

ADDENDUM NO. 1

DATE: February 8, 2023

TO: Prospective Bidders and Plan-holders

FROM: Mike Morphey, PE, Abonmarche
Martin Rivas, EIT, Abonmarche

RE: City of New Buffalo – Municipal Marina Utility Upgrades Project
Project No.: 22-0720

OWNER: Darwin Watson, City Manager
City of New Buffalo
224 W. Buffalo St,
New Buffalo, MI 49117

The following items are changes and/or clarifications to the contract documents and shall be included in the Bid Proposal. All these items will be part of the Contract Documents. The Bidder will acknowledge receipt of this Addendum in the appropriate space provided and include this Addendum with their submitted bid. Failure to do so may result in disqualification of the bid.

Addendum Items:

1. Abonmarche reached out to two qualified electrical equipment manufacturers on 1/20/2023 to request direct procurement pricing for the required electrical equipment.
 - a. Per our correspondence, the earliest lead times for shore power pedestals are 4/22/2023 and for the main distribution panel is by 8/22/2023.
 - b. Owing to longer than expected lead times, the substantial and final completion dates will be pushed back with an earliest construction start date of 9/11/2023.
2. Specification 00 52 43 – Agreement Between Owner and Contractor for Construction Contract (Stipulated Price)
 - a. Revise substantial completion date to November 15th, 2023.
 - b. Revise final completion date to May 1st, 2024.
 - c. Milestone 1 – New electric and water service must be completely functional, tested, and approved by the substantial completion date.
3. Specification 00 55 00 – Notice to Proceed
 - a. Revise substantial completion date to November 15th, 2023.

- b. Revise final completion date to May 1st, 2024.
- 4. Specification 00 65 16 – Certificate of Substantial Completion
 - a. Revise substantial completion date to November 15th, 2023.
- 5. Specification 01 50 00 – Temporary Facilities and Controls
 - a. Section 1.08.B.1: revise to “City of New Buffalo”
- 6. Specification 33 14 17 – Site Water Utility Service Laterals
 - a. Section 1.05.C, 1.06.A, and 1.12.C: revise to “City of New Buffalo”
- 7. Special Provision 01 – Marina Shore Power Pedestal Install
 - a. Omit section c.2.
 - b. Section c.3: revise to “Plumbing contractor to make connection to potable water service under promenade and furnish and install water service to each of the marina utility pedestals. Potable water piping shall be copper pipe, suitable for the proposed use.”
- 8. Special Provision 02 – Marina Plumbing
 - a. Section b.1.b: revise to “Water service piping will match existing marina water service piping and shall be type K, copper. “
 - b. Section b.1.c: revise to “City of New Buffalo”
 - c. Section c: update from “timber decking” to “concrete promenade.”

Please acknowledge receipt of this addendum by signing below and attaching to the bid forms. Should you have any questions or comments, please feel free to contact our office.

DATE

AUTHORIZED REPRESENTATIVE

BIDDING FIRM

Attachments: Request for Direct Procurement Pricing of Electrical Equipment
Specification 00 52 43 – revised on 2/8/2023.
Specification 00 55 00 – revised on 2/8/2023.
Specification 00 65 16 – revised on 2/8/2023.
Specification 01 50 00 – revised on 2/8/2023.
Specification 33 14 17 – revised on 2/8/2023.
Special Provision 01 – revised on 2/8/2023.
Special Provision 02 – revised on 2/8/2023.



January 20, 2023

FOR REFERENCE ONLY

**Re: Request for Direct Procurement Pricing of Electrical Equipment
City of New Buffalo – Municipal Marina Utility Upgrades Project**

To Whom It May Concern:

On behalf of the City of New Buffalo, we are requesting pricing, product delivery schedule, and product information for the above project. In order to accommodate boating season schedules, the City of New Buffalo intends to procure marina electrical components which are known to have lead times well in exceedance of 4 weeks. A separate construction contract will be bid to qualified contractors for installation of the components described herein.

Per procurement requirements this request has been distributed to at least two (2) manufacturers known to provide the specialized components required for the application.

MARINA ELECTRICAL COMPONENTS

The City of New Buffalo intends to procure the following components, which are further defined within the attached drawings and specifications:

1. Main Distribution Panel with Factory Installed Ground Fault Monitor and Shunt Trip Wiring

- a. 800A, 120/240V, 1 phase, 3W, 22kAIC
- b. NEMA 3R housing, service entrance rated panelboard construction
- c. Load Summary (refer to one-line diagram on page E5):
 - i. Total Connected = 400,600 VA
 - ii. Total Estimated Demand = 149,232 VA
 - iii. Total Estimated Demand Current = 622 A
- d. Ground Fault Monitor, Factory Installed
 - i. Ground fault monitor cable tray and shunt trip wiring by panelboard manufacturer.
 - ii. Refer to the one-line diagram to determine quantity and type of Molded Case Circuit Breakers (MCCB) for each Shunt Trip Relay.

FOR REFERENCE ONLY

2. Marina Shore Power Pedestals (22) with Ground Fault Circuit Interrupters

- a. Base bid quantity is 21 pedestals, but an add alternate bid Item may include 1 additional pedestal if the City desires. Please indicate a separate incremental cost for the alternate pedestal.
- b. Refer to 'Shore Power Pedestal Receptacle Replacement Detail' on drawing sheet E6 for technical specifications and the table below for pedestal quantities by type. Type corresponds to drawing sheet E6.

SHORE POWER PEDESTAL SCHEDULE				
PEDESTAL DESIGNATION	# OF 30A 125V RECEPTACLES	# OF 50A 125/250V RECEPTACLES	QUANTITY - BASE BID	QUANTITY - ADD ALTERNATE
A	4	0	6	-
B	1	1	2	-
C	2	2	11	1
D	2	0	1	-
G	3	1	1	-

- c. All GFCI circuit breakers provided with shore power pedestals shall be rated 10k AIC (min) and have 30mA equipment protection rating.
- d. Photocell-controlled LED light fixture
- e. Hose/cable brackets
- f. Hose bibbs with vacuum breakers at ADA Reach Heights per 2010 ADA Standards for Accessible Design
- g. Comply with applicable requirements of NEC Article 555, ANSI/UL 231, NFPA 303, and applicable sections of NFPA 70

DELIVERY SCHEDULE & LOCATION

We kindly ask that proposals are due **on or before February 3rd, 2023, by 2pm Eastern**. Delivery of the above components is requested on or before **April 14th, 2023, if feasible**. Please indicate the earliest date the components can be delivered to the site. The City anticipates issuing a purchase order for the components no later than **February 22nd, 2023**.

Delivery location: City of New Buffalo Streets Department, 204 East Jefferson Street, New Buffalo, MI 49117



FOR REFERENCE ONLY

RESPONSE DETAILS & SCHEDULE

All responses to this request shall include product data, a detailed/itemized price listing, delivery timing, delivery costs, estimated taxes, and payment schedule. Email responses to the following **on or before February 2nd, 2023, by 2pm Eastern:**

- mmorphey@abonmarche.com
- mrivas@abonmarche.com
- afidler@cityofnewbuffalo.org

If you have any questions regarding this request, please contact Mike Morphey via email at mmorphey@abonmarche.com or by phone at (269)926-4559.

Sincerely,
ABONMARCHE CONSULTANTS, INC.



Michael Morphey, PE, LEED AP
Sr. Project Manager/Waterfront Group Director

Attachments: Bid Drawings
 Project Technical Specifications

cc: Martin Rivas, EIT, Abonmarche
 Amy Fidler, City of New Buffalo
 Darwin Watson, City of New Buffalo



SECTION 00 52 43

AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)

This Agreement is by and between City of New Buffalo (“Owner”) and _____ (“Contractor”).

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

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: **City of New Buffalo Municipal Marina Utility Upgrades Project.**

ARTICLE 2—THE PROJECT

2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows:

1.) Removal of 16 existing marina shore power pedestals, then salvage to the Owner 2.) Trenchwork to disconnect existing water service lines, remove/abandon water service lateral connections to each existing pedestal (or re-use if possible), disconnect/remove/abandon existing electrical service lines and lateral pedestal connections 3.) Disconnect/remove existing Main Distribution Panel from marina building and other associated electrical utility removals within the marina facility 4.) Saw cut trenches through existing 6” reinforced concrete to each new pedestal location (base bid quantity is 21) 5.) Re-use existing copper water service lines (repair as needed) and install new (or re-use existing) water service lateral connections for each new pedestal 6.) Install electrical RGS conduits and copper conductors to provide service to new pedestals, in addition to the installation of empty RGS conduit tubing with pull strings for future improvements 7.) Furnish/install new Main Distribution Panel and miscellaneous electrical equipment to meet new electrical load requirements for the marina facility 8.) Furnish/install 21 marina shore power pedestals with ground fault circuit interrupter protection, ADA-compliant hose bibb heights, and lateral connections for electric/water services 9.) Install concrete slab reinforcements for pedestal foundations to prevent frost heaving 10.) Required electrical outlet grounding of existing on-site infrastructure (for details, refer to the plans).

Add Alternate #A01.) Additional Light House Power Pedestal Installation

Add Alternate #A02.) Relocation of Existing Boat Pump-Out Pump Station

ARTICLE 3—ENGINEERS

3.01 The Owner has retained **Abonmarche Consultants, Inc. (ACI)** (“Lead Engineer”) and **Harvey-Ellis-Devereaux (HED)** (“Electrical Engineer”) to act as Owner’s representative, assume all duties and

responsibilities of Lead Engineer and Electrical Engineer, and have the rights and authority assigned to Lead Engineer and Electrical Engineer in the Contract.

- 3.02 The part of the Project that pertains to the Work has been designed by **Abonmarche Consultants, Inc. (ACI)** for civil engineering site improvements, and **Harvey-Ellis-Devereaux (HED)** for electrical engineering site improvements.

ARTICLE 4—CONTRACT TIMES

4.01 *Time is 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: Dates*

- A. The Work will be substantially complete on or before **November 15th, 2023**, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before **May 1st, 2024**.

4.03 *Contract Times: Days*

- A. ~~The Work will be substantially complete within [number] 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 [number] days after the date when the Contract Times commence to run.~~

4.04 *Milestones*

- A. Parts of the Work must be substantially completed on or before the following Milestone(s):
1. Milestone 1 – **New electric and water service must be completely functional, tested, and approved by the substantial completion date.**
 2. ~~Milestone 2 [event & date/days]~~
 3. ~~Milestone 3 [event & date/days]~~

4.05 *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 and Milestones not achieved within the Contract Times, as duly modified. 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 **\$600** for each day that expires after the time (as duly adjusted pursuant to the Contract) specified 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 Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall

pay Owner **\$600** for each day that expires after such time until the Work is completed and ready for final payment.

3. *Milestones:* Contractor shall pay Owner **\$600** for each day that expires after the time (as duly adjusted pursuant to the Contract) specified above for achievement of Milestone 1, until Milestone 1 is achieved, or until the time specified for Substantial Completion is reached, at which time the rate indicated in Paragraph 4.05.A.1 will apply, rather than the Milestone rate.
 4. Liquidated damages for failing to attain Milestones, Substantial Completion, and final completion in a timely are not additive, and will not be imposed concurrently.
- B. If Owner recovers liquidated damages for a delay in completion by Contractor, then such liquidated damages are Owner's sole and exclusive remedy for such delay, and Owner is precluded from recovering any other damages, whether actual, direct, excess, or consequential, for such delay, except for special damages (if any) specified in this Agreement.
- C. ~~*Bonus:* Contractor and Owner further recognize the Owner will realize financial and other benefits if the Work is completed prior to the time specified for Substantial Completion. Accordingly, Owner and Contractor agree that as a bonus for early completion, Owner shall pay Contractor **[\$number]** for each day prior to the time specified above for Substantial Completion (as duly adjusted pursuant to the Contract) that the Work is substantially complete. The maximum value of the bonus will be limited to **[\$number]**.~~

4.06 *Special Damages*

- A. Contractor shall reimburse Owner (1) for any fines or penalties imposed on Owner as a direct result of the Contractor's failure to attain Substantial Completion according to the Contract Times, and (2) for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Substantial Completion (as duly adjusted pursuant to the Contract), until the Work is substantially complete.
- B. After Contractor achieves Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times, Contractor shall reimburse Owner for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Work to be completed and ready for final payment (as duly adjusted pursuant to the Contract), until the Work is completed and ready for final payment.
- C. The special damages imposed in this paragraph are supplemental to any liquidated damages for delayed completion established in this Agreement.

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. ~~For all Work other than Unit Price Work, a lump sum of **[\$number]**.~~

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

- B. For all Unit Price Work, an amount equal to the sum of the extended prices (established for each separately identified item of Unit Price Work by multiplying the unit price times the actual quantity of that item).

Unit Price Work (Base Bid)					
Line	Item	Quantity	Unit	Unit Cost	Item Cost
1	Mobilization, Max.5%	1.0	LSUM		
2	General Conditions	1.0	LSUM		
3	SESC Permit & SESC Measures	1.0	LSUM		
4	Trenching and Backfill	871.0	Cyd		
5	Turf Restoration - seeding and mulch blanket	1190.0	Syd		
6	Saw Cut/Remove Ex. Reinforced Concrete Pavement, 6-Inch	66.0	Syd		
7	Disconnect/Remove/Salvage to City All Existing Marina Shore Power Pedestals	16.0	Ea		
8	Disconnect Existing Water Service Line & Remove/Abandon Lateral Connections to Pedestals	1.0	LSUM		
9	Re-use Ex. Copper Water Service Line (cap & repair as needed)	1.0	LSUM		
10	Disconnect/Remove Existing Electrical Service and Lateral Connections to Pedestals	1.0	LSUM		
11	Disconnect/Remove Existing Main Distribution Panel from Marina Building (with associated electrical removals)	1.0	LSUM		
12	Reinforced Concrete Pavement, 6-Inch, including dowels	592.0	Sft		
13	Subbase, CIP (sand subbase for concrete pavement)	38.0	Cyd		
14	Install 3/4" Type K, Copper Water Service Lateral Connections to Each Pedestal (Base Bid Qty. 21)	350.0	Ft		
15	Plumbing Permits + Testing/Start-Up Commissioning	1.0	LSUM		
16	Install RGS Electrical Conduits (per One-Line Diagram)	1.0	LSUM		
17	Furnish/Install Three (3) Empty Electrical RGS Conduits, with pull strings for future improvements (see plans)	1.0	LSUM		
18	Install Copper Conductors (per One-Line Diagram)	1.0	LSUM		
19	Furnish/Install Miscellaneous Electrical Equipment (Quazite Boxes, Cable Trays, New Meter, Junction Boxes, etc.)	1.0	LSUM		
20	Install Marina Shore Power Pedestals, furnished by Owner, and connect to electric and water service	21.0	Ea		
21	Install Main Distribution Panel (furnished by Owner) for Marina Building	1.0	LSUM		
22	Electrical Outlet Grounding for Existing Canopy (North)	1.0	LSUM		
23	Electrical Permits + Testing/Start-Up Commissioning	1.0	LSUM		
Total of all Extended Prices for Base Bid Unit Price Work					

Add Alternate Bid Items:					
Line	Item	Quantity	Unit	Unit Cost	Item Cost
A01	Additional Marina Shore Power Pedestal, furnished by Owner, and connect to electric and water service; including removals, trenching, concrete replacement, and all other work and materials necessary	1.0	LSUM		
A02	Relocation of Boat Pump-Out Pump Station, including removals, trenching, backfill, concrete replacement, and all other work and materials necessary	1.0	LSUM		
Total of Add Alternates A01 and A02 Bid Items					
Total of Base Bid and Add Alternate Bid Items					

The extended prices for Unit Price Work set forth as of the Effective Date of the Contract are based on estimated quantities. As provided in Paragraph 13.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer.

- C. ~~Total of Lump Sum Amount and Unit Price Work (subject to final Unit Price adjustment) \$[number].~~
- D. For all Work, at the prices stated in Contractor’s Bid, attached hereto as an exhibit.

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. 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 the basis of Contractor’s Applications for Payment on or about the **10th** day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise 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.
 - 1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract.
 - a. **90** percent of the value of the Work completed (with the balance being retainage).
 - 1) If 50 percent or more of the Work has been completed, as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work

remain satisfactory to Owner and Engineer, there will be no additional retainage; and

- b. **100** percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).

B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to **100** percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less **200** percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

6.03 *Final Payment*

A. Upon final completion and acceptance of the Work, Owner shall pay the remainder of the Contract Price in accordance with Paragraph 15.06 of the General Conditions.

6.04 *Consent of Surety*

A. Owner will not make final payment, or return or release retainage at Substantial Completion or any other time, unless Contractor submits written consent of the surety to such payment, return, or release.

6.05 *Interest*

A. All amounts not paid when due will bear interest at the rate of **0** percent per annum.

ARTICLE 7—CONTRACT DOCUMENTS

7.01 *Contents*

A. The Contract Documents consist of all of the following:

1. This Agreement.
2. Bonds:
 - a. Performance bond (together with power of attorney).
 - b. Payment bond (together with power of attorney).
3. General Conditions.
4. Supplementary Conditions.
5. Specifications as listed in the table of contents of the project manual (copy of list attached).
6. ~~Drawings (not attached but incorporated by reference) consisting of [number] sheets with each sheet bearing the following general title: [title on Drawings].~~
7. Drawings listed on the attached sheet index. The general title is **City of New Buffalo Municipal Marina Utility Upgrades Project**.
8. ~~Addenda (numbers [number] to [number], inclusive).~~
9. Exhibits to this Agreement (enumerated as follows):
 - a. **No EGLE/USACE regulatory permits required.**

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.
 - e. ~~Warranty Bond, if any.~~
- B. The Contract Documents listed in Paragraph 7.01.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 7.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the Contract.

ARTICLE 8—REPRESENTATIONS, CERTIFICATIONS, AND STIPULATIONS

8.01 Contractor's Representations

- A. In order to induce Owner to enter into this Contract, Contractor makes the following representations:
 1. Contractor has examined and carefully studied the Contract Documents, including Addenda.
 2. Contractor has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 3. Contractor is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.
 4. Contractor has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.
 5. Contractor has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.
 6. 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 Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and

procedures of construction to be employed by Contractor; and (c) Contractor's safety precautions and programs.

7. 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.
8. 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.
9. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
10. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
11. 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.

8.02 *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 8.02:
 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.

8.03 *Standard General Conditions*

- A. Owner stipulates that if the General Conditions that are made a part of this Contract are EJCDC® C-700, Standard General Conditions for the Construction Contract (2018), 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.

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:

City of New Buffalo

(typed or printed name of organization)

(typed or printed name of organization)

By:

(individual's signature)

By:

(individual's signature)

Date:

(date signed)

Date:

(date signed)

Name:

Darwin Watson

(typed or printed)

Name:

(typed or printed)

Title:

City Manager

(typed or printed)

Title:

(typed or printed)

(If [Type of Entity] is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest:

(individual's signature)

Attest:

(individual's signature)

Title:

(typed or printed)

Title:

(typed or printed)

Address for giving notices:

Address for giving notices:

224 West Buffalo Street

New Buffalo, MI 49117

Designated Representative:

Designated Representative:

Name:

(typed or printed)

Name:

(typed or printed)

Title:

(typed or printed)

Title:

(typed or printed)

Address:

Address:

Phone:

Phone:

Email:

Email:

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

License No.:

(where applicable)

State:

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SECTION 00 55 00

NOTICE TO PROCEED

Owner: City Of New Buffalo Owner's Project No.: _____

Lead Engineer: Abonmarche Consultants, Inc. ACI Project No.: 22-0720

Electrical
Engineer: Harvey-Ellis-Deveraux HED Project No.: 2021-AC076-002

Contractor: _____ Contractor's Project No.: _____

Project: City of New Buffalo Municipal Marina Utility Upgrades Project

Contract Name: City of New Buffalo Municipal Marina Utility Upgrades Project

Effective Date of Contract: _____

Owner hereby notifies Contractor that the Contract Times under the above Contract will commence to run on **the effective date of contract or as soon as the Contractor is available to start the work until project completion**, pursuant to Paragraph 4.01 of the General Conditions.

On that date, Contractor shall start performing its obligations under the Contract Documents. No Work will be done at the Site prior to such date.

In accordance with the Agreement: ~~[Select one of the following two alternatives, insert dates or number of days, and delete the other alternative.]~~

The date by which Substantial Completion must be achieved is **November 15th, 2023**, and the date by which readiness for final payment must be achieved is **May 1st, 2024**.

~~[or]~~

The number of days to achieve Substantial Completion is ~~[number of days, from Agreement]~~ from the date stated above for the commencement of the Contract Times, resulting in a date for Substantial Completion of ~~[date, calculated from commencement date above]~~; and the number of days to achieve readiness for final payment is ~~[number of days, from Agreement]~~ from the commencement date of the Contract Times, resulting in a date for readiness for final payment of ~~[date, calculated from commencement date above]~~.

Before starting any Work at the Site, Contractor must comply with the following:

~~[Note any access limitations, security procedures, or other restrictions]~~

Owner: City of New Buffalo

By *(signature)*: _____

Name *(printed)*: _____

Title: _____

Date Issued: _____

Copy: Lead Engineer & Electrical Engineer

END OF SECTION

SECTION 00 65 16**CERTIFICATE OF SUBSTANTIAL COMPLETION**

Owner: **City of New Buffalo** Owner's Project No.:

Lead Engineer: **Abonmarche Consultants, Inc.** ACI Project No.: **22-0720**

Electrical Engineer: **Harvey-Ellis-Deveraux** HED Project No.: **2021-AC076-002**

Contractor: Contractor's Project No.:

Project: **City of New Buffalo Municipal Marina Utility Upgrades Project**

Contract Name: **City of New Buffalo Municipal Marina Utility Upgrades Project**

This Preliminary Final Certificate of Substantial Completion applies to:

All Work The following specified portions of the Work:

See project description on page 1 of the Agreement Between Owner and Contractor for Construction Contract (Stipulated Price), section 00 52 43.

Date of Substantial Completion: **November 15th, 2023**

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Work or portion thereof designated above is hereby established, subject to the provisions of the Contract pertaining to Substantial Completion. The date of Substantial Completion in the final Certificate of Substantial Completion marks the commencement of the contractual correction period and applicable warranties required by the Contract.

A punch list of items to be completed or corrected is attached to this Certificate. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

Amendments of contractual responsibilities recorded in this Certificate should be the product of mutual agreement of Owner and Contractor; see Paragraph 15.03.D of the General Conditions.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance, and warranties upon Owner's use or occupancy of the Work must be as provided in the Contract, except as amended as follows:

Amendments to Owner's Responsibilities: None As follows:

~~{List amendments to Owner's Responsibilities}~~

Amendments to Contractor's Responsibilities: None As follows:

~~{List amendments to Contractor's Responsibilities}~~

The following documents are attached to and made a part of this Certificate:

~~{List attachments such as punch list; other documents}~~

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents, nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract Documents.

Lead Engineer

By *(signature)*: _____

Name *(printed)*: _____

Title: _____

Electrical Engineer

By *(signature)*: _____

Name *(printed)*: _____

Title: _____

SECTION 01 50 00
TEMPORARY FACILITIES AND CONTROLS**PART 1 - GENERAL****1.01 SUMMARY**

A. Section Includes:

1. Temporary Utilities:
2. Temporary electricity.
3. Construction Facilities:
4. Vehicular access.
5. Pedestrian Access
6. Parking.
7. Progress cleaning and waste removal.
8. Traffic regulation.
9. Temporary Controls:
10. Security
11. Barriers.
12. Water control.
13. Dust control.
14. Erosion and sediment control.
15. Noise control.
16. Pollution control.
17. Removal of utilities, facilities, and controls.

1.02 REFERENCES

A. Michigan Department of Transportation (MDOT):

1. MDOT 2020 Standard Specifications for Construction. (Refer to MDOT design guidance for Specs not included in this package)

1.03 TEMPORARY ELECTRICITY

A. Request temporary electric service (if needed) from Indiana & Michigan Power.

1. Submit a written request which identifies desired location of meter, type of service (3 phase or single phase), voltage, and peak demand (amps).

B. Obtain electrical permit from Indiana & Michigan Power.

Temporary Facilities and Controls

01 50 00 - 1

- C. Obtain meter base from Indiana & Michigan Power.
- D. Install meter base and all required electrical work downstream of the meter base.
- E. Comply with all electrical code requirements.
- F. Obtain electrical inspection from Consumers Energy.
- G. Consumers Energy will install all required electrical work upstream of the meter base and will energize the meter after the meter base and downstream installation has passed inspection by Consumers Energy
- H. Contractor will pay all costs due and payable to Consumers Energy, pay all other costs.

1.04 VEHICULAR ACCESS

- A. Construct temporary access roads of width and load bearing capacity to accommodate construction traffic.
- B. Construct temporary bridges and culverts to span low areas and allow unimpeded drainage.
- C. Provide unimpeded access for emergency vehicles.
- D. Provide and maintain access to existing fire hydrants (if present). Keep fire hydrants free of obstructions.
- E. Provide means of removing mud from vehicle wheels before entering streets.

1.05 PEDESTRIAN ACCESS

- A. Site will be closed to pedestrian access during construction.

1.06 PARKING

- A. Allow legal parking on public streets if parking is permitted
- B. Do not allow parking on private property unless otherwise permitted in writing by property owner.

1.07 PROGRESS CLEANING AND WASTE REMOVAL

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in clean and orderly condition.
- B. Collect and remove waste materials, debris, and rubbish from site daily and dispose off-site.

1.08 TRAFFIC REGULATION

- A. Provide and maintain traffic control in accordance with the current Michigan Manual on Uniform Traffic Control Devices (MMUTCD) and Michigan Department of Transportation (MDOT) "Maintaining Traffic Typical".
- B. Haul Routes:
 - 1. Consult with City of New Buffalo to determine approved haul routes within the township.
 - 2. Confine construction traffic to approved haul routes.
- C. Traffic Control Devices:
 - 1. Provide traffic control devices configured according to applicable MDOT Maintaining Traffic Typical to meet the specified Traffic Control Requirements stated on plans.
- D. Relocation:
 - 1. Relocate traffic control devices as Work progresses to maintain effective traffic control.
- E. Removal:
 - 1. Remove equipment and devices when no longer required.
 - 2. Repair damage caused by installation.

1.09 SECURITY

- A. Security Program:
 - 1. Protect Work from theft, vandalism, and unauthorized entry.
 - 2. Initiate program at project mobilization.
 - 3. Maintain program throughout construction period until Substantial Completion.
 - 4. Repair or replace Work damaged by theft or vandalism, pay cost.

1.10 WATER CONTROL

- A. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.
- B. Protect site from puddling or running water. Provide water barriers as required to protect site from soil erosion.

1.11 DUST CONTROL

- A. Execute Work by methods to minimize raising dust from construction operations.
- B. Apply water or brine to site to control dust. If needed to control dust, payment will be incidental to construction and be included in other items.

1.12 EROSION AND SEDIMENT CONTROL

- A. Plan and execute construction by methods to control surface drainage from cuts and fills, and from borrow and waste disposal areas. Prevent erosion.
- B. Minimize surface area of bare soil exposed at one time.
- C. Provide temporary measures including berms, dikes, drains, and other devices to control water flow.
- D. Inspect earthwork minimum once per week to detect evidence of erosion and sedimentation; promptly apply corrective measures.

1.13 POLLUTION CONTROL

- A. Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.
- B. Comply with pollution and environmental control requirements of authorities having jurisdiction.

1.14 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, and materials, prior to final inspection.
- B. Clean and repair damage caused by installation or use of temporary work.
- C. Restore existing facilities used during construction to original condition.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

PART 4 - MEASUREMENT AND PAYMENT

4.01 BASIS OF PAYMENT

- A. Payment for the following item(s) of work shall cover all materials, equipment and labor necessary to install the following pay items in accordance with the plans and these specifications.

4.02 METHOD OF MEASUREMENT

A. Per MDOT Standard Specifications

END OF SECTION

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SECTION 33 14 17
SITE WATER UTILITY SERVICE LATERALS**PART 1 - GENERAL****1.01 SUMMARY**

- A. Section Includes:
1. Water Service Piping
 2. Large Diameter Water and Fire Service Piping
 3. Water Main Tapping Fittings
 4. Water Service Valves and Fittings
 5. Bedding and cover materials.
- B. Related Sections:
1. Section 31 10 00 – Site Clearing and Demolition.
 2. Section 31 23 33 – Trenching and Backfilling.
 3. Section 33 05 14 – Manholes and Structures.
 4. Section 33 05 24 – Utility Horizontal Directional Drilling.

1.02 REFERENCES

- A. The publications listed in this section form a part of this specification to the extent referenced. The publications are referenced in the text by basic designation. In the event a referenced publication has been replaced or superseded, the current version shall govern.
- B. ASTM International
- C. American Water Works Association
1. AWWA C104 - ANSI Standard for Cement Mortar Lining for Ductile-Iron Pipe and Fittings for Water.
 2. AWWA C105 - ANSI Standard for Polyethylene Encasement for Ductile-Iron Pipe Systems.
 3. AWWA C110 - ANSI Standard for Ductile-Iron and Gray-Iron Fittings, 3 In. Through 48 In., for Water.
 4. AWWA C111 - ANSI Standard for Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.
 5. AWWA C115 - ANSI Standard for Flanged Ductile-Iron Pipe with Ductile-Iron or Gray-Iron Threaded Flanges.
 6. AWWA C150 - ANSI Standard for Thickness Design of Ductile Iron Pipe.
 7. AWWA C151 - ANSI Standard for Ductile-Iron Pipe, Centrifugally Cast, for Water or Other Liquids.
 8. AWWA C153 - ANSI Standard for Ductile-Iron Compact Fittings for Water Service.
 9. AWWA C509 – Resilient-Seated Gate Valves for Water Supply Service.

10. AWWA C515 – Reduced-Wall, Resilient-Seated Gate Valves for Water Supply Service.
 11. AWWA C550 – Protecting Epoxy Interior Coating for Valves and Hydrants.
 12. AWWA C600 – Installation of Ductile-Iron Water Mains and Their Appurtenances.
 13. AWWA C651 – Disinfecting Water Mains
 14. AWWA C800 – Underground Service Line Valves and Fittings
- D. National Fire Protection Association:
1. NFPA 1963 - Standard for Fire Hose Connections.
- E. National Sanitation Foundation:
1. NSF 14 - Plastic Piping System Components and Related Materials
 2. NSF 61 - Drinking Water System Components - Health Effects.

1.03 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.
- B. Product Data: Submit manufacturer's latest published literature including illustrations, installations instructions, maintenance instructions and parts lists.
- C. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.

1.04 SYSTEM DESCRIPTION

- A. The work of this Section includes water utility service lateral piping, valves, fittings, and related appurtenances from the Public Water Distribution System to a private business, residence or multi-family residence.
- B. Lead Service Line replacements shall be undertaken from the point of connection to the public distribution system to 18 inches inside the structure or the shutoff valve, whichever is first.

1.05 CLOSEOUT SUBMITTALS

- A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for submittals.
- B. Project Record Documents: Record on as built drawings:
 1. Any variations from approved plans, including but not limited to:
 - a. location of water main
 - b. location and configuration of connection to existing water main
 - c. deviations from standard depth or depth at crossings
 - d. type and configuration of components and materials
 - e. discovery of any uncharted utilities or unexpected subsoil conditions
 2. As built measurements of Water Services
 - a. Tap: This is the distance measured along the main from the corporation stop to nearest main fitting.
 - b. L: This is the length of the service line from the corporation stop to the curb stop or meter pit.
 - c. Tail: For services stubbed for future connection, this is the length of service line installed beyond the curb stop.
 3. Witnesses:

- ~~a. Curb Stop Boxes and Valves: for each curb stop box include two witness dimensions:~~
 - ~~b. Use manholes, catch basins, hydrants, power poles, or property corners.~~
 - ~~c. Do not witness curb stop boxes to property corners, power poles, or trees.~~
- ~~C. Global Positioning System (GPS) Measurements shall be provided to the City of New Buffalo. Drawing files shall be submitted in the following projection and datum:~~
- ~~1. NAD 1983 State Plane Michigan South FIPS 2113 Intl Feet
Projection: Lambert Conformal Conic
False Easting: 13123359.58005249
False Northing: 0.00000000
Central Meridian: 84.36666667
Standard Parallel 1: 42.10000000
Standard Parallel 2: 43.66666667
Latitude Of Origin: 41.50000000
Linear Unit: Foot (0.304800)~~
 - ~~2. Geographic Coordinate System:
GCS North American 1983
Datum: D North American 1983
Prime Meridian: 0~~
 - ~~3. Vertical datum shall be in: NAVD 1988 also expressed in international feet~~
 - ~~4. If for any reason, a drawing is not in NAD 1983 Michigan State Plan South projection, the drawing must include reference and coordinates to the 2 nearest Public Land Survey System (PLSS) section corners. Documentation should be provided as to the drawing's projection and any scale factors used in the drawing.~~

~~A developer has the option of complying with the above requirement or pay for the City's engineer to integrate the new utilities into the City's GIS mapping system if it cost effective to do so. An estimated cost to do such work will be placed on deposit with the Utility Division before the project is permitted by the Department of Environmental Quality.~~

~~D. Provide Operation and Maintenance Data for valves.~~

1.06 QUALITY ASSURANCE

A. General

- 1. Perform Work in accordance with City of New Buffalo Standard Specifications and the Michigan Department of Transportation Standard Specifications for Construction.
- 2. Maintain one copy of each document on site.

B. Public Health

- 1. All material which may come in contact with water intended for public use in the public water supply shall be certified to meet ANSI/NSF Standard 61.
- 2. All plastic materials which may come in contact with water intended for public use in the public water supply shall be certified to meet ANSI/NSF Standard 61 and be certified to meet ANSI/NSF Standard 14.
- 3. Provide independent certification that materials and coatings comply with the following NSF 14 and NSF 61 Standards. All materials shall be stamped or

Site Water Utility Service Laterals

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otherwise marked to indicate compliance with and NSF 61 (and NSF 14 for plastic pipes and fittings).

4. All chemicals which may come in contact with water intended for public use in the public water supply shall be certified to meet ANSI/NSF Standard 60.
- C. Pipe and Fittings: Pipe and fittings shall be marked with manufacturer's name, pipe classification, nominal size, pressure rating, and ANSI/NSF 61 certification.
- D. Valves and hydrants: Mark valve and hydrant bodies with manufacturer's name and pressure rating. A certification of manufacture and testing shall be provided at the Owner's request.
- E. Manufacturer Qualifications: Company specializing in manufacturing Products specified in this section.

1.07 QUALIFICATIONS

- A. Installer: Company specializing in performing work of this section with minimum 5 years documented experience.
- B. All interior work and connection of existing plumbing shall be undertaken by a Plumber Licensed in the State of Michigan.

1.08 PRE-INSTALLATION MEETINGS

- A. Section 01 30 00 - Administrative Requirements: Pre-installation meeting.
- B. Convene minimum two weeks prior to commencing work of this section.

1.09 DELIVERY, STORAGE, AND HANDLING

- A. Section 01 60 00 - Product Requirements: Requirements for transporting, handling, storing, and protecting products.
- B. Deliver and store valves in shipping containers with labeling in place.
- C. Prepare hydrants, valves and accessories for shipment according to AWWA Standards. Seal hydrant and valve ends to prevent entry of foreign matter into product body.
- D. Store products in areas protected from weather, moisture, or possible damage. Do not store products directly on ground. Handle products to prevent damage to interior or exterior surfaces.
- E. Block individual and stockpiled pipe lengths to prevent moving.
- F. Do not place pipe or pipe materials on private property or in areas obstructing pedestrian or vehicle traffic.
- G. Do not place pipe flat on ground. Cradle to prevent point stress.
- H. Store UV sensitive materials out of direct sunlight.

1.10 FIELD CONDITIONS

- A. Verify existing interior plumbing, utilities, and field measurements prior to setup and preparation for installation of new service.
- B. Measure elevation of existing pipes at proposed crossing locations.

- C. Conduct operations not to interfere with, interrupt, damage, destroy, or endanger integrity of surface or subsurface structures or utilities, and landscape in immediate or adjacent areas.

1.11 SEQUENCING

- A. Section 01 10 00 - Summary: Requirements for sequencing.
- B. Do not construct or permit to be constructed any partial Lead Service Line Replacements as defined by the Michigan Department of Environment Great Lakes and Energy unless necessary to conduct an emergency repair.
- C. Sequence work to ensure newly installed water services from the public water main to the Right-of-Way are not connected to an existing lead or galvanized water service on private property, or

1.12 SCHEDULING

- A. Section 01 30 00 - Administrative Requirements: Requirements for scheduling.
- B. Schedule work to reinstate all water services prior to the cessation of work on a given work day.
- C. All work shall be undertaken during work hours defined by the City of New Buffalo Noise Ordinance unless otherwise arranged with the Property Owner.
- D. A notice to the homeowner shall be provided a minimum of one week prior to accessing the interior of any business or resident.

PART 2 - PRODUCTS

2.01 DOMESTIC SERVICE PIPING (2 INCHES AND LESS IN DIAMETER)

- A. General: Water service lines, valves and fittings 2 inches and less in diameter shall be in accordance with AWWA C800. Ensure all brass meets National Sanitation Foundation (NSF)/ANSI 61 and Standard 372 of "lead free" alloy e-brass.
- B. Copper Tubing: Copper tubing for use in water services shall be ASTM B88 Type K annealed soft-temper in accordance with federal specification WW-T-799.
- C. Service Saddles: ASTM A536 ductile iron body with dual U-bolt straps. U-Bolts and hardware shall be AISI Series 316 stainless steel. Outlet to be threaded with AWWA C.C. tapered threads. Gaskets shall be NBR (Buna-N) per ASTM MBC610. Service saddles shall be NSF 61 certified. Service saddles shall be Romac Model 202SSU.
- D. Corporation Stop Valves: Brass or red brass alloy body conforming to ASTM B62 and ASTM B584. Components in contact with water shall conform to UNS C89833. Corporation Stop valves shall be ANSI/NSF 61 and ANSI/NSF 372 certified.
 - 1. Fittings: AWWA/CC Threads x Q CTS Compression
 - 2. Products:
 - a. Up to 1" in diameter: AY McDonald 74701Q plug valve type.
 - b. 1.5" and 2" services: AY McDonald 74701BQ ball valve type.
 - c. Substitutions: Not Permitted

- E. Curb Stop Valves: Brass or red brass alloy body conforming to ASTM B62 and ASTM B584. Components in contact with water shall conform to UNS C89833. Corporation Stop valves shall be ANSI/NSF 61 and ANSI/NSF 372 certified.
1. Fittings: Q CTS Compression x Q CTS Compression
 2. All curb stops shall be AY McDonald 76100Q.
- F. Curb Boxes: Curb stopes shall be three-piece, arch base style curb stops with 1" diameter upper section. The lid and base sections shall be constructed of Cast Iron in accordance with ASTM A48, Class 25. The upper section shall be constructed of steel pipe. All components shall be coated with asphaltic coating
1. Curb Boxes shall be furnished with 48" rod.
 2. Products:
 - a. Up to 1" in diameter: AY McDonald 5607 5'-6" box with 5660 48" rod.
 - b. 1.5" and 2" services: AY McDonald 5602 5'-6" box with 5660 48" rod.
- G. Water Service Meter Connections (Indoors):
1. Copper: ASTM B88, Type K, L, hard drawn.
 2. Copper Horns: Ford No. 3 or 4, Copperhorn; or equal.
 3. Valves:
 - a. Inlet Ball Valve:
 - i) Ford B11; or equal.
 - ii) Bronze body, tee head, stem.
 - iii) O-rings: Buna-N.
 - iv) Valve Seats: Buna-N.
 - v) Ball: Fluorocarbon-coated brass.
 - b. Couplings and Fittings: Brass 85-5-5-5 (B 62), flared joints.
- H. Residential Meter Pit:
1. Manufacturer: Ford Plastic Pit Setter for moderate to cold climates.
 2. 1-inch Service
 - a. Pit Diameter and Depth: 20-inch diameter x 60-inch deep.
 - b. Setting: Standard for double lid cover.
 - c. Inlet Valve Type: Angle ball valve.
 - d. Outlet Valve Type: No outlet valve.
 - e. Meter Size: 3/4-inch meter.
 - f. Type of Inset: PET/CTS pack joint.
 - g. Type of Outlet: PET/CTS pack joint.
 - h. Yoke: None
 - i. Meter Pit Cover: Ford Wabash double lid cover, W3-T, 11-1/2-inch lid for 20- inch tile, locking electronic meter reading.
 3. 1.5-inch Service:
 - a. Pit Diameter and Depth: 36-inch diameter x 60-inch deep.
 - b. Setting: Standard for double lid cover.
 - c. Inlet Valve Type: Angle ball valve.
 - d. Outlet Valve Type: No outlet valve.
 - e. Meter Size: 1 1/2-inch meter.
 - f. Type of Inlet: Male Iron Pipe
 - g. Type of Outlet: Male Iron Pipe

- h. Yoke: None
 - i. Bypass: None
 - j. Meter Pit Cover: Ford Wabash double lid cover, W3-T, 11-1/2-inch lid for 36-inch tile, locking electronic meter reading
- I. Residential Valves and Fittings
- 1. All residential bends and fittings shall be lead-free copper SWEAT/CUP fittings, soldered with lead-free solder.
 - 2. Valves shall be 1/4 turn ball valves with lead-free brass body and SWEAT/CUP fittings.
 - 3. Threaded or push-to-connect fittings may be used with approval of the property owner and the plumbing inspector.

2.02 LARGE DIAMETER DOMESTIC AND FIRE SERVICE MATERIALS

- A. General: Water service lines, valves and fittings greater than 2 inches and less in diameter shall be in accordance with Section 33 14 13 – Public Water Utility Distribution Piping.

2.03 BEDDING, HAUNCHING AND INITIAL BACKFILL MATERIALS

- A. Bedding and Cover: Special Granular Material Class IIIB as defined in Section 32 05 16 – Aggregates for Exterior Improvements.
- B. Backfill: Granular Material Class III in accordance with the Michigan Department of Transportation Standard Specifications for Construction, Table 902-1.
- C. Drainage Aggregate: Drainage Aggregate for valve vault and hydrant drainage shall be course aggregate 6A in accordance with Michigan Department of Transportation Standard Specifications for Construction, Table 902-1.
- D. Suitable on site material may be utilized as bedding and cover with approval of Engineer.
- E. Soil Backfill from Above Pipe to Finish Grade: As specified in Section 31 23 33 – Trenching and Backfilling.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Section 01 30 00 - Administrative Requirements: Verification of existing conditions before starting work.
- B. Verify location and size of existing (and proposed) water mains, water services as well as all other utilities present.

3.02 PREPARATION

- A. Comply with local plumbing code.
- B. Obtain plumbing permit for each residence and pay all fees.
- C. Organize and coordinate a date and time with each residence to receive a new connection. A list of names, addresses, and telephone numbers will be made available to Contractor.

D. Scheduling

1. Twenty-four hours prior to any service shut down, written notice shall be placed on the building whose water may be shut down. Prior to shutting down the service, residents in the building shall be notified that the water will be off and for approximately how long they will be without service.
2. Water services for businesses shall be replaced during non-business hours and shall be coordinated with each business so as to not impact business operations, night work may be required.

3.03 INSTALLATION OF SERVICE CONNECTIONS

- A. **Service Leads:** Place service saddle for all water services at an angle of 45 degrees from the horizontal. **Alignment and Grade:** Install services at right angles with street line with a minimum of 5' feet of cover.
- B. Water services within the Right-of-Way shall be placed and backfilled as detailed in MDOT Trench Detail G unless otherwise detailed or noted on the plans.
- C. Perform Service taps in accordance with the following standards: Ductile Iron Water Main: AWWA C600 and DIPRA Installation Guide for Ductile Iron Water Main.
- D. Review area where new water service will connect to the existing water service piping at the limits of construction. Verify connection size and provide the necessary compression type adapter fittings for proper connection.
 1. Existing service lines from wells may not be used for new connections, unless approved by Engineer.
 2. **Connection of New Service Line:** Connect new shut off valve, copper horn, and meter within 3 feet of basement wall. Continue 1-inch copper to existing house plumbing. Connect to maximum pipe size of system. Provide all copper and fittings necessary to make connection. Install remote meter reader in a visible location on the exterior of the home, in a location approved by homeowner. Flush water system until water clears, check all new plumbing for leaks.
 - a. Restore temporary removals or damages to the lawn, driveway, or building. Have homeowner sign a letter of acceptance of the Work, in a form approved by Engineer.
 3. **Remote Meters:** If building does not have a basement, an area where meter can be installed inside of the first floor, or has an existing meter pit, utilize a meter pit. Install meter pit on private property in a location approved by the homeowner, or in the location designated on the plans.
 - a. Run new copper into the home and install a new shut off valve. Install new copper to the existing house plumbing. Install remote meter reader on exterior of the home, in a location approved by homeowner. Flush water system until water clears, check all new plumbing for leaks.
 - b. Restore temporary removals or damages to the lawn, driveway, or building. Have homeowner sign a letter of acceptance of the Work, in a form approved by the Engineer.
- E. **Disconnection of Existing Well Service Line:** Saw cut existing supply line just inside basement wall and plug pipe with threaded or soldered cap. Disconnect bladder tank from house plumbing. Saw cut pipe to tank and cap with threaded or soldered cap.

3.04 PRIVATE WATER SERVICE REPLACEMENT

- A. Private water services, connection to existing. Connect new water service to the existing first shut off valve inside the building or 18 inches inside of building, whichever is shortest.
- B. Water Services on private property (from the Right-of-Way to the structure) shall be installed by trenchless method. The Contractor may utilize horizontal directional drilling, impact moling (piercing/missile method), or other trenchless installation acceptable to the engineer.
- C. Coordination with Other Work:
 - 1. Private Water Services shall be installed in advance of public water distribution and water services within the Right-of-Way.
 - 2. Pipe end at Right-of-Way shall be plugged, marked, and ready for connection to newly installed.
- D. Basement Penetration:
 - 1. New penetrations or amendment of existing penetrations into the structure shall be completed in accordance with the Michigan Plumbing and/or Building Code. Plumbing shall be completed by a licensed plumber and in accordance with a plumbing permit issued by the agency with jurisdiction over the Construction Site. The Contractor shall be responsible for obtaining a plumbing permit and scheduling inspections. Contractor shall provide the permit and final inspection to the Engineer.
 - 2. Core drill foundation wall with maximum opening size no greater than 2-inches larger than the water service pipe. Hole to be minimum of 5 feet below exterior finished grade.
 - 3. Review area where water main will enter house and connect to existing plumbing. Organize and coordinate the temporary removal of all false walls. If basement wall is nonexistent or cannot be drilled, the copper may be fed into the house through the basement floor with mole tunneling equipment.
 - 4. Fill annular void between hole and pipe with non-shrink cementitious mortar. Seal any leaks with plural component chemical grout designed for injection and sealing of subsurface concrete and masonry.
- E. Connection to Existing Plumbing:
 - 1. Tie in new water service to existing plumbing 18 inches inside the structure or the first valve, whichever is first.
 - 2. Lay up new water service short of the connection point and prepare for connection of new service in conjunction with the placement of new water service within the Right-of-Way.
 - 3. Coordinate work with the Contractor performing replacement of water main and services within the Right-of-Way. Complete new service connection simultaneously with installation and commissioning of new water service at the Right-of-Wat.
 - 4. Prevent premature connection of new service which may be construed as partial lead service replacement as defined by EGLE's Lead and Copper Rule.

3.05 REMOVAL OF EXISTING WATER SERVICES

- A. All services that are replaced shall be removed in their entirety , meaning the existing corporation stop shall be turned off at the main, the existing water servicing piping, valves and valve boxes shall be removed.
- B. All removed stop boxes are property of the Contractor and shall be disposed of properly.

3.06 RESTORATION OF PRIVATE PROPERTY

- A. It is the intent of trenchless water service installation to prevent or minimize disruption to private property.
- B. Remove and replace or otherwise amend existing landscaping and/or decorative hardscaping as directed by the Engineer.
- C. The cost for restoration of improvements shall be included with payment for the associated Private Water Service item of work.

3.07 FIELD QUALITY CONTROL

- A. Perform laboratory testing of bedding material to determine gradation in accordance with ASTM C117 and ASTM C136.
- B. Perform in-place compaction tests of bedding and backfill material in accordance with Section 31 23 23.
- C. When tests indicate Work does not meet specified requirements, remove Work, replace and retest.

PART 4 - MEASUREMENT AND PAYMENT

4.01 BASIS OF PAYMENT

- A. Payment shall cover all materials, equipment and labor necessary to install the following contract item(s) in accordance with the plans and these specifications.

4.02 METHOD OF MEASUREMENT

Pay Item	Pay Unit
Curb Stop and Box	Each
Private Water Service, __ inch, Trenchless	Foot
Private Water Service, __ inch, Conn to Ex	Each
Water Serv, __ inch, Modified.....	Each
Water Serv, Long, __ inch, Modified.....	Each

Curb Stop and Box shall be paid at the contract unit price per each and shall include installation of a curb stop, curb stop box, excavation, backfill, and disposal of waste.

Private Water Service, __ inch, Trenchless is to be measured in place along the centerline of the pipe. The price includes payment in full for furnishing all material, labor, and equipment required to perform the work specified herein, including dewatering, excavation and backfill, bracing or sheeting and blocking of piercing/missile pits, removal of or cutting and capping the

existing private water service, service line couplings, service joints, and all other miscellaneous items necessary for the installation of pipe and connection to the curb stop.

Private Water Service, __ inch, Conn to Ex is to be measured in place. The price includes payment in full for furnishing all material, labor, and equipment required to perform the work specified herein, including dewatering, excavation and backfill, bracing or sheeting, blocking, removal of or cutting and capping the existing private water service, service line couplings, service joints, and all other miscellaneous items necessary for the installation of pipe and connection to the first shut off valve inside the building or 18 inches inside the building, whichever is shortest.

Water Serv, __ inch, Modified and **Water Serv, Long, __ inch, Modified** shall be paid at the contract unit price per each and shall include tapping the water main, installation of the corporation stop, copper pipe and fittings, curb stop, curb stop box, excavation, backfill (or trenchless installation), disposal of waste, and directional boring to the limits of the right-of-way. Also includes all labor and materials required to remove or abandon existing water service leads, curb stops, curb stop boxes, and corporation stops. Payment shall cover all materials labor and equipment necessary to install and reconnect the new service.

END OF SECTION

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SPECIAL PROVISION 01
MARINA SHORE POWER PEDESTAL INSTALL

a. Description. This work consists of furnishing all materials, unless otherwise noted, equipment, and labor to install marina utility pedestals for marina watercraft as shown on the plans and contained herein. This work shall include installation of new pedestals furnished by the Owner and relocation/reinstallation of existing pedestals as shown in the contract documents.

- b. Materials.** Provide materials in accordance with the following requirements:
1. Utility pedestals to be provided by the Owner or relocated from other locations within marina.
 2. All conduit, conductors, connections, trenching, piping, seals, electrical junction boxes, and other materials necessary for the installation of a complete and proper system with potable water service and electrical service. All materials shall be suitable for use in a marine environment and shall be installed per all applicable codes and requirements, including, but not limited to NEC, NFPA, Michigan Building Code, and IEC 2014 with Michigan amendments.

c. Construction. Prior to construction, the Contractor shall submit a proposed work plan, connections, hangers, conduit, and other appurtenances.

1. Install the marina utility pedestals as shown in the documents and wired in accordance with the current NEC and any manufacturer specifications applicable. Submit 2 sets of shop drawings for review and approval. Drawings must include complete material list with catalog cuts and wiring diagram.
- ~~2. Remove and inspect decking, as required to allow installation of conduit and conductors. If decking is in good condition, contractor is responsible for salvage for re-installation; If decking is in poor condition or rotted, replace with treated pine decking as specified in Special Provision 03. Anchor the pedestal to the deck per manufacturer recommendations.~~
3. Plumbing contractor to make connection to potable water service under promenade and furnish and install water service to each of the marina utility pedestals. Potable water piping shall be copper pipe, suitable for the proposed use.

d. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	Pay Unit
Install Twenty (21) Marina Shore Power Pedestals	Lump Sum

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SPECIAL PROVISION 02**MARINA PLUMBING**

- a. Description.** This work consists of furnishing and installing all pipe, valves, fittings, and service connections from existing marina plumbing system to the utility pedestals (including connection and plumbing within the pedestal) and to the relocated fire suppression hose cabinets. This item shall also include all disinfection and testing necessary to place the potable water distribution system in service.
- b. Materials.**
1. Pipe Materials
 - a. All piping and accessories shall be new and unused. Materials shall conform to the respective specifications and other requirements described below.
 - b. Water service piping will match existing marina water service piping and shall be type K, copper.
 - c. All piping, hoses and connections will be capable of handling the City of New Buffalo municipal water system pressure and pressure testing requirements. Contractor responsible for verifying existing conditions and pressures.
 2. Valves and Fittings
 - a. General:
 - i. Furnish all valves as shown on drawings or wherever required for proper control and servicing of piping systems and equipment.
 - ii. Valves and fitting shall be lead-free, as required.
 - iii. Provide a minimum of one union at every valve, strainer or item of equipment.
 - iv. Working Pressure: The working pressure of valves shall not be less than the maximum working pressure of the system in which they are installed.
 - b. Valve Types, if needed
 - i. Service valves shall be suitable for operation up to 120 psi working pressure for water.
 - ii. All valves of a specific size and type shall be supplied from a single manufacturer.
 3. Winterizing System: All plumbing work shall consider the seasonal draining of the water piping for dockage system winterization. Slope piping containing liquids to drain points.
- c. Construction.** Replace concrete promenade at direction of Engineer. Materials, labor, and equipment used for the concrete promenade must be in accordance with this special provision and plan details.

1. General

- a. All new potable water piping shall be separated from the electrical wiring to the extent feasible as described in the plans.
- b. Potable water piping shall include sufficient flexible connections to accommodate expansion and contraction.
- c. All piping will be installed so as to be mechanically protected, yet accessible for maintenance and repairs. All piping will be supported by suitable hangers and/or clamps at intervals as required.

d. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	Pay Unit
Marina Plumbing	Lump Sum