materials or suspected hazardous materials on said property.

Electronic Media Disclaimer

The Client agrees that all forms of electronic media data are instruments of service of MC who shall retain all rights. Any electronic files submitted to the Client are subject to a 30-day acceptance period, after which MC will not be held liable for the completeness or correctness of the data. MC attests to the accuracy of the hardcopy (mylar, sepia or print), which accompanies the electronic media, and any drawings produced from the electronic media must be checked against the hardcopy by the Client. The Client further agrees to waive all claims against MC resulting from unauthorized changes, or reuse in any way, of the electronic media.

Applicable Laws

Unless otherwise specified, the laws of the State of Michigan shall govern this Agreement.

END OF GENERAL CONDITIONS

E
ERNAT CONSULTING
MEMORANDUM

TO: Brenda Stumbo, Township Supervisor
FROM: Beth Ernat, Ernat Consulting
DATE: 3/29/2023
RE: TAP Grant Program – Preliminary Survey work

Although the Lake Loop grant proposal was approved in August, Ernat Consulting pivoted to work on the DNR SPARK Grant, Congressional Discretionary Funding requests, and DNR Trust Fund. There are four opportunities annually to submit funding for the TAP grant. Ernat Consulting will be focusing on the June application cycle and coordinating the strongest application possible.

The full-scale engineering proposal is attached. The proposal includes preliminary engineering through final design engineering for the project. The entire scope of the project is not yet determined as there is not a comprehensive evaluation of all connection points.

A complete survey of the eight lake parks is needed to be able to design and determine reasonable points of connections. Ernat consulting is recommending approval of Task 2100 – Survey in the amount of \$64,000. Completing the survey prior to the leaves opening on the trees is critical as the surveyor will use a drone to access areas not currently accessible on foot. Once the leaves and shrubs have bloomed there is considerable more work associated with the survey and the price will increase.

The timetable for completion of the survey is within 30 days of the fieldwork.

A match of 25% is required for all TAP projects. Matches are considered in the form of preliminary engineering and preparation work within the project scope. Any money spent now will be used toward the Township match.

Once the full scope of the project has been identified, it will allow us to reach out directly to community partners for financial and in-kind supports.

Township Supervisor
Brenda L. Stumbo
Township Clerk
Heather Jarrell Roe
Township Treasurer
Stan Eldridge



**YPSILANTI
TOWNSHIP**
— OFFICE OF THE SUPERVISOR —

Trustees
Ryan Hunter
John Newman II
Gloria Peterson
Debbie Swanson

MEMORANDUM

To: Charter Township of Ypsilanti Board of Trustees

From: Brenda Stumbo, Township Supervisor

Date: March 29, 2023

RE: Request to approve design engineering by Midwestern Consulting and Stantec for North Bay Park Accessibility and Improvement Study in the amount of \$9,962.50 from line 213-753-801.500, contingent on budget amendment

Per Ernat Consulting, our grant consultants, we are requesting to authorize Midwestern Consulting to subcontract Stantec Architecture to evaluate the current conditions of the bathroom and boardwalk at North Bay Park. Also included is the concept design of upgrades, and probable cost opinions. This preliminary engineering is a necessary step for requesting grant funds from the Michigan Natural Resources Trust Fund (MNRTF). This grant will be critical to getting consideration for the TAP grant that will loop the eight Ford Lake Parks, with the improved North Bay Park being the trail head.

Ernat Consulting was retained by the Board for grant proposals. Attached is their memorandum further explaining the importance of this concept design and probable cost in order to apply for MNRTF.

Thank you for your consideration.



Project Authorization Form

Client:	Charter Township of Ypsilanti
Address:	7200 S. Huron River Drive Ypsilanti, MI 48197

Date:	28-Feb-23
Project Number:	P2022-
Project Task:	TBD

Contact:	Beth Ernat	Title:	
Phone:	(734)945-9270	Email:	Ernat.beth@gmail.com

Project Name:				North Bay Park Accessibility and Improvement Study			
Project Location:		County:	Washtenaw	City/Twp.:	Ypsilanti Twp.		
		T	03S	R	07E	Section	16
		Lat.	42.2279	Long.	-83.6139		

Description of Services and Fee:
<p>Midwestern Consulting will subcontract Stantec Architecture, Inc. to fulfill the scope of services outlined in their attached proposal dated February 23, 2023.</p> <p>Fee = \$8,812.50 (Includes 15% Sub consultant Mark-Up and Consultant Coordination)</p> <p>Midwestern Consulting will provide a Concept Sketch Plan indicating what Ypsilanti Township is envisioning for the North Bay Park Pathway System.</p> <p>Fee = \$1,150</p> <p>Total Fee = \$9,962.50</p>

Fee Arrangement:	Invoiced monthly w/ balance due 30 days from invoice date
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Conditions:	MCLLC Standard Terms and Conditions as attached
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Project Manager:		Robert C. Wagner
	Signature	Printed

Client attests that he/she is authorized to sign this agreement which includes the terms and conditions below or attached

Client Acceptance / Authorization:	
	Legal Name of Client / Business Entity
	Signature Date
	Printed Name

TERMS & CONDITIONS:



GENERAL CONDITIONS FOR PROFESSIONAL SERVICES

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Applicable Laws

Unless otherwise specified, the laws of the State of Michigan shall govern this Agreement.

END OF GENERAL CONDITIONS



Stantec Architecture, Inc.
2338 Coolidge Highway, Berkley, MI 48072

February 23, 2023

File: TBD

Attention: Robert Wagner of Midwestern Consulting on Behalf of Ernat Consulting and Ypsilanti Township
3815 Plaza Drive, Ann Arbor, MI 48108

Dear Rob,

Reference: North Bay Park Accessibility and Improvement Study

We are pleased to provide our proposal for architectural and engineering consulting services and associated fees for the above-named project.

CLIENT

We propose to contract directly with Midwestern Consulting as our client.

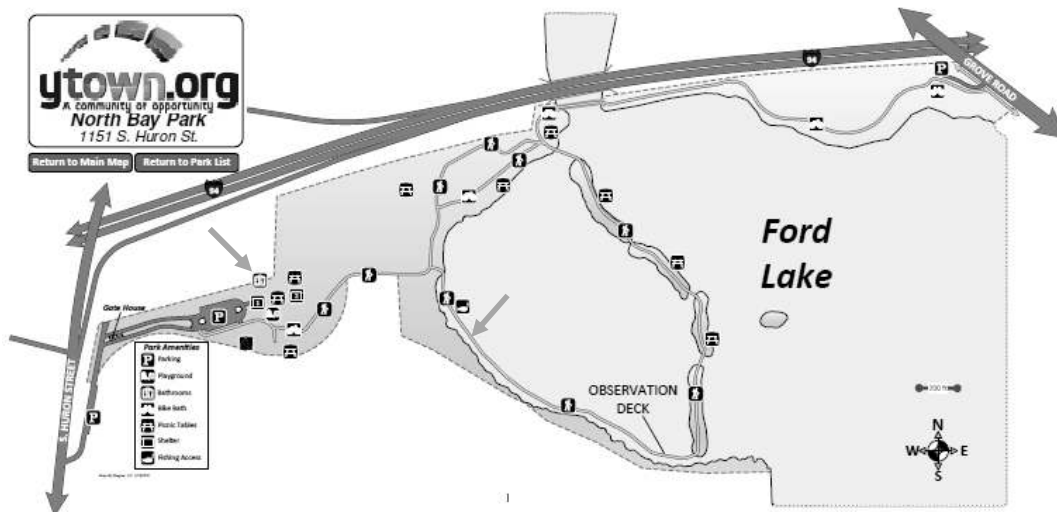
FORM OF AGREEMENT

This proposal is based on the Client retaining Stantec pursuant to the Stantec Standard Professional Services Agreement, a copy of which is included with this proposal.

SCOPE

Our proposal is for the provision of services as outlined below:

Stantec understands that they are being requested to provide a report indicating the current condition of the existing restroom facility and boardwalk located at North Bay Park located at 1151 South Huron Street in Ypsilanti Township. Along with the report of the existing conditions, an opinion of probable cost will be provided to replace the restroom facility and boardwalk in-kind with accessible facilities. Locations indicated in the image below:



February 23, 2023

Robert Wagner of Midwestern Consulting on Behalf of Ernat Consulting and Ypsilanti Township

Page 2 of 4

Reference: North Bay Park Accessibility and Improvement Study

GENERAL CONDITIONS/ASSUMPTIONS

The fees are based on the following assumptions:

- A detailed geotechnical investigation and report will not be required.
- A survey is being completed by others but will not be required to complete the scope of work.
- The number of virtual meetings is assumed not to exceed three.
- The project team will make one site visit to observe the condition of the facilities to be reviewed and the boardwalk. Personnel will be available to grant the team access to the spaces for review.
- The toilet facilities that are to be reviewed have power, water, sanitary, storm, natural gas service, and telephone. If the buildings do not have these services, other entities will provide cost opinions to provide any required services to the building.
- The Owner will provide all necessary information and make all decisions in a timely manner as required for Stantec to perform its services.
- As-Built and Record drawings of the existing building, if applicable, are made available for our review in electronic format using Autocad or Revit.
- All design input, criteria and considerations must be provided to Stantec in writing as per the project schedule.

The following services are specifically excluded from our scope of work:

- Detailed economic studies of systems including life cycle analysis.
- Any changes requested by the client that require redesign or re-coordination or are in contravention of previous instructions.
- Engineering and architectural services to develop design and construction documents.
- Permit applications including fees for permit applications
- Any renderings or support imagery other than existing conditions photographs.
- Material testing and investigation
- Services not specifically described as included as part of Stantec's scope

DELIVERABLES

Our proposal is based on the following list of deliverables:

- Report with opinion of probable cost

CONSULTANTS

Our proposal includes the provision of basic architectural and engineering consulting services as described above but excludes all other specialty consultants.

SCHEDULE

Our proposal is based on the following schedule:

- Notice to Proceed
- Site Visit

February 23, 2023

Robert Wagner of Midwestern Consulting on Behalf of Ernat Consulting and Ypsilanti Township

Page 3 of 4

Reference: North Bay Park Accessibility and Improvement Study

- Draft report – 3 Weeks
- Client review – 1 Week
- Final report – 1 Week

CURRENCY

All fees quoted below are in US dollars and are open for acceptance until March 23, 2023.

FEE PROPOSAL

Our fee proposal is as follows:

Lump sum fee of \$6,900.00 plus reimbursables expenses. Reimbursable expenses are estimated at \$150.00.

Site Visit	\$2,400
Report with meetings	\$3,300
Owner review	\$400
Final report	\$800

Fees quoted are net of any applicable taxes.

The proposed compensation is based on our understanding of the project, the scope of professional services, deliverables, project team, consultants, project schedule, form of agreement, and payment terms described in this proposal. Should changes occur to any of these prior to or during the execution of the professional services, a commensurate adjustment to the proposed compensation will be made.

In current circumstances surrounding COVID-19, please note that government directives and / or supply chain disruption may affect both our ability and yours, in following planned project activities. Should this occur we will advise you at the earliest opportunity and collaborate with your team to make the necessary adjustments.

Our hourly rates are reviewed on an annual basis and subject to change on January 1 of each calendar year.

REIMBURSABLE EXPENSES

We propose to invoice the following Reimbursable Expenses at cost.

- Printing and photocopying costs
- Park entry fees (if not waived)

Mileage will be billed according to the guidelines that are set each year by the Internal Revenue Service.

February 23, 2023

Robert Wagner of Midwestern Consulting on Behalf of Ernat Consulting and Ypsilanti Township

Page 4 of 4

Reference: North Bay Park Accessibility and Improvement Study

BILLING AND TERMS OF PAYMENT

Fees will be invoiced on a monthly basis and will be due within 30 days.

CONCLUSION

Stantec retains the intellectual property contained in this proposal. It is to be treated confidentially and not disclosed to third parties.

Please refer to the attached Form of Agreement. If you are in agreement with our proposal, an updated Agreement will be issued for signature.

We trust the above is satisfactory. We would like to thank you for your request for this fee proposal and would be pleased to be a member of your team on this project.

Sincerely,

Stantec Architecture, Inc.



Lindsay Woods AIA, NCARB, LEED Green Associate
Project Manager

Direct: 248 336-4986

Mobile: 248 376-7972

Lindsay.Woods@Stantec.com

Attachment: Subconsultant Agreement.pdf

E
ERNAT CONSULTING
MEMORANDUM

TO: Brenda Stumbo, Township Supervisor
FROM: Beth Ernat, Ernat Consulting
DATE: 3/29/2023
RE: MNRTF Grant Program – North Bay Park

Following approval of the grant proposal from Ernat Consulting for the upgrade of the bathroom facility and boardwalk for North Bay Park, I have met with Township staff, the DNR Grant Coordinator, and local engineers to best present this project for approval.

In order to make request for grant funds, we need to have a full scope of the repair activities and an engineer's probable cost estimate. This was originally being coordinated by the former Residential Services Director but since his departure from the Township, Ernat Consulting has coordinated getting the engineering prepared.

Attached is a proposal from Midwest Consulting and Stantec for an evaluation of the current conditions of the bathrooms and boardwalk, concept design of upgrades and probable cost opinions.

This work needs to be completed as there is no current evaluation to estimate the costs to repair either the bathroom or the boardwalk.

This project is high priority as the overall Lake Loop project depends on having North Bay park as a main trailhead with operational bathrooms and trails that connect the lake parks. Additional funding sources are required to be eligible for TAP grants and DNR Trust Fund grant would excellent to showcase partners and investment. Both the DNR and Tap grants require matching funds. Any pre-engineering work will count as a portion of the Township's match.

The cost of the preliminary engineering from Midwestern and Stantec is \$9,962.50. Ernat Consulting has worked with both Midwestern and Stantec for several years. Stantec worked with the Township, Ford Lake, and the Ford Lake Dam for many years. Midwestern has an excellent reputation with MDNR and can provide valuable insight to the overall project.

**CHARTER TOWNSHIP OF YPSILANTI
2023 BUDGET AMENDMENT #4**

April 4, 2023 REVISED

AMOUNTS ROUNDED UP TO THE NEAREST DOLLAR

101 - GENERAL OPERATIONS FUND	Total Increase	\$672,399.00
--------------------------------------	-----------------------	---------------------

Request to increase budget and add a new general ledger number to pay stipends for various appointed board members and commissioners. This will be funded by an appropriation of prior year fund balance .

Revenues:	Prior Year Fund Balance	101-000-699.999	\$5,000.00
		Net Revenues	\$5,000.00
Expenditures:	Appointed Officials	101-101-704.000	\$5,000.00
		Net Expenditures	\$5,000.00

Request to increase budget for PTO payout of available hours to be paid at 75%. This will be funded by an appropriation of prior year fund balance.

Revenues:	Prior Year Fund Balance	101-000-699.999	\$1,499.00
		Net Revenues	\$1,499.00
Expenditures:	Salaries Payout PTO	101-191-708.004	\$1,392.00
	FICA	101-191-715.000	\$107.00
		Net Expenditures	\$1,499.00

Request to increase the budget for water and sewer hardship rebates. This will be funded by an appropriation of prior year fund balance.

Revenues:	Prior Year Fund Balance	101-000-699.999	\$10,400.00
		Net Revenues	\$10,400.00
Expenditures:	Contribution Water Hardship	101-272-836.100	\$10,400.00
		Net Expenditures	\$10,400.00

**CHARTER TOWNSHIP OF YPSILANTI
2023 BUDGET AMENDMENT #4**

April 4, 2023 REVISED

101 - GENERAL OPERATIONS FUND

Request to increase the budget and add a new general ledger number for blight removal. This request is for the demolition of the structure located at Gault Village. Homrich was awarded the base bid of \$587,000. The contract still needs to be review by legal council and approved by the Board. This will be funded by an appropriation of prior year fund balance.

Revenues:	Prior Year Fund Balance	101-000-699.999	\$587,000.00
		Net Revenues	<u>\$587,000.00</u>
Expenditures:	Blight Removal - Gault Village	101-729-806.091	\$587,000.00
*Revised 4-4-23		Net Expenditures	<u>\$587,000.00</u>

Request to increase the budget and add a new general ledger number for blight removal. This request is for the construction engineering service oversite required for the demolition located at Gault Village at an estimate of \$68,500. This will be funded by an appropriation of prior year fund balance.

Revenues:	Prior Year Fund Balance	101-000-699.999	\$68,500.00
		Net Revenues	<u>\$68,500.00</u>
Expenditures:	Blight Removal - Gault Village	101-729-806.091	\$68,500.00
*Revised 4-4-23		Net Expenditures	<u>\$68,500.00</u>

213 - BIKE, SIDEWALK, REC, ROADS FUND (BSRII)

Total Increase \$73,963.00

Request to increase the budget and add a new general ledger number for professional services for preliminary studies, surveys and designs needed to apply for grants for the Ford Lake Loop project. This request is for the engineering firm of Midwestern Consulting to provide a survey of the Lake area. This will be funded by an appropriation of prior year fund balance.

Revenues:	Prior Year Fund Balance	213-000-699.999	\$64,000.00
		Net Revenues	<u>\$64,000.00</u>
Expenditures:	Prof Serv - Grant Prelim Studies	213-753-801.500	\$64,000.00
		Net Expenditures	<u>\$64,000.00</u>

Request to increase the budget and add a new general ledger number for professional services for preliminary studies, surveys and designs needed to apply for grants for the Ford Lake Loop project. This request is for the engineering firm of Midwestern Consulting to subcontract Stantec Architecture engineers to provide an accessibility and improvement study for North Bay Park. This will be funded by an appropriation of prior year fund balance.

Revenues:	Prior Year Fund Balance	213-000-699.999	\$9,963.00
		Net Revenues	<u>\$9,963.00</u>
Expenditures:	Prof Serv - Grant Prelim Studies	213-753-801.500	\$9,963.00
		Net Expenditures	<u>\$9,963.00</u>

**CHARTER TOWNSHIP OF YPSILANTI
2023 BUDGET AMENDMENT #4**

April 4, 2023 REVISED

226 - ENVIRONMENTAL SERVICES FUND

Total Increase \$80,000.00

Request to increase the budget for contractual chipping service due to sever storms. Additional funds are needed as the scope of the clean up services needed for residential curbside tree chipping was more than originally expected. This will be funded by an appropriation of prior year fund balance.

Revenues:	Prior Year Fund Balance	226-000-699.999	\$80,000.00
		Net Revenues	<u><u>\$80,000.00</u></u>
Expenditures:	Contractual Services	226-528-818.000	\$80,000.00
*Revised 4-4-23		Net Expenditures	<u><u>\$80,000.00</u></u>

236- 14B DISTRICT COURT FUND

Total Increase \$2,125.00

Request to increase budget for PTO payout of available hours to be paid at 75%. This will be funded by an appropriation of prior year fund balance.

Revenues:	Prior Year Fund Balance	236-000-699.999	\$2,125.00
		Net Revenues	<u><u>\$2,125.00</u></u>
Expenditures:	Salaries Payout PTO	236-286-708.004	\$1,974.00
	FICA	236-286-715.000	\$151.00
		Net Expenditures	<u><u>\$2,125.00</u></u>

Motion to Amend the 2023 Budget (#4) REVISED

Move to increase the General Fund budget by \$672,399 to \$13,543,374 and approve the department line item changes as outlined.

Move to increase the Bike, Sidewalk, Rec, Roads (BSRII) Fund budget by \$73,963 to \$3,408,460 and approve the department line item changes as outlined.

Move to increase the Environmental Service Fund budget by \$80,000 to \$3,824,633 and approve the department line item changes as outlined.

Move to increase the 14B District Court Fund budget by \$2,125 to \$1,721,709 and approve the department line item changes as outlined.

AUTHORIZATIONS AND BIDS

Township Supervisor
Brenda L. Stumbo
Township Clerk
Heather Jarrell Roe
Township Treasurer
Stan Eldridge



**YPSILANTI
TOWNSHIP**
— WHERE YOUR FUTURE GROWS —

Trustees
John Newman II
Gloria Peterson
Debbie Swanson
Ryan Hunter

To: Township Board
From: Travis McDugald, IS Manager
Re: Request approval the proposal from Randall Mascharka for Township photography services.
Date: March 27, 2023

The Township Website Review Committee has been working hard to update the Township Web presence. There has been input from both staff and members of the community. One item which comes up is having professional photos to help highlight events and areas of the Township.

The Website Committee decided to seek qualifications for professional photography services. An RFQ was published to all the Township social media platforms looking for a person or organization who is familiar with the area and can help bring a welcoming environment to the new Website.

The Township received 6 qualified responses and after reviewing the response and online portfolios the review committee would like to recommend the service of Randall Mascharka.

The services would be as needed throughout the year to take photo of Township events, nature areas, and staff photos for the Website and other Township publications.

The cost of service is \$100 per hour for photographic services and \$50 per hour for editing services. This will be funded from the department 271 Communications & PR.

Randall Mascharka is a former resident of the Township and currently FAA certified for drone operations. Randell Mascharka has over 35 years of experience with different media types including digital photography, video, and film.

I respectfully request approval to accept the proposal from Randell Mascharka for professional photography services pending attorney review.

Thank you for your consideration.

Travis McDugald
IS Manager, Charter Township of Ypsilanti

Randall Mascharka
45455 Muirfield Drive
Canton, MI 48188
734-635-6966

Thank you for reviewing my application for bidding for Photography Contracting with Ypsilanti Township. I have been a commercial photographer for over 35 years and possess a vast range of experience in film, video and digital photography. I am located in Canton Michigan but was a resident of Ypsilanti Township for 10 years. I bring experience working in both a corporate and higher education environment to my work and photograph subjects with a perspective of marketing and public relations. I am well versed in Adobe Suite, Photoshop and video editing. I have FAA certification for drone operations and do photography from light aircraft. I enjoy working in the corporate environment and look forward to interviewing for this position.

My background is in corporate and educational photography. I was a corporate photographer at Ford Motor Company for 18 years and University Photographer at Eastern Michigan University for 11 years. I have lived in the Ypsilanti area for the past 40 years and enjoy the people and activities of the area. Currently I am an adjunct lecturer at Eastern Michigan University as an adjunct lecturer in the College of Engineering and Technology.

My rate for professional photography is \$100. / hour and \$50./ hour for post production work.

Personally, I am a very active individual. I sail, iceboat, kayak, bike, backpack and golf. I have built a DN iceboat, am currently building a Sweet 16 two-man iceboat and have restored several 50-year-old iceboats. I'm a member of North Cape Yacht Club where I am on the Board of Directors. I'm a past commodore of the Ford Lake Sailing Club and an emeritus board member of the Eastern Michigan University Alumni Association. Professionally, I'm a member of the University Photographer Association of America. I volunteer with the Heart Association of Michigan and with EMU's ROTC Program.

Portfolio can be viewed at:

<https://thecriticalimage.zenfolio.com/portfolio>

Spark pages with my photo stories:

<https://spark.adobe.com/page/VWyYIy1mMLYT3/>

<https://spark.adobe.com/page/zy9UW6fF11qty/>

<https://spark.adobe.com/page/4Tg5bfPC7Ak9O/>

<https://vimeo.com/247193785>

Sincerely,
Randall Mascharka

RANDALL (Randy) J. MASCHARKA

45455 Muirfield Canton, MI 48188 * rmaschar@gmail.com * 734-635-6966
Commercial Photography Portfolio: thecriticalimage.zenfolio.com/portfolio



Commercial . Licensed Aerial
Events . Portraits . Education
Randy Mascharka Photography 734.635.6966
maschar@gmail.com
Portfolio:thecriticalimage.zenfolio.com



Professor Cheyenne Lasynski - College of Education, School of Leadership Development



Eastern Michigan University
School of Police Staff & Command
Executive Leadership Program - Class 22



Canton Township Administration Building



Jack Roush - Chairman Roush Enterprises, NASCAR legend, Eastern Michigan University Alumni



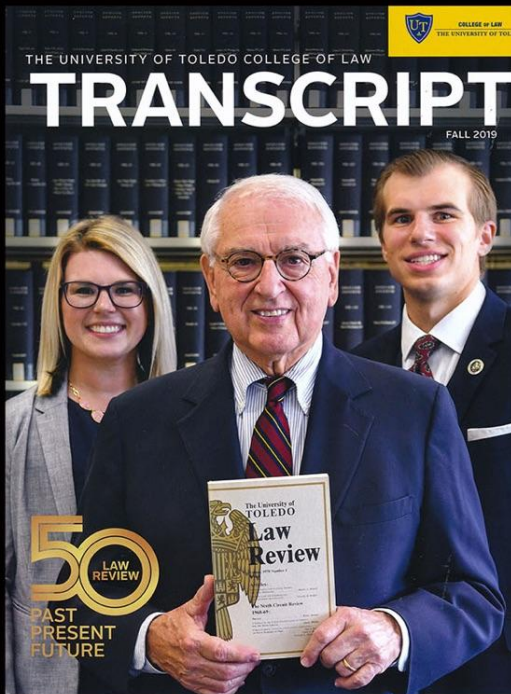
Eagle Crest Golf Club - Hole #15



Mitch Marsh
Owner
Marsh Plating Corporation



Aubrees Whittaker - 2022



Township Supervisor
Brenda L. Stumbo
Township Clerk
Heather Jarrell Roe
Township Treasurer
Stan Eldridge



**YPSILANTI
TOWNSHIP**
— WHERE YOUR FUTURE GROWS —

Trustees
John Newman II
Gloria Peterson
Debbie Swanson
Ryan Hunter

To: Township Board
From: Travis McDugald, IS Manager
Re: Request approval to accept the proposal from Ooma for Airdial service
Date: March 27, 2023

The Township has emergency call boxes for each Fire Station along with an alarm system at the Hydro Station. These systems continue to use copper hard lines to communicate.

Copper phone lines are proving to be less reliable than in the past. The FCC has strongly encourage the migration to new technologies for copper phone service. While the Township main customer lines have been migrated, we continue to use older lines for task specific service such as emergency dialing.

Township IT has evaluated moving these service lines onto the Township general use phone system and recommends moving these services to a separate cellular based system. Township IT evaluated several options and found Ooma Airdial service to best fit the requirements of these lines.

Ooma does require a one-year agreement which auto renews annually unless cancelled 90 days before its renewal. There will also be a \$80 one-tem setup fee.

Estimated Monthly Cost Table

Location	Account	Ooma	Current
Hydro Station	252-535-850.000	\$63.00	\$70.00
Fire Department	206-336-920.006	\$189.00	\$270.00

I respectfully request approval to accept the proposal from Ooma and allow the signing of necessary agreements upon attorney review.

Thank you for your consideration.

Travis McDugald
IS Manager, Charter Township of Ypsilanti

Ooma Enterprise

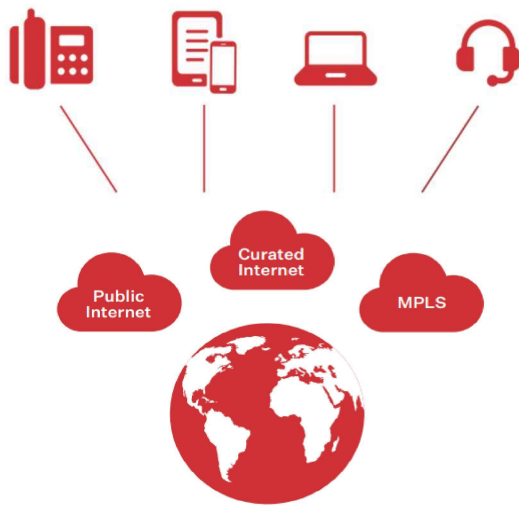
Your Ooma Enterprise Proposal

Ooma Enterprise provides greater ease and efficiency and a better employee / customer experience.

- Feature-rich, enterprise-grade voice, text, conferencing, and call center solutions
- Highly customizable with support heroes to help during every step of the journey
- Simple to use admin portal – easy updates from anywhere
- Mobile and desktop applications
- Call center with drag-and-drop call flows
- 24x7 support
- Secure, compliant, global network
- Broadband infrastructure upgrades and deployments as needed

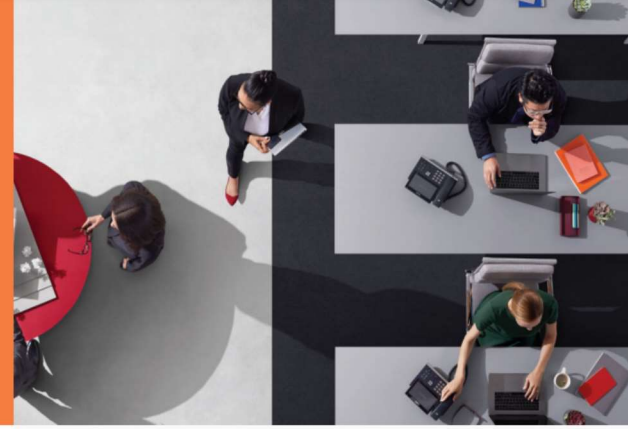
The Ooma Enterprise Network Difference.

Seven strategically located global data centers provide redundancy, security, and the shortest hop. Most UCaaS providers are limited to connecting via the public Internet or MPLS. Ooma Enterprise supports both methods in addition to providing lower-cost, curated Internet that enhances connectivity and voice quality.



**Any device, anywhere globally.
7 Global Data Centers.**

Calls and meetings connect through the closest data center, delivering the highest quality VoIP over the shortest distances.



Ooma is a proven leader.

- Founded 2004, publicly traded. NYSE: OOMA
- Cloud-delivered VoIP and Unified Communications as a Service.
- Support over 2 million endpoints.
- Personalized service, customized, integrated solutions that deliver great business value.
- Ideal for fast growing companies with offices across the country or the globe.



Personalized service that is second to none.

- Dedicated customer success heroes provide concierge-style service every step of the way.
- Provide proactive planning and smooth delivery, maintaining business continuity with little disruption.
- Curate tailored business communications that are the perfect fit for each organization.
- Provide support during deployment, customization, and integration with other SaaS solutions.
- Full accountability from one proven vendor.



Mobile app, desktop app, and real-time reporting.

Use your business communications system on your Android / iOS phone or PC / Mac. Our intuitive web-based interface makes on-going management and reporting easy!

“ Ooma Enterprise has always been incredibly flexible. No matter what the situation, or who the client was, they had a solution. For example, they made a flashing light indicator system completely from scratch for a restaurant client to match the client's needs. It came fast and impressed the client, and really made us look good. The portal is a very effective tool to not only analyze things but make changes quickly. It's a very effective tool and I haven't found its equal. The Ooma Mobile App is very useful so you appear to be in the office whether you are or not. Ooma Enterprise has always been fantastic for accommodating special needs that the customer requires but also in providing that “little bit extra” to let the client know they actually care about what the client wants. Ooma Enterprise landed us a number of sales that we probably would not have gotten, had they not been involved.

–Rob Harrison, Support Manager

DigiFX Networks outsourced IT services

“ We experienced a flood about five days before Christmas and our former provider was not able to maintain continuity. Ooma was provisioned and up and running in less than a week. Our main important thing was to have a reliable, consistent provider... and with Ooma, our experience is zero down time. The management portal is absolutely amazing. I have very limited experience in information technology, but with some assistance from the customer success team, we've been able to fully set up the system without the need of a dedicated IT specialist. It's incredibly easy to use. It's a great system and much better than where we were previously.

–Adam Glover, General Manager & Managing Broker

Atira Property Management

“ Ooma makes me feel they are with me as a stakeholder in the project. With my previous provider, I'd have to submit a ticket and wait for hours before it was even assigned to a technician, no matter the severity of the problem. Ooma is providing a personal and close relationship where I'm not stuck on hold when I need to get my business back up and running.

–Greg Miller, Director of IT

Compass Health Systems

“ I'm an agnostic technology matchmaker, picking the best solutions for my clients. The Ooma team deeply impressed me with both their expertise and their willingness to get to work in creating a custom solution to meet the precise needs of Compass Health.” Example: unique traffic shaping and throttling designed to optimize bandwidth across diverse WAN connections, so that clinical application data gets priority over less urgent needs such as email while voice gets priority over everything.

–Rudy Martinez, CEO of Telefonetica

Technology and Telecommunications Advisory Firm.



In addition to the installation, site preparation, and licensing requirements set forth in the Ooma Enterprise Terms and Conditions (<https://www.ooma.com/legal/enterprise-terms>), the following customer responsibilities and additional terms and conditions apply:

Customer Responsibilities:

- Customer is to allow on-site installation resources timely and unhindered access to each location's telephone and network rooms.
- Customer is to provide a safe working environment for field service installers.
- Customer is to provide properly grounded power, battery backup system(s) and inside wiring and network cable drops to support Ooma equipment and services.
- Customer is to provide an escort during a prearranged time where applicable, to allow the installation team to enter rooms and any other restricted areas to install and troubleshoot infrastructure.
- Customer is to supply an external routable IP address(es), when applicable, for voice router and system remote access to Ooma on-site equipment when Ooma services rely on Customer internet.
- Customer is to anchor and secure freestanding racks for equipment per local code, if required.
- Customer is to secure any permits for work at its expense before the installation date, if required.
- Customer is responsible for removal and disposal of any existing equipment.

Additional Terms and Conditions:

- Any on-site installation cost quoted herein is a 'base rate' that includes 1 installer-technician and covers up to the stated number of hours of labor on a per job and job location basis. As needed, each additional hour on site will be billed by Ooma at \$150 per hour per installer-technician in 30-minute increments rounded up to the next 30-minute mark.
- Any on-site installation that cannot commence due to no access, customer not ready or customer environment not ready to support the visit will be billed by Ooma a minimum of 2 hours at \$150 per hour per installer-technician in 30-minute increments rounded up to the next 30-minute mark.
- Return trips to a job location for continued installation or repair will be billed by Ooma for a minimum of 2 hours at \$150 per hour per installer-technician in 30-minute increments rounded up to the next 30-minute mark.
- Installation work does not include any inside wiring or cabling beyond 15 feet in length total; any additional wiring or cabling required to complete the job will be billed by Ooma at \$150 per hour per installer-technician in 30-minute increments rounded up to the next 30-minute mark.
- For time accounting purposes the official arrival time for each installer-technician is documented upon arrival to the customer premises ready to work. The official departure time is documented when the operations team releases the installer-technician.
- Proposal assumes customer has installed -or- has existing wiring and cabling properly terminated, tested, labeled.
- New construction requires customer to have inside wiring including Cat5/6 and fiber optic cabling to be properly terminated, tested, and labeled before the installation date.
- All work to be performed during normal business hours Monday through Friday unless otherwise agreed in writing.
- Installation includes a single trip unless otherwise agreed in writing.
- Any extensive travel costs to support the installation including airfare, rental cars, lodging and meals will be billed to the customer by Ooma as a passthrough expense.
- All materials consumed as part of the installation including but not limited to cabling, cords, termination jacks, blocks and plug modules will be billed to the customer by Ooma at Ooma designated rates.
- Union labor costs, where applicable is not included as part of the installation.
- Ground freight is assumed in the proposal unless the customer agrees in writing to expedited freight charges.
- Shipping costs will be billed by Ooma as a passthrough expense.
- Professional Installs – Purchased hardware bills day of shipment, Services bill on install date.
- Self-Installs - Purchased Hardware and services will bill 2 weeks (14 days) from shipment.



Ooma Inc 525 Almanor
Avenue, Suite 200
Sunnyvale, CA 94085

Travis Mcdugald
Charter Township Of Ypsilanti

Quote Summary

Account Number	R232-0012663
Quote Number	8886
Quote Date	02/28/2023
Quote Expiry On	03/30/2023
Service Term [Month]	12

Billing Address: 7200 South Huron River
Ypsilanti
MI
48197
USA

Thank you for your interest in cloud VoIP Services from Ooma Enterprise! We're thrilled to provide you this proposal.

Please note: Additional taxes and fees may apply. Shipping and handling charges are extra. Any out-of-scope installation work or day-of-installation delay is subject to additional fees.

<https://www.ooma.com/enterprise-communications/>

Monthly Recurring Charges

Item Description	Unit Price	Quantity	Amount
Rental: Ooma AirDial	\$15.00	4	\$60.00
Ooma AirDial Service (Per Line)	\$39.95	4	\$159.80
			\$219.80

Non-Recurring Charges

Item Description	Unit Price	Quantity	Amount
Fee: AirDial Self Installation	\$0.00	1	\$0.00
Set Up: AirDial Setup Fee	\$20.00	4	\$80.00
			\$80.00

Regulatory Taxes & Surcharges for Monthly Recurring Charges

Description	Amount
FEDERAL COST RECOVERY FEE	\$0.30
FEE: E911 SERVICE FEE	\$4.00
STATE USE TAX	\$3.48
MI PUBLIC UTILITY ASSESSMENT	\$0.00
FEE: REGULATORY RECOVERY FEE (RRF)	\$11.08
STATE SALES TAX	\$3.60
FEDERAL UNIVERSAL SERVICE FUND	\$8.94
FEDERAL COST RECOVERY CHARGE	\$0.31
	\$31.71

Regulatory Taxes & Surcharges for Non-Recurring Charges

Description	Amount
STATE SALES TAX	\$4.80
	\$4.80

Comment:

Billing
Charter Township of Ypsilanti
Accounts Payable
7200 S. Huron River Dr.
Ypsilanti, MI 48197

Sites:
Loc 1- Ypsilant Township Fire Station 1
222 S. Ford Blvd. Ypsilanti, MI 48198

Loc 2 -Ypsilant Township Fire Station 3
20 S. Hewitt Rd. Ypsilanti, MI 48198

Loc 3 -Ypsilant Township Fire Station 4
8869 Textile Rd. Ypsilanti, MI 48197

Loc 4-Ford Lake Hydro Dam
2635 Bridge Rd. Ypsilanti, MI 48197

Customer Use Only:

By signing below, Customer agrees that, upon acceptance by Ooma, this Quote shall become a binding purchase order subject to the terms of the Ooma Enterprise Terms and Conditions, including the Service Level Agreement and a mandatory arbitration provision, at <https://www.ooma.com/legal/enterprise-terms/> (the "Terms"). This Quote, the Terms, any lease agreement, and any attachments and/or addendums thereto represent the entire agreement of the parties hereto (the "Agreement"). In the event of a conflict or inconsistency between this Quote, and any previous quote or the Terms, the terms of this Quote shall prevail. Pricing for this order is confidential and shall not be disclosed by Customer. Capitalized terms used but not defined herein shall have the respective meanings set forth in the Terms. This is not an invoice. The person whose signature appears below represents and warrants that they are duly authorized to sign this purchase commitment.

Title : _____

Print Name : _____

Authorized Signature : _____ Date : _____

Company Use Only:

Authorized Signature : _____ Date : _____

Township Supervisor
Brenda L. Stumbo
Township Clerk
Heather Jarrell Roe
Township Treasurer
Stan Eldridge



**YPSILANTI
TOWNSHIP**
— HYDRO DAM OPERATIONS —

Trustees
John Newman II
Gloria Peterson
Debbie Swanson
Jimmie Wilson Jr

MEMORANDUM

To: Charter Township of Ypsilanti Board of Trustees

From: Michael Saranen, Operation Manager

Date: March 24, 2023

Subject: **Request to go out to Bid for Construction Services for Inspection of Spillway Gates and Concrete Repairs at the Hydro Station on Bridge Rd.**

As an ongoing effort to for dam safety, the Hydro Station needs to conduct a Sluice Gate Inspection and repair concrete on the lake side of the dam.

The FERC is requiring a detailed inspection of the sluice gates as a follow-up to the Part 12 Inspection Report. This inspection is to evaluate the condition of the gates. As part of this project, address areas of damaged concrete on the lake side of the dam.

This project is planned to start July/August and be completed by December 1.

I am asking the Board to authorize the Project and to go out to Bid with the plan to bring a recommendation to approve at a June Board meeting.

If you have any questions please contact me.



Contract Documents

Ford Lake Dam Concrete Repairs and Bulkhead Placement

Prepared for
Charter Township of Ypsilanti
March 2023



**YPSILANTI
TOWNSHIP**
— HYDRO DAM OPERATIONS —

Charter Township of Ypsilanti

Ford Lake Dam Concrete Repairs and Bulkhead Placement

Contract Documents

Table of Contents

<u>Section</u>	<u>Title</u>
Division 00	Procurement and Contracting Requirements
00 01 10	Table of Contents
00 11 13	Advertisement for Bids
00 20 00	Instructions to Bidders
00 41 00	Bid Form
	Non-Iran Linked Business Certification
00 51 00	Notice of Award
00 52 00	Form of Agreement
00 55 00	Notice to Proceed
00 61 13	Performance Bond
00 61 14	Payment Bond
00 70 00	General Conditions
00 73 00	Supplementary Conditions

Drawings

<u>Sheet No.</u>	<u>Sheet Title</u>
S-00	Cover Sheet, Index, and Location Map
S-01	Specifications
S-02	Specifications
S-03	Overall Plan
S-04	Intake Plan
S-05	Spillway Plan & Elevation – Bays 1-3
S-06	Spillway Plan & Elevation – Bays 4-6
S-07	Spillway and Intake – Concrete Repair Details
S-08	Sluice Gate - Upstream Bulkhead
S-09	Sluice Gate – New Downstream Bulkheads

Temporary Construction Emergency Action Plan

Quality Control Inspection Plan

INSTRUCTIONS TO BIDDERS

TABLE OF CONTENTS

	Page
ARTICLE 1 – Defined Terms	1
ARTICLE 2 – Copies of Bidding Documents	1
ARTICLE 3 – Qualifications of Bidders	1
ARTICLE 4 – Site and Other Areas; Existing Site Conditions; Examination of Site; Owner’s Safety Program; Other Work at the Site	2
ARTICLE 5 – Bidder’s Representations	4
ARTICLE 6 – Pre-Bid Conference	5
ARTICLE 7 – Interpretations and Addenda	5
ARTICLE 8 – Bid Security	5
ARTICLE 9 – Contract Times	6
ARTICLE 10 – Liquidated Damages	6
ARTICLE 11 – Substitute and “Or-Equal” Items	6
ARTICLE 12 – Subcontractors, Suppliers, and Others.....	6
ARTICLE 13 – Preparation of Bid	6
ARTICLE 14 – Basis of Bid.....	7
ARTICLE 15 – Submittal of Bid.....	7
ARTICLE 16 – Modification and Withdrawal of Bid	8
ARTICLE 17 – Opening of Bids	8
ARTICLE 18 – Bids to Remain Subject to Acceptance.....	8
ARTICLE 19 – Evaluation of Bids and Award of Contract.....	8
ARTICLE 20 – Contract Security and Insurance.....	9
ARTICLE 21 – Signing of Agreement	9
ARTICLE 22 – Retainage.....	10
ARTICLE 23 – Wage Requirements.....	10
ARTICLE 24 – Non-Iran Linked Business.....	10

ARTICLE 1 – DEFINED TERMS

- 1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions (2013 Edition) and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:
- A. *Issuing Office* – The office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered.

ARTICLE 2 – COPIES OF BIDDING DOCUMENTS

- 2.01 Complete sets of the Bidding Documents may be obtained as stated in the advertisement or invitation to bid.
- 2.02 Complete sets of Bidding Documents shall be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.03 Owner and Engineer, in making copies of Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids for the Work and do not authorize or confer a license for any other use.
- 2.04 Owner and Engineer shall have no responsibility with respect to Bidder's use of digital data files obtained from Owner or Engineer. Because the information set forth in the digital data files can be modified unintentionally or otherwise, the use of digital data files provided by Owner or Engineer does not in any way negate Bidder's responsibility for coordination with trades or others or for the proper checking and coordination of dimensions, details, member sizes and gauge, and quantities of materials as required to facilitate complete and accurate fabrication, erection, and construction of the Work. In the event of a conflict between sealed documents and digital data files, the sealed documents shall govern. It is the Bidder's responsibility to determine if any conflicts exist.

ARTICLE 3 – QUALIFICATIONS OF BIDDERS

- 3.01 To demonstrate Bidder's qualifications to perform the Work, Bidder shall submit with its Bid (a) written evidence establishing its qualifications such as financial data, previous experience, and present commitments, and (b) the following additional information:
- A. Evidence of Bidder's authority to do business in the state where the Project is located.
- B. Bidder's state or other contractor license number, if applicable.
- C. Subcontractor and Supplier qualification information, including their scope of work or scope of supply and contact information.
- D. A description of Bidder's project experience of at least 3 similar projects completed in the past five years. Information should include the nature of the project, owner's name and contact information, dollar value, and name of bonding company.
- E. List of Project References.
- 3.02 A Bidder's failure to submit required qualification information within the times indicated may disqualify Bidder from receiving an award of the Contract.

- 3.03 No requirement in this Article 3 to submit information will prejudice the right of Owner to seek additional pertinent information regarding Bidder's qualifications.
- 3.04 Bidder is advised to carefully review those portions of the Bid Form requiring Bidder's representations and certifications.

ARTICLE 4 – SITE AND OTHER AREAS; EXISTING SITE CONDITIONS; EXAMINATION OF SITE; OWNER'S SAFETY PROGRAM; OTHER WORK AT THE SITE

4.01 Site and Other Areas

- A. The Site is identified in the Bidding Documents. By definition, the Site includes rights-of-way, easements, and other lands furnished by Owner for the use of the Contractor. Any additional lands required for temporary construction facilities, construction equipment, or storage of materials and equipment, and any access needed for such additional lands, are to be obtained and paid for by Contractor.

4.02 Existing Site Conditions

- A. Subsurface and Physical Conditions; Hazardous Environmental Conditions

The Supplementary Conditions identify:

- Letter report dated March 11, 2002, show boring log in the top of the south embankment of Ford Lake Dam, prepare by PSI, Plymouth, MI, re: "Piezometer Installation, Ford Lake Dam Emergency Spillway."
- Drawings dated January 28, 1992, of the replacement bridge over the top of the Ford Lake Dam, by McLavy Engineering Associates, approved by Washtenaw County Road Commission, entitled "Bridge on Bridge Road over Huron River", consisting of 37 sheets.
- Drawings dated April 4, 1932, of Ford Lake Dam, by Ford Motor Company, entitled "Hydro-Electric Development, Huron River", consisting of 137 sheets.
- AS-BUILT drawings dated March 18, 2002, of Ford Lake Dam spillway and powerhouse concrete repairs, by Barr Engineering Co., entitled "Ford Lake Dam Emergency Spillway", consisting of 5 sheets.
- Report "Ford Lake Dam Spillway Concrete Assessment", by Barr Engineering Co., June 2021, consisting of 57 pages.
- Letter report dated November 25, 2022 by Solomon Diving regarding underwater inspection of six (6) upstream gate openings to determine the condition of the seal area surfaces in preparation for bulkhead installations, performed on 10-24-22, consisting of 4 pages and 5 associated files with video documentation.

Copies of reports or drawings referenced in Paragraph 4.02 will be made available by Owner to any Bidder to review on request. These reports and drawings are not part of the Contract Documents, but the Technical Data contained therein upon whose accuracy Bidder is entitled to rely, if any, as provided in the General Conditions, has been identified and established in the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any Technical Data or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.

The definition of Technical Data has been modified in the Supplementary Conditions.

- B. Underground Facilities: Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site are set forth in the Contract Documents and are based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, including Owner, or others.
- C. Adequacy of Data: Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions, and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated subsurface or physical conditions appear in Paragraphs 5.03, 5.04, and 5.05 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work, appear in Paragraph 5.06 of the General Conditions.

4.03 Site Visit and Testing by Bidders

- A. Bidder shall conduct Site visits during normal working hours, and shall not disturb any ongoing operations at the Site.
- B. Bidder is not required to conduct any subsurface testing, or exhaustive investigations of Site conditions.
- C. On request, and to the extent Owner has control over the Site, and schedule permitting, Owner will provide Bidder access to the Site to conduct such additional examinations, investigations, explorations, tests, and studies as Bidder deems necessary for preparing and submitting a successful Bid. Owner will not have any obligation to grant such access if doing so is not practical because of existing operations, security or safety concerns, or restraints on Owner's authority regarding the Site.
- D. Bidder shall comply with all applicable Laws and Regulations regarding excavation and location of utilities, obtain all permits, and comply with all terms and conditions established by Owner or by property owners or other entities controlling the Site with respect to schedule, access, existing operations, security, liability insurance, and applicable safety programs.
- E. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies.

4.04 Owner's Safety Program

- A. Site visits and work at the Site may be governed by an Owner safety program. As the General Conditions indicate, if an Owner safety program exists, it will be noted in the Supplementary Conditions.

4.05 Other Work at the Site

- A. Reference is made to Article 8 of the Supplementary Conditions for the identification of the general nature of other work of which Owner is aware (if any) that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) and relates to the Work contemplated by these Bidding Documents. If Owner is party to a written contract for such other work, then on request, Owner will provide to each Bidder access to examine such contracts (other than portions thereof related to price and other confidential matters), if any.

ARTICLE 5 – BIDDER’S REPRESENTATIONS

5.01 It is the responsibility of each Bidder before submitting a Bid to:

- A. examine and carefully study the Bidding Documents, and any data and reference items identified in the Bidding Documents;
- B. visit the Site, conduct a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfy itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;
- C. become familiar with and satisfy itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work;
- D. carefully study all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings;
- E. consider the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings, if any, identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents; and (3) Bidder’s safety precautions and programs;
- F. agree, based on the information and observations referred to in the preceding paragraph, that at the time of submitting its Bid no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents;
- G. become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;
- H. promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder;
- I. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work; and
- J. agree that the submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents and applying any specific means, methods, techniques, sequences,

and procedures of construction that may be shown or indicated or expressly required by the Bidding Documents, that Bidder has given Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents and the written resolutions thereof by Engineer are acceptable to Bidder, and that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

ARTICLE 6 – PRE-BID CONFERENCE

- 6.01 A pre-Bid conference will be held at the time and location stated in the advertisement to bid. Representatives of Owner and Engineer will be present to discuss the Project. Bidders are required to attend and participate in the conference. Engineer will transmit to all prospective Bidders of record such Addenda as Engineer considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective. Bids will be considered unresponsive unless Bidder's authorized representative has attended the mandatory pre-bid meeting as evidenced by representative's signature or handwritten name on the attendance roster for the pre-bid meeting

ARTICLE 7 – INTERPRETATIONS AND ADDENDA

- 7.01 All questions about the meaning or intent of the Bidding Documents are to be submitted to Engineer in writing. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda delivered to all parties recorded as having received the Bidding Documents. Questions received less than seven days prior to the date for opening of Bids may not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
- 7.02 Addenda may be issued to clarify, correct, supplement, or change the Bidding Documents as deemed advisable by Owner or Engineer.

ARTICLE 8 – BID SECURITY

- 8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of 5 percent of Bidder's maximum Bid price determined by adding the base bid and all alternates and in the form of a certified check, bank money order, or a Bid bond issued by a surety meeting the requirements of Paragraphs 6.01 and 6.02 of the General Conditions.
- 8.02 The Bid security of the Successful Bidder will be retained until Owner awards the contract to such Bidder, and such Bidder has executed the Contract Documents, furnished the required contract security, and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within 15 days after the Notice of Award, Owner may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited. Such forfeiture shall be Owner's exclusive remedy if Bidder defaults.
- 8.03 The Bid security of other Bidders that Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of seven days after the Effective Date of the Contract or 61 days after the Bid opening, whereupon Bid security furnished by such Bidders will be returned.

- 8.04 Bid security of other Bidders that Owner believes do not have a reasonable chance of receiving the award will be returned within seven days after the Bid opening.

ARTICLE 9 – CONTRACT TIMES

- 9.01 The number of days within which, or the dates by which, the Work is to be substantially completed and ready for final payment are set forth in the Agreement.

ARTICLE 10 – LIQUIDATED DAMAGES

- 10.01 Provisions for liquidated damages, if any, for failure to timely attain a Milestone, Substantial Completion, or completion of the Work in readiness for final payment, are set forth in the Agreement.

ARTICLE 11 – SUBSTITUTE AND “OR-EQUAL” ITEMS

- 11.01 The Contract for the Work, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration during the bidding and Contract award process of possible substitute or “or-equal” items. In cases in which the Contract allows Contractor to request that Engineer authorize the use of a substitute or “or-equal” item of material or equipment, application for such acceptance may not be made to and will not be considered by Engineer until after the Effective Date of the Contract.
- 11.02 All prices that Bidder sets forth in its Bid shall be based on the presumption that Contractor will furnish the materials and equipment specified or described in the Bidding Documents, as supplemented by Addenda. Any assumptions regarding the possibility of post-Bid approvals of “or-equal” or substitution requests are made at Bidder’s sole risk.

ARTICLE 12 – SUBCONTRACTORS, SUPPLIERS, AND OTHERS

NOT USED

ARTICLE 13 – PREPARATION OF BID

- 13.01 The Bid Form is included with the Bidding Documents.
- A. All blanks on the Bid Form shall be completed in ink and the Bid Form signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each Bid item listed therein.
 - B. If the Bid Form expressly indicates that submitting pricing on a specific alternate item is optional, and Bidder elects to not furnish pricing for such optional alternate item, then Bidder may enter the words “No Bid,” “No Change,” or “Not Applicable.”
- 13.02 A Bid by a corporation shall be executed in the corporate name by the president, vice-president, or secretary. Other corporate officer (whose title must appear under the signature), may execute the Bid if accompanied by evidence of authority to sign. The corporate seal, if any, shall be affixed. The registered corporate address, federal EIN, and state of incorporation shall be shown.

- 13.03 A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The federal EIN and registered address of the partnership shall be shown.
- 13.04 A Bid by a limited liability company shall be executed in the name of the firm by a member or other authorized person and accompanied by evidence of authority to sign. The state of formation of the firm, federal EIN, and the registered address of the firm shall be shown.
- 13.05 A Bid by an individual shall show the Bidder's name and official address.
- 13.06 A Bid by a joint venture shall be executed by an authorized representative of each joint venture in the manner indicated on the Bid Form. The official address of the joint venture shall be shown.
- 13.07 All names shall be printed in ink below the signatures.
- 13.08 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.
- 13.09 Postal and e-mail addresses and telephone number for communications regarding the Bid shall be shown.
- 13.10 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located, or Bidder shall covenant in writing to obtain such authority and qualification prior to award of the Contract and attach such covenant to the Bid. Bidder's state contractor license number, if any, shall also be shown on the Bid Form.

ARTICLE 14 – BASIS OF BID

- 14.01 Lump Sum
 - A. Bidders shall submit a Bid on a lump sum basis as set forth in the Bid Form.
- 14.02 Unit Price
 - A. NOT USED
- 14.03 Allowances
 - A. NOT USED

ARTICLE 15 – SUBMITTAL OF BID

- 15.01 With each copy of the Bidding Documents, a Bidder is furnished one separate unbound copy of the Bid Form, and, if required, the Bid Bond Form. The unbound copy of the Bid Form is to be completed and submitted with the Bid security and the other documents required to be submitted under the terms of Article 7 of the Bid Form.
- 15.02 A Bid shall be received no later than the date and time prescribed and at the place indicated in the advertisement or invitation to bid and shall be enclosed in a plainly marked package with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the name and address of Bidder, and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate package plainly marked on the outside with the notation "BID ENCLOSED." A mailed Bid shall be addressed to Heather Jarrell Roe, Township

Clerk, Charter Township of Ypsilanti, Tilden R Stumbo Civic Center, 7200 S. Huron River Drive, Ypsilanti, MI 48197.

- 15.03 Bids received after the date and time prescribed for the opening of bids, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.

ARTICLE 16 – MODIFICATION AND WITHDRAWAL OF BID

- 16.01 A Bid may be withdrawn without prejudice to the Bidder by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids. The request must be signed in the same manner and by the same person or persons who signed the bid and should not reveal the amount of the bid. Requests shall be clearly marked "Request for Withdrawal of Bid" and labeled with the project name. Upon receipt of such notice, the unopened Bid will be returned to the Bidder. If such request for withdrawal is not explicit or if it is in any sense subject to misinterpretation, the Bid shall be subject to either acceptance or rejection, as may be in the best interest of Owner, and in its discretion.
- 16.02 If a Bidder wishes to modify its Bid prior to Bid opening, Bidder must withdraw its initial Bid in the manner specified in Paragraph 16.01 and submit a new Bid prior to the date and time for the opening of Bids.
- 16.03 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, that Bidder will be disqualified from further bidding on the Work.

ARTICLE 17 – OPENING OF BIDS

- 17.01 Bids will be opened at the time and place indicated in the advertisement or invitation to bid and, unless obviously non-responsive, read aloud publicly. Bidders or their authorized agents are invited to be present. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

ARTICLE 18 – BIDS TO REMAIN SUBJECT TO ACCEPTANCE

- 18.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

ARTICLE 19 – EVALUATION OF BIDS AND AWARD OF CONTRACT

- 19.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner will reject the Bid of any Bidder that Owner finds, after reasonable inquiry and evaluation, to not be responsible. If Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, then Owner will reject the Bid as nonresponsive; provided that Owner also reserves the right to waive all minor

informalities not involving price, time, or changes in the Work, and to negotiate contract terms with the Successful Bidder.

- 19.02 If Owner awards the contract for the Work, such award shall be to the responsible Bidder submitting the lowest responsive Bid. However, Owner reserves the right to by-pass the low bidder and award a Contract in the best interest of the Owner.
- 19.03 More than one Bid for the same Work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one Bid for the Work may be cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder has an interest.
- 19.04 Evaluation of Bids
- A. In evaluating Bids, Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award.
- 19.05 In evaluating whether a Bidder is responsible, Owner will consider the qualifications of the Bidder and may consider the qualifications and experience of Subcontractors, Suppliers, and other individuals or entities proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other individuals or entities must be submitted as provided in the Bidding Documents.
- 19.06 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders and any proposed Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work in accordance with the Contract Documents.

ARTICLE 20 – CONTRACT SECURITY AND INSURANCE

- 20.01 Article 6 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner’s requirements as to performance and payment bonds and insurance. When the Successful Bidder delivers the executed Agreement to Owner, it shall be accompanied by required bonds and insurance certificates.

ARTICLE 21 – SIGNING OF AGREEMENT

- 21.01 When Owner issues a Notice of Award to the Successful Bidder, it shall be accompanied by the required number of unsigned counterparts of the Agreement along with the other Contract Documents as identified in the Agreement as attached thereto. Within 15 days thereafter, Successful Bidder shall execute and deliver the required number of counterparts of the Agreement, attached documents, and any other required submittals to Owner.
- 21.02 Owner or Engineer will review required submittals and may require Successful Bidder to make revisions. Within ten days after final receipt of all acceptable materials, Owner shall deliver one fully executed counterpart of the Agreement to Successful Bidder, together with printed and electronic copies of the Contract Documents as stated in Paragraph 2.02 of the General Conditions.

ARTICLE 22 – RETAINAGE

22.01 Provisions concerning retainage are set forth in the Agreement.

ARTICLE 23 – WAGE REQUIREMENTS

23.01 LIVING WAGE:

- A. Owner has a Living Wage Ordinance requiring covered vendors who execute a service or professional contract with Owner to pay their employees working under that contract, a minimum wage. Contractor agrees to comply with applicable provisions of the Living Wage Ordinance.

23.02 PREVAILING WAGE:

- A. Owner has a Prevailing Wage Ordinance. No contract, agreement, understanding or other arrangement, whether oral or written for the construction and/or substantial remodeling of any building or part thereof, for or on the behalf of or owned by the Township of Ypsilanti (Owner), involving craftsmen, mechanics and laborers employed directly upon the site of work shall be entered into, approved or executed unless such contract, agreement, understanding or arrangement shall provide and require that all craftsmen, mechanics and laborers so employed shall receive at least the prevailing wages and fringe benefits of the building trades department for corresponding classes of craftsmen, mechanics and laborers as determined and published by the Davis-Bacon Division of the United States Department of Labor for the Washtenaw County area.

23.03 See the Supplementary Conditions for additional information.

ARTICLE 24 – NON-IRAN LINKED BUSINESS

24.01 Responsive Bidders shall submit the attached Non-Iran Linked Business Certification with their bid.

BID FORM

FORD LAKE DAM CONCRETE REPAIRS AND BULKHEAD PLACEMENT

TABLE OF CONTENTS

	Page
ARTICLE 1 – Bid Recipient	1
ARTICLE 2 – Bidder’s Acknowledgements	1
ARTICLE 3 – Bidder’s Representations	1
ARTICLE 4 – Bidder’s Certification.....	2
ARTICLE 5 – Basis of Bid.....	3
ARTICLE 6 – Time of Completion	3
ARTICLE 7 – Attachments to this Bid	3
ARTICLE 8 – Defined Terms	4
ARTICLE 9 – Bid Submittal.....	4

ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:

Charter Township of Ypsilanti
7200 S. Huron River Drive
Ypsilanti, MI 48197
Attn: Heather Jarrell Roe, Township Clerk

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER’S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 – BIDDER’S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

<u>Addendum No.</u>	<u>Addendum, Date</u>
_____	_____
_____	_____
_____	_____
_____	_____

B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any,

at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

- E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents; and (3) Bidder's safety precautions and programs.
- F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 – BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

Lump Sum Bid Price	\$
--------------------	----

ARTICLE 6 – TIME OF COMPLETION

6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.

6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

7.01 The following documents are submitted with and made a condition of this Bid:

- A. Required Bid security in the form of a bid bond in the amount of 5 percent of the total price;
- B. List of Proposed Subcontractors;
- C. List of Proposed Suppliers;
- D. List of Project References;
- E. A description of Bidder’s project experience of at least 3 similar projects completed in the past five years.
- F. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;
- G. Contractor’s License No.: _____
- H. Required Bidder Qualification Statement with supporting data;
- I. Non-Iran Linked Business Certification; and
- J. High level work plan, as specified on DWG. No. S-02 Note 1.0 General E. Submittals

ARTICLE 8 – DEFINED TERMS

8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 9 – BID SUBMITTAL

BIDDER: *[Indicate correct name of bidding entity]*

By:
[Signature] _____

[Printed name] _____
(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest:
[Signature] _____
[Printed name] _____

Title: _____

Submittal Date: _____

Address for giving notices:

Telephone Number: _____

Fax Number: _____

Contact Name and e-mail address: _____

Bidder's License No.: _____
(where applicable)

NON-IRAN LINKED BUSINESS CERTIFICATION

This Proposal is submitted in the name of:

(Print Company Name)

The undersigned hereby certifies in accordance with Public Act 517 of the Public Acts of 2012 that it is not an Iran-linked business.

Signed and Sealed this _____ day of _____, 20__.

By _____
(Signature)

(Printed Name of Signature)

(Title)

IRAN ECONOMIC SANCTIONS ACT
Act 517 of 2012

AN ACT to prohibit persons who have certain economic relationships with Iran from submitting bids on requests for proposals with this state, political subdivisions of this state, and other public entities; to require bidders for certain public contracts to submit certification of eligibility with the bid; to require reports; and to provide for sanctions for false certification.

History: 2012, Act 517, Eff. Apr. 1, 2013.

The People of the State of Michigan enact:

129.311 Short title.

Sec. 1. This act shall be known and may be cited as the "Iran economic sanctions act".

History: 2012, Act 517, Eff. Apr. 1, 2013.

129.312 Definitions.

Sec. 2. As used in this act:

(a) "Energy sector of Iran" means activities to develop petroleum or natural gas resources or nuclear power in Iran.

(b) "Investment" means 1 or more of the following:

(i) A commitment or contribution of funds or property.

(ii) A loan or other extension of credit.

(iii) The entry into or renewal of a contract for goods or services.

(c) "Investment activity" means 1 or more of the following:

(i) A person who has an investment of \$20,000,000.00 or more in the energy sector of Iran.

(ii) A financial institution that extends \$20,000,000.00 or more in credit to another person, for 45 days or more, if that person will use the credit for investment in the energy sector of Iran.

(d) "Iran" means any agency or instrumentality of Iran.

(e) "Iran linked business" means either of the following:

(i) A person engaging in investment activities in the energy sector of Iran, including a person that provides oil or liquefied natural gas tankers or products used to construct or maintain pipelines used to transport oil or liquefied natural gas for the energy sector of Iran.

(ii) A financial institution that extends credit to another person, if that person will use the credit to engage in investment activities in the energy sector of Iran.

(f) "Person" means any of the following:

(i) An individual, corporation, company, limited liability company, business association, partnership, society, trust, or any other nongovernmental entity, organization, or group.

(ii) Any governmental entity or instrumentality of a government, including a multilateral development institution, as defined in section 1701(c)(3) of the international financial institutional act, 22 USC 262r(c)(3).

(iii) Any successor, subunit, parent company, or subsidiary of, or company under common ownership or control with, any entity described in subparagraph (i) or (ii).

(g) "Public entity" means this state or an agency or authority of this state, school district, community college district, intermediate school district, city, village, township, county, public authority, or public airport authority.

History: 2012, Act 517, Eff. Apr. 1, 2013.

129.313 Ineligibility of Iran linked business to submit request for proposal bid; certification.

Sec. 3. (1) Beginning April 1, 2013, an Iran linked business is not eligible to submit a bid on a request for proposal with a public entity.

(2) Beginning April 1, 2013, a public entity shall require a person that submits a bid on a request for proposal with the public entity to certify that it is not an Iran linked business.

History: 2012, Act 517, Eff. Apr. 1, 2013.

129.314 Effect of false certification.

Sec. 4. If a public entity determines, using credible information available to the public, that a person has submitted a false certification under section 3(2), the public entity shall provide the person with written notice of its determination and of the intent not to enter into or renew a contract with the person. The notice shall include information on how to contest the determination and specify that the person may become eligible for a

future contract with the public entity if the person ceases the activities that cause it to be an Iran linked business. The person shall have 90 days following receipt of the notice to respond in writing and to demonstrate that the determination of false certification was made in error. If a person does not make that demonstration within 90 days after receipt of the notice, the public entity may terminate any existing contract and shall report the name of the person to the attorney general together with information supporting the determination.

History: 2012, Act 517, Eff. Apr. 1, 2013.

129.315 Civil action; penalty.

Sec. 5. The attorney general may bring a civil action against any person reported under section 4. If a civil action results in a finding that the person submitted a false certification, the person is responsible for a civil penalty of not more than \$250,000.00 or 2 times the amount of the contract or proposed contract for which the false certification was made, whichever is greater, the cost of the public entity's investigation, and reasonable attorney fees, in addition to the fine. A person who submitted a false certification shall be ineligible to bid on a request for proposal for 3 years from the date the public entity determines that the person has submitted the false certification.

History: 2012, Act 517, Eff. Apr. 1, 2013.

129.316 Conditional effect.

Sec. 6. The provisions of this act are effective only if Iran is a state sponsor of terror as defined under section 2 of the divestment from terror act, 2008 PA 234, MCL 129.292.

History: 2012, Act 517, Eff. Apr. 1, 2013.

FORM OF AGREEMENT

THIS AGREEMENT is by and between Charter Township of Ypsilanti ("Owner") and _____ ("Contractor").

Owner and Contractor hereby agree as follows:

ARTICLE 1 – WORK

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows: constructing concrete repairs at the hydropower intake and at the overflow spillway crest, installing existing upstream sluiceway bulkheads, fabricating and installing new downstream sluiceway bulkheads, and dewatering the sluiceways to allow for sluice gate inspections by the Owner's engineer.

ARTICLE 2 – THE PROJECT

2.01 The Project, of which the Work under the Contract Documents may be the whole or only a part, is generally described in Article 1

ARTICLE 3 – ENGINEER

3.01 The Project has been designed by Barr Engineering Co.

3.02 Owner has retained Barr Engineering Co. ("Engineer") to act as Owner's representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents. The duties and responsibilities and rights and authority of Engineer cannot be extended without written consent of Owner and Engineer.

ARTICLE 4 – CONTRACT TIMES

4.01 *Time of the Essence*

A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 *Contract Times: Days*

A. The Work will be substantially completed within 120 days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within 30 days after the date of Substantial Completion.

4.03 *Liquidated Damages*

A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance

Charter Township of Ypsilanti

Form of Agreement

**Ford Lake Dam Concrete Repairs and Bulkhead
Placement**

00 52 00-1

(adapted from 2013 EJCDC Form C-520, C-525)

with the Contract Documents. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):

1. Substantial Completion: Contractor shall pay Owner \$1,000 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially complete.
2. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner \$500 for each day that expires after such time until the Work is completed and ready for final payment.
3. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.

ARTICLE 5 – CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

A. Contract Price: \$_____.

All specific cash allowances are included in the above price in accordance with Paragraph 13.02 of the General Conditions.

ARTICLE 6 – PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions, as may be modified by the Supplemental Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 *Progress Payments; Retainage*

A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the 1st day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract. The retainage withheld shall be as follows:

1. Not more than 10-percent of the dollar value of all work in place.
2. Except when there are disputes, retainage shall be released to Contractor with the final progress payment.

6.03 *Final Payment*

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 15.06.

ARTICLE 7 – INTEREST

NOT USED

ARTICLE 8 – CONTRACTOR’S REPRESENTATIONS

8.01 In order to induce Owner to enter into this Contract, Contractor makes the following representations:

- A. Contractor has examined and carefully studied the Contract Documents and the other related data and reference items identified in the Bidding Documents.
- B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities), if any, that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.
- E. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor’s safety precautions and programs.
- F. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
- G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- J. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 *Contents*

- A. The Contract Documents consist of the following:
 - 1. This Agreement (pages 1 to __, inclusive).
 - 2. Performance bond (pages 1 to __, inclusive).
 - 3. Payment bond (pages 1 to __, inclusive).
 - 4. General Conditions (pages 1 to __, inclusive).
 - 5. Supplementary Conditions (pages 1 to __, inclusive).
 - 6. Specifications as listed in the table of contents of the Project Manual.
 - 7. Drawings (not attached but incorporated by reference) consisting of 10 sheets with each sheet bearing the following general title: Ford Lake Dam Concrete Repairs and Bulkhead Placement
 - 8. Addenda (numbers __ to __, inclusive).
 - 9. Exhibits to this Agreement (enumerated as follows):
 - a. Contractor's Bid (pages __ to __, inclusive).
 - b. Documentation submitted by Contractor prior to Notice of Award (pages __ to __, inclusive).
 - c. Project Temporary Construction Emergency Action Plan
 - d. Project Quality Control Inspection Plan
 - 10. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
 - a. Notice to Proceed.
 - b. Work Change Directives.
 - c. Change Orders.
 - d. Field Orders.
- B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

ARTICLE 10 – MISCELLANEOUS

10.01 *Terms*

- A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 *Assignment of Contract*

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 *Severability*

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 *Contractor's Certifications*

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process or in the Contract execution;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
 - 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

10.06 *Other Provisions*

- A. Owner stipulates that if the General Conditions that are made a part of this Contract are based on EJCDC® C-700, Standard General Conditions for the Construction Contract, published by the Engineers Joint Contract Documents Committee®, and if Owner is the party that has furnished said General Conditions, then Owner has plainly shown all modifications to the standard wording of such published document to the Contractor, through a process such as highlighting or "track changes" (redline/strikeout), or in the Supplementary Conditions.
- B. This Agreement shall be governed by the laws of the State of Michigan.
- C. There are no other provisions.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on [] (which is the Effective Date of the Contract).

OWNER:

CONTRACTOR:

Charter Township of Ypsilanti

By: _____

By: _____

Title: _____

Title: _____

(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest: _____

Attest: _____

Title: _____

Title: _____

Address for giving notices:

Address for giving notices:

7200 S. Huron River Drive

Ypsilanti, MI 48197

License No.: _____

(where applicable)

(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)

NOTICE TO PROCEED

Owner:	Charter Township of Ypsilanti	Owner's Contract No.:	
Contractor:		Contractor's Project No.:	
Engineer:	Barr Engineering Co.	Engineer's Project No.:	22810058
Project:	Ford Lake Dam Concrete Repairs and Bulkhead Placement	Contract Name:	
		Effective Date of Contract:	

TO CONTRACTOR:

Owner hereby notifies Contractor that the Contract Times under the above Contract will commence to run on _____, 20___. On that date, Contractor shall start performing its obligations under the Contract Documents. In accordance with the Agreement, number of days of Substantial Completion and Final Completion and ready for final payment are 120 and 30, respectively.

Before starting any Work at the Site, including delivery or storage of equipment or materials, deliver to Owner, unless previously provided:

1. *Contract Security (Bonds) acceptable to Owner and conforming to the requirements of the Contract Documents.*
2. *Certificated of Insurance acceptable to Owner and conforming to the requirements of the Contract Documents*
3. *Schedule of Operations*
4. *Schedule of Values*

Owner or Owner's Representative:

By: Authorized Signature
Michael Saranen

Title: Hydro Operations Supervisor

Date Issued:

Contractor:

By: Authorized Signature

Title:

Date Issued:

Copy: Engineer

PERFORMANCE BOND

CONTRACTOR *(name and address)*:

SURETY *(name and address of principal place of business)*:

OWNER *(name and address)*: Charter Township of Ypsilanti, 7200 S. Huron River Drive, Ypsilanti, MI 48197

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location)*: Ford Lake Dam Concrete Repairs and Bulkhead Placement Project in Ypsilanti, MI.

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:

Amount:

Modifications to this Bond Form: None See Paragraph 16

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Contractor's Name and Corporate Seal *(seal)*

Surety's Name and Corporate Seal *(seal)*

By: _____
Signature

By: _____
Signature *(attach power of attorney)*

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Charter Township of Ypsilanti

Performance Bond

Ford Lake Dam Concrete Repairs and Bulkhead Placement

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

Charter Township of Ypsilanti

Performance Bond

**Ford Lake Dam Concrete Repairs and Bulkhead
Placement**

00 61 13-2

(adapted from 2013 EJDC Form C-610)

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after:

3.1 The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

3.3 The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

7.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

7.2 additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

7.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.

10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

11. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed

incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

14. Definitions

14.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

14.2 Construction Contract: The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3 Contractor Default: Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

14.4 Owner Default: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5 Contract Documents: All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

16. Modifications to this Bond are as follows:

PAYMENT BOND

CONTRACTOR *(name and address)*:

SURETY *(name and address of principal place of business)*:

OWNER *(name and address)*: Charter Township of Ypsilanti, 7200 S. Huron River Drive, Ypsilanti, MI 48197

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location)*: Ford Lake Dam Concrete Repair and Bulkhead Placement Project in Ypsilanti, MI.

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:

Amount:

Modifications to this Bond Form: None See Paragraph 18

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

_____ *(seal)*

Contractor's Name and Corporate Seal

_____ *(seal)*

Surety's Name and Corporate Seal

By: _____

Signature

By: _____

Signature *(attach power of attorney)*

Print Name

Print Name

Title

Title

Charter Township of Ypsilanti

Payment Bond

Ford Lake Dam Concrete Repairs and Bulkhead Placement

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond shall arise after the following:
 - 5.1 Claimants who do not have a direct contract with the Contractor,
 - 5.1.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
 - 5.1.2 have sent a Claim to the Surety (at the address described in Paragraph 13).
 - 5.2 Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
 6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
 7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
 - 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
 - 7.2 Pay or arrange for payment of any undisputed amounts.
 - 7.3 The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.
 8. The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
 9. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and

the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
12. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
13. Notice and Claims to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.
14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond

shall be construed as a statutory bond and not as a common law bond.

15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

16. Definitions

16.1 **Claim:** A written statement by the Claimant including at a minimum:

1. The name of the Claimant;
2. The name of the person for whom the labor was done, or materials or equipment furnished;
3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
4. A brief description of the labor, materials, or equipment furnished;
5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
7. The total amount of previous payments received by the Claimant; and
8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

16.2 **Claimant:** An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance

of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

16.3 **Construction Contract:** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

16.4 **Owner Default:** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

16.5 **Contract Documents:** All the documents that comprise the agreement between the Owner and Contractor.

17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

18. Modifications to this Bond are as follows:



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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by



Issued and Published Jointly by



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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

TABLE OF CONTENTS

	Page
Article 1 – Definitions and Terminology	1
1.01 Defined Terms	1
1.02 Terminology	5
Article 2 – Preliminary Matters.....	6
2.01 Delivery of Bonds and Evidence of Insurance	6
2.02 Copies of Documents	6
2.03 Before Starting Construction	6
2.04 Preconstruction Conference; Designation of Authorized Representatives	7
2.05 Initial Acceptance of Schedules	7
2.06 Electronic Transmittals.....	7
Article 3 – Documents: Intent, Requirements, Reuse	8
3.01 Intent.....	8
3.02 Reference Standards	8
3.03 Reporting and Resolving Discrepancies	8
3.04 Requirements of the Contract Documents	9
3.05 Reuse of Documents	10
Article 4 – Commencement and Progress of the Work	10
4.01 Commencement of Contract Times; Notice to Proceed	10
4.02 Starting the Work.....	10
4.03 Reference Points	10
4.04 Progress Schedule	10
4.05 Delays in Contractor’s Progress	11
Article 5 – Availability of Lands; Subsurface and Physical Conditions; Hazardous Environmental Conditions	12
5.01 Availability of Lands	12
5.02 Use of Site and Other Areas	12
5.03 Subsurface and Physical Conditions.....	13
5.04 Differing Subsurface or Physical Conditions	14
5.05 Underground Facilities	15

5.06	Hazardous Environmental Conditions at Site	17
Article 6 – Bonds and Insurance		19
6.01	Performance, Payment, and Other Bonds	19
6.02	Insurance—General Provisions	19
6.03	Contractor’s Insurance	20
6.04	Owner’s Liability Insurance	23
6.05	Property Insurance.....	23
6.06	Waiver of Rights	25
6.07	Receipt and Application of Property Insurance Proceeds	25
Article 7 – Contractor’s Responsibilities		26
7.01	Supervision and Superintendence	26
7.02	Labor; Working Hours	26
7.03	Services, Materials, and Equipment.....	26
7.04	“Or Equals”	27
7.05	Substitutes	28
7.06	Concerning Subcontractors, Suppliers, and Others	29
7.07	Patent Fees and Royalties	31
7.08	Permits	31
7.09	Taxes	32
7.10	Laws and Regulations.....	32
7.11	Record Documents.....	32
7.12	Safety and Protection.....	32
7.13	Safety Representative	33
7.14	Hazard Communication Programs	33
7.15	Emergencies	34
7.16	Shop Drawings, Samples, and Other Submittals.....	34
7.17	Contractor’s General Warranty and Guarantee.....	36
7.18	Indemnification	37
7.19	Delegation of Professional Design Services	37
Article 8 – Other Work at the Site		38
8.01	Other Work	38
8.02	Coordination	39
8.03	Legal Relationships.....	39

Article 9 – Owner’s Responsibilities.....	40
9.01 Communications to Contractor.....	40
9.02 Replacement of Engineer	40
9.03 Furnish Data	40
9.04 Pay When Due.....	40
9.05 Lands and Easements; Reports, Tests, and Drawings	40
9.06 Insurance.....	40
9.07 Change Orders.....	40
9.08 Inspections, Tests, and Approvals.....	41
9.09 Limitations on Owner’s Responsibilities	41
9.10 Undisclosed Hazardous Environmental Condition.....	41
9.11 Evidence of Financial Arrangements.....	41
9.12 Safety Programs	41
Article 10 – Engineer’s Status During Construction.....	41
10.01 Owner’s Representative.....	41
10.02 Visits to Site.....	41
10.03 Project Representative.....	42
10.04 Rejecting Defective Work.....	42
10.05 Shop Drawings, Change Orders and Payments.....	42
10.06 Determinations for Unit Price Work	42
10.07 Decisions on Requirements of Contract Documents and Acceptability of Work	42
10.08 Limitations on Engineer’s Authority and Responsibilities.....	42
10.09 Compliance with Safety Program.....	43
Article 11 – Amending the Contract Documents; Changes in the Work	43
11.01 Amending and Supplementing Contract Documents	43
11.02 Owner-Authorized Changes in the Work	44
11.03 Unauthorized Changes in the Work.....	44
11.04 Change of Contract Price	44
11.05 Change of Contract Times	45
11.06 Change Proposals.....	45
11.07 Execution of Change Orders.....	46
11.08 Notification to Surety.....	47
Article 12 – Claims.....	47

12.01	Claims	47
Article 13 –	Cost of the Work; Allowances; Unit Price Work.....	48
13.01	Cost of the Work	48
13.02	Allowances	50
13.03	Unit Price Work	51
Article 14 –	Tests and Inspections; Correction, Removal or Acceptance of Defective Work.....	52
14.01	Access to Work.....	52
14.02	Tests, Inspections, and Approvals.....	52
14.03	Defective Work.....	53
14.04	Acceptance of Defective Work.....	53
14.05	Uncovering Work	53
14.06	Owner May Stop the Work	54
14.07	Owner May Correct Defective Work.....	54
Article 15 –	Payments to Contractor; Set-Offs; Completion; Correction Period	55
15.01	Progress Payments.....	55
15.02	Contractor’s Warranty of Title	58
15.03	Substantial Completion.....	58
15.04	Partial Use or Occupancy	59
15.05	Final Inspection	59
15.06	Final Payment.....	59
15.07	Waiver of Claims	61
15.08	Correction Period	61
Article 16 –	Suspension of Work and Termination	62
16.01	Owner May Suspend Work	62
16.02	Owner May Terminate for Cause	62
16.03	Owner May Terminate For Convenience	63
16.04	Contractor May Stop Work or Terminate	63
Article 17 –	Final Resolution of Disputes	64
17.01	Methods and Procedures.....	64
Article 18 –	Miscellaneous	64
18.01	Giving Notice	64
18.02	Computation of Times.....	64
18.03	Cumulative Remedies	64

18.04	Limitation of Damages	65
18.05	No Waiver	65
18.06	Survival of Obligations	65
18.07	Controlling Law	65
18.08	Headings.....	65

ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
 3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 5. *Bidder*—An individual or entity that submits a Bid to Owner.
 6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
 7. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
 8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.
 9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
 10. *Claim*—(a) A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein: seeking an adjustment of Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract; or (b) a demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal; or seeking resolution of a contractual issue that Engineer

has declined to address. A demand for money or services by a third party is not a Claim.

11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. (“CERCLA”); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5501 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. (“RCRA”); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
12. *Contract*—The entire and integrated written contract between the Owner and Contractor concerning the Work.
13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents. .
15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
17. *Cost of the Work*—See Paragraph 13.01 for definition.
18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
20. *Engineer*—The individual or entity named as such in the Agreement.
21. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
22. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated in the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, does not establish a Hazardous Environmental Condition.
23. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

24. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
25. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date or by a time prior to Substantial Completion of all the Work.
26. *Notice of Award*—The written notice by Owner to a Bidder of Owner’s acceptance of the Bid.
27. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
28. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
29. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor’s plan to accomplish the Work within the Contract Times.
30. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.
31. *Project Manual*—The written documents prepared for, or made available for, procuring and constructing the Work, including but not limited to the Bidding Documents or other construction procurement documents, geotechnical and existing conditions information, the Agreement, bond forms, General Conditions, Supplementary Conditions, and Specifications. The contents of the Project Manual may be bound in one or more volumes.
32. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative or “RPR” includes any assistants or field staff of Resident Project Representative.
33. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
34. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer’s review of the submittals and the performance of related construction activities.
35. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor’s Applications for Payment.
36. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.

37. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands furnished by Owner which are designated for the use of Contractor.
38. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
39. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
40. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
41. *Successful Bidder*—The Bidder whose Bid the Owner accepts, and to which the Owner makes an award of contract, subject to stated conditions.
42. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
43. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.
44. *Technical Data*—Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (a) subsurface conditions at the Site, or physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) or (b) Hazardous Environmental Conditions at the Site. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then the data contained in boring logs, recorded measurements of subsurface water levels, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical or environmental report prepared for the Project and made available to Contractor are hereby defined as Technical Data with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06.
45. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including but not limited to those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, fiber optic transmissions, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
46. *Unit Price Work*—Work to be paid for on the basis of unit prices.
47. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.

48. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 Terminology

- A. The words and terms discussed in the following paragraphs are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives:*
 1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.
- C. *Day:*
 1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
- D. *Defective:*
 1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents; or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or 15.04).
- E. *Furnish, Install, Perform, Provide:*
 1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
 4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.
- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

- A. *Bonds*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Contractor’s Insurance*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract), the certificates and other evidence of insurance required to be provided by Contractor in accordance with Article 6.
- C. *Evidence of Owner’s Insurance*: After receipt of the executed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or otherwise), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

- A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise specifically required by the Contract Documents), Contractor shall submit to Engineer for timely review:
 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
 2. a preliminary Schedule of Submittals; and

3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.03.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
 2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
 3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.

2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or digital format, either directly, or through access to a secure Project website.
- B. If the Contract does not establish protocols for electronic or digital transmittals, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. When transmitting items in electronic media or digital format, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the recipient's use of software application packages, operating systems, or

computer hardware differing from those used in the drafting or transmittal of the items, or from those established in applicable transmittal protocols.

ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic or digital versions of the Contract Documents (including any printed copies derived from such electronic or digital versions) and the printed record version, the printed record version shall govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.

3.02 *Reference Standards*

- A. Standards Specifications, Codes, Laws and Regulations
 - 1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
 - 2. No provision of any such standard specification, manual, reference standard, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

- A. *Reporting Discrepancies:*
 - 1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict,

error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.

2. *Contractor's Review of Contract Documents:* If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies:*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:
 - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work thereunder.
- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly give written notice to Owner and Contractor that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

- A. Contractor and its Subcontractors and Suppliers shall not:
 - 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or
 - 2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Contract, whichever date is earlier.

4.02 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to such date.

4.03 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 11.
- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times and Contract Price. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
1. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 2. abnormal weather conditions;
 3. acts or failures to act of utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 8); and
 4. acts of war or terrorism.
- D. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5.
- E. Paragraph 8.03 governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.
- F. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor.

- G. Contractor must submit any Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within 30 days of the commencement of the delaying, disrupting, or interfering event.

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 Availability of Lands

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.
- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 Use of Site and Other Areas

A. Limitation on Use of Site and Other Areas:

1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.12, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part

by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.
- C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. *Loading of Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

- A. *Reports and Drawings:* The Supplementary Conditions identify:
 - 1. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site;
 - 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities); and
 - 3. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
 - 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
 - 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
 - 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.04 *Differing Subsurface or Physical Conditions*

- A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site either:
1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate; or
 2. is of such a nature as to require a change in the Drawings or Specifications; or
 3. differs materially from that shown or indicated in the Contract Documents; or
 4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A above; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Possible Price and Times Adjustments:*
1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, or both, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
 - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,

- c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
 - a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise; or
 - b. the existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
 - c. Contractor failed to give the written notice as required by Paragraph 5.04.A.
 3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
 4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or adjacent to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:
 1. Owner and Engineer do not warrant or guarantee the accuracy or completeness of any such information or data provided by others; and
 2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents as being at the Site;
 - c. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 - d. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, then Contractor shall, promptly after

becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer.

- C. *Engineer's Review:* Engineer will promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the Underground Facility in question; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and advise Owner in writing of Engineer's findings, conclusions, and recommendations. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question, addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Possible Price and Times Adjustments:*
 - 1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any existing Underground Facility at the Site that was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Underground Facility in question;
 - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
 - c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times; and
 - d. Contractor gave the notice required in Paragraph 5.05.B.
 - 2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
 - 3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

5.06 *Hazardous Environmental Conditions at Site*

- A. *Reports and Drawings*: The Supplementary Conditions identify:
1. those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
 2. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.

- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off.
- H. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.
- I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.H shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6 – BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of all of Contractor's obligations under the Contract. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the Supplementary Conditions, or other specific provisions of the Contract. Contractor shall also furnish such other bonds as are required by the Supplementary Conditions or other specific provisions of the Contract.
- B. All bonds shall be in the form prescribed by the Contract except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.
- C. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.
- D. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the bond and surety requirements above.
- E. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.
- F. Upon request, Owner shall provide a copy of the payment bond to any Subcontractor, Supplier, or other person or entity claiming to have furnished labor or materials used in the performance of the Work.

6.02 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this Article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Contractor shall deliver to Owner, with copies to each named insured and additional insured (as identified in this Article, in the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Contractor has obtained and is

maintaining the policies, coverages, and endorsements required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

- D. Owner shall deliver to Contractor, with copies to each named insured and additional insured (as identified in this Article, the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Owner has obtained and is maintaining the policies, coverages, and endorsements required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
- E. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, shall not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- F. If either party does not purchase or maintain all of the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
- G. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 16.
- H. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price shall be adjusted accordingly.
- I. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests.
- J. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner and other individuals and entities in the Contract.

6.03 *Contractor's Insurance*

- A. *Workers' Compensation:* Contractor shall purchase and maintain workers' compensation and employer's liability insurance for:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts.
 - 2. United States Longshoreman and Harbor Workers' Compensation Act and Jones Act coverage (if applicable).
 - 3. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees (by stop-gap endorsement in monopolist worker's compensation states).

4. Foreign voluntary worker compensation (if applicable).
- B. *Commercial General Liability—Claims Covered:* Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against:
1. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees.
 2. claims for damages insured by reasonably available personal injury liability coverage.
 3. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.
- C. *Commercial General Liability—Form and Content:* Contractor's commercial liability policy shall be written on a 1996 (or later) ISO commercial general liability form (occurrence form) and include the following coverages and endorsements:
1. Products and completed operations coverage:
 - a. Such insurance shall be maintained for three years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
 2. Blanket contractual liability coverage, to the extent permitted by law, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.
 3. Broad form property damage coverage.
 4. Severability of interest.
 5. Underground, explosion, and collapse coverage.
 6. Personal injury coverage.
 7. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together); or CG 20 10 07 04 and CG 20 37 07 04 (together); or their equivalent.
 8. For design professional additional insureds, ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.
- D. *Automobile liability:* Contractor shall purchase and maintain automobile liability insurance against claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy shall be written on an occurrence basis.
- E. *Umbrella or excess liability:* Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the paragraphs above. Subject to industry-standard exclusions, the coverage afforded shall follow form as to each and every one of the underlying policies.
- F. *Contractor's pollution liability insurance:* Contractor shall purchase and maintain a policy covering third-party injury and property damage claims, including clean-up costs, as a result

of pollution conditions arising from Contractor's operations and completed operations. This insurance shall be maintained for no less than three years after final completion.

- G. *Additional insureds*: The Contractor's commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner and Engineer, and any individuals or entities identified in the Supplementary Conditions; include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds; and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis. Contractor shall obtain all necessary endorsements to support these requirements.
- H. *Contractor's professional liability insurance*: If Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which the insured party is legally liable. It shall be maintained throughout the duration of the Contract and for a minimum of two years after Substantial Completion. If such professional design services are performed by a Subcontractor, and not by Contractor itself, then the requirements of this paragraph may be satisfied through the purchasing and maintenance of such insurance by such Subcontractor.
- I. *General provisions*: The policies of insurance required by this Paragraph 6.03 shall:
1. include at least the specific coverages provided in this Article.
 2. be written for not less than the limits of liability provided in this Article and in the Supplementary Conditions, or required by Laws or Regulations, whichever is greater.
 3. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 10 days prior written notice has been given to Contractor. Within three days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner, Engineer, and each other insured under the policy.
 4. remain in effect at least until final payment (and longer if expressly required in this Article) and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract Documents.
 5. be appropriate for the Work being performed and provide protection from claims that may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable.
- J. The coverage requirements for specific policies of insurance must be met by such policies, and not by reference to excess or umbrella insurance provided in other policies.

6.04 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 6.03, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.
- B. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

6.05 *Property Insurance*

- A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the full insurable replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:
 - 1. include the Owner and Contractor as named insureds, and all Subcontractors, and any individuals or entities required by the Supplementary Conditions to be insured under such builder's risk policy, as insureds or named insureds. For purposes of the remainder of this Paragraph 6.05, Paragraphs 6.06 and 6.07, and any corresponding Supplementary Conditions, the parties required to be insured shall collectively be referred to as "insureds."
 - 2. be written on a builder's risk "all risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire; lightning; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; water damage (other than that caused by flood); and such other perils or causes of loss as may be specifically required by the Supplementary Conditions. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise, such insurance may be provided through other insurance policies acceptable to Owner and Contractor.
 - 3. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.
 - 4. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects).

5. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).
 6. extend to cover damage or loss to insured property while in transit.
 7. allow for partial occupation or use of the Work by Owner, such that those portions of the Work that are not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
 8. allow for the waiver of the insurer's subrogation rights, as set forth below.
 9. provide primary coverage for all losses and damages caused by the perils or causes of loss covered.
 10. not include a co-insurance clause.
 11. include an exception for ensuing losses from physical damage or loss with respect to any defective workmanship, design, or materials exclusions.
 12. include performance/hot testing and start-up.
 13. be maintained in effect, subject to the provisions herein regarding Substantial Completion and partial occupancy or use of the Work by Owner, until the Work is complete.
- B. *Notice of Cancellation or Change:* All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 6.05 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured.
- C. *Deductibles:* The purchaser of any required builder's risk or property insurance shall pay for costs not covered because of the application of a policy deductible.
- D. *Partial Occupancy or Use by Owner:* If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide notice of such occupancy or use to the builder's risk insurer. The builder's risk insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy; rather, those portions of the Work that are occupied or used by Owner may come off the builder's risk policy, while those portions of the Work not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
- E. *Additional Insurance:* If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.05, it may do so at Contractor's expense.
- F. *Insurance of Other Property:* If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, such as tools, construction equipment, or other personal property owned by Contractor, a Subcontractor, or an employee of Contractor or a Subcontractor, then the entity or individual owning such property item will be responsible for deciding whether to insure it, and if so in what amount.

6.06 *Waiver of Rights*

- A. All policies purchased in accordance with Paragraph 6.05, expressly including the builder's risk policy, shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all Subcontractors, all individuals or entities identified in the Supplementary Conditions as insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for:
 - 1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
 - 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 6.06.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them.
- D. Contractor shall be responsible for assuring that the agreement under which a Subcontractor performs a portion of the Work contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by builder's risk insurance and any other property insurance applicable to the Work.

6.07 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of insurance required by Paragraph 6.05 will be adjusted and settled with the named insured that purchased the

policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.

- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.05 shall distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the money so received applied on account thereof, and the Work and the cost thereof covered by Change Order, if needed.

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

7.01 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.03 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and

guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.04 "Or Equals"

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment, or items from other proposed suppliers under the circumstances described below.
 - 1. If Engineer in its sole discretion determines that an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer shall deem it an "or equal" item. For the purposes of this paragraph, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3) it has a proven record of performance and availability of responsive service; and
 - 4) it is not objectionable to Owner.
 - b. Contractor certifies that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor's Expense:* Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal", which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.

- D. *Effect of Engineer's Determination*: Neither approval nor denial of an "or-equal" request shall result in any change in Contract Price. The Engineer's denial of an "or-equal" request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents.
- E. *Treatment as a Substitution Request*: If Engineer determines that an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the proposed item as a substitute pursuant to Paragraph 7.05.

7.05 *Substitutes*

- A. Unless the specification or description of an item of material or equipment required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment under the circumstances described below. To the extent possible such requests shall be made before commencement of related construction at the Site.
 - 1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of material or equipment from anyone other than Contractor.
 - 2. The requirements for review by Engineer will be as set forth in Paragraph 7.05.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.
 - 3. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - a. shall certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design,
 - 2) be similar in substance to that specified, and
 - 3) be suited to the same use as that specified.
 - b. will state:
 - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times,
 - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
 - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
 - c. will identify:
 - 1) all variations of the proposed substitute item from that specified, and

- 2) available engineering, sales, maintenance, repair, and replacement services.
 - d. shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
 - C. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
 - D. *Reimbursement of Engineer's Cost:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
 - E. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
 - F. *Effect of Engineer's Determination:* If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.05.D, by timely submittal of a Change Proposal.

7.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner.
- B. Contractor shall retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable, during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within five days.

- E. Owner may require the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors, Suppliers, or other individuals or entities for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor, Supplier, or other individual or entity so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity.
- F. If Owner requires the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, or both, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.
- H. On a monthly basis Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions.
- J. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors, Suppliers, and all other individuals or entities performing or furnishing any of the Work.
- K. Contractor shall restrict all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed herein.
- L. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- M. All Work performed for Contractor by a Subcontractor or Supplier shall be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer.
- N. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by the particular Subcontractor or Supplier.

- O. Nothing in the Contract Documents:
1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier, or other individual or entity; nor
 2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

7.07 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

7.08 *Permits*

- A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work

7.09 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

7.10 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It shall not be Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Owner or Contractor may give notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.11 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

7.12 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
 - 1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify Owner; the owners of adjacent property, Underground Facilities, and other utilities; and other contractors and utility owners performing work at or adjacent to the Site, when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
 - C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
 - D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
 - E. All damage, injury, or loss to any property referred to in Paragraph 7.12.A.2 or 7.12.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
 - F. Contractor's duties and responsibilities for safety and protection shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 15.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).
 - G. Contractor's duties and responsibilities for safety and protection shall resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.13 *Safety Representative*

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

7.14 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or

exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

7.16 *Shop Drawings, Samples, and Other Submittals*

A. *Shop Drawing and Sample Submittal Requirements:*

1. Before submitting a Shop Drawing or Sample, Contractor shall have:
 - a. reviewed and coordinated the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - c. determined and verified the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that submittal, and that Contractor approves the submittal.
3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be set forth in a written communication separate from the Shop Drawings or Sample submittal; and, in addition, in the case of Shop Drawings by a specific notation made on each Shop Drawing submitted to Engineer for review and approval of each such variation.

- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals. Each submittal will be identified as Engineer may require.

1. *Shop Drawings:*

- a. Contractor shall submit the number of copies required in the Specifications.
- b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to

provide and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.D.

2. *Samples:*
 - a. Contractor shall submit the number of Samples required in the Specifications.
 - b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 7.16.D.
3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. *Other Submittals:* Contractor shall submit other submittals to Engineer in accordance with the accepted Schedule of Submittals, and pursuant to the applicable terms of the Specifications.
- D. *Engineer's Review:*
 1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
 2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs incident thereto.
 3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
 4. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order.
 5. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 7.16.A and B.
 6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
 7. Neither Engineer's receipt, review, acceptance or approval of a Shop Drawing, Sample, or other submittal shall result in such item becoming a Contract Document.

8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.D.4.

E. *Resubmittal Procedures:*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.
2. Contractor shall furnish required submittals with sufficient information and accuracy to obtain required approval of an item with no more than three submittals. Engineer will record Engineer's time for reviewing a fourth or subsequent submittal of a Shop Drawings, sample, or other item requiring approval, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges.
3. If Contractor requests a change of a previously approved submittal item, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

7.17 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
 1. observations by Engineer;
 2. recommendation by Engineer or payment by Owner of any progress or final payment;
 3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 4. use or occupancy of the Work or any part thereof by Owner;
 5. any review and approval of a Shop Drawing or Sample submittal;
 6. the issuance of a notice of acceptability by Engineer;
 7. any inspection, test, or approval by others; or
 8. any correction of defective Work by Owner.

- D. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract shall govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Contractor under Paragraph 7.18.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
 - 1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
 - 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

7.19 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable Laws and Regulations.
- B. If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, and other submittals prepared by such professional. Shop

Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this paragraph, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 7.16.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria specified by Owner or Engineer.

ARTICLE 8 – OTHER WORK AT THE SITE

8.01 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any utility work at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford each other contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.
- D. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 8, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

8.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:
 - 1. the identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
 - 2. an itemization of the specific matters to be covered by such authority and responsibility; and
 - 3. the extent of such authority and responsibilities.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

- A. If, in the course of performing other work at or adjacent to the Site for Owner, the Owner's employees, any other contractor working for Owner, or any utility owner causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment shall take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract. When applicable, any such equitable adjustment in Contract Price shall be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due to Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this paragraph.
- C. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due to Contractor.

- D. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9 – OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

9.02 *Replacement of Engineer*

- A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents shall be that of the former Engineer.

9.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

9.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

9.05 *Lands and Easements; Reports, Tests, and Drawings*

- A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
- B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
- C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *Limitations on Owner's Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

9.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
- B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

10.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.08. Particularly, but without limitation, during

or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 10.08. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent, or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

10.04 *Rejecting Defective Work*

- A. Engineer has the authority to reject Work in accordance with Article 14.

10.05 *Shop Drawings, Change Orders and Payments*

- A. Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, are set forth in Paragraph 7.16.
- B. Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, are set forth in Paragraph 7.19.
- C. Engineer's authority as to Change Orders is set forth in Article 11.
- D. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.06 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.07 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.08 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 15.06.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 10.08 shall also apply to the Resident Project Representative, if any.

10.09 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs (if any) of which Engineer has been informed.

ARTICLE 11 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK

11.01 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
 - 1. *Change Orders:*
 - a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.
 - b. Owner and Contractor may amend those terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, without the recommendation of the Engineer. Such an amendment shall be set forth in a Change Order.
 - 2. *Work Change Directives:* A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.04 regarding change of Contract Price. Contractor must submit any Change Proposal seeking an

adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the completion of the Work set out in the Work Change Directive. Owner must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.

3. *Field Orders*: Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.02 *Owner-Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Such changes shall be supported by Engineer's recommendation, to the extent the change involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters. Such changes may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work shall be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph shall obligate Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.03 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.

11.04 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment of Contract Price shall comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:
 1. where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03); or
 2. where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.04.C.2); or
 3. where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on

the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.04.C).

- C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit shall be determined as follows:
1. a mutually acceptable fixed fee; or
 2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 13.01.B.3, the Contractor's fee shall be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.01.C.2.a and 11.01.C.2.b is that the Contractor's fee shall be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.A.1 and 13.01.A.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of five percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted work the maximum total fee to be paid by Owner shall be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the work;
 - d. no fee shall be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
 - e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
 - f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 11.04.C.2.a through 11.04.C.2.e, inclusive.

11.05 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment in the Contract Times shall comply with the provisions of Article 12.
- B. An adjustment of the Contract Times shall be subject to the limitations set forth in Paragraph 4.05, concerning delays in Contractor's progress.

11.06 *Change Proposals*

- A. Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; appeal an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; contest a set-off against payment due; or seek other relief under

the Contract. The Change Proposal shall specify any proposed change in Contract Times or Contract Price, or both, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents.

1. *Procedures:* Contractor shall submit each Change Proposal to Engineer promptly (but in no event later than 30 days) after the start of the event giving rise thereto, or after such initial decision. The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal. The supporting data shall be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event. Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal.
 2. *Engineer's Action:* Engineer will review each Change Proposal and, within 30 days after receipt of the Contractor's supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions shall be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.
 3. *Binding Decision:* Engineer's decision will be final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- B. *Resolution of Certain Change Proposals:* If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice shall be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

11.07 Execution of Change Orders

- A. Owner and Contractor shall execute appropriate Change Orders covering:
1. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
 2. changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
 3. changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.02, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and
 4. changes in the Contract Price or Contract Times, or other changes, which embody the substance of any final and binding results under Paragraph 11.06, or Article 12.

- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of this Paragraph 11.07, it shall be deemed to be of full force and effect, as if fully executed.

11.08 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

ARTICLE 12 – CLAIMS

12.01 *Claims*

- A. *Claims Process:* The following disputes between Owner and Contractor shall be submitted to the Claims process set forth in this Article:
 - 1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 - 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents; and
 - 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters.
- B. *Submittal of Claim:* The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim shall rest with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, or both, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.
- C. *Review and Resolution:* The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim shall be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation:*
 - 1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate shall stay the Claim submittal and response process.
 - 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process shall resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim

submittal and decision process shall resume as of the date of the conclusion of the mediation, as determined by the mediator.

3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action shall be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim shall be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim shall be incorporated in a Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 *Cost of the Work*

- A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
 1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or
 2. To determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included*: Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 13.01.C, and shall include only the following items:
 1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, and vacation and holiday pay applicable

thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof, whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 6.05), provided such losses and damages have resulted from causes

other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

C. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
- 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
- 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
- 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee:* When the Work as a whole is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 11.04.C.

E. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

13.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

- B. *Cash Allowances*: Contractor agrees that:
 - 1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 - 2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.
- C. *Contingency Allowance*: Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

13.03 *Unit Price Work*

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of the following paragraph.
- E. Within 30 days of Engineer's written decision under the preceding paragraph, Contractor may submit a Change Proposal, or Owner may file a Claim, seeking an adjustment in the Contract Price if:
 - 1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement;
 - 2. there is no corresponding adjustment with respect to any other item of Work; and
 - 3. Contractor believes that it is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price, and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 14 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

14.01 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

14.02 *Tests, Inspections, and Approvals*

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work shall be governed by the provisions of Paragraph 14.05.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
 - 1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
 - 2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
 - 3. by manufacturers of equipment furnished under the Contract Documents;
 - 4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
 - 5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests shall be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering shall be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to

cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

- A. *Contractor's Obligation:* It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority:* Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. *Notice of Defects:* Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. *Correction, or Removal and Replacement:* Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.
- E. *Preservation of Warranties:* When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. *Costs and Damages:* In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs, losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work shall be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

- A. Engineer has the authority to require special inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.

- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.
 - 1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
 - 2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.07 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, then Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will

include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 Progress Payments

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *Applications for Payments:*
1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens, and evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
 2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
 3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.
- C. *Review of Applications:*
1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
 2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

- a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
 4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
 - a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
 5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.
 6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
 - a. the Work is defective, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or

- e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due:*

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

E. *Reductions in Payment by Owner:*

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
 - a. claims have been made against Owner on account of Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;
 - b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
 - c. Contractor has failed to provide and maintain required bonds or insurance;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
 - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
 - f. the Work is defective, requiring correction or replacement;
 - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - h. the Contract Price has been reduced by Change Orders;
 - i. an event that would constitute a default by Contractor and therefore justify a termination for cause has occurred;
 - j. liquidated damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
 - k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
 - l. there are other items entitling Owner to a set off against the amount recommended.
2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount

remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed shall be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.

3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 15.01.C.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than seven days after the time of payment by Owner.

15.03 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which shall fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.

- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.
- F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
 - 1. At any time Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through E for that part of the Work.
 - 2. At any time Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
 - 3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
 - 4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.05 regarding builder's risk or other property insurance.

15.05 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 *Final Payment*

- A. *Application for Payment:*
 - 1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of

inspection, annotated record documents (as provided in Paragraph 7.11), and other documents, Contractor may make application for final payment.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;
 - b. consent of the surety, if any, to final payment;
 - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.
 - d. a list of all disputes that Contractor believes are unsettled; and
 - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

B. *Engineer's Review of Application and Acceptance:*

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the Application for Payment to Owner for payment. Such recommendation shall account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to the provisions of Paragraph 15.07. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment.

D. *Payment Becomes Due:* Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer (less any further sum Owner is entitled to set off against Engineer's recommendation,

including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

15.07 *Waiver of Claims*

- A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor. Owner expressly reserves claims and rights arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 15.05, from Contractor's failure to comply with the Contract Documents or the terms of any special guarantees specified therein, from outstanding Claims by Owner, or from Contractor's continuing obligations under the Contract Documents.
- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted or appealed under the provisions of Article 17.

15.08 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents, or by any specific provision of the Contract Documents), any Work is found to be defective, or if the repair of any damages to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. correct the defective repairs to the Site or such other adjacent areas;
 - 2. correct such defective Work;
 - 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
 - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others).
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

- E. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension. Any Change Proposal seeking such adjustments shall be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
 - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule);
 - 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
 - 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
 - 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) ten days written notice that Owner is considering a declaration that Contractor is in default and termination of the contract, Owner may proceed to:
 - 1. declare Contractor to be in default, and give Contractor (and any surety) notice that the Contract is terminated; and
 - 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within seven days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses,

and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

- F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond shall govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate For Convenience*

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
 - 3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid on account of loss of anticipated overhead, profits, or revenue, or other economic loss arising out of or resulting from such termination.

16.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for

expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17 – FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

- A. *Disputes Subject to Final Resolution:* The following disputed matters are subject to final resolution under the provisions of this Article:
 - 1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full; and
 - 2. Disputes between Owner and Contractor concerning the Work or obligations under the Contract Documents, and arising after final payment has been made.
- B. *Final Resolution of Disputes:* For any dispute subject to resolution under this Article, Owner or Contractor may:
 - 1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions; or
 - 2. agree with the other party to submit the dispute to another dispute resolution process; or
 - 3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18 – MISCELLANEOUS

18.01 *Giving Notice*

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
 - 1. delivered in person, by a commercial courier service or otherwise, to the individual or to a member of the firm or to an officer of the corporation for which it is intended; or
 - 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the sender of the notice.

18.02 *Computation of Times*

- A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

18.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

- A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

- A. A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

18.07 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract, EJCDC® C-700 (2013 Edition) hereinafter referred to as the "General Conditions," and other provisions of the Contract Documents as indicated below. All provisions that are not so amended or supplemented remain in full force and effect.

The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below or elsewhere in the Contract Documents, which are applicable to both the singular and plural thereof.

The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added thereto.

ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

SC-1.01 *Defined Terms*

SC-1.01 Add to the list of definitions in Paragraph 1.01.A by inserting the following as numbered items in their proper alphabetical positions:

Bid Proposal; Bid Form; Bid Proposal Form - The prescribed form on which bidder submits bidder's offer or proposal setting forth the bidder's prices for the Work to be performed.

General Conditions – Standard General Conditions of the Construction Contract (EJCDC C-700, 2013 Edition). Any reference to the General Conditions shall also be a reference to the Supplementary Conditions.

Technical Specifications – The Specifications.

SC-1.01 Delete Paragraph 1.01.A.20 in its entirety and insert the following in its place:

Engineer – Barr Engineering Company, 3005 Boardwalk Drive, Suite 100, Ann Arbor, Michigan 48108 (Phone: 734-922-4400; Fax: 734-922-4401).

SC-1.01 Delete Paragraph 1.01.A.28 in its entirety and insert the following in its place:

Owner – Charter Township of Ypsilanti with whom Contractor has entered into the Agreement and for whom the Work is to be provided.

SC-1.01 Delete Paragraph 1.01.A.44 in its entirety and insert the following in its place:

Technical Data—Those items identified in the Supplementary Conditions, with respect to either (a) subsurface conditions at the Site, or physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) or (b) Hazardous Environmental Conditions at the Site including without limitation the data contained in boring logs, recorded measurements of subsurface water levels, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical or environmental report prepared for the Project and

made available to Contractor. **Any use of the Technical Data made available to Contractor is entirely at Contractor's own risk and at its own discretion.**

ARTICLE 2 – PRELIMINARY MATTERS

SC-2 .02 Copies of Documents

- SC-2.02 Delete the first sentence of Paragraph 2.02.B and insert the following in its place:
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications bearing the certification or seal of Engineer and other design professionals.

SC-2 .06 Electronic Transmittals.

- SC-2.06 Add the following new paragraph immediately after Paragraph 2.06.C:
- Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance test or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party, except those errors resulting from the use of software application package, operating systems, or computer hardware differing from those used by the data's creator.

ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, REUSE

SC-3.01 Intent

- SC-3.01 Add the following language at the end of the second sentence of Paragraph 3.01.B:
- Any item or items shown on the Drawings or described in the Specifications, but not specifically included in any of the unit prices, shall be considered incidental to the other work.

SC-3.05 Reuse of Documents

- SC-3.05 Delete Paragraph 3.05.A.1 in its entirety and insert the following in its place:
- "have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the certification or seal of Engineer or its consultants, including electronic media editions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaption by Engineer; or"

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

SC-5.01 Availability of Lands

SC-5.01 Delete Paragraph 5.01C in its entirety and insert the following in its place:

Contractor shall provide for all additional lands and access thereto that Contractor may require for performance of the Work.

5.03 Subsurface and Physical Conditions

SC-5.03 Delete Paragraph 5.03B in its entirety and insert the following in its place:

- B. Reliance by Contractor on Technical Data Not Authorized: Contractor may not rely upon the accuracy of the Technical Data identified in the Supplementary Conditions with respect to such reports and drawings, and such reports and drawings are not Contract Documents. Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
1. the completeness of such reports and drawings for Contractor’s purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.
 4. the accuracy of the Technical Data (as defined in Article 1) contained in any reports and drawings prepared for the Project and made available to Contractor.

Add the following new paragraphs immediately after Paragraph 5.03.B:

- C. The following reports of explorations and tests of subsurface conditions at or adjacent to the Site are known to Owner:
1. Letter report dated March 11, 2002, show boring log in the top of the south embankment of Ford Lake Dam, prepare by PSI, Plymouth, MI, re: “Piezometer Installation, Ford Lake Dam Emergency Spillway”.
 2. Drawings dated January 28, 1992, show boring logs in the north and south embankments of the Ford Lake Dam, by McLravy Engineering Associates, approved by Washtenaw County Road Commission, entitled “Bridge on Bridge Road over Huron River”, consisting of 36 sheets. PDF sheet 26 of 37.
 3. Drawings dated April 4, 1932, show boring logs in the vicinity of Ford Lake Dam, by Ford Motor Company, entitled “Hydro-Electric Development, Huron River”, consisting of 137 sheets.

- D. The following drawings of physical conditions relating to existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities) are known to Owner:
1. Drawings dated January 28, 1992, of the replacement bridge over the top of the Ford Lake Dam, by McLravy Engineering Associates, approved by Washtenaw County Road Commission, entitled "Bridge on Bridge Road over Huron River", consisting of 37 sheets.
 2. Drawings dated April 4, 1932, of Ford Lake Dam, by Ford Motor Company, entitled "Hydro-Electric Development, Huron River", consisting of 137 sheets.
 3. AS-BUILT drawings dated March 18, 2002, of Ford Lake Dam spillway and powerhouse concrete repairs, by Barr Engineering Co., entitled "Ford Lake Dam Emergency Spillway", consisting of 5 sheets.
 4. Report "Ford Lake Dam Spillway Concrete Assessment", by Barr Engineering Co., June 2021, consisting of 57 pages.
 5. Letter report dated November 25, 2022, by Solomon Diving regarding underwater inspection of six (6) upstream gate openings to determine the condition of the seal area surfaces in preparation for bulkhead installations, performed on 10-24-22, consisting of 4 pages and 5 associated files with video documentation.
- E. Contractor may examine copies of reports and drawings identified in SC 5.03.C and SC 5.03.D that were not included with the Bidding Documents at Barr Engineering Co., 3005 Boardwalk Drive, Suite 100, Ann Arbor, MI 48108 during regular business hours, or may request copies from Engineer.

SC-5.06 Hazardous Environmental Conditions

SC 5.06 Delete Paragraphs 5.06.A and 5.06.B in their entirety and insert the following:

- A. No reports or drawings related to Hazardous Environmental Conditions at the Site are known to Owner.
- B. *Reliance by Contractor on Technical Data Not Authorized:* Contractor may not rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, and such reports and drawings are not Contract Documents. Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information;
4. the accuracy of the Technical Data (as defined in Article 1) contained in any reports and drawings prepared for the Project and made available to Contractor.

ARTICLE 6 – BONDS AND INSURANCE

SC-6.01 Performance, Payment, and Other Bonds

SC-6.01 Add the following sentence to the end of Paragraph 6.01.A of the General Conditions:

Contractor shall furnish such additional Bonds as may be required by any permitting authority as a condition of any such permit.

SC-6.02 Insurance—General Provisions

SC-6.02 Add the following paragraph immediately after Paragraph 6.02.B:

1. Contractor may obtain worker's compensation insurance from an insurance company that has not been rated by A.M. Best, provided that such company (a) is domiciled in the state in which the project is located, (b) is certified or authorized as a worker's compensation insurance provider by the appropriate state agency, and (c) has been accepted to provide worker's compensation insurance for similar projects by the state within the last 12 months.

SC-6.03 Contractor's Liability Insurance

SC-6.03 Amend the first sentence of Paragraph 6.03.C.2 to read as follows:

2. Blanket contractual liability coverage, to the extent permitted by law, covering all of Contractor's contractual indemnity obligations.

SC-6.03 Add the following new Paragraphs immediately after Paragraph 6.03.C:

9. Where applicable, claims arising out of blasting, elevators, aviation, and marine exposures.

SC-6.03 Add the following sentence to the end of Paragraph 6.03.G:

Such additional insured coverage shall be provided by Additional Insured – Engineers, Architects or Surveyors Not Engaged by the Named Insured endorsement CG 2032 04 13, or other comparable endorsement.

SC-6.03 Amend the first sentence of Paragraph 6.03.I.3 to read as follows:

contain a provision or endorsement that the coverage afforded will not be canceled, or coverages or limits reduced, or renewal refused until at least 10 days prior written notice has been given to Contractor. Within three days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner, Engineer, and each other insured under the policy.

SC-6.03 Add the following subparagraph to the end of Paragraph 6.03.I:

6. The coverage shall include all property under the care, custody, or control of Contractor.

SC 6.03 Add the following new paragraph immediately after Paragraph 6.03.J:

K. The limits of liability for the insurance required by Paragraph 6.03 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

1. Workers' Compensation, and related coverages under Paragraphs 6.03.A.1 and A.2 of the General Conditions:

State:	<u>Statutory</u>
Federal, if applicable (e.g., Longshoreman's):	<u>Statutory</u>
Jones Act coverage, if applicable:	
Bodily injury by accident, each accident	\$ <u>N/A</u>
Bodily injury by disease, aggregate	\$ <u>N/A</u>
 Employer's Liability:	
Bodily injury, each accident	\$ <u>1,000,000</u>
Bodily injury by disease, each employee	\$ <u>1,000,000</u>
Bodily injury/disease aggregate	\$ <u>1,000,000</u>
 For work performed in monopolistic states, stop-gap liability coverage shall be endorsed to either the worker's compensation or commercial general liability policy with a minimum limit of:	\$ <u>N/A</u>
 Foreign voluntary worker compensation	<u>Statutory</u>

2. Contractor's Commercial General Liability under Paragraphs 6.03.B and 6.03.C of the General Conditions:

General Aggregate	\$ <u>1,000,000</u>
Products - Completed Operations Aggregate	\$ <u>1,000,000</u>
Personal and Advertising Injury	\$ <u>1,000,000</u>
Each Occurrence (Bodily Injury and Property Damage)	\$ <u>1,000,000</u>

3. Automobile Liability under Paragraph 6.03.D. of the General Conditions:

Combined Single Limit of \$ 1,000,000

4. Excess or Umbrella Liability:

Per Occurrence \$ 2,000,000

General Aggregate \$ 2,000,000

5. Contractor's Pollution Liability:

Each Occurrence \$ N/A

General Aggregate \$ N/A



If box is checked, Contractor is not required to provide Contractor's Pollution Liability insurance under this Contract

6. Additional Insureds: In addition to Owner and Engineer, include as additional insureds the following:

- The Charter Township of Ypsilanti and its past, present, and future elected Officials.
- Barr Engineering Co.

7. Each of the Commercial General Liability, Automobile Liability and Umbrella policies shall include cross liability coverage so that the insurance applies separately to each insured against whom claim is made or suit is brought, even in instances where one insured claims against or sues another insured and provide that its insurance provider shall waive all rights of subrogation against Owner and Engineer and their agents and employees, and shall waive any setoff or counterclaim or any other deduction whether by attachment or otherwise as applicable.

8. Contractor's Professional Liability:

Each Claim \$ N/A

Annual Aggregate \$ N/A

SC-6.05 *Property Insurance*

SC 6.05 Delete the first sentence of Paragraph 6.05.A and insert the following sentence in its place:
Owner shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the full insurable replacement cost thereof (subject to such

deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations).

ARTICLE 7 – CONTRACTOR’S RESPONSIBILITIES

SC-7.02 Labor; Working Hours

SC-7.02 Add the following new subparagraphs immediately after Paragraph 7.02.B:

1. Regular working hours will be 7am to 5pm
2. Owner's observed holidays are:
 - Martin Luther King Day
 - President’s Day
 - Good Friday
 - Memorial Day
 - Independence Day
 - Labor Day
 - Veterans Day
 - Thanksgiving
 - Christmas
 - New Year

SC-7.02 Amend the first and second sentences of Paragraph 7.02.B to state “...all Work at the Site shall be performed during regular working hours, Monday through Saturday. Contractor will not perform Work on a Sunday or any observed holiday.”

SC-7.02 Add the following new paragraph immediately after Paragraph 7.02.B:

Owner shall be responsible for the cost of any overtime pay or other expense incurred by the Owner for Engineer’s services (including those of the Resident Project Representative, if any), Owner’s representative, and construction observation services, occasioned by the performance of Work on Saturday, Sunday, any legal holiday, or as overtime on any regular work day. If Contractor is responsible but does not pay, or if the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under Article 15.

SC-7.12 Safety and Protection

SC-7.12 Insert the following after the second sentence of Paragraph 7.12.C:

The following Owner safety programs are applicable to the Work: Charter Township of Ypsilanti, General Safety Program, January 2020.

SC-7.12 Add the following Paragraphs after Paragraph 7.12.H:

- H. The requirements of Paragraph 7.12 shall apply continuously and not be limited to normal work hours.
- I. Observation of Contractor's performance by Engineer is not intended to include review of the adequacy of Contractor's safety measures on or near the Site.
- J. Contractor shall be responsible for any safety violation and/or fine that may occur because of any neglect by Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them, or any third party.
- K. Unless otherwise specified, Contractor has responsibility for the design and safety of excavations. Engineer and Owner will not provide any excavation design, nor should excavation design be presumed to be contained in the Contract Documents. Engineer and Owner will not assist Contractor in classifying soils or interpreting applicable regulations.
- L. Additional provisions regarding Contractor's responsibilities for health, safety, and protection may be included in Division 01 (General Requirements) of the Technical Specifications.
- M. Contractor shall require its Subcontractors and all lower-tier subcontractors to comply with all applicable safety Laws and Regulations and safety programs applicable to the work.

ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION

SC-10.03 Project Representative

SC-10.03 Add the following new paragraphs immediately after Paragraph 10.03.A:

- B. The Resident Project Representative (RPR) will be Engineer's representative at the Site, will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding RPR's actions.

Contractor shall observe the following additional instructions as to reporting and authority over the Work:

1. General: RPR's dealings in matters pertaining to the Work in general shall be with Engineer and Contractor. RPR's dealings with Subcontractors shall only be through or with the full knowledge and approval of Contractor. RPR shall generally communicate with Owner only with the knowledge of and under the direction of Engineer.
2. Schedules: Review the progress schedule, schedule of Shop Drawing and Sample submittals, and Schedule of Values prepared by Contractor and consult with Engineer concerning acceptability.
3. Conferences and Meetings: Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences, and other Project-related meetings, and prepare and circulate copies of minutes thereof.

4. Liaison:
 - a. Serve as Engineer's liaison with Contractor. Working principally through Contractor's authorized representative or designee, assist in providing information regarding the provisions and intent of the Contract Documents.
 - b. Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-Site operations.
 - c. Assist in obtaining from Owner additional details or information, when required for proper execution of the Work.
5. Interpretation of Contract Documents: Report to Engineer when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by Engineer.
6. Shop Drawings and Samples:
 - a. Record date of receipt of Samples and Contractor-approved Shop Drawings.
 - b. Receive Samples which are furnished at the Site by Contractor, and notify Engineer of availability of Samples for examination.
 - c. Advise Engineer and Contractor of the commencement of any portion of the Work requiring a Shop Drawing or Sample submittal for which RPR believes that the submittal has not been approved by Engineer.
7. Modifications: Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and report such suggestions, together with RPR's recommendations, if any, to Engineer. Transmit to Contractor in writing decisions as issued by Engineer.
8. Review of Work and Rejection of Defective Work:
 - a. Conduct on-Site observations of Contractor's work in progress to assist Engineer in determining if the Work is in general proceeding in accordance with the Contract Documents.
 - b. Report to Engineer whenever RPR believes that any part of Contractor's work in progress is defective, will not produce a completed Project that conforms generally to the Contract Documents, or will imperil the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise Engineer of that part of work in progress that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.
9. Inspections, Tests, and System Start-ups:
 - a. Verify that tests, equipment, and systems start-ups and operating and maintenance training are conducted in the presence of appropriate

Owner's personnel, and that Contractor maintains adequate records thereof.

- b. Observe, record, and report to Engineer appropriate details relative to the test procedures and systems start-ups.

10. Records:

- a. Prepare a daily report or keep a diary or log book, recording Contractor's hours on the Site, Subcontractors present at the Site, weather conditions, data relative to questions of Change Orders, Field Orders, Work Change Directives, or changed conditions, Site visitors, deliveries of equipment or materials, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to Engineer.
- b. Record names, addresses, fax numbers, e-mail addresses, web site locations, and telephone numbers of all Contractors, Subcontractors, and major Suppliers of materials and equipment.
- c. Maintain records for use in preparing Project documentation.

11. Reports:

- a. Furnish to Engineer periodic reports as required of progress of the Work and of Contractor's compliance with the Progress Schedule and schedule of Shop Drawing and Sample submittals.
- b. Draft and recommend to Engineer proposed Change Orders, Work Change Directives, and Field Orders. Obtain backup material from Contractor.
- c. Immediately notify Engineer of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, force majeure or delay events, damage to property by fire or other causes, or the discovery of any Constituent of Concern or Hazardous Environmental Condition.

12. Payment Requests: Review applications for payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Engineer, noting particularly the relationship of the payment requested to the Schedule of Values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.

13. Certificates, Operation and Maintenance Manuals: During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Contract Documents to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to Engineer for review and forwarding to Owner prior to payment for that part of the Work.

14. Completion:
 - a. Participate in Engineer's visits to the Site to determine Substantial Completion, assist in the determination of Substantial Completion and the preparation of a punch list of items to be completed or corrected.
 - b. Participate in Engineer's final visit to the Site to determine completion of the Work, in the company of Owner and Contractor, and prepare a final punch list of items to be completed and deficiencies to be remedied.
 - c. Observe whether all items on the final list have been completed or corrected and make recommendations to Engineer concerning acceptance and issuance of the notice of acceptability of the work.

C. The RPR shall not:

1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).
2. Exceed limitations of Engineer's authority as set forth in the Contract Documents, including, but not limited to, issuing clarification or interpretation of the requirements of the Contract Documents.
3. Undertake any of the responsibilities of Contractor, Subcontractors, or Suppliers.
4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of Contractor's work.
5. Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.
6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
7. Accept Shop Drawing or Sample submittals from anyone other than Contractor.
8. Authorize Owner to occupy the Project in whole or in part.

ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

SC-13.01 Cost of the Work

SC-13.01 Add the following new sub-Paragraph a. immediately after Paragraph 13.01.B.1:

- a. In addition to Living Wage and Prevailing Wage Ordinances, Owner has specific wage requirements as follows:
 - 1) Davis-Bacon Act, July 2, 1964 (Title 40, USC, 276A)
 - 2) Anti-Kickback Act (Title 18, USC 874)
 - 3) U.S. Department of Labor Regulations and Standards (Title 29, 1, 3 and 5)

- 4) Equal Employment Opportunity Act, September 18, 1965 (Executive Order No. 11246)
- 5) Federal Occupational Safety and Health Act of 1970
- 6) Housing and Urban Development Act of 1968, Section 3, as amended, 12 USC, 1701u.

ARTICLE 14 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

SC-14.01 Access to Work

SC -14.01 Add the following new Paragraph immediately after Paragraph 14.01.A.

- B. Said access shall conform to all requirements of the regulatory agency or agencies who claim jurisdiction over the safety of the project site. Contractor shall provide, at its non-reimbursed cost, all scaffolding, fall protection, ventilation, and similar items needed for required third-party observation and testing, not including personal protective gear of others. Failure by Contractor to provide safe access for the above parties will be a default of the provisions of the Contract Documents as provided for in Paragraph 16.02.A.4.

ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

SC-15.03 Substantial Completion

SC 15.03 Add the following new subparagraph immediately after Paragraph 15.03.B:

If some or all of the Work has been determined not to be at a point of Substantial Completion and will require re-inspection or re-testing by Engineer, the cost of such re-inspection or re-testing, including the cost of time, travel and living expenses, shall be paid by Contractor to Owner. If Contractor does not pay, or the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under Article 15.

SC-15.07 Waiver of Claims

SC-15.07 Delete the word "Owner" from Paragraph 15.07.B and replace with the following:

"Owner and Engineer and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each"

Ford Lake Dam

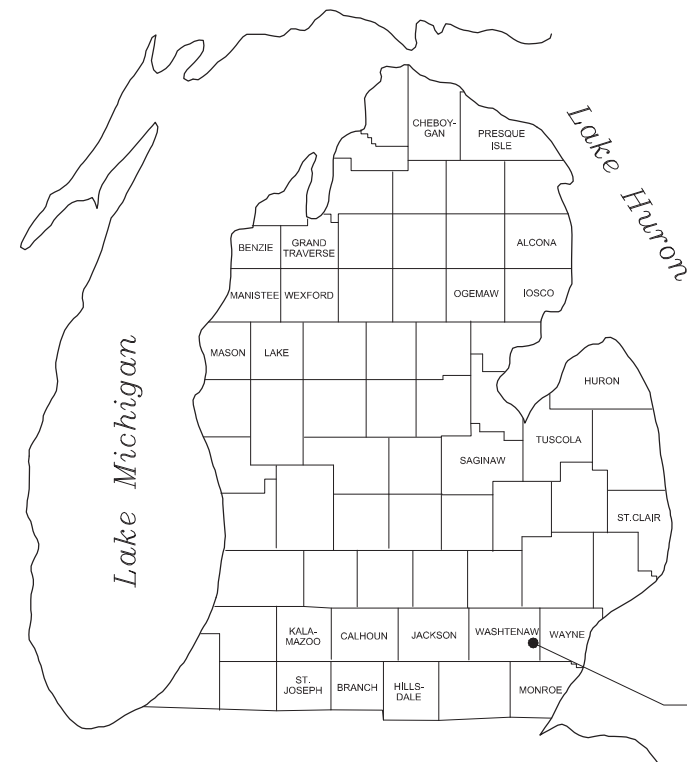
CONCRETE REPAIRS AND BULKHEAD PLACEMENT

CHARTER TOWNSHIP OF YPSILANTI

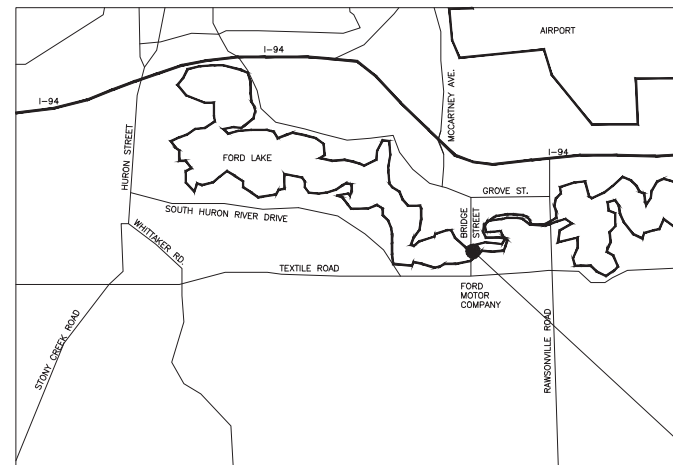
FERC PROJECT NO. 5334

DRAWING INDEX

<u>Title</u>	<u>Sheet No.</u>
Cover Sheet, Index, and Location Map	S-00
Specifications	S-01
Specifications	S-02
Overall Plan	S-03
Intake Plan	S-04
Spillway Plan & Elevation - Bays 1-3	S-05
Spillway Plan & Elevation - Bays 4-6	S-06
Spillway and Intake - Concrete Repair Details	S-07
Sluice Gate - Upstream Bulkhead	S-08
Sluice Gate - New Downstream Bulkheads	S-09



STATE MAP



LOCATION MAP

PROJECT LOCATION

LEGEND

- EXISTING CONCRETE
- AREA REPAIRED IN 2002
- NEW AREA TO BE REPAIRED

REFERENCING

- LIMITS OF SECTION CUT
- SECTION IDENTIFIER
- SECTION REFERENCES (SHEET SECTION IS LOCATED ON)
- SECTION IDENTIFIER
- SECTION: GRAPHICS STANDARDS
- SECTION REFERENCES (SHEET SECTION IS CALLED-OUT ON)



ISSUED FOR BID

CADD USER: CHRIS J. TOULOUSE FILE: P:\ANN ARBOR\22\MI812281058\FORD LAKE DAM GENERAL SERVICES\WORKFILES\2022\CONCRETE REPAIR AND GATE INSPECTION\DRAWINGS\228105800_S-00_COVER DWG PLOT SCALE: 1:2 PLOT DATE: 3/15/23 10:30am

		I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MICHIGAN.		CLIENT BID CONSTRUCTION RECORD		3/28/22 1/24/23 2/22/23		BARR		Project Office: BARR ENGINEERING CO. 3005 BOARDWALK STREET SUITE 100 ANN ARBOR, MI 48108		Scale: AS SHOWN Date: 2/22/23 Drawn: MJJ Checked: TSH Designed: CJT2 Approved: CJT2		CHARTER TOWNSHIP OF YPSILANTI YPSILANTI, MI		FORD LAKE DAM CONCRETE REPAIRS AND BULKHEAD PLACEMENT		BARR PROJECT No. 22810058.00			
		PRINTED NAME: CHRISTOPHER TOULOUSE		RELEASED TO/FOR		DATE RELEASED								COVER SHEET, INDEX AND LOCATION MAP		CLIENT PROJECT No.		DWG. No. S-00		REV. No. C	
NO.		BY		CHK.		APP.		DATE		REVISION DESCRIPTION											
C		CJT2		TSH		CJT2		2/22/23		BID											
B		CJT2		TSH		CJT2		1/24/23		REVIEW											
A		CJT2		TSH		CJT2		3/28/22		REVIEW											

1.0 GENERAL

A. SUMMARY OF WORK

- PROVIDE MATERIALS, LABOR AND EQUIPMENT FOR THE WORK SHOWN IN THESE DRAWINGS. DESCRIPTION OF THE WORK GENERALLY INCLUDES EQUIPMENT AND PERSONNEL MOBILIZATION, CONTROL OF TRAFFIC, DESIGN AND INSTALLATION OF LOCALIZED COFFERDAM, CONTROL OF WATER, INSTALLING AND REMOVING TEMPORARY SHORING FOR EXISTING GAS LINE OVER INTAKE PIERS, DEMOLISHING EXISTING CONCRETE AS OUTLINED IN DRAWINGS, REMOVING DEMOLISHED RUBBLE FROM RIVER AND SITE, REPAIRING EXISTING CONCRETE AS OUTLINED ON DRAWINGS, REPLACING POWERHOUSE INTAKE AREA GRATING, FABRICATING DOWNSTREAM BULKHEADS, INSTALLATION OF EXISTING UPSTREAM BULKHEADS AND DOWNSTREAM BULKHEADS FOR FACILITATING SLUICE GATE INSPECTION, DEWATERING AND MAINTAINING SLUICEWAYS FOR SLUICE GATE INSPECTIONS, CLEANING SLUICE GATES OF ALL MARINE LIFE AND DEBRIS FOR OWNER/ENGINEER INSPECTION, RESTORATION OF AREAS DAMAGED DUE TO CONSTRUCTION AND TURF ESTABLISHMENT OF ALL DISTURBED AREAS.
- THE WORK INCLUDES THE FURNISHING OF ALL LABOR, EQUIPMENT, TOOLS, MACHINERY, MATERIALS, AND OTHER ITEMS REQUIRED FOR THE CONSTRUCTION OF A COMPLETE PROJECT AS SPECIFIED. EQUIPMENT FURNISHED TO BE IN SAFE OPERATING CONDITION AND OF ADEQUATE SIZE, CAPACITY, AND CONDITION FOR THE PERFORMANCE OF THE WORK. CONTRACTOR TO OBTAIN ALL MEASUREMENTS NECESSARY FOR THE WORK AND BE RESPONSIBLE FOR ESTABLISHING ALL DIMENSIONS, LEVELS, AND LAYOUT OF THE WORK.
- FURNISH ALL LABOR, EQUIPMENT, MATERIALS, AND PERFORM ALL OPERATIONS NECESSARY TO CONTROL WATER AND MAINTAIN THE COFFERDAM, AS NECESSARY TO COMPLETE THE PROJECT. THIS WORK INCLUDES THE PROVISION, OPERATION, AND MAINTENANCE OF ANY COFFERDAMS, BARRIERS, PUMPS, AND/OR DEWATERING SYSTEMS NECESSARY TO ALLOW FOR THE CONSTRUCTION TO BE COMPLETED IN DRY CONDITIONS. THIS INCLUDES CONTROL OF WATER LEVELS WITHIN THE COFFERDAM AREA.
- PERFORM ALL WORK IN ACCORDANCE WITH ALL OSHA AND MIOHSA REQUIREMENTS. CONSTRUCT OSHA-COMPLIANT SAFETY FENCING AND GUARDRAILS TO PREVENT ACCESS TO THE WORK AREA AND PROVIDE FALL PROTECTION ADJACENT TO ELEVATED SURFACES AS REQUIRED.

B. GENERAL NOTES

- DEFINITION OF SITE: THE SITE IS DEFINED AS THE AREA BETWEEN THE LEFT (NORTH) ABUTMENT WALL AND RIGHT (SOUTH) ABUTMENT WALL, EXTENDING FROM THE UPSTREAM EXTENTS OF THE CONCRETE STRUCTURES TO THE DOWNSTREAM NOSES OF THE SPILLWAY PIERS. SITE ACCESS IS ASSUMED THROUGH BRIDGE ROAD WHICH RUNS OVER THE DAM. PROPOSED STAGING AREA IS THE GRASSY AREA LOCATED JUST TO THE NORTH OF THE DAM ON THE DOWNSTREAM SIDE OF BRIDGE ROAD BY THE ASSUMED TO BE THE AREA NEAR THE DOWNSTREAM EXTENTS OF THE LEFT EMBANKMENT TOE, ADJACENT TO THE LEFT SPILLWAY RETAINING WALL. THE SITE IS TO BE LIMITED TO THE ABOVE DESIGNATED AREA UNLESS ADDITIONAL AREAS ARE APPROVED BY OWNER, CONTRACTOR TO LIMIT OPERATIONS, INCLUDING MATERIALS AND EQUIPMENT STORAGE, TO THE AREA WITHIN THE CONSTRUCTION LIMITS OR IN DESIGNATED STAGING AREAS AS COORDINATED WITH OWNER. ANY DISTURBANCE OUTSIDE THE CONSTRUCTION LIMITS TO BE FULLY RESTORED AT THE CONTRACTOR'S EXPENSE.
- HOURS OF OPERATION: LIMIT OPERATIONS TO THE HOURS APPROVED BY THE OWNER IN ACCORDANCE WITH LOCAL LAWS AND REGULATIONS.
- CONTRACTOR TO BE SOLELY RESPONSIBLE FOR THE COORDINATION OF ITS ACTIVITIES WITH REGARD TO THE PROJECT AND THE ACTIVITIES OF SUBCONTRACTORS AND OWNER.
- OBTAIN ALL APPROVALS, AUTHORIZATIONS, AND/OR PERMITS THAT MAY BE REQUIRED, EXCEPT AS NOTED HEREIN. OWNER WILL PROCURE ALL REQUIRED MDEGLE JOINT PERMITS, SOIL EROSION AND SEDIMENT CONTROL (SESC) PERMITS (AS REQUIRED) AND PERMITS FOR TEMPORARY STAGING AREA (AS REQUIRED). IT IS THE CONTRACTOR'S RESPONSIBILITY TO PERFORM INSPECTIONS, AND MEET THE MDEGLE JOINT AND SESC PERMIT REQUIREMENTS INCLUDING INSTALLATION AND MAINTENANCE OF TURBIDITY CURTAINS.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL ROAD CLOSURES, PERMITS, SUBMITTING TRAFFIC CONTROL PLANS AND ADHERING TO ALL PERMIT REQUIREMENTS FOR COMPLETING THE WORK, INCLUDING PROVIDING TEMPORARY TRAFFIC CONTROL MEASURES AS NECESSARY.
- MAINTAIN SITE STABILITY DURING CONSTRUCTION OF ALL IMPACTED EXISTING STRUCTURES, INCLUDING BUT NOT LIMITED TO: EXISTING GAS LINE OVER THE INTAKE PIERS. IF EXCESSIVE MOVEMENTS OR SITE INSTABILITY ARE DETECTED, WORK TO BE IMMEDIATELY HALTED UNTIL THE SITE IS STABILIZED AND THE CONTRACTOR IMPLEMENTS CORRECTIVE MEASURES TO THE SATISFACTION OF THE OWNER.
- CONSTRUCT AND REMOVE AFTER WORK IS COMPLETE, A TEMPORARY COFFERDAM AND TEMPORARY SHORING OR RETAINING STRUCTURES AS REQUIRED TO COMPLETE THE WORK. DESIGN OF ABOVE LISTED STRUCTURES IS THE RESPONSIBILITY OF THE CONTRACTOR.
- THE DAM AND ITS SPILLWAY WILL BE IN OPERATION THROUGHOUT CONSTRUCTION. CONSTRUCT A TEMPORARY COFFERDAM SYSTEM TO REDIRECT SPILLWAY WATER AROUND THE WORK AREA.
- TURBIDITY CURTAINS TO REMAIN IN PLACE THROUGHOUT CONSTRUCTION (AS REQUIRED) IN ACCORDANCE WITH THE PERMIT REQUIREMENTS.
- CONTRACTOR TO SUBMIT PLANS AND DOCUMENTS AS OUTLINED WITHIN THESE SPECIFICATIONS.
- CONTRACTOR TO PERFORM ALL SURVEYS NECESSARY TO LAYOUT AND EXECUTE THE WORK.
- OWNER TO PROVIDE BENCHMARKS AND SITE COORDINATE INFORMATION NECESSARY FOR CONSTRUCTION OF THE WORK. ONCE PROVIDED, IT IS CONTRACTOR'S RESPONSIBILITY TO PROTECT THE INFORMATION.
- CONFIRM THE LOCATIONS AND ELEVATIONS OF EXISTING SITE BENCHMARKS OR SURVEY MONUMENTS PRIOR TO COMMENCEMENT OF THE WORK. REPLACE ANY REMOVED BENCHMARKS OR SURVEY MONUMENTS IN KIND WITHIN THE REPAIR EXTENTS. MAINTAIN ALL EXISTING PIEZOMETERS, SURVEY BENCHMARKS, INSTRUMENTATION AND SURVEY MONITORING SYSTEMS OUTSIDE THE REPAIR EXTENTS. INFORM THE ENGINEER AND OWNER OF ANY CONFLICTS BETWEEN EXISTING INSTRUMENTATION, MONITORING POINTS, AND THE PROPOSED WORK. REPLACE ALL INSTRUMENTATION DAMAGED DURING THE COURSE OF THE WORK AT NO ADDITIONAL COST TO THE OWNER.
- CALL MISS DIG SYSTEM AT LEAST 72 HOURS BEFORE CONSTRUCTION TO HAVE UTILITIES STAKED IF EXCAVATING OUTSIDE OF THE RIVER EXTENTS. NOTE THE EXISTENCE OF PRIVATE UTILITIES ON THE SITE AND TREAT AND PROTECT THESE FACILITIES IN THE SAME MANNER AS REQUIRED BY PUBLIC ACT 53.
- NOTIFY OWNER AT LEAST TWO WEEKS PRIOR TO MOBILIZING TO THE SITE. HOLD A PRE-CONSTRUCTION MEETING TO DISCUSS ACCESS, CONSTRUCTION TECHNIQUES, UTILITIES, ETC. PRE-CONSTRUCTION MEETING TO INCLUDE A PRE-JOB WALK THROUGH OF THE SITE TO ENSURE THAT THE PROJECT CONDITIONS ARE ACCOUNTED FOR IN THE CONTRACTOR'S MEANS AND METHODS, AND TO IDENTIFY ANY AREAS OF CONCERN FOR EXECUTING THE PROJECT.
- ALL DISTURBED AREAS TO BE RESTORED BY SEEDING AND/OR SODDING.
- REMOVAL FROM SITE AND DISPOSAL OF ALL DEMOLITION DEBRIS.
- PROTECTION AND REPAIR OF EXISTING FACILITIES AND UTILITIES: PERFORM OPERATIONS CAREFULLY AND IN SUCH A MANNER AS TO PROTECT EXISTING STRUCTURES, EQUIPMENT, UNDERGROUND FACILITIES, WELLS, DRAINS, SIGNS, AND UTILITIES. OBSTRUCTIONS NOT SHOWN ON THE DRAWINGS MAY EXIST AND ARE TO BE PROTECTED BY CONTRACTOR WITHOUT DAMAGE. CONTRACTOR TO BE RESPONSIBLE FOR DAMAGE TO EXISTING STRUCTURES, EQUIPMENT, UNDERGROUND FACILITIES, DRAINS, SIGNS, WELLS AND UTILITIES RESULTING FROM CONTRACTOR'S OPERATIONS. REPAIR OR

REPLACE DAMAGED ITEMS AT NO ADDITIONAL COST TO OWNER. EXACT LOCATION OF ALL AFFECTED UTILITIES WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. DRAWINGS MAY NOT COMPLETELY SHOW ALL UTILITIES. SITE VERIFICATION IS REQUIRED IN ADDITION TO CONTACTING ANY LOCAL AUTHORITIES AND UTILITY COMPANIES TO DETERMINE EXACT LOCATIONS OF UTILITIES.

- UNFAVORABLE CONSTRUCTION CONDITIONS: WHEN UNFAVORABLE WEATHER, SOIL, DRAINAGE, OR OTHER UNSUITABLE CONSTRUCTION CONDITIONS EXIST, CONTRACTOR TO CONFINE OPERATIONS TO WORK WHICH WILL NOT BE ADVERSELY AFFECTED BY SUCH CONDITIONS. NO PORTION OF THE WORK IS TO BE CONSTRUCTED UNDER CONDITIONS WHICH WOULD ADVERSELY AFFECT THE QUALITY OF THE WORK, UNLESS SPECIAL MEANS OR PRECAUTIONS ARE TAKEN TO PERFORM THE WORK IN A PROPER AND SATISFACTORY MANNER.
- DO NOT STORE ANY MATERIALS ON-SITE WITHOUT APPROVAL FROM THE OWNER.
- ACCESS ROADS AND PARKING: PROJECT SITE ACCESS AND PARKING SHALL BE THROUGH EXISTING DRIVEWAYS AND TEMPORARY CONSTRUCTION ACCESS. IF ADDITIONAL ACCESS IS DESIRED BY CONTRACTOR, CONTRACTOR TO SUBMIT A PLAN TO OWNER FOR APPROVAL. ANY ACCESS MAY NOT DISTURB TRAFFIC ON CITY STREETS. ANY ACCESS WHICH CAUSES DAMAGE TO SURROUNDING GRASS OR PATHS TO BE RESTORED TO PRE-CONSTRUCTION CONDITIONS PRIOR TO DEMOLITION.
- EROSION CONTROL MEASURES SUCH AS SILT FENCES AND TURBIDITY CURTAINS (AS REQUIRED) ARE TO BE IN PLACE PER APPLICABLE PERMITS PRIOR TO THE START OF CONSTRUCTION AFFECTING EROSION.

C. SAFETY

- IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR IS SOLELY AND COMPLETELY RESPONSIBLE FOR JOB SITE CONDITIONS AND SAFETY PROCEDURES AND PROGRAMS, INCLUDING SAFETY AND HEALTH OF ALL PERSONS AND PROPERTY, ON THOSE PORTIONS OF THE SITE AFFECTED BY OR USED BY CONTRACTOR, CONTRACTOR'S EMPLOYEES, SUBCONTRACTORS, AGENTS, AND OTHERS DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. OBSERVATION OF THE WORK AND CONTRACTOR'S PERFORMANCE BY OWNER AND ENGINEER IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY AND HEALTH PROCEDURES AND PROGRAMS ON OR NEAR THE CONSTRUCTION SITE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PROTECTION OF PROPERTY AND THE SAFETY AND HEALTH OF ITS EMPLOYEES, SUBCONTRACTORS, SUPPLIERS, AGENTS AND OTHERS ON OR NEAR THE SITE. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH OSHA AND MIOHSA REQUIREMENTS.
- MAKE ALL PERSONS ON THE SITE FAMILIAR WITH THE SAFETY PRECAUTIONS APPROPRIATE TO THE CONSTRUCTION ZONES AND REFUSE ENTRY BY ANY PERSON NOT AUTHORIZED BY CONTRACTOR OR OWNER.
- INSTALL FENCE AROUND CONSTRUCTION SITE TO PREVENT PUBLIC ACCESS TO THE CONSTRUCTION AREA.
- PROVIDE SAFE ACCESS TO ALL PORTIONS OF THE WORK FOR USE BY ENGINEER OR OWNER AND OWNER'S AUTHORIZED REPRESENTATIVES IN THE PERFORMANCE OF THEIR OBSERVATION DUTIES. ACCESS SHALL CONFORM TO LAWS AND REGULATIONS AND TO ALL REQUIREMENTS OF ANY REGULATORY AGENCY OR AGENCIES WHO CLAIM JURISDICTION OVER THE SAFETY OF THE PROJECT AREA. IF ENGINEER OR OWNER ARE UNABLE TO OBSERVE CONTRACTOR'S WORK, DUE TO CONDITIONS WHICH IN THE OPINION OF OWNER OR ENGINEER ARE UNSAFE, ENGINEER'S RECOMMENDATION FOR PAYMENT, OR OWNER'S PAYMENT, FOR SUCH WORK MAY BE WITHHELD UNTIL WORK HAS BEEN DETERMINED TO BE IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
- FOLLOW OWNER'S LOCK-OUT/ TAG-OUT PROCEDURES.

D. TEMPORARY UTILITIES

- TEMPORARY UTILITIES SUCH AS POTABLE WATER, TOILETS, TRAILERS, TELEPHONES ETC. ARE THE RESPONSIBILITY OF CONTRACTOR. OWNER WILL NOT PROVIDE.

E. SUBMITTALS

- SUBMIT A HIGH LEVEL WORK PLAN WITH BID THAT INCLUDES THE FOLLOWING INFORMATION: LEVEL 1 PROJECT SCHEDULE, PROJECT ACCESS LOCATIONS, COFFERDAM TYPE, LOCATION AND MATERIAL OF CONSTRUCTION, DEMOLITION METHODS, DEWATERING PLAN FOR COFFERDAM AND SLUICEWAYS, BOAT ACCESS, CRANE PLACEMENT LOCATION (AS APPLICABLE), AND CONSTRUCTION METHOD FOR CONCRETE REPAIRS.
- AFTER AWARD SUBMIT A DETAILED WORK PLAN, INCLUDING COFFERDAM DESIGN PLAN, COFFERDAM LOCATIONS, METHOD OF INSTALLATION, MATERIAL OF CONSTRUCTION, TOP ELEVATION, CONCRETE DEMOLITION METHODS, CONCRETE REPLACEMENT METHODS, COFFERDAM AND SLUICEWAY DEWATERING METHODS, AND OTHER RELEVANT INFORMATION, SUBMIT WITHIN 4 WEEKS OF AWARD.
- AFTER AWARD SUBMIT A DETAILED SCHEDULE AND PROPOSED CONSTRUCTION SEQUENCE FOR THE PROJECT. SUBMIT WITHIN 4 WEEKS OF AWARD.

2.0 DEMOLITION

A. GENERAL

- DEMOLITION WORK INCLUDES PROVIDING ALL MATERIALS, EQUIPMENT, AND LABOR TO REMOVE AND DEMOLISH THE AREAS TO BE REPAIRED AS INDICATED IN THE DRAWINGS, INCLUDING THE LEFT (NORTH) ABUTMENT WALL, INTAKE PIERS, TRASH GUTTER, INTAKE DECK WALKWAY AND GRATING, CONCRETE AROUND THE INTAKE STOPLOG SLOT, SPILLWAY PIERS, SPILLWAY CRESTS, AND BRIDGE ABUTMENTS AND WINGWALLS.
- EXERCISE CARE TO ENSURE NO DISRUPTION OF SERVICE OCCURS TO ADJACENT FACILITIES AND THAT THEY REMAIN IN SERVICE AND NO DEBRIS IS DEPOSITED IN AREAS NOT SPECIFICALLY APPROVED BY THE OWNER.
- THE DRAWINGS MAY NOT INDICATE ALL DEMOLITION, REMOVAL AND ALTERATIONS REQUIRED TO COMPLETE THE CONSTRUCTION INDICATED ON THE DRAWINGS. CONTRACTOR TO BE RESPONSIBLE FOR MINOR DEMOLITION AND ALTERATION WORK AS IS REQUIRED TO COMPLETE THE WORK.

B. EXECUTION

- DEMOLISH STRUCTURES IN A SAFE, ORDERLY MANNER, WHICH INCLUDES THE USE OF TEMPORARY SHORING AND BARRICADES IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS; AND PROTECT ALL ADJACENT STRUCTURES, UTILITIES AND SERVICES DURING DEMOLITION.
- ENSURE THAT STRUCTURAL ELEMENTS ARE NOT OVERLOADED AS A RESULT OF THE DEMOLITION WORK. SHORING, BRACING AND TEMPORARY SUPPORTS TO BE DESIGNED, INSTALLED AND MAINTAINED, AS REQUIRED TO MAINTAIN STRUCTURAL INTEGRITY.
- FOR DEMOLITION OF EXPOSED SURFACES (SURFACES EXPOSED ON COMPLETION OF WORK) OF CONCRETE, BREAK-OUT EDGES OF AREAS TO BE REMOVED ARE FIRST TO BE SAW CUT SO AS TO LEAVE STRAIGHT, CLEAN BREAK LINES AT EXPOSED SURFACES.
- DUST RESULTING FROM DEMOLITION TO BE CONTROLLED TO AVOID CREATION OF A NUISANCE IN THE

SURROUNDING AREA.

- THE USE OF EXPLOSIVES IS NOT PERMITTED. THE BURNING OF REFUSE AND DEBRIS ON THE PROJECT SITE IS NOT PERMITTED.
- DEMOLISHED MATERIALS TO BE PERIODICALLY DISPOSED OF OFFSITE UNLESS APPROVED OTHERWISE BY OWNER. PREVENT REFUSE AND DEBRIS FROM FALLING INTO THE RIVER. ANY DEBRIS OR REFUSE WHICH FALLS INTO THE RIVER TO BE REMOVED PROMPTLY.
- DEBRIS AND RUBBLE TO BE DISPOSED OF OFFSITE AT AN APPROVED DEMOLITION LANDFILL IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL LAWS.

3.0 CAST-IN-PLACE CONCRETE AND STEEL REINFORCING

A. GENERAL

- CONCRETE WORK TO BE IN GENERAL COMPLIANCE WITH THE FOLLOWING CODES AND SPECIFICATIONS:
 - ACI 318-14, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE.
- GENERAL MIX REQUIREMENTS: CONCRETE TO BE COMPOSED OF PORTLAND CEMENT, FLY ASH, AIR-ENTRAINING ADMIXTURE, COARSE AGGREGATE, FINE AGGREGATE, WATER AND ANTI-WASHOUT ADMIXTURE, AS APPLICABLE. MIX TO BE IN ACCORDANCE WITH ACI 318-14, EXPOSURE CATEGORIES F3, SO, W1, C2 AND SHALL BE BATCHED IN A MDOOT CERTIFIED PLANT IN ACCORDANCE WITH ASTM C94, UNLESS APPROVED OTHERWISE.

B. PRODUCTS

- REINFORCING BARS: ASTM A615, A616, A617 OR A706, GRADE 60. ALL REINFORCING BARS SHALL BE BENT COLD TO THE DIMENSIONS REQUIRED BEFORE PLACING. DIAMETER OF HOOKS AND BENDS SHALL BE AS SET FORTH IN ACI 315.
- CEMENT: ASTM C150, ASTM C595, OR ASTM C1157 FOR THE EXPOSURE CLASS REQUIREMENTS OF ACI 318, TABLES 19.3.1.1 AND 19.3.2.1..
- FLY ASH: ASTM C618, CLASS C OR F.
- COARSE AGGREGATES: ASTM C33, 3/4 MAXIMUM SIZE, GRADATION IN ACCORDANCE WITH MDOOT 6AAA, 6AA, 6A, 17A, 26A, OR APPROVED EQUAL.
- FINE AGGREGATES: TO ASTM C33, SAND, GRADATION IN ACCORDANCE WITH MDOOT 2NS.
- AIR ADMIXTURE AND CONTENT: TO ASTM C260, 6% ± 1.5%
- ADMIXTURES:
 - WATER REDUCING MIXTURE TO ASTM C494 AND SUPERPLASTICIZER AS REQUIRED.
 - ANTI-WASHOUT AGENT TO ASTM C494
- MAXIMUM WATER CEMENT RATIO: 0.40.
- 28 DAY COMPRESSIVE STRENGTH: 5000 PSL
- SLUMP: PER MIX DESIGN.
- CURING MATERIALS:
 - WATERPROOF PAPER (NON-STAINING): ASTM C171, REGULAR OR WHITE.
 - BURLAP: COMMERCIAL QUALITY AND NON-STAINING.
 - POLYETHYLENE SHEETING: ASTM C171 (4 MIL MINIMUM THICKNESS).
 - MEMBRANE CURING COMPOUND: ASTM C309, TYPE 1, CLASS A
 - OR APPROVED EQUAL
- PREMOLDED JOINT FILLER:
 - EXPANSION JOINTS: SHALL CONFORM TO THE REQUIREMENT OF ASTM D1751.
 - CONTRACTION JOINTS: SHALL BE A RESIN-IMPREGNATED FIBERBOARD CONFORMING TO THE PHYSICAL REQUIREMENTS OF ASTM D1752.
- BACKER ROD: CLOSED CELL POLYETHYLENE BACKER ROD MEETING THE REQUIREMENTS OF ASTM D 5249.
- JOINT SEALING COMPOUND: SHALL BE SIKAFLEX-2C SL FOR HORIZONTAL JOINTS AND SIKAFLEX-2C NS FOR VERTICAL JOINTS, OR APPROVED EQUALS. SEALANT SHALL BE PREPARED. JOINT SEALING COMPOUND SHALL ADHERE TO THE REQUIREMENT SET FORTH IN ACI 504R-90 AND PLACED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.
- REBAR EPOXY ADHESIVE: HILTI HIT-RE 500 V3.

C. SUBMITTALS

- MANUFACTURER'S DESCRIPTIVE LITERATURE AND PRODUCT SPECIFICATIONS FOR EACH PRODUCT.
- SHOP DRAWINGS:
 - STEEL REINFORCING.
 - EMBEDDED STEEL, INSERTS, ANCHOR BOLT AND ACCESSORIES LOCATIONS.
- BATCH PLANT QUALIFICATIONS:
 - PLANT'S NAME
 - ADDRESS
 - PHONE NUMBER
 - DISTANCE AND TRAVEL TIME TO SITE
- CONCRETE MIX DESIGN:
 - SUBMIT FOR EACH MIX AT LEAST 15 DAYS PRIOR TO START OF WORK
 - BASIS FOR MIX DESIGN (BY CONCRETE PRODUCTION FACILITY OR LABORATORY TRIAL MIXES).
 - IDENTIFICATION OF AGGREGATE SOURCE AND COMPLIANCE TO ASTM REQUIREMENTS.
 - COMPRESSIVE STRENGTH AT 28 DAYS.
 - BRAND, TYPE, AND AMOUNT OF CEMENTITIOUS MATERIAL IN MIX.
 - PROPORTIONS OF EACH MATERIAL REQUIRED PER CUBIC YARD.
 - DO NOT CHANGE MIX DESIGNS AND SUPPLIER UNLESS NEW BATCH PLANT QUALIFICATIONS AND MIX DESIGNS ARE SUBMITTED.
 - ONE SIGNED COPY OF THE DELIVERY TICKET IN ACCORDANCE WITH ASTM C94 FOR EACH BATCH OF CONCRETE DELIVERED.

D. EXECUTION

- NOTIFY THE OWNER OF SCHEDULED CONCRETE OPERATIONS AT LEAST 48 HOURS PRIOR TO THE TIME SUCH OPERATIONS ARE INITIATED. PROPER FACILITIES SHALL BE PROVIDED BY THE CONTRACTOR FOR THE OWNER TO INSPECT THE INGREDIENTS AND PROPORTIONING PROCESS. SAMPLES MAY BE TAKEN BY THE OWNER.

- ALL CONCRETE IS TO BE PLACED IN THE DRY UNLESS APPROVED OTHERWISE.
- PLACE CONCRETE IN ACCORDANCE WITH THE FOLLOWING DIMENSIONAL TOLERANCES:
 - REINFORCING SPACING: PLUS OR MINUS 1 INCH.
 - CLEAR CONCRETE COVER: AS NOTED ON DRAWINGS.
 - PLACE REINFORCING AT SPACING SPECIFIED, MEETING THE REQUIRED DIMENSIONAL TOLERANCES.
 - SET FORMWORK IN ACCORDANCE WITH SPECIFIED DIMENSIONS AND TOLERANCES. PREVENT FORMWORK FROM MOVING OR DEFLECTING DURING PLACEMENT OF CONCRETE.
 - BEFORE PLACING CONCRETE CLEAN FORMS AND REINFORCING STEEL AND REMOVE ALL SAWDUST, CHIPS, AND DEBRIS FROM THE INTERIOR.
 - INSTALL ALL CONCRETE AND ASSOCIATED WORK WITHIN THE TOLERANCES SPECIFIED IN ACI 117, UNLESS OTHERWISE NOTED ON THE DESIGN DRAWING.
 - PLACE CONCRETE IN ACCORDANCE WITH ACI 318. PLACE SUCCESSIVE LIFTS OF CONCRETE AS QUICKLY AS POSSIBLE TO ENSURE PROPER AMALGAMATION OF CONCRETE BETWEEN SUCCESSIVE LIFTS.
 - PLACE CONCRETE IN A MANNER TO AVOID MATERIAL SEGREGATION AND REINFORCEMENT DISPLACEMENT. DO NOT ALLOW CONCRETE TO FREEFALL MORE THAN 5 FEET.
 - CONSOLIDATE CONCRETE IN ACCORDANCE WITH ACI 318 PREVENTING THE FORMATION OF JOINTS, VOIDS, HONEYCOMBING OR SEGREGATION OF AGGREGATE. USE HIGH FREQUENCY VIBRATORS TO CONSOLIDATE THE CONCRETE WITHIN 15 MINUTES OF PLACEMENT. VIBRATORS ARE NOT TO BE USED DIRECTLY ON REINFORCING STEEL OR FORMWORK.
 - WHEN THE AMBIENT AIR TEMPERATURE IS BELOW 40 DEGREES F OR WHEN THERE IS A PROBABILITY THAT SUCH TEMPERATURE WILL OCCUR DURING THE 24 HOUR PERIOD AFTER PLACING, SPECIAL PROVISION SHALL BE TAKEN TO PROTECT THE CONCRETE, EXCEPT AS OTHERWISE SPECIFIED HEREIN, THE MIXING, PLACING AND PROTECTION TO BE IN ACCORDANCE WITH ACI 306R.
 - DURING TIMES OF HOT WEATHER PRODUCTION, DELIVERY, PLACEMENT AND PROTECTION OF CONCRETE TO BE IN ACCORDANCE WITH ACI 305R.
- FINISH:
 - UNFORMED SURFACES:
 - TOP OF SPILLWAY CREST, TOP OF TRASH GUTTER AT CORNER TO SPILLWAY BAY 1, TOP OF INTAKE PIER NOSES, TOP OF LEFT (NORTH ABUTMENT WALL): TROWEL.
 - INTAKE WALKWAY: BROOM.
 - FORMED SURFACES:
 - PATCH TIE HOLES, REPAIR SURFACE DEFECTS ACCORDING TO ACI 301.
 - ROUGH FORM FINISH OF CONCRETE NOT EXPOSED: CHIP OFF OR RUB OFF FINS EXCEEDING 1/2 INCH IN HEIGHT.
 - SMOOTH FORM FINISH OF EXPOSED CONCRETE: REMOVE FINS EXCEEDING 1/8 INCH IN HEIGHT.
 - REPAIR OF SURFACE DEFECTS: ACI 301.
 - SURFACE DEFECTS INCLUDE TIE HOLES, HONEYCOMBED AREAS, AND SPALLED AND PITTED AREAS RESULTING FROM CONCRETE STICKING TO THE FORMS.
 - FILL TIE HOLES WITH PATCHING MORTAR AFTER BEING CLEANED AND THOROUGHLY DAMPENED.
 - REPAIR OF SURFACE DEFECTS OTHER THAN TIE HOLES:
 - PROVIDE 1/2 INCH TO 3/4 INCH DEEP SAW CUT AROUND PERIMETER.
 - REMOVE UNSOUND CONCRETE.
 - DAMPEN PATCH AREA PLUS AN ADDITIONAL 6 INCHES BEYOND PERIMETER.
 - APPLY BONDING GROUT BY THOROUGHLY BRUSHING INTO SURFACE.
 - BONDING GROUT: ONE PART CEMENT, ONE PART FINE SAND WITH WATER TO CONSISTENCY OF THICK CREAM.
 - APPLY PATCHING MORTAR WHEN BOND COAT LOSES WATER SHEEN.
 - PATCHING MORTAR:
 - SAME MATERIALS AS CONCRETE TO BE PATCHED WITH NO COARSE AGGREGATE.
 - DO NO USE MORE THAN ONE PART CEMENT TO 2.5 PARTS SAND BY LOOSE VOLUME.
 - FOR EXPOSED SURFACES, MAKE TRIAL BATCH TO CHECK COLOR COMPATIBILITY WITH REPAIR SURFACE. SUBSTITUTE WHITE CEMENT IF COLOR IS TOO DARK.
 - USE MORTAR AT A STIFF CONSISTENCY. ADD NO MORE MIXING WATER THAN REQUIRED FOR HANDLING AND PLACING.
 - DO NOT USE PROPRIETARY COMPOUNDS FOR ADHESION OR AS PATCHING INGREDIENTS WITHOUT APPROVAL.
 - MATCH EXISTING CHAMFERS ON ALL EXPOSED EDGES. WHERE EXISTING IS NOT PRESENT ON EXPOSED EDGES PROVIDE 3/4 INCH CHAMFER.
 - FORMWORK TO REMAIN AFTER PLACING CONCRETE A MINIMUM OF 48 HOURS WITH AMBIENT TEMPERATURES ABOVE 50°F, UNLESS APPROVED OTHERWISE.
 - START CURING AS SOON AS FREE WATER HAS DISAPPEARED FROM UNFORMED SURFACES OR IMMEDIATELY AFTER FORMS ARE REMOVED.
 - ACCOMPLISH CURING AND PROTECTION BY PREVENTING LOSS OF MOISTURE, RAPID TEMPERATURE CHANGE, MECHANICAL INJURY, OR DAMAGE FROM RAIN, FROST OR FLOWING WATER FOR AT LEAST 7 DAYS. FORMED SURFACES MAY BE CURED BY LEAVING FORMS IN PLACE.
 - AS SOON AS FORMS ARE REMOVED, CAREFULLY EXAMINE ALL EXPOSED SURFACES. ALL IRREGULARITIES ARE TO BE IMMEDIATELY RUBBED OR GROUND IN A SATISFACTORY MANNER TO SECURE A SMOOTH, UNIFORM, AND CONTINUOUS SURFACE. PLASTERING OR COATING OF SURFACES TO BE SMOOTHED IS NOT BE PERMITTED. NO REPAIRS ARE TO BE MADE UNTIL AFTER INSPECTION BY OWNER. IN NO CASE WILL EXTENSIVE PATCHING OF HONEYCOMBED CONCRETE BE PERMITTED.
 - REPAIR ALL CONCRETE CONTAINING MINOR VOIDS, HOLES, HONEYCOMBING, OR SIMILAR DEPRESSIONS. REPAIR MATERIAL TO CONSIST OF AN EPOXY GROUT OR A PRE-MIX PRODUCT ACCEPTABLE TO OWNER.
 - CLEAN CONCRETE SURFACES AND INTERFACES BETWEEN NEW AND PREVIOUSLY HARDENED CONCRETE FREE OF LAITANCE AND THOROUGHLY ROUGHEN AND WET CONCRETE BEFORE PLACING NEW CONCRETE.
 - CURE CONCRETE ACCORDING TO THE REQUIREMENTS OF ACI 308. WET OR MOIST CURING IS THE PREFERRED METHOD OF CURING CONCRETE.
 - INSTALL SEALANTS AT JOINTS WITH FILLER AND BACKER ROD, AS INDICATED ON THE DRAWINGS. DEPTH OF THE JOINT SEALANT TO BE EQUAL TO 1/2 THE JOINT WIDTH UNLESS NOTED OTHERWISE.

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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MICHIGAN.

PRINTED NAME: CHRISTOPHER TOULOUSE

SIGNATURE: *Chris Toulouse*

DATE: 2/22/23 LICENSE # 60271

CLIENT	3/28/22	1/24/23							
CONSTRUCTION RECORD			2/22/23						
RELEASED TO/FOR	A	B	C	0	1	2	3		
DATE RELEASED									

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Scale	AS SHOWN
Date	2/22/23
Drawn	MJJ
Checked	TSH
Designed	CJT2
Approved	CJT2

CHARTER TOWNSHIP OF YPSILANTI
 YPSILANTI, MI

FORD LAKE DAM
 CONCRETE REPAIRS AND BULKHEAD PLACEMENT

BARR PROJECT No. 22810058.00
 CLIENT PROJECT No.

SPECIFICATIONS

DWG. No. S-01 REV. No. C



ISSUED FOR BID

E. TESTING AND INSPECTION

- CONTRACTOR TO HIRE AND COORDINATE AN INDEPENDENT THIRD PARTY FIRM FOR CONCRETE TESTING.
- COLLECT SAMPLES IN ACCORDANCE WITH ASTM C172. COLLECT SUFFICIENT SAMPLE VOLUME SO AS NOT TO REUSE CONCRETE BETWEEN TESTS.
- CAST A MINIMUM OF ONE SET OF SIX 6 INCH BY 12 INCH CYLINDERS OR NINE 4 INCH BY 8 INCH FOR EACH 20 CY, OR FRACTION OF EACH DAY'S POUR. PREPARE AND HANDLE CYLINDERS IN ACCORDANCE WITH ASTM C31.
- COMPRESSIVE STRENGTH TESTING TO ASTM C39. TEST TWO 6 INCH BY 12 INCH CYLINDERS OR THREE 4 INCH BY 8 INCH AT SEVEN DAYS, TWO 6 INCH BY 12 INCH CYLINDERS OR THREE 4 INCH BY 8 INCH AT 28 DAYS, AND HOLD REMAINING CYLINDERS FOR ADDITIONAL TESTING, IF REQUIRED. MOVE CAST CONCRETE CYLINDERS TO A LABORATORY BETWEEN 8 AND 48 HOURS OF BEING CAST IN THE FIELD. CONTRACTOR MAY, AT THEIR OWN COST, CAST AND TEST ADDITIONAL CYLINDERS AT 1 AND 3 DAYS TO OBTAIN INFORMATION REQUIRED TO VERIFY WHEN FORMS CAN BE REMOVED.
- PERFORM A MINIMUM OF ONE TEMPERATURE TEST PER TRUCK LOAD PER ASTM C1046. TARGET TEMPERATURE MUST BE WITHIN 50 DEGREES F TO 90 DEGREES F, UNLESS SPECIFIED OTHERWISE BY THE MIX DESIGN.
- PERFORM A MINIMUM OF ONE AIR ENTRAINMENT TEST PER TRUCK LOAD PER ASTM C233.
- PERFORM A MINIMUM OF ONE SLUMP TEST PER TRUCK LOAD PER ASTM C143.
- TEMPERATURE, SLUMP AND AIR ENTRAINMENT TESTS SHALL BE PERFORMED AT THE PLACING END OF HOSE IF A PUMP IS USED, UNLESS APPROVED OTHERWISE.
- IF ANY TARGETS ARE NOT MET, THE CONCRETE LOAD IS TO BE REJECTED AND NOT PLACED.
- COMPLETE FIELD TESTING PRIOR TO PREPARATION OF LABORATORY SAMPLES. WHEN THE AMBIENT AIR TEMPERATURE IS BELOW 40 DEGREES F OR WHEN THERE IS A PROBABILITY THAT SUCH TEMPERATURE WILL OCCUR DURING THE 24 HOUR PERIOD AFTER PLACING, SPECIAL PROVISIONS ARE TO BE TAKEN TO PROTECT THE CONCRETE FROM COLD WEATHER. THE MIXING, PLACING AND PROTECTION OF CONCRETE IS TO BE IN ACCORDANCE WITH ACI 306R, UNLESS NOTED OTHERWISE.

4.0 STRUCTURAL & MISCELLANEOUS STEEL

A. GENERAL

- DETAIL AND FABRICATE STRUCTURAL AND MISCELLANEOUS STEEL IN ACCORDANCE WITH AISC 360, CURRENT EDITION, "SPECIFICATION FOR STRUCTURAL STEEL BUILDING".

B. PRODUCTS

- MATERIAL PROPERTIES

STEEL PROPERTIES	Fy (PSI)	Fu (PSI)	ASTM
PLATES	50,000	65,000	A572 GR. 50
ANGLES	36,000	58,000	A36
RECTANGULAR HSS	50,000	62,000	A500 GR. C
WELDING ELECTRODES:	-	E70XX	A223

- GRATING TO BE GALVANIZED 19-W-4 WITH 1-1/4 x 3/16 INCH SERRATED BEARING BARS.

C. SUBMITTALS

- SHOP DRAWINGS FOR:
 - EMBEDDED STRUCTURAL STEEL.
 - DOWNSTREAM BULKHEAD.

D. EXECUTION

- ALL WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 USING CERTIFIED WELDERS AND QUALITY JOINT WELDING PROCEDURES USING ONLY E70XX LOW HYDROGEN. MINIMUM WELD SIZE SHALL BE 3/16 INCH, UNLESS NOTED OTHERWISE.

5.0 FIBERGLASS GRATING

A. GENERAL

- PROVIDE, FABRICATE AND INSTALL FIBERGLASS GRATING AT POWERHOUSE INTAKE WALKWAY AREA AS OUTLINED IN THE DRAWINGS.
- FIBERGLASS GRATING IS TO BE REMOVABLE IN MAXIMUM 3'-0" SECTIONS TO ALLOW FOR OPERATOR ACCESS TO AREAS BELOW GRATING.
- STOP BAY, WELDED TO STEEL EDGE ANGLE FOR GRATING STOPS. PROVIDE END STOPS AT ENDS OF GRATING SECTIONS.

B. PRODUCTS

- GRATING TO BE PULTRUDED, I-BAR, MS-I-6015 - DURAGRID, FIBERGLASS, SPF POLYESTER RESIN, YELLOW, WITH 1.5" HEIGHT x 0.6" TOP FLANGE WIDTH I-BAR, MEDIUM GRIT SURFACE, 60% OPEN AREA BY MCNICHOLS GRATING OR APPROVED EQUAL.

C. SUBMITTALS

- SHOP DRAWINGS FOR:
 - GRATING OVER TRASH GUTTER AND STOPLOG SLOT

D. EXECUTION

- GRATING TO BE FABRICATED AND INSTALLED IN MAXIMUM 3'-0" REMOVABLE PANELS.
- PROVIDE STOP BARS WELDED TO EDGE ANGLES FOR EACH GRATING SECTION AND AT ENDS TO KEEP GRATING IN PLACE.

6.0 COATINGS

A. GENERAL

- DOWNSTREAM BULKHEADS SHALL BE PAINTED WITH TWO COATS OF SHERWIN WILLIAMS MACROPOXY 646 EPOXY MASTIC COATING.

B. SUBMITTALS

- PRODUCT DATA:
 - SUBMIT MANUFACTURER'S PRODUCT DATA SHEETS FOR EACH PROPOSED PRODUCT.
 - SUBMIT MANUFACTURER'S MATERIAL SAFETY DATA SHEETS FOR EACH PROPOSED PRODUCT BROUGHT ONTO THE OWNER'S PROPERTY.
- WORK PLAN:
 - SUBMIT WORK PLAN FOR EACH PROPOSED COATING SYSTEM.
 - INCLUDE INFORMATION SUCH AS, BUT NOT LIMITED TO, SURFACE PREPARATION, BLAST PROFILE, ENVIRONMENTAL CONDITIONS DURING APPLICATION AND CURE, PLANNED TESTING AND INSPECTION AND LAYER COLORING.
- QUALITY CONTROL DOCUMENTATION, INSPECTION AND TESTING RESULTS.

C. PRODUCTS

- SHERWIN WILLIAMS MACROPOXY 646
- COMPRESSED AIR: DRY AND CLEAN PER ASTM D425 FOR ABRASIVE BLAST CLEANING, AIR BLAST CLEANING, AND COATING APPLICATION OPERATIONS.
- BLAST CLEANING ABRASIVES:
 - DRY AND FREE OF OIL, GREASE, AND OTHER CONTAMINANTS PER ASTM D7393 VIAL TEST
 - CONDUCTIVITY LOWER THAN 1,000 us/cm

D. EXECUTION

- SURFACE PREPARATION: IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS FOR IMMERSION SERVICE, SSPC-SP10
- DUST: NONE REMAINING AFTER BLASTING.
- SURFACE IMPERFECTIONS: CORRECT AFTER BLASTING AS NEEDED TO MEET SURFACE PREPARATION STANDARDS.
- FLASH RUST: REMOVE IF USING WET BLAST METHODS.
- COATINGS: MIX AND THIN ACCORDING TO MANUFACTURER'S RECOMMENDATION.
- APPLICATION METHODS, EQUIPMENT, AND SPREADING RATE: AS RECOMMENDED BY MANUFACTURER.
- WORKMANSHIP: UNIFORM APPLICATION WITH CONSISTENT SHEEN AND WITHOUT RUNS, DRIPS, SAGS, HOLIDAYS, OR BRUSH MARKS.
- ENVIRONMENTAL CONDITIONS: PER MANUFACTURER DURING APPLICATION AND THROUGHOUT CURE PERIOD.
- CURE PERIOD: PER MANUFACTURER.
- INSPECT: COATED SURFACE JUST PRIOR TO APPLICATION OF SUCCESSIVE COATING LAYERS.
- STRIP COAT: WELDS, CREVICES, AND SHARP ANGLES PRIOR TO COATING APPLICATION.
- SAFETY: FOLLOW ALL OWNER, MANUFACTURER, LOCAL, STATE AND FEDERAL REQUIREMENTS FOR WORKER AND ENVIRONMENTAL SAFETY.
- DEFECTS: CORRECT AT NO ADDITIONAL COST TO OWNER.

E. TESTING AND INSPECTION

- SURFACE PREPARATION: INSPECT FOR CONFORMANCE TO PROJECT REQUIREMENTS.
- DRY FILM THICKNESS: INSPECT FOR CONFORMANCE TO PROJECT REQUIREMENTS.

7.0 CONTROL OF WATER

A. GENERAL

- KEEP WATER BELOW THE WORK EXTENTS TO ALLOW FOR WORKING IN THE DRY AND NOT TO NEGATIVELY IMPACT THE WORK.
- MAINTAIN ADEQUATE STAND-BY EQUIPMENT AND BACKUP SYSTEMS AT ALL TIMES FOR DEWATERING ACTIVITIES.
- OWNER HAS OBTAINED MDEQ PART 31 AND 301 PERMITS, WHICH INCLUDED DEWATERING OF THE SLUICWAYS AND DISCHARGE INTO THE RIVER. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY ADDITIONAL PERMITS AS NECESSARY TO ACCOMPLISH THE WORK.
- CONSTRUCT ALL PERMANENT WORK IN AREAS FREE FROM PONDING AND RUNNING WATER.

B. SUBMITTALS

- SUBMIT COFFERDAM PLAN, INDICATING DETAILS OF CONSTRUCTION, ATTACHMENT, REPAIR OF ANCHOR LOCATIONS, AND ANTICIPATED DURATION.
- SUBMIT DEWATERING PLAN FOR DEWATERING COFFERDAM AND SLUICWAYS.
- SUBMIT PLAN FOR UPSTREAM AND DOWNSTREAM BULKHEAD PLACEMENT AND SEALING, INCLUDING ANTICIPATED METHODS OF SEALING AND DURATION OF ACTIVITIES.

8.0 CONTROL OF TRAFFIC

A. GENERAL

- CONTRACTOR IS RESPONSIBLE FOR ALL WORK ASSOCIATED WITH CONTROL OF TRAFFIC, INCLUDING OBTAINING ALL ROAD CLOSURES, PERMITS, APPROVALS, TRAFFIC CONTROL PLANS, SIGNEAGE, ETC. OWNER WILL NOT PROVIDE.



9.0 SITE RESTORATION

A. GENERAL

- RESTORE/REPLACE ALL DAMAGED OR REMOVED ITEMS TO PRE-CONSTRUCTION CONDITION AS APPLICABLE. ITEMS INCLUDE SIGNS, FENCING, SIDEWALK, GARBAGE CONTAINERS, AND OTHER MISCELLANEOUS ITEMS.
- RESTORE ALL DISTURBED AREAS DUE TO CONSTRUCTION ACTIVITIES TO AS FOUND CONDITIONS.
- ITEMS TO BE RESTORED TO SATISFACTION OF OWNER.
- CLEANUP THE ENTIRE AREA AROUND CONSTRUCTION OPERATIONS AND RESTORE TO ITS ORIGINAL CONDITION. THIS WORK SHALL INCLUDE REPLACEMENT OF TURF AND CONCRETE, ASPHALT, OR GRAVEL PATHS DAMAGED BY CONTRACTOR'S OPERATIONS OR LAYDOWN AREA.
- REMOVE ALL SIGNS OF CONSTRUCTION INCLUDING EQUIPMENT, TRAILERS, SIGNS, BARRICADES, FENCES, TEMPORARY UTILITIES, AND OTHER CONSTRUCTION ITEMS.

10.0 QUALITY ASSURANCE - QUALITY CONTROL

A. GENERAL

- PROVIDE A QUALITY ASSURANCE AND QUALITY CONTROL PLAN FOR ACCOMPLISHING THE WORK.
- REVIEW ALL SUBMITTALS, INCLUDING SHOP DRAWINGS, FOR ACCURACY PRIOR TO SUBMITTING FOR OWNER REVIEW.
- OWNER OR ENGINEER WILL REVIEW AND/OR APPROVE ALL CONTRACTOR SHOP DRAWINGS AND SUBMITTALS. ALL CONTRACTOR SHOP DRAWINGS AND SUBMITTALS MUST BE SUBMITTED TO THE OWNER FOR REVIEW A MINIMUM OF 14 CALENDAR DAYS PRIOR TO USE OR INITIATION OF WORK IN THE FIELD. CONSTRUCTION MAY NOT PROCEED WITHOUT WRITTEN APPROVAL BY THE OWNER.
- PROVIDE A WRITTEN PLAN FOR QUALITY ASSURANCE AND QUALITY CONTROL. PLAN TO INCLUDE ALL QUALITY CONTROL PROCEDURES, VERIFICATION, AND TESTING UTILIZED FOR THE PROJECT. SUBMIT WITHIN 4 WEEKS OF AWARD.
- PROVIDE A QUALIFIED SUPERINTENDENT AND/OR FIELD ENGINEER WHO WILL BE THE POINT OF CONTACT FOR AND RESPONSIBLE FOR CONTRACTOR QUALITY ASSURANCE AND QUALITY CONTROL.

B. SUBMITTALS

- QUALITY ASSURANCE AND QUALITY CONTROL PLAN. SUBMIT WITHIN 4 WEEKS OF AWARD.

SUBMITTAL LIST	
SECTION	SUBMITTAL
1.0	1.E.1 HIGH LEVEL WORK PLAN (WITH BID) 1.E.2 DETAILED WORK PLAN 1.E.3 DETAILED SCHEDULE AND PROPOSED SEQUENCE CONSTRUCTION SEQUENCE
2.0	-
3.0	3.C.1 MANUFACTURER'S LITERATURE AND PRODUCT SPECIFICATIONS FOR EACH PRODUCT 3.C.2.1 REINFORCED CONCRETE REBAR SHOP DRAWINGS 3.C.2.2 EMBEDDED STEEL, INSERTS, ANCHOR BOLTS AND ACCESSORIES LOCATIONS 3.C.2.3 BATCH PLANT QUALIFICATIONS 3.C.4 CONCRETE MIX DESIGN
4.0	4.C.1.1 SHOP DRAWINGS FOR EMBEDDED STRUCTURAL STEEL 4.C.1.2 SHOP DRAWINGS FOR DOWNSTREAM BULKHEAD
5.0	5.C.1.1 SHOP DRAWINGS FOR FIBERGLASS GRATING
6.0	6.B.1.1 COATING MANUFACTURER'S PRODUCT DATA SHEETS 6.B.1.2 COATING MANUFACTURER'S MATERIAL SAFETY DATA SHEETS 6.B.2 WORK PLAN FOR COATING SYSTEM 6.B.3 QUALITY CONTROL DOCUMENTATION, INSPECTION AND TEST RESULTS FOR COATING SYSTEM
7.0	7.B.1 COFFERDAM PLAN 7.B.2 DEWATERING PLAN 7.B.3 BULKHEAD PLACEMENT AND SEALING PLAN
8.0	-
9.0	-
10.0	10.B.1 QUALITY ASSURANCE AND QUALITY CONTROL PLAN
DRAWING S-08	NOTE 3 - UPSTREAM BULKHEAD SEALS AND ATTACHMENT METHOD

CADD USER: CHRIS J. TOULOUSE FILE: P:\ANN ARBOR\22 MI812281058 FORD LAKE DAM GENERAL SERVICES\WORKFILES\22\22\CONCRETE REPAIR AND GATE INSPECTION\DRAWINGS\2281058600_S-02_SPECIFICATIONS.DWG PLOT SCALE: 1:2 PLOT DATE: 2/22/23 3:17 PM

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION
C	CJT2	TSH	CJT2	2/22/23	BID
B	CJT2	TSH	CJT2	1/24/23	REVIEW
A	CJT2	TSH	CJT2	3/28/22	REVIEW

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MICHIGAN.

PRINTED NAME: CHRISTOPHER TOULOUSE
SIGNATURE: *Chris Toulose*
DATE: 2/22/23 LICENSE #: 60271

CLIENT BID	3/28/22	1/24/23					
CONSTRUCTION RECORD		2/22/23					
RELEASED TO/FOR	A	B	C	0	1	2	3
	DATE RELEASED						

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Scale	AS SHOWN
Date	2/22/23
Drawn	MJJ
Checked	TSH
Designed	CJT2
Approved	CJT2

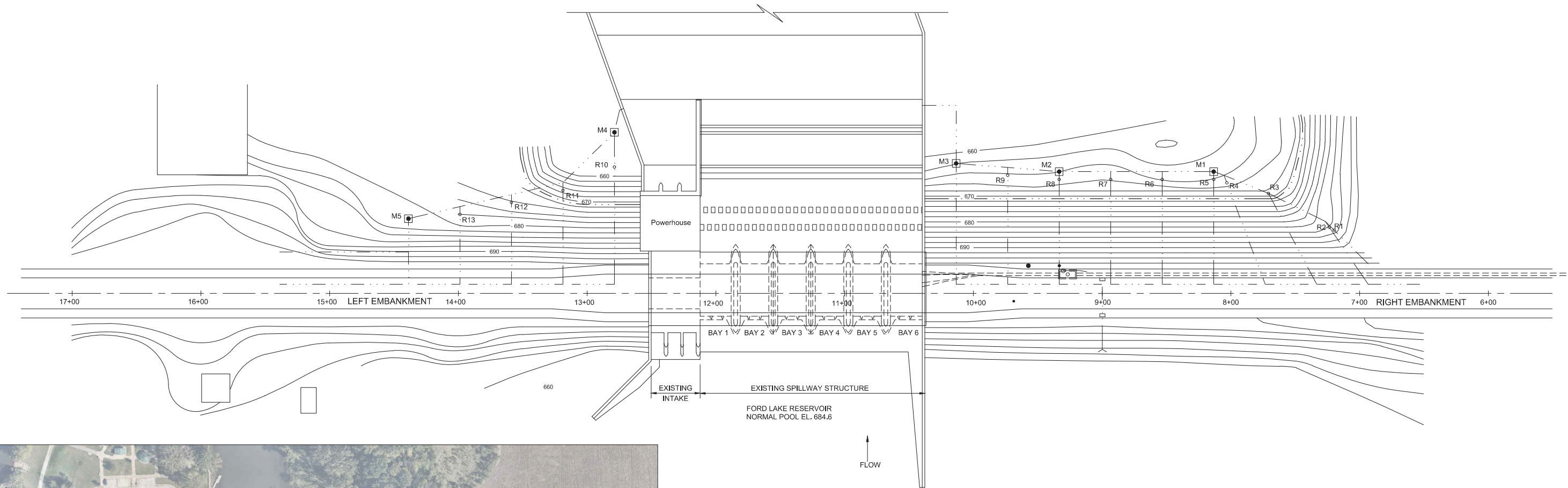
CHARTER TOWNSHIP OF YPSILANTI
YPSILANTI, MI

FORD LAKE DAM
CONCRETE REPAIRS AND BULKHEAD PLACEMENT

SPECIFICATIONS

BARR PROJECT No. 22810058.00
CLIENT PROJECT No.
DWG. No. S-02
REV. No. C

ISSUED FOR BID



1 PLAN: FORD LAKE DAM
 0 40 80
 SCALE IN FEET

2 PLAN: STAGING AREA

ISSUED FOR BID

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION
C	CJT2	TSH	CJT2	2/22/23	BID
B	CJT2	TSH	CJT2	1/24/23	REVIEW
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 DATE: 2/22/23 LICENSE #: 60271

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BID			2/22/23				
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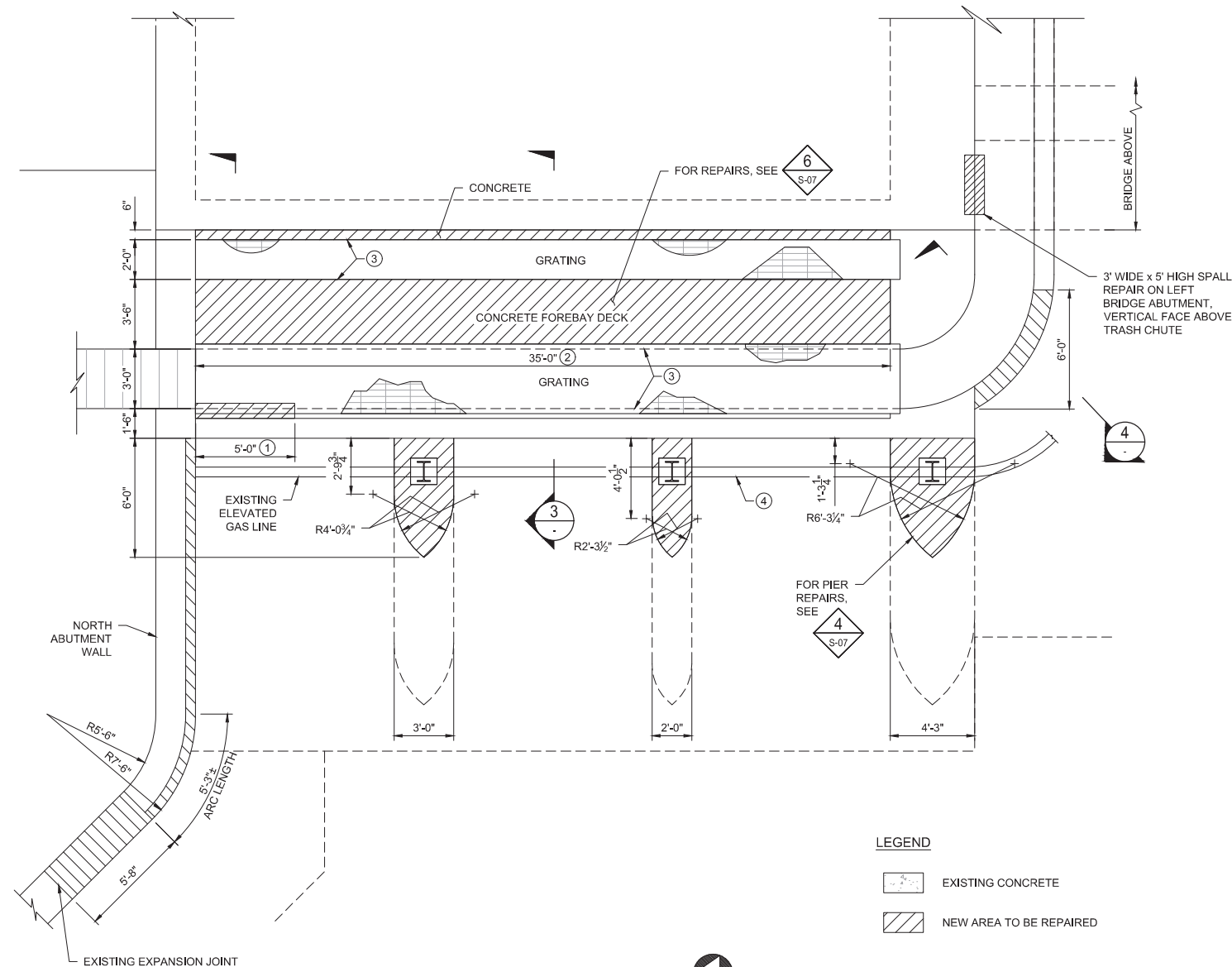
Scale	AS SHOWN
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Approved	CJT2

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 YPSILANTI, MI

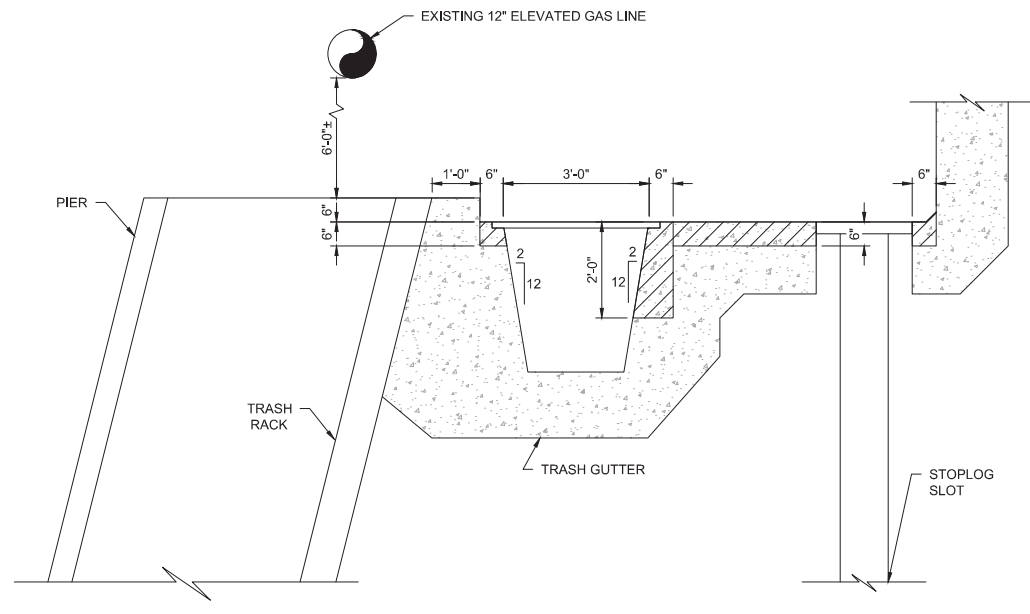
FORD LAKE DAM
 CONCRETE REPAIRS AND BULKHEAD PLACEMENT
 OVERALL PLAN

BARR PROJECT No.	22810058.00
CLIENT PROJECT No.	
DWG. No.	S-03
REV. No.	C

CADD USER: CHRIS J. TOULOUSE FILE: C:\USERS\CHRIS\DRAWINGS\FORD LAKE\DRAWINGS\2281005800_S-03_OVERALL PLAN.DWG PLOT SCALE: 1:2 PLOT DATE: 2/22/2023 3:45 PM

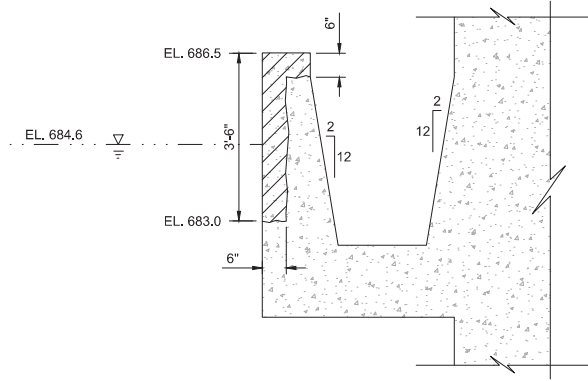


1 PLAN: INTAKE
0 1 2 3 4 5 SCALE

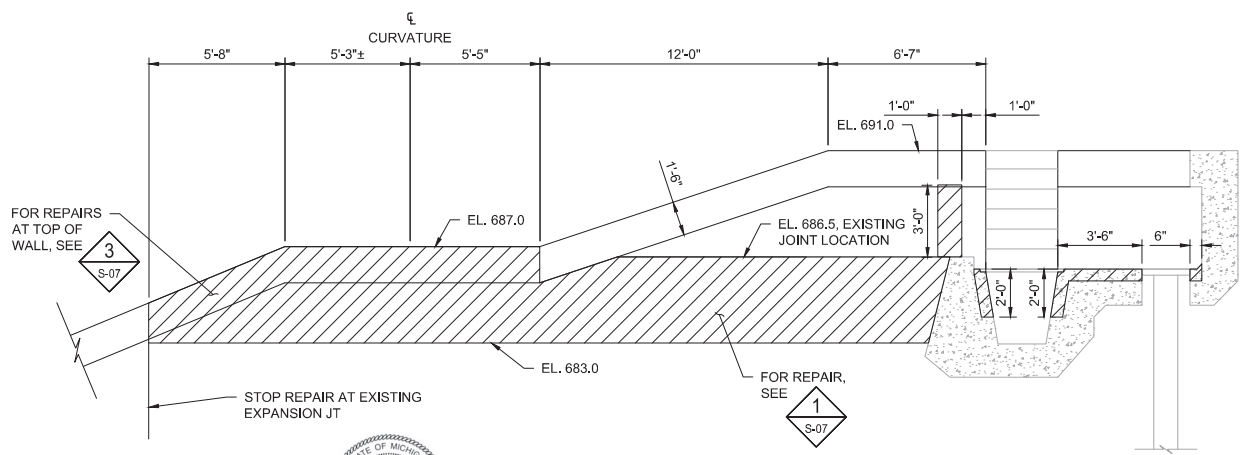


3 SECTION: FOREBAY DECK
0 1 2 3 4 5 SCALE

LEGEND
 EXISTING CONCRETE
 NEW AREA TO BE REPAIRED



4 SECTION: TRASH GUTTER
0 1 2 3 4 5 SCALE



2 SECTION: NORTH ABUTMENT WALL
0 1 2 3 4 5 SCALE

- NOTES:
- 1 EXTEND REPAIR HEIGHT TO 2'-0" FOR UPSTREAM LEFT (NORTH) END FIRST 5'-0"
 - 2 REPAIR DOWNSTREAM FACE OF TRASH GUTTER FOR TOP 2'-0" IN HEIGHT FULL WIDTH OF INTAKE DECK.
 - 3 REPLACE TRASH GUTTER AND STOPLOG SLOT GRATING WITH NEW FIBERGLASS GRATING AND UPSTREAM AND DOWNSTREAM GRATING EDGE ANGLES FULL LENGTH. GRATING TO BE REMOVEABLE IN MAX 3'-0" WIDE PANELS. WELD 3/4" x 1" KEEPER BARS TO EMBEDDED ANGLES AS GRATING STOPS, AND AT ENDS.
 - 4 EXISTING ELEVATED GAS LINE. PROVIDE AND INSTALL TEMPORARY SUPPORT AS REQUIRED TO ACCOMPLISH THE WORK. DO NOT EXCEED EXISTING SPAN LENGTHS FOR SUPPORTS

ISSUED FOR BID

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B	CJT2	TSH	CJT2	1/24/23	REVIEW
A	CJT2	TSH	CJT2	3/28/22	REVIEW

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MICHIGAN.

PRINTED NAME: CHRISTOPHER TOULOUSE
 SIGNATURE: *Chris Toulouse*
 DATE: 2/22/23 LICENSE # 60271

CLIENT	BID	CONSTRUCTION	RECORD
3/28/22	1/24/23	2/22/23	

RELEASED TO/FOR	A	B	C	0	1	2	3

Project Office:
BARR ENGINEERING CO.
 3005 BOARDWALK STREET
 SUITE 100
 ANN ARBOR, MI 48108

Corporate Headquarters:
 Minneapolis, Minnesota
 Ph: 1-800-270-5017
 Fax: (732) 922-4401
 www.barr.com

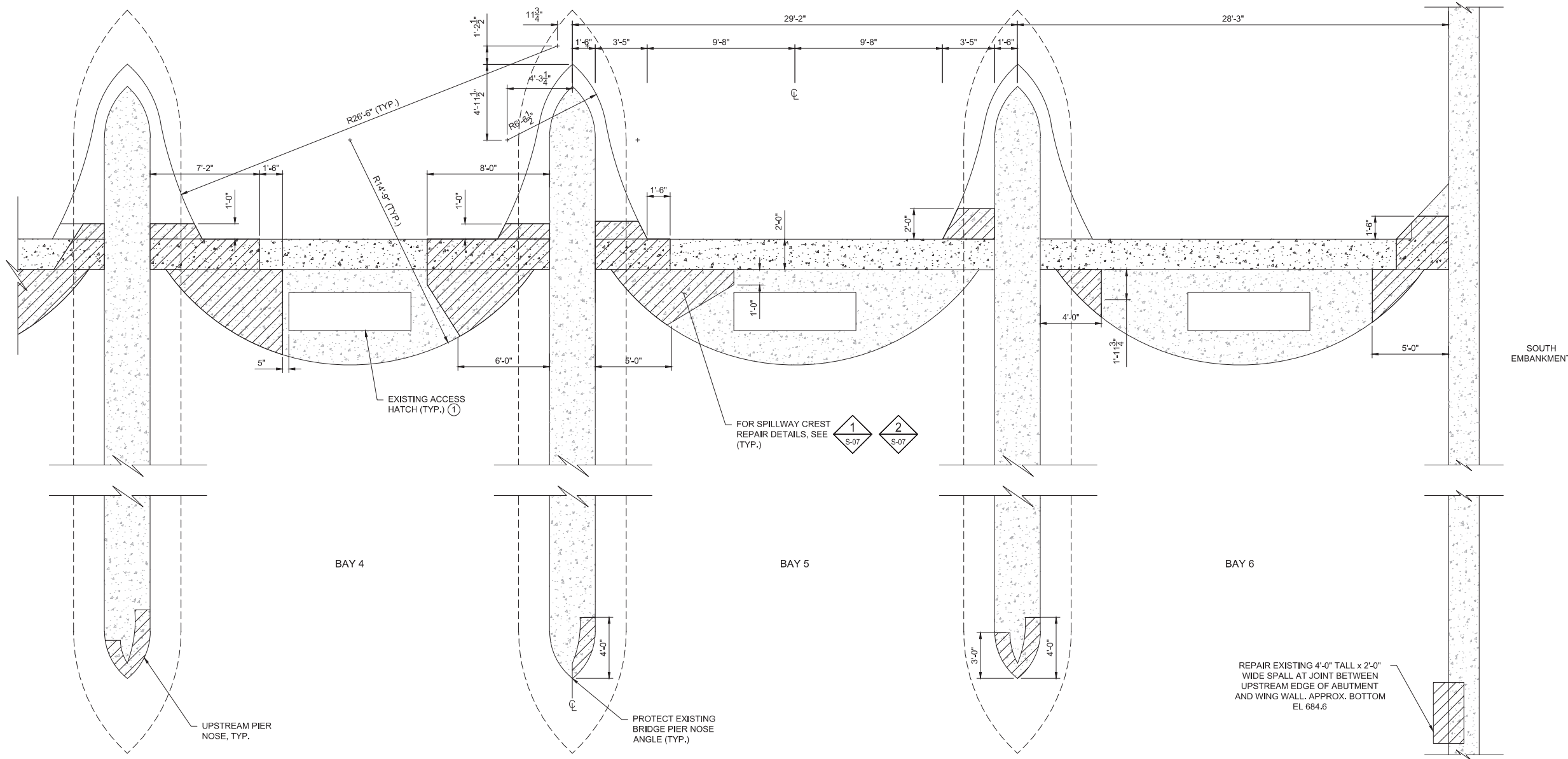
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Date	2/22/23
Drawn	MJJ
Checked	TSH
Designed	CJT2
Approved	CJT2

CHARTER TOWNSHIP OF YPSILANTI
 YPSILANTI, MI

FORD LAKE DAM
 CONCRETE REPAIRS AND BULKHEAD PLACEMENT

INTAKE PLAN

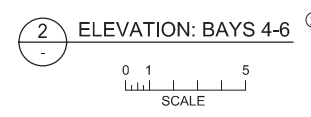
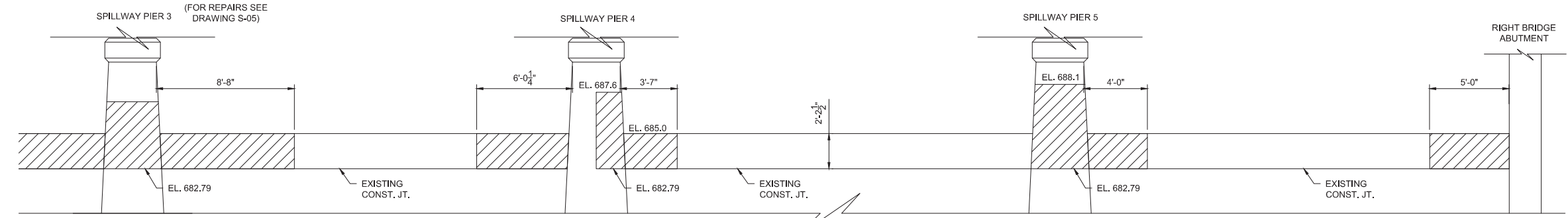
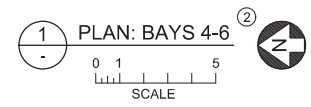
BARR PROJECT No. 22810058.00	
CLIENT PROJECT No.	
DWG. No. S-04	REV. No. C



LEGEND

- EXISTING CONCRETE
- AREA REPAIRED IN 2002
- NEW AREA TO BE REPAIRED

- NOTES:**
- ① 2'-6" x 8'-0" OPENING WITH HATCH AND FRAME. OUT TO OUT OF FRAME 3'-2" x 8'-8". SEE REFERENCE SHEET NO. 216 FOR DETAILS.
 - ② BRIDGE ABOVE NOT SHOWN FOR CLARITY.
 - ③ MAINTAIN GEOMETRY OF EXISTING STRUCTURES.



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B	CJT2	TSH	CJT2	1/24/23	REVIEW
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PRINTED NAME: CHRISTOPHER TOULOUSE
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 DATE: 2/22/23 LICENSE #: 60271

CLIENT	3/28/22	1/24/23					
BID		2/22/23					
CONSTRUCTION RECORD							
RELEASED TO/FOR	A	B	C	0	1	2	3
DATE RELEASED							

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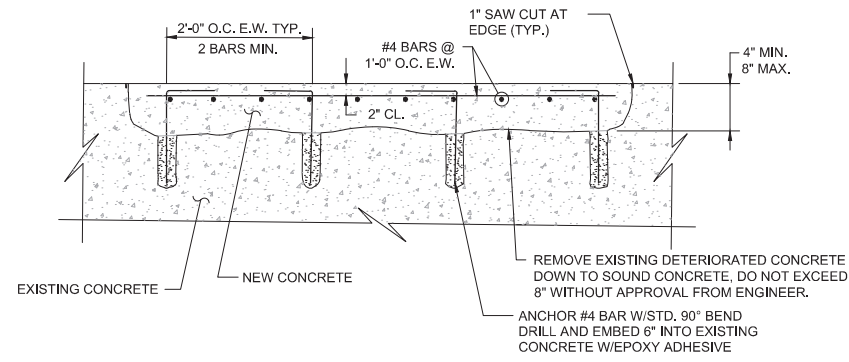
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Drawn	MJJ
Checked	TSH
Designed	CJT2
Approved	CJT2

CHARTER TOWNSHIP OF YPSILANTI
 YPSILANTI, MI

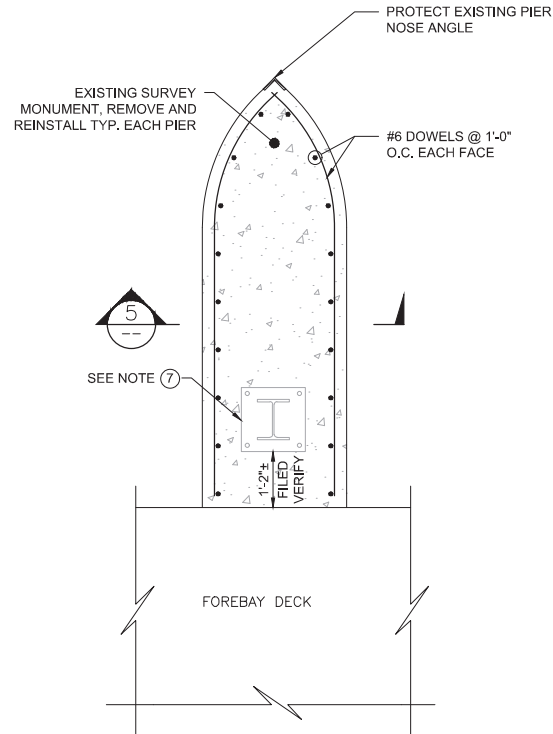
FORD LAKE DAM
 CONCRETE REPAIRS AND BULKHEAD PLACEMENT

SPILLWAY PLAN & ELEVATION
 BAYS 4-6

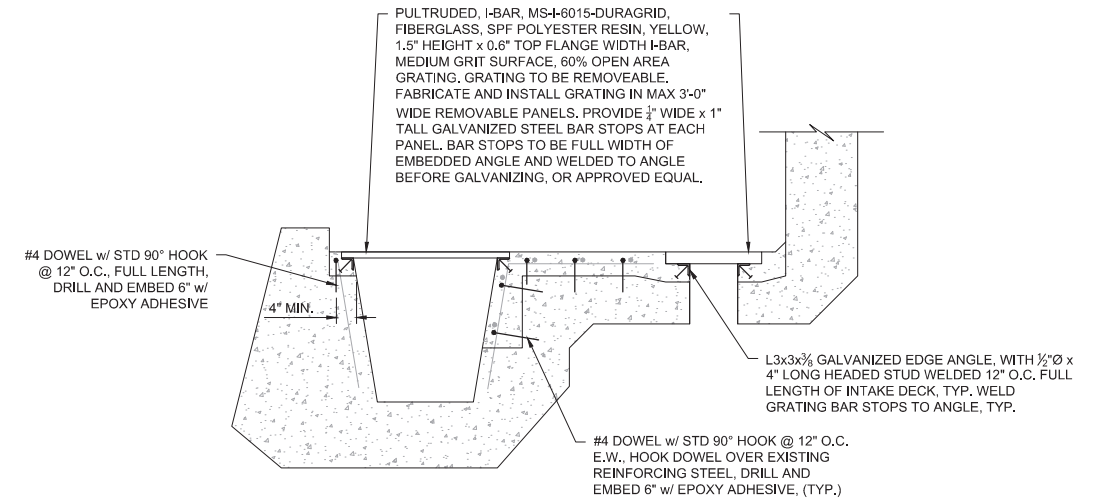
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CLIENT PROJECT No.	
DWG. No. S-06	REV. No. C



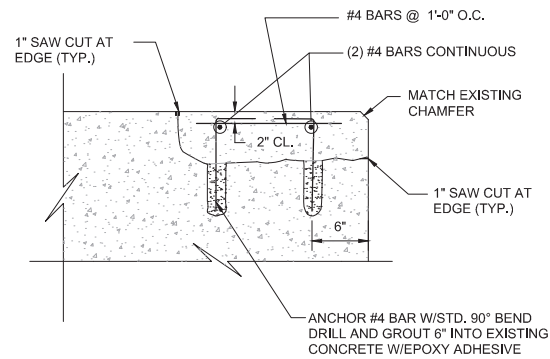
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S-05 NO SCALE



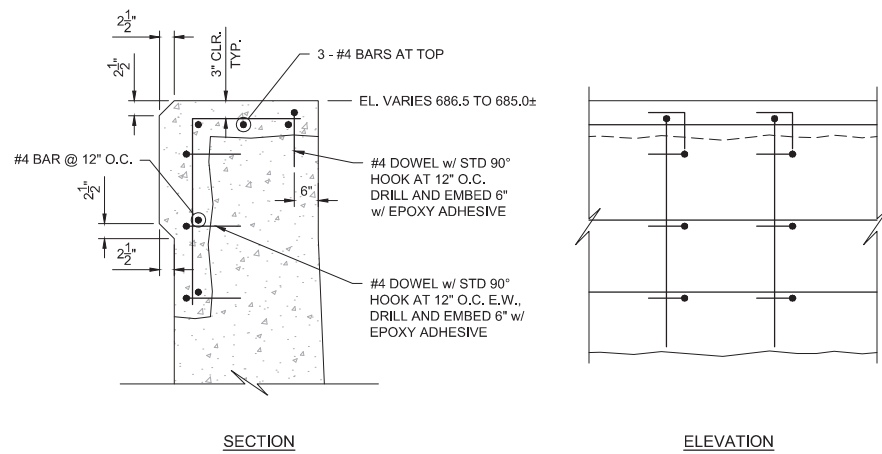
4 DETAIL: INTAKE PIER REPAIRS (4) (5) (6) (7)
S-05 SCALE 0 1 2 3 4 5



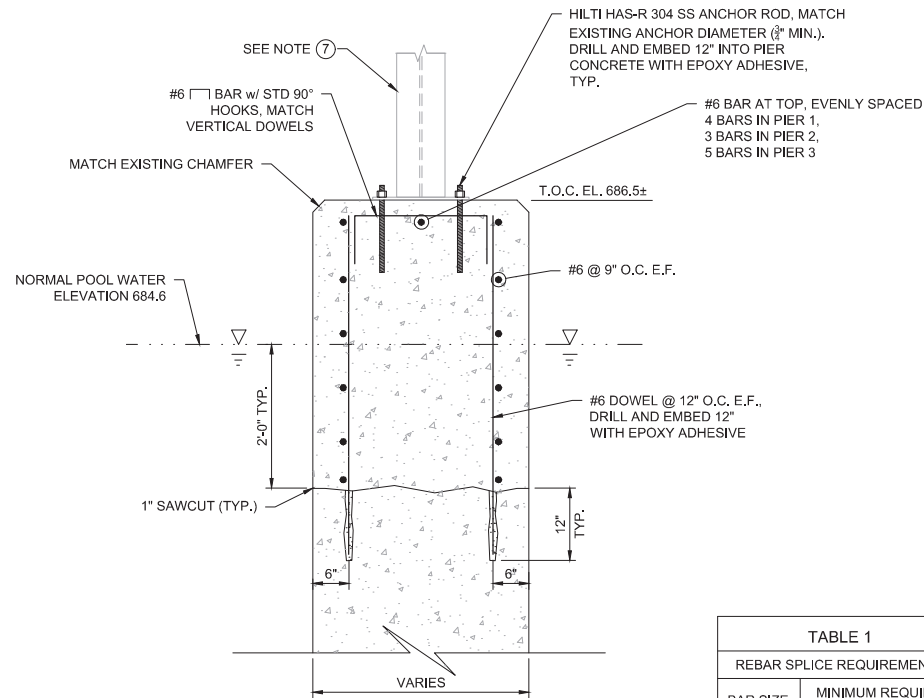
6 DETAIL: TRASH GUTTER REPAIR (2) (4)
SCALE 0 1 2 3 4 5



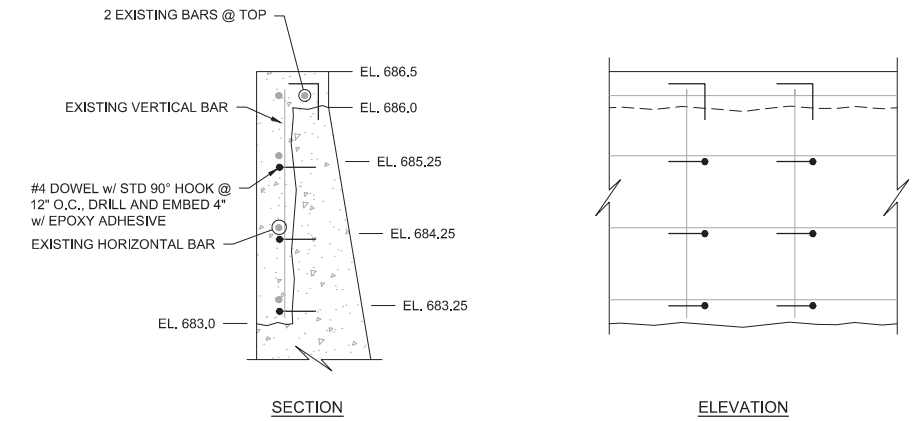
2 DETAIL: SURFACE REPAIR NEAR EDGE (2) (4)
S-05 NO SCALE



3 DETAIL: NORTH ABUTMENT REPAIR (2) (4) (6)
SCALE 0 1 2 3



5 SECTION: INTAKE PIER REPAIR (4) (7)
SCALE 0 1 2 3



7 DETAIL: TRASH GUTTER REPAIR AT CORNER (2) (4)
SCALE 0 1 2 3

NOTES:

- CONSTRUCTION OF COFFERDAM FOR LOCALIZED DEWATERING IS REQUIRED TO PERFORM THE REPAIR WORK. CONTRACTOR IS RESPONSIBLE FOR COFFERDAM DESIGN, CONSTRUCTION AND DEWATERING TO ACCOMPLISH THE WORK. COFFERDAM IS TO BE A BASKET STYLE COFFERDAM AND MAY NOT EXTEND DOWN TO RIVER SEDIMENT UNLESS APPROVED OTHERWISE. CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL COFFERDAM COMPONENTS AND REPAIRING ALL ANCHOR HOLES.
- PROTECT EXISTING REINFORCING STEEL. DO NOT CUT.
- PROTECT EXISTING NOSE ANGLE AT SPILLWAY PIERS.
- REPAIRS TO MATCH EXISTING STRUCTURE GEOMETRY.
- TOP REINFORCEMENT NOT SHOWN FOR CLARITY.
- REMOVE AND REINSTALL EXISTING BENCHMARKS OR SURVEY MONUMENTS AT SAME ELEVATIONS.
- EXISTING ELEVATED GAS LINE SUPPORT. TEMPORARY SUPPORT GAS LINE, REMOVE EXISTING SUPPORT. PROTECT AND REINSTALL WITH NEW POST-INSTALLED ANCHORS AFTER PIER REPAIRS ARE COMPLETE. PROVIDE NON-SHRINK, NON-METALLIC GROUT, WITH MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI AS NECESSARY, TYP. ALL POWERHOUSE INTAKE PIERS.

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BAR SIZE	MINIMUM REQUIRED LAP SPLICE LENGTH
#4	32"
#5	40"
#6	48"

CADD USER: CHRIS J. TOULOUSE FILE: C:\USERS\JTOULOUSE\DRAWINGS\FORD LAKE\DRAWINGS\2281005800_S-07_CONCRETE REPAIRS.DWG PLOT SCALE: 1:2 PLOT DATE: 2/22/2023 1:50 PM

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B	CJT2	TSH	CJT2	1/24/23	REVIEW
A	CJT2	TSH	CJT2	3/28/22	REVIEW

CLIENT	BID	CONSTRUCTION RECORD	RELEASED TO/FOR	DATE RELEASED
BARR ENGINEERING CO.	3/28/22	1/24/23	A B C 0 1 2 3	2/22/23

Project Office:
BARR ENGINEERING CO.
3005 BOARDWALK STREET
SUITE 100
ANN ARBOR, MI 48108

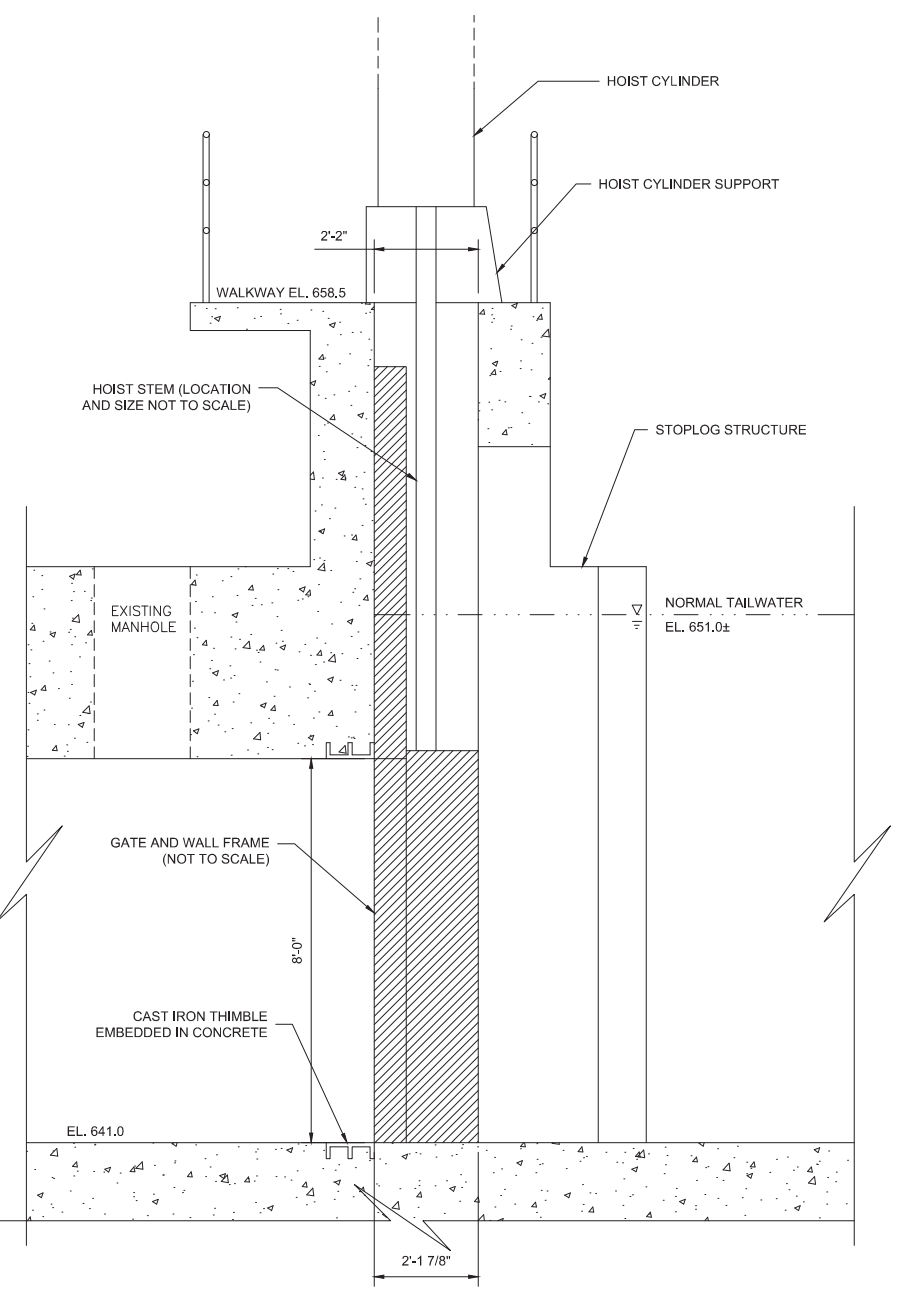
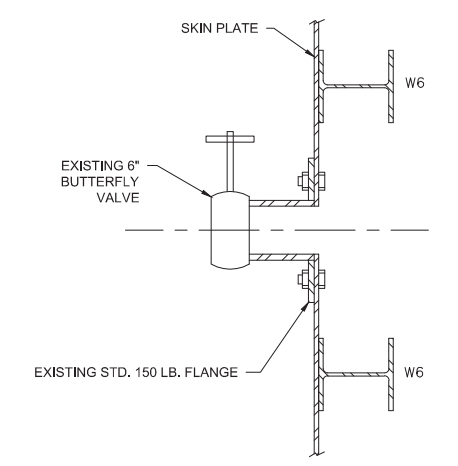
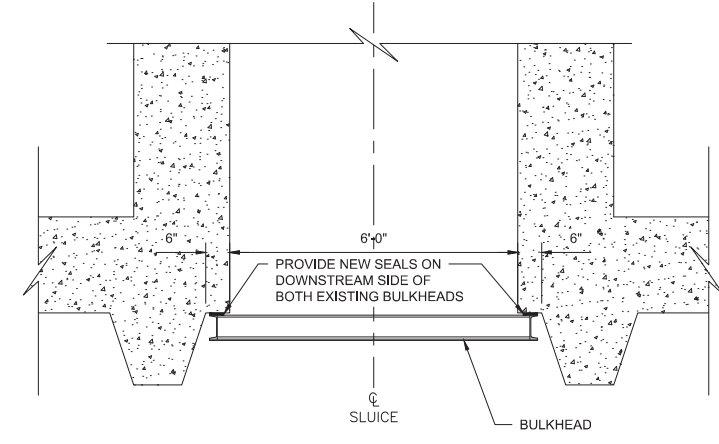
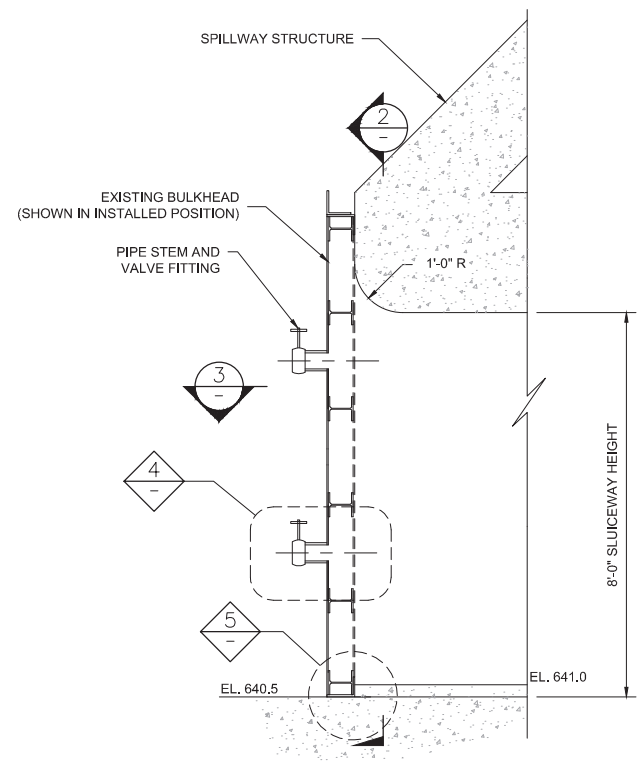
Corporate Headquarters:
Minneapolis, Minnesota
Ph: 1-800-270-5017
Fax: (732) 922-4401
www.barr.com

Scale	AS SHOWN
Date	2/22/23
Drawn	MJJ
Checked	TSH
Designed	CJT2
Approved	CJT2

CHARTER TOWNSHIP OF YPSILANTI
YPSILANTI, MI

FORD LAKE DAM
CONCRETE REPAIRS AND BULKHEAD PLACEMENT
SPILLWAY AND INTAKE
CONCRETE REPAIRS

BARR PROJECT No. 22810058.00	CLIENT PROJECT No.
DWG. No. S-07	REV. No. C

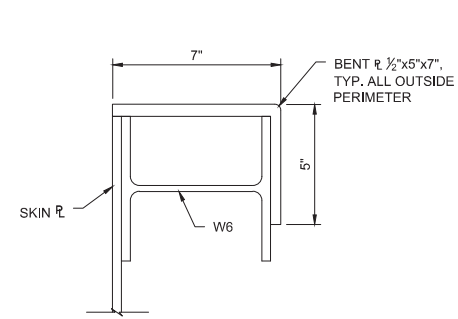
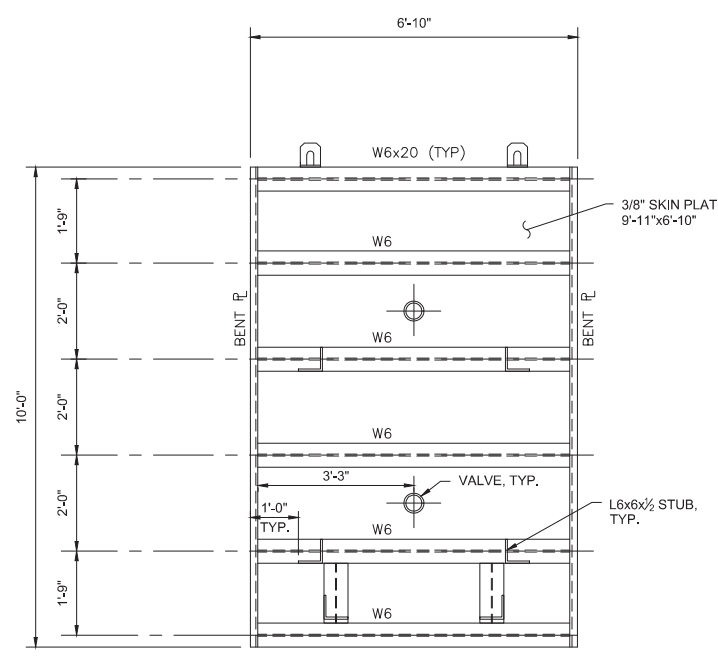


1 DETAIL: EXISTING SLUICeway UPSTREAM BULKHEAD (2 EXISTING)
SCALE: 0 1 2 3 4 5

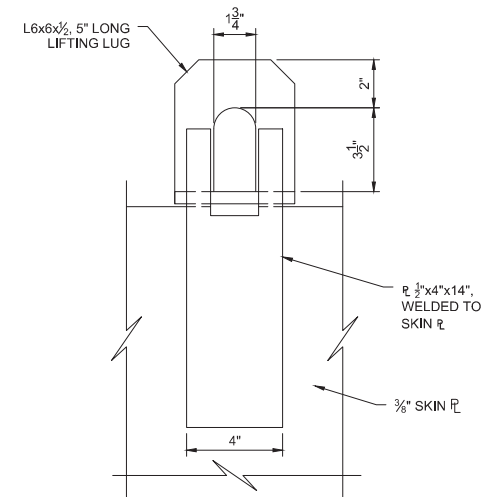
3 PLAN: EXISTING SLUICeway UPSTREAM BULKHEAD
SCALE: 0 1 2 3 4 5

4 DETAIL: BUTTERFLY VALVE
SCALE: 0 3 6 9 1 2

7 DETAIL: SLUICE GATE REFERENCE DIMENSIONS
SCALE: 0 1 2 3 4 5



5 SECTION: BULKHEAD TOP
SCALE: 0 3 6 9 1



6 DETAIL: LIFTING LUG
SCALE: 0 3 6 9 1

2 SECTION: EXISTING SLUICeway UPSTREAM BULKHEAD (2 TOTAL EXISTING)
SCALE: 0 1 2 3 4 5

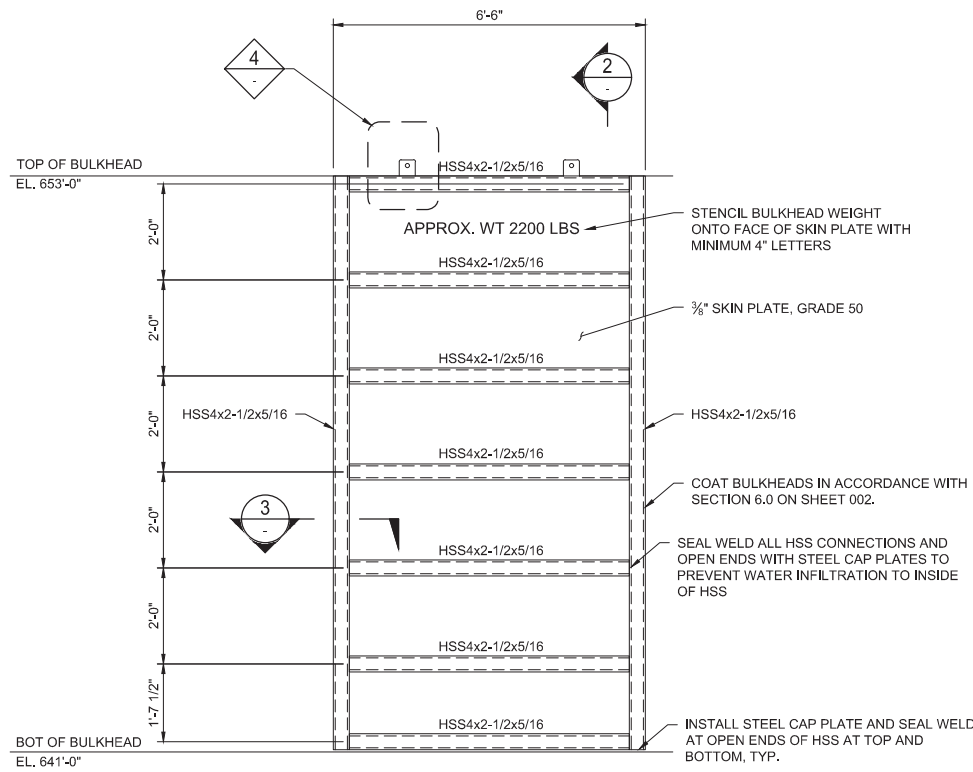
NOTES:

- 2 SLUICeway UPSTREAM BULKHEADS ARE EXISTING, FABRICATION OF ADDITIONAL UPSTREAM BULKHEADS IS NOT REQUIRED.
- CONTRACTOR TO INSTALL EXISTING UPSTREAM BULKHEADS AND NEW DOWNSTREAM BULKHEADS IN ADJACENT SLUICeways AND DEWATER SLUICeways TO ALLOW FOR SLUICE GATE INSPECTION BY OWNER/ENGINEER. COORDINATE ALL DEWATERING AND BULKHEAD PLACEMENTS WITH OWNER/ENGINEER. ONCE DEWATERED, CONTRACTOR SHALL CLEAN THE SLUICE GATES OF ALL MARINE LIFE AND DEBRIS TO ALLOW FOR OWNER/ENGINEER INSPECTION. ALLOW 48 HOURS FOR OWNER/ENGINEER INSPECTION OF DEWATERED SLUICE GATES. DO NOT REMOVE OR RELOCATE BULKHEADS UNLESS APPROVED BY OWNER. INSPECTION OF SLUICE GATES ARE ASSUMED TO OCCUR CONSECUTIVELY, ONE AFTER ANOTHER. ALLOWING FOR CONTRACTOR REQUIRED TIME FOR BULKHEAD RELOCATION AND DEWATERING IN BETWEEN AND SLUICE GATE CLEANING. CONTRACTOR TO MAINTAIN DEWATERING IN SLUICeway UNTIL GATE INSPECTION IS COMPLETE. REPEAT PROCESS UNTIL ALL 6 SLUICE GATES HAVE BEEN INSPECTED.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL NEW 1/2" NEOPRENE OR APPROVED EQUIVALENT SEALS ON THE DOWNSTREAM SIDE OF BOTH UPSTREAM BULKHEADS AROUND ENTIRE PERIMETER FOR SEALING THE BULKHEAD AGAINST THE EXISTING STRUCTURE. SUBMIT PROPOSED SEALS AND ATTACHMENT METHOD TO OWNER FOR REVIEW AND APPROVAL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE UPSTREAM AND DOWNSTREAM BULKHEADS, FOR DEWATERING THE SLUICeways, AND CLEANING THE SLUICE GATES TO FACILITATE GATE INSPECTION BY OWNER/ENGINEER. SOME DETERIORATION AND SURFACE IMPERFECTIONS ARE PRESENT AT EXISTING UPSTREAM BULKHEAD SEALING SURFACE. REFERENCE OCTOBER 2022 DIVE INSPECTION FOR ADDITIONAL INFORMATION. CONTRACTOR IS RESPONSIBLE FOR PROVIDING SURFACE REPAIRS, OR OTHER TEMPORARY MEASURES, AS NECESSARY TO SEAL AND DEWATER THE SLUICeways TO ALLOW FOR ENGINEER/OWNER INSPECTION OF THE SLUICE GATES. DEWATER SLUICeways TO BELOW BOTTOM OF SLICE GATE IN THE FULLY RAISED POSITION TO ALLOW FOR FULL INSPECTION OF THE SLUICE GATES.
- THE CONTRACTOR SHALL COORDINATE WITH THE OWNER TO ALLOW FOR EMERGENCY DISCHARGE THROUGH FOUR NON-BULKHEADED SLUICeways AT ALL TIMES AS REQUIRED BY THE OWNER, AND IN ACCORDANCE WITH THE TCEAP.
- EXISTING BULKHEAD INFORMATION AND DETAILS SHOWN ON THIS DRAWING ARE FOR REFERENCE AND CONTRACTOR'S USE. THE INFORMATION IS BASED ON INFORMATION FROM HISTORIC DRAWINGS.

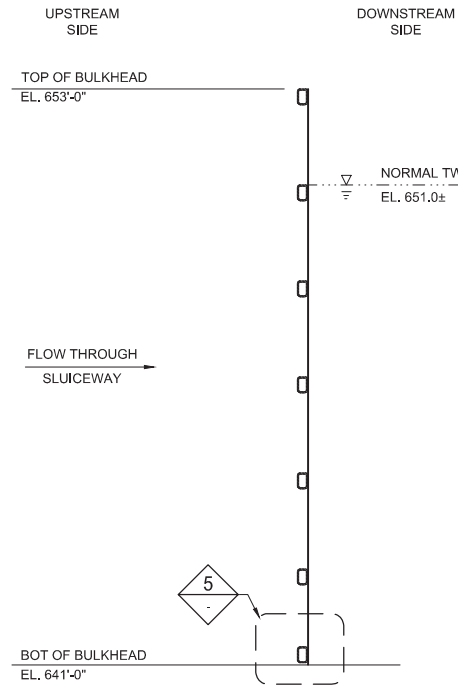
ISSUED FOR BID

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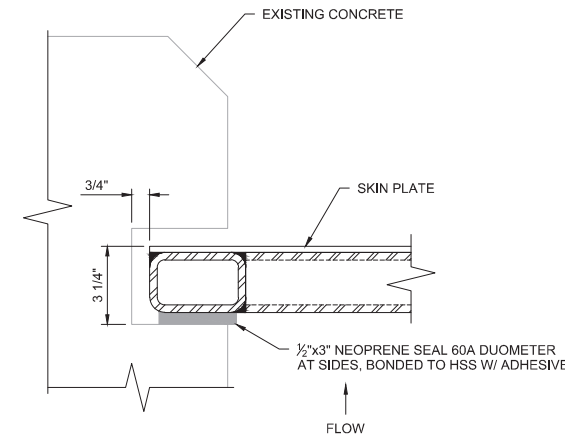
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MICHIGAN.		CLIENT BID CONSTRUCTION RECORD	3/28/22 1/24/23 2/22/23	Project Office: BARR ENGINEERING CO. 3005 BOARDWALK STREET SUITE 100 ANN ARBOR, MI 48108 Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-270-5017 Fax: (732) 922-4401 www.barr.com	Scale AS SHOWN Date 2/22/23 Drawn MJJ Checked TSH Designed CJT2 Approved CJT2	FORD LAKE DAM CONCRETE REPAIRS AND BULKHEAD PLACEMENT	BARR PROJECT No. 22810058.00 CLIENT PROJECT No.
PRINTED NAME: CHRISTOPHER TOULOUSE SIGNATURE: <i>Chris Toulouse</i> DATE: 2/22/23 LICENSE # 60271	RELEASED TO/FOR: A B C 0 1 2 3 DATE RELEASED	CHARTER TOWNSHIP OF YPSILANTI YPSILANTI, MI		SLUICE GATE UPSTREAM BULKHEAD	DWG. No. S-08 REV. No. C		



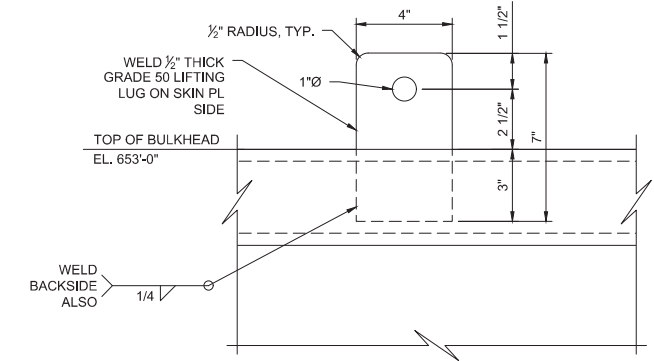
1 ELEVATION: NEW DOWNSTREAM BULKHEAD UPSTREAM FACE
(2 NEW REQUIRED)
SCALE: 0 1 2 3 4 5



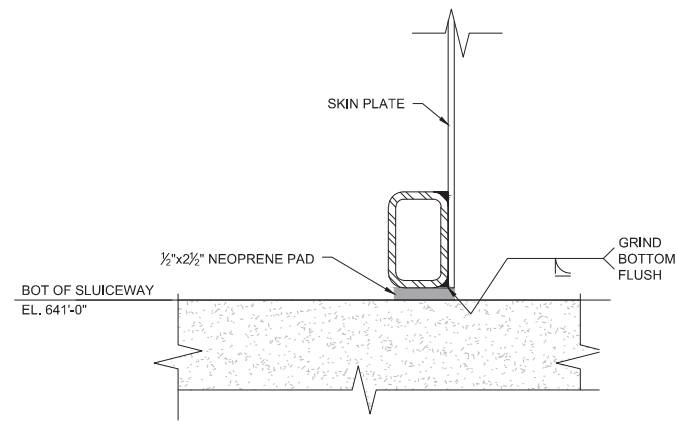
2 SECTION: NEW DOWNSTREAM BULKHEAD
SCALE: 0 1 2 3 4 5



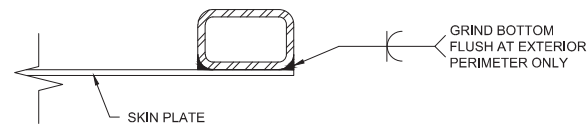
3 DETAIL: NEW DOWNSTREAM BULKHEAD SIDE SEAL
SCALE: 0 3 6 9 1



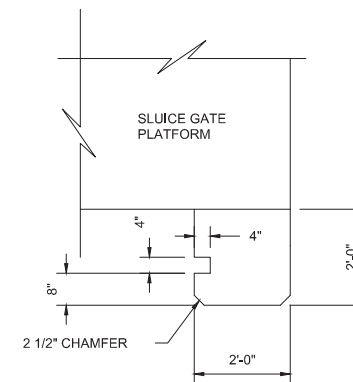
4 DETAIL: NEW DOWNSTREAM BULKHEAD LIFTING LUG
SCALE: 0 3 6 9 1



5 DETAIL: NEW DOWNSTREAM BULKHEAD BOTTOM SEAL
SCALE: 0 3 6 9 1



6 DETAIL: HSS TO SKIN PLATE WELD
SCALE: 0 3 6 9 1



7 DETAIL: EXISTING DOWNSTREAM BULKHEAD SLOT GEOMETRY
SCALE: 0 1 2 3 4 5

- NOTES:
- CONTRACTOR TO FABRICATE 2 NEW DOWNSTREAM BULKHEADS AS SHOWN AND COAT IN ACCORDANCE WITH SECTION 6.0 ON SHEET 002. OWNER TO RETAIN BULKHEADS AT COMPLETION OF CONSTRUCTION.
 - CONTRACTOR TO INSTALL DOWNSTREAM BULKHEADS AND MAINTAIN DEWATERING IN SLUICWAYS TO FACILITATE SLUICGATE INSPECTIONS BY OWNER/ENGINEER.

ISSUED FOR BID

CADD USER: CHRIS J. TOULOUSE FILE: C:\USERS\CHRIS\DRAWINGS\FORD LAKE\DRAWINGS\2281005800_S-09_SLUICWAY.DWG PLOT SCALE: 1/2 PLOT DATE: 2/22/2023 5:30 PM

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B	CJT2	TSH	CJT2	1/24/23	REVIEW
A	CJT2	TSH	CJT2	3/28/22	REVIEW

CLIENT	3/28/22	1/24/23					
BID			2/22/23				
CONSTRUCTION RECORD							
RELEASED TO/FOR	A	B	C	0	1	2	3
DATE RELEASED							

Project Office:
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Designed	CJT2
Approved	CJT2

CHARTER TOWNSHIP OF YPSILANTI
YPSILANTI, MI

FORD LAKE DAM
CONCRETE REPAIRS AND BULKHEAD PLACEMENT

SLUICE GATE
NEW DOWNSTREAM BULKHEADS

BARR PROJECT No.	22810058.00
CLIENT PROJECT No.	
DWG. No.	S-09
REV. No.	C

Construction Quality Control Inspection Program (QCIP)

Ford Lake Dam Hydroelectric Project *FERC Project No. 5334* *Concrete Repairs and Bulkhead Placement*

Prepared for
The Charter Township of Ypsilanti



**YPSILANTI
TOWNSHIP**
— HYDRO DAM OPERATIONS —

February 2023



Construction Quality Control Inspection Program
 Ford Lake Dam Hydroelectric Project
 Concrete Repairs and Bulkhead Placement

February 2023

Contents

1.0	Introduction	1
1.1	Background	1
1.2	Purpose	1
1.3	Description of Project Works	1
1.4	Scope of Work	3
1.5	Schedule	3
1.6	QCIP Category	3
2.0	Project Organization	4
2.1	Organization Structure	4
2.2	Description of Responsibilities	4
2.3	DSE/PM Resumes	5
2.4	CE/RE/PCS Resumes	5
3.0	Inspection Practices	1
3.1	Inspection Criteria	1
3.2	Performance of Inspections	1
4.0	Material Testing	3
4.1	Testing Agency	3
4.2	Concrete Testing	3
5.0	Documentation	4
5.1	Certificates	4
5.2	Inspection Reports	4
5.3	Testing Reports	4
5.4	Photographs	4
5.5	Periodic Reports	4
6.0	Design Control During Construction	5
6.1	Design Changes	5

6.2	Construction Deviations.....	5
6.3	Record Drawings.....	5
6.4	Field Memoranda.....	5
6.5	Design Control Log.....	5
7.0	Erosion Control and Environmental Compliance (as applicable).....	6
7.1	Compliance	6
7.2	Control of Water	6

List of Attachments

Attachment 1 Organization Chart

1.0 Introduction

1.1 Background

In 2021, the Charter Township of Ypsilanti (Township) retained Barr Engineering Co. (Barr) to perform a visual assessment of the upstream side of the powerhouse intake and concrete structures. Barr completed the visual inspection along with hammer soundings of the intake and spillway concrete areas to identify potential areas of deterioration and provided the results to the Township. The Township plans to repair the identified defects and retained Barr to perform the repair design engineering. This project identifies and provides standard repair details for concrete defects in the intake and spillway area.

In addition to the concrete repairs noted above, the six spillway sluice gates will also be visually inspected. Per the August 30, 2021, correspondence between the Township and the Federal Energy Regulatory Commission (FERC), item number 6, the township concurred with the IC's response to conduct a visual inspection of the sluice gates within the next 3 years. The Contractor will support dewatering activities by installing steel bulkheads (as shown on drawings), concurrently with the above listed repairs, to allow for control of water and visual inspection of the sluice gates with the sluiceway dewatered and the gates raised in the full open position.

1.2 Purpose

The purpose of this Quality Control Inspection Program (QCIP) is to provide the requirements for quality control during the construction phase of the project. Contained herein are the inspection requirements, responsibilities of the project team members, qualifications of key project personnel, documentation requirements, and design controls to be used during construction.

1.3 Description of Project Works

The Ford Lake Dam Hydroelectric Project is located on the Huron River, Section #22, Township T3S, Range R7E, within the Charter Township of Ypsilanti in Washtenaw County, Michigan. Ford Lake Dam is located approximately 4 miles downstream of the City of Ypsilanti, Michigan, and approximately 3 miles upstream of the City of Belleville, Michigan. Ford Lake Dam has a high hazard potential classification.

The dam is oriented in a north-south direction (left to right looking downstream) and Project structures are referred to from left (north) to right (south) throughout this QCIP. The dam consists of four major components: a left earth embankment extending from the natural high ground abutment to the left side of the powerhouse, a powerhouse/intake structure, a barrel-arch fixed-crest spillway structure with six primary spillway sluice-gate outlets, and a right earth embankment with 175-foot-long fuse-plug auxiliary spillway extending from the right side of the spillway structure to the natural high ground abutment.

Elevations presented herein are referenced to local Plant Datum, which is used in the original 1931 construction drawings and the powerhouse computer monitoring system. The conversions between Plant Datum and North American Vertical Datum of 1988 (NAVD 88) datum is:

Plant Datum = Feet NAVD 88 + 0.8 feet.

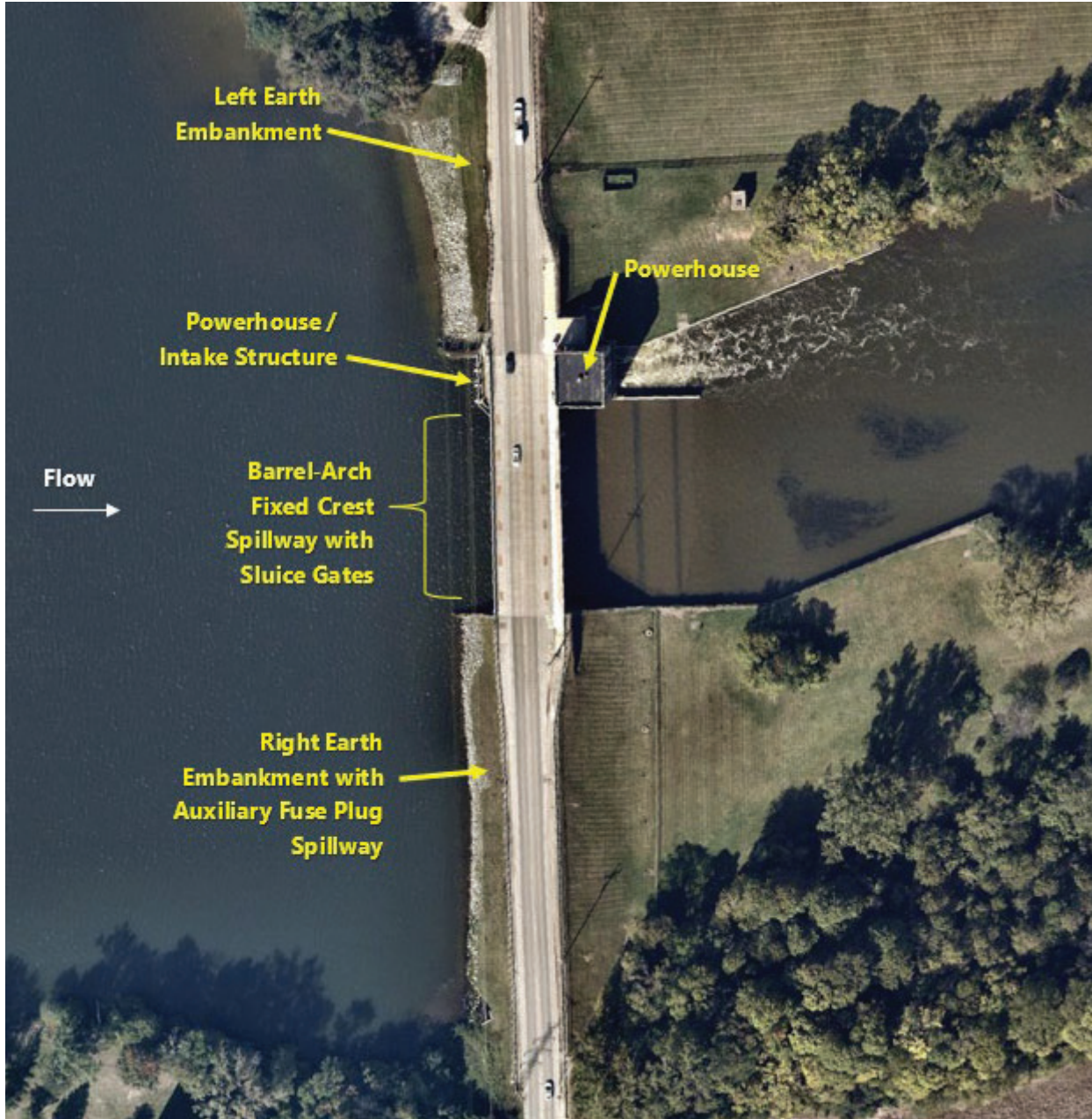


Figure 1-1 Plan View of Site

Key project elevations and hydraulic data are summarized below (all elevations given in feet, local plant datum unless noted otherwise):

Table 1-1 Key Project Elevations & Hydraulic Data

Feature	Elevation [feet] / Flow [cfs]
	Plant Datum
Normal Pool Headwater	684.6 ± 0.25
Normal Tailwater	652.0
Nominal Embankment Crest Elevation	695.7 (min)
Top of Clay Core in Embankment	693.5
Top of Clay Core in Fuse-Plug Spillway	694.0
Crest of Overflow Spillway	685.0
Spillway Sluiceway Sill Elevation	641.0
Probable Maximum Flood Headwater	694.1
Probable Maximum Flood Tailwater	663.6
PMF Peak Outflow	27,980
100-Year Flood	9,800
Flood of Record (May 25, 2011)	Peak HW EL. 684.93 ft / Flow 6,815 cfs
Zero Freeboard Elevation	695.7
Zero Freeboard Discharge Capacity	32,000

Notes/references:

(1) Information listed above is from 2022 STID

1.4 Scope of Work

Construction will consist of concrete repairs for the areas of the powerhouse intake and spillway identified in the drawings, including the left abutment upstream wall, intake piers, trash chute, and overflow spillway crests. Construction will also include installing bulkheads at the upstream and downstream sides of the sluiceway and dewatering to support visual inspection of the sluiceway gates.

1.5 Schedule

Construction is scheduled to be performed in 2023. Engineering for the project was completed in 2022.

1.6 QCIP Category

Based on the "FERC Engineering Guidelines for the Evaluation of Hydropower Projects," this QCIP is classified as Category 3A.

2.0 Project Organization

2.1 Organization Structure

Attachment 1 is the organizational chart of team members in performance of this contract. The description of team member responsibilities is as follows.

2.2 Description of Responsibilities

1. Project Manager (PM): Overall responsibility for execution of the project. The Project Manager is responsible for construction management, contract administration, and construction scope control for the project. The PM will serve as the liaison and help coordinate technical and dam safety aspects relating to the facility during construction between the Consulting Engineer, Dam Safety Engineer, and Hydro Operations staff and has the authority to stop work. The PM is employed by the Township.
2. Consulting Engineer (CE): Responsible for design of the project, reviewing issues identified during construction, approval of design changes and construction deviations, and reviewing shop drawings or other construction documents for compliance with design requirements.

The Consulting Engineer/Design Engineer is employed by Barr Engineering Co. The CE may also provide a Resident Engineer (RE) to perform the same responsibilities for work in the field.

3. Resident Engineer (RE): Responsible for observation of Contractor activities during construction to ensure the project is being constructed in general accordance with the plans and specifications. The RE is employed by Barr Engineering Co. and will be on-site during critical construction activities or as requested by the Township to review completed work is in accordance with the plans and specifications.
4. Project Construction Supervisor (PCS): Responsible for construction oversight to help ensure that the Contractor complies with the general intent of the plans and specifications. The PCS is responsible to ensure compliance to the QCIP and has the authority to stop Contractor activities when the work is not being performed in compliance with project plans and specifications or would cause potential dam safety issues. The PCS will prepare monthly construction progress reports, as required. . The RE will also function as the PCS for this project and will be employed by Barr Engineering Co.
5. Dam Safety Engineer (DSE): The Dam Safety Engineer will be the liaison between the Township, the CE, and the FERC. The Dam Safety Engineer is employed by Barr Engineering Co.
6. Hydro Operations Supervisor: Responsible for ensuring proper operation of the facility during the project, including overview and implementation of the Emergency Action Plan, if required. The Hydro Operations Supervisor is employed by the Township.

7. Hydro Operator: Responsible for monitoring plant instrumentation prior to, during, and after construction and for controlling water discharge activities through the dam, including the powerhouse and spillway. The Hydro Operator will also perform their regular daily inspections of the facility during construction. They report to the Hydro Operations Supervisor.
8. Testing Service: Responsible for conducting tests and inspections necessary to ensure quality related to construction, and other items as required. This may be one company or separate companies.
9. Contractor: An independent company providing the labor, materials, and equipment to construct the work in accordance with the project plans and specifications, under contract to the Township. Contractors are qualified by submittals made during the bidding process.

2.3 DSE/PM Resumes

1. The Dam Safety Engineer is David Hibbs of Barr Engineering Co.

David Hibbs, PhD, PE

Dam Safety Engineer

David has over 24 years of dam related engineering experience, specializing in hydraulics and hydrology and is a Registered Professional Engineer in the State of Michigan. Mr. Hibbs has been the Dam Safety Engineer for Ford Lake Dam since 2013.

2. The PM and Hydro Operations Supervisor for the project is Michael Saranen of the Township of Ypsilanti.

Michael Saranen

Project Manager

Michael has 25 years of experience with the Ford Lake Dam's operations as operator and manager. He has also performed the role of PM on previous projects at the Ford Lake Dam. Michael has been with the Township for 24 years and currently hold title as Operations Manager/Safety Coordinator.

2.4 CE/RE/PCS Resumes

1. The Consulting Engineer (CE/RE) for the project is Barr Engineering Co. and their primary representative is Christopher Toulouse.

Christopher Toulouse, PE

Structural Engineer (CE/RE) – Barr Engineering Co.

M. Eng. Structural Engineering (University of Michigan, Ann Arbor)

B.S. Civil and Environmental Engineering (University of Michigan, Ann Arbor)

Chris has 13 years of experience in inspection, evaluation, analysis, design, and construction observation of civil projects. Experience includes construction inspection, tactical climbing

inspection, and analysis and design of reinforced concrete, structural steel, and timber structures. He has designed and provided construction support as the RE for numerous repair projects at high hazard dams throughout Michigan.

Mr. Toulouse is the Engineer-of-Record for this project.

2. The Resident Engineer (RE) will be employed by Barr Engineering Co. and be either a Professional Engineer or Engineer-in-Training (EIT) out of their Ann Arbor, Michigan office. The RE will also function as the PCS for this project. Kate Kelley will be the primary RE/PCS. Christopher Toulouse, Mark Remell and Tor Hansen will be the alternate RE/PCS.

Kate Kelley, EIT

Structural Engineer – Barr Engineering Co.

B.S. Civil Engineering (Wayne State University)

M. Eng. Structural Engineering (University of Michigan)

Kate has 3 years of experience in design and inspection of steel, reinforced concrete, and timber structures, including design and inspection of structures at hydroelectric dams.

Mark Remell, EIT

Structural Engineer – Barr Engineering Co.

B.S. Civil Engineering (Lawrence Technological University)

Mark is a new structural engineer with Barr and has 4 summers of internship experience with material testing and construction observation.

Tor Hansen, PE

Principal Engineer - Barr Engineering Co.

Tor has 29 years of experience in the evaluation, analysis, design, and construction observation of civil, hydropower, and mechanical projects. Experience includes the design of reinforced concrete, structural steel, timber, and masonry structures. He has provided on-site construction observation and engineering support during construction for dams in Minnesota, Michigan, Iowa, North Dakota, and Wisconsin. He is a registered engineer in Michigan and 10 other states.

3.0 Inspection Practices

3.1 Inspection Criteria

The following documents establish the basis in which inspections will be conducted during construction.

1. Plans and Specifications:

The plans and specifications have been prepared by the Consulting Engineer and reviewed by the Township and the FERC, prior to release for construction. American Society for Testing and Materials (ASTM) and American Concrete Institute (ACI) standards are also provided in the technical specifications and will govern those aspects of the work.

2. Applicable National Standards:

The primary national standards for this work are the American Society for Testing and Materials (ASTM) as provided in the technical specifications and shall govern those aspects of the work.

3. Shop Drawings:

As part of the scope of work under this contract, the Contractor is required to prepare, and submit for approval, drawings of any part or material which is fabricated prior to incorporation into the project. These include shop drawings for the concrete reinforcement, replacement fiberglass grating and embedded angles and the downstream bulkhead. The drawings which are reviewed and accepted by the Consulting Engineer and the Township will serve as criteria for acceptance in the field.

4. State Standards:

Portions of work related to turf restoration materials will be governed by the 2020 Michigan Department of Transportation (MDOT) Standard Specifications for Construction.

3.2 Performance of Inspections

1. The PCS/RE is responsible to ensure that work performed by the Contractor is accomplished in accordance with the plans, specifications, and QCIP. The PCS/RE will perform weekly inspections at a minimum, with additional inspections at critical stages of construction to monitor the quality of the Contractor's activities. In addition to the inspection activity, they will conduct inspections of certain work efforts at various stages. The Contractor will be required to notify the PCS/RE when the work is ready for a required inspection.
2. Repair of the spillway concrete structures will require partial demolition of existing concrete structures. The PCS/RE will be onsite frequently to monitor demolition and repair activities, and the condition of the existing structures. The PCS/RE will observe the structures for indications of deleterious impacts as a result of the construction work which may include but not limited to:

- Settlement or movement of spillway structures
- New cracking of existing concrete spillway structures
- Embankment sloughing or settlement around potential staging areas
- Excessive surface erosion at disturbed areas of embankments at potential staging areas

If the PCS/RE observes any of the above conditions which are believed to be having a detrimental impact on embankment stability, existing structure integrity or stability, or dam safety, associated construction activities will be stopped immediately and the PCS/RE will notify the PM, DSE and CE. The project team will re-evaluate the path forward.

3. On-site staff and construction staff should review the temporary surveillance and monitoring requirements of the specifications for the Project. If necessary, the DSE, PM, PCS/RE or CE will direct the Contractor to take remedial measures to correct any observed situation until a detailed evaluation can be completed.
4. The PM and a representative from the FERC may visit the site on a periodic basis for the purpose of inspections and consultation with the RE or CE (as requested by PM) and the Contractor.
5. The CE/RE/PCS will perform periodic inspections as requested by the PM and at critical stages of construction.
6. The CE/RE will perform inspections of the existing sluice gates.

4.0 Material Testing

4.1 Testing Agency

Materials testing will be conducted in accordance with the plans and specifications. The Contractor will direct the activities of the materials testing company and remain in communication with the PM and PCS/RE and CE. The materials testing company will be hired by the Contractor. The Contractor will coordinate the activities of the testing companies as applicable, with consultation of the PM and PCS/RE.

4.2 Concrete Testing

Concrete testing will be as follows:

- A minimum of one air entrainment test per truck load per ASTM C233.
- A minimum of one slump test per truck load per ASTM C143.
- A minimum of one temperature test per truck load per ASTM C1046.
- Cast a minimum of one set of six, 6-inch-diameter by 12-inch-long cylinders, or nine, 4-inch-diameter by 8-inch-long cylinders for each 20 cubic yards or fraction of each day's pour for compressive strength testing per ASTM C39. Two 6x12 or three 4x8 cylinders will be tested at 7 days, two 6x12 or three 4x8 cylinders at 28 days, and two 6x12 or three 4x8 cylinders will be held for additional testing as required.

5.0 Documentation

5.1 Certificates

The Contractor or other direct supplier of materials or fabrications is responsible for furnishing material test certificates or certificates of conformance to the PCS/RE at the time of delivery to the site. These documents will certify that the delivered item meets or exceeds the material requirements and complies with all applicable requirements in the contract.

5.2 Inspection Reports

The PCS/RE, and CE will prepare appropriate inspection reports upon the completion of inspections which require preparation of such a report. Weekly inspections of Contractor activities will be performed by PCS/RE and notable changes or issues will be documented accordingly and maintained at the site by the PCS/RE and reviewed with the CE.

5.3 Testing Reports

Each testing agency, as applicable, will provide a report for their material testing requirements. Test reports for concrete will contain test results of concrete field air, temperature, and slump results as well as results of cylinder breaks for concrete compressive strength.

5.4 Photographs

The PCS/RE will collect photographs throughout the project to document events and conditions. Prior to the start of any work, photographs are used to establish the site conditions at project inception. Photos are taken at the end of each month to document progress for inclusion with the monthly report, if necessary. In addition, photos will be utilized on a per inspection basis to provide a record of site conditions, work progress, problems identified, and Contractor methods and activities.

5.5 Periodic Reports

Periodic reports will include monthly construction updates to the FERC, as necessary. These reports will be prepared by the PCS/RE and submitted to the Hydro Operations Supervisor, who will then submit to the FERC. Monthly reports will generally provide a summary of work completed for the month as well as a summary of upcoming work for the next month. The report will provide progress photographs as well as document any significant design changes or field memoranda.

The PCS/RE will provide periodic reports for the days they are on-site.

A final construction report and letter of certification, certifying that the project was completed in accordance with the design plans and specifications, will be submitted to the FERC upon completion of the project, as required.

6.0 Design Control During Construction

6.1 Design Changes

Changes to the project plans and specifications will be properly identified and documented to ensure all parties involved with this effort are informed of design changes. The CE may verbally authorize minor changes in the design drawings and specifications which are consistent with the overall design intent of the project and document such changes on red-line drawings. Other design changes will be approved by the PM and CE/RE and documented with a formal written letter.

The PCS/RE will be responsible for ensuring that the Contractor maintains current on-site versions of the plans and specifications. The PM will ensure that Dam Safety Engineer/Township is advised of modifications or changes to the project which in any way impact dam safety, and the Township will notify the FERC.

6.2 Construction Deviations

Unauthorized deviations by the Contractor from the design drawings and specifications will be documented with a formal written letter by the PCS/CE/RE. All corrective actions to rectify construction deviations will be approved by the CE and accepted by the Township and the FERC prior to commencement of the remedial action to be taken.

6.3 Record Drawings

The Contractor will be responsible for developing a complete set of red-line drawings on site during construction. These drawings will be maintained to ensure that a master set of documents is available to verify all design changes. A complete set of Record Drawings will be prepared at the completion of the work. Record Drawings will remain on file with the Township and the CE.

6.4 Field Memoranda

The CE/RE may issue field memoranda for the purposes of clarifying or interpreting the requirements of design drawings and specifications. A field memorandum may be used, at the discretion of the CE/RE, to communicate with the Contractor when a design change notice is not necessary. Field memoranda will not be used to change design requirements or disposition construction deviations.

6.5 Design Control Log

The PCS/RE will maintain a design control log to record the design changes, construction deviations, and field memoranda.

7.0 Erosion Control and Environmental Compliance (as applicable)

7.1 Compliance

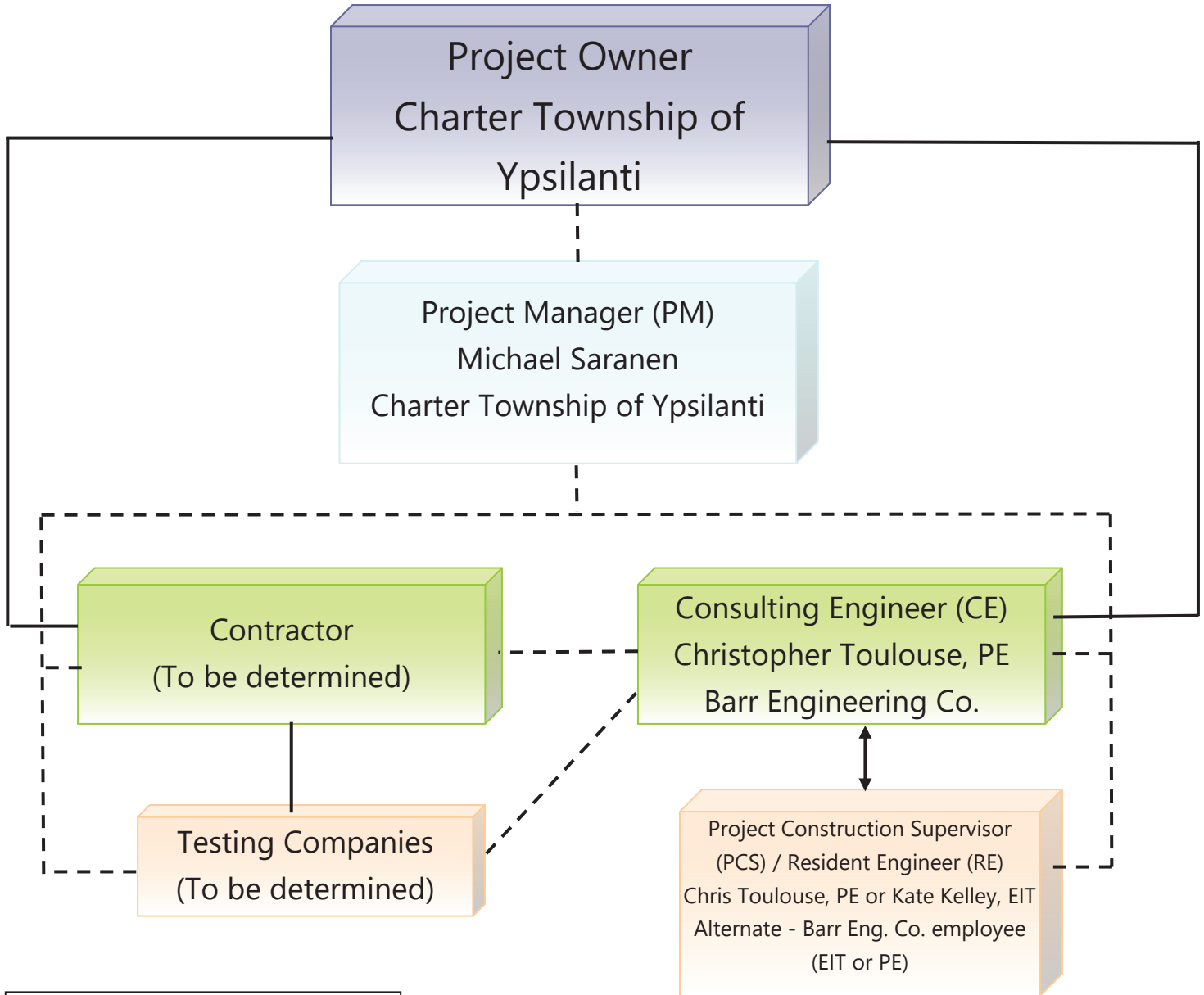
The PCS/RE will monitor construction methods and site conditions to ensure compliance with the requirements of any permits issued for the work. The PCS/RE will verify soil erosion and sediment control measures, such as silt fencing and the turbidity curtain, as applicable, are installed and maintained in accordance with all permits. In addition, the PCS/RE will verify the oil boom is installed and maintained, as required, in case of an oil leak from equipment.

7.2 Control of Water

The Hydro Operator and/or the Hydro Operations Supervisor in consult with PCS/RE will monitor the activities of contractors and personnel on-site, while on site, to ensure that activities, which impact the plant headwater and tailwater, are conducted in a manner designed to ensure stability of the dam structures and a safe working environment for workers on the site. In addition, the Contractor, the PCS/RE, and the Hydro Operations Staff will coordinate all spilling related activities, including any changes to any spilling related activities.

Primary areas requiring control of water include the spillway sluiceways for sluice gate inspections and localized cofferdams along the upstream face of the dam to construct the work.

Attachment 1 Organization Chart



Legend:

--- Communication Line

— Contractual Line

↔ Interchangeable

Temporary Construction Emergency Action Plan (TCEAP)

Ford Lake Hydroelectric Project

FERC Project No. 5334

Concrete Repairs and Bulkhead Placement

Prepared for
The Charter Township of Ypsilanti



**YPSILANTI
TOWNSHIP**
— HYDRO DAM OPERATIONS —

February 2023



Temporary Construction Emergency Action Plan
Ford Lake Hydroelectric Project
Concrete Repairs and Bulkhead Placement

February 2023

Contents

1.0 Statement of Purpose 1

2.0 Critical Site-Specific Concerns 2

 2.1 Demolition and Repair of Concrete on Existing Spillway and Intake Structures..... 2

 2.2 Cofferdam Installation and Use..... 2

 2.3 Headwater and Inflow Monitoring 3

 2.4 Sluiceway Dewatering and Sluice Gate Inspection..... 4

3.0 Responsibilities 5

4.0 Safety Procedures 6

List of Attachments

- Attachment 1 TCEAP Emergency Contact Phone List
- Attachment 2 Site Plan Potential Location of Safety Measures

1.0 Statement of Purpose

This Temporary Construction Emergency Action Plan (TCEAP) has been created for those directly involved with the Ford Lake Hydroelectric Project Concrete Repairs and Bulkhead Placement Project (Project). Involved parties include the Owner, The Charter Township of Ypsilanti (Township), Barr Engineering Co. (Barr), and the Contractor, who is yet to be selected. The Ford Lake Dam is a high-hazard dam with an existing Emergency Action Plan (EAP). For the purposes of this TCEAP, the full EAP for the Ford Lake Dam will serve as the general guide for the Project TCEAP. The TCEAP provides a procedure for worker safety and notification in the event of an actual or impending emergency during the Project. It is a temporary document and is only relevant to the parties directly involved in the Project.

All responsibilities, flow chart, definitions, and procedures outlined in the Ford Lake Dam EAP are incorporated as the general procedures for this TCEAP. A copy of the Ford Lake Dam EAP along with this TCEAP will be made available to the Contracted Construction Personnel and they will be directed to follow the procedures outlined therein.

A copy of the notification phone numbers for this TCEAP are provided in Attachment 1.

2.0 Critical Site-Specific Concerns

There are project-specific critical concerns related to dam safety to be considered during construction of the project. This includes demolition and repair of concrete on existing spillway and intake structures, localized cofferdam construction, headwater elevation and inflow monitoring, and sluiceway dewatering and sluice gate inspection.

2.1 Demolition and Repair of Concrete on Existing Spillway and Intake Structures

Existing overflow spillway and powerhouse intake structures exhibit signs of deterioration that will be repaired. As part of the repair process, existing deteriorated concrete will be removed via means of saw cutting and manual/power tools and repaired by drilling and installing new reinforcement dowels and concrete. Depth of existing concrete removal varies based on location and structure, however, surrounding areas of concrete should be continuously monitored and observed during demolition and repair activities for detrimental signs such as cracking, settling or movement.

Concrete demolition and repair activities will take place at support locations for an existing elevated overhead gas line over the powerhouse intake piers. The overhead gas line will be temporary supported by the Contractor to allow for concrete repair at the support locations on the intake piers.

Throughout construction, the Contractor, the Quality Control and Inspection Program (QCIP) Project Construction Supervisor (PCS), and the Resident Engineer (RE) will perform visual inspections of the repair areas to look for signs of detrimental impacts. If adverse conditions are observed, the Contractor/PCS/RE will notify the Owner who will notify the Consulting Engineer (CE) and the Federal Energy Regulatory Commission (FERC) to develop remedial measures as necessary.

2.2 Cofferdam Installation and Use

To construct the powerhouse intake and spillway repairs, it is anticipated that a localized basket cofferdam (or similar style) will be required. The cofferdam is anticipated to extend approximately 1 to 2 feet above the normal max headwater elevation of 684.85 feet (Plant Datum) for splash protection and to extend approximately 1-foot below the repair extents to allow room for formwork installation, however, final dimensions will be determined by the Contractor. The top of cofferdam elevation is anticipated to extend above the overflow spillway crest elevation of 685.0 feet, which would require a higher headwater elevation before activation of the overflow spillway, however, at a headwater elevation of 686.0 feet, the sluice gates can provide 96% of the total project spillway capacity (9,634 cfs of total capacity of 10,000 cfs), and at a headwater elevation of 687.1 feet, the sluice gates provide 88% of the spillway capacity (9,729 cfs of total capacity of 11,000 cfs). The impact of the cofferdam on the spill capacity is anticipated to be minimal, and the flood of record (6,815 cfs) is less than the sluice gate only capacity at normal pool (9,428 cfs), and the estimated 100-year flood (9,800 cfs) is approximately equivalent to the sluice gate only capacity. Spillway capacities noted above are taken from the 2022 STID.

If high flows in excess of 9,000 cfs, or flows that may cause overtopping of the cofferdam are anticipated, construction work at the cofferdam area will be stopped, the cofferdam will be evacuated, and the top of cofferdam cut down to the spillway crest elevation, or section(s) removed to allow for flooding of the cofferdam. Even if the top of the cofferdam was not cut down, or sections removed, the headwater would eventually overtop the cofferdam and allow flow over the spillway crest.

Prior to entering the cofferdam area, an initial inspection of the cofferdam by the Contractor will be performed to verify cofferdam integrity. A minimum of two exits will be maintained at all times. Throughout construction, the cofferdam will be observed by the Contractor for signs of adverse conditions, including excessive deflection, movement, or rotation of cofferdam members, and excessive leakage. If adverse conditions are observed, the Contractor will notify the Owner and develop remedial measures as required. The Owner will notify the Engineer and the FERC, as necessary.

Construction activities, including concrete demolition and repair at the powerhouse intake piers, or underwater dive activities, may require a temporary shutdown of flow through the powerhouse units or spilling operations. Reservoir headwater elevation will be maintained by the utilizing portions of the available structure not involved with construction activities for passing flow (powerhouse or spillway) and by phasing the work activities so that there are minimal disruptions to spill capacities. It will be critical to monitor the headwater elevation and inflow forecasting such that it does not overtop the cofferdam. Spilling activities and changes in flow through the powerhouse will be coordinated between the Hydro Operations Supervisor, and the Contractor. Work will cease if headwater elevations approach or overtop the top of the cofferdam. An inspection will be performed by the Contractor after the overtopping event prior to resuming work within the cofferdam.

2.3 Headwater and Inflow Monitoring

The headwater elevations and inflow extents will be monitored by the Hydro Operator and/or Hydro Operations Supervisor. River flows will be primarily passed through the powerhouse to the extent feasible, however, excess flows will be passed through the sluice gate spillway as necessary. Up to two spillway sluice gates may be temporarily unavailable during dewatering of the sluiceways for inspection of the gates, and all sluice gates may be unavailable during times when divers are in the water upstream of the spillway. These periods will be coordinated between the Hydro Operations Supervisor and Contractor so that discharge capacity will be maintained during anticipated periods of high flows.

Spillway sluice gates may also be intermittently tagged out during construction when personnel are working downstream of the sluice ways. If additional discharge capacity is required to pass inflow, construction personnel and equipment will be removed from the potentially impacted area, sluice gate tagging will be removed and sluice gates will be operated as necessary to pass the inflow. The Hydro Operator and/or the Hydro Operations Supervisor will monitor and coordinate with the Contractor for discharge activities.

2.4 Sluiceway Dewatering and Sluice Gate Inspection

As part of the project, the sluice gates will be visually inspected from outside of the sluiceways, in their fully raised position. To accomplish this, a bulkhead will be installed at the upstream and downstream locations and the sluiceway will be dewatered to below the elevation of the bottom of the sluice gate in the full open position. The Contractor will be responsible for installing and sealing the bulkheads, dewatering the sluiceway, and for cleaning the sluice gates to allow for visual inspection by the Owner and Engineer. Up to two sluiceways can be dewatered at once, and the anticipated timeframe for dewatering and inspection for each set of gates is three to four days, assuming one day to install the bulkheads, dewatering overnight, one day for cleaning the sluice gate, one day for Owner/Engineer inspection of the sluice gate, and one day to remove or re-locate bulkheads to next sluiceway. During this period of dewatering and inspection, the two sluiceways will be unavailable for use, and each sluiceway can pass approximately 1,571 cfs at normal pool headwater elevation of 648.6 feet, so the remaining capacity of the four sluiceways only at normal headwater elevation would be approximately 6,285 cfs.

Since the spillway will have a reduced capacity, sluiceway bulkheading and inspection activities will be closely coordinated between the Hydro Operations Supervisor and Contractor. The Hydro Operations Supervisor will monitor headwater elevations and inflow forecasting, and if high inflows are anticipated, sluiceway dewatering activities will be stopped, and any bulkheads removed, as necessary, until the high flows subside, and dewatering activities can be safely resumed.

The sluice gates are assumed to be visually inspected while in the full open position, with the sluiceway dewatered to below the bottom of gate elevation. Project team personnel, including inspection personnel, are not assumed to enter within the sluiceway extents. The sluice gates will be visually inspected from the area at the top of the piers, near the downstream extents of the sluiceway, and from the existing walkway, as necessary. Project team members will remain visible and in constant communication throughout the inspection.

3.0 Responsibilities

The Owner (PCS/Hydro Operations Supervisor) in consultation (if possible) with the Engineer and/or Contractor Construction Manager will determine if and when the TCEAP is initiated. The Owner may also initiate the TCEAP as it would its permanent EAP for the Ford Lake Dam.

If the TCEAP is initiated, the Owner will notify individuals as outlined in Attachment 1 that the TCEAP has been initiated.

The Owner will instruct Contracted Construction Personnel as to their roles and responsibilities in carrying out the TCEAP.

4.0 Safety Procedures

Emergency Action Plan (EAP) Conditions. The EAP conditions are as follows: Imminent Failure, Potential Failure, High Flow, and Non-Failure. Additional information about the EAP conditions is located in the full Emergency Action Plan. No work will be performed under EAP Conditions Imminent Failure, Potential Failure, and High Flow and EAP Condition Non-Failure will be evaluated on a case-by-case basis to determine if it is safe for work to continue.

Water Safety. The Construction Contractor will be responsible for developing a water rescue plan for work on or directly adjacent to the water, as warranted. Operations around water will be completed in accordance with all Local, State, and Federal safety guidelines including, but not limited to, Federal OSHA Standard 29 CFR 1926.107 Working over or near water.

General Construction Safety. Each organization on site during construction will be responsible for ensuring that all on-site staff have appropriate training and Personal Protective Equipment (PPE), in accordance with all appropriate OSHA and MI-OSHA Regulations, Township policies, and individual organizational policies. Each individual is responsible for their own protection and adherence to the established safety plans and policies of their respective organizations and the established project-specific safety plans and policies.

Attachment 2 shows potential locations of project safety measures. It will be up to the contractor to create their own safety plan and provide their own safety equipment.

Spilling Operations. Flow will primarily be passed through the powerhouse to the extent feasible, with flow in excess of the powerhouse capacity (approximately 1,000 cfs) passed through the spillway sluice gates that remain operational. Construction activities may necessitate for a short duration for flow through the powerhouse to be stopped and all flow passed through the spillway. These periods will be coordinated between the Hydro Operator and/or the Hydro Operations Supervisor, the RE/PCS (when on site), and the Contractor.

The gate inspection portion of the construction work will also require up to two of the sluiceways at a time to be bulkheaded and dewatered, and unavailable for spill capacity. These periods will be coordinated between the Hydro Operator and/or the Hydro Operations Supervisor, the PCS/RE, and the Contractor and will not be performed when high flows are anticipated. If discharge through the sluiceways is required when two sluiceways are dewatered, discharge will be shifted to the sluiceways that are furthest away from the bulkheaded sluiceways and all discharge activities will be coordinated between the Hydro Operator, and/or the Hydro Operations Supervisor, the PCS/RE, and the Contractor. If high flows are anticipated after the bulkheads are installed, the bulkheads will be removed and the sluiceways made available for additional discharge capacity, as required.

Sluice gates are operated from within the powerhouse using a hydraulic system. Electricity is needed to run the hydraulic pump. A standby generator is on-site and will start automatically in the event of loss of utility power or if a high voltage house transformer fails. In the event of loss of electrical control of valves,

a manual directional valve and changing valves at the cylinders can be used to open the sluice gates. The gates can be operated by local manual and local automatic controls but cannot be operated remotely outside of the powerhouse. The gates are currently equipped with an auto spill function, however, the auto spill function will be disabled when equipment or personnel are in an area that may be impacted by sluiceway discharge. There is no formal procedure for sequencing the opening of the sluice gates.

As stated in the full EAP, if run-of-river flow exceeds 10,000 cfs, the Township will prepare for mobilization and activation of the fuse-plug emergency spillway located within the right embankment and all construction activities will be ceased. Construction activities are not expected to interfere with mobilization and activation of fuse-plug spillway, should it be needed. As stated above, cofferdams will be cut down or partially removed in anticipation of flows that may cause overtopping of the cofferdam, and any sluiceway bulkheads will be removed in anticipation of flows that may exceed available sluiceway spillway capacity.

The full EAP for Ford Lake Dam is regularly tested in accordance with the FERC requirements. The emergency contact phone list, provided in Attachment 1, will be tested prior to the beginning of construction.

Key project elevations and hydraulic information, obtained from the 2022 STID is also provided below for reference.

Table 1 Key Project Elevations and Information

Feature	Elevation [feet] / Flow [cfs]
	Plant Datum
Normal Pool Headwater	684.6 ± 0.25
Normal Tailwater	652.0
Nominal Embankment Crest Elevation	695.7 (min)
Top of Clay Core in Embankment	693.5
Top of Clay Core in Fuse-Plug Spillway	694.0
Crest of Overflow Spillway	685.0
Spillway Sluiceway Sill Elevation	641.0
Probable Maximum Flood Headwater	694.1
Probable Maximum Flood Tailwater	663.6
PMF Peak Outflow	27,980
100-Year Flood	9,800
Flood of Record	6,815
Zero Freeboard Elevation	695.7
Zero Freeboard Discharge Capacity	32,000

Table 2 **Hydraulic Capacity of Each Spillway**

Spillway	Normal Pool = 684.6 (feet, Plant Datum)	Max. PMF Pool = 694.1 (feet, Plant Datum)
Sluice-gated spillway	9,428 cfs	9,703 cfs
Fixed-crest overflow spillway	0	11,107 cfs
Emergency Fuse-plug spillway	0	7,639 cfs

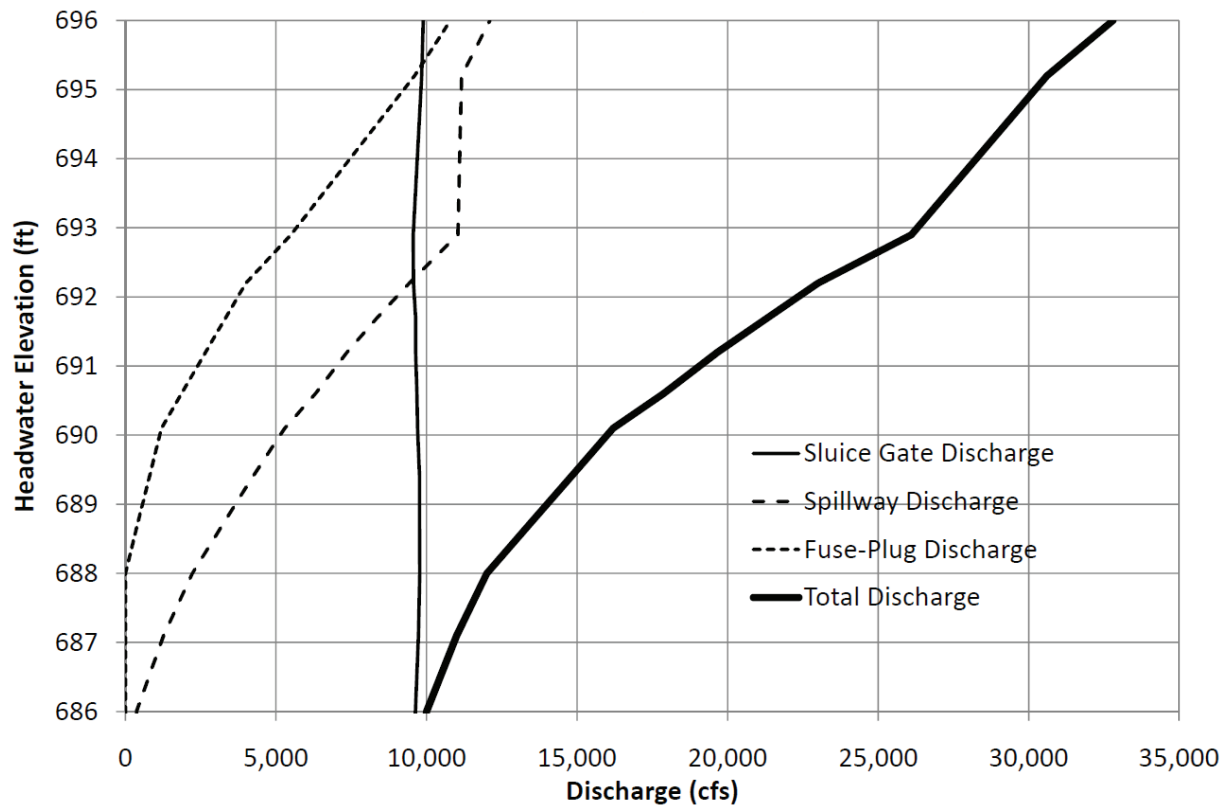
Figure 1 **Project Discharge Rating Curve**

Table 3 Project Discharge Rating Curve

Headwater Elevation (feet, Plant Datum)	Fixed-Crest Overflow Spillway Discharge		Sluice Gate Spillway Discharge		Emergency Fuse-Plug Spillway Discharge		Total Discharge (cfs)
	(cfs)	(%)	(cfs)	(%)	(cfs)	(%)	
686.0	366	4	9,634	96	0	0	10,000
687.1	1,271	12	9,729	88	0	0	11,000
688.0	2,223	19	9,777	81	0	0	12,000
688.7	3,229	24	9,771	73	400	3	13,400
689.4	4,233	29	9,767	66	800	5	14,800
690.1	5,294	33	9,706	60	1,200	7	16,200
690.6	6,317	35	9,683	54	1,867	11	17,867
691.2	7,362	37	9,638	49	2,667	14	19,667
691.7	8,362	39	9,638	45	3,333	16	21,333
692.2	9,431	41	9,569	42	4,000	17	23,000
692.9	11,046	42	9,557	37	5,500	21	26,104
695.2	11,163	36	9,837	32	9,600	31	30,600
696.0	12,108	37	9,892	30	10,800	33	32,800

Figure 2 Tailwater Rating Curve

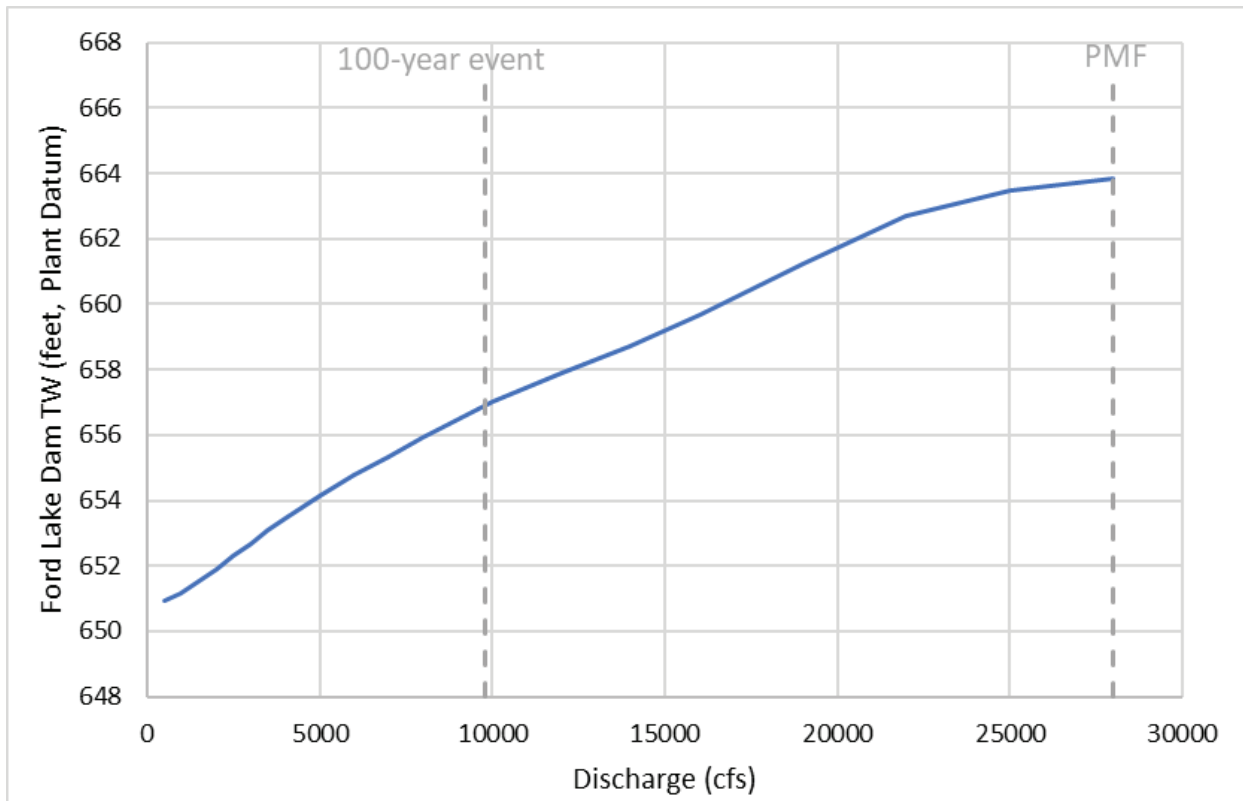


Table 4 Tailwater Rating Curve

Total Discharge (cfs)	Tailwater Elevation (feet, Plant Datum)
500	650.94
1000	651.18
1500	651.51
2000	651.90
2500	652.29
3000	652.69
3500	653.08
4000	653.46
5000	654.15
6000	654.77
7000	655.33
8000	655.94
10000	657.04
12000	657.88
14000	658.72
16000	659.67
19000	661.24
22000	662.71
25000	663.47
27980	663.85

Attachment 1

TCEAP Emergency Contact Phone List

Emergency Contact Phone List

CHARTER TOWNSHIP OF YPSILANTI & ASSOCIATED PERSONNEL

NAME/TITLE	OFFICE	CELL	HOME
Michael Saranen, Hydro Operations Supervisor	(734) 544-3691		
Matt Carney, Hydro Operator			
Dispatch Supervisor, HVA			
Eric Copeland, Ypsilanti Township			
Ford Lake Dam Office	(734) 740-2675		
French Landing Dam Operator			
French Landing Dam	(734) 699-8929		

CONSTRUCTION COMPANY PERSONNEL (TBD)

NAME/TITLE	OFFICE	CELL	HOME
Project Manager			
General Superintendent/Safety Dir			
Project Superintendent			

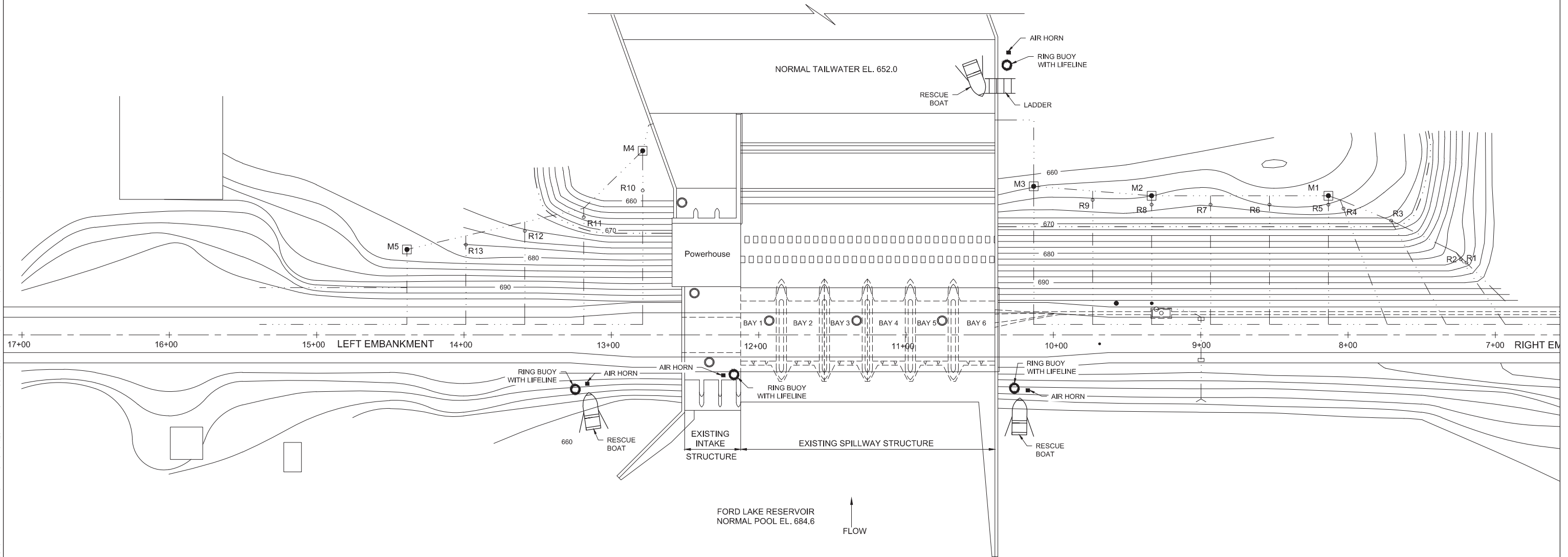
CONSULTING ENGINEER PERSONNEL (BARR ENGINEERING)

NAME/TITLE	OFFICE	CELL	HOME
David Hibbs, Dam Safety Engineer (DSE)	(734) 922-4437	(734) 205-8993	
Chris Toulouse Consulting Engineer (CE/RE)	(734) 922-4426	(314) 258-7199	
Kate Kelley (alternate RE)	(734) 922-4464	(248) 761-0773	
Mark Remell (alternate RE)	(734) 922-4404	(586) 764-1004	
Tor Hansen (alternate RE)	(952) 832-2758	(952) 994-2656	

Attachment 2

Site Plan Potential Location of Safety Measures

CADD USER: CHRIS J. TOULOUSE FILE: P:\ANN ARBOR\22 MI\12281058 FORD LAKE DAM GENERAL SERVICES\WORKFILES\2022\CONCRETE REPAIR AND GATE INSPECTION\CIP AND TCEAP\FIGURES\TCEAP ATTACHMENT 2.DWG PLOT SCALE: 1:2 PLOT DATE: 2/22/2023 11:24 AM



1 PLAN: FORD LAKE DAM POTENTIAL SAFETY MEASURES AND LOCATIONS



LEGEND

- EXISTING RING BUOY WITH LIFELINE
- POTENTIAL LOCATION FOR CONTRACTOR PROVIDED RING BUOY WITH LIFELINE
- POTENTIAL LOCATION FOR CONTRACTOR PROVIDED AIR HORN
- POTENTIAL LOCATION FOR CONTRACTOR PROVIDED RESCUE BOAT

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION
A	CJT2	TSH	CJT2	2/22/23	TCEAP ATTACHMENT 2

CLIENT	BID	CONSTRUCTION	RECORD	RELEASED TO/FOR	DATE RELEASED
				A	B
				C	0
				1	2
				3	

BARR
 Corporate Headquarters:
 Minneapolis, Minnesota
 Ph: 1-800-632-2277

Project Office:
 BARR ENGINEERING CO.
 3005 BOARDWALK STREET
 SUITE 100
 ANN ARBOR, MI 48108
 Ph: 1-800-270-5017
 Fax: (732) 922-4401
 www.barr.com

Scale	AS SHOWN
Date	2/22/23
Drawn	CJT2
Checked	TSH
Designed	CJT2
Approved	CJT2

CHARTER TOWNSHIP OF YPSILANTI
 YPSILANTI, MI

FORD LAKE DAM CONCRETE REPAIRS AND BULKHEAD PLACEMENT	
TCEAP ATTACHMENT 2	

BARR PROJECT No. 22810058.00	
CLIENT PROJECT No.	
DWG. No. -	REV. No. A

OTHER BUSINESS

BOARD MEMBER UPDATES
