



ERIE COUNTY WATER AUTHORITY

INTEROFFICE MEMORANDUM

September 20, 2021

To: Terrence D. McCracken, Secretary to the Authority

From: Lavonya C. Lester, Director of Administration *LCL*

Subject: Watermain Materials Purchase Contract
January 1, 2022 through June 30, 2022
ECWA Project No. 202200001

The current Watermain Materials Purchase Contract expires on December 31, 2021. It allows the Authority to purchase all necessary materials for repairs and new installations of watermain and appurtenances. This contract is awarded on a line-by-line basis; therefore, it is always awarded to multiple vendors.

Since the pandemic, there has been an increase in supply chain disruptions. Suppliers are struggling to obtain products from overseas in a timely manner which has caused a deficit in availability of supplies. The cost of supplies from two years ago have increased significantly. Many of the suppliers do not want to commit to prices for two years and some manufacturers are unwilling to quote prices for that duration of time. Much of this increase is due to (1) scarcity of supplies which is attributed to less production quantities and the lack of employees, and (2) increase in consumer demands.

We feel that it would be in the best interest of the Authority that we solicit a new contract for a six-month term. We will include language that if mutually agreed upon allow for (2) six-month extensions. The decision to extend will be based on the current cost of supplies at the end of the original term. This option would attract more suppliers to formally bid on this contract.

The Administration Department is seeking Board Resolution to Advertise for the above referenced contract. The following documents are attached:

- Blue Authorization Form - this form provides the project name and project number, the action that is being requested of the Board, and it provides a list of approvals that are required prior to being acted on by the Board.
- One (1) set of Contract Documents.

Budget Information

Unit: 7610 Stores expense clearing

G/L: 150000 Materials & Supplies

The Project Manual needs to be reviewed by the Risk Manager and the Legal Department before the Board can provide the Authorization to Advertise.

LCL:jmf

Attachment

cc: R.Stoll

L.Kowalski

ECWA-928-2201-X-12

ERIE COUNTY WATER AUTHORITY
AUTHORIZATION FORM
For Approval/Execution of Documents
(check which apply)

Contract: _____ **Project No.:** 202200001

Project Description: Watermain Materials Purchase Contract

January 1, 2022 to June 30, 2022

Item Description:




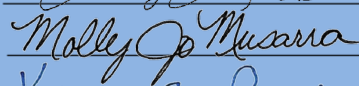


- | | | | |
|---|--|--|---------------------------------------|
| <input type="checkbox"/> Agreement | <input type="checkbox"/> Professional Service Contract | <input type="checkbox"/> Amendment | <input type="checkbox"/> Change Order |
| <input type="checkbox"/> BCD | <input type="checkbox"/> NYSDOT Agreement | <input checked="" type="checkbox"/> Contract Documents | <input type="checkbox"/> Addendum |
| <input type="checkbox"/> Recommendation for Award of Contract | <input type="checkbox"/> Recommendation to Reject Bids | | |
| <input type="checkbox"/> Request for Proposals | | | |
| <input type="checkbox"/> Other _____ | | | |

Action Requested:

- | | |
|---|--|
| <input type="checkbox"/> Board Authorization to Execute | <input checked="" type="checkbox"/> Legal Approval |
| <input type="checkbox"/> Board Authorization to Award | <input type="checkbox"/> Execution by the Chairman |
| <input checked="" type="checkbox"/> Board Authorization to Advertise for Bids | <input type="checkbox"/> Execution by the Secretary to the Authority |
| <input type="checkbox"/> Board Authorization to Solicit Request for Proposals | |
| <input type="checkbox"/> Other _____ | |

Approvals Needed:

APPROVED AS TO CONTENT:

<input checked="" type="checkbox"/> Sr. Distribution Engineer	Not Applicable	Date: _____
<input checked="" type="checkbox"/> Chief Operating Officer		Date: 09/22/2021
<input checked="" type="checkbox"/> Executive Engineer		Date: 09/22/2021
<input checked="" type="checkbox"/> Director of Administration		Date: 09/22/2021
<input checked="" type="checkbox"/> Risk Manager		Date: 09/22/2021
<input checked="" type="checkbox"/> Chief Financial Officer		Date: 09/22/2021
<input checked="" type="checkbox"/> Legal		Date: 9/21/2021

APPROVED FOR BOARD RESOLUTION:

<input checked="" type="checkbox"/> Secretary to the Authority		Date: 09/22/21
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Remarks: Unit price contract

Resolution Date: _____

Item No: _____

Set No:

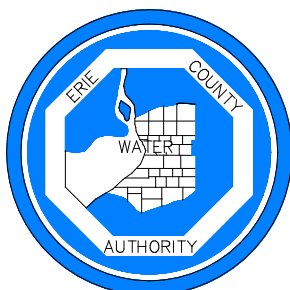
Procurement Manual

Watermain Materials Purchase Contract January 1, 2022 to June 30, 2022

Project No. 202200001

October 2021

Erie County Water Authority
3030 Union Road
Cheektowaga, New York 14227



**ERIE COUNTY WATER AUTHORITY
BUFFALO, NEW YORK**

**WATERMAIN MATERIALS PURCHASE CONTRACT
JANUARY 1, 2022 TO June 30, 2022**

ECWA PROJECT No: 202200001

OCTOBER 2021

**ERIE COUNTY WATER AUTHORITY
3030 Union Road
Cheektowaga, New York 14227**

**ERIE COUNTY WATER AUTHORITY
BUFFALO, NEW YORK**

**WATERMAIN MATERIALS PURCHASE CONTRACT
JANUARY 1, 2022 TO JUNE 30, 2022
PROJECT No.: 202200001**

TABLE OF CONTENTS

<u>Document or Section Number</u>	<u>Name or Description</u>	<u>Initial Page</u>
<u>BIDDING REQUIREMENTS</u>		
00100P	Notice to Bidders	00100P-1
00200P	Procurement Instructions to Bidders.....	00200P-1
00410P	Procurement Bid Forms	00410P-1
00430P	Procurement Bid Form Supplements	00430P-1
00450	Bidder's Qualification Statement.....	00450-1
<u>CONTRACTING REQUIREMENTS</u>		
00500P	Procurement Agreement	00500P-1
00611	Performance Bond	00611-1
00700P	Procurement General Conditions.....	00700P-1
00800P	Procurement Supplementary Conditions	00800P-1
<u>DIVISION 1 -GENERAL REQUIREMENTS</u>		
01270P	Measurement and Payment	01270P-1
01331P	Shop Drawing Procedures.....	01331P-1
01421	Reference Standards.....	01421-1
01422	Abbreviations and Symbols	01422-1
01630P	Substitutions.....	01630P-1
01640P	Transportation and Handling of Materials and Equipment.....	01640P-1
01730	Installation Data	01730-1
01781P	Operation and Maintenance Data	01781P-1

DIVISION 2 – PROCUREMENT SPECIFICATIONS BY CATEGORY NUMBER

APPENDIX

- A. Women and Minority Business Enterprise Policy (**NOT USED**)
- B. Insurance Requirements

END OF TABLE OF CONTENTS

ERIE COUNTY WATER AUTHORITY
3030 UNION ROAD
CHEEKTOWAGA, NEW YORK 14227

WATERMAIN MATERIALS PURCHASE CONTRACT
JANUARY 1, 2022 TO JUNE 30, 2022
PROJECT No.: 202200001

NOTICE TO BIDDERS

The Erie County Water Authority will receive separate, sealed bids for the furnishing and delivering of specified materials for the ERIE COUNTY WATER AUTHORITY, WATERMAIN MATERIALS PURCHASE CONTRACT, JANUARY 1, 2022 TO JUNE 30, 2022.

Bids must be received by the Erie County Water Authority no later than (Time) a.m. EST, on (Day of week, Date) at the Service Center Front Desk, Erie County Water Authority, 3030 Union Road, Cheektowaga, New York 14227.

All bid openings are recorded and posted on the ECWA website, along with the bids results.

When permitted, members of the public may be present to observe the bid opening. All attendees must bring a government-issued photo identification (driver's license preferred) and check-in with the ECWA receptionist before being allowed entry to the bid opening.

Whenever the Erie County Water Authority is operating under a Declaration of Emergency due to a pandemic or other general state of emergencies, members of the public may be precluded from being present at such bid opening.

ANYONE ENTERING THE SERVICE CENTER OR OTHER AUTHORITY FACILITIES IS SUBJECT TO SUCH RESTRICTIONS OR LIMITATIONS IN PLACE AT THE TIME OF ENTRY.

All bids being mailed (including FedEx, UPS, Priority Mail, etc.) or delivered shall be directed to the "SERVICE CENTER FRONT DESK" at the address listed above in a sealed envelope and be clearly marked on the outside of the mailing or hand-delivered envelope "BID ENCLOSED-ECWA WATERMAIN MATERIALS PURCHASE CONTRACT, JANUARY 1, 2022 TO DECEMBER 31, 2023".

Beginning at 9:00 a.m., on (Day of week, Date), Project Manuals and accompanying USB flash drive may be obtained by writing the Service Center Front Desk at the above address or calling 716-684-1510, between the hours of 9:00 a.m. and 4:00 p.m. Contract Documents will be mailed to prospective bidders wishing to obtain a set upon receipt of prospective bidder's charge number for UPS or FedEx. The mailing date will be considered the bidder's date of receipt. Partial sets of documents will not be available.

A pre-bid meeting will be held at (time) a.m., EST, on (Day of week, Date). Attendance at the pre-bid meeting is recommended but is not mandatory.

A pre-bid informational meeting to discuss the project will be held via teleconference call with online video conference. Prospective Bidders who wish to access the pre-bid meeting teleconference may request the required login information by emailing the designated contact person listed below, email subject “ECWA – WATERMAIN MATERIALS PURCHASE CONTRACT, JANUARY 1, 2022 TO JUNE 30, 2022., Pre-Bid Meeting, Teleconference Call Request”. All requests for login information shall be before 12:00 p.m., EST, on (Day, Date). All prospective bidders are strongly encouraged to partake in the pre-bid meeting teleconference call.

Each bid shall be accompanied by a certified check or bid bond in the amount of five percent (5%) of the amount of the bid.

In accordance with State Finance Law §§139-j and 139-k, all questions about meaning or intent of the bidding documents shall be submitted to the designated contact person in writing. The designated contact is Leonard F. Kowalski, PE, Executive Engineer, Erie County Water Authority, 3030 Union Road, Cheektowaga, New York 14227, telephone number 716-685-8220, email: lkowalski@ecwa.org

The Erie County Water Authority reserves the right to reject any and all bids or to accept any bid deemed to be for the best interest of the Water Authority even though the proposal chosen may result in the award of the contract to a bidder whose bid is not mathematically lowest.

ERIE COUNTY WATER AUTHORITY

TERRENCE D. McCracken
Secretary to the Authority

ERIE COUNTY WATER AUTHORITY
BUFFALO, NEW YORK

WATERMAIN MATERIALS PURCHASE CONTRACT
JANUARY 1, 2022 TO JUNE 30, 2022
PROJECT NO: 202200001

SECTION 00200P

PROCUREMENT INSTRUCTIONS TO BIDDERS

TABLE OF ARTICLES

1. Defined Terms
2. Bids Received
3. Location and Scope of Work
4. Copies of Bidding Documents
5. Qualifications of Bidders
6. Examination of Bidding Documents, other Related Data, and Site
7. Pre-Bid Conference
8. Site and Other Areas
9. Interpretations and Addenda
10. Bid Security
11. Contract Times
12. Liquidated and Special Damages
13. Substitute and "Or Equal" Items
14. Subcontractors, Suppliers, and Others
15. Preparation of Bid
16. Basis of Bids; Comparison of Bids
17. Submittal of Bid
18. Modification or Withdrawal of Bid
19. Opening of Bids
20. Disqualification of Bidders
21. Bids to Remain Subject to Acceptance
22. Award of Contract
23. Contract Securities
24. Contractor's Insurance
25. Signing of Agreement
26. Notice to Proceed
27. Partnering - Not Used
28. Sales and Use Taxes
29. Additional Requirements

ARTICLE 1 - DEFINED TERMS

- 1.01 Terms used in these Procurement Instructions to Bidders will have the meanings indicated in the Procurement General Conditions and Procurement Supplementary Conditions. Additional terms used in these Procurement Instructions to Bidders have the meanings indicated below which are applicable to both the singular and plural thereof.
- 1.02 Additional terms used in these Procurement Instructions to Bidders have the meanings indicated below which are applicable to both the singular and plural thereof.
- A. Bidder: The individual or entity who submits a Bid directly to OWNER.
 - B. Issuing Office: The office from which the Procurement Bidding Documents are to be issued and where the bidding procedures are to be administered.
 - C. Successful Bidder: The Bidder submitting a responsive Bid to whom OWNER (on the basis of OWNER'S evaluation as hereinafter provided) makes an award. Also known as CONTRACTOR.
 - D. ENGINEER: As defined in the Procurement Agreement, Section 00500P, under Article 2.

ARTICLE 2 - BIDS RECEIVED

- 2.01 Refer to Notice to Bidders for information on receipt of Bids.

ARTICLE 3 - LOCATION AND SCOPE OF WORK

- 3.01 Materials to be furnished under this Contract, hereinafter referred to as "Goods", are to be used and shall be suitable for use in a potable water system and are to be used in the Erie County Water Authority service area.

ARTICLE 4 - COPIES OF BIDDING DOCUMENTS

- 4.01 Refer to Notice to Bidders for information on examination and procurement of Procurement Bidding Documents.
- 4.02 The Issuing Office is the Service Center Front Desk of the Erie County Water Authority, 3030 Union Road, Cheektowaga, New York 14227.
- 4.03 Complete sets of Procurement Bidding Documents must be used in preparing Bids; neither OWNER, nor ENGINEER assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Procurement Bidding Documents.

- 4.04 OWNER and ENGINEER in making copies of Procurement Bidding Documents available on the above terms do so only for the purpose of obtaining Bids for the Work and do not confer a license or grant permission for any other use.

ARTICLE 5 - QUALIFICATIONS OF BIDDERS

- 5.01 Bidders shall be experienced in the kind of Work to be performed, shall have the necessary equipment therefor, and shall possess sufficient capital to properly furnish the Goods within the time allowed. Bids received from Bidders who have previously failed to furnish the Goods within the time required, or who have previously furnished similar Goods in an unsatisfactory manner, may be rejected. A Bid may be rejected if Bidder cannot show that Bidder has the necessary ability, plant and equipment to furnish the Goods at the time prescribed and thereafter to prosecute and complete furnishing the Goods at the rate or within the time specified. A Bid may be rejected if Bidder is already obligated for the performance of other work which would delay the commencement, prosecution or completion of furnishing the Goods.
- 5.02 Bidders shall be qualified to do business in the state where the Project is located or covenant to obtain such qualification prior to signing the Agreement.
- 5.03 To demonstrate qualifications to furnish the Goods, each Bidder must be prepared to submit within five days of OWNER'S request, written information such as financial data and previous experience.

ARTICLE 6 - EXAMINATION OF PROCUREMENT BIDDING DOCUMENTS, OTHER RELATED DATA, AND SITE

- 6.01 (NOT USED)
- 6.02 (NOT USED)
- 6.03 (NOT USED)
- 6.04 (NOT USED)
- 6.05 (NOT USED)
- 6.06 (NOT USED)
- 6.07 (NOT USED)
- 6.08 It is the responsibility of Bidder, before submitting a Bid to:
- A. Examine and carefully study the Bidding Documents, including any Addenda and the other related data identified in the Bidding Documents;

- B. Visit the Site and become familiar with and satisfy Bidder as to the general, local and Site conditions that may affect cost, progress and performance of furnishing the Goods;
 - C. Become familiar with and satisfy Bidder as to all federal, state and local Laws and Regulations that may affect cost, progress and performance of furnishing the Goods;
 - D. (NOT USED)
 - E. (NOT USED)
 - F. Agree at the time of submitting its Bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for the furnishing the Goods at the price bid and within the times and in accordance with the other terms and conditions of the Procurement Bidding Documents;
 - G. (NOT USED)
 - H. (NOT USED)
 - I. 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; and
 - J. Determine that the Procurement Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of furnishing the Goods.
- 6.09 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 6, that without exception the Bid is premised upon performing the Work required by the Procurement Bidding Documents and applying any specific means, methods, techniques, sequences or procedures of construction that may be shown or indicated or expressly required by the Procurement Bidding Documents, that Bidder has given ENGINEER written notice of all conflicts, errors, ambiguities and discrepancies that Bidder has discovered in the Procurement Bidding Documents and the written resolutions thereof by ENGINEER are acceptable to Bidder, and that the Procurement Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing the Work.

ARTICLE 7 - PRE-BID CONFERENCE

- 7.01 A pre-bid conference will be held if so indicated in the Notice to Bidders, and will be as follows. Representatives of the OWNER and ENGINEER will be present to discuss the Project. Bidders are encouraged to attend and participate at the conference. ENGINEER will transmit to all prospective Bidders of record such Addenda as ENGINEER considers necessary in response to questions raised at the conference. Oral statements may not be relied upon and will not be binding or legally effective.

ARTICLE 8 - SITE AND OTHER AREAS

8.01 (NOT USED)

ARTICLE 9 - INTERPRETATIONS AND ADDENDA

- 9.01 All questions about the meaning or intent of the Procurement Bidding Documents shall be submitted to ENGINEER in writing. In order to receive consideration, questions must be received by ENGINEER at least ten (10) days prior to the date for the opening of Bids. Interpretations, clarifications, and/or supplemental instructions considered necessary by ENGINEER in response to such questions will be issued by Addenda, mailed either by Registered or Certified mail, with return receipt requested, to all parties recorded by ENGINEER as having received the Procurement Bidding Documents, for receipt not later than three (3) days prior to the date for the opening of Bids. Failure of any Bidder to receive such Addendum or interpretation shall not relieve any bidder from any obligation under his bid submitted. All Addenda so issued shall become part of the Contract Documents. All Addenda must be submitted with the bid proposal and be properly signed by the Bidder as part of the Procurement Bid Documents. Only questions answered by Addenda will be binding. The OWNER will not be responsible for any other explanations or interpretation of such documents which anyone presumes to make on behalf of the OWNER before expiration of the time set for the receipt of Bids. No interpretation of the meaning of the plans, specifications or other Contract Documents will be made to any bidder orally. Oral and other interpretations or clarifications will be without legal effect.
- 9.02 Addenda may also be issued to clarify, correct or change the Bidding Documents as deemed advisable by OWNER or ENGINEER. Such Addenda, if any, will be issued in the manner and within the time period stated in paragraph 9.01.

ARTICLE 10 - BID SECURITY

- 10.01 A Bid must be accompanied by Bid security made payable to the OWNER in the amount of five percent of Bidder's maximum Bid price and in the form of certified check or Bid Bond.
- 10.02 Bid Bond shall be on the form bound in the Procurement Manual. Bid Bond shall be issued by a surety meeting the requirements of paragraphs 5.01 and 5.02 of the Procurement General Conditions. The Bid Bond must contain original signatures in ink. Pencil, stamped, thermal faxed, Xeroxed, or any other copies of the signature shall be grounds for voiding the Bid.
- 10.03 The Bid security of the Successful Bidder will be retained until 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 sign and deliver the Contract Documents and furnish the required contract security within 15 days after the Notice of Award, OWNER may annul the Notice of Award and the Bid security of that Bidder will be forfeited to the OWNER as liquidated damages for such failure.

- 10.04 The Bid security of the three lowest bidders may be retained by OWNER until the earlier of the seventh day after the Effective Date of the Agreement or the forty-first day after the Bid opening whereupon the Bid security furnished by such Bidders will be returned. The Bid security of Bidders whom OWNER believes do not have a reasonable chance of receiving an award will be returned within seven days of the Bid opening.

ARTICLE 11 - CONTRACT TIMES

- 11.01 See Section 00500P, Procurement Agreement, Article 3.02, Contract Time.

ARTICLE 12 - LIQUIDATED AND SPECIAL DAMAGES

- 12.01 Provisions for liquidated and special damages, if any, are set forth in the Agreement.

ARTICLE 13 - SUBSTITUTE AND “OR EQUAL” ITEMS

- 13.01 The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration of possible substitute or “or-equal” items. Whenever it is specified or described in the Bidding Documents that a substitute or “or-equal” item of material or equipment may be furnished or used by CONTRACTOR if acceptable to ENGINEER, application for such acceptance will not be considered by ENGINEER until after the Effective Date of the Agreement. The procedure for submittal of any such application by CONTRACTOR and consideration by ENGINEER is set forth in the Procurement General Conditions which may be supplemented in the General Requirements.
- 13.02 Refer to Section 01630P of the General Requirements for the period of time after the Effective Date of the Agreement during which the ENGINEER will accept applications for substitute or “or-equal” items of material or equipment.

ARTICLE 14 - SUBCONTRACTORS, SUPPLIERS, AND OTHERS

- 14.01 If the Procurement Supplementary Conditions require the identity of certain Subcontractors, Suppliers, individuals or entities to be submitted to OWNER in advance of a specified date prior to the Effective Date of the Agreement, the apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening submit to OWNER a list of all such Subcontractors, Suppliers, other individuals or entities proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualifications for each such Subcontractor, Supplier, individual or entity if requested by OWNER. If OWNER or ENGINEER, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual or entity, OWNER may, before the Notice of Award is given, request the apparent Successful Bidder to submit an acceptable substitute without an increase in Bid price.

- 14.02 If apparent Successful Bidder declines to make any such substitution, OWNER may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers and other individuals or entities. Declining to make requested substitutions will not constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual or entity so listed and against which OWNER or ENGINEER makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to OWNER and ENGINEER subject to revocation of such acceptance after the Effective Date of the Agreement as provided in paragraph 6.06 of the Procurement General Conditions.
- 14.03 CONTRACTOR shall not be required to employ any Subcontractor, Supplier, individual or entity against whom CONTRACTOR has reasonable objection.

ARTICLE 15 - PREPARATION OF BID

- 15.01 A Bid must be made the spreadsheet located on the OWNER-provided USB flash drive. The Bid form shall not be altered in any way. The Bidder must also complete all information in the Procurement Manual. The Procurement Manual shall not be altered in any way.
- 15.02 All blanks on the Bid Form shall be completed digitally on the spreadsheet located on the OWNER-provided USB flash drive. The Bidder shall also insert a hard copy of the spreadsheet in between pages 00410P-3 and 00410P-4 of the Procurement Manual. A Bid price shall be indicated in numbers for each Bid item listed therein or the words "No Bid", or "Not Applicable" entered. Ditto marks are not considered writing or printing and shall not be used.
- 15.03 A Bid shall be executed as stated below.
- A. A Bid by an individual shall show the Bidder's name and official address.
 - B. A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title shall appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership shall be shown below the signature.
 - C. A Bid by a joint venture shall be executed by each joint venturer in the manner indicated on the Bid form. The official address of the joint venture shall be shown below the signature.
 - D. A Bid by a corporation shall be executed in the corporate name by an officer of the corporation and shall be accompanied by a certified copy of a resolution of the board of directors authorizing the person signing the Bid to do so on behalf of the corporation. The corporate seal shall be affixed and attested by the secretary or an assistant secretary. The state of incorporation and the official corporate address shall be shown below the signature.
 - E. A Bid by a limited liability company shall be executed in the name of the firm and signed by a member accompanied by evidence of authority to sign. The state of

formation of the firm and the official address of the firm shall be shown below the signature.

- F. All names shall be typed or printed in black ink below the signature.
- G. Evidence of authority to conduct business as an out-of-state corporation in the state where furnishing the Goods is to be performed shall be provided, if applicable.

15.04 The Bid shall contain an acknowledgment of the receipt of all Addenda in the space provided on the Bid form.

15.05 The address and telephone number for communications regarding the Bid shall be shown.

15.06 In addition to the Bid Form, the following listed documents, which are bound in the Procurement Manual in Section 00430P - Procurement Bid Form Supplements shall be submitted with the Bid. Each document shall be executed in the manner described in paragraph 15.03 unless another manner is indicated.

- A. Bid Security Form.
- B. Section 2875 of the Public Authorities Law.
- C. Section 2876 of the Public Authorities Law.
- D. Section 2878 of the Public Authorities Law, Non-collusive Bidding Certification.
- E. State Finance Law Requirements.
- F. Statement Regarding Prevention of Unlawful Discriminatory Practices.
- G. Bidder's Qualification Statement, including Attachments A, B, C and D and Bidder's "Experience in The Installation of Tapping Sleeves & Valves on Prestressed Concrete Cylinder Pipe", if applicable.
- H. All Addenda.

ARTICLE 16 - BASIS OF BIDS; COMPARISON OF BIDS

16.01 Lump Sum and Unit Price

- A. Bidder shall submit its Bid on the basis of each lump sum item and unit price item as set forth in the Procurement Bid Form. For each unit price item on the bid form, Bidder shall enter the unit price bid, and shall enter the computation of the respective quantity times the Bidder's unit price for that item. Bidder shall compute and enter in the space provided on the Procurement Bid Form, the total of all lump sum items and the total of the products of quantity and unit price Bid for each unit price item.

- B. For determination of the apparent low Bidder, Bids will be evaluated on the basis of the total of all lump sum items and the total of the products of the estimated quantity of each item and unit price Bid for that item.
- C. The quantities for the unit price items are unpredictable and the ENGINEER has inserted certain quantities in the proposal to be used solely for the purpose of comparison of bids.

16.02 (NOT USED)

ARTICLE 17 - SUBMITTAL OF BID

- 17.01 A Bid shall be submitted no later than the date and time prescribed and at the place indicated in the Notice to Bidders. The entire Procurement Manual must be submitted with all proper forms completed and signed as required. The USB flash drive with completed bid spreadsheet must be returned with the Procurement Manual.
- 17.02 Bid shall be enclosed in an opaque sealed envelope plainly marked on the outside with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted) the name and address of the Bidder and its license or registration number, if applicable. Bid shall be accompanied by Bid security and other required documents.
- 17.03 All bids being mailed (including FedEx, UPS, Priority Mail, etc.) or hand-delivered to the Erie County Water Authority shall follow the procedure as defined in Section 00100P, Notice To Bidders.

ARTICLE 18 - MODIFICATION OR WITHDRAWAL OF BID

18.01 Withdrawal Prior to Bid Opening:

- A. A Bid may be withdrawn by an appropriate document duly executed, in the manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time fixed for the opening of Bids. Upon receipt of such written notice, the unopened Bid will be returned to the Bidder.

18.02 Modification Prior to Bid Opening:

- A. If a Bidder wishes to modify its Bid, Bidder must withdraw its initial Bid in the manner specified in paragraph 18.01.A and submit a new Bid.

18.03 No Bids may be withdrawn after the time set for the Bid Opening.

ARTICLE 19 - OPENING OF BIDS

- 19.01 Bids will be opened at the time and place where Bids are to be submitted and, unless obviously non-responsive, read aloud publicly. An abstract of the Bids will be made available to Bidders after the opening.
- 19.02 Bids received by mail or otherwise after the date and time specified for the opening of Bids will not be accepted and will be returned to the Bidder unopened.
- 19.03 Bid results are available on the Erie County Water Authority website, www.ecwa.org (under Doing Business tab, select option Business Opportunities). No bid results will be given over the telephone.

ARTICLE 20 - DISQUALIFICATION OF BIDDERS

- 20.01 More than one Bid for the same Goods 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.

ARTICLE 21 - BIDS TO REMAIN SUBJECT TO ACCEPTANCE

- 21.01 All Bids shall remain subject to acceptance for forty five days after the day of the Bid opening, but OWNER may, in its sole discretion, release any Bid and return the Bid security prior to that date.
- 21.02 In the event that the OWNER requires more than 45 calendar days after the actual date of the Bid Opening to award the contract, Bidders shall, when requested, provide to ENGINEER a written extension of time for OWNER to award the contract. Bidders shall also provide, to ENGINEER, written Consent of Surety for extension of the bid bond.
- 21.03 In the event that the OWNER requires more than 45 calendar days after the actual date of the Bid Opening to award the contract, and the lowest qualified bidder does not grant an extension of time for the OWNER to award the contract, the OWNER reserves the right to award to the second lowest qualified bidder.

ARTICLE 22 - AWARD OF CONTRACT

- 22.01 OWNER reserves the right to reject any or all Bids, including without limitation the right to reject any or all nonconforming, nonresponsive or conditional Bids. Bids may be rejected if they show any omissions, alterations of form, additions not called for, conditional or alternate bids other than are provided for in the Bid Form, bids containing escalation clauses or irregularities of any kind. OWNER further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to be non-responsible. OWNER also reserves the right to waive any informality not involving price, time or changes in furnishing the Goods, if it is deemed to be in the best interest of the OWNER. The Bidder will not be allowed to take advantage of any error or omission.

- 22.02 OWNER reserves the right to reject any Bid not accompanied by specified documentation and Bid security. In the event that OWNER requires more than 45 calendar days after the actual Bid opening date to award the contract, Bidders shall provide to ENGINEER written Consent of Surety of the Bid Bond.
- 22.03 OWNER reserves the right to reject any Bid that, in its sole discretion, is considered to be unbalanced or unreasonable as to the amount bid for any lump sum or unit price item.
- 22.04 In evaluating Bidders, OWNER will consider their qualifications whether or not their Bids comply with the prescribed requirements, the alternatives, if any, the lump sum and unit prices, and other data as may be requested in the Procurement Bid Form or prior to the Notice of Award.
- 22.05 OWNER may consider the qualifications and experience of Subcontractors, Suppliers and other individuals or entities proposed for those portions of furnishing the Goods for which the identity of Subcontractors, Suppliers and other individuals or entities must be submitted as provided in the Procurement Supplementary Conditions.
- 22.06 OWNER may conduct such investigations as OWNER deems necessary to establish the responsibility, qualifications and financial ability of the Bidders to furnish the Goods in accordance with the Contract Documents. OWNER reserves the right to reject the Bid of any Bidder who does not pass any such evaluation to OWNER'S satisfaction.
- 22.07 OWNER reserves the right to accept any Bid deemed to be in its best interests even though the Bid chosen may result in the award of the Contract to a Bidder whose Bid is not, on a mathematical basis alone, the low Bid.
- 22.08 The OWNER may elect not to award a contract at this time due to budgetary or other considerations. OWNER reserves the right to reject any or all proposals and to re-bid the contract if the OWNER deems it in the public interest to do so.
- 22.09 Contracts shall be awarded only pursuant to resolution.
- 22.10 OWNER reserves the right to reject any bids from Bidders who are in arrears to, or in litigation with, the Erie County Water Authority or the County of Erie upon any debt or contract, or in default as surety or otherwise upon any obligation of the Erie County Water Authority or the County of Erie.

ARTICLE 23 - CONTRACT SECURITIES

- 23.01 Performance Bond shall be in the form of Engineers Joint Contract Documents Committee (EJCDC) "Construction Performance Bond", 1910-28-A. The amounts of and other requirements for Performance Bond are stated in paragraph 5.01 of the Procurement General Conditions. The requirements for delivery of Bonds are stated in paragraph 2.01 of the Procurement General Conditions. Additional requirements may be stated in the Procurement Supplementary Conditions.

- 23.02 Successful Bidder shall within five days from the date of the Notice of Award deliver to OWNER, for OWNER'S review and approval, the Performance Bond CONTRACTOR proposes to furnish at the time of the execution of the Agreement.

ARTICLE 24 – CONTRACTOR'S INSURANCE

- 24.01 The requirements for CONTRACTOR'S insurance and the delivery of the insurance certificate are stated in Article 5 of the General Conditions and in the Supplementary Conditions.

ARTICLE 25 - SIGNING OF AGREEMENT

- 25.01 When OWNER gives a Notice of Award to the Successful Bidder, it will be accompanied by the required number of unsigned counterparts of the Agreement with the other Contract Documents which are identified in the Agreement as attached thereto. Within five days thereafter, Successful Bidder shall sign and deliver the required number of counterparts of the Agreement and attached documents to OWNER.

ARTICLE 26 - NOTICE TO PROCEED

- 26.01 Issuance of the Notice to Proceed shall be as stated in Article 2 of the Procurement General Conditions.

ARTICLE 27 - PARTNERING (NOT USED)

ARTICLE 28 - SALES AND USE TAXES

- 28.01 Refer to Procurement Supplementary Conditions paragraph SC-6.10 for information on OWNER'S exemption from sales and use taxes on materials and equipment to be incorporated into the Work. Do not include said taxes in Bid.

ARTICLE 29 - ADDITIONAL REQUIREMENTS

- 29.01 Refer to Supplementary Conditions Paragraph SC-18.03 for information on OWNER'S Women and Minority Business Enterprise requirements.

- 29.02 (NOT USED)

- 29.03 Refer to Procurement Supplementary Conditions Paragraph SC-18.07 for information on OWNER'S Purchases by Other Local Governments requirements.

- 29.04 Equipment and Materials Brochures:

- A. Bids shall be accompanied by certain manufacturer's brochures that clearly describe the various types of equipment or materials listed in the bid.
 - B. Bids not accompanied by the required equipment and material brochures may be rejected.
 - C. Four copies are to be provided with the bid and shall be sealed within the Bidder's sealed opaque envelope as described more fully in Article 17 herein.
- 29.05 The contemplated Procurement is separated into various Bid Items. Bidder may elect to submit a bid for any Bid Item for which Bidder is qualified to furnish the specified Goods. Bidders are advised that the overall Procurement will be awarded in multiple contracts; as such the amount for each Bid Item shall be sufficient to provide all Goods included under that Bid Item as if it were a separate contract.
- 29.06 For each Bid Item for which Bidder submits a bid, the amount bid shall be complete for all Goods specified for that Bid Item. If a bid for a particular Bid Item is submitted that includes only part of the Goods in that Bid Item, then the bid submitted for that particular Bid Item shall be judged to be non-responsive.
- 29.07 Award of portions of the Contract shall be based upon various Bidders' abilities to provide the Goods specified, as well as OWNER'S consideration of cost. Cost consideration shall be on a Bid Item by Bid Item basis.
- 29.08 Bidder shall identify the manufacturer and model number in the Procurement Bid Form for all items for which a bid is submitted. Bidders shall take note that it is mandatory to provide all information requested for all Goods included under the Bid Item for which a bid is submitted.
- 29.09 Bid submitted shall be based on the manufacturers specified. Consideration of substitutes, if proposed, shall be per Article 13 of the Procurement Instruction to Bidders and other applicable sections of the Procurement Manual.

END OF SECTION

ERIE COUNTY WATER AUTHORITY
BUFFALO, NEW YORK

WATERMAIN MATERIALS PURCHASE CONTRACT
JANUARY 1, 2022 TO JUNE 30, 2022
PROJECT No.: 202200001

(This Procurement Bid Form shall not be detached from the Procurement Manual. The entire Procurement Manual shall be returned with the executed Bid.)

SECTION 00410P

PROCUREMENT BID FORMS

BID FOR:

Erie County Water Authority
Watermain Materials Purchase Contract
January 1, 2022 to June 30, 2022
Project No. 202200001

BID TO:

Service Center Front Desk
Erie County Water Authority
3030 Union Road
Cheektowaga, New York 14227

BID FROM: _____

(Print or Type Name of Bidder)

(/A Corporation/A Partnership/A Limited Liability Company/An
Individual/A Joint Venture/[Bidder to strike out inapplicable terms.]

Gentlemen:

- 1.01 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with OWNER in the form included in the Procurement Bidding Documents to perform all Work as specified or indicated in the Procurement Bidding Documents for the price(s) and within the times indicated in this Bid and in accordance with the Procurement Bidding Documents.
- 2.01 Bidder accepts all of the terms and conditions of the Notice to Bidders and Procurement Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain open subject to acceptance for the time period set forth in the Procurement Instruction to Bidders. Bidder will sign the Agreement and will furnish the required contract security, and other required documents within the time periods set forth in the Procurement Bidding Documents.

ERIE COUNTY WATER AUTHORITY
WATERMAIN MATERIALS PURCHASE CONTRACT
JANUARY 1, 2022 to JUNE 30, 2022

3.01 In submitting this Bid, Bidder represents, as set forth in the Agreement, that:

- A. Bidder has examined and carefully studied the Procurement Bidding Documents, the other related data identified in the Procurement Bidding Documents, if any, and the following Addenda receipt of all of which is hereby acknowledged.

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

- B. Bidder has visited the Site and become familiar with and is satisfied as to the general, local and Site conditions that may affect cost, progress, and performance for furnishing the Goods.
- C. Bidder is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress and performance for furnishing the Goods.
- D. (NOT USED)
- E. (NOT USED)
- F. Bidder does not consider that any further examinations, investigations, explorations, tests, studies or data are necessary for the determination of this Bid for performance of furnishing the Goods at the price(s) and within the times and in accordance with the other terms and conditions of the Procurement 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 furnishing the Goods as indicated in the Procurement Bidding Documents.
- H. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Procurement Bidding Documents and all additional examinations, investigations, explorations, tests, studies and data with the Procurement Bidding Documents.
- I. Bidder has given ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Procurement Bidding Documents, and the written resolution thereof by ENGINEER is acceptable to Bidder.

ERIE COUNTY WATER AUTHORITY
WATERMAIN MATERIALS PURCHASE CONTRACT
JANUARY 1, 2022 to JUNE 30, 2022

- J. The Procurement Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of furnishing the Goods for which this Bid is submitted.
 - K. The quantities for the unit price items are unpredictable and the ENGINEER has inserted certain quantities in the proposal to be used solely for purpose of comparison of bids. The Bidder will not be entitled to any adjustment in the unit price as a result of changes in any of these items ranging from zero to any quantity. The Bidder shall make no claims for anticipated profits, for loss of profits, or for other damages as the result of changes in the quantities purchased.
- 4.01 Bidder further represents that this Bid is genuine and is not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any individual or entity to refrain from bidding; Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over OWNER; and that no person or persons acting in any official capacity for the OWNER are directly or indirectly interested in this Bid, or in any portion of the profit thereof.
- 5.01 In accordance with the above understanding and agreements, Bidder will furnish the Goods for the prices indicated on the following pages.
- 5.02 Bidder shall identify the manufacturer and model number in the Procurement Bid Form for all items for which a bid is submitted. Additionally, the order lead time must also be provided in the Bid Form for all items bid. The Authority reserves the right to reject any bid, or any affected portion of a bid for the failure to provide a lead time for a bid item.

Section: 00410P Procurement Bid Forms

1 of 21

Project No: 202200001 WATERMAIN MATERIALS PURCHASE CONTRACT
1/1/2022 - 6/30/2022

Section: 00410P Procurement Bid Forms

Bidder's Name:

Contact Email:

Address:

Category	Item Number	Item Description	Quantity	Unit Meas	Unit Bid Price	Total for Item	Lead time (Days)	Manufacturer & Model
1 TAPPING SLEEVES								
	1064	TAP SLEEVE,SS FOR ACP 6"X4"	1	EA	.	0.00		
	1066	TAP SLEEVE,SS FOR ACP 6"X6"	1	EA	.	0.00		
	1085	TAP SLV,SS ACP 8"X8" 9.2-9.6	1	EA	.	0.00		
	1086	TAP SLV,SS FOR ACP:8X6 9.2-9.6	1	EA	.	0.00		
	1087	TAP SLV,SS FOR ACP 8X4 9.2-9.6	1	EA	.	0.00		
	1103	TAP SLEEVE,SS FOR ACP 10"X4"	1	EA	.	0.00		
	1106	TAP SLV,SS ACP 10X6 11.7-12.10	1	EA	.	0.00		
	1111	TAP SLV,SS ACP 12X4 14.1-14.58	1	EA	.	0.00		
	1112	TAP SLV,SS ACP 12X6 14.1-14.58	1	EA	.	0.00		
	1113	TAP SLEEVE, SS 8" X 6" TPS	1	EA	.	0.00		
	1114	TAP SLV,SS ACP 12X10 14.1-14.5	1	EA	.	0.00		
	1115	TAP SLV,SS ACP 10X10 11.7-12.1	1	EA	.	0.00		
	1300	4"X4" SS TAP SLEEVE:4.80-5.00	1	EA	.	0.00		
	1301	10X4 SS TAP SLEEVE:11.05-11.45	1	EA	.	0.00		
	1302	10X6 SS TAP SLEEVE:11.05-11.45	1	EA	.	0.00		
	1303	10X10 SS TAP SLEEVE:11.05-11.45	1	EA	.	0.00		
	1304	6"X4" SS TAP SLEEVE:6.84-7.10	1	EA	.	0.00		
	1305	8"X4" SS TAP SLEEVE:9.05-9.30	2	EA	.	0.00		
	1306	8"X6" SS TAP SLEEVE:9.05-9.30	4	EA	.	0.00		
	1307	12X4 SS TAP SLEEVE:13.20-13.50	2	EA	.	0.00		
	1308	12X6 SS TAP SLEEVE:13.20-13.50	2	EA	.	0.00		
	1309	12X8 SS TAP SLEEVE:13.20-13.50	1	EA	.	0.00		
	1310	6"X6" SS TAP SLEEVE:6.90-7.30	1	EA	.	0.00		
	1311	12X12 SS TAP SLEEVE:13.20-13.50	1	EA	.	0.00		
	1312	8"X8" SS TAP SLEEVE:9.05-9.30	1	EA	.	0.00		
	1313	24" X 6" SS TAP SLEEVE: 25.80	1	EA	.	0.00		
	1314	24X8" SS TAP SLEEVE 25.60-26.0	1	EA	.	0.00		
	1315	10X8 SS TAP SLEEVE:11.05-11.45	1	EA	.	0.00		
	1316	16X8" SS TAP SLEEVE:17.40-17.8	1	EA	.	0.00		
	1317	12X8 SS TAP SLV ACP 14.1-14.40	1	EA	.	0.00		
	1318	16X6 SS TAP SLEEVE:17.40-17.80	1	EA	.	0.00		
	1319	16X12"SS TAP SLEEVE:17.40-17.8	1	EA	.	0.00		
	1320	12X10 SS TAP SLEEVE:13.20-13.5	1	EA	.	0.00		
	1321	20X6 SS TAP SLEEVE: 21.40 21.8	1	EA	.	0.00		
	1322	16" X 4" SS TAP SLEEVE; 17.40-	1	EA	.	0.00		
	1323	20X8 SS TAP SLEEVE:21.40-21.80	1	EA	.	0.00		
	1324	24"X12" SS TAP SLEEVE 25.6-26.	1	EA	.	0.00		
	1325	10"X4" ACP SS TAP SL 12.0-12.4	1	EA	.	0.00		
	1326	16" X 10" SS TAP SLEEVE 17.2-1	1	EA	.	0.00		

Category	Item Number	Item Description	Quantity	Unit Meas	Unit Bid Price	Total for Item	Lead time (Days)	Manufacturer & Model
	1327	20 X 12 SS TAP SLEEVE 21.40-21.80	1	EA	.	0.00		
	1328	24" X 6" SS TAP SLEEVE OVERSIZE	1	EA	.	0.00		
	1329	24" X 12" SS TAP SLEEVE	1	EA	.	0.00		
	1331	20X6 SS TAP SLEEVE: OVERSIZE	1	EA	.	0.00		
	1332	20X8 SS TAP SLEEVE: OVERSIZE	1	EA	.	0.00		
	1333	16 X 6" OVERSIZE TAP SLEEVE	1	EA	.	0.00		
	1336	36" X 6" SS TAP SLEEVE: 38.30	1	EA	.	0.00		
	1380	TAP SLV 10X8 SS ACP 11.7-12.1	1	EA	.	0.00		
2 TAPPING VALVES								
	2041	TAP VALVE, MJ: 4" W/ACC.	4	EA	.	0.00		
	2061	TAP VALVE, MJ: 6" W/ACC.	9	EA	.	0.00		
	2081	TAP VALVE, MJ: 8" W/ACC.	2	EA	.	0.00		
	2101	TAP VALVE, MJ: 10" W/ACC.	1	EA	.	0.00		
	2121	TAP VALVE, MJ: 12" W/ACC.	1	EA	.	0.00		
	2204	TAP VALVE, MJ: 4" W/ACC.	1	EA	.	0.00		
	2206	TAP VALVE, MJ: 6" W/ACC.	1	EA	.	0.00		
	2208	TAP VALVE, MJ: 8" W/ACC.	1	EA	.	0.00		
	2210	TAP VALVE, MJ: 10" W/ACC.	1	EA	.	0.00		
	2212	TAP VALVE, MJ: 12" W/ACC.	1	EA	.	0.00		
3 TAPPING SADDLES								
	3160	16" X 6" TAP SADDLE SP-5	1	EA	.	0.00		
	3168	16" X 8" TAP SADDLE SP-5	1	EA	.	0.00		
	3169	16" X 12" TAP SADDLE SP-5	1	EA	.	0.00		
	3207	20" X 6" TAP SADDLE SP-5	1	EA	.	0.00		
	3208	20" X 8" TAP SADDLE SP-5	1	EA	.	0.00		
	3212	20" X 12" TAP SADDLE SP-5	1	EA	.	0.00		
	3246	24" X 6" TAP SADDLE SP-5	1	EA	.	0.00		
	3248	24" X 8" TAP SADDLE SP-5	1	EA	.	0.00		
	3252	24" X 12" TAP SADDLE SP-5	1	EA	.	0.00		
	3306	30" X 6" TAP SADDLE SP-5	1	EA	.	0.00		
	3311	30" X 8" TAP SADDLE SP-5	1	EA	.	0.00		
	3312	30" X 12" TAP SADDLE SP-5	1	EA	.	0.00		
	3313	30" X 24" TAP SADDLE SP-5	1	EA	.	0.00		
	3366	36" X 6" TAP SADDLE SP-5	1	EA	.	0.00		
	3368	36" X 8" TAP SADDLE SP-5	1	EA	.	0.00		
	3369	36" X 10" TAP SADDLE SP-5	1	EA	.	0.00		
	3370	36" X 12" TAP SADDLE SP-5	1	EA	.	0.00		
	3371	36" X 24" TAP SADDLE SP-5	1	EA	.	0.00		
	3381	30" X 8" TAP SADDLE SP-12	1	EA	.	0.00		
	3382	30" X 12" TAP SADDLE SP-12	1	EA	.	0.00		
	3384	36" X 12" TAP SADDLE SP-12	1	EA	.	0.00		
	3385	36" X 24" TAP SADDLE SP-12	1	EA	.	0.00		
	3386	42" X 6" TAP SADDLE SP-5	1	EA	.	0.00		
	3406	42" X 6" TAP SADDLE SP-12	1	EA	.	0.00		
	3408	42" X 8" TAP SADDLE SP-12	1	EA	.	0.00		
	3410	42" X 10" TAP SADDLE, SP12 PCC	1	EA	.	0.00		
	3421	42" X 6" TAP SADDLE SP-5	1	EA	.	0.00		
	3422	42" X 12" TAP SADDLE SP-5	1	EA	.	0.00		
	3423	42" X 8" TAP SADDLE SP-5	1	EA	.	0.00		
	3424	42" X 12" TAP SADDLE SP-12	1	EA	.	0.00		

Category	Item Number	Item Description	Quantity	Unit Meas	Unit Bid Price	Total for Item	Lead time (Days)	Manufacturer & Model
	3426	42" X 36" TAP SADDLE SP-5	1	EA	.	0.00		
	3428	48" X 36" TAP SADDLE SP-12	1	EA	.	0.00		
	3505	TAP SADDLE, 54" X 36" SP-12	1	EA	.	0.00		
4 VALVE BOX PARTS								
	4001	COVER, VALVE BOX 5-1/4"	125	EA	.	0.00		
	4003	BASE, VALVE BOX	74	EA	.	0.00		
	4004	MIDDLE, 12": VALVE BOX	11	EA	.	0.00		
	4005	COVER, VALVE BOX, LOCKING	2	EA	.	0.00		
	4006	QWP EZ RISER, 6"W/COVER	18	EA	.	0.00		
	4007	RISER, 1", VALVE BOX, LESS CVR	82	EA	.	0.00		
	4008	8" RITE HITE ADAPTER W/ COVER	19	EA	.	0.00		
	4010	UPPER, 10": VALVE BOX	10	EA	.	0.00		
	4012	12" ADJUSTABLE SCREW RISER	5	EA	.	0.00		
	4014	QWP EZ RISER, 12" W/COVER	4	EA	.	0.00		
	4016	EXT./MIDDLE, 14": VALVE BOX	24	EA	.	0.00		
	4017	UPPER, 17": VALVE BOX	28	EA	.	0.00		
	4020	RISER, 2": VALVE BOX	71	EA	.	0.00		
	4027	UPPER, 27", VALVE BOX	71	EA	.	0.00		
	4029	EXT./MIDDLE, 29", VALVE BOX	64	EA	.	0.00		
	4030	RISER, 3": VALVE BOX	23	EA	.	0.00		
	4036	BOTTOM 36" VALVE BOX,V772	5	EA	.	0.00		
	4040	RISER, 4", VALVE BOX	12	EA	.	0.00		
6 CURBBOX & ROADWAY BOX PARTS								
	6002	CURB BOX UPPER,S172 30"	161	EA	.	0.00		
	6003	REPAIR LID, OUTSIDE, 95E	271	EA	.	0.00		
	6006	9" CURB BOX EXT, V222	81	EA	.	0.00		
	6007	18"CURB BOX EXT, V223	13	EA	.	0.00		
	6010	CURB BOX BOTTOM:V201 40"	140	EA	.	0.00		
	6012	REPAIR LID, INSIDE (95E)	12	EA	.	0.00		
	6021	COVER, ROADWAY BOX:V502	16	EA	.	0.00		
	6022	EXT. ROADWAY BOX: V497	8	EA	.	0.00		
	6023	UPPER, ROADWAY BOX:V468	14	EA	.	0.00		
	6024	BOTTOM, ROADWAY:36":V490	11	EA	.	0.00		
	6025	ROADWAY BOX RISER-2"	6	EA	.	0.00		
7 VALVES - LINE & BUTTERFLY								
	7031	VALVE, GATE RESILIENT:MJ: 3" W	1	EA	.	0.00		
	7040	VALVE, RESILIENT GATE:FL: 4"	1	EA	.	0.00		
	7043	VALVE, RESILIENT GATE:MJ: 4" W	6	EA	.	0.00		
	7062	VALVE, RESILIENT GATE:MJ: 6" W	25	EA	.	0.00		
	7065	VALVE, RESILIENT GATE:MJ-FL:6"	1	EA	.	0.00		
	7083	VALVE, RESILIENT GATE:MJ: 8" W	10	EA	.	0.00		
	7100	VALVE, 10" RESILIENT GATE, MJ	1	EA	.	0.00		
	7101	VALVE, 10" RESILIENT GATE, FL	1	EA	.	0.00		
	7120	12" REST. VALVE OD. 12.75-13.3	1	EA	.	0.00		
	7123	12" REST. VALVE OD. 13.20-13.6	1	EA	.	0.00		
	7124	VALVE, RESILIENT GATE:MJ: 12"	1	EA	.	0.00		
	7126	6" REST. VALVE OD. 6.60-7.00	1	EA	.	0.00		
	7127	6" REST. VALVE OD. 6.90-7.20	1	EA	.	0.00		
	7128	8" REST. VALVE OD. 8.60-9.10	1	EA	.	0.00		
	7129	8" REST. VALVE OD. 9.05-9.40	1	EA	.	0.00		

Category	Item Number	Item Description	Quantity	Unit Meas	Unit Bid Price	Total for Item	Lead time (Days)	Manufacturer & Model
	7133	VALVE, GATE RESILIENT:MJ: 3" W	1	EA	.	0.00		
	7134	VALVE, GATE RESILIENT:MJ: 4" W	1	EA	.	0.00		
	7136	VALVE, GATE RESILIENT:MJ: 6" W	1	EA	.	0.00		
	7137	VALVE, RESILIENT GATE:MJ-FL:6"	1	EA	.	0.00		
	7138	VALVE, RESILIENT GATE:MJ: 8" W	1	EA	.	0.00		
	7140	VALVE, 10" RESILIENT GATE, MJ	1	EA	.	0.00		
	7141	VALVE, 10" RESILIENT GATE, FL	1	EA	.	0.00		
	7142	VALVE, RESILIENT GATE:MJ: 12"	1	EA	.	0.00		
	7204	VALVE, BUTTERFLY, MJ: 4" W/ACC	1	EA	.	0.00		
	7206	VALVE, BUTTERFLY, MJ: 6" W/ACC	1	EA	.	0.00		
	7208	VALVE, BUTTERFLY, MJ: 8" W/ACC	1	EA	.	0.00		
	7210	VALVE, BUTTERFLY, MJ: 10" W/AC	1	EA	.	0.00		
	7212	VALVE, BUTTERFLY, MJ: 12" W/AC	1	EA	.	0.00		
	7216	VALVE, BUTTERFLY, MJ: 16" W/AC	1	EA	.	0.00		
	7220	VALVE, BUTTERFLY, MJ: 20" W/AC	1	EA	.	0.00		
	7224	VALVE, BUTTERFLY, MJ: 24"	1	EA	.	0.00		
	7230	VALVE, BUTTERFLY, MJ: 30"	1	EA	.	0.00		
	7236	VALVE, BUTTERFLY, MJ: 36" W.AC	1	EA	.	0.00		
	7242	VALVE, BUTTERFLY, MJ: 42" W/AC	1	EA	.	0.00		
	7248	VALVE, BUTTERFLY, MJ: 48" W/AC	1	EA	.	0.00		
	7304	VALVE, BUTTERFLY, FL 4" W/ACC	1	EA	.	0.00		
	7306	VALVE, BUTTERFLY, FL 6" W/ACC	1	EA	.	0.00		
	7308	VALVE, BUTTERFLY, FL: 8" W/ACC	1	EA	.	0.00		
	7311	VALVE, BUTTERFLY, FL: 10" W/AC	1	EA	.	0.00		
	7312	VALVE, BUTTERFLY, FL: 12" W/AC	1	EA	.	0.00		
	7316	VALVE, BUTTERFLY, FL: 16" W/AC	1	EA	.	0.00		
	7320	VALVE, BUTTERFLY, FL: 20" W/AC	1	EA	.	0.00		
	7324	VALVE, BUTTERFLY, FL: 24" W/AC	1	EA	.	0.00		
	7364	4" FLANGED SWING CHECK VALVE AWWA C508	1	EA	.	0.00		
	7365	6" FLANGED SWING CHECK VALVE AWWA C508	1	EA	.	0.00		
	7366	8" FLANGED SWING CHECK VALVE AWWA C508	1	M	.	0.00		
	7367	10" FLANGED SWING CHECK VALVE AWWA C508	1	EA	.	0.00		
	7368	12" FLANGED SWING CHECK VALVE AWWA C508	1	EA	.	0.00		
	7369	16" FLANGED SWING CHECK VALVE AWWA C508	1	EA	.	0.00		
	7370	20" FLANGED SWING CHECK VALVE AWWA C508	1	EA	.	0.00		
	7371	24" FLANGED SWING CHECK VALVE AWWA C508	1	EA	.	0.00		
	7715	VALVE, GATE: 1-1/2"	5	EA	.	0.00		
	7720	VALVE, GATE: 2"	13	EA	.	0.00		
	7800	40WR PILOT, 3-7/8". W/SS SEAT	1	EA	.	0.00		
	7802	2" ROSS MODEL 98EP PRV	1	EA	.	0.00		
	7804	4" ROSS MODEL 40WR PRV	1	EA	.	0.00		
	7806	6" ROSS MODEL 40WR PRV	1	EA	.	0.00		
	7812	2" ROSS MODEL 23WR PRV	1	EA	.	0.00		
	7820	2" MODEL 23WR PILOT VALVE REPA	1	EA	.	0.00		
	7822	2" MODEL 23WR MAIN VALVE REPAI	1	EA	.	0.00		
	7825	1.25" MODEL 25T REPAIR KIT REP	1	EA	.	0.00		
	7826	6" MODEL 40WR MAIN VALVE REPAI	1	EA	.	0.00		
	7832	2" MODEL 98EP MAIN VALVE REPAI	1	EA	.	0.00		
	7833	3" PRV REPAIR KIT:98EP	1	EA	.	0.00		
	7840	40WR PILOT VLV REP KIT OLD STY	1	EA	.	0.00		
	7844	40WR PILOT VLV REP KIT NEW STY	1	EA	.	0.00		

Category	Item Number	Item Description	Quantity	Unit Meas	Unit Bid Price	Total for Item	Lead time (Days)	Manufacturer & Model
	7888	8" PRV REPAIR KIT:40WR (OLD)	1	EA	.	0.00		
	7889	SEAT PACKING, 8" SLIDE LEATHER	1	EA	.	0.00		
	7890	8" PRV REPAIR KIT:40WR (NEW)	1	EA	.	0.00		
	7900	AIR RELEASE VALVE, 1"	1	EA	.	0.00		
	7901	AIR RELEASE VALVE, 2"	1	EA	.	0.00		
	7902	AIR RELEASE VALVE, 3/4"	1	EA	.	0.00		
	7903	AIR RELEASE VALVE, 1/2"	1	EA	.	0.00		
	7909	REPAIR KIT FOR 2" ARV'S	1	EA	.	0.00		
	7910	1" DUAL AIR/VACUUM VALVE	1	EA	.	0.00		
	7911	REPAIR KIT FOR 1" ARV	1	EA	.	0.00		
	7920	2" DUAL AIR/VACUUM VALVE	1	EA	.	0.00		
	7931	1" COMB. AIR RELEASE/BREAKER	1	EA	.	0.00		
	7932	2" COMB. AIR RELEASE/BREAKER	1	EA	.	0.00		
	7933	3" COMB. AIR RELEASE/BREAKER	1	EA	.	0.00		
	7934	4" COMB. AIR RELEASE/BREAKER	1	EA	.	0.00		
	7940	3/4" REDUCED PRESSURE ASMBLY	1	EA	.	0.00		
	7941	1" REDUCED PRESSURE ASMBLY	1	EA	.	0.00		
	7942	2" REDUCED PRESSURE ASMBLY	1	EA	.	0.00		
	7943	1-1/2" REDUCED PRESSURE ASMBLY	1	EA	.	0.00		
8 BRONZE SERVICE SADDLES								
	8040	TAP SADDLE,BRZ:4"X 3/4" TAP	1	EA	.	0.00		
	8041	TAP SADDLE,BRZ:4"X 1" TAP	1	EA	.	0.00		
	8042	TAP SADDLE,BRZ:4"X 2" TAP	1	EA	.	0.00		
	8043	TAP SADDLE,BRZ:4"X 1-1/2" TAP	1	EA	.	0.00		
	8060	TAP SADDLE, BRZ: 6" X 3/4" TAP	5	EA	.	0.00		
	8061	TAP SADDLE,BRZ:6"X 1" TAP	2	EA	.	0.00		
	8062	TAP SADDLE,BRZ:6"X 2" TAP	4	EA	.	0.00		
	8063	TAP SADDLE,BRZ 6"X 1-1/2" TAP	1	EA	.	0.00		
	8080	TAP SADDLE,BRZ:8"X 3/4" TAP	3	EA	.	0.00		
	8081	TAP SADDLE,BRZ:8"X 1" TAP	1	EA	.	0.00		
	8082	TAP SADDLE,BRZ:8"X 2" TAP	2	EA	.	0.00		
	8083	TAP SADDLE,BRZ:16"X 3/4" TAP	1	EA	.	0.00		
	8084	TAP SADDLE,BRZ:16"X 1" TAP	1	EA	.	0.00		
	8085	TAP SADDLE,BRZ:16"X 2" TAP	1	EA	.	0.00		
	8086	TAP SADDLE,BRZ:20"X 3/4" TAP	1	EA	.	0.00		
	8087	TAP SADDLE,BRZ:20"X 1" TAP	1	EA	.	0.00		
	8088	TAP SADDLE,BRZ:20"X 2" TAP	1	EA	.	0.00		
	8090	TAP SADDLE BRZ 8"X 1-1/2" TAP	1	EA	.	0.00		
	8091	24" BRONZE TAP SADDLE W/ 2" TAP	1	EA	.	0.00		
	8100	TAP SADDLE,BRZ:10"X 3/4" TAP	1	EA	.	0.00		
	8101	TAP SADDLE,BRZ:10"X 1" TAP	1	EA	.	0.00		
	8102	TAP SADDLE,BRZ:10"X 2" TAP	1	EA	.	0.00		
	8104	TAP SADDLE,BRZ 10" X1-1/4" TAP	1	EA	.	0.00		
	8120	TAP SADDLE,BRZ:12"X 3/4" TAP	1	EA	.	0.00		
	8121	TAP SADDLE,BRZ:12"X 1" TAP	1	EA	.	0.00		
	8122	TAP SADDLE,BRZ:12"X 2" TAP	2	EA	.	0.00		
	8123	TAP SADDLE,BRZ:12"X 1-1/2" TAP	1	EA	.	0.00		
9 CAPS AND PLUGS								
	9160	16" MJ SOLID PLUG W/ACC.	1	EA	.	0.00		
	9161	16" MJ SOLID CAP W/ACC.	1	EA	.	0.00		

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	9162	16" PUSH-IN PLUG	1	EA	.	0.00		
	9182	36" BLIND FLANGE	1	EA	.	0.00		
	9189	16" BLIND FLANGE	1	EA	.	0.00		
	9190	24" BLIND FLANGE	1	EA	.	0.00		
	9200	20" MJ SOLID PLUG W/ACC.	1	EA	.	0.00		
	9222	20" MJ PLUG W/2" TAP W/ACC.	1	EA	.	0.00		
	9230	30" MJ SOLID PLUG W/ACC.	1	EA	.	0.00		
	9231	30" MJ SOLID CAP W/ACC.	1	EA	.	0.00		
	9236	36" MJ SOLID PLUG W/ACC	1	EA	.	0.00		
	9237	36" MJ SOLID CAP W/ACC.	1	EA	.	0.00		
	9241	24" MJ SOLID PLUG W/ACC.	1	EA	.	0.00		
	9242	42" MJ SOLID PLUG W/ACC.	1	EA	.	0.00		
	9243	24" MJ SOLID CAP W/ACC.	1	EA	.	0.00		
	9244	42" MJ SOLID CAP W/ACC.	1	EA	.	0.00		
	9248	48" MJ SOLID CAP W/ACC.	1	EA	.	0.00		
	9254	54" MJ SOLID PLUG W/ACC.	1	EA	.	0.00		
	9255	54" MJ SOLID CAP W/ACC.	1	EA	.	0.00		
	9260	60" MJ SOLID PLUG W/ACC.	1	EA	.	0.00		
	9261	60" MJ SOLID CAP W/ACC.	1	EA	.	0.00		
10 HYDRANTS								
	10004	4' BURY 5-1/4" HYDRANT W/ACC.	2	EA	.	0.00		
	10005	5' BURY 5-1/4" HYDRANT W/ACC.	18	EA	.	0.00		
	10006	6' BURY 5-1/4" HYDRANT W/ACC.	5	EA	.	0.00		
	10007	7' BURY 5-1/4" HYDRANT W/ACC.	2	EA	.	0.00		
11 TEES								
	11015	TEE, MJ:4"x4"x4" W/ACC.	1	EA	.	0.00		
	11062	TEE, MJ:6"x6"x4" W/ACC.	2	EA	.	0.00		
	11063	TEE, HYDRANT:6"x6"x6"	2	EA	.	0.00		
	11064	TEE B-S-B:6"x6"x6" W/ACC.	1	EA	.	0.00		
	11065	TEE, MJ:6"x6"x6" W/ACC.	2	EA	.	0.00		
	11080	TEE, MJ:8"x8"x4" W/ACC.	2	EA	.	0.00		
	11083	TEE, MJ:8"x8"x6" W/ACC.	1	EA	.	0.00		
	11088	TEE, MJ:8"x8"x8" W/ACC.	2	EA	.	0.00		
	11090	ANCHOR TEE, 8"x8"x8"	2	EA	.	0.00		
	11100	TEE, MJ:10"x10"x6" W/ACC.	1	EA	.	0.00		
	11101	TEE, MJ:10"x10"x10" W/ACC.	1	EA	.	0.00		
	11102	TEE, MJ:10"x10"x8" W/ACC.	1	EA	.	0.00		
	11103	TEE, MJ:10"x10"x4" W/ACC.	1	EA	.	0.00		
	11104	TEE, HYDRANT:10"x10"x6" W/ACC.	1	EA	.	0.00		
	11119	TEE, MJ, 12"x12"x4", COMPACT	1	EA	.	0.00		
	11124	TEE, MJ:12"x12"x6" W/ACC.	1	EA	.	0.00		
	11126	TEE, MJ:12"x12"x8" W/ACC.	1	EA	.	0.00		
	11128	TEE, MJ:12"x12"x10" W/ACC.	1	EA	.	0.00		
	11130	TEE, MJ:12"x12"x12" W/ACC.	1	EA	.	0.00		
	11134	TEE, 16X16X12 MJ W/ACC.	1	EA	.	0.00		
	11135	TEE, 16 X 16 X 16 MJ W/ACC.	1	EA	.	0.00		
	11136	TEE, 16 X 16 X 6: MJ W/ACC.	1	EA	.	0.00		
	11137	TEE, HYDRANT, 8 X 8 X 6 W/ACC	2	EA	.	0.00		
	11201	TEE, HYDRANT, 12"x12"x6" W/ACC.	1	EA	.	0.00		
	11206	TEE:20 X 20 X 6" MJ	1	EA	.	0.00		

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	11208	TEE:20 X 20 X 8" MJ	1	EA	.	0.00		
	11244	TEE MJ, 24 X 24 X 24"	1	EA	.	0.00		
	11246	24 X 6 MJ TEE	1	EA	.	0.00		
	11442	TEE, MJ: 42" X 42" X 6" W/ACC.	1	EA	.	0.00		
12 PIPE - DUCTILE & PVC								
	12040	4" MJ DUCTILE PIPE-18' LENGTH	110	FT	.	0.00		
	12060	6" MJ DUCTILE PIPE	275	FT	.	0.00		
	12080	8" MJ DUCTILE PIPE-18.25' LG	145	FT	.	0.00		
	12081	8" TYTON PUSH JOINT DUCTILE PI	195	FT	.	0.00		
	12100	10" MJ DUCTILE PIPE-18.25' LG	18	FT	.	0.00		
	12120	12" MJ DUCTILE PIPE	34	FT	.	0.00		
	12121	12" PUSH-ON PIPE, DUCTILE IRON	18	FT	.	0.00		
	12160	16" MJ DUCTILE PIPE	18	FT	.	0.00		
	12220	20" MJ DUCTILE PIPE	18	FT	.	0.00		
	12240	24" MJ DUCTILE PIPE	18	FT	.	0.00		
	12250	36" DUCTILE PIPE	18	FT	.	0.00		
	12260	42" DUCTILE PIPE	18	FT	.	0.00		
	12270	48" DUCTILE PIPE	20	FT	.	0.00		
	12280	54" DUCTILE IRON PIPE,CLASS 54	20	FT	.	0.00		
	12290	60" DUCTILE IRON PIPE 61.61	20	FT	.	0.00		
	12300	30" DUCTILE PIPE	18	FT	.	0.00		
	12306	6" FL DUCTILE IRON PIPE	17	FT	.	0.00		
	12308	8" FL DUCTILE IRON PIPE	17	FT	.	0.00		
	12310	10" FL DUCTILE IRON PIPE	17	FT	.	0.00		
	12312	12" FL DUCTILE PIPE	17	FT	.	0.00		
	12316	16" FL DUCTILE PIPE	17	FT	.	0.00		
	12320	20" FL DUCTILE PIPE	17	FT	.	0.00		
	12324	24" FL DUCTILE PIPE	17	FT	.	0.00		
	12482	PVC PIPE: 2" SDR212	20	FT	.	0.00		
	12487	PVC PIPE: 3" SDR-21	20	FT	.	0.00		
	12488	PVC PIPE: 4" C-900 CLASS 150	20	FT	.	0.00		
	12489	PVC PIPE, 6" C-900 CLASS 150	345	FT	.	0.00		
	12490	PVC PIPE, 8" C-900 CLASS 150	253	FT	.	0.00		
	12491	PVC PIPE, 10" C-900 CLASS 150	34	FT	.	0.00		
	12492	PVC PIPE, 12" C-900 CLASS 150	135	FT	.	0.00		
	12493	PVC PIPE, 16"C-900 CLASS 150	20	FT	.	0.00		
13 RETAINERS & ANCHOR COUPLINGS								
	13040	4" MEGA-LUG RETAINER GLAND	42	EA	.	0.00		
	13061	6" MEGA-LUG SPLIT RETAINER	1	EA	.	0.00		
	13089	4" CI RETAINER GLAND	1	EA	.	0.00		
	13090	6" CI RETAINER GLAND	12	EA	.	0.00		
	13091	8" CI RETAINER GLAND	3	EA	.	0.00		
	13092	10" CI RETAINER GLAND	1	EA	.	0.00		
	13093	12" CI RETAINER GLAND	1	EA	.	0.00		
	13094	16" CI RETAINER GLAND	1	EA	.	0.00		
	13095	20" CI RETAINER GLAND	1	EA	.	0.00		
	13096	24" CI RETAINER GLAND	1	EA	.	0.00		
	13122	12" JOINT RESTRAINT	1	EA	.	0.00		
	13123	8" JOINT RESTRAINT	2	EA	.	0.00		
	13124	42" DUCTILE IRON JOINT RESTRAI	1	EA	.	0.00		

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	13167	6" X 24" FL X PE DI PIPE	1	EA	.	0.00		
	13168	COUPLING ANCHORING 6 X 18	7	EA	.	0.00		
	13169	COUPLING ANCHORING 6 X 24	3	EA	.	0.00		
	13171	90 ELBOW: ANCHORING: 6"	1	EA	.	0.00		
	13172	COUPLING,ANCHORING:6"X12"L	8	EA	.	0.00		
	13174	COUPLING, ANCHORING:8"	1	EA	.	0.00		
	13180	6" MEGA-LUG RETAINER GLAND	85	EA	.	0.00		
	13181	8" MEGA-LUG RETAINER GLAND	82	EA	.	0.00		
	13182	12" MEGA-LUG RETAINER GLAND	10	EA	.	0.00		
	13183	6" PVC MEGA-LUG RETAINER GLAND	29	EA	.	0.00		
	13184	8" PVC MEGA-LUG RETAINER GLAND	20	EA	.	0.00		
	13185	10" PVC MEGA-LUG RETAINER GLAN	2	EA	.	0.00		
	13186	12" PVC MEGA-LUG RETAINER GLAN	8	EA	.	0.00		
	13187	4" PVC MEGA-LUG RETAINER GLAND	4	EA	.	0.00		
	13188	42" DI MEGA-LUG RETAINER GLAND	1	EA	.	0.00		
	13189	48" DI MEGA-LUG RETAINER GLAND	1	EA	.	0.00		
	13191	16" MEGA-LUG RETAINER GLAND	3	EA	.	0.00		
	13192	20" MEGA-LUG RETAINER GLAND	1	EA	.	0.00		
	13193	24" MEGA-LUG RETAINER GLAND	1	EA	.	0.00		
	13194	30" MEGA-LUG RETAINER GLAND	1	EA	.	0.00		
	13196	36" MEGA-LUG RETAINER GLAND	1	EA	.	0.00		
	13197	54" MEGA-LUG RETAINER GLAND	1	EA	.	0.00		
	13198	60" MEGA-LUG RETAINER GLAND	1	EA	.	0.00		
	13206	RESTRAINT,JOINT,PVC: 6" 2 PER SET	1	EA	.	0.00		
	13208	RESTRAINT, JOINT,PVC: 8" 2 PER SET	2	EA	.	0.00		
	13209	8" D.I. JOINT RESTRAINT 2 PER	2	EA	.	0.00		
	13210	RESTRAINT,JOINT,PVC: 10" 2 PER SET	1	EA	.	0.00		
	13212	RESTRAINT,JOINT,PVC: 12" 2 PER	1	EA	.	0.00		
	13312	10" MEGA-LUG RETAINER GLAND	5	EA	.	0.00		
14 DUCTILE IRON BENDS								
	14040	4" X 11-1/4 BEND, MJ-PE	1	EA	.	0.00		
	14041	4" X 22-1/2 MJ-PE	1	EA	.	0.00		
	14042	4" X 90, MJ-PE	1	EA	.	0.00		
	14047	4" X 45 BEND, MJ-PE	1	EA	.	0.00		
	14060	6" X 11-1/4 BEND, MJ-PE	1	EA	.	0.00		
	14061	6" X 22-1/2 BEND, MJ-PE	1	EA	.	0.00		
	14062	6" X 90 BEND, MJ-PE	1	EA	.	0.00		
	14063	6" X 45 BEND, MJ-PE	2	EA	.	0.00		
	14080	8" X 11-1/4 BEND, MJ-PE	1	EA	.	0.00		
	14081	8" X 45 BEND, MJ-PE	1	EA	.	0.00		
	14083	8" X 22-1/2 BEND, MJ-PE	1	EA	.	0.00		
	14084	8" X 90 BEND, MJ-PE	1	EA	.	0.00		
	14101	10" X 45 BEND, MJ-PE	1	EA	.	0.00		
	14106	10" X 90 BEND, MJ- PE	1	EA	.	0.00		
	14107	10" X 11-1/4 BEND, MJ-PE	1	EA	.	0.00		
	14108	10" X 22-1/2 BEND, MJ-PE	1	EA	.	0.00		
	14122	12" X 45 BEND, MJ-PE	1	EA	.	0.00		
	14128	12" X 90 BEND, MJ-PE	1	EA	.	0.00		
	14133	12" X 11-1/4 BEND, MJ-PE	1	EA	.	0.00		
	14160	16" X 45 COMPACT BEND, MJ	1	EA	.	0.00		

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	14161	16" X 90 COMPACT BEND, MJ	1	EA	.	0.00		
	14163	16" X 11-1/4 COMPACT BEND, MJ	1	EA	.	0.00		
	14164	16" X 22-1/2 COMPACT BEND, MJ	1	EA	.	0.00		
	14201	20" X 45 COMPACT BEND, MJ	1	EA	.	0.00		
	14202	20" X 11-1/4 COMPACT BEND, MJ	1	EA	.	0.00		
	14204	20" X 22-1/2 COMPACT BEND, MJ	1	EA	.	0.00		
	14205	20" X 90 COMPACT	1	EA	.	0.00		
	14243	24" X 22-1/2 COMPACT BEND, MJ	1	EA	.	0.00		
	14244	24" X 11-1/4 COMPACT BEND, MJ	1	EA	.	0.00		
	14245	24" X 45 COMPACT BEND, MJ	1	EA	.	0.00		
	14250	30"X 22 COMPACT BEND, MJ	1	EA	.	0.00		
	14251	30"X 45 COMPACT BEND, MJ	1	EA	.	0.00		
	14252	36" X 11 COMPACT BEND, MJ	1	EA	.	0.00		
	14260	36"X 22 COMPACT BEND, MJ	1	EA	.	0.00		
	14261	36"X 45 COMPACT BEND, MJ	1	EA	.	0.00		
	14262	36"X 11 COMPACT BEND, MJ	1	EA	.	0.00		
	14311	4" X 11-1/4 COMPACT BEND, MJ	1	EA	.	0.00		
	14312	4" X 22-1/2 COMPACT BEND, MJ	2	EA	.	0.00		
	14313	4" X 45 COMPACT BEND, MJ	6	EA	.	0.00		
	14314	4" X 90 COMPACT BEND, MJ	4	EA	.	0.00		
	14321	6" X 11-1/4 COMPACT BEND, MJ	2	EA	.	0.00		
	14322	6" X 22-1/2 COMPACT BEND, MJ	3	EA	.	0.00		
	14323	6" X 45 COMPACT BEND, MJ	11	EA	.	0.00		
	14324	6" X 90 COMPACT BEND, MJ	3	EA	.	0.00		
	14331	8" X 11-1/4 COMPACT BEND, MJ	1	EA	.	0.00		
	14332	8" X 22-1/2 COMPACT BEND, MJ	2	EA	.	0.00		
	14333	8" X 45 COMPACT BEND, MJ	7	EA	.	0.00		
	14334	8" X 90 COMPACT BEND, MJ	1	EA	.	0.00		
	14341	10" X 11-1/4 COMPACT BEND, MJ	1	EA	.	0.00		
	14342	10" X 22-1/2 COMPACT BEND, MJ	1	EA	.	0.00		
	14343	10" X 45 COMPACT BEND, MJ	1	EA	.	0.00		
	14344	10" X 90 COMPACT BEND, MJ	1	EA	.	0.00		
	14351	12" X 11-1/4 COMPACT BEND, MJ	1	EA	.	0.00		
	14352	12" X 22-1/2 COMPACT BEND, MJ	1	EA	.	0.00		
	14353	12" X 45 COMPACT BEND, MJ	2	EA	.	0.00		
	14354	12" X 90 COMPACT BEND, MJ	1	EA	.	0.00		
	14360	42"X 45 COMPACT BEND, MJ	1	EA	.	0.00		
	14361	42"X 22 COMPACT BEND, MJ	1	EA	.	0.00		
	14445	42" X 45 COMPACT BEND, MJ	1	EA	.	0.00		
	14480	48"X 22 COMPACT BEND, MJ	1	EA	.	0.00		
	14481	48"X 45 COMPACT BEND, MJ	1	EA	.	0.00		
15 SOLID SLEEVES								
	15040	SLEEVE, SOLID:MJ: 4"	3	EA	.	0.00		
	15060	SLEEVE, SOLID:MJ: 6"	6	EA	.	0.00		
	15062	6" MJ X PE CUTTING IN SLEEVE	2	EA	.	0.00		
	15081	SLEEVE, SOLID:MJ: 8"	6	EA	.	0.00		
	15100	SLEEVE, SOLID:MJ: 10"	1	EA	.	0.00		
	15121	SLEEVE, SOLID:MJ: 12"	1	EA	.	0.00		
	15160	SLEEVE, SOLID:16"MJ	1	EA	.	0.00		
	15200	SLEEVE, SOLID:20" MJ	1	EA	.	0.00		

Category	Item Number	Item Description	Quantity	Unit Meas	Unit Bid Price	Total for Item	Lead time (Days)	Manufacturer & Model
	15240	SLEEVE, SOLID:24" MJ	1	EA	.	0.00		
	15300	SLEEVE, SOLID: 30" MJ	1	EA	.	0.00		
	15360	SLEEVE, SOLID: 36" MJ	1	EA	.	0.00		
	15420	SLEEVE, SOLID: 42" MJ	1	EA	.	0.00		
	15480	SLEEVE, SOLID: 48" MJ	1	EA	.	0.00		
	15540	SLEEVE, SOLID: 54" MJ	1	EA	.	0.00		
	15600	SLEEVE, SOLID: 60" MJ	1	EA	.	0.00		
17 POUR JOINT MATERIAL								
	17010	LEAD WOOL/LB.	1	LB	.	0.00		
20 PLUMBING-BRASS & CI, COUPLINGS								
	20183	24" SERIES 2100 MEGAFLANGE	1	EA	.	0.00		
	20184	20" SERIES 2100 MEGAFLANGE	1	EA	.	0.00		
	20185	16" SERIES 2100 MEGAFLANGE	1	EA	.	0.00		
	20186	12" SERIES 2100 MEGAFLANGE	1	EA	.	0.00		
	20187	8" SERIES 2100 MEGAFLANGE	1	EA	.	0.00		
	20188	10" SERIES 2100 MEGAFLANGE	1	EA	.	0.00		
	20191	4" SERIES 2100 MEGA FLANGE	1	EA	.	0.00		
	20192	6" SERIES 2100 MEGAFLANGE	1	EA	.	0.00		
	20223	CPLG.16":17.40-17.80	1	EA	.	0.00		
	20224	CPLG. 20": 21.60" OD	1	EA	.	0.00		
	20225	CPLG. 24": 25.8 OD	1	EA	.	0.00		
	20226	CLPG. 48": 50.8 OD	1	EA	.	0.00		
	20227	CPLG. 30": 31.74 OD	1	EA	.	0.00		
	20228	COPULING.36":38.30 OD	1	EA	.	0.00		
	20229	CPLG. 20":21.60-22.06	1	EA	.	0.00		
	20230	CPLG. 24": 26.32	1	EA	.	0.00		
	20231	CPLG. 24": 25.80-26.3	1	EA	.	0.00		
	20232	CPLG. STY.411: 42": 44.5 OD	1	EA	.	0.00		
	20242	30" 32.0 OD CPLG. 10" LONG	1	EA	.	0.00		
	20247	CPLG, STY 442: 16" 17.40-17.80	1	EA	.	0.00		
	20248	CPLG, 16" X 24": 17.4-17.8	1	EA	.	0.00		
	20249	54" SMITH-BLAIR STYLE 411 COUP	1	EA	.	0.00		
	20250	CPLG, 24" X 16": 25.80-26.32	1	EA	.	0.00		
	20251	CPLG. TRANS: 42": 42.75-44.5	1	EA	.	0.00		
	20253	30" 32.0 OD CPLG. 15" LONG	1	EA	.	0.00		
	20254	48" 50.8 OD CPLG 20" LONG	1	EA	.	0.00		
	20255	48" 50.8 OD CPLG 24" LONG	1	EA	.	0.00		
	20268	CLAMP, JOINT:12" TYPE 274	1	EA	.	0.00		
	20269	CLAMP, JOINT:16" TYPE 274	1	EA	.	0.00		
	20270	CLAMP, JOINT:20" TYPE 274	1	EA	.	0.00		
	20279	CLAMP, JOINT: 24" TYPE 274	1	EA	.	0.00		
	20280	CLAMP, JOINT: 30" TYPE 274	1	EA	.	0.00		
	20281	20" 21.6 OD CPLG 24" LONG	1	EA	.	0.00		
	20282	20" 22.06 OD CPLG 24" LONG	1	EA	.	0.00		
	20283	24" 25.8 OD CPLG 24" LONG	1	EA	.	0.00		
	20284	24" 26.32 OD CPLG 24" LONG	1	EA	.	0.00		
	20285	30" 32 OD CPLG 24" LONG	1	EA	.	0.00		
	20286	36" 38.3 OD CPLG 24" LONG	1	EA	.	0.00		
	20287	42" 44.5 OD CPLG 24" LONG	1	EA	.	0.00		
	20288	54" 57.56 OD CPLG 24" LONG	1	EA	.	0.00		

Section: 00410P Procurement Bid Forms

11 of 21

Category	Item Number	Item Description	Quantity	Unit Meas	Unit Bid Price	Total for Item	Lead time (Days)	Manufacturer & Model
	20289	60" 61.61 OD CPLG 24" LONG	1	EA	.	0.00		
	20299	4" EBBA SERIES 3800 MEGA CPLG	1	EA	.	0.00		
	20300	6" EBBA SERIES 3800 MEGA CPLG	1	EA	.	0.00		
	20301	8" EBBA SERIES 3800 MEGA CPLG	1	EA	.	0.00		
	20302	10" EBBA SERIES 3800 MEGA CPLG	1	EA	.	0.00		
	20303	12" EBBA SERIES 3800 MEGA CPLG	1	EA	.	0.00		
	20304	16" EBBA SERIES 3800 MEGA CPLG	1	EA	.	0.00		
	20305	20" EBBA SERIES 3800 MEGA CPLG	1	EA	.	0.00		
	20306	24" EBBA SERIES 3800 CPLG	1	EA	.	0.00		
	20328	36" COUPLING 38.40 OD	1	EA	.	0.00		
	20360	CLAMP,JOINT:24" DRESSER OS	1	EA	.	0.00		
	20361	CLAMP,JOINT:24" S-B OS	1	EA	.	0.00		
	20362	CPLG: TRANS: 4"	1	EA	.	0.00		
	20363	CPLG. TRANS. 6"	1	EA	.	0.00		
	20364	CPLG, TRANS: 8"	1	EA	.	0.00		
	20365	CPLG, TRANS.:10"	1	EA	.	0.00		
	20366	CPLG, TRANS. 12",ACP/DI	1	EA	.	0.00		
	20368	CPLG TRANS 16": 17.4-19.20	1	EA	.	0.00		
	20370	CPLG STY 411 20":21.60 X 16" LONG	1	EA	.	0.00		
	20371	CPLG,24" TRANS;25.80-26.32-L16	1	EA	.	0.00		
	20504	16" REPAIR SADDLE SP-5	1	EA	.	0.00		
	20505	20" REPAIR SADDLE SP-5	1	EA	.	0.00		
	20506	24" REPAIR SADDLE SP-5	1	EA	.	0.00		
	20510	30" REPAIR SADDLE SP-5	1	EA	.	0.00		
	20511	36" REPAIR SADDLE SP-5	1	EA	.	0.00		
	20512	42" REPAIR SADDLE SP-5	1	EA	.	0.00		
	20513	48" REPAIR SADDLE SP-5	1	EA	.	0.00		
	20514	42" REPAIR SADDLE SP-12	1	EA	.	0.00		
	20515	48" REPAIR SADDLE SP-12	1	EA	.	0.00		
	20520	30" REPAIR SADDLE SP-12	1	EA	.	0.00		
	20521	36" REPAIR SADDLE SP-12	1	EA	.	0.00		
	20539	54" REPAIR SADDLE SP-5	1	EA	.	0.00		
	20540	54" REPAIR SADDLE SP-12	1	EA	.	0.00		
	20541	ADAPTER, 48" SP-5XSP-12	1	EA	.	0.00		
	20542	ADAPTER, 42": SP12 X SP5	1	EA	.	0.00		
	20543	ADAPTER, 48": SP12B X SP5S	1	EA	.	0.00		
	20544	ADAPTER, 42" SP12B X SP5	1	EA	.	0.00		
	20598	2" HY-MAX CPLG: 2.10-2.60	5	EA	.	0.00		
	20599	3" HY-MAX CPLG:3.46-4.33	2	EA	.	0.00		
	20600	4" HY-MAX COUPLING:4.25-5.11	4	EA	.	0.00		
	20601	6" HY-MAX COUPLING:6.42-7.68	106	EA	.	0.00		
	20602	8" HY-MAX COUPLING:8.54-9.84	57	EA	.	0.00		
	20603	10" HY-MAX CPLG:10.70-12.00	10	EA	.	0.00		
	20604	12" HY-MAX CPLG:12.40-13.66	24	EA	.	0.00		
	20605	16" HY-MAX COUPLING	2	EA	.	0.00		
	20606	14" HYMAX CPLG 15.00-17.00	1	EA	.	0.00		
	20607	20" HY-MAX CPLG; 21.50 - 23.60	1	EA	.	0.00		
	20608	24" HY-MAX CPLG; 24.60 -26.70	1	EA	.	0.00		
	20609	24" HY-MAX CPLG: 23.85-25.95	1	EA	.	0.00		
	20610	2" HYMAX FLANGE ADAPTOR	1	EA	.	0.00		
	20611	4" HYMAX FLANGE ADAPTOR	2	EA	.	0.00		

Category	Item Number	Item Description	Quantity	Unit Meas	Unit Bid Price	Total for Item	Lead time (Days)	Manufacturer & Model
	20612	6" HYMAX FLANGE ADAPTOR	1	EA	.	0.00		
	20613	10" HYMAX OVERSIZE: 11.59-12.2	1	EA	.	0.00		
	20617	30" HYMAX COUPLING	1	EA	.	0.00		
	20621	12" X 14" REDUCING HYMAX	1	EA	.	0.00		
	20622	3" HYMAX FLANGE ADAPTOR	1	EA	.	0.00		
	20623	8" HYMAX FLANGE ADAPTOR	1	EA	.	0.00		
	20666	6" RESTRAINT COUPLING	1	EA	.	0.00		
	20668	8" RESTRAINT COUPLING	1	EA	.	0.00		
	20672	12" RESTRAINT COUPLING	1	EA	.	0.00		
	20754	CPLG 16":16.00-17.40 (TRANS)	1	EA	.	0.00		
	20800	ADAPTER,DUCT:36"PCCP:PE-S LCP	1	EA	.	0.00		
	20801	ADAPTER, 36":PCCP:BE-PE,LCP	1	EA	.	0.00		
	20802	ADAPTER, 42" PCCP:PE-SP:ECP	1	EA	.	0.00		
	20803	ADAPTER, DUCT. 42":BE-PE ECP	1	EA	.	0.00		
	20804	ADAP,DUCT: PE SP 42": LCP	1	EA	.	0.00		
	20805	ADAP,DUCT:PCCP 42"BE - PE:LCP	1	EA	.	0.00		
	20806	ADAP,DUCT:PCCP:48"PE X SP:ECP	1	EA	.	0.00		
	20807	ADAP,DUCT:PCCP:48"BE -PE:ECP	1	EA	.	0.00		
	20808	ADAP,DUCT:48"BE-PLAIN END LCP	1	EA	.	0.00		
	20809	48"PCCP/DUCT ADP P E-SPIG LCP	1	EA	.	0.00		
	20810	ADAPT.DIP24"LCP BELL-MJS LCP	1	EA	.	0.00		
	20811	ADAPT.DIP24"LCP SP-MJS; LCP	1	EA	.	0.00		
	20812	ADAPT.DIP30"LCPBELL-PE; LCP	1	EA	.	0.00		
	20813	ADAPT.30"LCP SPG-MJSPG; LCP	1	EA	.	0.00		
	20814	ADAPTER,DUCT:36"PCCP:PE-S ECP	1	EA	.	0.00		
	20815	ADAPTER, 36":PCCP:BE-PE,ECP	1	EA	.	0.00		
	20816	ADAPTER,16" PCCP BELL-MJ SPIGO	1	EA	.	0.00		
	20817	ADAPTER, 16" PCCP SPIGOT-MJ SP	1	EA	.	0.00		
	20820	ADAPTER, 20" LCP SPI-PE	1	EA	.	0.00		
	20821	ADAPTER, 20" LCP BELL-PE	1	EA	.	0.00		
	20849	ADAPTER, 54"PCCP SPIGOT-DUCTIL	1	EA	.	0.00		
	20850	ADAPTER, 54"PCCP BELL-DUCTILE	1	EA	.	0.00		
	20860	ADAPTER, PCCP BELL-MJS 60"	1	EA	.	0.00		
	20861	ADAPTER 60" PCCP SPIGOT-MJS	1	EA	.	0.00		
21 CLAMPS, REPAIR								
	21414	CLAMP, 4-5"X12.5": 5.50-5.90	1	EA	.	0.00		
	21415	CLAMP, 4"X7.5": 4.74-5.14	2	EA	.	0.00		
	21416	CLAMP, 4" X 12": 1"T: 4.74-5.1	1	EA	.	0.00		
	21417	CLAMP, 4" X 12":2"T: 4.74-5.15	1	EA	.	0.00		
	21418	CLAMP, 4" X 12": 1"T: 5.1-5.39	1	EA	.	0.00		
	21419	CLAMP, 4" X 12":2"T: 4.9-5.35	1	EA	.	0.00		
	21420	CLAMP, 6" X 12": 7.45-7.85	1	EA	.	0.00		
	21421	CLAMP, 4" X 12": 5.00-5.39	1	EA	.	0.00		
	21423	CLAMP, 6" X 7" 3/4CC:7.05-7.45	1	EA	.	0.00		
	21426	CLAMP, 4" X 12": 4.74-5.12	3	EA	.	0.00		
	21427	CLAMP, 4" X 20": 5.0-5.39	1	EA	.	0.00		
	21428	CLAMP, 4" X 20": 4.74-5.12	3	EA	.	0.00		
	21429	CLAMP, 4" X 12":3/4T: 4.74-5.1	3	EA	.	0.00		
	21430	CLAMP, 4" X 12":3/4T: 5.1-5.39	1	EA	.	0.00		
	21431	CLAMP, 6" X 12":1"T: 6.84-7.24	1	EA	.	0.00		

Category	Item Number	Item Description	Quantity	Unit Meas	Unit Bid Price	Total for Item	Lead time (Days)	Manufacturer & Model
	21432	CLAMP, 6" X 12":2"T: 6.84-7.24	1	EA	.	0.00		
	21433	CLAMP, 6" X 12":1"T: 7.05-7.45	1	EA	.	0.00		
	21434	CLAMP, 6" X 12": 6.8-7.2	61	EA	.	0.00		
	21435	CLAMP, 6" X 12":3/4"T:7.05-7.45	2	EA	.	0.00		
	21436	CLAMP, 6" X 12": 3/4"T: 6.8-7.	13	EA	.	0.00		
	21437	CLAMP, 6" X 7.5":6.84-7.24	60	EA	.	0.00		
	21438	CLAMP, 6" X 20": 6.84-7.24	112	EA	.	0.00		
	21439	CLAMP, 6 X 12: 7.05-7.45	1	EA	.	0.00		
	21440	CLAMP, 6 X 12: 2"T: 7.05-7.45	1	EA	.	0.00		
	21441	CLAMP, 8 X 12: 1"T: 8.99-9.39	1	EA	.	0.00		
	21442	CLAMP, 8 X 12: 2"T: 8.99-9.39	1	EA	.	0.00		
	21443	CLAMP, 8 X 12: 1"T: 9.27-9.67	1	EA	.	0.00		
	21444	CLAMP, 8 X 12: 2"T: 9.27-9.67	1	EA	.	0.00		
	21445	CLAMP, 8" X 20": 8.99-9.39	38	EA	.	0.00		
	21446	CLAMP, 8" X 12": 9.27-9.67	2	EA	.	0.00		
	21447	CLAMP, 8" X 7.5":8.99-9.39	23	EA	.	0.00		
	21450	CLAMP, 8" X 12": 8.99-9.39	29	EA	.	0.00		
	21451	CLAMP, 8" X 12":3/4T:9.27-9.67	2	EA	.	0.00		
	21452	CLAMP, 8" X 20":3/4T:8.99-9.39	4	EA	.	0.00		
	21453	CLAMP, 8 X 12: 3/4"T:8.99-9.39	7	EA	.	0.00		
	21454	CLAMP, 12 X 12": 1"TAP:13.10-13	1	EA	.	0.00		
	21455	CLAMP, 10 X 12: 11.75-12.15 OD	1	EA	.	0.00		
	21456	CLAMP, 10" X 20": 11.75-12.15	1	EA	.	0.00		
	21457	CLAMP, 10" X 12": 11.04-11.44	3	EA	.	0.00		
	21458	CLAMP, 10" X 20": 11.04-11.44	4	EA	.	0.00		
	21459	CLAMP, 10" X 12": 11.34-11.72	1	EA	.	0.00		
	21460	CLAMP, 10 X 16:11.34-11.74	1	EA	.	0.00		
	21461	CLAMP, 10X12:3/4"T:11.04-12.24	1	EA	.	0.00		
	21462	CLAMP, 10X12:3/4"T:11.04-11.44	1	EA	.	0.00		
	21463	CLAMP, 12X12:3/4"T:13.10-13.50	1	EA	.	0.00		
	21464	CLAMP, 12X12:2"T:13.20-14.0 X 12"LONG	1	EA	.	0.00		
	21466	CLAMP, 12 X 20:13.10-13.50	12	EA	.	0.00		
	21467	CLAMP, 12 X 12: 14.0-14.40	1	EA	.	0.00		
	21468	CLAMP, 12 X 20: 14.00-14.40	1	EA	.	0.00		
	21469	CLAMP, 12 X 20: 13.4-13.80	1	EA	.	0.00		
	21470	CLAMP, 12 X 30: 14.00-14.40	1	EA	.	0.00		
	21471	CLAMP, 8" X 7": 3/4"T: 9.90-10	1	EA	.	0.00		
	21472	CLAMP, 12 X 12: 13.10-13.50	6	EA	.	0.00		
	21473	CLAMP, 12 X 12: 13.40-13.80	1	EA	.	0.00		
	21474	CLAMP, 12X15:3/4"T:13.2-14.0	1	EA	.	0.00		
	21475	CLAMP, 12X12:3/4T: 13.4-13.8	1	EA	.	0.00		
	21476	CLAMP, 10X12 1"CORP 11.04-11.44	1	EA	.	0.00		
	21477	CLAMP, 10X20":3/4T:11.04-11.44	1	EA	.	0.00		
	21478	CLAMP, 12 X 12:1"T: 1340-1380	1	EA	.	0.00		
	21480	CLAMP, 16 X 20: 17.1-17.9	1	EA	.	0.00		
	21481	CLAMP, 16 X 20: 17.82-18.57	1	EA	.	0.00		
	21482	CLAMP, 16 X 24: 17.15-17.90	1	EA	.	0.00		
	21483	CLAMP, 12X12:3/4T:14.00-14.40	1	EA	.	0.00		
	21484	CLAMP, 16 X 20: 17.34-18.14	1	EA	.	0.00		
	21485	CLAMP, 16 X 20: 18.46-19.21	1	EA	.	0.00		
	21487	CLAMP, 20 X 24: 21.4-22.40	1	EA	.	0.00		

Section: 00410P Procurement Bid Forms

14 of 21

Category	Item Number	Item Description	Quantity	Unit Meas	Unit Bid Price	Total for Item	Lead time (Days)	Manufacturer & Model
	21488	CLAMP, 20":21.52-22.27 30" LO	1	EA	.	0.00		
	21489	CLAMP: 8" X 20":3/4T:9.27-9.67	1	EA	.	0.00		
	21490	CLAMP, 20": 21.52-22.27 15"LONG	1	EA	.	0.00		
	21492	CLAMP, 16 X 20: 18.40-19.40	1	EA	.	0.00		
	21493	CLAMP, 24": 25.60-26.80 15"LONG	1	EA	.	0.00		
	21494	CLAMP, 24": 25.60-26.80 20" LONG	1	EA	.	0.00		
	21497	CLAMP, 12X12:3/4T:13.14-14.34	1	EA	.	0.00		
	21498	CLAMP 12X12:2"T:13.40-13.80	1	EA	.	0.00		
	21499	CLAMP, 12X7.5":13.10-13.50	1	EA	.	0.00		
	21500	CLAMP, 4X7.5":3/4"T:4.74-5.14	1	EA	.	0.00		
	21501	CLAMP, 6X7.5":3/4T:6.84-7.24	9	EA	.	0.00		
	21502	CLAMP, 8X7.5":3/4T:8.99-9.39	4	EA	.	0.00		
	21503	CLAMP, 10X7.5:3/4T:11.04-11.44	1	EA	.	0.00		
	21504	CLAMP, 12X7.5:3/4T:13.10-13.50	1	EA	.	0.00		
	21505	CLAMP, 6 X 30: 6.84-7.24	3	EA	.	0.00		
	21506	CLAMP, 8 X 30: 8.99-9.39	1	EA	.	0.00		
	21507	CLAMP, 12X30: 13.10-13.50	1	EA	.	0.00		
	21510	CLAMP, 8 X 12: 9.46-9.85	1	EA	.	0.00		
	21515	CLAMP, 16 X 10: 17.15-17.90	1	EA	.	0.00		
	21516	CLAMP, 16 X 15: 17.15-17.90	1	EA	.	0.00		
	21517	CLAMP, 16 X 30: 17.15-17.90	1	EA	.	0.00		
	21522	CLAMP, 6 X 20: 3/4T: 6.84-7.24	9	EA	.	0.00		
	21523	CLAMP, 6 X 20: 2"T: 6.84-7.24	1	EA	.	0.00		
	21525	CLAMP,12X20:3/4TAP:13.10-13.50	2	EA	.	0.00		
	21526	CLAMP,12X20:1"TAP:13.10-13.50	1	EA	.	0.00		
	21527	CLAMP,12X20:2"TAP:13.10-13.50	1	EA	.	0.00		
	21528	CLAMP,12X12:2"TAP:13.10-13.50	1	EA	.	0.00		
	21529	CLAMP,10X12 2"CORP 11.04-11.44	1	EA	.	0.00		
	21530	CLAMP, 8" X 12.5" 3/4": 9.7-10	1	EA	.	0.00		
	21531	CLAMP, 8" X 12.5" 1": 9.7-10	1	EA	.	0.00		
	21532	CLAMP, 6" X 20" 3/4":7.05-7.45	1	EA	.	0.00		
	21599	CLAMP, 8X20:2"TAP:8.99-9.39	1	EA	.	0.00		
	21600	CLAMP, 6X7.5" 7.05-7.45	1	EA	.	0.00		
	21601	CLAMP, 6X20" 7.05-7.45	1	EA	.	0.00		
	21602	CLAMP, 8X7.5" 9.27-9.67	1	EA	.	0.00		
	21604	CLAMP, 8X20" 9.27-9.67	1	EA	.	0.00		
	21605	CLAMP, 8X30" 9.27-9.67	1	EA	.	0.00		
	21606	CLAMP, 10X7.5" 11.75-12.15	1	EA	.	0.00		
	21607	CLAMP, 8" X 7" 3/4CC:9.27-9.67	1	EA	.	0.00		
	21609	CLAMP, 10X20" 11.75-12.15	1	EA	.	0.00		
	21610	CLAMP, 12X20" 13.65-14.65	1	EA	.	0.00		
	21611	CLAMP, 12X15" 14.38-15.13	1	EA	.	0.00		
	21613	CLAMP,10"X7-1/2" 11.04-11.44	1	EA	.	0.00		
	21614	CLAMP,10"X30" 11.04-11.44"	1	EA	.	0.00		
	21692	CLAMP, 4 X 20:3/4T:4.74-5.14	1	EA	.	0.00		
	21704	CLAMP, 4 X 30: 3/4T: 4.74-5.14	1	EA	.	0.00		
	21705	CLAMP, 4 X 30: 3/4T: 4.95-5.35	1	EA	.	0.00		
	21706	CLAMP, 6 X 30: 3/4T: 6.84-7.24	1	EA	.	0.00		
	21707	CLAMP, 6 X 30: 3/4T: 7.05-7.45	1	EA	.	0.00		
	21708	CLAMP, 8 X 30: 3/4T: 8.99-9.39	1	EA	.	0.00		
	21709	CLAMP, 8 X 30: 3/4T: 9.27-9.67	1	EA	.	0.00		

Category	Item Number	Item Description	Quantity	Unit Meas	Unit Bid Price	Total for Item	Lead time (Days)	Manufacturer & Model
	21710	CLAMP, 10X30:3/4T: 11.04-11.44	1	EA	.	0.00		
	21711	CLAMP, 10X30:3/4T: 11.34-11.74	1	EA	.	0.00		
	21712	CLAMP, 10X30:3/4T: 11.75-12.15	1	EA	.	0.00		
	21713	CLAMP, 12X30:3/4T: 13.10-13.50	1	EA	.	0.00		
	21714	CLAMP, 12X30:3/4T:13.40-13.80	1	EA	.	0.00		
	21715	CLAMP, 12X30:3/4T:13.70-14.10	1	EA	.	0.00		
	21716	CLAMP, 4 X 30: 2"T: 4.74-5.14	1	EA	.	0.00		
	21717	CLAMP, 4 X 30: 2"T: 4.95-5.35	1	EA	.	0.00		
	21718	CLAMP, 6 X 30: 2"T: 6.84-7.24	1	EA	.	0.00		
	21719	CLAMP, 6 X 30: 2"T: 7.05-7.45	1	EA	.	0.00		
	21720	CLAMP, 8 X 30: 2"T: 8.99-9.39	1	EA	.	0.00		
	21721	CLAMP, 8 X 30: 2"T: 9.27-9.69	1	EA	.	0.00		
	21722	CLAMP, 10X30:2"T: 11.04-11.44	1	EA	.	0.00		
	21723	CLAMP, 10X30:2"T: 11.34-11.74	1	EA	.	0.00		
	21724	CLAMP, 10X30:2"T: 11.75-12.15	1	EA	.	0.00		
	21725	CLAMP, 12X30:2"T: 13.10-13.50	1	EA	.	0.00		
	21726	CLAMP, 12X30:2"T: 13.40-13.80	1	EA	.	0.00		
	21727	CLAMP, 12X30:2"T: 13.70-14.10	1	EA	.	0.00		
	21731	CLAMP, 16X20:2T: 17.15-17.90	1	EA	.	0.00		
	21732	CLAMP, 14X10: 15.07-15.82	1	EA	.	0.00		
	21733	CLAMP, 14X20: 15.07-15.82	1	EA	.	0.00		
	21734	CLAMP, 14X10:2"T; 15.07-15.82	1	EA	.	0.00		
23 SERVICE REPAIR & CONNECTION								
	23265	NIPPLE, BRASS 2": L - 6"	15	EA	.	0.00		
	23266	NIPPLE, BRASS 2": L - 12"	1	EA	.	0.00		
	23454	PLUG, CC: 3/4"	9	EA	.	0.00		
	23456	PLUG, CC: 1"	1	EA	.	0.00		
	23462	PLUG, CC: 2"	3	EA	.	0.00		
	23463	BUSHING, CC: 3/4" X 1/2"	1	EA	.	0.00		
	23464	BUSHING, CC: 1" X 3/4"	2	EA	.	0.00		
	23466	BUSHING, CC: 1-1/2" X 3/4"	1	EA	.	0.00		
	23468	BUSHING, CC : 1-1/2" X 1"	1	EA	.	0.00		
	23470	BUSHING, CC: 2" X 3/4"	1	EA	.	0.00		
	23472	BUSHING, CC: 2" X 1"	1	EA	.	0.00		
	23473	BUSHING CC: 2" X 1-1/4"	1	EA	.	0.00		
	23474	BUSHING CC: 2" X 1-1/2"	1	EA	.	0.00		
	23476	BUSHING CC - NPT: 1" X 3/4"	1	EA	.	0.00		
	23478	BUSHING CC - NPT:1-1/2"X1-1/4"	1	EA	.	0.00		
	23480	BUSHING CC - NPT: 2" X 1-1/2"	1	EA	.	0.00		
	23482	UNION, C-C, 3/4" FLARE	43	EA	.	0.00		
	23483	TEE, COPPER: 3/4" X 3/4" X 3/4	1	EA	.	0.00		
	23484	UNION, C-C, 1" X 3/4" FLARE	1	EA	.	0.00		
	23486	UNION, C-C, 1" FLARE	4	EA	.	0.00		
	23488	UNION, C-C, 1-1/2" FLARE	1	EA	.	0.00		
	23490	UNION, C-C, 2" FLARE	1	EA	.	0.00		
	23492	UNION, C-C, 1/2" COMP	1	EA	.	0.00		
	23494	UNION, C-C, 1/2" X 3/4" COMP	1	EA	.	0.00		
	23496	UNION, C-C, 5/8" TO 3/4", COMP	1	EA	.	0.00		
	23498	UNION, C-C, 3/4" COMP	10	EA	.	0.00		
	23500	UNION,C-I,3/4" FL X 3/4"IP CMP	4	EA	.	0.00		

Section: 00410P Procurement Bid Forms

16 of 21

Category	Item Number	Item Description	Quantity	Unit Meas	Unit Bid Price	Total for Item	Lead time (Days)	Manufacturer & Model
	23502	UNION, C-C, 1" X 3/4" COM	1	EA	.	0.00		
	23504	UNION, C-C, 1" COMP	2	EA	.	0.00		
	23510	UNION, C-C, 1-1/2" COMP	1	EA	.	0.00		
	23512	UNION, C-C, 2" COMP	2	EA	.	0.00		
	23514	UNION, S LEAD X COMP 3/4"	1	EA	.	0.00		
	23516	UNION, XS LEAD X COMP 3/4"	1	EA	.	0.00		
	23518	UNION, XXS LEAD TO COMP 3/4"	1	EA	.	0.00		
	23520	UNION, S LEAD X COMP 1"	1	EA	.	0.00		
	23522	UNION, XS LEAD X COMP 1"	1	EA	.	0.00		
	23524	UNION, XXS LEAD X COMP 1"	1	EA	.	0.00		
	23526	ADAPTER, C - I 3/4":MALE,FLARE	2	EA	.	0.00		
	23528	ADAPTER, C - I, 1":MALE,FLARE	1	EA	.	0.00		
	23529	ADAPTER, C - I, 1-1/2":MALE,FL	1	EA	.	0.00		
	23530	ADAPTER, C - I:3/4:FEMALE,FLARE	1	EA	.	0.00		
	23531	ADAPTER, C - I, 2":MALE,FLARE	1	EA	.	0.00		
	23532	ADAPTER, C - I, 1":FEMALE,FLARE	1	EA	.	0.00		
	23534	ADAPTER, C - I, 3/4":MALE,COMP	1	EA	.	0.00		
	23536	ADAPTER, C - I, 1":MALE,COMP	1	EA	.	0.00		
	23538	ADAPTER, C-I, 1" X 1-1/4" COMP	1	EA	.	0.00		
	23540	ADAPTER, C-I, 1-1/4":MALE COMP	1	EA	.	0.00		
	23542	ADAPTER, C - I, 1-1/2":MALE,COMP	1	EA	.	0.00		
	23544	ADAPTER, C - I, 2":MALE,COMP	1	EA	.	0.00		
	23546	ADAPTER, C - I, 3/4":FEMALE,COMP	1	EA	.	0.00		
	23548	ADAPTER, C - I, 1":FEMALE,COMP	1	EA	.	0.00		
	23550	ADAPTER, C-I, 1" X 1-1/4", COMP	1	EA	.	0.00		
	23552	ADAPTER, C-I, 1-1/4":FEMALE,COMP	1	EA	.	0.00		
	23554	ADAPTER, C-I, 1-1/2":FEMALE,COMP	1	EA	.	0.00		
	23556	ADAPTER, C - I, 2" FEMALE,COMP	1	EA	.	0.00		
	23558	CURB STOP, C - C: 3/4" FLARE	44	EA	.	0.00		
	23560	CURB STOP, C - C: 1" FLARE	5	EA	.	0.00		
	23562	CURB STOP, C - C: 1-1/2" FLARE	1	EA	.	0.00		
	23564	CURB STOP, C - C: 2" FLARE	8	EA	.	0.00		
	23566	CURB STOP, C - C: 3/4" COMP	4	EA	.	0.00		
	23568	CURB STOP, C - C: 1" COMP	1	EA	.	0.00		
	23570	CURB STOP, C - C: 1-1/2" COMP	1	EA	.	0.00		
	23572	CURB STOP, C - C: 2" COMP	1	EA	.	0.00		
	23573	CURB STOP, MIP - C: 3/4"	1	EA	.	0.00		
	23574	CURB STOP, I - I: 3/4"	1	EA	.	0.00		
	23575	CURB STOP, MIP - C: 1"	1	EA	.	0.00		
	23576	CURB STOP, I - I: 1"	1	EA	.	0.00		
	23577	CURB STOP, MIP - C: 2"	1	EA	.	0.00		
	23578	CURB STOP, I - I: 1-1/2"	1	EA	.	0.00		
	23579	CURB STOP, FIP - C: 3/4"	1	EA	.	0.00		
	23580	CURB STOP, I - I, 2"	1	EA	.	0.00		
	23581	CURB STOP, FIP - C: 1"	1	EA	.	0.00		
	23582	CORP STOP, 5/8" X 3/4" FLARE	5	EA	.	0.00		
	23583	CURB STOP, FIP - C: 2"	1	EA	.	0.00		
	23584	CORP STOP, 3/4" FLARE	68	EA	.	0.00		
	23586	CORP STOP, 1" FLARE	5	EA	.	0.00		
	23587	CORP STOP, 1-1/4" FLARE	1	EA	.	0.00		
	23588	CORP STOP, 1-1/2" FLARE	2	EA	.	0.00		

Category	Item Number	Item Description	Quantity	Unit Meas	Unit Bid Price	Total for Item	Lead time (Days)	Manufacturer & Model
	23590	CORP STOP, 2" FLARE	9	EA	.	0.00		
	23592	CORP STOP, 1/2" COMP	1	EA	.	0.00		
	23594	CORP STOP, 5/8" X 3/4" COMP	1	EA	.	0.00		
	23596	CORP STOP 3/4" CC X COMP.	1	EA	.	0.00		
	23598	CORP STOP 3/4 X 1, CC X COMP	1	EA	.	0.00		
	23599	CORP STOP 3/4 X 1, CC X FLARE	1	EA	.	0.00		
	23600	CORP STOP 1" COMP	1	EA	.	0.00		
	23602	CORP STOP 1" X 1-1/4" COMP	1	EA	.	0.00		
	23604	CORP STOP 1-1/2" COMP	1	EA	.	0.00		
	23606	CORP STOP 2" COMP	1	EA	.	0.00		
	23608	CORP STOP, 3/4" MIP TO FLARE	1	EA	.	0.00		
	23609	CORP STOP, 3/4" CC TO MPT	1	EA	.	0.00		
	23610	CORP STOP, 1" MIP TO FLARE	1	EA	.	0.00		
	23611	CORP STOP, 1" CC TO MPT	1	EA	.	0.00		
	23612	CORP STOP: 2" CC - FEMALE PIPE	1	EA	.	0.00		
	23613	CORP STOP, 2" CC X 2" MIP	1	EA	.	0.00		
	23614	CORP BEND-SWIVEL 90:3/4" FLARE	8	EA	.	0.00		
	23615	3/4" 90 BEND FLARE-FLARE	2	EA	.	0.00		
	23616	CORP BEND-SWIVEL 90: 1" FLARE	2	EA	.	0.00		
	23618	CORP BND-SWIVEL 90:1-1/2"FLARE	1	EA	.	0.00		
	23619	CORP BEND-SWIVEL 90:1-1/2"COMP	1	EA	.	0.00		
	23620	CORP BEND-SWIVEL 90: 2" FLARE	3	EA	.	0.00		
	23621	CORP BEND-SWIVEL 90: 2" COMP	1	EA	.	0.00		
	23622	CORP BEND-SWIVEL 45:3/4" FLARE	5	EA	.	0.00		
	23624	CORP BEND-SWIVEL 45: 1" FLARE	1	EA	.	0.00		
	23626	CORP BND-SWIVEL 45:1-1/2"FLARE	1	EA	.	0.00		
	23627	CORP BEND-SWIVEL 45:1-1/2"COMP	1	EA	.	0.00		
	23628	CORP BEND-SWIVEL 45: 2" FLARE	1	EA	.	0.00		
	23629	CORP BEND-SWIVEL 45: 2" COMP	1	EA	.	0.00		
	23630	CORP BEND-SWIVEL 90: 3/4" COMP	1	EA	.	0.00		
	23632	CORP BEND-SWIVEL 90: 1" COMP	1	EA	.	0.00		
	23634	CORP BEND-90: 1-1/2" COMP	1	EA	.	0.00		
	23636	CORP BEND-90: 2" COMP	1	EA	.	0.00		
	23638	CORP BEND-SWIVEL 45: 3/4" COMP	1	EA	.	0.00		
	23640	CORP BEND-SWIVEL 45: 1" COMP	1	EA	.	0.00		
	23642	CORP BEND-45: 1-1/2" COMP	1	EA	.	0.00		
	23644	CORP BEND-45: 2" COMP	1	EA	.	0.00		
	23646	FLARE X COMP. ADAPTER: 3/4"	1	EA	.	0.00		
	23648	FLARE X COMP. ADAPTER: 1" COMP	1	EA	.	0.00		
	23649	FEMALE FLARE X MPT ADAPTER: 1"	1	EA	.	0.00		
	23650	FLARE X COMP.ADAPTR 1-1/2" CMP	1	EA	.	0.00		
	23652	FLARE X COMP. ADAPTER, 2" COMP	1	EA	.	0.00		
	23654	3/4" FEMALE COPPER X 3/4"FLARE	1	EA	.	0.00		
	23656	1" FEMALE COPPER X 1" FLARE	1	EA	.	0.00		
	23846	BUSHING, NPT: 3" X 2"	3	EA	.	0.00		
24 SERVICE SADDLES								
	24160	TAP SADL,16X3/4 19.38-19.88 CP	1	EA	.	0.00		
	24161	TAP SADL,16 X 1:19.38-19.88 CP	1	EA	.	0.00		
	24200	TAP SADDLE ,CP:20X3/4; 23.75	1	EA	.	0.00		
	24201	TAP SADDLE, CP: 20" X 2"	1	EA	.	0.00		

Category	Item Number	Item Description	Quantity	Unit Meas	Unit Bid Price	Total for Item	Lead time (Days)	Manufacturer & Model
	24202	TAP SADDLE, CP: 20" X 1"	1	EA	.	0.00		
	24203	TAP SADDLE,CP 20"X 1.5" 24.65	1	EA	.	0.00		
	24206	TAPPING SADDLE, 20" X 16"	1	EA	.	0.00		
	24240	TAP SADDLE, 24" X 1":27.9-28.5	1	EA	.	0.00		
	24241	TAP SADDLE, CP: 24"X3/4"27.9-2	1	EA	.	0.00		
	24242	TAP SADDLE, CP: 24"X1.5"27.9-2	1	EA	.	0.00		
	24243	TAP SADDLE,CP, 24"X2":27.9-28.	1	EA	.	0.00		
	24245	TAP SADDLE, DI:24X1.5":25.5-26	1	EA	.	0.00		
	24360	TAP SADDLE,CP: 36" X 3/4"	1	EA	.	0.00		
	24516	TAP SDLE:CP:16"X1.5":19.38-20.	1	EA	.	0.00		
	24517	TAP SDLE:CP:16"X2":19.38-20.15	1	EA	.	0.00		
	24518	TAP SAD, 16" X 1":16.1-17.4	1	EA	.	0.00		
	24536	TAP SADDLE, CP, 36" X 1.5"	1	EA	.	0.00		
	24537	TAP SADDLE, CP: 36" X 2"	1	EA	.	0.00		
	24538	TAP SADDLE, 36" X 1" PCCP	1	EA	.	0.00		
	24542	TAP SADDLE, CP: 42" X 1"	1	EA	.	0.00		
	24543	TAP SAD, CP: 42" X 1.5"	1	EA	.	0.00		
	24544	TAP SAD, CP: 42" X 2"	1	EA	.	0.00		
29 METER COUPLINGS-SEWER REP. MAT								
	29100	ANGLE BALL METER VALVE 3/4"	1	EA	.	0.00		
	29102	ANGLE BALL METER VALVE 1"	1	EA	.	0.00		
	29104	METER CPLG, 1/2" X 5/8"	1	EA	.	0.00		
	29106	METER CPLG, 1/2" X 3/4"	1	EA	.	0.00		
	29108	METER CPLG, 5/8" X 3/4"	13	EA	.	0.00		
	29110	METER CPLG, 3/4"	405	EA	.	0.00		
	29112	METER CPLG, 1"	40	EA	.	0.00		
	29114	METER CPLG, 1" X 1-1/2" L	2	EA	.	0.00		
	29116	METER CPLG, 1" X 2" L	2	EA	.	0.00		
	29118	METER CPLG, BENT 1/2" X 5/8"	1	EA	.	0.00		
	29122	METER CPLG, BENT 3/4"	4	EA	.	0.00		
	29124	METER CPLG, BENT 1"	1	EA	.	0.00		
	29126	METER FLANGE, MALE: 1-1/2"	1	EA	.	0.00		
	29128	METER FLANGE, FEMALE:1-1/2"	13	EA	.	0.00		
	29130	METER FLANGE, C-COMP:1-1/2"	1	EA	.	0.00		
	29132	METER FLANGE,PIPE COMP:1-1/2"	1	EA	.	0.00		
	29134	METER FLANGE, MALE: 2"	1	EA	.	0.00		
	29136	METER FLANGE, FEMALE: 2"	28	EA	.	0.00		
	29138	METER FLANGE, C-COMP: 2"	1	EA	.	0.00		
	29140	METER FLANGE, PIPE COMP. 2"	1	EA	.	0.00		
	29142	METER ADAPTER,5/8"X3/4"TO 3/4"	2	EA	.	0.00		
	29144	METER ADAPTER,5/8"X3/4" TO 1"	4	EA	.	0.00		
	29146	METER ADAPTER, 3/4" X 1"	5	EA	.	0.00		
	29148	METER ADAPTER, 1" X 1-1/2"	3	EA	.	0.00		
	29150	METER ADAPTER, 1" X 2" FLG.	6	EA	.	0.00		
	29152	METER ADAPTER, 1.5" TO 2"	4	EA	.	0.00		
	29154	METER BUSHING,3/4" FPT X1" MTR	1	EA	.	0.00		
	29461	3" PVC SDR-21 USE 12487	1	FT	.	0.00		
	29462	PLASTIC SEWER PIPE: 4"-13'/14'	115	FT	.	0.00		
	29463	PLASTIC SEWER PIPE: 6"-13'/14'	42	FT	.	0.00		
	29464	PLASTIC SEWER PIPE: 8"-13'/14'	18	FT	.	0.00		

Category	Item Number	Item Description	Quantity	Unit Meas	Unit Bid Price	Total for Item	Lead time (Days)	Manufacturer & Model
	29465	PLASTIC SEWER PIPE: 10"-13'/14'	13	FT	.	0.00		
	29466	PLASTIC SEWER PIPE: 12"-13'/14'	16	FT	.	0.00		
	29470	SOLID PLASTIC DRAIN: 8" X 10'	1	FT	.	0.00		
	29471	PLASTIC CPLG, DOUBLE BELL: 4"	1	EA	.	0.00		
	29472	PLASTIC CPLG, DOUBLE BELL: 6"	1	EA	.	0.00		
	29473	PLASTIC CPLG, DOUBLE BELL: 8"	1	EA	.	0.00		
	29474	PLASTIC CPLG,DOUBLE BELL:10"	1	EA	.	0.00		
	29475	PLASTIC CPLG,DOUBLE BELL:12"	1	EA	.	0.00		
	29476	PLASTIC SEWER PIPE:15"-13'/14'	1	FT	.	0.00		
	29477	PLASTIC SEWER PIPE:18"-13'/14'	2	FT	.	0.00		
	29478	4" DRAIN SNAP COUPLING	2	EA	.	0.00		
	29479	6" DRAIN SNAP COUPLING	2	EA	.	0.00		
	29480	8" DRAIN SNAP COUPLING	1	EA	.	0.00		
	29481	4" HDPE FLEXIBLE UNDERDRAIN	8	FT	.	0.00		
	29482	6" HDPE FLEXIBLE UNDERDRAIN	13	FT	.	0.00		
	29483	8" HDPE CORRUGATED UNDERDRAIN	4	FT	.	0.00		
	29484	10" DRAIN SNAP COUPLING	1	EA	.	0.00		
	29485	10" HDPE CORRUGATED UNDERDRAIN	2	FT	.	0.00		
	29656	METER BOX LID- NON-RECESSED	1	EA	.	0.00		
	29657	METER BOX COVER- RECESSED	1	EA	.	0.00		
	29658	12" HDPE DRAIN PIPE	19	FT	.	0.00		
	29659	15" HDPE DRAIN PIPE	5	FT	.	0.00		
	29661	12" HDPE COUPLING BAND	4	EA	.	0.00		
	29662	15" HDPE COUPLING BAND	1	EA	.	0.00		
	29663	18" HDPE COUPLING BAND	1	EA	.	0.00		
	29664	12" CORRUGATED STEEL PIPE	1	FT	.	0.00		
	29667	12" SPLIT GALV COUPLING	1	EA	.	0.00		
	29740	CPLG,FERNCO:CL-CL:4"	1	EA	.	0.00		
	29741	CPLG,FERNCO:CL-PVC:4"	9	EA	.	0.00		
	29742	CPLG,FERNCO:PVC-PVC:4"	18	EA	.	0.00		
	29746	CPLG,FERNCO:4"PVC-6"PVC	1	EA	.	0.00		
	29747	CPLG,FERNCO:4"CLAY-6"CLAY	1	EA	.	0.00		
	29761	CPLG, FERNCO:6" CL-PVC:	11	EA	.	0.00		
	29762	CPLG,FERNCO:PVC-PVC:6"	4	EA	.	0.00		
	29763	CPLG,FERNCO:CL-CLAY:6"	1	EA	.	0.00		
	29780	CPLG,FERNCO:CL-CL:8"	1	EA	.	0.00		
	29781	CPLG,FERNCO:CL-PVC:8"	4	EA	.	0.00		
	29782	CPLG,FERNCO:PVC-PVC:8"	2	EA	.	0.00		
	29811	CPLG,FERNCO:CL-PVC:10"	2	EA	.	0.00		
	29812	CPLG,FERNCO:PVC-PVC:10"	1	EA	.	0.00		
	29813	CPLG,FERNCO:CL-CL:10	1	EA	.	0.00		
	29820	CPLG,FERNCO:CL-PVC:12"	2	EA	.	0.00		
	29821	CPLG,FERNCO:PVC-PVC:12"	1	EA	.	0.00		
	29822	CPLG,FERNCO:CL-CL:12	1	EA	.	0.00		
	29825	CPLG,FERNCO;CL-PVC:15"	1	EA	.	0.00		
	29826	CPLG, FERNCO:PVC-PVC:15"	1	EA	.	0.00		
	29828	CPLG,FERNCO:CL-PVC:18"	1	EA	.	0.00		
	29830	GASKET, FLANGE DROP-IN 3"	15	EA	.	0.00		
	29831	GASKET, FLANGE DROP-IN: 4"	25	EA	.	0.00		
	29832	GASKET, FLANGE DROP-IN: 6"	12	EA	.	0.00		
	29833	GASKET, FLANGE DROP-IN: 8"	6	EA	.	0.00		

Category	Item Number	Item Description	Quantity	Unit Meas	Unit Bid Price	Total for Item	Lead time (Days)	Manufacturer & Model
	29835	GASKET, FLANGE DROP-IN:12"	1	EA	.	0.00		
	29836	GASKET, FLANGE RING: 10"	1	EA	.	0.00		
	29920	COUPLING, SEWER: PVC: 4"	1	EA	.	0.00		
	29921	ELBOW,PVC,6"X 90 SEWER:B-B	1	EA	.	0.00		
	29922	ELBOW,PVC,6"X 45 SEWER:B-B	1	EA	.	0.00		
	29923	ELBOW,PVC,6X 22.5 SEWER:B-B	1	EA	.	0.00		
	29924	ELBOW,PVC,6X 90 SEWER:B-S	1	EA	.	0.00		
	29925	ELBOW,PVC,6X 45 SEWER:B-S	1	EA	.	0.00		
	29926	ELBOW,PVC,6X 22.5 SEWER:B-S	1	EA	.	0.00		
	29927	ELBOW,PVC,4X 90 SEWER:B-B	1	EA	.	0.00		
	29928	ELBOW,PVC,4X 45 SEWER:B-B	1	EA	.	0.00		
	29930	ELBOW,PVC,4X 22.5 SEWER:B-B	1	EA	.	0.00		
	29931	ELBOW,PVC,4X 90 SEWER:B-S	1	EA	.	0.00		
	29932	ELBOW,PVC,4X 45 SEWER:B-S	1	EA	.	0.00		
	29933	ELBOW,PVC,4X 22.5 SEWER:B-S	1	EA	.	0.00		
	29935	SLOT VENT,PVC:4" SEWER, NDS 13	3	EA	.	0.00		
	29936	ELBOW,PVC,8X 90 SEWER:B-B	1	EA	.	0.00		
	29937	ELBOW,PVC,8X 45 SEWER:B-B	1	EA	.	0.00		
	29938	ELBOW,PVC,8"X 22.5 SEWER:B-B	1	EA	.	0.00		
	29939	TEE,PVC:4"X4"X4" SEWER:B-B-B	3	EA	.	0.00		
	29940	TEE,PVC:6"X6"X6" SEWER:B-B-B	1	EA	.	0.00		
	29941	TEE,PVC:8"X8"X8" SEWER:B-B-B	1	EA	.	0.00		
	29942	TEE,PVC,8"X8"X6" SEWER:B-B-B	1	EA	.	0.00		
	29943	TEE,PVC,3X3X3" SEWER B-B-B	1	EA	.	0.00		
	29960	10"X10"X10"SEWER WYE B-B-B PVC	1	EA	.	0.00		
	29963	3"X 3"X 3" SEWER WYE B-B-B PVC	1	EA	.	0.00		
	29964	4"X 4"X 4" SEWER WYE B-B-B PVC	1	EA	.	0.00		
	29966	6"X 6"X 6" SEWER WYE B-B-B PVC	1	EA	.	0.00		
	29968	8"X 8"X 8" SEWER WYE B-B-B PVC	1	EA	.	0.00		
31 COPPER TUBING								
	31007	COPPER TUBING: 3/4"	480	FT	.	0.00		
	31008	COPPER TUBING: 1"	60	FT	.	0.00		
	31009	COPPER TUBING: 1-1/2"	40	FT	.	0.00		
	31010	COPPER TUBING: 2"	80	FT	.	0.00		
	31115	COPPER TUBING: 1-1/4"	60	FT	.	0.00		
36 NUTS BOLTS & SOCKET CLAMPS								
	36005	1/2"-13 ALL THREAD ROD, PLATED	6	FT	.	0.00		
	36006	1/2" ROD COUPLINGS, PLATED	10	EA	.	0.00		
	36007	3/4"-10 ALL THREAD ROD, PLATED	72	FT	.	0.00		
	36008	1"-8 ALL THREAD ROD, PLATED	60	FT	.	0.00		
	36011	3/4" TIE BOLTS X 4"LONG	30	EA	.	0.00		
	36013	FRICTION CLAMP: 20"	1	EA	.	0.00		
	36015	FRICTION CLAMP: 24"	1	EA	.	0.00		
	36020	FRICTION CLAMP: 16"	1	EA	.	0.00		
	36030	DUC-LUGS	30	EA	.	0.00		
	36040	5/8" X 2-1/2" BLUE T-BOLT	100	EA	.	0.00		
	36041	5/8" X 3" BLUE T-BOLT	100	EA	.	0.00		
	36042	3/4" X 3-1/2" BLUE T-BOLT	1000	EA	.	0.00		
	36043	3/4" X 4-" BLUE T-BOLT	1000	EA	.	0.00		
	36044	3/4" X 4-1/2" BLUE T-BOLT	200	EA	.	0.00		

Category	Item		Quantity	Unit		Unit Bid Price	Total for Item	Lead time (Days)	Manufacturer & Model
	Number	Item Description		Meas					
	36045	3/4" X 5" BLUE T-BOLT	200	EA		.	0.00		
	36046	1" X 6" BLUE T-BOLT	100	EA		.	0.00		
	36208	3/8"-16 ALL THREAD ROD, PLATED	60	FT		.	0.00		
	36209	5/8-11 ALL THREAD ROD, PLATED	60	FT		.	0.00		
						Item Totals	0.00		

ERIE COUNTY WATER AUTHORITY
WATERMAIN MATERIALS PURCHASE CONTRACT
JANUARY 1, 2022 to JUNE 30, 2022

Unit prices have been computed in accordance with paragraph 11.03.B of the Procurement General Conditions.

Bidder acknowledges that estimated quantities of items of Unit Price Work are not guaranteed and final payment will be based on actual quantities of Unit Price Work performed as provided in the Contract Documents.

6.01 Bidder agrees that furnishing the Goods will be substantially complete and completed and ready for final payment in accordance with Paragraph 14.07.B of the Procurement General Conditions on or before the dates or within the number of calendar days indicated in in Section 00500P, Procurement Agreement, Article 3.02, Contract Time.

6.02 Bidder accepts the provisions of the Agreement as to liquidated and special damages in the event of failure to complete furnishing the Goods within the times specified above.

7.01 The following documents are attached to and made a condition of this Bid:

- A. Required Bid security in the amount of _____ Dollars (\$_____).
- B. Section 2875 of the Public Authorities Law.
- C. Section 2876 of the Public Authorities Law.
- D. Section 2878 of the Public Authorities Law, Non-Collusive Bidding Certification.
- E. State Finance Law Requirements
- F. Statement Regarding Prevention of Unlawful Discriminatory Practices.
- G. Required Bidder Qualifications Statement with supporting data.
- H. All addenda

8.01 The terms used in this Bid will have the meanings indicated in the Procurement Instructions to Bidders and the Procurement General Conditions and Procurement Supplementary Conditions.

Respectfully submitted on _____, 20__.

ERIE COUNTY WATER AUTHORITY
WATERMAIN MATERIALS PURCHASE CONTRACT
JANUARY 1, 2022 to JUNE 30, 2022

If Bidder is:

An Individual

By _____
(Individual's Signature)

(Printed or Typed Name of Individual)

Doing business as _____

License or Registration Number: _____

Business Address: _____

Phone No.: _____ FAX No.: _____

A Partnership

By _____
(Firm Name)

(General Partner's Signature)

(Printed or Typed Name of General Partner)
(Attach evidence of authority to sign.)

License or Registration Number: _____

Business Address: _____

Phone No.: _____ FAX No. _____

ERIE COUNTY WATER AUTHORITY
WATERMAIN MATERIALS PURCHASE CONTRACT
JANUARY 1, 2022 to JUNE 30, 2022

A Corporation

By _____
(Corporation Name)

(State of Incorporation)

By _____
(Signature of Officer Authorized to Sign)

(Printed or Typed Name and Title of Officer Authorized to Sign)
(Attach evidence of authority to sign.)

(CORPORATE
SEAL)

Attest _____
(Secretary)

License or Registration Number: _____

Business Address: _____

Phone No.: _____ FAX No. _____

ERIE COUNTY WATER AUTHORITY
WATERMAIN MATERIALS PURCHASE CONTRACT
JANUARY 1, 2022 to JUNE 30, 2022

Limited Liability Company

By _____
(Firm Name)

(State of Formation)

By _____
(Signature of Member/Authorized to Sign)

(Printed or Typed Name and Title of Member Authorized to Sign)
(Attach evidence of authority to sign.)

License or Registration Number: _____

Business Address: _____

Phone No.: _____ FAX No. _____

ERIE COUNTY WATER AUTHORITY
WATERMAIN MATERIALS PURCHASE CONTRACT
JANUARY 1, 2022 to JUNE 30, 2022

A Joint Venture

Joint Venture Name: _____

By _____
(Signature)

(Printed or Typed Name) (Title)

(Address)

By _____
(Signature)

(Printed or Typed Name) (Title)

(Address)

Phone and FAX number and address for receipt of communications to joint venture:

(Each joint venturer must sign. The manner of signing for each individual, partnership, corporation or limited liability company that is a party to the joint venture shall be in the manner indicated above).

END OF SECTION

ERIE COUNTY WATER AUTHORITY
BUFFALO, NEW YORK

WATERMAIN MATERIALS PURCHASE CONTRACT
JANUARY 1, 2022 TO JUNE 30, 2022
PROJECT No.: 202200001

SECTION 00430P

PROCUREMENT BID FORM SUPPLEMENTS

Bid Security Form

Section 2875 of the Public Authorities Law

Section 2876 of the Public Authorities Law

Section 2878 of the Public Authorities Law

State Finance Law Requirements

Statement Regarding Prevention of Unlawful Discriminatory Practices

BID SECURITY FORM

BIDDER (Name and Address):

SURETY (Name and Address of Principal Place of Business):

OWNER:

Erie County Water Authority
295 Main Street, Room 350
Buffalo, New York 14203

BID:

BID DUE DATE: _____

PROJECT:

Watermain Materials Purchase Contract
January 1, 2022 to June 30, 2022
Project No: 202200001

BOND:

BOND NUMBER: _____

DATE: (Not later than Bid due date): _____

PENAL SUM: _____ (Words) _____ (Figures)

IN WITNESS WHEREOF, Surety and Bidder, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Bid Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

BIDDER

SURETY

(Seal)
Bidder's Name and Corporate Seal

(Seal)
Surety's Name and Corporate Seal

By: _____
Signature and Title

By: _____
Signature and Title
(Attach Power of Attorney)

Attest: _____
Signature and Title

Attest: _____

1.01 Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to pay to OWNER upon default of Bidder the penal sum set forth on the face of this Bond.

2.01 Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by OWNER) the executed Agreement required by the Bidding Documents and any performance and payment Bonds required by the Bidding Documents.

3.01 This obligation shall be null and void if:

- A. OWNER accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by OWNER) the executed Agreement required by the Bidding Documents and any performance and payment Bonds required by the Bidding Documents, or
- B. All Bids are rejected by OWNER, or
- C. OWNER fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by paragraph 5.01 hereof).

4.01 Payment under this Bond will be due and payable upon default by Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from OWNER, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.

5.01 Surety waives notice of and any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by OWNER and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent.

6.01 No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in paragraph 4.01 above is received by Bidder and Surety and in no case later than one year after Bid due date.

7.01 Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.

8.01 Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.

9.01 Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent or representative, who executed this Bond on behalf of Surety to execute, seal and deliver such Bond and bind the Surety thereby.

10.01 This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.

11.01 The term "Bid" as used herein includes a Bid, offer or proposal as applicable.

END OF BID BOND

SECTION 2875 OF THE PUBLIC AUTHORITIES LAW

§2875. GROUND FOR CANCELLATION OF CONTRACT BY PUBLIC AUTHORITY.

A clause shall be inserted in all specifications or contracts hereafter made or awarded by any public authority or by any official of any public authority created by the state or any political subdivision, for work or services performed or to be performed or goods sold or to be sold, to provide that upon the refusal of a person, when called before a grand jury, head of a state department, temporary state commission, or other state agency, the organized crime task force in the department of law, head of a city department, or other city agency, which is empowered to compel the attendance of witnesses and examine them under oath, to testify in an investigation concerning any transaction or contract had with the state, any political subdivision thereof or of a public authority, to sign a waiver of immunity against subsequent criminal prosecution or to answer any relevant question concerning such transaction or contract.

(a) Such person, and any firm, partnership or corporation of which he is a member, partner, director or officer shall be disqualified from thereafter selling to or submitting bids to or receiving awards from or entering into any contracts with any public authority or official thereof, for goods, work or services, for a period of five years after such refusal, and to provide also that;

(b) any and all contracts made with any public authority or official thereof, since the effective date of this law, by such person and by any firm, partnership or corporation of which he is a member, partner, director or officer may be canceled or terminated by the public authority without incurring any penalty or damages on account of such cancellation or termination, but any monies owing by the public authority for goods delivered or work done prior to the cancellation termination shall be paid.

This is to CERTIFY that neither the undersigned nor any member, partner, director, or officer of the firm has refused to sign a waiver of immunity against subsequent criminal prosecution or to answer any relevant question concerning a transaction or contract with the state, any political subdivision thereof, a public authority or with a public department, agency or official of the state or of any political subdivision thereof or of a public authority, when called before a grand jury, head of a state department, temporary state commission, or other state agency, the organized crime task force in the department of law, head of a city department, or other city agency, which is empowered to compel the attendance of witnesses and examine them under oath.

(Name of Individual, Partnership or Corporation)

By _____
(Person authorized to sign)

(SEAL)

SECTION 2876 OF THE PUBLIC AUTHORITIES LAW

§2876. DISQUALIFICATION TO CONTRACT WITH PUBLIC AUTHORITY

Any person who, when called before a grand jury, head of a state department, temporary state commission or other state agency, the organized crime task force in the department of law, head of a city department or other city agency, which is empowered to compel the attendance of witnesses and examine them under oath to testify in an investigation concerning any transaction or contract had with the state, any political subdivision thereof, a public authority or with a public department, agency or official of the state or of any political subdivision thereof or of a public authority, refuses to sign a waiver of immunity against subsequent criminal prosecution or to answer any relevant questions concerning such transaction or contract, and any firm, partnership or corporation of which he is a member, partner, director or officer shall be disqualified from thereafter selling to or submitting bids to or receiving awards from or entering into any contracts with any public authority or any official of any public authority created by the state or any political subdivision, for goods, work or services, for a period of five years after such refusal or until a disqualification shall be removed pursuant to the provisions of section twenty-six hundred three of this article.

It shall be the duty of the officer conducting the investigation before the grand jury, the head of a state department, the chairman of the temporary state commission or other state agency, the organized crime task force in the department of law, the head of a city department or other city agency before which the refusal occurs to send notice of such refusal, together with the names of any firm, partnership or corporation of which the person so refusing is known to be a member, partner, officer or director, to the commissioner of transportation of the state of New York, or the commissioner of general services as the case may be, and the appropriate departments, agencies and officials of the state, political subdivisions thereof or public authorities with whom the persons so refusing and any firm, partnership or corporation of which he is a member, partner, director or officer, is known to have a contract. However, when such refusal occurs before a body other than a grand jury, notice of refusal shall not be sent for a period of ten days after such refusal occurs. Prior to the expiration of this ten day period, any person, firm, partnership or corporation which has become liable to the cancellation or termination of a contract or disqualification to contract on account of such refusal may commence a special proceeding at a special term of the supreme court, held within the judicial district in which the refusal occurred, for an order determining whether the questions in response to which the refusal occurred were relevant and material to the inquiry. Upon the commencement of such proceeding, the sending of such notice of refusal to answer shall be subject to order of the court in which the proceeding was brought in a manner and on such terms as the court may deem just. If a proceeding is not brought within ten days, notice of refusal shall thereupon be sent as provided herein.

SECTION 2878 OF THE PUBLIC AUTHORITIES LAW

§2878. STATEMENT OF NON-COLLUSION IN BIDS OR PROPOSALS TO PUBLIC AUTHORITY.

(1) Every bid or proposal hereafter made to a public authority or to any official of any public authority created by the state or any political subdivision, where competitive bidding is required by statute, rule, regulation or local law, for work or services performed or to be performed or goods sold or to be sold, shall contain the following statement subscribed by the bidder and affirmed by such bidder as true under the penalties of perjury:

NON-COLLUSIVE BIDDING CERTIFICATION

(a) By submission of this bid, EACH BIDDER AND EACH PERSON SIGNING ON BEHALF OF ANY BIDDER CERTIFIES, AND IN THE CASE OF A JOINT BID EACH PARTY THERETO CERTIFIES AS TO ITS OWN ORGANIZATION, under penalty of perjury, that to the best of his knowledge and belief: (1) the prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor; (2) Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor; and (3) No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

(b) A bid shall not be considered for award nor shall any award be made where (a) (1) (2) and (3) above have not been complied with; provided, however, that if in any case the bidder cannot make the foregoing certification, the bidder shall so state and shall furnish with the bid a signed statement which sets forth in detail the reasons therefore. Where (a) (1) (2) and (3) above have not been complied with, the bid shall not be considered for award nor shall any award be made unless the head of the purchasing unit of the state, public department or agency to which the bid is made, or his designee, determines that such disclosure was not made for the purpose of restricting competition.

The fact that a bidder (a) has published price lists, rates, or tariffs covering items to be procured, (b) has informed prospective customers of proposed or pending publication of new or revised price lists for such items, or (c) has sold the same items to other customers at the same prices being bid, does not constitute, without more, a disclosure within the meaning of subparagraph one (a).

The undersigned CERTIFIES, under penalty of perjury, that he is authorized to make this bid and execute this statement of non-collusion; that each of the statements contained in (1), (2) and (3) of paragraph (a) are true; that he is familiar with the statements and restrictions contained in paragraph (b) and the paragraph regarding the publication of price lists, etc. and such statements and restrictions are true and have been complied with by the bidder.

(Name of Individual, Partnership, or Corporation)

By _____

(SEAL)

SECTION 2876 OF THE PUBLIC AUTHORITIES LAW

§2876. DISQUALIFICATION TO CONTRACT WITH PUBLIC AUTHORITY

Any person who, when called before a grand jury, head of a state department, temporary state commission or other state agency, the organized crime task force in the department of law, head of a city department or other city agency, which is empowered to compel the attendance of witnesses and examine them under oath to testify in an investigation concerning any transaction or contract had with the state, any political subdivision thereof, a public authority or with a public department, agency or official of the state or of any political subdivision thereof or of a public authority, refuses to sign a waiver of immunity against subsequent criminal prosecution or to answer any relevant questions concerning such transaction or contract, and any firm, partnership or corporation of which he is a member, partner, director or officer shall be disqualified from thereafter selling to or submitting bids to or receiving awards from or entering into any contracts with any public authority or any official of any public authority created by the state or any political subdivision, for goods, work or services, for a period of five years after such refusal or until a disqualification shall be removed pursuant to the provisions of section twenty-six hundred three of this article.

It shall be the duty of the officer conducting the investigation before the grand jury, the head of a state department, the chairman of the temporary state commission or other state agency, the organized crime task force in the department of law, the head of a city department or other city agency before which the refusal occurs to send notice of such refusal, together with the names of any firm, partnership or corporation of which the person so refusing is known to be a member, partner, officer or director, to the commissioner of transportation of the state of New York, or the commissioner of general services as the case may be, and the appropriate departments, agencies and officials of the state, political subdivisions thereof or public authorities with whom the persons so refusing and any firm, partnership or corporation of which he is a member, partner, director or officer, is known to have a contract. However, when such refusal occurs before a body other than a grand jury, notice of refusal shall not be sent for a period of ten days after such refusal occurs. Prior to the expiration of this ten day period, any person, firm, partnership or corporation which has become liable to the cancellation or termination of a contract or disqualification to contract on account of such refusal may commence a special proceeding at a special term of the supreme court, held within the judicial district in which the refusal occurred, for an order determining whether the questions in response to which the refusal occurred were relevant and material to the inquiry. Upon the commencement of such proceeding, the sending of such notice of refusal to answer shall be subject to order of the court in which the proceeding was brought in a manner and on such terms as the court may deem just. If a proceeding is not brought within ten days, notice of refusal shall thereupon be sent as provided herein.

SECTION 2878 OF THE PUBLIC AUTHORITIES LAW

§2878. STATEMENT OF NON-COLLUSION IN BIDS OR PROPOSALS TO PUBLIC AUTHORITY.

(1) Every bid or proposal hereafter made to a public authority or to any official of any public authority created by the state or any political subdivision, where competitive bidding is required by statute, rule, regulation or local law, for work or services performed or to be performed or goods sold or to be sold, shall contain the following statement subscribed by the bidder and affirmed by such bidder as true under the penalties of perjury:

NON-COLLUSIVE BIDDING CERTIFICATION

(a) By submission of this bid, EACH BIDDER AND EACH PERSON SIGNING ON BEHALF OF ANY BIDDER CERTIFIES, AND IN THE CASE OF A JOINT BID EACH PARTY THERETO CERTIFIES AS TO ITS OWN ORGANIZATION, under penalty of perjury, that to the best of his knowledge and belief: (1) the prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor; (2) Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor; and (3) No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

(b) A bid shall not be considered for award nor shall any award be made where (a) (1) (2) and (3) above have not been complied with; provided, however, that if in any case the bidder cannot make the foregoing certification, the bidder shall so state and shall furnish with the bid a signed statement which sets forth in detail the reasons therefore. Where (a) (1) (2) and (3) above have not been complied with, the bid shall not be considered for award nor shall any award be made unless the head of the purchasing unit of the state, public department or agency to which the bid is made, or his designee, determines that such disclosure was not made for the purpose of restricting competition.

The fact that a bidder (a) has published price lists, rates, or tariffs covering items to be procured, (b) has informed prospective customers of proposed or pending publication of new or revised price lists for such items, or (c) has sold the same items to other customers at the same prices being bid, does not constitute, without more, a disclosure within the meaning of subparagraph one (a).

The undersigned CERTIFIES, under penalty of perjury, that he is authorized to make this bid and execute this statement of non-collusion; that each of the statements contained in (1), (2) and (3) of paragraph (a) are true; that he is familiar with the statements and restrictions contained in paragraph (b) and the paragraph regarding the publication of price lists, etc. and such statements and restrictions are true and have been complied with by the bidder.

(Name of Individual, Partnership, or Corporation)

By _____

(SEAL)

FORMS A, B, and C

STATE FINANCE LAW REQUIREMENTS

The Erie County Water Authority (the “Authority”) is a government entity, as that term is defined in State Finance Law §§ 139-j(1)(a) and 139-k(1)(a). When the Authority seeks to procure goods or services by means of an Invitation or Notice to Bid, or a Request for Proposals, the State Finance Law imposes certain restrictions on anyone who may wish to offer goods or services to the Authority as an Offerer, as that term is defined in §§ 139-j(1)(h) and 139-k(1)(h).

During the Restricted Period, as defined in §§ 139-j(1)(f) and 139-k(1)(f), when bids or proposals are being solicited, the Authority will designate a contact person with whom the Offerer may contact for information and other authorized purposes as set forth in §139-j of the State Finance Law. The designated contact is identified in the Notice to Bidders, or in the Request for Proposal. An Offerer is authorized to contact the Authority’s designated contact for such purposes as set forth in § 139-j(3).

Pursuant to the State Finance Law, the Authority is also required to make certain findings before making any determinations as to the qualifications and eligibility of those seeking a procurement contract, as that term is defined in State Finance Law §§ 139-j(1)(g) and 139-k(1)(g). Certain findings of non-responsibility can result in rejection for contract award and in the event of two findings of non-responsibility occurring within a 4-year period, the Offerer will be debarred from obtaining procurement contracts with the Authority. Further information about these requirements can be found in §§139–j and 139–k of the New York State Finance Law and the Erie County Water Authority’s Procurement Disclosure Policy.

The following forms will be used by the Authority to make such findings:

Form A - Offerer’s Affirmation of Understanding of, and Agreement to Comply with, the Authority’s Permissible Contact Requirements During the Restricted Period.

Form B - Offerer’s Certification of Compliance with State Finance Law.

Form C - Offerer’s Disclosure of Prior Non-Responsibility Determinations.

FORM A

Offerer's Affirmation of Understanding of, and Agreement to Comply with, the Permissible Contact Requirements During the Restricted Period

Instructions:

The Erie County Water Authority (the "Authority") is a government entity, as that term is defined in State Finance Law §§ 139-j(1)(a) and 139-k(1)(a). The Authority must obtain a written affirmation of understanding and agreement to comply with procedures regarding permissible contacts with the Authority in the restricted period for a procurement contract in accordance with State Finance Law §139-j and §139-k. It is required that this affirmation be obtained as early as possible in the procurement process, but no later than when the Offerer submits its proposal.

Offerer affirms that it understands and agrees to comply with the procedures of the Authority relative to permissible contacts as required by State Finance Law §139-j(3) and §139-j(6)(b).

By: _____ Date: _____

Name: _____

Title: _____

Contractor Name: _____

Contractor Address: _____

FORM B

**Offerer's Certification of Compliance
With State Finance Law §139-k(5)**

Instructions:

The Erie County Water Authority (the "Authority") is a government entity, as that term is defined in State Finance Law §§ 139-j(1)(a) and 139-k(1)(a). The Authority must obtain a Certification that the information submitted for a procurement contract is complete, true, and accurate regarding any prior findings of non-responsibility, such as non-responsibility pursuant to State Finance Law §139-j. The Offerer must agree to sign the Certification, under penalty of perjury, and to provide the Certification to the Authority. The Certification should be obtained as early as possible in the process, but no later than when an Offerer submits its proposal.

Offerer Certification:

I certify that all information provided to the Authority relating to the awarding of a procurement contract is complete, true, and accurate.

By: _____ Date: _____

Name: _____

Title: _____

Contractor Name: _____

Contractor Address: _____

FORM C**Offerer's Disclosure of Prior
Non-Responsibility Determinations****Background:**

The Erie County Water Authority (the "Authority") is a government entity, as that term is defined in State Finance Law §§ 139-j(1)(a) and 139-k(1)(a). New York State Finance Law §139-k(2) obligates the Authority to obtain specific information regarding prior non-responsibility determinations with respect to State Finance Law §139-j. In accordance with State Finance Law §139-k, an Offerer must be asked to disclose whether there has been a finding of non-responsibility made within the previous four (4) years by any Governmental Entity due to: (a) a violation of State Finance Law §139-j; or (b) the intentional provision of false or incomplete information to a Government Entity.

The terms "Offerer" and "Governmental Entity" are defined in State Finance Law §§139-j(1) and §139-k(1). These sections also set forth detailed requirements about the restrictions on contacts during the procurement process. A violation of State Finance Law §139-j includes, but is not limited to, an impermissible contact during the restricted period (for example, contacting a person or entity other than the designated contact person, when such contact does not fall within one of the exemptions).

As part of its responsibility determination, State Finance Law §139-k(3) mandates consideration of whether an Offerer fails to timely disclose accurate or complete information regarding the above non-responsibility determination. In accordance with law, no Procurement Contract shall be awarded to any Offerer that fails to timely disclose accurate or complete information under this section, unless a finding is made that the award of the Procurement Contract to the Offerer is necessary to protect public property or public health safety, and the Offerer is the only source capable of supplying the required Article of Procurement, as that term is defined in State Finance Law §§ 139-j(1)(b) and 139-k(1)(b), within the necessary timeframe. See State Finance Law §139-j(10)(b) and §139-k(3).

Instructions:

The Authority must include a disclosure request regarding prior non-responsibility determinations in accordance with State Finance Law §139-k in its solicitation of proposals or bid documents or specifications or contract documents, as applicable, for procurement contracts. The attached form is to be completed and submitted by the individual or entity seeking to enter into a Procurement Contract. It shall be submitted to the Authority conducting the Governmental Procurement no later than when the Offerer submits its proposal.

FORM C (Continued)**Offerer's Disclosure of Prior Non-Responsibility Determinations**

Name of Individual or Entity Seeking to Enter into the Procurement Contract:

Address:

Name and Title of Person Submitting this Form:

Contract Procurement Number:

Date:

1. Has any Governmental Entity made a finding of non-responsibility regarding the individual or entity seeking to enter into the Procurement Contract in the previous four years? (Please circle):
- No Yes

If yes, please answer the next questions:

2. Was the basis for the finding of non-responsibility due to a violation of State Finance Law §139-j (Please circle):
- No Yes
3. Was the basis for the finding of non-responsibility due to the intentional provision of false or incomplete information to a Governmental Entity? (Please circle) No Yes
4. If you answered yes to any of the above questions, please provide details regarding the finding of non-responsibility below.

Governmental Entity:

Date of Finding of Non-Responsibility:

Basis of Finding of Non-Responsibility:

(Add additional pages as necessary)

FORM C (Continued)

5. Has any Governmental Entity or other governmental agency terminated or withheld a Procurement Contract with the above-named individual or entity due to the intentional provision of false or incomplete information? (Please circle): No Yes

6. If yes, please provide details below.

Governmental Entity: _____

Date of Termination or Withholding of Contract: _____

Basis of Termination or Withholding:

[illegible]

(Add additional pages as necessary)

Offerer certifies that all information provided to the Erie County Water Authority with respect to State Finance Law §139-k is complete, true, and accurate.

By: _____ Date: _____
Signature

Name: _____

Title: _____

CONTRACT TERMINATION PROVISION

Instructions:

A Contract Termination Provision will be included in each procurement contract governed by State Finance Law §139-k. New York State Finance Law §139-k(5) provides that every procurement contract award subject to the provisions of State Finance Law §§139-k and 139-j shall contain a provision authorizing the governmental entity to terminate the contract in the event that the certification is found to be intentionally false or intentionally incomplete. This statutory contract language authorizes, but does not mandate, termination. “Government Entity” and “procurement contract” are defined in State Finance Law §§ 139 j(1) and 139-k(l).

This required clause will be included in a covered procurement contract.

A sample of the Termination Provision is included below. If a contract is terminated in accordance with State Finance Law §139-k(5), the Erie County Water Authority, as a governmental entity, is required to include a statement in the procurement record describing the basis for any action taken under the termination provision.

Sample Contract Termination Provision

The Erie County Water Authority, as a governmental entity, reserves the right to terminate this contract in the event it is found that the certification filed by the Offerer in accordance with New York State Finance Law §139-k was intentionally false or intentionally incomplete. Upon such finding, the Authority may exercise its termination right by providing written notification to the Offerer in accordance with the written notification terms of this contract.

**OFFERER'S STATEMENT REGARDING PREVENTION OF
UNLAWFUL DISCRIMINATORY PRACTICES**

The Erie County Water Authority (the "Authority"), as an employer in New York State, is subject to the Human Rights Law, codified as Executive Law §290, *et. seq.*, and Labor Law §201-g. The Authority seeks to provide a work environment that is free from unlawful discriminatory practices as they are defined in Executive Law §296, as well as from inappropriate harassing conduct even if not deemed unlawful, to its employees, contractors, subcontractors, vendors, consultants, and any other person providing services on Authority premises. Pursuant to the Human Rights Law, it shall be unlawful to discriminate against an individual, or to subject an individual to harassment, due to age, race, creed, color, national origin, sexual orientation, gender identity or expression, military status, sex, disability, predisposing genetic characteristics, familial status, marital status, or status as a victim of domestic violence. Accordingly, the Authority requires that any Offeror of a proposal or bid, agree to sign the following statement regarding unlawful discriminatory practices, including, but not limited to sexual harassment, under penalty of perjury. This statement should be provided to the Authority as early as possible in the procurement process, but not later than at the time of execution of a contract with the Authority. Failure to agree to sign the statement may result in the Authority deeming the bid or proposal withdrawn by the Offerer.

Offerer Statement:

I certify, under penalty of perjury, that the following statements are accurate:

- *Offerer is aware of its obligations under the Human Rights Law (Executive Law §290, et. seq.*
- *Offerer complies with the provisions of Executive Law §290, et. seq., including Executive Law §296, and does not permit unlawful discriminatory practices or harassment based on an individual's age, race, creed, color, national origin, sexual orientation, gender identity or expression, military status, sex, disability, predisposing genetic characteristics, familial status, marital status, or status as a victim of domestic violence in its workplace.*
- *Offerer complies with the provisions of Labor Law §201-g, has implemented a written policy addressing sexual harassment in the workplace which meets the minimum standards of Labor Law §201-g, and provides annual sexual harassment prevention training to all of its employees.*

By: _____ Date: _____

Name: _____

Title: _____

Offerer Name: _____

Offerer Address: _____

END OF PROCUREMENT BID FORM SUPPLEMENTS

ERIE COUNTY WATER AUTHORITY
BUFFALO, NEW YORK

WATERMAIN MATERIALS PURCHASE CONTRACT
JANUARY 1, 2022 TO JUNE 30, 2022
PROJECT No.: 202200001

SECTION 00450

BIDDER'S QUALIFICATION STATEMENT

(Completion of this statement is required in advance of
consideration for award of Contract.)

SUBMITTED TO:

Service Center Front Desk
Erie County Water Authority
3030 Union Road
Cheektowaga, New York 14227

SUBMITTED FOR:

Erie County Water Authority
Watermain Materials Purchase Contract
January 1, 2022 to June 30, 2022
ECWA Project No. 202200001

SUBMITTED BY:

Name of Organization: _____
(Print or Type Name of Bidder)

Name of Individual: _____

Title: _____

Business Address: _____

Telephone No.: _____

Fax No.: _____

Gentlemen:

The undersigned certifies under oath the truth and correctness of all statements and of all answers to questions made hereinafter.

(Note: Attach additional sheets as required.)

1.0 Bidder's General Business Information

1.1 Check if:

☐ Corporation ☐ Partnership ☐ Joint Venture ☐ Sole Proprietorship

If Corporation:

A. Date and State of Incorporation:

B. List of Executive Officers:

Name

Title

If Partnership:

A. Date and State of Organization:

B. Names of Current General Partners:

C. Type of Partnership

☐ General ☐ Publicly Traded

☐ Limited ☐ Other (described): _____

If Joint Venture:

A. Date and State of Organization:

B. Name, Address and Form of Organization of Joint Venture Partners: (Indicate managing partner by an asterisk *):

If Sole Proprietorship:

A. Date and State of Organization:

B. Name and Address of Owner or Owners:

2.0 How many years has your organization been in business as a general contractor? _____

3.0 Has your organizational structure changed within the past five years? ☐ Yes ☐ No

If the answer to this question is “yes”, provide data as listed above in Item 1.0 for your previous organization.

4.0 We normally perform _____ percent of the work with our own forces. List work normally subcontracted.

5.0 Has any construction contract to which you have been a party been terminated by the owner; have you ever terminated work on a project prior to its completion for any reason;

has any surety which issued a performance bond on your behalf ever completed the work in its own name or financed such completion on your behalf; has any surety expended any monies in connection with a contract for which they furnished a bond on your behalf?

☐ Yes ☐ No

If the answer to any portion of this question is “yes”, furnish details of all such occurrences including name of owner, architect or engineer, and surety, and name and date of project.

- 6.0 Has any officer or partner of your organization ever been an officer or partner of another organization that had any construction contract terminated by the owner; terminated work on a project prior to its completion for any reason; had any surety which issued a performance bond complete the work in its own name or financed such completion; or had any surety expend any monies in connection with a contract for which they furnished a bond?

☐ Yes ☐ No

If the answer to any portion of this question is “yes”, furnish details of all such occurrences including name of owner, architect or engineer, and surety, and name and date of project.

- 7.0 In the last five years, has your organization, or any predecessor organization, failed to substantially complete a project in a timely manner?

☐ Yes ☐ No

If the answer to this question is “yes”, furnish details of all such occurrences including name of owner, architect or engineer, and surety, and name and date of project.

- 8.0 On Schedule A, attached, list name, location and description of project, owner, architect or engineer, contract price, percent complete and scheduled completion of the major construction projects your organization has in progress on this date. Provide name, address and telephone number of a reference for each project listed.
- 9.0 On Schedule B, attached, list name, location and description of project, owner, architect or engineer, contract price, date of completion and percent of work with your own forces of major projects of the same general nature as this project which your organization has completed in the past five years. Provide name, address and telephone number of a reference for each project listed.
- 10.0 On Schedule C, attached, list name and construction experience of the principal individuals of your organization directly involved in construction operations.
- 10.1 On Schedule D, attached, list OSHA Information requested.
- 11.0 List the states and categories of construction in which your organization is legally qualified to do business.
- _____
- _____
- 12.0 Provide the following for your surety:
- 12.1 Surety Company: _____
- 12.2 Agent: _____
- A. Address: _____
- B. Telephone No.: _____
- 12.3 What is your approximate total bonding capacity?
- ☐ \$500,000 to \$2,000,000
- ☐ \$2,000,000 to \$5,000,000
- ☐ \$5,000,000 to \$10,000,000
- ☐ \$10,000,000 or more
- 13.0 Provide the following with respect to an accredited banking institution familiar with your organization.
- 13.1 Name of Bank: _____
- 13.2 Address: _____

13.3 Account Manager: _____

13.4 Telephone No.: _____

- 14.0 Provide the name, address and telephone number of an individual who represents a major equipment/material supplier whom the Owner may contact for a financial reference:

- 15.0 Attach a financial statement, prepared on an accrual basis, in a form which clearly indicates Bidder's assets, liabilities and net worth.

15.1 Date of financial statement: _____

15.2 Name of firm preparing statement: _____

- 16.0 Dated at _____, this _____ day of _____, 20____.

Bidder: _____
(Print or Type Name of Bidder)

By: _____

Title: _____

Attachments A, B, C, and D

(Seal, if corporation)

------(Affidavit for Individual)-----

_____ being duly sworn, deposes and says that:
a) the financial statement, taken from his/her books, is a true and accurate statement of his/her financial condition as of the date thereof; and b) all of the foregoing qualification information is true, complete, and accurate.

------(Affidavit for Partnership)-----

_____ being duly sworn, deposes and says that:
a) he/she is a member of the partnership of _____;
b) he/she is familiar with the books of said partnership showing its financial condition; c) the financial statement, taken from the books of said partnership, is a true and accurate statement of the financial condition of the partnership as of the date thereof; and d) all of the foregoing qualification information is true, complete, and accurate.

------(Affidavit for Corporation)-----

_____ being duly sworn, deposes and says that:
a) he/she is _____ of _____;
(Full name of Corporation)
b) he/she is familiar with the books of said corporation showing its financial condition; c) the financial statement, taken from the books of said corporation, is a true and accurate statement of the financial condition of said corporation as of the date thereof; and d) that all of the foregoing qualification information is true, complete, and accurate.

------(Acknowledgment)-----

_____ being duly sworn, deposes and says
that he/she is _____ of _____;
(Name of Bidder)
that he/she is duly authorized to make the foregoing affidavit and that he/she makes it on behalf of
() himself/herself; () said partnership; () said corporation.

Sworn to before me this _____ day of _____, 20____, in the
County of _____, State of _____.

(Notary Public)

My commission expires _____

(Seal)

END OF BIDDER QUALIFICATIONS STATEMENT

ATTACHMENT A

**SCHEDULE A
PROJECTS IN PROGRESS**

<u>Name, Location, and Description of Project</u>	<u>Owner</u>	<u>Architect or Engineer</u>	<u>Contract Price</u>	<u>Percent Complete</u>	<u>Scheduled Completion</u>	<u>Reference/Contract Include Address and Phone</u>
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ATTACHMENT B

**SCHEDULE B
PROJECTS COMPLETED**

<u>Name, Location, and Description of Project</u>	<u>Owner</u>	<u>Architect or Engineer</u>	<u>Date Completed</u>	<u>Contract Price</u>	<u>Percent with Own Forces</u>	<u>Reference/Contract Include Address and Phone</u>
---	--------------	----------------------------------	---------------------------	-----------------------	------------------------------------	---

ATTACHMENT C

**SCHEDULE C
PERSONNEL**

<u>Name</u>	<u>Position</u>	<u>Date Started With This Organization</u>	<u>Date Started In Construction</u>	<u>Prior Positions and Experience In Construction</u>
-------------	-----------------	--	---	---

ATTACHMENT D
SCHEDULE D
OSHA INFORMATION

List all Occupational Safety and Health Administration Citations for the last three years, including date, subject matter, and penalty.

Attach copies of all determined Citations and Notification of Penalty, Form OSHA 2.

Describe all pending cases, giving pertinent information such as apparent violations, location of project, type of project, and present status. _____

List any additional information on the back or attach a separate sheet if necessary.

ERIE COUNTY WATER AUTHORITY
BUFFALO, NEW YORK

WATERMAIN MATERIALS PURCHASE CONTRACT
JANUARY 1, 2022 TO JUNE 30, 2022
PROJECT NO: 202200001

SECTION 00500P

PROCUREMENT AGREEMENT

THIS PROCUREMENT AGREEMENT is dated as of the _____ day of _____ in the year _____, by and between the ERIE COUNTY WATER AUTHORITY (hereinafter called OWNER) and _____ (hereinafter called CONTRACTOR).

WITNESSETH: OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

ARTICLE 1 - GOODS and POINT OF DELIVERY

1.01 GOODS

CONTRACTOR shall, at its own cost and expense, furnish the Goods and other Services as shown and specified in the Procurement Documents. The Goods to be furnished are generally described as follows:

WATERMAIN MATERIALS PURCHASE CONTRACT
JANUARY 1, 2022 TO JUNE 30, 2022
PROJECT NO: 202200001

1.02 POINT OF DELIVERY

The place to where the Goods are to be delivered is designated as:

Service Center
Erie County Water Authority
3030 Union Road
Cheektowaga, New York 14227

ARTICLE 2 - ENGINEER

2.01 The Project has been designed by the OWNER, who is hereinafter called ENGINEER. The OWNER will assume all duties and responsibilities and have the rights and authority assigned to ENGINEER by OWNER in connection with furnishing the Goods in accordance with the Contract Documents.

ARTICLE 3 - CONTRACT TIMES

3.01 Time of the Essence

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

3.02 Contract Time

- A. The OWNER will notify CONTRACTOR periodically throughout the duration of the Contract when Goods are to be delivered and in what quantities. The Goods are to be delivered to the Point of Delivery and ready for OWNER'S acceptance of delivery within the time period identified in Section 00410P, Procurement Bid Forms, Order Lead Time for Item (Days) for each Bid Item. No Goods are to be delivered unless ordered by OWNER.
- B. All Shop Drawings required by the Procurement Documents shall be submitted to ENGINEER for review and approval within seven (7) days after the request of ENGINEER.

ARTICLE 4 - LIQUIDATED AND SPECIAL DAMAGES (NOT USED)

ARTICLE 5 - CONTRACT PRICE

- 5.01 OWNER shall pay CONTRACTOR, in current funds, for furnishing Goods and for performing other Services in accordance with the Procurement Documents the prices stated in CONTRACTOR'S Bid, which Bid is attached hereto and identified as Exhibit 1 of this Agreement. As provided in paragraph 11.03 of the Procurement General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by ENGINEER as provided in paragraph 9.08 of the Procurement General Conditions. Unit prices have been computed as provided in paragraph 11.03 of the Procurement General Conditions.

ARTICLE 6 - PAYMENT PROCEDURES

6.01 Submittal and Processing of Payments

- A. CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the Procurement General Conditions. Applications for Payment will be processed as provided in the Procurement General Conditions.

6.02 Progress and Final Payments

- A. OWNER shall make monthly progress payments on account of the Contract Price on the basis of CONTRACTOR'S Applications for Payment as recommended by

ENGINEER. CONTRACTOR'S Applications for Payment will be due on the last day of the month. All progress payments will be on the basis of the amount of the Goods furnished as provided for in paragraph 2.07.A of the Procurement General Conditions.

ARTICLE 7 - INTEREST

- 7.01 All moneys not paid when due hereunder shall bear interest at the maximum rate allowed by law at the place of the Project.

ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

- 8.01 As part of the inducement for OWNER to enter into this Agreement CONTRACTOR makes the following representations:

- A. CONTRACTOR has examined and carefully studied the Procurement Documents and the other related data identified in the Procurement Bidding Documents.
- B. CONTRACTOR has visited the Site and become familiar with and is satisfied as to the general, local and Site conditions that may affect cost, progress, and performance for furnishing the Goods.
- C. CONTRACTOR is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress and performance of the Work.
- D. (NOT USED)
- E. (NOT USED)
- F. CONTRACTOR does not consider that any further examinations, investigations, explorations, tests, studies or data are necessary for furnishing the Goods at the Contract Price, within the Contract Times and in accordance with the other terms and conditions of the Procurement Documents.
- G. CONTRACTOR is aware of the general nature of work to be performed by OWNER and others at the Site that relates to furnishing the Goods as indicated in the Procurement Documents.
- H. CONTRACTOR has correlated the information known to CONTRACTOR, information and observations obtained from visits to the Site, reports and drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests, studies and data with the Procurement Documents.
- I. CONTRACTOR has given ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that CONTRACTOR has discovered in the Procurement Documents and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR.

- J. The Procurement Documents are generally sufficient to indicate and convey understanding of all terms and conditions for furnishing the Goods.

ARTICLE 9 - PROCUREMENT DOCUMENTS

9.01 The Procurement Documents consist of the following:

- A. This Procurement Agreement (7 pages).
- B. Performance Bond (2 pages).
- C. Procurement General Conditions (43 pages).
- D. Procurement Supplementary Conditions (9 pages).
- E. Specifications, as listed in the table of contents of the Procurement Manual.
- F. Appendix A - Women and Minority Business Enterprise Policy.
- G. Addenda consisting of Numbers ____ to ____, inclusive.
- H. Exhibits to the Agreement enumerated as follows:
 - 1. Exhibit 1, Procurement Bid Form (29 pages).
- I. The following, which may be delivered or issued on or after the Effective Date of the Agreement, and are not attached hereto:
 - 1. Notice to Proceed
 - 2. Written Amendments
 - 3. Work Change Directives
 - 4. Change Order(s)

9.02 The documents listed in paragraph 9.01 above are attached to this Procurement Agreement (except as expressly noted otherwise above). Documents not attached are incorporated by reference. There are no Procurement Documents other than those listed in this Article 9.

9.03 The Procurement Documents may only be amended, modified or supplemented as provided in paragraph 3.04 of the Procurement General Conditions.

ARTICLE 10 - MISCELLANEOUS

10.01 Terms

- A. Terms used in this Procurement Agreement will have the meanings indicated in the Procurement General Conditions.

10.02 Assignment of Contract

- A. 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, moneys that may become due and moneys that are 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 Procurement Documents.

10.03 Successors and Assigns

- A. OWNER and CONTRACTOR each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in the Procurement Documents.

10.04 Severability

- A. Any provision or part of the Procurement Document, 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 Procurement 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 Waiver

- A. The waiver by the OWNER of any breach or violation of any term, covenant, or condition of this Agreement or of any Law or Regulation shall not be deemed to be a waiver of any other term, covenant, condition, or Law or Regulation or of any subsequent breach or violation of the same or of any other term, covenant, condition, or Law or Regulation. The subsequent payment of any monies or fee by the OWNER which may become due hereunder shall not be deemed to be a waiver of any preceding breach or violation by CONTRACTOR of any term, covenant, condition of this Procurement Agreement or of any applicable Law or Regulation.

ARTICLE 11 – GROUNDS FOR RENEWAL

- A. If the OWNER and CONTRACTOR mutually agree to continue this contract after June 30, 2022, it may be extended for two additional terms of six months on the same terms and conditions as set forth in this Contract. CONTRACTOR shall provide written notification to OWNER of its interest in continuing the Contract at least forty-five (45) days prior to the expiration of the initial term of this Contract.

IN WITNESS WHEREOF, the parties hereto have executed this Procurement Agreement on the day and year first written above.

This Procurement Agreement will be effective on _____, 20_____.

OWNER: Erie County Water Authority

CONTRACTOR: _____

By: _____

By: _____

Title: _____

Title: _____

[CORPORATE SEAL]

[CORPORATE SEAL]

Attest _____

Attest _____

Address for giving notices

Address for giving notices

(If OWNER is a corporation, partnership, or limited liability company, 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 Procurement Agreement.)

License No. _____
(where applicable)

Agent for service of process: _____

(If CONTRACTOR is a corporation, partnership, or limited liability company, attach evidence of authority to sign.)

Designated Representative:

Name: _____

Title: _____

Address: _____

Phone No.: _____

Fax No.: _____

Designated Representative:

Name: _____

Title: _____

Address: _____

Phone No.: _____

Fax No.: _____

END OF PROCUREMENT AGREEMENT

Performance Bond

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

SURETY (Name and Address of Principal Place
of Business):

OWNER (Name and Address):

Erie County Water Authority
295 Main Street, Room 350
Buffalo, NY 14203

CONTRACT

Date:

Amount:

Description: ERIE COUNTY WATER AUTHORITY
Watermain Materials Purchase Contract
January 1, 2022 to June 30, 2022
PROJECT No. 202200001

BOND

Date (Not earlier than Contract Date):

Amount:

Modifications to this Bond Form:

Surety and CONTRACTOR, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Performance Bond to be duly executed on its behalf by its authorized officer, agent or representative.

CONTRACTOR AS PRINCIPAL

Company: _____ (Corp. Seal)

Signature: _____

Name and Title:

SURETY

Company: _____ (Corp. Seal)

Signature: _____

Name and Title:

(Attach Power of Attorney)

(Space is provided below for signatures of additional parties, if required.)

CONTRACTOR AS PRINCIPAL

Company: _____ (Corp. Seal)

Signature: _____

Name and Title:

SURETY

Company: _____ (Corp. Seal)

Signature: _____

Name and Title:

EJCDC No. 1910-28-A (1996 Edition)

Originally prepared through the joint efforts of the Surety Association of America, Engineers Joint Contract Documents Committee, the Associated General Contractors of America, and the American Institute of Architects.

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

2. If the CONTRACTOR performs the Contract, the Surety and the CONTRACTOR have no obligation under this Bond, except to participate in conferences as provided in paragraph 3.1.

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

3.1. The OWNER has notified the CONTRACTOR and the Surety at the addresses described in paragraph 10 below, that the OWNER is considering declaring a CONTRACTOR Default and has requested and attempted to arrange a conference with the CONTRACTOR and the Surety to be held not later than fifteen days after receipt of such notice to discuss methods of performing the Contract. If the OWNER, the CONTRACTOR and the Surety agree, the CONTRACTOR shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive the OWNER'S right, if any, subsequently to declare a CONTRACTOR Default; and

3.2. The OWNER has declared a CONTRACTOR Default and formally terminated the CONTRACTOR'S right to complete the Contract. Such CONTRACTOR Default shall not be declared earlier than twenty days after the CONTRACTOR and the Surety have received notice as provided in paragraph 3.1; and

3.3. The OWNER has agreed to pay the Balance of the Contract Price to:

3.3.1. The Surety in accordance with the terms of the Contract; or

3.3.2 Another contractor selected pursuant to paragraph 4.3 to perform the Contract.

4. 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:

4.1. Arrange for the CONTRACTOR, with consent of the OWNER, to perform and complete the Contract; or

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

4.3. Obtain bids or negotiated proposals from qualified contractors acceptable to the OWNER for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by the OWNER and the contractor selected with the OWNER'S concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the Bonds issued on the Contract, and pay to the OWNER the amount of damages as described in paragraph 6 in excess of the Balance of the Contract Price incurred by the OWNER resulting from the CONTRACTOR Default; or

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

4.4.1 After investigation, determine the amount for which it may be liable to the OWNER and, as soon as practicable after the amount is determined, tender payment therefor to the OWNER; or

4.4.2 Deny liability in whole or in part and notify the OWNER citing reasons therefor.

5. If the Surety does not proceed as provided in paragraph 4 with reasonable promptness, the Surety shall be deemed to be in default on this Bond fifteen 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 4.4, and the OWNER refuses the payment tendered or the Surety has denied pliability, in whole or in part, without

further notice the OWNER shall be entitled to enforce any remedy available to the OWNER.

6. After the OWNER has terminated the CONTRACTOR'S right to complete the Contract, and if the Surety elects to act under paragraph 4.1, 4.2, or 4.3 above, then the responsibilities of the Surety to the OWNER shall not be greater than those of the CONTRACTOR under the Contract, and the responsibilities of the OWNER to the Surety shall not be greater than those of the OWNER under the Contract. To a limit of the amount of this Bond, but subject to commitment by the OWNER of the Balance of the Contract Price to mitigation of costs and damages on the Contract, the Surety is obligated without duplication for:

6.1. The responsibilities of the CONTRACTOR for correction of defective Work and completion of the Contract;

6.2. 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 4; and

6.3. Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance of the CONTRACTOR.

7. The Surety shall not be liable to the OWNER or others for obligations of the CONTRACTOR that are unrelated to the 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, or successors.

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

9. 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 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 period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

10. Notice to the Surety, the OWNER or the CONTRACTOR shall be mailed or delivered to the address shown on the signature page.

11. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the Contract was performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted here-from and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

12. Definitions.

12.1 Balance of the Contract Price: The total amount payable by the OWNER to the CONTRACTOR under the Contract after all proper adjustments have been made, including allowance to the CONTRACTOR of 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 Contract.

12.2. Contract: The agreement between the OWNER and the CONTRACTOR identified on the signature page, including all Contract Documents and changes thereto.

12.3. CONTRACTOR Default: Failure of the CONTRACTOR, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.

12.4. OWNER Default: Failure of the OWNER, which has neither been remedied nor waived, to pay the CONTRACTOR as required by the Contract or to perform and complete or comply with the other terms thereof.

(FOR INFORMATION ONLY - Name, Address and Telephone)
AGENT or BROKER: OWNER'S REPRESENTATIVE (Engineer):

ERIE COUNTY WATER AUTHORITY
BUFFALO, NEW YORK

WATERMAIN MATERIALS PURCHASE CONTRACT
JANUARY 1, 2022 TO JUNE 30, 2022
PROJECT No.: 202200001

SECTION 00700P

PROCUREMENT GENERAL CONDITIONS

Adapted with permission from Standard General Conditions of the
Construction Contract, EJCDC No. 1910-8 (1996 Edition).

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TABLE OF CONTENTS

Page

ARTICLE 1 - DEFINITIONS AND TERMINOLOGY	00700 - 7
1.01 <i>Defined Terms</i>	00700 - 7
1.02 <i>Terminology</i>	00700 - 10
ARTICLE 2 - PRELIMINARY MATTERS	00700 - 10
2.01 <i>Delivery of Bonds</i>	00700 - 10
2.02 <i>Copies of Documents</i>	00700 - 11
2.03 <i>Commencement of Contract Times; Notice to Proceed</i>	00700 - 11
2.04 <i>Starting the Work</i>	00700 - 11
2.05 <i>Before Starting Construction</i>	00700 - 11
2.06 <i>Preconstruction Conference</i>	00700 - 11
2.07 <i>Initial Acceptance of Schedules</i>	00700 - 11
ARTICLE 3 - Procurement Documents: INTENT, AMENDING, REUSE	00700 - 12
3.01 <i>Intent</i>	00700 - 12
3.02 <i>Reference Standards</i>	00700 - 12
3.03 <i>Reporting and Resolving Discrepancies</i>	00700 - 12
3.04 <i>Amending and Supplementing Procurement Documents</i>	00700 - 13
3.05 <i>Reuse of Documents</i>	00700 - 13
ARTICLE 4 - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; REFERENCE POINTS	00700 - 13
4.01 <i>Availability of Lands</i>	00700 - 13
4.02 <i>Subsurface and Physical Conditions</i>	00700 - 13
4.03 <i>Differing Subsurface or Physical Conditions</i>	00700 - 14
4.04 <i>Underground Facilities</i>	00700 - 15
4.05 <i>Reference Points</i>	00700 - 15
4.06 <i>Hazardous Environmental Condition at Site</i>	00700 - 15
ARTICLE 5 - BONDS AND INSURANCE	00700 - 16
5.01 <i>Performance, Payment, and Other Bonds</i>	00700 - 16
5.02 <i>Licensed Sureties and Insurers</i>	00700 - 17
5.03 <i>Certificates of Insurance</i>	00700 - 17
5.04 <i>CONTRACTOR'S Liability Insurance</i>	00700 - 17
5.05 <i>OWNER'S Liability Insurance</i>	00700 - 18
5.06 <i>Property Insurance (See Procurement Supplementary Conditions)</i>	00700 - 18
5.07 <i>(Not Used)</i>	00700 - 18
5.08 <i>(Not Used)</i>	00700 - 18
5.09 <i>(Not Used)</i>	00700 - 18
5.10 <i>Acceptance of Bonds and Insurance; Option to Replace</i>	00700 - 18
ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES	00700 - 18
6.01 <i>Supervision and Superintendence</i>	00700 - 18
6.02 <i>Labor; Working Hours</i>	00700 - 19
6.03 <i>Services, Materials, and Equipment</i>	00700 - 19
6.04 <i>Progress Schedule</i>	00700 - 19
6.05 <i>Substitutes and "Or-Equals"</i>	00700 - 19
6.06 <i>Concerning Subcontractors, Suppliers, and Others</i>	00700 - 21
6.07 <i>Patent Fees and Royalties</i>	00700 - 22
6.08 <i>Permits</i>	00700 - 22

TABLE OF CONTENTS (CONTINUED)

	<u>Page</u>
6.09 <i>Laws and Regulations</i>	00700 - 22
6.10 <i>Taxes</i>	00700 - 22
6.11 <i>Use of Site and Other Areas</i>	00700 - 22
6.12 <i>Record Documents</i>	00700 - 23
6.13 <i>Safety and Protection</i>	00700 - 23
6.14 <i>Safety Representative</i>	00700 - 23
6.15 <i>Hazard Communication Programs</i>	00700 - 23
6.16 <i>Emergencies</i>	00700 - 24
6.17 <i>Shop Drawings and Samples</i>	00700 - 24
6.18 <i>Continuing the Work</i>	00700 - 25
6.19 <i>CONTRACTOR'S General Warranty and Guarantee</i>	00700 - 25
6.20 <i>Indemnification</i>	00700 - 25
 ARTICLE 7 - OTHER WORK	 00700 - 26
7.01 <i>Related Work at Site</i>	00700 - 26
 ARTICLE 8 - OWNER'S RESPONSIBILITIES	 00700 - 27
8.01 <i>Communications to Contractor</i>	00700 - 27
8.02 <i>Furnish Data</i>	00700 - 27
8.03 <i>Pay Promptly When Due</i>	00700 - 27
8.04 <i>Lands and Easements; Reports and Tests</i>	00700 - 27
8.05 <i>Insurance</i>	00700 - 27
8.06 <i>Change Orders</i>	00700 - 27
8.07 <i>Inspections, Tests, and Approvals</i>	00700 - 27
8.08 <i>Limitations on OWNER'S Responsibilities</i>	00700 - 27
8.09 <i>Undisclosed Hazardous Environmental Condition</i>	00700 - 27
8.10 <i>Evidence of Financial Arrangements</i>	00700 - 27
 ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION	 00700 - 28
9.01 <i>OWNER'S Representative</i>	00700 - 28
9.02 <i>Visits to Site</i>	00700 - 28
9.03 <i>Project Representative</i>	00700 - 28
9.04 <i>Clarifications and Interpretations</i>	00700 - 28
9.05 <i>Authorized Variations in Work</i>	00700 - 28
9.06 <i>Rejecting Defective Work</i>	00700 - 28
9.07 <i>Shop Drawings, Change Orders and Payments</i>	00700 - 28
9.08 <i>Determinations for Unit Price Work</i>	00700 - 28
9.09 <i>Decisions on Requirements of Procurement Documents and Acceptability of Work</i>	00700 - 29
9.10 <i>Limitations on ENGINEER'S Authority and Responsibilities</i>	00700 - 29
 ARTICLE 10 - CHANGES IN THE WORK; CLAIMS	 00700 - 29
10.01 <i>Authorized Changes in the Work</i>	00700 - 29
10.02 <i>Unauthorized Changes in the Work</i>	00700 - 29
10.03 <i>Execution of Change Orders</i>	00700 - 30
10.04 <i>Notification to Surety</i>	00700 - 30
10.05 <i>Claims and Disputes</i>	00700 - 30
 ARTICLE 11 - COST OF THE WORK; CASH ALLOWANCES; UNIT PRICE WORK	 00700 - 31
11.01 <i>Cost of the Work</i>	00700 - 31
11.02 <i>Cash Allowances</i>	00700 - 32
11.03 <i>Unit Price Work</i>	00700 - 33
 ARTICLE 12 - CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES	 00700 - 33
12.01 <i>Change of Contract Price</i>	00700 - 33
12.02 <i>Change of Contract Times</i>	00700 - 34
12.03 <i>Delays Beyond CONTRACTOR'S Control</i>	00700 - 34

TABLE OF CONTENTS (CONTINUED)

	<u>Page</u>
12.04 <i>Delays Within CONTRACTOR'S Control</i>	00700 - 34
12.05 <i>Delays Beyond OWNER'S and CONTRACTOR'S Control</i>	00700 - 34
12.06 <i>Delay Damages</i>	00700 - 34
ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK	00700 - 35
13.01 <i>Notice of Defects</i>	00700 - 35
13.02 <i>Access to Work</i>	00700 - 35
13.03 <i>Tests and Inspections</i>	00700 - 35
13.04 <i>Uncovering Work</i>	00700 - 35
13.05 <i>OWNER May Stop the Work</i>	00700 - 36
13.06 <i>Correction or Removal of Defective Work</i>	00700 - 36
13.07 <i>Correction Period</i>	00700 - 36
13.08 <i>Acceptance of Defective Work</i>	00700 - 36
13.09 <i>OWNER May Correct Defective Work</i>	00700 - 37
ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION	00700 - 37
14.01 <i>Schedule of Values</i>	00700 - 37
14.02 <i>Progress Payments</i>	00700 - 37
14.03 <i>CONTRACTOR'S Warranty of Title</i>	00700 - 39
14.04 <i>Substantial Completion</i>	00700 - 39
14.05 <i>Partial Utilization</i>	00700 - 40
14.06 <i>Final Inspection</i>	00700 - 40
14.07 <i>Final Payment</i>	00700 - 40
14.08 <i>(Not Used)</i>	00700 - 41
14.09 <i>Waiver of Claims</i>	00700 - 41
ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION	00700 - 41
15.01 <i>OWNER May Suspend Work</i>	00700 - 41
15.02 <i>OWNER May Terminate for Cause</i>	00700 - 41
15.03 <i>OWNER May Terminate For Convenience</i>	00700 - 42
15.04 <i>CONTRACTOR May Stop Work or Terminate</i>	00700 - 42
ARTICLE 16 - DISPUTE RESOLUTION	00700 - 43
16.01 <i>Methods and Procedures</i>	00700 - 43
ARTICLE 17 - MISCELLANEOUS	00700 - 43
17.01 <i>Giving Notice</i>	00700 - 43
17.02 <i>Computation of Times</i>	00700 - 43
17.03 <i>Cumulative Remedies</i>	00700 - 43
17.04 <i>Survival of Obligations</i>	00700 - 43
17.05 <i>Controlling Law</i>	00700 - 43
17.06 <i>Headings</i>	00700 - 43

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PROCUREMENT GENERAL CONDITIONS

ARTICLE 1 - DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

A. Wherever used in the Procurement Documents and printed with initial or all capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof.

1. *Addenda*--Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the Procurement Documents.

2. *Procurement Agreement*--The written instrument which is evidence of the agreement between OWNER and CONTRACTOR covering the Work.

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 Procurement Documents.

4. *Asbestos*--Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

5. *Bid*--The offer or proposal of a bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

6. *Procurement Bidding Documents*--The Bidding Requirements and the proposed Procurement Documents (including all Addenda issued prior to receipt of Bids).

7. *Bidding Requirements*--The Advertisement or Invitation to Bid, Procurement Instructions to Bidders, Bid security form, if any, and the Procurement Bid form with any supplements.

8. *Bonds*--Performance and payment bonds and other instruments of security.

9. *Change Order*--A document recommended by ENGINEER 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, issued on or after the Effective Date of the Procurement Agreement.

10. *Claim*--A demand or assertion by OWNER or CONTRACTOR seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.

11. *Contract*--The entire and integrated written agreement between the OWNER and CONTRACTOR concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Price*--The moneys payable by OWNER to CONTRACTOR for completion of the Work in accordance with the Procurement Documents as stated in the Procurement Agreement (subject to the provisions of paragraph 11.03 in the case of Unit Price Work).

13. *Contract Times*--The number of days or the dates stated in the Procurement Agreement to: (i) achieve Substantial Completion; and (ii) complete the Work so that it is ready for final payment as evidenced by ENGINEER'S written recommendation of final payment.

14. *CONTRACTOR*--The individual or entity with whom OWNER has entered into the Procurement Agreement.

15. *Cost of the Work*--See paragraph 11.01.A for definition.

16. *Drawings*--That part of the Procurement Documents prepared or approved by ENGINEER which graphically shows the scope, extent, and character of the Work to be performed by CONTRACTOR. Shop Drawings and other CONTRACTOR submittals are not Drawings as so defined.

17. *Effective Date of the Procurement Agreement*--The date indicated in the Procurement Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Procurement Agreement is signed and delivered by the last of the two parties to sign and deliver.

18. *ENGINEER*--The individual or entity named as such in the Procurement Agreement.

19. *ENGINEER'S Consultant*--An individual or entity having a contract with ENGINEER to furnish services as ENGINEER'S independent professional associate or consultant with respect to the Project and who is identified as such in the Procurement Supplementary Conditions.

20. *Field Order*--A written order issued by ENGINEER which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.

21. *General Requirements*--Sections of Division 1 of the Specifications. The General Requirements pertain to all sections of the Specifications.

22. *Goods*--All tangible personal property required to be furnished under the Procurement Documents. Furnishing Goods and Performing Work shall have the same meaning as referenced in the Procurement Manual.

23. *Hazardous Environmental Condition*--The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto in connection with the Work.

24. *Hazardous Waste*--The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

25. *Laws and Regulations; Laws or Regulations*--Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

26. *Liens*--Charges, security interests, or encumbrances upon Project funds, real property, or personal property.

27. *Milestone*--A principal event specified in the Procurement Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

28. *Notice of Award*--The written notice by OWNER to the apparent successful bidder stating that upon timely compliance by the apparent successful bidder with the conditions precedent listed therein, OWNER will sign and deliver the Procurement Agreement.

29. *Notice to Proceed*--A written notice given 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 under the Procurement Documents.

30. *OWNER*--The individual, entity, public body, or authority with whom CONTRACTOR has entered into the Procurement Agreement and for whom the Work is to be performed.

31. *Partial Utilization*--Use by OWNER of a substantially completed part of the Work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all the Work.

32. *PCBs*--Polychlorinated biphenyls.

33. *Petroleum*--Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.

34. *Point of Delivery*--The place designated in the Procurement Agreement where the Goods are to be delivered.

35. *Procurement Documents*--The Procurement Documents establish the rights and obligations of the parties and include the Procurement Agreement, Addenda (which pertain to the Procurement Documents), CONTRACTOR'S Bid (including documentation accompanying the Bid and any post Bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Procurement Agreement, the Notice to Proceed, the Bonds, these Procurement General Conditions, the Procurement Supplementary Conditions, the Specifications and the Drawings as the same are more specifically identified in the Procurement Agreement, together with all Written Amendments, Change Orders, Work Change Directives, Field Orders, and ENGINEER'S written interpretations and clarifications issued on or after the Effective Date of the Procurement Agreement. Approved Shop Drawings and the reports and drawings of subsurface and physical conditions are not Procurement Documents. Only printed or hard copies of the items listed in this paragraph are Procurement Documents. Files in electronic media format of text, data, graphics, and the like that may be furnished by OWNER to CONTRACTOR are not Procurement Documents. Procurement Documents and Contract Documents

shall have the same meaning as referenced in the Procurement Manual.

36. *Project*--The total construction of which the Work to be performed under the Procurement Documents may be the whole, or a part as may be indicated elsewhere in the Procurement Documents.

37. *Procurement Manual*--The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Procurement Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.

38. *Radioactive Material*--Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

39. *Resident Project Representative*--The authorized representative of ENGINEER who may be assigned to the Site or any part thereof.

40. *Samples*--Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

41. *Shop Drawings*--All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for CONTRACTOR and submitted by CONTRACTOR to illustrate some portion of the Work.

42. *Site*--Lands or areas indicated in the Procurement Documents as being furnished by OWNER upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by OWNER which are designated for the use of CONTRACTOR.

43. *Special Services*--Services to be furnished by CONTRACTOR at the designated site(s) as required by the Procurement Documents.

44. *Specifications*--That part of the Procurement Documents consisting of written technical descriptions of materials, equipment, systems, standards, and workmanship as applied to the Work and certain administrative details applicable thereto.

45. *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 at the Site.

46. *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 Procurement 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.

47. *Procurement Supplementary Conditions*--That part of the Procurement Documents which amends or supplements these Procurement General Conditions.

48. *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 any Subcontractor.

49. *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 those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

50. *Unit Price Work*--Work to be paid for on the basis of unit prices.

51. *Work*--The entire completed construction or the various separately identifiable parts thereof required to be provided under the Procurement Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Procurement Documents.

52. *Work Change Directive*--A written statement to CONTRACTOR issued on or after the Effective Date of the Procurement Agreement and signed by OWNER and recommended by ENGINEER ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the

Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

53. *Written Amendment*--A written statement modifying the Procurement Documents, signed by OWNER and CONTRACTOR on or after the Effective Date of the Procurement Agreement and normally dealing with the nonengineering or nontechnical rather than strictly construction-related aspects of the Procurement Documents.

1.02 Terminology

A. Intent of Certain Terms or Adjectives

1. Whenever in the Procurement Documents the terms “as ordered,” “as directed,” “as required,” “as allowed,” “as approved,” or terms of like effect or import are used to authorize an exercise of professional judgement by the ENGINEER, or 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 judgement, action or determination will be solely to evaluate, in general, the completed Work for compliance with the requirements of and information in the Procurement Documents and conformance with the design concept of the completed Project as a functioning whole as shown or indicated in the Procurement Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective 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 paragraph 9.10 or any other provision of the Procurement Documents.

B. Day

1. The word “day” shall constitute a calendar day of 24 hours measured from midnight to the next midnight.

C. Defective

1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it does not conform to the Procurement Documents or does not meet the

requirements of any inspection, reference standard, test, or approval referred to in the Procurement Documents, or 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 14.04 or 14.05).

D. 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. When “furnish,” “install,” “perform,” or “provide” is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of CONTRACTOR, “provide” is implied.

E. Unless stated otherwise in the Procurement Documents, words or phrases which have a well-known technical or construction industry or trade meaning are used in the Procurement Documents in accordance with such recognized meaning.

ARTICLE 2 - PRELIMINARY MATTERS

2.01 Delivery of Bonds

A. When CONTRACTOR delivers the executed Procurement Agreements to OWNER, CONTRACTOR shall also deliver to OWNER such Bonds as CONTRACTOR may be required to furnish.

2.02 Copies of Documents

A. OWNER shall furnish to CONTRACTOR up to ten copies of the Procurement Documents. Additional

copies will be furnished upon request at the cost of reproduction.

2.03 *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 Procurement Agreement 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 Procurement Agreement. 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 Procurement Agreement, whichever date is earlier.

2.04 *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 the date on which the Contract Times commence to run.

2.05 *Before Starting Construction*

A. *CONTRACTOR'S Review of Procurement Documents:* Before undertaking each part of the Work, CONTRACTOR shall carefully study and compare the Procurement Documents and check and verify pertinent figures therein and all applicable field measurements. CONTRACTOR shall promptly report in writing to ENGINEER any conflict, error, ambiguity, or discrepancy which CONTRACTOR may discover and shall obtain a written interpretation or clarification from ENGINEER before proceeding with any Work affected thereby; however, CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any conflict, error, ambiguity, or discrepancy in the Procurement Documents unless CONTRACTOR knew or reasonably should have known thereof.

B. *Preliminary Schedules:* Within ten days after the Effective Date of the Procurement Agreement (unless otherwise specified in the General Requirements), CONTRACTOR shall submit to ENGINEER for its 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 Procurement Documents;
2. a preliminary schedule of Shop Drawing and Sample submittals which will list each required sub-

mittal and the times for submitting, reviewing, and processing such submittal; 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.

C. *Evidence of Insurance:* Before any Work at the Site is started, CONTRACTOR and OWNER shall each deliver to the other, with copies to each additional insured identified in the Procurement Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which CONTRACTOR and OWNER respectively are required to purchase and maintain in accordance with Article 5.

2.06 *Preconstruction Conference*

A. Within 20 days after the Contract Times start to run, but before any Work at the Site is started, a conference attended by 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 2.05.B, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.

2.07 *Initial Acceptance of Schedules*

A. Unless otherwise provided in the Procurement Documents, at least ten 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 2.05.B. CONTRACTOR shall have an additional ten 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 any specified Milestones and 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 Shop Drawing and Sample 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 component parts of the Work.

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 *Intent*

A. The Procurement Documents are complementary; what is called for by one is as binding as if called for by all.

B. It is the intent of the Procurement Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Procurement Documents. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Procurement Documents or from prevailing custom or trade usage as being required to produce the intended result will be provided whether or not specifically called for at no additional cost to OWNER.

C. Clarifications and interpretations of the Procurement Documents shall be issued by ENGINEER as provided in Article 9.

3.02 *Reference Standards*

A. Standards, Specifications, Codes, Laws, and Regulations

1. Reference to standards, specifications, manuals, 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, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Procurement Agreement if there were no Bids), except as may be otherwise specifically stated in the Procurement Documents.

2. No provision of any such standard, specification, manual 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 Procurement Documents, nor shall any such provision or instruction be effective to assign to OWNER, ENGINEER, or any of ENGINEER'S Consultants, agents, or employees 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 Procurement Documents.

3.03 *Reporting and Resolving Discrepancies*

A. Reporting Discrepancies

1. If, during the performance of the Work, CONTRACTOR discovers any conflict, error, ambiguity, or discrepancy within the Procurement Documents or between the Procurement Documents and any provision of any Law or Regulation applicable to the performance of the Work or of any standard, specification, manual or code, or of any instruction of any Supplier, CONTRACTOR shall report it to ENGINEER in writing at once. CONTRACTOR shall not proceed with the Work affected thereby (except in an emergency as required by paragraph 6.16.A) until an amendment or supplement to the Procurement Documents has been issued by one of the methods indicated in paragraph 3.04; provided, however, that CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any such conflict, error, ambiguity, or discrepancy unless CONTRACTOR knew or reasonably should have known thereof.

B. Resolving Discrepancies

1. Except as may be otherwise specifically stated in the Procurement Documents, the provisions of the Procurement Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Procurement Documents and:

a. the provisions of any standard, specification, manual, code, or instruction (whether or not specifically incorporated by reference in the Procurement Documents); 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 Procurement Documents would result in violation of such Law or Regulation).

3.04 *Amending and Supplementing Procurement Documents*

A. The Procurement Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways: (i) a Written Amendment; (ii) a Change Order; or (iii) a Work Change Directive.

B. The requirements of the Procurement Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways: (i) a Field Order; (ii) ENGINEER'S approval of a Shop Drawing or Sample; or (iii) ENGINEER'S written interpretation or clarification.

3.05 *Reuse of Documents*

A. CONTRACTOR and any Subcontractor or Supplier or other individual or entity performing or furnishing any of the Work under a direct or indirect contract with OWNER: (i) shall not 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 ENGINEER'S Consultant, including electronic media editions; and (ii) shall not reuse any of 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. This prohibition will survive final payment, completion, and acceptance of the Work, or termination or completion of the Contract. Nothing herein shall preclude CONTRACTOR from retaining copies of the Procurement Documents for record purposes.

ARTICLE 4 - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; REFERENCE POINTS

4.01 *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. OWNER will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If CONTRACTOR and OWNER are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in OWNER'S

furnishing the Site, CONTRACTOR may make a Claim therefor as provided in paragraph 10.05.

B. CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 *Subsurface and Physical Conditions*

A. *Reports and Drawings:* The Procurement Supplementary Conditions identify:

1. those reports of explorations and tests of subsurface conditions at or contiguous to the Site that ENGINEER has used in preparing the Procurement Documents; and

2. those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) that ENGINEER has used in preparing the Procurement Documents.

B. *Limited Reliance by CONTRACTOR on Technical Data Authorized:* CONTRACTOR may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Procurement Documents. Such "technical data" is identified in the Procurement Supplementary Conditions. Except for such reliance on such "technical data," CONTRACTOR may not rely upon or make any Claim against OWNER, ENGINEER, or any of ENGINEER'S Consultants 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.

4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If CONTRACTOR believes that any subsurface or physical condition at or contiguous to the Site that is uncovered or revealed 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 4.02 is materially inaccurate; or

2. is of such a nature as to require a change in the Procurement Documents; or

3. differs materially from that shown or indicated in the Procurement 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 Procurement 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 6.16.A), notify OWNER and ENGINEER in writing about such condition. CONTRACTOR shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *ENGINEER'S Review:* After receipt of written notice as required by paragraph 4.03.A, ENGINEER will promptly review the pertinent condition, determine the necessity of OWNER'S obtaining additional exploration or tests with respect thereto, and advise OWNER in writing (with a copy to CONTRACTOR) of ENGINEER'S findings and conclusions.

C. *Possible Price and Times Adjustments*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition 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 meet any one or more of the categories described in paragraph 4.03.A; and

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 paragraphs 9.08 and 11.03.

2. CONTRACTOR shall not be entitled to any adjustment in the Contract Price or Contract Times if:

a. CONTRACTOR knew of the existence of such conditions at the time CONTRACTOR made a final commitment to OWNER in respect of Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or

b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Procurement Documents to be conducted by or for CONTRACTOR prior to CONTRACTOR'S making such final commitment; or

c. CONTRACTOR failed to give the written notice within the time and as required by paragraph 4.03.A.

3. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in paragraph 10.05. However, OWNER, ENGINEER, and ENGINEER'S Consultants shall not be liable to CONTRACTOR for any claims, costs, losses, or 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) sustained by CONTRACTOR on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

A. *Shown or Indicated:* The information and data shown or indicated in the Procurement Documents with respect to existing Underground Facilities at or contiguous 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 Procurement Supplementary Conditions:

1. OWNER and ENGINEER shall not be responsible for the accuracy or completeness of any such information or data; 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 such information and data,

b. locating all Underground Facilities shown or indicated in the Procurement Documents,

c. coordination of the Work with the owners of such Underground Facilities, including OWNER, during construction, and

d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. Not Shown or Indicated

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated or not shown or indicated with reasonable accuracy in the Procurement Documents, 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 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to OWNER and ENGINEER. ENGINEER will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Procurement Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, CONTRACTOR shall be responsible for the safety and protection of the underground facility.

2. If ENGINEER concludes that a change in the Procurement Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown with reasonable accuracy in the Procurement Documents and that CONTRACTOR did not know of and could not reasonably have been expected to be aware of or to have anticipated. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, OWNER or CONTRACTOR may make a Claim therefor as provided in paragraph 10.05.

4.05 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.

4.06 Hazardous Environmental Condition at Site

A. *Reports and Drawings:* Reference is made to the Procurement Supplementary Conditions for the identification of those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that have been utilized by the ENGINEER in the preparation of the Procurement Documents.

B. *Limited Reliance by CONTRACTOR on Technical Data Authorized:* CONTRACTOR may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Procurement Documents. Such "technical data" is identified in the Procurement Supplementary Conditions. Except for such reliance on such "technical data", CONTRACTOR may not rely upon or make any Claim against OWNER, ENGINEER or any of ENGINEER'S Consultants 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 any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Procurement Documents to be within the scope of the Work. CONTRACTOR shall be responsible for a

Hazardous Environmental Condition created with any materials brought to the Site by CONTRACTOR, Subcontractors, Suppliers, or anyone else for whom CONTRACTOR is responsible.

D. If CONTRACTOR encounters a Hazardous Environmental Condition or if CONTRACTOR or anyone for whom CONTRACTOR is responsible creates a Hazardous Environmental Condition, CONTRACTOR shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by paragraph 6.16); and (iii) 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.

E. CONTRACTOR shall not be required to resume Work in connection with such condition or in any affected area until after OWNER has obtained any required permits related thereto and delivered to CONTRACTOR written notice: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. 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, either party may make a Claim therefor as provided in paragraph 10.05.

F. 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. If OWNER and CONTRACTOR cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in paragraph 10.05. OWNER may have such deleted portion of the Work performed by OWNER'S own forces or others in accordance with Article 7.

G. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER'S Consultants, and the officers, directors, partners, employees, agents, other 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 created by CONTRACTOR or by anyone for whom CONTRACTOR is responsible. Nothing in this paragraph 4.06.G shall obligate CONTRACTOR to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

H. The provisions of paragraphs 4.02, 4.03, and 4.04 are not intended to apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 - BONDS AND INSURANCE

5.01 *Performance, Payment, and Other Bonds*

A. CONTRACTOR shall furnish performance and payment Bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all CONTRACTOR'S obligations under the Procurement Documents. These Bonds shall remain in effect at least until one year after the date when final payment becomes due, except as provided otherwise by Laws or Regulations or by the Procurement Documents. CONTRACTOR shall also furnish such other Bonds as are required by the Procurement Documents.

B. All Bonds shall be in the form prescribed by the Procurement Documents, except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All Bonds signed by an agent must be accompanied by a certified copy of such agent's authority to act.

C. If the surety on any Bond furnished by CONTRACTOR is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of paragraph 5.01.B, CONTRACTOR shall within 20 days thereafter substitute another Bond and surety, both of which shall comply with the requirements of paragraphs 5.01.B and 5.02.

5.02. *Licensed Sureties and Insurers*

A. All Bonds and insurance required by the Procurement Documents to be purchased and maintained by OWNER or CONTRACTOR shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue Bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Procurement Supplementary Conditions.

5.03 *Certificates of Insurance*

A. CONTRACTOR shall deliver to OWNER, with copies to each additional insured identified in the Procurement Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by OWNER or any other additional insured) which CONTRACTOR is required to purchase and maintain. OWNER shall deliver to CONTRACTOR, with copies to each additional insured identified in the Procurement Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by CONTRACTOR or any other additional insured) which OWNER is required to purchase and maintain.

5.04 *CONTRACTOR'S Liability Insurance*

A. CONTRACTOR shall purchase and maintain such liability and other insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from CONTRACTOR'S performance of the Work and CONTRACTOR'S other obligations under the Procurement 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:

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
2. claims for damages because of bodily injury, occupational sickness or disease, or death of CONTRACTOR'S employees;
3. claims for damages because of bodily injury, sickness or disease, or death of any person other than CONTRACTOR'S employees;
4. claims for damages insured by reasonably available personal injury liability coverage which are

sustained: (i) by any person as a result of an offense directly or indirectly related to the employment of such person by CONTRACTOR, or (ii) by any other person for any other reason;

5. 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; and

6. 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.

B. The policies of insurance so required by this paragraph 5.04 to be purchased and maintained shall:

1. with respect to insurance required by paragraphs 5.04.A.3 through 5.04.A.6 inclusive, include as additional insureds (subject to any customary exclusion in respect of professional liability) OWNER, ENGINEER, ENGINEER'S Consultants, and any other individuals or entities identified in the Procurement Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, partners, employees, agents, and other 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;

2. include at least the specific coverages and be written for not less than the limits of liability provided in the Procurement Supplementary Conditions or required by Laws or Regulations, whichever is greater;

3. include completed operations insurance;

4. include contractual liability insurance covering CONTRACTOR'S indemnity obligations under paragraphs 6.07, 6.11, and 6.20;

5. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least thirty days prior written notice has been given to OWNER and CONTRACTOR and to each other additional insured identified in the Procurement Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the CONTRACTOR pursuant to paragraph 5.03 will so provide);

6. remain in effect at least until final payment and at all times thereafter when CONTRACTOR may be correcting, removing, or replacing defective Work in accordance with paragraph 13.07; and

7. with respect to completed operations insurance, and any insurance coverage written on a claims-made basis, remain in effect for at least two years after final payment (and CONTRACTOR shall furnish OWNER and each other additional insured identified in the Procurement Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to OWNER and any such additional insured of continuation of such insurance at final payment and one year thereafter).

5.05 *OWNER'S Liability Insurance*

A. In addition to the insurance required to be provided by CONTRACTOR under paragraph 5.04, 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 Procurement Documents.

5.06 *Property Insurance (See Procurement Supplementary Conditions)*

5.07 (Not Used)

5.08 (Not Used)

5.09 (Not Used)

5.10 *Acceptance of Bonds and Insurance; Option to Replace*

A. If either OWNER or CONTRACTOR has any objection to the coverage afforded by or other provisions of the Bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Procurement Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by paragraph 2.05.C. OWNER and CONTRACTOR shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the Bonds and insurance required of such party by the Procurement Documents, 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. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent Bonds or insurance to protect such other

party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

ARTICLE 6 – CONTRACTOR'S RESPONSIBILITIES

6.01 *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 Procurement Documents. CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction, but CONTRACTOR shall not be responsible for the negligence of OWNER or ENGINEER in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Procurement Documents. CONTRACTOR shall be responsible to see that the completed Work complies accurately with the Procurement Documents.

B. At all times during the progress of the Work, CONTRACTOR shall assign a competent resident superintendent thereto who shall not be replaced without written notice to OWNER and ENGINEER except under extraordinary circumstances. The superintendent will be CONTRACTOR'S representative at the Site and shall have authority to act on behalf of CONTRACTOR. All communications given to or received from the superintendent shall be binding on CONTRACTOR.

6.02 *Labor; Working Hours*

A. CONTRACTOR shall provide competent, suitably qualified personnel to survey, lay out, and construct the Work as required by the Procurement 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 Procurement Documents, all Work at the Site shall be performed during regular working hours, and CONTRACTOR will not permit overtime work or the performance of Work on Saturday, Sunday, or any legal holiday without OWNER'S written consent (which will not be unreasonably withheld) given after prior written notice to ENGINEER.

6.03 *Services, Materials, and Equipment*

A. Unless otherwise specified in the General Requirements, 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.

B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Procurement Documents. All warranties and guarantees specifically called for 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. 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 Procurement Documents.

6.04 *Progress Schedule*

A. CONTRACTOR shall adhere to the progress schedule established in accordance with paragraph 2.07 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 2.07) proposed adjustments in the progress schedule that will not result in changing the Contract Times (or Milestones). Such adjustments will conform generally to the progress schedule then in effect and additionally will comply with any provisions of the General Requirements applicable thereto.

2. Proposed adjustments in the progress schedule that will change the Contract Times (or Milestones) shall be submitted in accordance with the requirements of Article 12. Such adjustments may only be made by a Change Order or Written Amendment in accordance with Article 12.

6.05 *Substitutes and "Or-Equals"*

A. Whenever an item of material or equipment is specified or described in the Procurement Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description 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 or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to ENGINEER for review under the circumstances described below.

1. *"Or-Equal" Items:* If, in ENGINEER'S sole discretion, 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, it may be considered by ENGINEER as an "or-equal" item, in which case review and approval of the proposed item may, in ENGINEER'S sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this paragraph 6.05.A.1, 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: (i) it is at least equal in quality, durability, appearance, strength, and design characteristics; (ii) it will reliably perform at least equally well the function imposed by the design concept of the completed Project as a functioning whole; and CONTRACTOR;

b. Certifies that: (i) there is no increase in cost to the OWNER; and (ii) it will conform substantially, even with deviations, to the detailed requirements of the item named in the Procurement Documents.

2. *Substitute Items*

a. If, in ENGINEER'S sole discretion, an item of material or equipment proposed by CONTRACTOR does not qualify as an "or-equal" item under paragraph 6.05.A.1, it will be considered a proposed substitute item.

b. CONTRACTOR shall submit sufficient information as provided below to allow ENGINEER to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by ENGINEER from anyone other than CONTRACTOR.

c. The procedure for review by ENGINEER will be as set forth in paragraph

6.05.A.2.d, as supplemented in the General Requirements and as ENGINEER may decide is appropriate under the circumstances.

d. CONTRACTOR shall first 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 shall certify that the proposed substitute item will perform adequately the functions and achieve the results called for by the general design, be similar in substance to that specified, and be suited to the same use as that specified. The application will state the extent, if any, to which the use of the proposed substitute item will prejudice CONTRACTOR'S achievement of Substantial Completion on time, whether or not use of the proposed substitute item in the Work will require a change in any of the Procurement Documents (or in the provisions of any other direct contract with OWNER for work on the Project) to adapt the design to the proposed substitute item and whether or not incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute item from that specified will be identified in the application, and available engineering, sales, maintenance, repair, and replacement services will be indicated. The application will also contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change, all of which will be considered by ENGINEER in evaluating the proposed substitute item. ENGINEER may require CONTRACTOR to furnish additional data about the proposed substitute item.

B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is shown or indicated in and expressly required by the Procurement Documents, CONTRACTOR may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by ENGINEER. CONTRACTOR shall submit sufficient information to allow ENGINEER, in ENGINEER'S sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Procurement Documents. The procedure for review by ENGINEER will be similar to that provided in subparagraph 6.05.A.2.

C. *Engineer's Evaluation:* ENGINEER will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to paragraphs 6.05.A and 6.05.B. ENGINEER will be the sole judge of acceptability. No "or-equal" or substitute will be ordered, installed or utilized until ENGINEER'S review is complete, which will be evidenced by either a Change Order for a substitute or an approved Shop Drawing for an "or equal." ENGINEER will advise CONTRACTOR in writing of any negative determination.

D. *Special Guarantee:* OWNER may require CONTRACTOR to furnish at CONTRACTOR'S expense a special performance guarantee or other surety with respect to any substitute.

E. *ENGINEER'S Cost Reimbursement:* ENGINEER will record time required by ENGINEER and ENGINEER'S Consultants in evaluating substitute proposed or submitted by CONTRACTOR pursuant to paragraphs 6.05.A.2 and 6.05.B and in making changes in the Procurement Documents (or in the provisions of any other direct contract with OWNER for work on the Project) occasioned thereby. Whether or not ENGINEER approves a substitute item so proposed or submitted by CONTRACTOR, CONTRACTOR shall reimburse OWNER for the charges of ENGINEER and ENGINEER'S Consultants for evaluating each such proposed substitute.

F. *CONTRACTOR'S Expense:* CONTRACTOR shall provide all data in support of any proposed substitute or "or-equal" at CONTRACTOR'S expense.

6.06 *Concerning Subcontractors, Suppliers, and Others*

A. CONTRACTOR shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to OWNER as indicated in paragraph 6.06.B), whether initially or as a replacement, against whom OWNER may have reasonable objection. CONTRACTOR shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom CONTRACTOR has reasonable objection.

B. If the Procurement Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to OWNER in advance for acceptance by OWNER by a specified date prior to the Effective Date of the Procurement Agreement, and if CONTRACTOR has submitted a list thereof in accordance with the Procurement Supplementary Conditions, OWNER'S acceptance (either in writing or by failing to make written

objection thereto by the date indicated for acceptance or objection in the Procurement Bidding Documents or the Procurement Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. CONTRACTOR shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued or Written Amendment signed. 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 any right of OWNER or ENGINEER to reject defective Work.

C. 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. Nothing in the Procurement Documents 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 shall it create any obligation on the part of OWNER or ENGINEER to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

D. CONTRACTOR shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR.

E. CONTRACTOR shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with ENGINEER through CONTRACTOR.

F. 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.

G. All Work performed for CONTRACTOR by a Subcontractor or Supplier will be pursuant to an appropriate agreement between CONTRACTOR and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Procurement Documents for the benefit

of OWNER and ENGINEER. Whenever any such agreement is with a Subcontractor or Supplier who is listed as an additional insured on the property insurance provided in paragraph 5.06, the agreement between the CONTRACTOR and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against OWNER, CONTRACTOR, ENGINEER, ENGINEER'S Consultants, and all other individuals or entities identified in the Procurement Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, and other 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 such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, CONTRACTOR will obtain the same.

6.07 *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 Procurement 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 Procurement Documents. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER'S Consultants, and the officers, directors, partners, employees or agents, and other consultants 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 Procurement Documents.

6.08 *Permits*

A. Unless otherwise provided in the Procurement Supplementary Conditions, 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 opening of Bids, or, if there are no Bids, on the Effective Date of the Procurement Agreement. CONTRACTOR shall pay all charges of utility owners for connections to the Work, and OWNER shall pay all charges of such utility owners for capital costs related thereto, such as plant investment fees.

6.09 *Laws and Regulations*

A. CONTRACTOR shall give all notices and 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 knowing or having reason to know that it is contrary to Laws or Regulations, CONTRACTOR shall bear 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; however, it shall not be CONTRACTOR'S primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve CONTRACTOR of CONTRACTOR'S obligations under paragraph 3.03.

6.10 *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.

6.11 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas*

1. CONTRACTOR shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.

2. Should any claim be made by any such owner or occupant because of the performance of the Work, CONTRACTOR shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.

3. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER'S Consultant, and the officers, directors, partners, employees, agents, and other consultants 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 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 by or based upon CONTRACTOR'S performance of the Work.

B. *Removal of Debris During Performance of the Work:* During the progress of the Work CONTRACTOR shall keep the Site and other 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 make it ready for utilization by OWNER. At the completion of the Work CONTRACTOR shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Procurement Documents.

D. *Loading 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 property to stresses or pressures that will endanger it.

6.12 *Record Documents*

A. CONTRACTOR shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Written Amendments, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents, together with all approved Samples and a counterpart of all approved Shop

Drawings, will be available to ENGINEER for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to ENGINEER for OWNER.

6.13 *Safety and Protection*

A. CONTRACTOR shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. 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, 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 owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property. All damage, injury, or loss to any property referred to in paragraph 6.13.A.2 or 6.13.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 (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of OWNER or ENGINEER or ENGINEER'S Consultant, 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). CONTRACTOR'S duties and responsibilities for safety and for protection of the Work 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 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 *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.

6.15 *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.

6.16 *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 Procurement Documents have been caused thereby or are required as a result thereof. If ENGINEER determines that a change in the Procurement 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.

6.17 *Shop Drawings and Samples*

A. CONTRACTOR shall submit Shop Drawings to ENGINEER for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample submittals. All submittals will be identified as ENGINEER may require and in the number of copies specified in the General Requirements. The 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 6.17.E.

B. CONTRACTOR shall also submit Samples to ENGINEER for review and approval in accordance with

the acceptable schedule of Shop Drawings and Sample submittals. Each Sample will be identified clearly as to material, Supplier, pertinent data such as catalog numbers, and the use for which intended and otherwise as ENGINEER may require to enable ENGINEER to review the submittal for the limited purposes required by paragraph 6.17.E. The numbers of each Sample to be submitted will be as specified in the Specifications.

C. Where a Shop Drawing or Sample is required by the Procurement Documents or the schedule of Shop Drawings and Sample submittals acceptable to ENGINEER as required by paragraph 2.07, 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.

D. *Submittal Procedures*

1. Before submitting each Shop Drawing or Sample, CONTRACTOR shall have determined and verified:

a. all field measurements, quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;

b. all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work;

c. all information relative to means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto; and

d. CONTRACTOR shall also have reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Procurement Documents.

2. Each submittal shall bear a stamp or specific written indication that CONTRACTOR has satisfied CONTRACTOR'S obligations under the Procurement Documents with respect to CONTRACTOR'S review and approval of that submittal.

3. At the time of each submittal, CONTRACTOR shall give ENGINEER specific written notice of such variations, if any, that the Shop Drawing or Sample submitted may have from the requirements of the Procurement Documents, such

notice to be in a written communication separate from the submittal; and, in addition, shall cause a specific notation to be made on each Shop Drawing and Sample submitted to ENGINEER for review and approval of each such variation.

E. *ENGINEER'S Review*

1. ENGINEER will timely review and approve Shop Drawings and Samples in accordance with the schedule of Shop Drawings and Sample 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 Procurement Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Procurement Documents.

2. ENGINEER'S review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Procurement Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

3. ENGINEER'S review and approval of Shop Drawings or Samples shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the Procurement Documents unless CONTRACTOR has in writing called ENGINEER'S attention to each such variation at the time of each submittal as required by paragraph 6.17.D.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 approval; nor will any approval by ENGINEER relieve CONTRACTOR from responsibility for complying with the requirements of paragraph 6.17.D.1.

F. *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.

6.18 *Continuing the Work*

A. 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, except as permitted by paragraph 15.04 or as OWNER and CONTRACTOR may otherwise agree in writing.

6.19 *CONTRACTOR'S General Warranty and Guarantee*

A. CONTRACTOR warrants and guarantees to OWNER, ENGINEER, and ENGINEER'S Consultants that all Work will be in accordance with the Procurement Documents and will not be defective. 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.

B. CONTRACTOR'S obligation to perform and complete the Work in accordance with the Procurement Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Procurement Documents or a release of CONTRACTOR'S obligation to perform the Work in accordance with the Procurement 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 acceptance by OWNER or any failure to do so;
6. any review and approval of a Shop Drawing or Sample submittal or 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.

6.20 *Indemnification*

A. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER'S Consultants, and the officers, directors, partners, employees, agents, and other 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:

1. is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of real or personal property (other than the Work itself), including the loss of use resulting therefrom; and
2. is caused in whole or in part by any 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, regardless of whether or not caused in part by an individual or entity indemnified hereunder or whether liability is imposed upon such indemnified party by Laws or Regulations.

B. In any and all claims against OWNER or ENGINEER or any of their respective consultants, agents, officers, directors, partners, or employees 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 6.20.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 6.20.A shall not be limited in any way by the amount or types of insurance provided by CONTRACTOR under Article 5 of the Procurement General Conditions.

D. The indemnification obligations of CONTRACTOR under paragraph 6.20.A shall not extend to the sole negligence or willful misconduct of OWNER, ENGINEER or ENGINEER'S Consultants or to the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them.

ARTICLE 7 - OTHER WORK

7.01 *Related Work at Site*

A. OWNER may perform other work related to the Project at the Site by OWNER'S employees, or let other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Procurement Documents, then:

1. written notice thereof will be given to CONTRACTOR prior to starting any such other work; and

2. if OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in paragraph 10.05.

B. CONTRACTOR shall afford each other contractor who is a party to such a direct contract and each utility owner (and OWNER, if OWNER is performing the other work with OWNER'S employees) proper and safe access to the Site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work and shall properly coordinate the Work with theirs. Unless otherwise provided in the Procurement Documents, 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 their work and will only cut or alter their work with the written consent of ENGINEER and the others whose work will be affected. The duties and responsibilities of CONTRACTOR under this paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of CONTRACTOR in said direct contracts between OWNER and such utility owners and other contractors.

C. If the proper execution or results of any part of CONTRACTOR'S Work depends upon work performed

by others under this Article 7, 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.

ARTICLE 8 – OWNER'S RESPONSIBILITIES

8.01 *Communications to Contractor*

A. Except as otherwise provided in these Procurement General Conditions, OWNER shall issue all communications to CONTRACTOR through ENGINEER.

8.02 *Furnish Data*

A. OWNER shall promptly furnish the data required of OWNER under the Procurement Documents.

8.03 *Pay Promptly When Due*

A. OWNER shall make payments to CONTRACTOR promptly when they are due as provided in paragraphs 14.02.C and 14.07.C.

8.04 *Lands and Easements; Reports and Tests*

A. OWNER'S duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in paragraphs 4.01 and 4.05. Paragraph 4.02 refers to OWNER'S identifying and making available to CONTRACTOR copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that have been utilized by ENGINEER in preparing the Procurement Documents.

8.05 *Insurance*

A. OWNER'S responsibilities, if any, in respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.06 *Change Orders*

A. OWNER is obligated to execute Change Orders as indicated in paragraph 10.03.

8.07. *Inspections, Tests, and Approvals*

A. OWNER'S responsibility in respect to certain inspections, tests, and approvals is set forth in paragraph 13.03.B.

8.08 *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 Procurement Documents.

8.09 *Undisclosed Hazardous Environmental Condition*

A. OWNER'S responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in paragraph 4.06.

8.10 *Evidence of Financial Arrangements*

A. If and to the extent OWNER has agreed to furnish CONTRACTOR reasonable evidence that financial arrangements have been made to satisfy OWNER'S obligations under the Procurement Documents, OWNER'S responsibility in respect thereof will be as set forth in the Procurement Supplementary Conditions.

ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *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 Procurement Documents and will not be changed without written consent of OWNER and ENGINEER.

9.02 *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 Procurement 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 Procurement 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 9.10, and 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.

9.03 *Project Representative*

A. If OWNER and ENGINEER agree, ENGINEER will furnish a Resident Project Representative to assist ENGINEER in providing more extensive observation of the Work. The responsibilities and authority and limitations thereon of any such Resident Project Representative and assistants will be as provided in paragraph 9.10 and in the Procurement Supplementary Conditions. 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 Procurement Supplementary Conditions.

9.04 *Clarifications and Interpretations*

A. ENGINEER will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Procurement Documents as ENGINEER may determine necessary, which shall be consistent with the intent of and reasonably inferable from the Procurement Documents. Such written clarifications and interpretations will be binding on OWNER and CONTRACTOR. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, that should be

allowed as a result of a written clarification or interpretation, a Claim may be made therefor as provided in paragraph 10.05.

9.05 *Authorized Variations in Work*

A. ENGINEER may authorize minor variations in the Work from the requirements of the Procurement Documents which 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 Procurement Documents. These may be accomplished by a Field Order and will be binding on OWNER and also on CONTRACTOR, who shall perform the Work involved promptly. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of a Field Order, a Claim may be made therefor as provided in paragraph 10.05.

9.06 *Rejecting Defective Work*

A. ENGINEER will have authority to disapprove or reject Work which ENGINEER believes to be defective, or that ENGINEER believes will not produce a completed Project that conforms to the Procurement Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Procurement Documents. ENGINEER will also have authority to require special inspection or testing of the Work as provided in paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.07 *Shop Drawings, Change Orders and Payments*

A. In connection with ENGINEER'S authority as to Shop Drawings and Samples, see paragraph 6.17.

B. In connection with ENGINEER'S authority as to Change Orders, see Articles 10, 11, and 12.

C. In connection with ENGINEER'S authority as to Applications for Payment, see Article 14.

9.08 *Determinations for Unit Price Work*

A. 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 paragraph 10.05.

9.09 *Decisions on Requirements of Procurement Documents and Acceptability of Work*

A. ENGINEER will be the initial interpreter of the requirements of the Procurement Documents and judge of the acceptability of the Work thereunder. Claims, disputes and other matters relating to the acceptability of the Work, the quantities and classifications of Unit Price Work, the interpretation of the requirements of the Procurement Documents pertaining to the performance of the Work, and Claims seeking changes in the Contract Price or Contract Times will be referred initially to ENGINEER in writing, in accordance with the provisions of paragraph 10.05, with a request for a formal decision.

B. When functioning as interpreter and judge under this paragraph 9.09, ENGINEER will not show partiality to OWNER or CONTRACTOR and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity. The rendering of a decision by ENGINEER pursuant to this paragraph 9.09 with respect to any such Claim, dispute, or other matter (except any which have been waived by the making or acceptance of final payment as provided in paragraph 14.07) will be a condition precedent to any exercise by OWNER or CONTRACTOR of such rights or remedies as either may otherwise have under the Procurement Documents or by Laws or Regulations in respect of any such Claim, dispute, or other matter.

9.10 *Limitations on ENGINEER'S Authority and Responsibilities*

A. Neither ENGINEER'S authority or responsibility under this Article 9 or under any other provision of the Procurement Documents 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 Procurement 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 14.07.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 Procurement Documents.

E. The limitations upon authority and responsibility set forth in this paragraph 9.10 shall also apply to ENGINEER'S Consultants, Resident Project Representative, and assistants.

ARTICLE 10 - CHANGES IN THE WORK; CLAIMS

10.01 *Authorized Changes in the Work*

A. Without invalidating the Procurement Agreement and without notice to any surety, OWNER may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Written Amendment, a Change Order, or a Work Change Directive. Upon receipt of any such document, CONTRACTOR shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Procurement Documents (except as otherwise specifically provided).

B. If OWNER and CONTRACTOR are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in paragraph 10.05.

10.02 *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 Procurement Documents as amended, modified, or supplemented as provided in paragraph 3.04, except in the case of an emergency as

provided in paragraph 6.16 or in the case of uncovering Work as provided in paragraph 13.04.B.

10.03 *Execution of Change Orders*

A. OWNER and CONTRACTOR shall execute appropriate Change Orders recommended by ENGINEER (or Written Amendments) covering:

1. changes in the Work which are: (i) ordered by OWNER pursuant to paragraph 10.01.A, (ii) required because of acceptance of defective Work under paragraph 13.08.A or OWNER'S correction of defective Work under paragraph 13.09, or (iii) agreed to by the parties;

2. 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; and

3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by ENGINEER pursuant to paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Procurement Documents and applicable Laws and Regulations, but during any such appeal, CONTRACTOR shall carry on the Work and adhere to the progress schedule as provided in paragraph 6.18.A.

10.04 *Notification to Surety*

A. If notice of any change affecting the general scope of the Work or the provisions of the Procurement Documents (including, but not limited to, Contract Price or Contract Times) is required by the provisions of any Bond to be given to a surety, 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.

10.05 *Claims and Disputes*

A. *Notice:* Written notice stating the general nature of each Claim, dispute, or other matter shall be delivered by the claimant to ENGINEER and the other party to the Contract promptly (but in no event later than 20 days) after the start of the event giving rise thereto. Notice of the amount or extent of the Claim, dispute, or other matter with supporting data shall be delivered to the ENGINEER and the other party to the Contract within 45 days after the start of such event (unless ENGINEER allows

additional time for claimant to submit additional or more accurate data in support of such Claim, dispute, or other matter). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of paragraph 12.01.B. A Claim for an adjustment in Contract Time shall be prepared in accordance with the provisions of paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to ENGINEER and the claimant within 30 days after receipt of the claimant's last submittal (unless ENGINEER allows additional time).

B. *ENGINEER'S Decision:* ENGINEER will render a formal decision in writing within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any. ENGINEER'S written decision on such Claim, dispute, or other matter will be final and binding upon OWNER and CONTRACTOR unless:

1. an appeal from ENGINEER'S decision is taken within the time limits and in accordance with the dispute resolution procedures set forth in Article 16; or

2. if no such dispute resolution procedures have been set forth in Article 16, a written notice of intention to appeal from ENGINEER'S written decision is delivered by OWNER or CONTRACTOR to the other and to ENGINEER within 30 days after the date of such decision, and a formal proceeding is instituted by the appealing party in a forum of competent jurisdiction within 60 days after the date of such decision or within 60 days after Substantial Completion, whichever is later (unless otherwise agreed in writing by OWNER and CONTRACTOR), to exercise such rights or remedies as the appealing party may have with respect to such Claim, dispute, or other matter in accordance with applicable Laws and Regulations.

C. If ENGINEER does not render a formal decision in writing within the time stated in paragraph 10.05.B, a decision denying the Claim in its entirety shall be deemed to have been issued 31 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any.

D. No Claim for an adjustment in Contract Price or Contract Times (or Milestones) will be valid if not submitted in accordance with this paragraph 10.05.

ARTICLE 11 - COST OF THE WORK; CASH ALLOWANCES; UNIT PRICE WORK

11.01 *Cost of the Work*

A. *Costs Included:* The term Cost of the Work means the sum of all costs necessarily incurred and paid by CONTRACTOR in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to CONTRACTOR will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by OWNER, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items, and shall not include any of the costs itemized in paragraph 11.01.B.

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 at the Site. 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, 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 11.01.

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, 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 5.06.D), 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 telegrams, long distance telephone calls, telephone service at the Site, expressage, and similar petty cash items in connection with the Work.

i. When the Cost of the Work is used to determine the value of a Change Order or of a Claim, the cost of premiums for additional Bonds and insurance required because of the changes in the Work or caused by the event giving rise to the Claim.

j. When all the Work is performed on the basis of cost-plus, the costs of premiums for all Bonds and insurance CONTRACTOR is required by the Procurement Documents to purchase and maintain.

B. *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, 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 specifical-

ly included in the agreed upon schedule of job classifications referred to in paragraph 11.01.A.1 or specifically covered by paragraph 11.01.A.4, all of which 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 paragraphs 11.01.A and 11.01.B.

C. *CONTRACTOR'S Fee:* When all the Work is performed on the basis of cost-plus, CONTRACTOR'S fee shall be determined as set forth in the Procurement Agreement. When the value of any Work covered by a Change Order or when a Claim for an 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 12.01.C.

D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to paragraphs 11.01.A and 11.01.B, 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.

11.02 *Cash Allowances*

A. It is understood that CONTRACTOR has included in the Contract Price all allowances so named in the Procurement Documents and shall cause the Work so covered to be performed for such sums as may be acceptable to OWNER and ENGINEER. CONTRACTOR agrees that:

1. the 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 costs, overhead, profit, and other expenses contemplated for the 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.

B. 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.

11.03 *Unit Price Work*

A. Where the Procurement 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 Procurement Agreement. 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. Determinations of the actual quantities and classifications of Unit Price Work performed by CONTRACTOR will be made by ENGINEER subject to the provisions of paragraph 9.08.

B. 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.

C. For provisions for an adjustment of a unit price for an increase or decrease in the quantity of Unit Price Work, if any, see General Requirements Section 01270, Measurement and Payment.

ARTICLE 12 - CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 *Change of Contract Price*

A. The Contract Price may only be changed by a Change Order or by a Written Amendment. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the claim to

the ENGINEER and the other party to the Contract in accordance with the provisions of paragraph 10.05.

B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Procurement Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of paragraph 11.03); or

2. where the Work involved is not covered by unit prices contained in the Procurement Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with paragraph 12.01.C.2); or

3. where the Work involved is not covered by unit prices contained in the Procurement Documents and agreement to a lump sum is not reached under paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in paragraph 11.01) plus a CONTRACTOR'S fee for overhead and profit (determined as provided in paragraph 12.01.C).

C. *CONTRACTOR'S Fee*: 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 11.01.A.1 and 11.01.A.2, the CONTRACTOR'S fee shall be 15 percent;

- b. for costs incurred under paragraph 11.01.A.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 paragraph 12.01.C.2.a is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and CONTRACTOR will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;

- d. no fee shall be payable on the basis of costs itemized under paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;

- 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 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

A. The Contract Times (or Milestones) may only be changed by a Change Order or by a Written Amendment. Any Claim for an adjustment in the Contract Times (or Milestones) shall be based on written notice submitted by the party making the claim to the ENGINEER and the other party to the Contract in accordance with the provisions of paragraph 10.05.

B. Any adjustment of the Contract Times (or Milestones) covered by a Change Order or of any Claim for an adjustment in the Contract Times (or Milestones) will be determined in accordance with the provisions of this Article 12.

12.03 *Delays Beyond CONTRACTOR'S Control*

A. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of CONTRACTOR, the Contract Times (or Milestones) will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in paragraph 12.02.A. Delays beyond the control of CONTRACTOR shall include, but not be limited to, acts or neglect by OWNER, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.

12.04 *Delays Within CONTRACTOR'S Control*

A. The Contract Times (or Milestones) will not be extended due to delays within the control of CONTRACTOR. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of CONTRACTOR.

12.05 *Delays Beyond OWNER'S and CONTRACTOR'S Control*

A. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of both OWNER and CONTRACTOR, an extension of the Contract Times (or Milestones) in an amount equal to the time lost due to such delay shall be CONTRACTOR'S sole and exclusive remedy for such delay.

12.06 *Delay Damages*

A. In no event shall OWNER or ENGINEER be liable to CONTRACTOR, any Subcontractor, any Supplier, or any other person or organization, or to any surety for or employee or agent of any of them, for damages arising out of or resulting from:

1. delays caused by or within the control of CONTRACTOR; or
2. delays beyond the control of both OWNER and CONTRACTOR including but not limited to fires, floods, epidemics, abnormal weather conditions, acts of God, or acts or neglect by utility owners or other contractors performing other work as contemplated by Article 7.

B. Nothing in this paragraph 12.06 bars a change in Contract Price pursuant to this Article 12 to compensate CONTRACTOR due to delay, interference, or disruption directly attributable to actions or inactions of OWNER or anyone for whom OWNER is responsible.

ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 *Notice of Defects*

A. Prompt notice of all defective Work of which OWNER or ENGINEER has actual knowledge will be given to CONTRACTOR. All defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 *Access to Work*

A. OWNER, ENGINEER, ENGINEER'S Consultants, other representatives and personnel of OWNER, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspecting, and testing.

CONTRACTOR shall provide them proper and safe conditions for such access and advise them of CONTRACTOR'S Site safety procedures and programs so that they may comply therewith as applicable.

13.03 *Tests and Inspections*

A. CONTRACTOR shall give ENGINEER timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

B. OWNER shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Procurement Documents except:

1. for inspections, tests, or approvals covered by paragraphs 13.03.C and 13.03.D below;
2. that costs incurred in connection with tests or inspections conducted pursuant to paragraph 13.04.B shall be paid as provided in said paragraph 13.04.B; and
3. as otherwise specifically provided in the Procurement Documents.

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 and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for OWNER'S and ENGINEER'S acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to CONTRACTOR'S purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to OWNER and ENGINEER.

E. 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, it must, if requested by ENGINEER, be uncovered for observation.

F. Uncovering Work as provided in paragraph 13.03.E shall be at CONTRACTOR'S expense unless CONTRACTOR has given ENGINEER timely notice of CONTRACTOR'S intention to cover the same and ENGINEER has not acted with reasonable promptness in response to such notice.

13.04 *Uncovering Work*

A. If any Work is covered contrary to the written request of ENGINEER, it must, if requested by ENGINEER, be uncovered for ENGINEER'S observation and replaced at CONTRACTOR'S expense.

B. If ENGINEER considers it necessary or advisable that covered Work be observed by ENGINEER or inspected or tested by others, 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, furnishing all necessary labor, material, and equipment. If it is found that such Work is defective, 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 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 OWNER shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, OWNER may make a Claim therefor as provided in paragraph 10.05. If, however, such 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 Milestones), 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, CONTRACTOR may make a Claim therefor as provided in paragraph 10.05.

13.05 *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 Procurement Documents, 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.

13.06 *Correction or Removal of Defective Work*

A. CONTRACTOR shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by ENGINEER, remove it from the Project and replace it with Work that is not defective. 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 removal (including but not limited to all costs of repair or replacement of work of others).

13.07 *Correction Period*

A. If within one year after the date of Substantial Completion or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee required by the Procurement Documents or by any specific provision of the Procurement Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for CONTRACTOR'S use by OWNER or permitted by Laws and Regulations as contemplated in paragraph 6.11.A is found to be defective, CONTRACTOR shall promptly, without cost to OWNER and in accordance with OWNER'S written instructions: (i) repair such defective land or areas, or (ii) correct such defective Work or, if the defective Work has been rejected by OWNER, remove it from the Project and replace it with Work that is not defective, and (iii) satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom. If CONTRACTOR does not promptly comply with the terms of such 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, and 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) will be paid by CONTRACTOR.

B. 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 or by Written Amendment.

C. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph 13.07, 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.

D. CONTRACTOR'S obligations under this paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this paragraph 13.07 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitation or repose.

13.08 *Acceptance of Defective Work*

A. If, instead of requiring correction or removal and replacement of defective Work, OWNER (and, prior to ENGINEER'S recommendation of final payment, ENGINEER) prefers to accept it, OWNER may do so. 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) attributable to OWNER'S evaluation of and determination to accept such defective Work (such costs to be approved by ENGINEER as to reasonableness) and the diminished value of the Work to the extent not otherwise paid by CONTRACTOR pursuant to this sentence. If any such acceptance occurs prior to ENGINEER'S recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Procurement Documents with respect to the Work, and OWNER shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, OWNER may make a Claim therefor as provided in paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by CONTRACTOR to OWNER.

13.09 *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 in accordance with paragraph 13.06.A, or if CONTRACTOR fails to perform the Work in accordance with the Procurement Documents, or if CONTRACTOR fails to comply with any other provision of the Procurement Documents, OWNER may, after

seven days written notice to CONTRACTOR, correct and remedy any such deficiency.

B. In exercising the rights and remedies under this paragraph, OWNER shall proceed expeditiously. In connection with such corrective and 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, take possession of CONTRACTOR'S tools, appliances, construction equipment and machinery at the Site, 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 (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) incurred or sustained by OWNER in exercising the rights and remedies under this paragraph 13.09 will be charged against CONTRACTOR, and a Change Order will be issued incorporating the necessary revisions in the Procurement Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, OWNER may make a Claim therefor as provided in paragraph 10.05. 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 (or Milestones) 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 13.09.

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 *Schedule of Values*

A. The schedule of values established as provided in paragraph 2.07.A 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.

14.02 *Progress Payments*

A. Applications for Payments

1. At least 10 days before the date established 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 Procurement 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 and 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 Procurement Agreement.

B. Review of Applications

1. ENGINEER will, within 10 days after receipt of each Application for Payment, 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 on the Site 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 Procurement Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Procurement Documents, to a final determination of quantities and classifications for Unit Price Work under paragraph 9.08, and to 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: (i) 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 Procurement Documents; or (ii) that 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 to supervise, direct, or control the Work or for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for CONTRACTOR'S failure to comply with Laws and Regulations applicable to CONTRACTOR'S performance of the Work. Additionally, said review or recommendation will not impose responsibility on ENGINEER to make any examination to ascertain how or for what purposes CONTRACTOR has used the moneys paid on account of the Contract Price, or 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 referred to in paragraph 14.02.B.2. ENGINEER may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in ENGINEER'S opinion to protect OWNER from loss because:

a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;

b. the Contract Price has been reduced by Written Amendment or Change Orders;

c. OWNER has been required to correct defective Work or complete Work in accordance with paragraph 13.09; or

d. ENGINEER has actual knowledge of the occurrence of any of the events enumerated in paragraph 15.02.A.

C. Payment Becomes Due

1. Sixty days after presentation of the Application for Payment to OWNER with ENGINEER'S recommendation, the amount recommended will (subject to the provisions of paragraph 14.02.D) become due, and when due will be paid by OWNER to CONTRACTOR.

D. Reduction in Payment

1. OWNER may refuse to make payment of the full amount recommended by ENGINEER because:

a. claims have been made against OWNER on account of CONTRACTOR'S performance or furnishing of the Work;

b. 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;

c. there are other items entitling OWNER to a set-off against the amount recommended; or

d. OWNER has actual knowledge of the occurrence of any of the events enumerated in

paragraphs 14.02.B.5.a through 14.02.B.5.c or paragraph 15.02.A.

2. If OWNER refuses to make payment of the full amount recommended by ENGINEER, OWNER must give CONTRACTOR immediate written notice (with a copy to ENGINEER) stating the reasons for such action 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, when CONTRACTOR corrects to OWNER'S satisfaction the reasons for such action.

3. If it is subsequently determined that OWNER'S refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by paragraph 14.02.C.1.

14.03 CONTRACTOR'S Warranty of Title

A. CONTRACTOR warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to OWNER no later than the time of payment free and clear of all Liens.

14.04 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 (except for items specifically listed by CONTRACTOR as incomplete) and request that ENGINEER issue a certificate of Substantial Completion. Promptly thereafter, 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. If ENGINEER considers the Work substantially complete, ENGINEER will prepare and deliver to OWNER a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. OWNER shall have seven days after receipt of the tentative certificate during which to make written objection to ENGINEER as to any provisions of the certificate or attached list. If, after considering such objections, ENGINEER concludes that the Work is not substantially complete, ENGINEER will within 14 days after submission of the tentative certificate to OWNER notify CONTRACTOR in writing, stating the reasons therefor. If, after consideration of OWNER'S

objections, ENGINEER considers the Work substantially complete, ENGINEER will within said 14 days execute and deliver to OWNER and CONTRACTOR a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as ENGINEER believes justified after consideration of any objections from OWNER. At the time of delivery of the tentative certificate of Substantial Completion ENGINEER will deliver to OWNER and CONTRACTOR a written recommendation as to division of responsibilities pending final payment between OWNER and CONTRACTOR with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless OWNER and CONTRACTOR agree otherwise in writing and so inform ENGINEER in writing prior to ENGINEER'S issuing the definitive certificate of Substantial Completion, ENGINEER'S aforesaid recommendation will be binding on OWNER and CONTRACTOR until final payment.

B. OWNER shall have the right to exclude CONTRACTOR from the Site after the date of Substantial Completion, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the tentative list.

14.05 *Partial Utilization*

A. Use by OWNER at OWNER'S option of any substantially completed part of the Work which has specifically been identified in the Procurement 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, may be accomplished prior to Substantial Completion of all the Work subject to the following conditions.

1. OWNER at any time may request CONTRACTOR in writing to permit OWNER to use any such part of the Work which OWNER believes to be ready for its intended use and substantially complete. If CONTRACTOR agrees that such part of the Work is substantially complete, CONTRACTOR will certify to OWNER and ENGINEER that such part of the Work is substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. CONTRACTOR at any time may notify OWNER and ENGINEER in writing that CONTRACTOR considers any such part of the Work ready for its intended use and substantially complete and request

ENGINEER to issue a certificate of Substantial Completion for that part of the Work. 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 14.04 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.

2. No occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of the Procurement Supplementary Conditions regarding property insurance.

14.06 *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 is incomplete or defective. CONTRACTOR shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.07 *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 Procurement Documents, all maintenance and operating instructions, schedules, guarantees, Bonds, certificates or other evidence of insurance certificates of inspection, marked-up record documents (as provided in paragraph 6.12), and other documents, CONTRACTOR may make application for final payment following the procedure for progress payments.

2. The final Application for Payment shall be accompanied (except as previously delivered) by: (i) all documentation called for in the Procurement Documents, including but not limited to the evidence of insurance required by subparagraph 5.04.B.7; (ii) consent of the surety, if any, to final payment; and

(iii) complete and legally effective releases or waivers (satisfactory to OWNER) of all Lien rights arising out of or Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in paragraph 14.07.A.2 and as approved by OWNER, CONTRACTOR may furnish receipts or releases in full and an affidavit of CONTRACTOR that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which OWNER or OWNER'S property might in any way be responsible 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.

B. *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 Procurement Documents, ENGINEER is satisfied that the Work has been completed and CONTRACTOR'S other obligations under the Procurement Documents have been fulfilled, ENGINEER will, within 10 days after receipt of the final Application for Payment, indicate in writing ENGINEER'S recommendation of payment and present the Application for Payment to OWNER for payment. 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 14.09. 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. *Payment Becomes Due*

1. Sixty days after the presentation to OWNER of the Application for Payment and accompanying documentation, the amount recommended by ENGINEER will become due and, when due, will be paid by OWNER to CONTRACTOR.

D. *Final Completion Delayed*

1. If, through no fault of CONTRACTOR, final completion of the Work is significantly delayed, and if

ENGINEER so confirms, OWNER shall, upon receipt of CONTRACTOR'S final Application for Payment and recommendation of ENGINEER, and without terminating the Procurement Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by OWNER for Work not fully completed or corrected is less than the retainage stipulated in the Procurement Agreement, and if Bonds have been furnished as required in paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by CONTRACTOR to ENGINEER with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.08 *(Not Used)*

14.09 *Waiver of Claims*

A. The making and acceptance of final payment will constitute:

1. a waiver of all Claims by OWNER against CONTRACTOR, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to paragraph 14.06, from failure to comply with the Procurement Documents or the terms of any special guarantees specified therein, or from CONTRACTOR'S continuing obligations under the Procurement Documents; and

2. a waiver of all Claims by CONTRACTOR against OWNER other than those previously made in writing which are still unsettled.

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

15.01 *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 notice in writing to CONTRACTOR and ENGINEER which will fix the date on which Work will be resumed. CONTRACTOR shall resume the Work on the date so fixed. CONTRACTOR shall be allowed an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if CONTRACTOR makes a Claim therefor as provided in paragraph 10.05.

15.02 *OWNER May Terminate for Cause*

A. The occurrence of any one or more of the following events will justify termination for cause:

1. CONTRACTOR'S persistent failure to perform the Work in accordance with the Procurement 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 established under paragraph 2.07 as adjusted from time to time pursuant to paragraph 6.04);
2. CONTRACTOR'S disregard of Laws or Regulations of any public body having jurisdiction;
3. CONTRACTOR'S disregard of the authority of ENGINEER; or
4. CONTRACTOR'S violation in any substantial way of any provisions of the Procurement Documents.

B. If one or more of the events identified in paragraph 15.02.A occur, OWNER may, after giving CONTRACTOR (and the surety, if any) seven days written notice, terminate the services of CONTRACTOR, exclude CONTRACTOR from the Site, and take possession of the Work and of all CONTRACTOR'S tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by CONTRACTOR (without liability to CONTRACTOR for trespass or conversion), 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 finish the Work as OWNER may deem expedient. In such case, CONTRACTOR shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds 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) sustained by OWNER arising out of or relating to completing the Work, such excess will be paid to CONTRACTOR. If such claims, costs, losses, and damages exceed 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.

C. 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. Any retention or payment of moneys due CONTRACTOR by OWNER will not release CONTRACTOR from liability.

15.03 *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, elect to terminate the Contract. In such case, CONTRACTOR shall be paid (without duplication of any items):

1. for completed and acceptable Work executed in accordance with the Procurement Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
2. for expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Procurement Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;
3. for 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) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and
4. for reasonable expenses directly attributable to termination.

B. CONTRACTOR shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 *CONTRACTOR May Stop Work or Terminate*

A. If, through no act or fault of CONTRACTOR, the Work is suspended for more than 90 consecutive days by OWNER or under an order of court or other public authority, or ENGINEER fails to act on any Application for Payment within 30 days after it is submitted, or OWNER fails for 60 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 15.03. 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 60 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 15.04 are not intended to preclude CONTRACTOR from making a Claim under paragraph 10.05 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 16 - DISPUTE RESOLUTION

16.01 *Methods and Procedures*

A. Dispute resolution methods and procedures, if any, shall be as set forth in the Procurement Supplementary Conditions. If no method and procedure has been set forth, and subject to the provisions of paragraphs 9.09 and 10.05, OWNER and CONTRACTOR may exercise such rights or remedies as either may otherwise have under the Procurement Documents or by Laws or Regulations in respect of any dispute.

ARTICLE 17 - MISCELLANEOUS

17.01 *Giving Notice*

A. Whenever any provision of the Procurement Documents requires the giving of written notice, it will be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 *Computation of Times*

A. When any period of time is referred to in the Procurement Documents 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.

17.03 *Cumulative Remedies*

A. The duties and obligations imposed by these Procurement 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 Procurement Documents, and the provisions of this paragraph will be as effective as if repeated specifically in the Procurement Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 *Survival of Obligations*

A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Procurement Documents, as well as all continuing obligations indicated in the Procurement Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Procurement Agreement.

17.05 *Controlling Law*

A. This Contract is to be governed by the law of the state in which the Project is located.

17.06 *Headings*

A. The Article and paragraph headings are inserted for convenience only and do not constitute part of these Procurement General Conditions.

END OF PROCUREMENT
GENERAL CONDITIONS

ERIE COUNTY WATER AUTHORITY
BUFFALO, NEW YORK

WATERMAIN MATERIALS PURCHASE CONTRACT
JANUARY 1, 2022 TO JUNE 30, 2022
PROJECT No.: 202200001

SECTION 00800P

PROCUREMENT SUPPLEMENTARY CONDITIONS

SCOPE

These Procurement Supplementary Conditions amend or supplement the Procurement General Conditions. All provisions of the Procurement General Conditions which are not so amended or supplemented remain in full force and effect.

The terms used in these Procurement Supplementary Conditions which are defined in the Procurement General Conditions have the meanings assigned to them in the Procurement General Conditions.

- SC-1.01.A.7. Modify paragraph 1.01.A.7. by changing the word “Advertisement” in the first sentence to “Notice”.
- SC-2.05. Modify paragraph 2.05. by changing the word “Construction” in the first sentence to “Work”.
- SC-2.06. Delete paragraph 2.06., “Preconstruction Conference” in its entirety.
- SC-4.02 Add new paragraph immediately after paragraph 4.02.B which is to read as follows:
- SC-4.02.C In the preparation of the Drawings and Specifications, ENGINEER did not utilize any report or drawing related to subsurface and physical conditions.
- SC-4.06.A Add a new paragraph immediately after paragraph 4.06.A which is to read as follows:
- SC-4.06.A.1 In the preparation of the Drawings and Specifications, ENGINEER did not utilize any report or drawing related to a Hazardous Environmental Condition identified at the Site except as identified in SC-4.02.
- SC-5.01. Delete the references to “Payment Bond” in the title and in paragraph SC-5.01.A.

SC-5.01.A. Modify the first part of the second sentence of paragraph 5.01.A of the Procurement General Conditions to read:

The performance Bond shall remain in effect for two years after....

SC-5.04 through 5.10. Delete paragraph 5.04 through 5.10, inclusive, in their entirety.

SC-5.03 Add a new paragraph immediately after Paragraph 5.03, which is to read as follows:

“SC-5.04 *Insurance Requirements*

A. CONTRACTOR shall procure, maintain, and provide evidence of insurance in accordance with Insurance Requirements by the State of New York.”

SC-6.09.B. Add a new paragraph immediately after paragraph 6.09.B which is to read as follows:

“SC-6.10.C Refer to Article SC-18 for Laws and Regulations which, by terms of said Laws and Regulations are to be included in the Procurement Documents. The failure to include in Article SC-18 any Law or Regulation applicable to the performance of the Work does not diminish CONTRACTOR’S responsibility to comply with all Laws and Regulations applicable to the performance of the work.”

SC-6.10. Add a new paragraph immediately after paragraph 6.10.A, which is to read as follows:

“SC-6.10.B OWNER is exempt from payment of sales and compensating use taxes of the State of New York and of cities and counties on all materials to be incorporated into the Work.

1. OWNER will furnish the required certificates of tax exemption to CONTRACTOR for use in the purchase of supplies and materials to be incorporated into the Work.
2. OWNER’S exemption does not apply to construction tools, machinery, equipment, or other property purchased by or leased by CONTRACTOR, or to supplies or materials not incorporated into the Work.”

SC-6.15.A. Add a new paragraph immediately after paragraph 6.15.A, which is to read as follows:

“SC-6.15.

B 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 all Laws and regulations. CONTRACTOR shall provide a centralized location for the maintenance of the material safety data sheets or other hazard communication information required to be

made available by any employer on the Site. Location of the material safety data sheets or other hazard communication information shall be readily accessible to the employees of any employer on the Site.”

SC-7.01 Add a new paragraph immediately after Paragraph 7.01 which is to read as follows:

“SC-7.02 *Separate Contractor Claims*

- A. Should CONTRACTOR cause damage to the work or property of any other contractor at the Site, or should any claim arising out of CONTRACTOR’S performance of the Work be made by any other contractor against CONTRACTOR, OWNER, or ENGINEER, CONTRACTOR shall promptly settle with such other contractor by agreement, or otherwise resolve the dispute by arbitration or at law.
- B. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, and the officer, directors, partners, employees, agents, and other consultants or 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 directly, indirectly, or consequentially out of or relating to any claim or action, legal or equitable, brought by any other contractor against OWNER, ENGINEER, to the extent based upon CONTRACTOR’S performance of the Work.
- C. Should another contractor cause damage to the Work or property of CONTRACTOR at the Site or should the performance of work by any other contractor give rise to any other claim, CONTRACTOR shall not institute any action, legal or equitable, against OWNER, ENGINEER, or permit any action against any of them to be maintained and continued in its name or for its benefit in any court or before any arbiter which seeks to impose liability on or to recover damages from OWNER, ENGINEER, on account of any such damage or claim.
- D. If CONTRACTOR is delayed at any time in performing services or furnishing Goods by any act or neglect of another contractor and OWNER and CONTRACTOR are unable to agree as to the extent of any adjustment in Contract Times attributable thereto, CONTRACTOR may make a claim for an extension of time in accordance with paragraph 10.05. Notwithstanding any other provision of the Procurement Documents, an extension of the Contract Times shall be CONTRACTOR’S sole and exclusive remedy with respect to OWNER, for any delay, disruption, interference or hindrance caused by any other contractor.”

SC-13.07 Modify paragraph 13.07.A. by changing the words “one year” in the first line to “two years”.

SC-13.10. Add new paragraphs immediately after paragraph 13.09. which is to read as follows:

“Shipment and Delivery of the Goods

- A. All Goods shall be delivered only upon order by ENGINEER. All Goods will be delivered f.o.b. Point of Delivery. CONTRACTOR shall select the means and methods of transportation. All transportation charges to the Point of Delivery, including but not limited to rail, switching, trucking, lighterage and special handling will be paid by CONTRACTOR.
- B. CONTRACTOR shall give OWNER and ENGINEER at least 15 days prior written notice of the date when the Goods will be ready for shipment and the manner of shipment. Such notice will include instructions concerning any special equipment or services required at the Point of Delivery to unload and care for the Goods. CONTRACTOR shall require the carrier to give OWNER not less than 24 hours notice by telephone of the anticipated hour of delivery.
- C. OWNER shall provide facilities for receipt and unloading of the Goods. If the Point of Delivery is a construction site, OWNER shall provide the carrier reasonable access within the site to the Point of Delivery.
- D. CONTRACTOR shall deliver the Goods to the Point of Delivery within the timeframe identified under Section 00500P, Procurement Agreement, Article 3.02, Contract Time, paragraph A (the “delivery period”).
 - 1. OWNER will not be obligated to accept any delivery of Goods not made within the delivery period. Additional costs arising from delivery prior to or after the delivery period will be the responsibility of CONTRACTOR.
 - 2. OWNER may, by Change Order, direct CONTRACTOR to ship to another point of delivery or to accelerate or postpone the delivery period. OWNER shall be responsible for all additional expenses incurred by CONTRACTOR as a result of any such direction, including but not limited to charges for storage, reconditioning, handling, overtime and insurance. If CONTRACTOR believes that any such direction justifies an increase in the Contract Price or Contract Time, CONTRACTOR may make a claim therefor as provided herein.
- E. OWNER, accompanied by ENGINEER, shall inspect the Goods upon delivery for the sole purpose of identifying the Goods and general verification of quantities in order to provide a basis for a progress payment. Such inspection will not be construed as final or as acceptance of any Goods not in conformance with the Procurement Documents. If, when delivered, there are apparent defects in the Goods (through damage or otherwise), ENGINEER will give prompt written notice thereof to CONTRACTOR. CONTRACTOR shall without cost to OWNER correct the defect or replace the Goods with non-defective Goods. If CONTRACTOR does not do so promptly and to the satisfaction of OWNER and ENGINEER, OWNER may, upon ENGINEER’S recommendation, accept delivery of the defective Goods and remedy the defects with an appropriate reduction in the Contract Price as provided herein instead of requiring removal or replacement.

- OWNER may refuse to accept delivery of any Goods that are apparently defective. If there are no apparent defects, OWNER shall accept delivery.
- F. Notice of OWNER'S acceptance of delivery limited by the conditions in paragraph E. above will be provided to CONTRACTOR by a receipted copy of the shipping documents or as otherwise provided."

SC-14.02,A Delete paragraph A.1 in its entirety and Replace with the following:

"1. At least 10 days before the date established 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 Goods furnished and or the Work completed as of the date of the Application and accompanied by a bill of sale and other documentation satisfactory to OWNER warranting that OWNER has received the Goods free and clear of all liens, charges, security interests and encumbrances and evidence that the Goods are covered by appropriate property insurance, if applicable, and other arrangements to protect OWNER'S interest therein, all of which must be satisfactory to OWNER with such supporting documentation as is required by the Procurement Documents. Such documentation shall include releases and waivers from all parties who, during CONTRACTOR'S performance under the Procurement Documents, might have obtained or filed any such lien, charge, security or encumbrance. Application for payment will be submitted after delivery of the Goods has been accepted by OWNER in accordance with Article 5.1.E. In the case of multiple deliveries of Goods, additional Applications for Payment shall be submitted as OWNER accepts delivery of additional items of the Goods."

SC-14.02,A. (NOT USED)

SC-14.07,A. (NOT USED)

SC-17.06 Add new paragraphs immediately after paragraph 17.06,A. which are to read as follows:

"ARTICLE SC-18 - STATUTORY REQUIREMENTS

SC-18.01 This Article contains portions of certain Laws or Regulations which, by provision of Law or Regulations, are required to be included in the Procurement Documents. The material included in this Article may not be complete or current. CONTRACTOR'S obligation to comply with all Laws and Regulations applicable to the Work is set forth in paragraph 6.09 of the Procurement General Conditions.

SC-18.02 Non-Discrimination in Employment:

- A. During the performance of this contract, CONTRACTOR agrees as follows:
1. CONTRACTOR will not discriminate against any employee or applicant for employment because of race, creed, color, or national origin, and will take affirmative action to insure that they are afforded equal employment opportunities without discrimination because of race, creed, color or national origin. Such action shall be

taken with reference but not limited to: recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, layoff or termination, rates of pay or other forms of compensation, and selection for training or retraining, including apprenticeship and on-the-job training.

2. CONTRACTOR will send to each labor union or representative of workers with which he has or is bound by a collective bargaining or other agreement or understanding, a notice, to be provided by the State Commission for Human Rights, advising such labor union or representative of the CONTRACTOR'S agreement under clauses 1. through 8. hereinafter called "non- discrimination clauses". If the CONTRACTOR was directed to do so by the OWNER as part of the Bid or negotiation of this contract, CONTRACTOR shall request labor union or representative to furnish him with a written statement that such labor union or representative will not discriminate because of race, creed, color or national origin and that such labor union or representative either will affirmatively cooperate within the limits of its legal and contractual authority, in the implementation of the policy and provisions of these non-discrimination clauses or that it consents and agrees that recruitment, employment, and the terms and conditions of employment under this contract shall be in accordance with the purposes and provisions of these non-discrimination clauses. If such labor union or representative fails or refuses to comply with such a request, that it furnish such a statement, CONTRACTOR shall promptly notify the State Commission for Human Rights of such failure or refusal.
3. CONTRACTOR will post and keep posted in conspicuous places, available to employees and applicants for employment, notices to be provided by the State Commission for Human Rights setting forth the substance of the provisions of clauses 1. through 2. and such provisions of the State's Laws against discrimination as the State Commission for Human Rights shall determine.
4. CONTRACTOR will state, in all solicitations or advertisements for employees placed by or on behalf of CONTRACTOR, that all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, color or national origin.
5. CONTRACTOR will comply with the provisions of the Executive Law, Human Rights Law, Article 15, will furnish all information and reports deemed necessary by the State Commission for Human Rights under these non-discrimination clauses and such sections of the Executive Law, and will permit access to his books, records and accounts by the State Commission for Human Rights, the Attorney General, District Commissioner of Housing and Community Renewal and the Industrial Commission for purposes of investigation to ascertain compliance with these non-discrimination clauses of the Executive Law, Human Rights Law, Article 15.
6. This contract may be forthwith canceled, terminated or suspended, in whole or in part, by the OWNER upon the basis of a finding made by the State Commission for Human Rights that CONTRACTOR has not complied with these non-discrimination clauses, and CONTRACTOR may be declared ineligible for future contracts made by or on behalf of the State or a public authority or agency of the State or housing authority, or an urban renewal agency, or contracts requiring the approval of the Commissioner of Housing and Community Renewal, until he has satisfied the State Commission for Human Rights after conciliation efforts by the Commission have failed to achieve compliance with these non-discrimination clauses and after a verified complaint has been filed with the Commission, notice thereof has been given to CONTRACTOR and an opportunity has been afforded him to be heard publicly before three members of the

Commission. Such sanctions may be imposed and remedies invoked independently of or in addition to sanctions and remedies otherwise provided by law.

7. If this contract is canceled or terminated under clause 6., in addition to other rights of the OWNER provided in this contract upon its breach by CONTRACTOR, CONTRACTOR will hold the OWNER harmless against any additional expenses or costs incurred by the OWNER in completing the Work or in purchasing the services, materials, equipment or supplies contemplated by this contract, and the OWNER may withhold payments from CONTRACTOR in an amount sufficient for this purpose and recourse may be had against the surety on the Performance Bond if necessary.
8. CONTRACTOR will include the provisions of clauses 1. through 2. in every subcontract or purchase order altered only to reflect the proper identity of the parties in such a manner that such provisions will be binding upon each Subcontractor or vendor as to operations to be performed within the State of New York. CONTRACTOR will take such actions in enforcing such provisions of such subcontract or purchase order as the OWNER may direct, including sanctions or remedies for non-compliance. If CONTRACTOR becomes involved in or is threatened with litigation with a Subcontractor or vendor as a result of such direction by the OWNER, the CONTRACTOR shall promptly so notify the Attorney General, requesting him to intervene and to protect the interest of the State of New York.

SC-18.03 Affirmative Action Requirements:

- A. During the performance of this Contract, the CONTRACTOR agrees that it will abide by and will require its subcontractors to abide by the AUTHORITY'S Affirmative Action Requirements and Women and Minority Business Enterprise Policy, as set forth in the attached Appendix A and hereby made a part of these Procurement General Conditions.

SC-18.05 Payments to Subcontractors:

- A. In accordance with N.Y. State General Municipal Law, Section 106-b, CONTRACTOR shall:
 1. Within fifteen calendar days of the receipt of any payment from the OWNER, the CONTRACTOR shall pay each of his Subcontractors and materialmen the proceeds from the payment representing the value of the work performed and/or materials furnished by the Subcontractor and/or materialman and reflecting the percentage of the Subcontractor's work completed or the materialman's material supplied in the requisition approved by the OWNER and based upon the actual value of the subcontract or purchase order less an amount necessary to satisfy any claims, liens or judgments against the Subcontractor or materialman which have not been suitably discharged and less any retained amount as hereafter described. The CONTRACTOR shall retain not more than five per centum of each payment to the Subcontractor and/or materialman except that the CONTRACTOR may retain in excess of five per centum but not more than ten per centum of each payment to the Subcontractor provided that prior to entering into a subcontract with the CONTRACTOR, the Subcontractor is unable or unwilling to provide a Performance bond and a Labor and Material bond both in the full amount of the subcontract at the request of the CONTRACTOR. However, the CONTRACTOR shall retain nothing from those payments representing proceeds owed the Subcontractor and/or materialman from OWNER'S payments to the CONTRACTOR for the remaining amounts of the contract balance after the work or

portions thereof are substantially complete. Within fifteen calendar days of the receipt of payment from the CONTRACTOR, the Subcontractor and/or materialman shall pay each of his Subcontractors and materialmen in the same manner as the CONTRACTOR has paid the Subcontractor. Nothing provided herein shall create any obligation on the part of the OWNER to pay or to see to the payment of any moneys to any Subcontractor or materialman from any CONTRACTOR nor shall anything provided herein serve to create any relationship in contract or otherwise, implied or expressed, between the Subcontractor or materialman and the OWNER.”

SC-18.06 (NOT USED)

SC-18.07 Purchases by Other Local Governments

- A. The Erie County Water Authority (the “Authority”) has adopted the following resolution for the purpose of allowing the following named local governments (the “Participants”) to make purchases through the Authority bidding procedures.
- B. Under the following conditions, the Director of Administration may make purchasing services available to the following Participants:
 - 1. When in the opinion of the Director of Administration it will not create any burden or hardship upon the Authority and the anticipated prices will not be adversely affected thereby, the Director is authorized when he deems appropriate and as may be requested by the Participants to provide in any particular Authority bid specification that the Participants listed below shall have the right to make purchases based upon the bids received by the Authority.
 - 2. The Director of Administration, within the limits of his time and manpower, shall disseminate relevant contract information to the Participants.
 - 3. The Participants in Authority contracts will issue purchase orders directly to vendors within the specified contract period referencing the Authority contract involved and be liable for any payments due on such purchase orders.
- C. Bidders shall take notice that as a condition of the award of an Authority contract pursuant to these specifications, the successful bidder agrees to accept the award of a similar contract with any of the Participants listed below if called upon to do so. The Authority, however, will not be responsible for any debts incurred by the Participants pursuant to this or any other agreement.
- D. Necessary deviations from the Authority’s specifications in the award of a Participant’s contract, particularly as such deviations may relate to quantities or delivery point shall be a matter to be resolved between the successful bidder and Participants. All inquiries regarding prospective contracts shall be directed to the attention of:
 - 1. ANGOLA VILLAGE OF, Clerk-Treasurer, 41 Commercial Street, Angola, NY 14006
 - 2. ALABAMA TOWN OF, Deputy Supervisor, 2218 Judge Road, Oakfield, NY 14125
 - 3. BENNINGTON TOWN OF, Water System Operator, 134 Clinton Street, Alden, NY 14004
 - 4. BRANT TOWN OF, Town Clerk, Town Hall, 992 Brant-Farnham Road, Brant, NY 14027
 - 5. COLDEN TOWN OF, Deputy Town Clerk, Town Hall, S-8812 State Road, Colden, NY 14033

6. EAST AURORA VILLAGE OF, Village Clerk, 571 Main Street, East Aurora, NY 14052
7. ELMA TOWN OF, Town Clerk, Town Hall, 1600 Bowen Road, Elma, NY 14059
8. FARNHAM VILLAGE OF, Village Clerk-Treasurer, 526 Commercial Street, Farnham, NY 14061
9. HANOVER TOWN OF, Town Clerk, 68 Hanover Street, Silver Creek, NY 14136
10. ORCHARD PARK VILLAGE OF, Clerk-Treasurer, 4295 South Buffalo Road, Orchard Park, NY 14127
11. SILVER CREEK VILLAGE OF, Village Clerk, 172 Central Avenue, Silver Creek, NY 14136”

END OF PROCUREMENT SUPPLEMENTARY CONDITIONS

SECTION 01270P

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 DESCRIPTION

- A. The items listed below beginning with Article 1.05, refer to and are the same pay items listed in Section 00410P, Procurement Bid Forms. They constitute all of the pay items for furnishing Goods and providing Services as specified or required. No direct or separate payment will be made for providing miscellaneous temporary or accessory works, plant, services, sanitary requirements, permits, testing, safety devices, approval and record drawings, maintaining traffic, bonds, insurance, and all other requirements of the Procurement General Conditions, Procurement Supplementary Conditions, and the General Requirements. Compensation for all such services, things and materials shall be included in the prices stipulated for the lump sum and work unit price pay items listed herein.
- B. The lump sum and unit bid prices 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.
- C. The CONTRACTOR shall furnish all labor, materials, tools, equipment, services, and all appurtenances necessary to furnish Goods and providing Services, at the unit or lump sum prices for the items listed in the Bidder's Proposal. Each bid item shall include all costs to perform all work to complete each item.

1.02 ENGINEER'S ESTIMATE OF QUANTITIES

- A. ENGINEER'S estimated quantities for unit price pay items, as listed in the Procurement Bid Form, are approximate only and are included solely for the purpose of comparison of Bids. OWNER does not expressly or by implication agree that the actual quantities of material required or ordered will correspond therewith and reserves the right to increase or decrease any quantity or to eliminate any quantity as OWNER may deem necessary. CONTRACTOR will not be entitled to any adjustment in a unit bid price as a result of any change in an estimated quantity and agrees to accept the aforesaid unit bid prices as complete and total compensation for any additions caused by changes or alterations in the Work ordered by OWNER.

1.03 NOT USED

1.04 RELATED PROVISIONS

- A. Payments to CONTRACTOR: Refer to Procurement General Conditions and Procurement Agreement.

B. Changes in Contract Price: Procurement General Conditions.

1.05 BID ITEMS

CATEGORY 1 - TAPPING SLEEVES

1. Work Included:
 - a. This item includes all labor, materials, equipment and incidentals required to furnish and deliver tapping sleeves of size, class, depth and materials as specified herein, except that specifically included under other items of the Contract.
 - b. This item includes providing Services as specified or as required.
2. Measurement:
 - a. The quantity of tapping sleeves ordered under this item shall be the actual number of tapping sleeves of each size furnished and delivered to the Point of Delivery.
3. Payment:
 - a. The unit prices bid per tapping sleeves shall be full compensation for furnishing labor, materials, equipment, and incidentals necessary to furnish and deliver Goods and provide Services as ordered, specified, or directed.
 - b. The subdivisions of this item are enumerated in Bid Form.

CATEGORY 2 - TAPPING VALVES

1. Work Included:
 - a. This item includes all labor, materials, equipment and incidentals required to furnish and deliver tapping valves of size, class, depth and materials as specified herein, except that specifically included under other items of the Contract.
 - b. This item includes providing Services as specified or as required.
2. Measurement:
 - a. The quantity of tapping valves ordered under this item shall be the actual number of tapping valves of each size furnished and delivered to the Point of Delivery.
3. Payment:
 - a. The unit prices bid per tapping valves shall be full compensation for furnishing labor, materials, equipment, and incidentals necessary to furnish and deliver Goods and provide Services as ordered, specified, or directed.
 - b. The subdivisions of this item are enumerated in Bid Form.

CATEGORY 3 - TAPPING SADDLES

1. Work Included:
 - a. This item includes all labor, materials, equipment and incidentals required to furnish and deliver tapping saddles of size, class, depth and materials as specified herein, except that specifically included under other items of the Contract.
 - b. This item includes providing Services as specified or as required.

2. Measurement:
 - a. The quantity of tapping saddles ordered under this item shall be the actual number of tapping saddles of each size furnished and delivered to the Point of Delivery.
3. Payment:
 - a. The unit prices bid per tapping saddles shall be full compensation for furnishing labor, materials, equipment, and incidentals necessary to furnish and deliver Goods and provide Services as ordered, specified, or directed.
 - b. The subdivisions of this item are enumerated in Bid Form.

CATEGORY 4 - VALVE BOX PARTS

1. Work Included:
 - a. This item includes all labor, materials, equipment and incidentals required to furnish and deliver valve box parts of size, class, depth and materials as specified herein, except that specifically included under other items of the Contract.
 - b. This item includes providing Services as specified or as required.
2. Measurement:
 - a. The quantity of valve box parts ordered under this item shall be the actual number of valve box parts of each size furnished and delivered to the Point of Delivery.
3. Payment:
 - a. The unit prices bid per valve box parts shall be full compensation for furnishing labor, materials, equipment, and incidentals necessary to furnish and deliver Goods and provide Services as ordered, specified, or directed.
 - b. The subdivisions of this item are enumerated in Bid Form.

CATEGORY 5 – REDUCERS

1. Work Included:
 - a. This item includes all labor, materials, equipment and incidentals required to furnish and deliver reducers of size, class, depth and materials as specified herein, except that specifically included under other items of the Contract.
 - b. This item includes providing Services as specified or as required.
2. Measurement:
 - a. The quantity of reducers ordered under this item shall be the actual number of reducers of each size furnished and delivered to the Point of Delivery.
3. Payment:
 - a. The unit prices bid per reducers shall be full compensation for furnishing labor, materials, equipment, and incidentals necessary to furnish and deliver Goods and provide Services as ordered, specified, or directed.
 - b. The subdivisions of this item are enumerated in Bid Form.

CATEGORY 6 - CURB BOX AND ROADWAY BOX PARTS

1. Work Included:
 - a. This item includes all labor, materials, equipment and incidentals required to furnish and deliver curb box and roadway box parts of size, class, depth and materials as specified herein, except that specifically included under other items of the Contract.
 - b. This item includes providing Services as specified or as required.
2. Measurement:
 - a. The quantity of curb box and roadway box parts ordered under this item shall be the actual number of curb box and roadway box parts of each size furnished and delivered to the Point of Delivery.
3. Payment:
 - a. The unit prices bid per curb box and roadway box parts shall be full compensation for furnishing labor, materials, equipment, and incidentals necessary to furnish and deliver Goods and provide Services as ordered, specified, or directed.
 - b. The subdivisions of this item are enumerated in Bid Form.

CATEGORY 7 - VALVES - LINE AND BUTTERFLY

1. Work Included:
 - a. This item includes all labor, materials, equipment and incidentals required to furnish and deliver valves - line and butterfly of size, class, depth and materials as specified herein, except that specifically included under other items of the Contract.
 - b. This item includes providing Services as specified or as required.
2. Measurement:
 - a. The quantity of valves - line and butterfly ordered under this item shall be the actual number of valves - line and butterfly of each size furnished and delivered to the Point of Delivery.
3. Payment:
 - a. The unit prices bid per valves - line and butterfly shall be full compensation for furnishing labor, materials, equipment, and incidentals necessary to furnish and deliver Goods and provide Services as ordered, specified, or directed.
 - b. The subdivisions of this item are enumerated in Bid Form.

CATEGORY 8 - BRONZE SERVICE SADDLES

1. Work Included:
 - a. This item includes all labor, materials, equipment and incidentals required to furnish and deliver bronze service saddles of size, class, depth and materials as specified herein, except that specifically included under other items of the Contract.
 - b. This item includes providing Services as specified or as required.
2. Measurement:
 - a. The quantity of bronze service saddles ordered under this item shall be the actual number of bronze service saddles of each size furnished and delivered to the Point of Delivery.

3. Payment:
 - a. The unit prices bid per bronze service saddles shall be full compensation for furnishing labor, materials, equipment, and incidentals necessary to furnish and deliver Goods and provide Services as ordered, specified, or directed.
 - b. The subdivisions of this item are enumerated in Bid Form.

CATEGORY 9 - CAPS AND PLUGS

1. Work Included:
 - a. This item includes all labor, materials, equipment and incidentals required to furnish and deliver caps and plugs of size, class, depth and materials as specified herein, except that specifically included under other items of the Contract.
 - b. This item includes providing Services as specified or as required.
2. Measurement:
 - a. The quantity of caps and plugs ordered under this item shall be the actual number of caps and plugs of each size furnished and delivered to the Point of Delivery.
3. Payment:
 - a. The unit prices bid per caps and plugs shall be full compensation for furnishing labor, materials, equipment, and incidentals necessary to furnish and deliver Goods and provide Services as ordered, specified, or directed.
 - b. The subdivisions of this item are enumerated in Bid Form.

CATEGORY 10 – HYDRANTS

1. Work Included:
 - a. This item includes all labor, materials, equipment and incidentals required to furnish and deliver hydrants of size, class, depth and materials as specified herein, except that specifically included under other items of the Contract.
 - b. This item includes providing Services as specified or as required.
2. Measurement:
 - a. The quantity of hydrants ordered under this item shall be the actual number of hydrants of each size furnished and delivered to the Point of Delivery.
3. Payment:
 - a. The unit prices bid per hydrants shall be full compensation for furnishing labor, materials, equipment, and incidentals necessary to furnish and deliver Goods and provide Services as ordered, specified, or directed.
 - b. The subdivisions of this item are enumerated in Bid Form.

CATEGORY 11 – TEES

1. Work Included:
 - a. This item includes all labor, materials, equipment and incidentals required to furnish and deliver tees of size, class, depth and materials as specified herein, except that specifically included under other items of the Contract.

- b. This item includes providing Services as specified or as required.
- 2. Measurement:
 - a. The quantity of tees ordered under this item shall be the actual number of tees of each size furnished and delivered to the Point of Delivery.
- 3. Payment:
 - a. The unit prices bid per tees shall be full compensation for furnishing labor, materials, equipment, and incidentals necessary to furnish and deliver Goods and provide Services as ordered, specified, or directed.
 - b. The subdivisions of this item are enumerated in Bid Form.

CATEGORY 12 - PIPE - DUCTILE, AND PVC

- 1. Work Included:
 - a. This item includes all labor, materials, equipment and incidentals required to furnish and deliver pipe - ductile, and PVC of size, class, depth and materials as specified herein, except that specifically included under other items of the Contract.
 - b. This item includes providing Services as specified or as required.
- 2. Measurement:
 - a. The quantity of pipe - ductile, and PVC ordered under this item shall be the actual number of pipe - ductile, and PVC of each size furnished and delivered to the Point of Delivery.
- 3. Payment:
 - a. The unit prices bid per pipe - ductile, and PVC shall be full compensation for furnishing labor, materials, equipment, and incidentals necessary to furnish and deliver Goods and provide Services as ordered, specified, or directed.
 - b. The subdivisions of this item are enumerated in Bid Form.

CATEGORY 13 - RETAINERS AND ANCHOR COUPLINGS

- 1. Work Included:
 - a. This item includes all labor, materials, equipment and incidentals required to furnish and deliver retainers and anchor couplings of size, class, depth and materials as specified herein, except that specifically included under other items of the Contract.
 - b. This item includes providing Services as specified or as required.
- 2. Measurement:
 - a. The quantity of retainers and anchor couplings ordered under this item shall be the actual number of retainers and anchor couplings of each size furnished and delivered to the Point of Delivery.
- 3. Payment:
 - a. The unit prices bid per retainers and anchor couplings shall be full compensation for furnishing labor, materials, equipment, and incidentals necessary to furnish and deliver Goods and provide Services as ordered, specified, or directed.
 - b. The subdivisions of this item are enumerated in Bid Form.

CATEGORY 14 - DUCTILE IRON BENDS

1. Work Included:
 - a. This item includes all labor, materials, equipment and incidentals required to furnish and deliver ductile iron bends of size, class, depth and materials as specified herein, except that specifically included under other items of the Contract.
 - b. This item includes providing Services as specified or as required.
2. Measurement:
 - a. The quantity of ductile iron bends ordered under this item shall be the actual number of ductile iron bends of each size furnished and delivered to the Point of Delivery.
3. Payment:
 - a. The unit prices bid per ductile iron bends shall be full compensation for furnishing labor, materials, equipment, and incidentals necessary to furnish and deliver Goods and provide Services as ordered, specified, or directed.
 - b. The subdivisions of this item are enumerated in Bid Form.

CATEGORY 15 - SOLID SLEEVES

1. Work Included:
 - a. This item includes all labor, materials, equipment and incidentals required to furnish and deliver solid sleeves of size, class, depth and materials as specified herein, except that specifically included under other items of the Contract.
 - b. This item includes providing Services as specified or as required.
2. Measurement:
 - a. The quantity of solid sleeves ordered under this item shall be the actual number of solid sleeves of each size furnished and delivered to the Point of Delivery.
3. Payment:
 - a. The unit prices bid per solid sleeves shall be full compensation for furnishing labor, materials, equipment, and incidentals necessary to furnish and deliver Goods and provide Services as ordered, specified, or directed.
 - b. The subdivisions of this item are enumerated in Bid Form.

CATEGORY 16 - SPLIT SLEEVES

1. Work Included:
 - a. This item includes all labor, materials, equipment and incidentals required to furnish and deliver split sleeves of size, class, depth and materials as specified herein, except that specifically included under other items of the Contract.
 - b. This item includes providing Services as specified or as required.
2. Measurement:
 - a. The quantity of split sleeves ordered under this item shall be the actual number of split sleeves of each size furnished and delivered to the Point of Delivery.

3. Payment:
 - a. The unit prices bid per split sleeves shall be full compensation for furnishing labor, materials, equipment, and incidentals necessary to furnish and deliver Goods and provide Services as ordered, specified, or directed.
 - b. The subdivisions of this item are enumerated in Bid Form.

CATEGORY 20 - MISCELLANEOUS PLUMBING MATERIALS – BRASS (AND NO LEAD BRASS) AND CI

1. Work Included:
 - a. This item includes all labor, materials, equipment and incidentals required to furnish and deliver miscellaneous plumbing materials – brass (and no lead brass) and CI of size, class, depth and materials as specified herein, except that specifically included under other items of the Contract.
 - b. This item includes providing Services as specified or as required.
2. Measurement:
 - a. The quantity of miscellaneous plumbing materials - brass (and no lead brass) and CI ordered under this item shall be the actual number of miscellaneous plumbing materials - brass (and no lead brass) and CI of each size furnished and delivered to the Point of Delivery.
3. Payment:
 - a. The unit prices bid per miscellaneous plumbing materials - brass (and no lead brass) and CI shall be full compensation for furnishing labor, materials, equipment, and incidentals necessary to furnish and deliver Goods and provide Services as ordered, specified, or directed.
 - b. The subdivisions of this item are enumerated in Bid Form.

CATEGORY 21 - CLAMPS, REPAIR

1. Work Included:
 - a. This item includes all labor, materials, equipment and incidentals required to furnish and deliver clamps, repair of size, class, depth and materials as specified herein, except that specifically included under other items of the Contract.
 - b. This item includes providing Services as specified or as required.
2. Measurement:
 - a. The quantity of clamps, repair ordered under this item shall be the actual number of clamps, repair of each size furnished and delivered to the Point of Delivery.
3. Payment:
 - a. The unit prices bid per clamps, repair shall be full compensation for furnishing labor, materials, equipment, and incidentals necessary to furnish and deliver Goods and provide Services as ordered, specified, or directed.
 - b. The subdivisions of this item are enumerated in Bid Form.

CATEGORY 23 - SERVICE REPAIR AND CONNECTION

1. Work Included:
 - a. This item includes all labor, materials, equipment and incidentals required to furnish and deliver service repair and connection of size, class, depth and materials as specified herein, except that specifically included under other items of the Contract.
 - b. This item includes providing Services as specified or as required.
2. Measurement:
 - a. The quantity of service repair and connection ordered under this item shall be the actual number of service repair and connection of each size furnished and delivered to the Point of Delivery.
3. Payment:
 - a. The unit prices bid per service repair and connection shall be full compensation for furnishing labor, materials, equipment, and incidentals necessary to furnish and deliver Goods and provide Services as ordered, specified, or directed.
 - b. The subdivisions of this item are enumerated in Bid Form.

CATEGORY 24 - SERVICE SADDLES

1. Work Included:
 - a. This item includes all labor, materials, equipment and incidentals required to furnish and deliver service saddles of size, class, depth and materials as specified herein, except that specifically included under other items of the Contract.
 - b. This item includes providing Services as specified or as required.
2. Measurement:
 - a. The quantity of service saddles ordered under this item shall be the actual number of service saddles of each size furnished and delivered to the Point of Delivery.
3. Payment:
 - a. The unit prices bid per service saddles shall be full compensation for furnishing labor, materials, equipment, and incidentals necessary to furnish and deliver Goods and provide Services as ordered, specified, or directed.
 - b. The subdivisions of this item are enumerated in Bid Form.

CATEGORY 27 - OFFSETS

1. Work Included:
 - a. This item includes all labor, materials, equipment and incidentals required to furnish and deliver offsets of size, class, depth and materials as specified herein, except that specifically included under other items of the Contract.
 - b. This item includes providing Services as specified or as required.
2. Measurement:
 - a. The quantity of offsets ordered under this item shall be the actual number of offsets of each size furnished and delivered to the Point of Delivery.

3. Payment:
 - a. The unit prices bid per offsets shall be full compensation for furnishing labor, materials, equipment, and incidentals necessary to furnish and deliver Goods and provide Services as ordered, specified, or directed.
 - b. The subdivisions of this item are enumerated in Bid Form.

CATEGORY 29 - METER COUPLING - SEWER REPAIR MATERIALS

1. Work Included:
 - a. This item includes all labor, materials, equipment and incidentals required to furnish and deliver meter coupling - sewer repair materials of size, class, depth and materials as specified herein, except that specifically included under other items of the Contract.
 - b. This item includes providing Services as specified or as required.
2. Measurement:
 - a. The quantity of meter coupling - sewer repair materials ordered under this item shall be the actual number of meter coupling - sewer repair materials of each size furnished and delivered to the Point of Delivery.
3. Payment:
 - a. The unit prices bid per meter coupling - sewer repair materials shall be full compensation for furnishing labor, materials, equipment, and incidentals necessary to furnish and deliver Goods and provide Services as ordered, specified, or directed.
 - b. The subdivisions of this item are enumerated in Bid Form.

CATEGORY 31 - COPPER TUBING

1. Work Included:
 - a. This item includes all labor, materials, equipment and incidentals required to furnish and deliver copper tubing of size, class, depth and materials as specified herein, except that specifically included under other items of the Contract.
 - b. This item includes providing Services as specified or as required.
2. Measurement:
 - a. The quantity of copper tubing ordered under this item shall be the actual number of copper tubing of each size furnished and delivered to the Point of Delivery.
3. Payment:
 - a. The unit prices bid per copper tubing shall be full compensation for furnishing labor, materials, equipment, and incidentals necessary to furnish and deliver Goods and provide Services as ordered, specified, or directed.
 - b. The subdivisions of this item are enumerated in Bid Form.

CATEGORY 36 - NUTS, BOLTS, AND SOCKET CLAMPS

1. Work Included:
 - a. This item includes all labor, materials, equipment and incidentals required to furnish and deliver nuts, bolts, and socket clamps of size,

class, depth and materials as specified herein, except that specifically included under other items of the Contract.

- b. This item includes providing Services as specified or as required.
- 2. Measurement:
 - a. The quantity of nuts, bolts, and socket clamps ordered under this item shall be the actual number of nuts, bolts, and socket clamps of each size furnished and delivered to the Point of Delivery.
- 3. Payment:
 - a. The unit prices bid per nuts, bolts, and socket clamps shall be full compensation for furnishing labor, materials, equipment, and incidentals necessary to furnish and deliver Goods and provide Services as ordered, specified, or directed.
 - b. The subdivisions of this item are enumerated in Bid Form.

CATEGORY 45 - PCCP ADAPTERS (CONCRETE)

- 1. Work Included:
 - a. This item includes all labor, materials, equipment and incidentals required to furnish and deliver PCCP adapters (concrete) of size, class, depth and materials as specified herein, except that specifically included under other items of the Contract.
 - b. This item includes providing Services as specified or as required.
- 2. Measurement:
 - a. The quantity of PCCP adapters (concrete) ordered under this item shall be the actual number of PCCP adapters (concrete) of each size furnished and delivered to the Point of Delivery.
- 3. Payment:
 - a. The unit prices bid per PCCP adapters (concrete) shall be full compensation for furnishing labor, materials, equipment, and incidentals necessary to furnish and deliver Goods and provide Services as ordered, specified, or directed.
 - b. The subdivisions of this item are enumerated in Bid Form.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01331P

SHOP DRAWING PROCEDURES

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Shop Drawing procedures shall conform to requirements of the Procurement General Conditions and as described in this Section.

1.02 PROCEDURE

- A. Submittals of Shop Drawings shall be made to the ENGINEER at the address listed in the Notice to Bidders.
- B. A letter of transmittal shall accompany each submittal. If data for more than one Section of the Specifications is submitted, a separate transmittal letter shall accompany the data submitted for each Section.
- C. Copies of submittals shall be sent to the ERIE COUNTY WATER AUTHORITY at the Service Center Address at 3030 Union Road, Cheektowaga, New York 14227.
- D. At the beginning of each letter of transmittal provide a reference heading indicating the following:
 - 1. OWNER'S Name _____
 - 2. Project Name _____
 - 3. Contract No. _____
 - 4. Transmittal No. _____
 - 5. Section No. _____
- E. If a Shop Drawing deviates from the requirements of the Contract Documents, CONTRACTOR shall specifically note each variation in his letter of transmittal.
- F. All Shop Drawings submitted for approval shall have a title block with complete identifying information satisfactory to ENGINEER.
- G. All Shop Drawings submitted shall bear the stamp of approval and signature of CONTRACTOR as evidence that they have been reviewed by CONTRACTOR. Submittals without this stamp of approval will not be reviewed by ENGINEER and will be returned to CONTRACTOR. CONTRACTOR'S stamp shall contain the following minimum information:

Project Name: _____

CONTRACTOR'S Name: _____

Date: _____

-----Reference-----

Item: _____

Specifications:

Section: _____

Page No.: _____

Para. No.: _____

Drawing No.: _____ of _____

Location: _____

Submittal No.: _____

Approved By: _____

- H. A number shall be assigned to each submittal by CONTRACTOR starting with No. 1 and thence numbered consecutively. Resubmittals shall be identified by the original submittal number followed by the suffix "A" for the first resubmittal, the suffix "B" for the second resubmittal, etc.
- I. The CONTRACTOR shall initially submit to ENGINEER a minimum of 4 copies of all submittals that are on 8½-inch by 11-inch or smaller sheets, and one unfolded sepia and 2 prints made from that sepia for all submittals on sheets larger than 8½-inch by 11-inch. The OWNER and ENGINEER shall receive one copy only of each submittals which will be stamped "Preliminary - Not For Construction."
- J. After ENGINEER completes his review, Shop Drawings will be marked with one of the following notations:
1. Approved
 2. Approved as Corrected
 3. Revise and Resubmit
 4. Not Approved
- K. If a submittal is acceptable, it will be marked "Approved" or "Approved as Corrected". Four prints or copies of the submittal will be returned to CONTRACTOR.

- L. Upon return of a submittal marked “Approved” or “Approved as Corrected”, CONTRACTOR may order, ship or fabricate the materials included on the submittal, provided it is in accordance with the corrections indicated.
- M. If a Shop Drawing marked “Approved as Corrected” has extensive corrections or corrections affecting other drawings or Work, ENGINEER may require that CONTRACTOR make the corrections indicated thereon and resubmit the Shop Drawings for record purposes. Such drawings will have the notation, “Approved as Corrected - Resubmit.”
- N. If a submittal is unacceptable, 2 copies will be returned to CONTRACTOR with one of the following notations:
 - 1. “Revise and Resubmit”.
 - 2. “Not Approved”.
- O. Upon return of a submittal marked “Revise and Resubmit”, CONTRACTOR shall make the corrections indicated and repeat the initial approval procedure. The “Not Approved” notation is used to indicate material or equipment that is not acceptable. Upon return of a submittal so marked, CONTRACTOR shall repeat the initial approval procedure utilizing acceptable material or equipment.
- P. Any related Work performed or equipment installed without an “Approved” or “Approved as Corrected” Shop Drawing will be at the sole responsibility of the CONTRACTOR.
- Q. Shop Drawings shall be submitted well in advance of the need for the material or equipment for construction and with ample allowance for the time required to make delivery of material or equipment after data covering such is approved. CONTRACTOR shall assume the risk for all materials or equipment which are fabricated or delivered prior to the approval of Shop Drawings. Materials or equipment will not be included in periodic progress payments until approval thereof has been obtained in the specified manner.
- R. ENGINEER will review and process all submittals promptly, but a reasonable time should be allowed for this, for the Shop Drawings being revised and resubmitted, and for time required to return the approved Shop Drawings to CONTRACTOR.
- S. It is CONTRACTOR’S responsibility to review submittals made by his suppliers and Subcontractors before transmitting them to ENGINEER to assure proper coordination of the Work and to determine that each submittal is in accordance with his desires and that there is sufficient information about materials and equipment for ENGINEER to determine compliance with the Contract Documents. Incomplete or inadequate submittals will be returned for revision without review.
- T. CONTRACTOR shall furnish required submittals with complete information and accuracy in order to achieve required approval of an item within three submittals. All costs to ENGINEER involved with subsequent submittals of Shop Drawings,

Samples or other items requiring approval, will be backcharged to CONTRACTOR, at the rate of 3.0 times direct technical labor cost, by deducting such costs from payments due CONTRACTOR for Work completed. In the event that CONTRACTOR requests a substitution for a previously approved item, all of ENGINEER'S costs in the reviewing and approval of the substitution will be backcharged to CONTRACTOR unless the need for such substitution is beyond the control of CONTRACTOR.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01421

REFERENCE STANDARDS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. When a reference standard is specified, comply with requirements and recommendations stated in that standard, except when they are modified by the Contract Documents, or when applicable laws, ordinances, rules, regulations or codes establish stricter standards. The latest provisions of applicable standards shall apply to the Work, unless otherwise specified. Reference standards include, but are not necessarily limited to, the following:
1. American Association of State Highway and Transportation Officials.
 2. American Concrete Institute.
 3. American Gear Manufacturers Association.
 4. American Institute of Steel Construction.
 5. American Iron and Steel Institute.
 6. American National Standards Institute.
 7. American Society of Heating, Refrigerating and Air Conditioning Engineers.
 8. American Society of Mechanical Engineers.
 9. American Society for Testing and Materials.
 10. American Water Works Association.
 11. American Welding Society.
 12. Concrete Reinforcing Steel Institute.
 13. Factory Mutual Research Corporation.
 14. Institute of Electrical and Electronics Engineers.
 15. National Electrical Manufacturer's Association.
 16. Occupational Safety and Health Administration.
 17. National Fire Protection Association.
 18. Prestressed Concrete Institute.
 19. Underwriters' Laboratories, Inc.
 20. NSF International.
 21. International Organization for Standardization (ISO).
 22. SSPC: The Society for Protective Coatings.
 23. American Petroleum Institute.
 24. NACE International.
 25. All other applicable standards listed in the Specifications, and the standards of utility service companies, where applicable.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01422

ABBREVIATIONS AND SYMBOLS

PART 1 - GENERAL

1.01 ABBREVIATIONS

A. Common abbreviations which may be found in the Specifications are:

alternating current	a-c	gallons per minute	gpm
ante meridiem	am	gallons per second	gps
ampere	A	gram	g
average	avg		
		Hertz	Hz
biochemical oxygen demand	BOD	hour	hr
brake horsepower	bhp	horsepower	hp
British thermal unit	Btu		
		inch	in.
Centigrade	°C	inch-pound	in.-lb
Company	Co	inside diameter	id
cubic inch	cu in		
cubic foot	cu ft	kilovolt-ampere	kva
cubic yard	cu yd	kilowatt	kw
cubic feet per minute	cfm	kilowatt-hour	hwhr
cubic feet per second	cfs		
		linear foot	lin ft
decibel	db	liter	l
degree Centigrade			
(or Celsius) (say)	20°C	maximum	max
degree Fahrenheit (say)	68°F	mercury	Hg
diameter	diam	milligram	mg
direct current	d-c	milligrams per liter	mg/l
dollars	\$	milliliter	ml
		millimeter	mm
each	ea	million gallon	mil
efficiency	eff	million gallons per day	mgd
		minimum	min
Fahrenheit	EF		
feet	ft	net positive suction head	npsh
feet per hour	fph	number	No.
feet per minute	fpm	National Pipe Threads	NPT
feet per second	fps		
Figure	Fig	ounce	oz
flange	flg	outside diameter	od
foot-pound	ft-lb		
gallon	gal	parts per million	ppm

post meridiem	pm	square foot	sq ft
pound	lb	square inch	sq in
pounds per square foot	psf	square yard	sq yd
pounds per square inch		standard	std
absolute	psia	standard cubic feet	
pounds per square inch		per minute	scfm
gage	psig		
		total dynamic head	tdh
revolutions per minute	rpm	totally-enclosed-	
		fan-cooled	tefc
second	sec		
specific gravity	sp gr	volt	v
square	sq		

1.02 ORGANIZATION ABBREVIATIONS

A. Abbreviations of organizations which may be used in these Specifications are:

ACS	American Chemical Society
ACI	American Concrete Institute
AGMA	American Gear Manufacturers Association
AICHE	American Institute of Chemical Engineers
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
ANSI	American National Standards Institute
APHA	American Public Health Association
API	American Petroleum Institute
AREA	American Railway Engineering Association
ASTM	American Society for Testing and Materials
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers
AWWA	American Water Works Association
AWS	American Welding Society
CRSI	Concrete Reinforcing Steel Institute
ECWA	Erie County Water Authority
EPA	Environmental Protection Agency
FM	Factory Mutual Research Corporation
HEW	Department of Health, Education and Welfare
HUD	Department of Housing and Urban Development
IEEE	Institute of Electrical and Electronic Engineers
IRI	Industrial Risk Insurance
NAAMM	National Association of Architectural Metal Manufacturers
NACE	NACE International
NARUC	National Association of Railroad and Utilities Commissioners

NEC	National Electric Code
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
NSF	National Sanitation Foundation
OSHA	Occupational Safety and Health Administration
PCI	Precast Concrete Institute
SMACNA	Sheet Metal and Air Conditioning National Association
SSPC	Steel Structures Painting Council
UL	Underwriters' Laboratories, Inc.
USGS	United States Geological Survey
USPHS	United States Public Health Service
WWEMA	Water and Wastewater Equipment Manufacturers Association

1.03 MISCELLANEOUS ABBREVIATIONS

ACP	Asbestos Cement Pipe
DIP	Ductile Iron Pipe
mj	mechanical joint
PCCP	Prestressed Concrete Cylinder Pipe
pe	plain end
PVC	Polyvinyl Chloride Pipe
s	spigot
w/	with

1.04 SYMBOLS

- A. Refer to Drawings for symbols used on the Contract Drawings.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01630P

SUBSTITUTIONS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Requests for review of a substitution shall conform to the requirements of the Procurement General Conditions and shall contain complete data substantiating compliance of proposed substitution with Procurement Documents.

1.02 CONTRACTOR'S OPTIONS

- A. For materials or equipment (hereinafter products) specified only by reference standard, select product meeting that standard, by any manufacturer, fabricator, supplier or distributor (hereinafter manufacturer). To the maximum extent possible, provide products of the same generic kind from a single source.
- B. For products specified by naming several products or manufacturers, select any one of the products or manufacturers named which complies with Specifications.
- C. For products specified by naming one or more products or manufacturers and stating "or equal", submit a request for a substitution for any product or manufacturer which is not specifically named.
- D. For products specified by naming only one product or manufacturer and followed by words indicating that no substitution is permitted, there is no option and no substitution will be allowed.
- E. Where more than one choice is available as a CONTRACTOR'S option, select product which is compatible with other products already selected or specified.

1.03 SUBSTITUTIONS

- A. During a period of 30 days after date of commencement of Contract Time, ENGINEER will consider written requests from CONTRACTOR for substitution of products or manufacturers, and construction methods (if specified).
 - 1. After end of specified period, requests will be considered only in case of unavailability of product or other conditions beyond control of CONTRACTOR.
- B. Submit 5 copies of request for substitution. Submit separate request for each substitution. In addition to requirements set forth in Article 6.05 of General Conditions, include in request the following:
 - 1. For products or manufacturers:
 - a. Product identification, including manufacturer's name and address.

- b. Manufacturer's literature with product description, performance and test data, and reference standards.
 - c. Samples, if appropriate.
 - d. Name and address of similar projects on which product was used, and date of installation.
 - 2. For construction methods (if specified):
 - a. Detailed description of proposed method.
 - b. Drawings illustrating method.
 - 3. Such other data as the ENGINEER may require to establish that the proposed substitution is equal to the product, manufacturer or method specified.
- C. In making request for substitution, CONTRACTOR represents that:
 - 1. CONTRACTOR has investigated proposed substitution, and determined that it is equal to or superior in all respects to the product, manufacturer or method specified.
 - 2. CONTRACTOR will provide the same or better guarantees or warranties for proposed substitution as for product, manufacturer or method specified.
 - 3. CONTRACTOR waives all claims for additional costs or extension of time related to proposed substitution that subsequently may become apparent.
- D. A proposed substitution will not be accepted if:
 - 1. Acceptance will require changes in the design concept or a substantial revision of the Contract Documents.
 - 2. It will delay completion of the Work, or the work of other contractors.
 - 3. It is indicated or implied on a Shop Drawing and is not accompanied by a formal request for substitution from CONTRACTOR.
- E. If the ENGINEER determines that a proposed substitute is not equal to that specified, CONTRACTOR shall furnish the product, manufacturer or method specified at no additional cost to OWNER.
- F. Approval of a substitution will not relieve CONTRACTOR from the requirement for submission of Shop Drawings as set forth in the Procurement Documents.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01640P

TRANSPORTATION AND HANDLING OF MATERIALS AND EQUIPMENT

PART 1 - GENERAL

1.01 DESCRIPTION

- A. CONTRACTOR shall make all arrangements for transportation, delivery and handling of equipment and materials required for furnishing and delivering the Goods and Services.
- B. Shipments of materials shall be delivered to the Point of Delivery only during regular working hours.
- C. If necessary to move stored materials and equipment, CONTRACTOR shall move, or cause to be moved, materials and equipment without any additional compensation.

1.02 DELIVERY

- A. Arrange deliveries of products in accordance with construction schedules and in ample time to facilitate inspection prior to installation.
- B. Coordinate deliveries to avoid conflict with Work and conditions at Point of Delivery and to accommodate the following:
 - 1. Work of other contractors, or OWNER.
 - 2. Limitations of storage space.
 - 3. Availability of equipment and personnel for handling products.
 - 4. OWNER'S use of premises.
 - 5. Work under other construction projects on OWNER'S site.
- C. Do not have products delivered to Point of Delivery until related Shop Drawings have been approved by the ENGINEER.
- D. Do not have products delivered to Point of Delivery until required storage facilities have been provided.
- E. Have products delivered to Point of Delivery in manufacturer's original, unopened, labeled containers. Keep ENGINEER informed of delivery of all equipment to be incorporated in the Work.
- F. Partial deliveries of component parts of equipment shall be clearly marked to identify the equipment, to permit easy accumulation of parts and to facilitate assembly.
- G. Immediately on delivery, inspect shipment to assure:
 - 1. Product complies with requirements of Contract Documents and reviewed submittals.

2. Quantities are correct.
3. Containers and packages are intact, labels are legible.
4. Products are properly protected and undamaged.

1.03 PRODUCT HANDLING

- A. Provide equipment and personnel necessary to handle products by methods to prevent soiling or damage to products or packaging.
- B. Provide additional protection during handling as necessary to prevent scraping, marring or otherwise damaging products or surrounding surfaces.
- C. Handle products by methods to prevent bending or overstressing.
- D. Lift heavy components only at designated lifting points.
- E. Materials and equipment shall at all times be handled in a safe manner and as recommended by manufacturer or supplier so that no damage will occur to them. Do not drop, roll or skid products off delivery vehicles. Hand carry or use suitable materials handling equipment.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01730
INSTALLATION DATA

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Installation data is defined as written instruction; drawings; illustrative, wiring and schematic diagrams; diagrams identifying external connections, terminal block numbers and internal wiring; and all other such information pertaining to the location of materials and equipment that is not furnished with Shop Drawings. Included are all printed manufacturers installation instructions, including those that may be attached to equipment and for which review by the ENGINEER is not required.

1.02 SUBMITTAL

- A. CONTRACTOR shall submit two copies of all such data to the ENGINEER for each piece of equipment which he furnished and for all other construction products for which such information is available from the manufacturer. Data shall be acceptably identified and accompanied with a letter of transmittal.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01781P

OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Provide operation and maintenance data in the form of instructional manuals for use by the OWNER'S personnel for:
 - 1. All equipment and systems furnished under this Contract.
 - 2. All valves, gates and related accessories furnished under this Contract.
 - 3. All instruments and control devices furnished under this Contract.
 - 4. All electrical gear.
- B. Definitions:
 - 1. Operation and Maintenance Data:
 - a. The term "operation and maintenance data" includes all product related information and documents which are required for preparation of the plant operation and maintenance manual. It also includes all data which must accompany said manual as directed by current regulations of any participating government agency.
 - b. Required operation and maintenance data includes, but is not limited to, the following:
 - 1) Complete, detailed written operating instruction for each product or piece of equipment including: equipment function; operating characteristics; limiting conditions; operating instructions for startup, normal and emergency conditions; regulation and control; and shutdown.
 - 2) Complete, detailed written preventive maintenance instructions as defined below.
 - 3) Recommended spare parts lists and local sources of supply for parts.
 - 4) Written explanations of all safety considerations relating to operation and maintenance procedures.
 - 5) Name, address and phone number of manufacturer, manufacturer's local service representative, and Subcontractor or installer.
 - 6) Copy of all approved Shop Drawings, and copy of warranty bond and service contract as applicable.
 - 2. Preventive Maintenance Instructions:
 - a. The term "preventive maintenance instructions" includes all information and instructions required to keep a product or piece of equipment properly lubricated, adjusted and maintained so that the item functions economically throughout its full design life.

- b. Preventive maintenance instructions include, but are not limited to, the following:
 - 1) A written explanation with illustrations for each preventive maintenance task.
 - 2) Recommended schedule for execution of preventive maintenance tasks.
 - 3) Lubrication charts.
 - 4) Table of alternative lubricants.
 - 5) Trouble shooting instructions.
 - 6) List of required maintenance tools and equipment.

C. Submittals:

- 1. General: Submit operations and maintenance data to the CONSULTING ENGINEER within 90 days after approval of Shop Drawings.
- 2. Number of copies: Six of each item.
- 3. Letter of Transmittal: Provide a letter of transmittal with each submittal and include the following in the letter:
 - a. Date of submittal.
 - b. Contract title and number.
 - c. CONTRACTOR'S name and address.
 - d. A list of the attachments and the Specification Sections to which they relate.
 - e. Reference to or explanation of related submittals already made or to be made at a future date
- 4. Format Requirements:
 - a. Use 8½ inch by 11 inch paper of high rag content and quality. Larger drawings or illustrations are acceptable if neatly folded to the specified size in a manner which will permit easy unfolding without removal from the finder. Provide reinforced punched binder tab. Or provide fly-leaf for each product.
 - b. All text must be legible typewritten or machine printed originals or high quality copies of same.
 - c. Each page shall have a binding margin of approximately 1½ inches and be punched for placement in a three ring loose leaf or triple post binder. Provide binders. Identify each binder with the following:
 - 1) Title "OPERATING AND MAINTENANCE INSTRUCTIONS".
 - 2) Title of project.
 - 3) Identity of building or structure as applicable.
 - 4) Identity of general subject matter covered.
 - d. Use dividers and indexed tabs between major categories of information such as operating instructions, preventive maintenance instructions, or other. When necessary, place each major category in a separate binder.
 - e. Provide a table of contents for each binder.
 - f. Identify products by their functional names in the table of contents and at least once in each chapter or section. Thereafter, abbreviations

and acronyms may be used if their meaning is explained in a table in the back of each binder. Use of model or catalog numbers or letters for identification is not acceptable.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

DIVISION 2

PROCUREMENT SPECIFICATIONS BY CATEGORY NUMBER

ERIE COUNTY WATER AUTHORITY

TABLE OF CONTENTS

CATEGORY 1. TAPPING SLEEVES

CATEGORY 2. TAPPING VALVES

CATEGORY 3. TAPPING SADDLES

CATEGORY 4. VALVE BOXES

CATEGORY 5. REDUCERS

5.A – DUCTILE IRON MECHANICAL JOINT REDUCERS

5.B – DUCTILE IRON FLANGED REDUCERS

5.C – FLANGE FILLERS, BLIND FLANGES, AND COMPANION FLANGES

CATEGORY 6. CURB BOXES, AND ROADWAY BOXES

CATEGORY 7. VALVES

7.A GATE VALVES:

7.A.1 – GATE VALVES, FLANGED AND SCREWED

7.A.2 – RESILIENT SEAT GATE VALVES - AWWA 509

7.A.3 – RESILIENT SEAT GATE VALVES - AWWA 515

7.B BUTTERFLY VALVES:

7.B.1 – BUTTERFLY VALVES - BURIED

7.B.2 – BUTTERFLY VALVES - EXPOSED

7.C – AIR RELEASE VALVES

7.D – COMBO AIR VACUUM VALVES

7.E – SWING CHECK VALVES - EXPOSED

CATEGORY 8. BRONZE SERVICE SADDLES

CATEGORY 9. CAPS AND PLUGS

CATEGORY 10. HYDRANTS

CATEGORY 11. TEES

11.A – DUCTILE IRON MECHANICAL JOINT TEES

11.B – DUCTILE IRON FLANGED TEES

CATEGORY 12. PIPE

12.A DUCTILE IRON PIPE:

12.A.1 – MECHANICAL JOINT D.I. PIPE

12.A.2 – PUSH-ON D.I. PIPE

12.A.3 – FLEX RESTRAINED JOINT D.I. PIPE

12.A.4 – FLANGED D.I. PIPE

12.B – PVC PIPE

CATEGORY 13. RETAINERS, AND ANCHOR COUPLINGS

13.A – MECHANICAL JOINT RESTRAINT – D.I., AND PVC

13.B – BELL JOINT RESTRAINT

13.C – ANCHOR COUPLINGS

CATEGORY 14. DUCTILE IRON BENDS

14.A – DUCTILE IRON MECHANICAL JOINT BENDS

14.B – DUCTILE IRON FLANGED BENDS

CATEGORY 15. SOLID SLEEVES

CATEGORY 20. MISCELLANEOUS PLUMBING MATERIALS – BRASS AND C.I.

- 20.A – SQUARE HEAD PLUGS
- 20.B – SMALL DIAMETER REPAIR CLAMPS
- 20.C – RESTRAINED FLANGE ADAPTERS
- 20.D – FLANGED COUPLING ADAPTERS
- 20.E – SLEEVE TYPE FLEXIBLE COUPLINGS
- 20.F – JOINT CLAMPS
- 20.G – COMPRESSION COUPLINGS
- 20.H – RESTRAINED COUPLINGS
- 20.I – REPAIR SADDLES - PCCP
- 20.J – HYMAX COUPLINGS
- 20.K – PRESTRESSED CONCRETE CYLINDRICAL PIPE

CATEGORY 21. REPAIR CLAMPS

CATEGORY 23. SERVICE REPAIR AND CONNECTION

- 23.A – SERVICE FITTINGS
- 23.B – CORPORATION STOPS
- 23.C – CURB STOPS

CATEGORY 24. SERVICE SADDLES

- 24.A – SERVICE SADDLES – D.I., A.C.P., AND PVC
- 24.B – SERVICE SADDLES - PCCP

CATEGORY 27. DUCTILE IRON OFFSETS

CATEGORY 29. METER COUPLINGS – SEWER MATERIALS

- 29.A – METER COUPLINGS
- 29.B – METER BOX LIDS, AND RINGS
- 29.C – PVC SEWER PIPE, AND FITTINGS
- 29.D – HDPE CORRUGATED UNDERDRAIN - SEWER
- 29.E – HDPE DRAIN PIPE - SEWER
- 29.F – CORRUGATED STEEL PIPE, AND FITTINGS
- 29.G – FLEXIBLE COUPLINGS

CATEGORY 31. COPPER TUBING

CATEGORY 36. NUTS, BOLTS, AND SOCKET CLAMPS

- 36.A – NUTS AND BOLTS
- 36.B – THREADED RODS AND ACCESSORIES

CATEGORY 45. PCCP ADAPTERS

CATEGORY 1

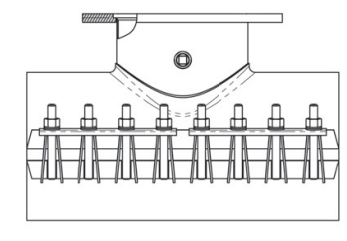
TAPPING SLEEVES

**Erie County Water Authority**

3030 Union Road
Cheektowaga NY 14227
Tel 716-684-1510
FAX 716-684-3937

PRODUCT SPECIFICATIONS**TAPPING SLEEVES****Minimum Requirements:****TAPPING SLEEVES:**

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Shall meet or exceed AWWA C223, latest revision.
- TAPPING SLEEVES SHALL BE USED FOR CONNECTIONS LARGER THAN 2-INCHES AND SHALL BE CONSTRUCTED OF 18-8 TYPE 304 STAINLESS STEEL.
- ALL BOLTS AND NUTS SHALL BE 18-8 TYPE 304 STAINLESS STEEL WITH HEAVY HEX NUTS TO BE FLOUROCARBON COATED TO PREVENT GALLING.
- TAPPING SLEEVES SHALL BE DESIGNED AND SIZED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER.
- THE SLEEVE SHALL BE FABRICATED IN TWO HALVES, FOR ASSEMBLY AROUND THE WATER MAIN BY MEANS OF BOLTS AND GASKETS TO FORM A WATERTIGHT SEAL. BOLTS SHALL BE REMOVABLE AND GASKET SHALL BE A 360 DEGREE GRIDDED TYPE TO RESIST OIL, ALKALIES, AND SUITABLE FOR WATER SERVICE.
- Gaskets shall have restraints incorporated into the sleeve.
- A test plug shall be provided on the outlet throat.
- Shall be recessed for a tapping valve.
- Recess dimensions shall comply with MSS- SP 60, latest revision.
- Shall have a flat-faced flange. THE FLANGE SHALL BE 18-8 TYPE 304 STAINLESS STEEL, THE OUTLET SIDE SHALL COFORM TO AWWA C-207 (ANSI B16.1, CLASS125), 150 LB DRILLING, FOR ATTACHMENT TO STANDARD TAPPING VALVES. 18-8 TYPE 304 STAINLESS STEEL FLANGE BOLTS AND FLANGE GASKET SHALL BE SUPPLIED WITH TAPPING SLEEVE.

Stainless Steel**PRE-APPROVED MANUFACTURERS:****TAPPING SLEEVES FOR TAPPING DUCTILE IRON, PVC, OR ACP PIPE**

- MUELLER, MODEL #304,
 - FORD STYLE FTSS,
 - SMITH BLAIR 665,
 - TOTAL PIPING SOLUTIONS, TRIPLE TAP
- NO SUBSTITUTIONS ALLOWED.

Date: September 20, 2021

Sheet Number

1 of 1

CATEGORY 2

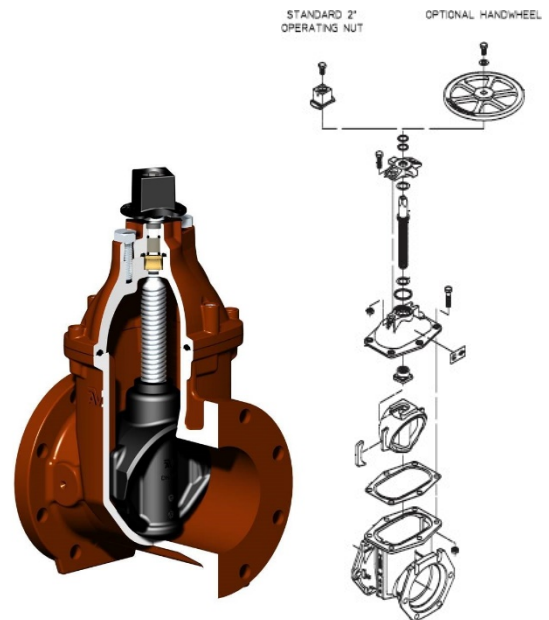
TAPPING VALVES

**Erie County Water Authority**

3030 Union Road
Cheektowaga NY 14227
Tel 716-684-1510
FAX 716-684-3937

PRODUCT SPECIFICATIONS**TAPPING VALVES****Minimum Requirements:**

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Resilient wedge line valves shall meet or exceed AWWA C509 (latest revision) or AWWA C515, latest revisions.
- Valves shall meet or exceed AWWA C550, latest revision.
- Shall be the resilient seat type, with a non-rising stem, opening left (counterclockwise).
- No leakage will be allowed or permitted.
- Body material shall be cast or ductile iron meeting or exceeding ASTM A126 (latest revision) or A536, latest revision.
- Wedge material shall be cast or ductile iron, fully encapsulated.
- Stuffing box and operating nut material shall be cast or ductile iron meeting or exceeding ASTM A126 (latest revision) or A536, latest revision.
- Hex head nuts and bolts material shall be stainless steel (Type 304 minimum).
- Valve disc shall be contoured to assure uniform seating.
- Both ends shall be mechanical joint meeting ANSI/ AWWA A21.11/C111, latest revision.
- Pressure rating shall be 250 psi, minimum.
- Shall have a two-inch (2") square operating nut.
- Resilient seat and other rubber tight parts shall be formed of synthetic elastomer which is corrosion resistant.
- The end flange of the tapping valve shall mate with the flange of the tapping sleeve and conform to AWWA C-207 (ANSI B16.1, class 125), 150 lb. drilling and to the dimensions of MSS SP-60. The other end of the tapping valve shall be mechanical joint, unless otherwise specified.
- Except where otherwise specified, interior and exterior ferrous surfaces, exclusive of stainless-steel surfaces, in all valves four (4)-inch and larger shall be coated with two-part thermosetting epoxy coating or fusion bonded epoxy coating. Flange faces of valves shall not be epoxy coated.
- The epoxy shall be suitable for use in potable water.

**PRE-APPROVED MANUFACTURERS:**

- MUELLER, # 2360/2361
- KENNEDY, # 8950
- OR APPROVED EQUAL

Date: September 20, 2021

CATEGORY 3

TAPPING SADDLES

**Erie County Water Authority**

3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS
**TAPPING SADDLE FOR
 PRESTRESSED CONCRETE
 CYLINDER PIPE**
Minimum Requirements:

- Tapping Saddles for Prestressed Concrete Cylinder Pipe shall be in accordance with AWWA Manual M-9. They shall also meet ANSI/AWWA C-223, ANSI/AWWA C301, and ANSI/AWWA C-303 pertaining to design, manufacturing quality tests, and welders qualifications.
- Tapping saddle assembly shall consist of tapping saddle, steel bands, rubber gasket, and a separate flanged tapping gland.
- The assembly shall be so designed that the saddle must be installed on the pipe before the prestressing wires can be cut. The gland is to be a separate piece that is installed after the wires are cut and is held against the cylinder by bolting its flange on the saddle. The outlet on the gland shall allow a tapping valve, as specified herein, to be bolted to it.
- Working pressure shall be 150 psi.
- The repair gland shall have a fusion epoxy coated pressure plate and broad gasket set in a retaining groove of the pressure plate which is gusseted to eliminate flexing.
- Tapping Saddle body shall meet or exceed ASTM A36 or A516 GR 70 Steel or equal.
- Gasket material shall be Nitrile Butadiene Rubber (NBR, Buna-N) per ASTM D2000.
- Bolts shall be corrosion resistant, high strength low alloy per ASTM A242 and nuts (per ASTM A563) or equal.
- Tapping Saddle shall have a heavy coat of corrosion resistant shop coat primer on sleeve, gland, and straps.
- Manufacturers shall have minimum ten(10) years experience specializing in the design and manufacture of these type of tapping saddles.

Stainless Steel

**PRE-APPROVED MANUFACTURERS:**

- THOMPSON PIPE GROUP
- OR APPROVED EQUAL

Date: September 20, 2021

CATEGORY 4

VALVE BOXES AND PARTS

**Erie County Water Authority**

3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS**VALVE BOXES & PARTS****Minimum Requirements:**

- Valve boxes shall be high-quality cast-iron castings ASTM A48 (latest revision), suitable for HS-20 loadings.
- VALVE BOX Covers shall be marked "WATER" and shall fit properly in the barrel without movement.
- Valves installed in the ground shall be equipped with an adjustable screw type valve box, minimum 1 foot adjustment.
- The valve box shall have a barrel with a base to fit the valve on which it is to be installed.
- Valve boxes for gate valves shall be three-piece screw type, 5-1/4" shaft with no. 6 base and valve box cover.
- Valve boxes for butterfly valves shall be two-piece screw type, 5-1/4" shaft, with integrated base and valve box cover.
- All valve box parts must be compatible and interchangeable with Buffalo Pipe and Foundry Corp. Valve boxes.

**PRE-APPROVED MANUFACTURERS:**

- BINGHAM & TAYLOR
- BIBBY-LAPERLE, (FIGURE V619 FOR GATE, V 652 FOR BUTTERFLY VALVES),
- TYLER UNION – A DIVISION OF MCWANE, INC. (6860 FOR GATE, 6850 FOR BUTTERFLY VALVES),
- SIGMA,
- OR APPROVED EQUAL.

Date: September 20, 2021

CATEGORY 5

REDUCERS – D.I. MECHANICAL JOINT,
D.I. FLANGED, AND FLANGED FILLERS



Erie County Water Authority
 3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS

DUCTILE IRON MECHANICAL JOINT REDUCERS

Minimum Requirements:

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Reducers shall be mechanical joint ductile iron compact body and shall meet or exceed AWWA/ANSI C153/A21.53 (latest revision) or C110/A21.1, latest revision.
- Joints shall meet or exceed AWWA/ANSI C111/ A21.11, latest revision.
- Fitting body material shall be ductile iron meeting or exceeding ASTM 536, latest revision.
- Pressure classification shall be 350, minimum.
- Working pressure shall be 150 psi, minimum.
- Mechanical or push-on joints shall be the rubber gasket compression type.
- Potable water main and fittings shall be cement lined and seal coated which shall meet or exceed AWWA/ANSI C104/A21.4, latest revision, except it shall be double thickness and a bituminous seal coat meeting NSF/ANSI Standard 61.
- Buried pipe and fittings shall be provided with an exterior bituminous coating in accordance with AWWA C151.
- Reducers shall be concentric or eccentric where specified
- Fittings may be lined with an NSF/ANSI Standard 61 approved fusion bonded epoxy meeting the applicable sections of AWWA C116.
- Fittings shall be suitable for use with polyvinyl chloride pressure pipe.



PRE-APPROVED MANUFACTURERS:

- AMERICAN CAST IRON PIPE COMPANY,
- CLOW WATER SYSTEMS COMPANY, A DIVISION OF MCWANE, INC.,
- GRIFFIN PIPE PRODUCTS COMPANY,
- SIGMA CORPORATION,
- STAR PIPE PRODUCTS, INC.,
- TYLER, A DIVISION OF MCWANE, INC.,
- UNITED STATES PIPE AND FOUNDRY COMPANY.
- OR APPROVED EQUAL.

Date: September 20, 2021

Sheet Number

1 of 1

**Erie County Water Authority**

3030 Union Road
Cheektowaga NY 14227
Tel 716-684-1510
FAX 716-684-3937

PRODUCT SPECIFICATIONS**DUCTILE IRON FLANGED REDUCERS****Minimum Requirements:**

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Reducers shall be flanged ductile iron in accordance with the requirements of AWWA C110 and shall conform to ANSI A21.10, 250 psi rating.
- Material shall be ductile iron and shall meet or exceed ASTM A536, latest revision.
- Pressure classification shall be 350, minimum.
- Working pressure shall be 150 psi, minimum.
- Mechanical or push-on joints shall be the rubber gasket compression type.
- Potable water main and fittings shall be cement lined and seal coated which shall meet or exceed AWWA/ANSI C104/A21.4, latest revision, except it shall be double thickness and a bituminous seal coat meeting NSF/ANSI Standard 61.
- Buried pipe and fittings shall be provided with an exterior bituminous coating in accordance with AWWA C151.
- Reducers shall be concentric or eccentric where specified.
- Fittings may be lined with an NSF/ANSI Standard 61 approved fusion bonded epoxy meeting the applicable sections of AWWA C116.
- Bonded joints may be required in areas where the ENGINEER has evaluated soil conditions and has recommended that corrosion protection is required at locations as shown on the drawings. The pipe manufacturer shall supply all joint bonding materials, including #4 AWG stranded insulated copper wire bonding jumpers.
- Flanged joints shall conform to the requirements of AWWA C110 and drilling and facing of flanges shall be in accordance with ANSI B16.1 Class 125 flanges unless otherwise specified.
- Flanged ductile iron fittings shall be furnished complete with all necessary joint accessories consisting of natural or synthetic rubber gaskets, 1/8-inch thick, full face; and, nuts, bolts, and washers, unless otherwise specified.
- All nuts, bolts and washers for flanges and accessories shall conform to ANSI B18.2.1 and ANSI B18.2.2, respectively and shall be Type 304 stainless steel, high strength, low alloy steel or fluorocarbon coated as specified herein.

**PRE-APPROVED MANUFACTURERS:**

- AMERICAN CAST IRON PIPE COMPANY,
- CLOW WATER SYSTEMS COMPANY, A DIVISION OF MCWANE, INC.,
- GRIFFIN,
- SIGMA CORPORATION,
- TYLER PIPE, A DIVISION OF MCWANE, INC.,
- UNION FOUNDRY COMPANY, A DIVISION OF MCWANE, INC.
- UNITED STATES PIPE AND FOUNDRY COMPANY.
- OR APPROVED EQUAL.

Date: September 20, 2021

Sheet Number

1 of 1



Erie County Water Authority
 3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS

FLANGE FILLERS, BLIND FLANGES, & REDUCING COMPANION FLANGES

Minimum Requirements:

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Flange Fillers, Blind Flanges and Reducing Companion Flanges shall conform to the requirements of AWWA C115 for material, dimensions, tolerance, tests, markings, and other requirements.
- Drilling and facing of flanges shall be in accordance with ANSI B16.1, Class 125 flanges unless otherwise specified.
- Flanged fillers, blind flanges and reducing companion flanges shall be furnished complete with all necessary joint accessories consisting of natural or synthetic rubber gaskets, 1/8-inch thick, full face; and, nuts, bolts and washers, unless otherwise specified.
- Threaded outlets or taps, (Mueller threads), shall be provided in blind flanges as specified or required.
- All nuts, bolts and washers for flanges and accessories shall conform to ANSI B18.2.1 and ANSI B18.2.2, respectively and shall be Type 304 stainless steel, high strength, low alloy steel.



PRE-APPROVED MANUFACTURERS:

- AMERICAN CAST IRON PIPE COMPANY,
- CLOW WATER SYSTEMS COMPANY, A DIVISION OF MCWANE, INC.,
- GRIFFIN PIPE PRODUCTS COMPANY,
- SIGMA CORPORATION,
- STAR PIPE PRODUCTS, INC.,
- TYLER, A DIVISION OF MCWANE, INC.,
- UNITED STATES PIPE AND FOUNDRY COMPANY
- OR APPROVED EQUAL.

Date: September 20, 2021

CATEGORY 6

CURB BOX AND ROADWAY BOX PARTS

**Erie County Water Authority**

3030 Union Road
Cheektowaga NY 14227
Tel 716-684-1510
FAX 716-684-3937

PRODUCT SPECIFICATIONS**CURB BOXES,
ROADWAY BOXES, &
PARTS****Minimum Requirements:**

- Curb and roadway boxes shall be high-quality cast-iron castings ASTM A48 (latest revision), suitable for HS-20 loadings, extension, adjustable screw type.
- Boxes shall be two-piece adjustable depth with arch pattern base. An extension stem will not be allowed.
- Valve box covers shall be marked "water" and shall be cast iron with a brass pentagon plug.

**PRE-APPROVED MANUFACTURERS:**

- BIBBY-LAPERLE:
 - FOR $\frac{3}{4}$ -INCH AND 1-INCH; 2-1/2-INCH SHAFT: V-009, SIZE 95E,
 - FOR 1-1/2-INCH AND 2-INCH; 4-1/2-INCH SHAFT: V-425, SIZE 145R,
- HAYS,
- MUELLER,
- CLOW - A DIVISION OF MCWANE, INC.,
- TYLER – A DIVISION OF MCWANE, INC.
- TRUMBULL – REPAIR LIDS

Date: September 20, 2021

CATEGORY 7

VALVES - GATE, BUTTERFLY, AIR RELEASE,
COMBINATION AIR/VACUUM,
AND SWING CHECK



Erie County Water Authority
 3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS

GATE VALVES, FLANGED, AND SCREWED

Minimum Requirements:

2-1/2 INCHES IN DIAMETER AND SMALLER:

- Valves shall be bronze screwed ends, solid wedge, rising stem, screwed bonnet type with screwed ends suitable for 150 psi service.

3-INCH DIAMETER AND LARGER:

- Valves shall be iron body, bronze mounted, rising stem and in conformance with AWWA C-500
- Unless otherwise shown or specified exposed valves shall have flanged ends conforming to ANSI B16.1, class 125 conforming to ANSI A21.11.
- Exposed manually operated gate valve shall be equipped with hand wheels. Gate valves located more than five feet above the operating floor shall be provided with chainwheels, sprockets, and aluminum chain. The chain shall extend to three feet above the operating floor.



PRE-APPROVED MANUFACTURERS:

2-1/2 INCHES DIAMETER AND SMALLER: PRODUCT AND MANUFACTURER: PROVIDE ONE OF THE FOLLOWING:

- FIG. 49-U, AS MANUFACTURED BY JENKINS BROTHERS,
- WATTS – WGV,
- NIBCO,
- LEGEND,
- OR APPROVED EQUAL

3-INCH DIAMETER AND LARGER: PROVIDE GATE VALVES OF ONE OF THE FOLLOWING:

- MUELLER COMPANY,
- DRESSER MANUFACTURING DIVISION, M&H DIVISION
- OR APPROVED EQUAL.

Date: September 20, 2021

**Erie County Water Authority**

3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS

RESILIENT SEAT GATE VALVES – AWWA C509 (CAST IRON)

Minimum Requirements:

- Shall meet or exceed ANSI/NSF 61, latest revision.
- The design working pressure and test pressure for all valve sizes shall meet or exceed AWWA C509 (latest revision), and material conforming to C509. All valves shall be designed to operate vertically in a horizontal pipeline.
- Valves shall meet or exceed AWWA C550, latest revision. The valve disc shall be fully encapsulated with synthetic elastomer and shall seat against a corrosion-resistant surface.
- Valves for buried applications shall have mechanical joint ends meeting ANSI/ AWWA A21.11/C111, latest revision, and be restrained by use of mechanical joint wedge action retainer gland to resist movement.
- All bolts and nuts, including bonnet assembly and seal plate hold-down, shall be fluorocarbon coated, high strength, corrosion resistant low alloy steel.
- Valves for exposed applications shall have flanged ends conforming to ANSI B16.1, Class 125 conforming to ANSI A21.11.
- Shall be the resilient seat type, with a non-rising stem, opening left (counterclockwise).
- No leakage will be allowed or permitted.
- The body, bonnet, seal plate, disc and hub nut material shall be cast iron meeting or exceeding ASTM A126 (latest revision) or A536, latest revision.
- Wedge material shall be cast or ductile iron-
- Stuffing box and operating nut material shall be cast iron meeting or exceeding ASTM A126 (latest revision) or A536, latest revision.
- Non-rising valve stem, stem nuts, glands and bushing material shall be bronze meeting or exceeding ASTM B62 (latest revision) or stainless steel (Type 304 minimum).
- Shaft "O"-ring seals shall be synthetic rubber or Buna-N and shall be capable of being replaced under pressure.
- All internal parts shall be accessible without removing the main body from the pressurized line.
- Valve disc shall be contoured to assure uniform seating.
- Pressure rating shall be 250 psi, minimum.

**PRE-APPROVED MANUFACTURERS:**

- KENNEDY VALVE COMPANY, FS-FW
- MUELLER, 2360-16
- CLOW, 2640
- NO SUBSTITUTIONS ALLOWED

Date: September 20, 2021

Sheet Number

1 of 2



Erie County Water Authority
 3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS
RESILIENT SEAT GATE VALVES –
AWWA C509
(CAST IRON)

Minimum Requirements:

- Operator shall be suitable for buried service.
- Operators shall be specified in AWWA C509 for submerged, buried, or in-plant service as specified.
- Operators shall be equipped with a two-inch (2") square operating nut and shall be full gasketed and grease packed for buried service. Operating nuts shall turn clockwise to close valve. A cast arrow showing the direction of valve opening shall be supplied.
- Resilient seat and other rubber tight parts shall be formed of synthetic elastomer which is corrosion resistant.
- Except where otherwise specified, interior and exterior ferrous surfaces, exclusive of stainless-steel surfaces, in all valves four (4)-inch and larger shall be coated with two-part thermosetting epoxy coating or fusion bonded epoxy coating. Flange faces of valves shall not be epoxy coated.
 The epoxy shall be suitable for use in potable water.



PRE-APPROVED MANUFACTURERS:

- KENNEDY VALVE COMPANY, FS-FW
- MUELLER, 2360-16
- CLOW, 2640
- NO SUBSTITUTIONS ALLOWED

Date: September 20, 2021

Sheet Number

2 of 2

**Erie County Water Authority**

3030 Union Road
Cheektowaga NY 14227
Tel 716-684-1510
FAX 716-684-3937

PRODUCT SPECIFICATIONS**RESILIENT SEAT GATE VALVES –
AWWA C515 (DUCTILE IRON)****Minimum Requirements:**

- Shall meet or exceed ANSI/NSF 61, latest revision.
- The design working pressure and test pressure for all valve sizes shall meet or exceed AWWA C515 (latest revision), and material conforming to C515. All valves shall be designed to operate vertically in a horizontal pipeline.
- Pressure rating shall be 250 psi, minimum.
- Valves shall meet or exceed AWWA C550, latest revision. The valve disc shall be fully encapsulated with synthetic elastomer and shall seat against a corrosion- resistant surface.
- Valves for buried applications shall have mechanical joint ends meeting ANSI/ AWWA A21.11/C111, latest revision, and be restrained by use of mechanical joint wedge action retainer gland to resist movement.
- All bolts and nuts, including bonnet assembly and seal plate hold-down, shall be fluorocarbon coated, high strength, corrosion resistant low alloy steel.
- Valves for exposed applications shall have flanged ends conforming to ANSI B16.1, Class 125 conforming to ANSI A21.11.
- Shall be the resilient seat type, with a non-rising stem, opening left (counterclockwise).
- No leakage will be allowed or permitted.
- The body, bonnet, seal plate, disc and hub nut material shall be ductile iron meeting or exceeding A536, (latest revision).
- Wedge material shall be cast or ductile iron.
- Stuffing box and operating nut material shall be cast or ductile iron meeting or exceeding A536, (latest revision).
- Non-rising valve stem, stem nuts, glands and bushing material shall be bronze meeting or exceeding ASTM B62 (latest revision) or stainless steel (Type 304 minimum).
- Shaft "O"-ring seals shall be synthetic rubber or Buna-N and shall be capable of being replaced under pressure.
- All internal parts shall be accessible without removing the main body from the pressurized line.
- Valve disc shall be contoured to assure uniform seating.

**PRE-APPROVED MANUFACTURERS:**

- MUELLER RESILIENT WEDGE (A-2361)
- AMERICAN FLOW CONTROL – 2500 SERIES
- KENNEDY VALVE COMPANY, MODEL FS-RW
- NO SUBSTITUTIONS ALLOWED

Date: September 20, 2021

Sheet Number

1 of 2



Erie County Water Authority
 3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS

RESILIENT SEAT GATE VALVES – AWWA C515 (DUCTILE IRON)

Minimum Requirements:

- Operator shall be suitable for buried service.
- Operators shall be specified in AWWA C515 for submerged, buried, or in-plant service as specified.
- Operators shall be equipped with a two-inch (2") square operating nut and shall be full gasketed and grease packed for buried service. Operating nuts shall turn clockwise to close valve. A cast arrow showing the direction of valve opening shall be supplied.
- Resilient seat and other rubber tight parts shall be formed of synthetic elastomer which is corrosion resistant.
- Except where otherwise specified, interior and exterior ferrous surfaces, exclusive of stainless-steel surfaces, in all valves four (4)-inch and larger shall be coated with two-part thermosetting epoxy coating or fusion bonded epoxy coating. Flange faces of valves shall not be epoxy coated.
 The epoxy shall be suitable for use in potable water.



PRE-APPROVED MANUFACTURERS:

- MUELLER RESILIENT WEDGE (A-2361)
- AMERICAN FLOW CONTROL – 2500 SERIES
- KENNEDY VALVE COMPANY, MODEL FS-RW
- NO SUBSTITUTIONS ALLOWED

Date: September 20, 2021

**Erie County Water Authority**

3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS**BUTTERFLY VALVES - 12" AND LARGER (FOR BURIED SERVICE)****Minimum Requirements:**

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Butterfly valves shall be short-body design conforming to meet or exceed AWWA C-504, Class 150B, latest revision, and shall have mechanical joint ends for buried applications as specified.
- Valves for buried applications shall have mechanical joint ends and be restrained by use of a mechanical joint wedge action retainer gland.
- Valves shall be tight closing, rubber seat type with recessed rubber seat securely mounted to the valve body.
- All other bolts, nuts, and studs shall, unless otherwise approved, be fluorocarbon coated. Bolts shall have hexagon heads and nuts.
- Gasket material and installation shall conform to the manufacturer's recommendations.
- Identification: Identify each valve with a brass (no lead brass) or stainless-steel nameplate stamped with the approved designation. Nameplate shall be permanently fastened to the valve body at the factory.
- All butterfly valves and their operators shall be designed for buried and submerged conditions and shall open counterclockwise.
- Body shall be cast iron meeting or exceeding ASTM A126 (latest revision), with integrally cast shaft bearings and hubs. Flanged ends shall conform to ANSI B16.1 and match existing.
- Shaft, nuts, screws, and hardware material shall be stainless steel (Type 304 minimum).
- For valves sizes of 12" through 20" diameter valve shafts shall be solid one-piece design through the valve with factory set thruster(s) to center the disc in the seat.
- For valves larger than 24" in diameter Shafts shall be stub-shafts rigidly keyed to the disc, with an adjustable thrust bearing to center the valve disc.
- Discs shall be of one-piece design, cast iron or ductile with a Type 316 stainless steel seating edge with demonstrated test results of 100,00 cycles of drip tight capability. Valve disc shall be rigidly attached to the shaft to eliminate any relative motion.
- Shaft shall be offset from the disc and body seats so that they do not intersect.



GroundhogValvewithMechanical
Joint Ends

PRE-APPROVED MANUFACTURERS:

- HENRY PRATT CO, GROUNDHOG, FOR BURIED SERVICE,
- DEZURICK,
- VAL-MATIC
- NO SUBSTITUTIONS ALLOWED.

Date: May 9, 2018

Sheet Number

1 of 2

**Erie County Water Authority**

3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS**BUTTERFLY VALVES - 12" AND LARGER (FOR BURIED SERVICE)****Minimum Requirements:**

- Valve seats shall be synthetic rubber. Rubber seats shall be bonded to the valve body. The seat bond must withstand a 75-pound pull under test procedure ASTM D429, Method B.
- Valve bearings shall be as specified in Sect. 3, AWWA C504. The shaft bearings shall be Teflon or Teflon lined/fiberglass backed.
- Valve shaft packing shall be non-metallic, split-V self-compensating Chevron style.
- Operators shall turn clockwise to close the valve.
- Operators shall be permanently lubricated and totally enclosed and be provided with a 2-inch square nut, as specified. Buried service valves shall have a 2" operating nut.
- Operators shall be equipped with a totally enclosed permanently lubricated lever-traveling nut drive, self-locking type and shall be designed to hold the valve in any intermediate position between "fully open" and "fully closed" without creeping or fluttering.
- Operators shall be equipped with adjustable stop-limiting devices to prevent over travel of the disc in the open and closed positions. Stops shall be located within the operator housing and be capable of absorbing the full operator torque with minimum safety factor of 5.
- Operator housing supports and connections to the valve shall have provisions for four-bolt mounting.
- Operator components shall withstand an input torque of 450 foot-pounds at the extreme operator positions without damage.
- Enclosed lever-traveling nut operators shall have a gear ratio designed not to exceed 80 pounds pull to meet the required operator torque.
- Operators shall be one size larger than the minimum specified by the manufacturer.
- Except where otherwise specified, interior and exterior ferrous surfaces, exclusive of stainless-steel surfaces, in all valves shall be coated with two-part thermosetting epoxy coating or fusion bonded epoxy coating. Flange faces of valves shall not be epoxy coated.
- The epoxy shall be suitable for use in potable water.



Groundhog Valve with Mechanical
Joint Ends

PRE-APPROVED MANUFACTURERS:

- HENRY PRATT CO, GROUNDHOG, FOR BURIED SERVICE,
- DEZURICK,
- VAL-MATIC
- NO SUBSTITUTIONS ALLOWED

Date: May 9, 2018

**Erie County Water Authority**

3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS**BUTTERFLY VALVES - 4" AND LARGER (EXPOSED SERVICE)****Minimum Requirements:**

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Butterfly valves shall conform to AWWA C-504, Class 150B, latest revision, and shall have flanged ends for exposed service as specified.
- Rated Working Pressure: Up to 250 psi
- Valves shall provide drip-tight bi-directional shut-off at the rated pressures.
- Valve seats shall be mounted in the valve body. Seats shall be replaceable without requiring removal of valve from service and without dismantling operator disc or shaft.
- Valves shall be capable of being maintained in the open or partially open position for manual operation or for automatic operation. When the disc is maintained, there shall be no chatter or vibration of the disc or operating mechanism.
- Shaft seals shall be replaceable without dismantling the valve.
- Each taper pin shall extend through or shall wedge against the side of the shaft and shall be mechanically secured in place.
- Body: ASTM A536 ductile iron
- Shaft: Type 316 stainless steel.
- Discs: ASTM A 536, grade 65-45-12 ductile iron
- Seats: EPDM
- Seating Surfaces: Type 316 stainless steel.
- Bearings: Teflon with 316 Stainless Steel backing
- Shaft Seals: V-type, self-adjusting, material same as for seats.
- Tapered Pins for Attachment of Shaft to Disc: Type 316 stainless steel.
- All internal and external bolting and other hardware; including pins, set screws, studs, bolts, nuts and washers shall be Type 316 stainless steel.
- All valves shall be coated inside. The steel, cast-iron and ductile iron surfaces, except machined surfaces, shall be epoxy coated in accordance with AWWA C550.
- Provide gear actuators conforming to AWWA C504
- Valves shall be equipped with an enclosed worm gear drive and handwheel.
- Enclosed worm gear operators shall have a gear ratio designed not to exceed 300 foot-pounds pull to meet the required operator torque.

**Pratt HP250II Butterfly Valve****PRE-APPROVED MANUFACTURERS:**

- HENRY PRATT CO, AWWA Rubber Seated Butterfly Valve (HP 250II),
- DEZURIK, AWWA Butterfly Valve (BAW)
- GA INDUSTRIES (Figure 804)
- NO SUBSTITUTIONS ALLOWED

Date: September 20, 2021

Sheet Number

1 of 2

**Erie County Water Authority**

3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS**BUTTERFLY VALVES - 4" AND LARGER (EXPOSED SERVICE)****Minimum Requirements:**

- Gears shall be permanently lubricated and totally enclosed.
- Operators shall be designed to hold the valve disc in any intermediate position without creeping or fluttering.
- Adjustable stops shall be provided to prevent overtravel in either position, to withstand a pull of 200 pounds.
- Stops shall be enclosed within the operator housing and be capable of absorbing the full operator torque with minimum safety factor of 5.
- Valve operator shall be designed to fully close or fully open the valve in a minimum of 30 turns. Valves shall open counter-clockwise, and shall have a position indicator. Manual operators shall be as manufactured by the Philadelphia Gear Corporation, or equal.
- Actuator components shall be fully enclosed and designed to produce the specified torque with a maximum pull on the handwheel of 80 pounds for valves 20 inches and smaller and 200 pounds for valves 24 inches and larger.
- Valve actuator torque capability shall be designed using a maximum differential pressure of 250 psi and a working pressure of 250 psi.

**Pratt HP250II Butterfly Valve****PRE-APPROVED MANUFACTURERS:**

- HENRY PRATT CO, AWWA Rubber Seated Butterfly Valve (HP 250II),
- DEZURIK, AWWA Butterfly Valve (BAW)
- GA INDUSTRIES (Figure 804)
- NO SUBSTITUTIONS ALLOWED

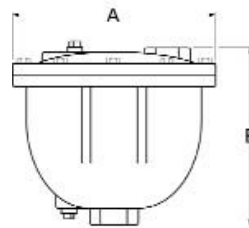
Date: September 20, 2021

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3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS**AIR RELEASE VALVES FOR POTABLE WATER****Minimum Requirements:**

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Shall meet or exceed AWWA C512, latest revision.
- Body, cover, and baffle material shall be cast iron meeting or exceeding ASTM A126 (latest revision).
- Shall have a minimum 3/32" orifice for a minimum working pressure of 150 psi.
- Valve inlet and outlet shall be threaded.
- Exterior surfaces shall be coated with a primer.
- The epoxy shall be suitable for use in potable water.
- Air release valves shall be designed to operate automatically under pressure to release entrapped air from a pipeline, pump, tank or water system. Once the air has been released, the valve shall close and remain closed until reopened by entrapped air. No leakage or process fluid will be permitted.
- All internal valve components shall be stainless steel.
- The air release valve shall be float operated and shall incorporate a compound lever mechanism to enable the valve to automatically release accumulated air from a fluid system that system is pressurized and operating.
- The air release valve shall close drop tight, incorporating an adjustable Buna-N orifice button.
- The float shall be stainless steel and be capable of withstanding a test pressure of 300 psi.
- The linkage/lever mechanism shall be able to be removed from the valve without disassembly of the mechanism and shall be designed to prevent jamming.
- The body and cover shall be cast iron conforming to the requirements of ASTM A126 Class B, and shall be designed to withstand a test pressure of 450 psig.
- Valve interiors and exteriors shall be coated with an NSF/ANSI 61 certified fusion bonded epoxy in accordance with ANSI/AWWA C550.

**PRE-APPROVED MANUFACTURERS:**

- Val-Matic, model #38,
- Or approved equal.

Date: September 20, 2021

**Erie County Water Authority**

3030 Union Road
Cheektowaga NY 14227
Tel 716-684-1510
FAX 716-684-3937

PRODUCT SPECIFICATIONS**COMBINATION AIR VALVES
FOR POTABLE WATER****Minimum Requirements:**

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Shall meet or exceed AWWA C512, latest revision.
- Combination Air Valves shall be automatic float operated valves designed to exhaust large quantities of air during the filling of a piping system and close upon liquid entry. The valve shall open during draining or if a negative pressure occurs. The valve shall also release accumulated air from a piping system while the system is in operation and under pressure. The valve shall perform the functions of both Air Release and Air/Vacuum Valves and furnished as a single body type.
- Dual body valve sizes 3 in. (75 mm) and smaller and single body valve sizes 4 in. (100 mm) and smaller shall have full size NPT inlets and outlets equal to the nominal valve size. The body inlet connection shall be hexagonal for a wrench connection.
- Larger sizes shall have bolted flanged inlets and threaded or flanged outlets. Inlet flanges shall be in accordance with ANSI B16.1 for Class 125 or Class 250 iron flanges and ANSI B16.5 for Class 300 steel flanges.
- The valve shall have two additional NPT connections for the connection to gauges, testing, and draining.
- Valves shall provide a through flow area equal to the nominal size. Floats shall be unconditionally guaranteed against failure including pressure surges. The cover shall be bolted to the body and sealed with a flat gasket. A resilient bumper shall be provided on 4 in. (100 mm) and larger sizes to cushion the float during sudden opening conditions. The resilient seat shall be replaceable and provide drop tight shut off to the full valve pressure rating.
- Air Release Valve shall have a leverage mechanism with sufficient mechanical advantage so that the valve will open under full operating pressure. Simple lever designs shall consist of a single pivot arm and a resilient orifice button. Compound lever designs shall consist of two levers and an adjustable threaded resilient orifice button.
- The Air/Vacuum Valve sizes 4 in. (100 mm) and larger shall have a cover fitted to the valve body by means of a machined register to maintain concentricity between the top and bottom guide bushings at all times. The float shall be double guided with a guide shaft extending through the float to prevent any contact with the body. The float shall be protected against direct water impact by an internal baffle bolted to the cover or integrally cast in the body. The seat shall be a minimum of .5 in. (12 mm) thick on 2 in. (50 mm) and larger valves and secured in such a manner as to prevent distortion. Valves with working pressures above 500 psig (3450 kPa) shall have metal seats with synthetic seals.

**PRE-APPROVED MANUFACTURERS:**

- VAL-MATIC, Model 201C.2 – 204C.15,
- DEZURIK-APCO, Series 140 and 150
- DEZURIK-APCO, ASU
- NO SUBSTITUTIONS ALLOWED

Date: September 20, 2021

Sheet Number

1 of 2

**Erie County Water Authority**

3030 Union Road
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 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS**COMBINATION AIR VALVES
FOR POTABLE WATER****Minimum Requirements:**

- valves shall have an expanded outlet to provide full flow area around the guide mechanism. The valve shall have a double guided plug on 2 in. (50 mm) and larger sizes, and an adjustable threaded orifice button. The plug shall be protected against direct water impact by an internal baffle. On valve sizes 4 in. (100mm) and smaller, the plug shall have a precision orifice drilled through the center stem. On valve sizes 6 in. (150 mm) and larger, air release and air/vacuum mechanisms shall be provided as separate units contained within the same body.
- Valve body and cover shall be constructed of ASTM A126 Class B cast iron for Class 125 and Class 250 valves or 316 stainless steel. Class 300 ductile iron valves shall be constructed of ASTM A536 Grade 65-45-12 ductile iron or 316 stainless steel.
- The float, guide shafts, and bushings shall be constructed of Type 316 stainless steel. Non-metallic floats, linkage, or bushings are not acceptable. Resilient seats shall be Buna-N. Class 300 steel dual body valves shall have a 316 stainless steel seat with Buna-N seal to provide an initial contact to Buna-N with a final metal-to-metal contact to prevent over compression of the resilient seal.
- Valve exteriors, if not stainless steel, shall be coated with an NSF/ANSI 61 certified fusion bonded epoxy in accordance with ANSI/AWWA C550.

**PRE-APPROVED MANUFACTURERS:**

- VAL-MATIC, Model 201C.2 – 204C.15,
- DEZURIK-APCO, Series 140 and 150
- DEZURIK-APCO, ASU
- NO SUBSTITUTIONS ALLOWED

Date: September 20, 2021

**Erie County Water Authority**

3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS**SWING CHECK VALVES - 4" AND LARGER (EXPOSED SERVICE)****Minimum Requirements:**

- Provide valves conforming to AWWA C508
- Type: Flexible Disc Swing
- Connection: Flanged ends conforming to ANSI 16.1, Class 125.
- Rated Working Pressure: Up to 250 psi
- The seating surface shall be on a 45-degree angle to minimize disc travel. A threaded port with pipe plug shall be provided on the bottom of the valve to allow for field installation of a backflow actuator or oil cushion device without special tools or removing the valve from the line.
- Top access port shall be full size and shall allow removal of disc without removing valve from service.
- Valves shall be suitable for horizontal or vertical mounting.
- Check valves shall have a clear waterway with full open area equal to the pipe diameter.
- A threaded port with pipe plug shall be provided in the access cover to allow for field installation of a mechanical, disc position indicator.
- Provide check valves with mechanical position indicator. Shall have continuous contact with disc to ensure accurate readings.
- Valve shall include 120 VAC connection for electronic valve position indication.
- Provide valves with screw type backflow actuator.
- The disc shall be of one-piece construction, precision molded with an integral O-ring type sealing surface and reinforced with alloy steel. The flex portion of the disc contains nylon reinforcement and shall be warranted for twenty-five years. Non-Slam closing characteristics shall be provided through a short 35-degree disc stroke and a disc accelerator to provide a cracking pressure of 0.3 psig.
- Provide disc accelerator to close check valve rapidly during high head conditions
 - Shall be enclosed within the valve and securely held in place between the disc and the valve cover.
 - Shall have large radius to allow for smooth movement.
 - Shall be field adjustable and replaceable without removing valve from line.

**Val-Matic Surgebuster (Series 7200)****PRE-APPROVED MANUFACTURERS:**

- VAL MATIC VALVE AND MANUFAC. CORP., Surgebuster (Series 7200)
- HENRY PRATT CO., (PSI Surge Inhibitor),
- DEZURIK-APCO Rubber Flapper (Series 100)
- NO SUBSTITUTIONS ALLOWED

Date: September 20, 2021

Sheet Number

1 of 2

**Erie County Water Authority**

3030 Union Road
Cheektowaga NY 14227
Tel 716-684-1510
FAX 716-684-3937

PRODUCT SPECIFICATIONS**SWING CHECK VALVES - 4" AND LARGER (EXPOSED SERVICE)****Minimum Requirements:**

- Body and Cover: ASTM A536, Grade 65-45-12 ductile iron
- Disc: One-piece precision molded Buna-N (NBR) disc with 316 stainless steel and nylon reinforcing.
- Disc Accelerator: One-piece construction. Type 302 stainless steel.
- Hinge Shaft: Type 302 stainless steel.
- O-Ring Seal: Shall be integral to the disc and made from same material. Shall provide drop tight seating under low and high pressures.
- Mechanical Position Indicator: 316 Stainless steel
- Screw type backflow actuator: Shaft: 316 stainless steel, Bushing: Bronze, Seals: EPDM. Special tools for ease of operations shall be provided.
- All internal and external bolting and other hardware; including pins, set screws, studs, bolts, nuts and washers shall be Type 316 stainless steel.

**Val-Matic Surgebuster (Series 7200)****PRE-APPROVED MANUFACTURERS:**

- VAL MATIC VALVE AND MANUFAC. CORP., Surgebuster (Series 7200)
- HENRY PRATT CO., (PSI Surge Inhibitor),
- DEZURIK-APCO Rubber Flapper (Series 100)
- NO SUBSTITUTIONS ALLOWED

Date: September 20, 2021

CATEGORY 8

BRONZE SERVICE SADDLES



Erie County Water Authority
 3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS

BRONZE SERVICE SADDLES

Minimum Requirements:

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Shall meet or exceed AWWA C800, latest revision.
- Service saddles for iron, asbestos-cement pipe or Polyvinyl Chloride (PVC) pipe Shall be double strap design.
- Bodies shall be brass alloy conforming to ASTM B62 (85-5-5-5) and a threaded outlet conforming to AWWA C800.
- Straps shall be high quality silicon bronze, flattened to provide a wider bearing surface to the pipe, and shall tighten to conform to the curvature of the pipe.
- Nuts shall be brass alloy per ASTM B62.
- An O-ring gasket confined in a retaining groove shall seal as the straps are tightened (double strap service saddle).
- Gasket shall be Buna-N rubber or EPDM in accordance with ASTM D2000.



PRE-APPROVED MANUFACTURERS:

- A.Y. MCDONALD MFG. CO. (3825)
- FORD, STYLE 202B
- OR APPROVED EQUAL.

Date: September 20, 2021

Sheet Number

1 of 1

CATEGORY 9

CAPS AND PLUGS

**Erie County Water Authority**

3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS**CAPS AND PLUGS****Minimum Requirements:**

- Conform to the requirements of AWWA C110 for material dimensions, tolerance, tests, markings, and other requirements.
- Caps and plugs shall be mechanical joint or push-on joint and be furnished with all necessary joint accessories consisting of ductile iron follower glands, plain tipped rubber gaskets, nuts and bolts, unless otherwise specified.
- All nuts and tee bolts for mechanical joint accessories shall be fluorocarbon coated as specified herein.
- Threaded outlets or taps (Mueller threads), shall be provided in plugs and caps as specified or required.

**PRE-APPROVED MANUFACTURERS:**

- AMERICAN CAST IRON COMPANY
- CLOW WATER SYSTEMS COMPANY, A DIVISION OF MCWANE, INC.
- GRIFFIN PIPE PRODUCTS COMPANY,
- SIGMA CORPORATION,
- STAR PIPE PRODUCTS, INC.
- OR APPROVED EQUAL.

Date: September 20, 2021

CATEGORY 10

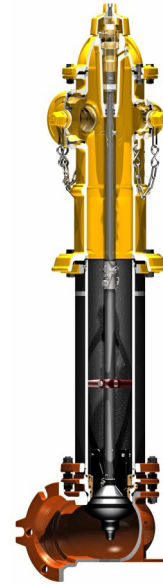
HYDRANTS

**Erie County Water Authority**

3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS**FIRE HYDRANTS****Minimum Requirements:**

- Interior coating shall meet or exceed ANSI/NSF 61, latest revision.
- Hydrant shall be cast iron body, break-away type barrel, "O" ring operating stem seal, with safety stem coupling and breakable flange that permits full 360-degree rotation of the nozzle section. Cut down bolts are not acceptable for this requirement.
- Rated working pressure shall be minimum 250 psi, test pressure shall be minimum 500 psi, in accordance with AWWA STANDARD C-502, latest revision.
- The grease or oil used for lubrication shall be nontoxic and safe for use in potable water systems.
- Hydrant shall be compression type, with valve opening of not less than 5-1/4", with readily removable brass (no lead brass) seats and non-rising stems. valve shall open against pressure and shall close with pressure. valve opening limit stops shall be in the shoe of the hydrant.
- Hydrant nozzles shall consist of two (2) 2-1/2" hose nozzles and one (1) 4-1/2" pumper nozzle.
- Inlet shall be six-inch (6") mechanical joint (MJ).
- Hydrants shall be designed to allow 15-inches to 18-inches between centerline of the lowest nozzle and the surface of the ground.
- Operating nuts and caps shall be 1-3/8-inch square and shall turn right (clockwise) to close. Nozzle caps shall be chained to the barrel.
- Weep holes shall be provided for drainage and remain unplugged. If required by owner, weep holes are to be plugged when specified.
- All interior wetted surfaces of fire hydrants except finished or bearing surfaces shall be shop painted in accordance with NSF/ANSI standard 61 specifications for potable water, and applied in accordance with manufacturers recommendations

**PRE-APPROVED MANUFACTURERS:**

- KENNEDY – GAURDIAN
- MUELLER – CENTURION
- AMERICAN AKV MODEL 2780
- NO SUBSTITUTIONS ALLOWED.

Date: September 20, 2021

**Erie County Water Authority**

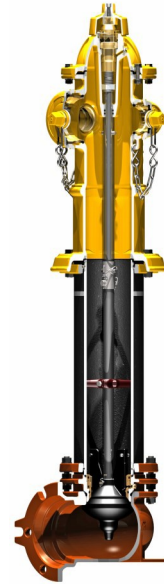
3030 Union Road
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 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS**FIRE HYDRANTS**

- Fire hydrant shall be painted OSHA safety yellow with a reflective type paint that meets NFPA #291, latest revision.

MANUFACTURERS:

- DUTCH STANDARD DEF1-RUST ENAMEL #448
- RUSTOLEUM #944
- PENNSBURY HYDRANT-HIDE #9032
- CON-LUX STEEL GUARD #8504 CAUTION YELLOW
- BRUNING SILATHANE #52035 YELLOW
- APPROVED EQUAL.

**PRE-APPROVED MANUFACTURERS:**

- KENNEDY – GAURDIAN
- MUELLER – CENTURION
- AMERICAN AKV MODEL 2780
- NO SUBSTITUTIONS ALLOWED.

Date: September 20, 2021

CATEGORY 11

TEES – MECHANICAL JOINT
AND FLANGED



Erie County Water Authority
 3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS

DUCTILE IRON MECHANICAL JOINT TEES

Minimum Requirements:

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Tees shall be mechanical joint ductile iron compact body and shall meet or exceed AWWA/ANSI C153/A21.53 (latest revision) or C110/A21.1, latest revision.
- Joints shall meet or exceed AWWA/ANSI C111/ A21.11, latest revision.
- Fitting body material shall be ductile iron meeting or exceeding ASTM 536, latest revision.
- Pressure classification shall be 350, minimum.
- Working pressure shall be 150 psi, minimum.
- Mechanical or push-on joints shall be the rubber gasket compression type.
- Potable water main and fittings shall be cement lined and seal coated which shall meet or exceed AWWA/ANSI C104/A21.4, latest revision, except it shall be double thickness and a bituminous seal coat meeting NSF/ANSI Standard 61.
- Buried pipe and fittings shall be provided with an exterior bituminous coating in accordance with AWWA C151.
- Fittings may be lined with an NSF/ANSI Standard 61 approved fusion bonded epoxy meeting the applicable sections of AWWA C116.
- Fittings shall be suitable for use with polyvinyl chloride pressure pipe.



PRE-APPROVED MANUFACTURERS:

- AMERICAN CAST IRON PIPE COMPANY,
- CLOW WATER SYSTEMS COMPANY, A DIVISION OF MCWANE, INC.,
- GRIFFIN PIPE PRODUCTS COMPANY,
- SIGMA CORPORATION,
- STAR PIPE PRODUCTS, INC.,
- TYLER, A DIVISION OF MCWANE, INC.,
- UNITED STATES PIPE AND FOUNDRY COMPANY.
- OR APPROVED EQUAL.

Date: September 20, 2021

**Erie County Water Authority**

3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS**DUCTILE IRON FLANGED TEES****Minimum Requirements:**

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Tees shall be flanged ductile iron in accordance with the requirements of AWWA C110 and shall conform to ANSI A21.10, 250 psi rating.
- Material shall be ductile iron and shall meet or exceed ASTM A536, latest revision.
- Pressure classification shall be 350, minimum.
- Working pressure shall be 150 psi, minimum.
- Mechanical or push-on joints shall be the rubbergasket compression type.
- Potable water main and fittings shall be cement lined and seal coated which shall meet or exceed AWWA/ ANSI C104/A21.4, latest revision, except it shall be double thickness and a bituminous seal coat meeting NSF/ANSI Standard 61.
- Buried pipe and fittings shall be provided with an exterior bituminous coating in accordance with AWWA C151.
- Fittings may be lined with an NSF/ANSI Standard 61 approved fusion bonded epoxy meeting the applicable sections of AWWA C116.
- Flanged joints shall conform to the requirements of AWWA C110 and drilling and facing of flanges shall be in accordance with ANSI B16.1 Class 125 flanges unless otherwise specified.
- Flanged ductile iron fittings shall be furnished complete with all necessary joint accessories consisting of natural or synthetic rubber gaskets, 1/8-inch thick, full face; and, nuts, bolts and washers, unless otherwise specified.
- All nuts, bolts and washers for flanges and accessories shall conform to ANSI B18.2.1 and ANSI B18.2.2, respectively and shall be Type 304 stainless steel, high strength, low alloy steel or fluorocarbon coated as specified herein.

**PRE-APPROVED MANUFACTURERS:**

- AMERICAN CAST IRON PIPE COMPANY,
- CLOW WATER SYSTEMS COMPANY, A DIVISION OF MCWANE, INC.,
- GRIFFIN,
- SIGMA CORPORATION,
- TYLER PIPE, A DIVISION OF MCWANE, INC.,
- UNION FOUNDRY COMPANY, A DIVISION OF MCWANE, INC.
- UNITED STATES PIPE AND FOUNDRY COMPANY.
- OR APPROVED EQUAL.

Date: September 20, 2021

CATEGORY 12

PIPE – DUCTILE IRON AND PVC



Erie County Water Authority
 3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS

DUCTILE IRON MECHANICAL JOINT PIPE

Minimum Requirements:

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Shall meet or exceed AWWA/ANSI C151/A21.51, AWWA C150, AWWA/ANSI C111/A21.11, and AWWA/ANSI C110/A21.1, latest revisions.
- Material shall be ductile iron and shall meet or exceed ASTM A536, latest revision.
- Diameters 4" through 12" shall be Class 52.
- Diameters larger than 12" shall be Class 52.
- Working pressure shall be 150 psi, minimum.
- All ductile iron pipe shall be provided from the same manufacturer.
- Pipe shall be fully gauged.
- Pipe shall be furnished in nominal laying lengths of 18 or 20 feet unless otherwise specified.
- Mechanical or push-on joints shall be the rubbergasket compression type.
- Potable water main and fittings shall be cement lined and seal coated which shall meet or exceed AWWA/ANSI C104/A21.4, latest revision, except it shall be double thickness and a bituminous seal coat meeting NSF/ANSI Standard 61.
- Buried pipe and fittings shall be provided with an exterior bituminous coating in accordance with AWWA C151.
- Pipe shall be centrifugally cast ductile iron conforming to the requirements of AWWA C151 for material, dimensions, tolerance, tests, markings, and other requirements.

Joints for Ductile Iron Mechanical Joint Pipe and Fittings:

- Joints shall conform to AWWA C111 and shall be mechanical joint bell and spigot and be furnished complete with all necessary accessories consisting of ductile iron follower glands, plain tipped rubber gaskets, nuts and bolts, unless otherwise specified.



PRE-APPROVED MANUFACTURERS:

- AMERICAN CAST IRON PIPE COMPANY
- ATLANTIC STATES CAST IRON PIPE COMPANY, DIVISION OF MCWANE, INC.,
- CLOW WATER SYSTEMS COMPANY, A DIVISION OF MCWANE, INC.,
- GRIFFIN PIPE PRODUCTS COMPANY,
- UNITED STATES PIPE AND FOUNDRY COMPANY

Date: September 20, 2021



Erie County Water Authority
 3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS

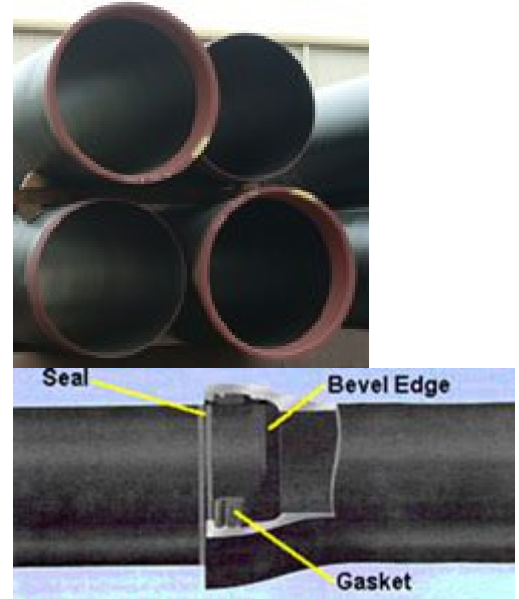
PUSH-ON DUCTILE IRON PIPE & FITTINGS

Minimum Requirements:

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Shall meet or exceed AWWA/ANSI C151/A21.51, AWWA C150, AWWA/ANSI C111/A21.11, and AWWA/ANSI C110/A21.1, latest revisions.
- Material shall be ductile iron and shall meet or exceed ASTM A536, latest revision.
- Diameters 4" through 12" shall be Class 52.
- Diameters larger than 12" shall be Class 52.
- Working pressure shall be 150 psi, minimum.
- All ductile iron pipe shall be provided from the same manufacturer.
- Pipe shall be fully gauged.
- Pipe shall be furnished in nominal laying lengths of 18 or 20 feet unless otherwise specified.
- Mechanical or push-on joints shall be the rubber gasket compression type.
- Potable water main and fittings shall be cement lined and seal coated which shall meet or exceed AWWA/ANSI C104/A21.4, latest revision, except it shall be double thickness and a bituminous seal coat meeting NSF/ANSI Standard 61.
- Buried pipe and fittings shall be provided with an exterior bituminous coating in accordance with AWWA C151.
- Pipe shall be centrifugally cast ductile iron conforming to the requirements of AWWA C151 for material, dimensions, tolerance, tests, markings, and other requirements.

Joints for Push-On Ductile Iron Pipe and Fittings:

- Joints shall conform to AWWA C111 and shall be bell and spigot and be furnished complete with circular rubber gaskets, and other accessories as necessary for a complete installation.



PRE-APPROVED MANUFACTURERS:

- AMERICAN CAST IRON PIPE COMPANY
- ATLANTIC STATES CAST IRON PIPE COMPANY, DIVISION OF MCWANE, INC.,
- CLOW WATER SYSTEMS COMPANY, A DIVISION OF MCWANE, INC.,
- GRIFFIN PIPE PRODUCTS COMPANY,
- UNITED STATES PIPE AND FOUNDRY COMPANY

Date: September 20, 2021



Erie County Water Authority
 3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS

DUCTILE IRON FLEXIBLE RESTRAINT JOINT PIPE

Minimum Requirements:

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Shall meet or exceed AWWA/ANSI C151/A21.51, AWWA C150, AWWA/ANSI C111/A21.11, and AWWA/ANSI C110/A21.1, latest revisions.
- Material shall be ductile iron and shall meet or exceed ASTM A536, latest revision.
- Diameters 4" through 12" shall be Class 52.
- Diameters larger than 12" shall be Class 52.
- All ductile iron pipe shall be provided from the same manufacturer.
- Pipe shall be fully gauged.
- Pipe shall be furnished in nominal laying lengths of 18 or 20 feet unless otherwise specified.
- Mechanical or push-on joints shall be the rubber gasket compression type.
- Potable water main shall be cement lined and seal coated which shall meet or exceed AWWA/ANSI C104/A21.4, latest revision, except it shall be double thickness and a bituminous seal coat meeting NSF/ANSI Standard 61.
- Buried pipe and fittings shall be provided with an exterior bituminous coating in accordance with AWWA C151.
- The pipe manufacturer shall supply all joint bonding materials, including #4 AWG stranded insulated copper wire bonding jumpers, when required.
- Pipe shall be centrifugally cast ductile iron conforming to the requirements of AWWA C151 for material, dimensions, tolerance, tests, markings, and other requirements.

Joints for Ductile Iron Flexible Restraint Joint Pipe:

- Flexible restraint joints shall consist of a boltless, glandless restraining system with factory applied spigot weld ring or weldment (weld bead of established height and width), which retains the wedge-shaped locking segments. These locking segments are either inserted into the bell prior to spigot engagement or inserted after spigot engagement by "caulking" a snap-ring into the bell, or inserting the segments through slots cast into the bell face.
- Pipe that utilizes gaskets with embedded restraining gripper or friction segments is not acceptable.



PRE-APPROVED MANUFACTURERS:

- AMERICAN CAST IRON PIPE CO. - FLEX RING,
- CLOW - SUPER LOCK,
- US PIPE - TR FLEX,
- OR APPROVED EQUAL

Date: September 20, 2021

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3030 Union Road
Cheektowaga NY 14227
Tel 716-684-1510
FAX 716-684-3937

PRODUCT SPECIFICATIONS**DUCTILE IRON PIPE WITH
THREADED FLANGES****Minimum Requirements:**

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Shall meet or exceed AWWA/ANSI C151/A21.51, AWWA C150, AWWA/ANSI C111/A21.11, and AWWA/ANSI C110/A21.1, latest revisions.
- Material shall be ductile iron and shall meet or exceed ASTM A536, latest revision.
- Pressure classification for diameters 4" through 12" shall be 350, minimum.
- Pressure classification for diameters larger than 12" shall be 350, minimum.
- Working pressure shall be 150 psi, minimum.
- All ductile iron pipe shall be provided from the same manufacturer.
- Pipe shall be fully gauged.
- Pipe shall be furnished in nominal laying lengths of 18 or 20 feet unless otherwise specified.
- Potable water main and fittings shall be cement lined and seal coated which shall meet or exceed AWWA/ANSI C104/A21.4, latest revision, except it shall be double thickness and a bituminous seal coat meeting NSF/ANSI Standard 61.
- Pipe shall be provided with an exterior bituminous coating in accordance with AWWA C151.
- Bonded joints may be required in areas where the ENGINEER has evaluated soil conditions and has recommended that corrosion protection is required at locations as shown on the drawings. The pipe manufacturer shall supply all joint bonding materials, including #4 AWG stranded insulated copper wire bonding jumpers.
- Pipe shall be centrifugally cast ductile iron conforming to the requirements of AWWA C151 for material, dimensions, tolerance, tests, markings, and other requirements.
- Pipe barrels and flanges shall have a taper pipe thread (NPT) in accordance with ANSI B1.20.1, with pipe diameters adapted to ductile iron pipe standard outside diameters.
- Flanged pipe shall be minimum Class 53 thickness and shall be furnished in standard laying lengths as specified or required.

**PRE-APPROVED MANUFACTURERS:**

- AMERICAN CAST IRON PIPE COMPANY,
- CLOW WATER SYSTEMS COMPANY, A DIVISION OF MCWANE, INC.,
- UNITED STATES PIPE AND FOUNDRY COMPANY,
- FAST FABRICATORS, INC.

Date: September 20, 2021



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 3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS

DUCTILE IRON PIPE WITH THREADED FLANGES

Minimum Requirements:

Joints for Ductile Iron Flanged Pipe and Fittings:

- Flanged joints shall conform to the requirements of AWWA C110 and drilling and facing of flanges shall be in accordance with ANSI B16.1 Class 125 flanges unless otherwise specified.
- Flanged ductile iron pipe shall be furnished complete with all necessary joint accessories consisting of natural or synthetic rubber gaskets, 1/8-inch thick, full face; and, nuts, bolts and washers, unless otherwise specified.
- All nuts, bolts and washers for flanges and accessories shall conform to ANSI B18.2.1 and ANSI B18.2.2, respectively and shall be Type 304 stainless steel, high strength, low alloy steel or fluorocarbon coated as specified herein.



PRE-APPROVED MANUFACTURERS:

- AMERICAN CAST IRON PIPE COMPANY,
- CLOW WATER SYSTEMS COMPANY, A DIVISION OF MCWANE, INC.,
- UNITED STATES PIPE AND FOUNDRY COMPANY,
- FAST FABRICATORS, INC.

Date: September 20, 2021

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3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS**PVC PRESSURE PIPE****Minimum Requirements:**

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Polyvinyl chloride pipe, in sizes from 4-inches to 12-inches in diameter, shall be made from Class 12454-B materials or better in accordance with ASTM D1784.
- Shall meet or exceed the latest revision of AWWAC900 or C905 and conform to the requirements of Pressure rated ASTM D2241.
- Polyvinyl chloride pipe and accessories to be used for potable water shall be certified as suitable by the NSF or other testing agency and shall be marked with the seal of the agency.
- Pipe shall be designed for a working pressure and field hydrostatic test pressure of 170 psi. C900 and C905 pipe shall be a minimum of DR-18.
- Pipe shall bear the manufacturer's name, DR rating and pressure rating.
- The outside diameter dimensions of the pipe shall conform with the outside diameter dimensions of ductile iron pipe.
- Shall be new and not subjected to ultraviolet degradation.

JOINTS

- Joints for polyvinyl chloride pipe shall be push-on in accordance with the standard for the type of material.
- Polyvinyl chloride pipe joints shall be elastomeric.
 - Rubber gaskets for elastomeric joints shall conform to ASTM F477
 - The rubber gasket shall be factory installed in the pipe, fittings, and couplings.
 - The plain end of the pipe shall be marked by the manufacturer to show the depth of penetration into the bell or coupling.

**PRE-APPROVED MANUFACTURERS:**

- JM MANUFACTURING,
- NATIONAL PIPE AND PLASTICS, INC.,
- OR APPROVED EQUAL.

Date: September 20, 2021

CATEGORY 13

RETAINERS AND ANCHOR COUPLINGS

**Erie County Water Authority**

3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS**MECHANICAL JOINT RESTRAINT
FOR DUCTILE IRON AND PVC PIPE****Minimum Requirements:**

- Restraint shall be accomplished by use of a retainer gland that incorporates mechanical joint restraint into the follower gland with individually actuated wedges that increase their resistance to pull-out as pressure or external forces increase.
- Dimensions of the gland shall be such that it can be used with the standardized mechanical joint bell conforming to AWWA C111, latest revision,
- and AWWA C153, latest revision.
- The follower gland and gripping wedge style joint restraint shall be acceptable on pipe diameters 4" and above.
- Shall meet or exceed ASTM F1674 (latest revision) for use on PVC.
- The joint restraint ring and its wedging components shall be made of grade 65-45-12 ductile iron meeting or exceeding ASTM 536, latest revision.
- Gripping wedge and actuating component material shall be ductile iron, heat treated to a minimum hardness of 370 BHN, meeting or exceeding ASTM 536, latest revision. T-bolts shall be fluorocarbon coated as specified herein.
- Working pressure shall be 250 psi, minimum, for use on ductile iron pipe.
- Shall be rated to the full working pressure of the PVC pipe.
- Restraint devices shall consist of multiple gripping wedges incorporated into the follower gland.
- Torque limiting twist off nuts shall be used to insure the proper actuation of the wedges. When the nut is sheared off, a standard hex head shall remain.
- Mechanism shall be in place to ensure proper tightening of the restraint without overstressing the pipe. Properly tightening the restraint shall not depend upon accurate field measurements of applied pressure or utilize a tool which requires calibration. Torque-off bolts are an example of an acceptable tightening mechanism.

**PRE-APPROVED MANUFACTURERS:****Ductile Iron Pipe**

- EBAA IRON (MEGALUG SERIES 1100)
- ROMAC (ROMA GRIP)
- FORD METER BOX (UNI-FLANGE SERIES 1400)
- STAR PIPE PRODUCTS (STARGRIP SERIES 3000)
- SIGMA (One-Lok SLD)
- SIP INDUSTRIES, EZ GRIP
- IN FACT FOSTER ADAPTOR

PVC Pipe

- FORD METER BOX (UNI-FLANGE SERIES 1500)
- EBAA IRON (MEGALUG SERIES 2000 PV)
- STAR PIPE PRODUCTS (STARGRIP 4000)

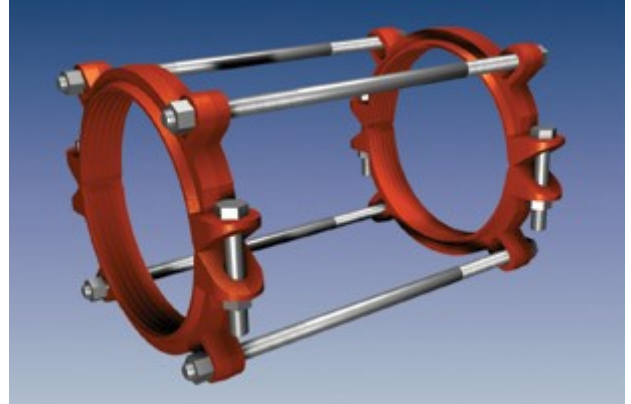
Date: September 20, 2021

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3030 Union Road
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 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS**BELL JOINT RESTRAINT FOR DUCTILE IRON AND PVC PIPE****Minimum Requirements:**

- When specified or allowed by the ENGINEER, restraining push-on ductile iron pipe joints shall be accomplished by use of a joint restraint system that consists of restraining rods and split ductile iron clamping rings, installed on the spigot and behind the bell. The clamping ring shall incorporate a series of machined serrations on the inside surface to provide 360-degree contact and support of the pipe barrel. Lateral thrust restraint is provided when the side clamping bolts are tightened allowing the serrations to lock onto the pipe barrel.
- Restrained PVC pipe connecting to ductile iron mechanical joint fittings and valves shall be a ductile iron clamp.
- Restrained bell joint PVC pipe shall be a ductile iron split clamping ring and back-up ring.
- Dimensions of the gland shall be such that it can be used with the standardized mechanical joint bell conforming to AWWA C111, latest revision, and AWWA C153, latest revision.
- The joint restraint rings shall be made of high strength, grade 65-45-12 ductile iron conforming to ASTM A536.
- Restraining rod material shall be stainless steel (Type 304 minimum), or fluorocarbon coated.
- All clamping bolts and nuts shall be Type 304 stainless steel or fluorocarbon coated, high strength corrosion resistant low alloy steel.
- Restraining push-on joints as specified herein shall not be allowed for hydrant branches.
- Restraining push-on joints shall be used on pipe sizes 6-inch to 12-inch only when allowed or specified. Restraining push-on joints in this manner shall not be allowed on pipe larger than 12 inches.
- Working pressure shall be 250 psi, minimum, for ductile iron pipe.
- Working pressure shall be 150 psi, minimum, for PVC.
- The restraint device shall consist of split restraint rings with serrations on the inside diameter.

**PRE-APPROVED MANUFACTURERS:****Ductile Iron Pipe**

- EBAA IRON (1700 MEGALUG HARNESS),
- FORD METER BOX (UNI-FLANGE SERIES 1450),
- OR APPROVED EQUAL.

PVC Pipe

- EBAA IRON (SERIES 1600PV, SERIES 1500PV)
- OR APPROVED EQUAL

Date: September 20, 2021

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3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS**ANCHOR COUPLINGS****Minimum Requirements:**

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Anchor couplings shall be mechanical joint ductile iron compact body and shall meet or exceed AWWA/ANSI C153/A21.53 (latest revision) or C110/A21.1, latest revision.
- Joints shall meet or exceed AWWA/ANSI C111/ A21.11, latest revision.
- Fitting body material shall be ductile iron meeting or exceeding ASTM 536, latest revision.
- Diameters 4" through 24" shall be Class 53.
- Diameters larger than 24" shall be Class 53.
- Working pressure shall be 150 psi, minimum.
- Mechanical or push-on joints shall be the rubber gasket compression type.
- Potable water main and fittings shall be cement lined and seal coated which shall meet or exceed AWWA/ ANSI C104/A21.4, latest revision, except it shall be double thickness and a bituminous seal coat meeting NSF/ANSI Standard 61.
- Buried pipe and fittings shall be provided with an exterior bituminous coating in accordance with AWWA C151.
- Fittings may be lined with an NSF/ANSI Standard 61 approved fusion bonded epoxy meeting the applicable sections of AWWA C116.

**PRE-APPROVED MANUFACTURERS:**

- SIGMA
- STAR PIPE PRODUCTS
- TYLER PIPE & COUPLING
- OR APPROVED EQUAL.

Date: September 20, 2021

CATEGORY 14

BENDS – D.I. MECHANICAL JOINT
AND D.I. FLANGED



Erie County Water Authority
 3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS

DUCTILE IRON MECHANICAL JOINT OFFSETS

Minimum Requirements:

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Bends shall be mechanical joint ductile iron compact body and shall meet or exceed AWWA/ANSI C153/A21.53 (latest revision) or C110/A21.1, latest revision.
- Joints shall meet or exceed AWWA/ANSI C111/ A21.11, latest revision.
- Fitting body material shall be ductile iron meeting or exceeding ASTM 536, latest revision.
- Pressure classification shall be 350, minimum.
- Working pressure shall be 150 psi, minimum.
- Mechanical or push-on joints shall be the rubbergasket compression type.
- Potable water main and fittings shall be cement lined and seal coated which shall meet or exceed AWWA/ANSI C104/A21.4, latest revision, except it shall be double thickness and a bituminous seal coat meeting NSF/ANSI Standard 61.
- Buried pipe and fittings shall be provided with an exterior bituminous coating in accordance with AWWA C151.
- Fittings may be lined with an NSF/ANSI Standard 61 approved fusion bonded epoxy meeting the applicable sections of AWWA C116.
- Fittings shall be suitable for use with polyvinyl chloride pressure pipe.



PRE-APPROVED MANUFACTURERS:

- AMERICAN CAST IRON PIPE COMPANY,
- CLOW WATER SYSTEMS COMPANY, A DIVISION OF MCWANE, INC.,
- GRIFFIN PIPE PRODUCTS COMPANY,
- SIGMA CORPORATION,
- STAR PIPE PRODUCTS, INC.,
- TYLER, A DIVISION OF MCWANE, INC.,
- UNITED STATES PIPE AND FOUNDRY COMPANY.
- OR APPROVED EQUAL.

Date: September 20, 2021

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3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS**DUCTILE IRON FLANGED BENDS****Minimum Requirements:**

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Bends shall be flanged ductile iron in accordance with the requirements of AWWA C110 and shall conform to ANSI A21.10, 250 psi rating.
- Material shall be ductile iron and shall meet or exceed ASTM A536, latest revision.
- Pressure classification shall be 350, minimum.
- Working pressure shall be 150 psi, minimum.
- Mechanical or push-on joints shall be the rubbergasket compression type.
- Potable water main and fittings shall be cement lined and seal coated which shall meet or exceed AWWA/ ANSI C104/A21.4, latest revision, except it shall be double thickness and a bituminous seal coat meeting NSF/ANSI Standard 61.
- Buried pipe and fittings shall be provided with an exterior bituminous coating in accordance with AWWA C151.
- Fittings may be lined with an NSF/ANSI Standard 61 approved fusion bonded epoxy meeting the applicable sections of AWWA C116.
- Flanged joints shall conform to the requirements of AWWA C110 and drilling and facing of flanges shall be in accordance with ANSI B16.1 Class 125 flanges unless otherwise specified.
- Flanged ductile iron fittings shall be furnished complete with all necessary joint accessories consisting of natural or synthetic rubber gaskets, 1/8-inch thick, full face; and, nuts, bolts and washers, unless otherwise specified.
- All nuts, bolts and washers for flanges and accessories shall conform to ANSI B18.2.1 and ANSI B18.2.2, respectively and shall be Type 304 stainless steel, high strength, low alloy steel or fluorocarbon coated as specified herein.

**PRE-APPROVED MANUFACTURERS:**

- AMERICAN CAST IRON PIPE COMPANY,
- CLOW WATER SYSTEMS COMPANY, A DIVISION OF MCWANE, INC.,
- GRIFFIN,
- SIGMA CORPORATION,
- TYLER PIPE, A DIVISION OF MCWANE, INC.,
- UNION FOUNDRY COMPANY, A DIVISION OF MCWANE, INC.
- UNITED STATES PIPE AND FOUNDRY COMPANY.
- OR APPROVED EQUAL.

Date: September 20, 2021

CATEGORY 15

SOLID SLEEVES

**Erie County Water Authority**

3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS**SOLID MECHANICAL JOINT SLEEVES****Minimum Requirements:**

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Solid sleeves shall conform to the requirements of AWWA C153, latest revision, for material, dimensions, tolerance, tests, markings and other requirements of mechanical joint class 350 ductile iron solid sleeves.
- Unless otherwise specified, provide long laid length sleeves complete with follower glands, rubber gaskets and fluorocarbon coated nuts, tee bolts and accessories.
- Joints shall meet or exceed AWWA/ANSI C111/ A21.11, latest revision.
- Fitting body material shall be ductile iron meeting or exceeding ASTM 536, latest revision.
- Pressure classification shall be 350, minimum.
- Working pressure shall be 150 psi, minimum.
- Mechanical or push-on joints shall be the rubber gasket compression type.
- Potable fittings shall be cement lined and seal coated which shall meet or exceed AWWA/ANSI C104/A21.4, latest revision, except it shall be double thickness and a bituminous seal coat meeting NSF/ANSI Standard 61.
- Buried fittings shall be provided with an exterior bituminous coating in accordance with AWWA C151.
- Fittings shall be suitable for use with polyvinyl chloride pressure pipe.
- The pipe manufacturer shall supply all joint bonding materials, including #4 AWG stranded insulated copper wire bonding jumpers, when required.

**PRE-APPROVED MANUFACTURERS:**

- AMERICAN CAST IRON PIPE COMPANY,
- CLOW WATER SYSTEMS COMPANY, A DIVISION OF MCWANE, INC.,
- GRIFFIN PIPE PRODUCTS COMPANY,
- SIGMA CORPORATION,
- STAR PIPE PRODUCTS, INC.,
- TYLER, A DIVISION OF MCWANE, INC.,
- UNITED STATES PIPE AND FOUNDRY COMPANY
- OR APPROVED EQUAL.

Date: September 20, 2021

CATEGORY 20

MISCELLANEOUS PLUMBING MATERIALS

CATEGORY 20

MISCELLANEOUS PLUMBING MATERIALS



Erie County Water Authority
 3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS

GALVANIZED SQUARE HEAD PLUGS

Minimum Requirements:

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Connections Shall meet or exceed applicable sections of AWWA C800, latest revision.
- Material shall conform to mechanical properties of ASTM A105.
- Design basis and dimensions shall meet ASME B16.11 - Forged fittings, socket-weld and threaded.
- Threads shall meet ASME B1.20.1 NPT Threads



PRE-APPROVED MANUFACTURERS:

- ANVIL/ASC (2122),
- OR APPROVED EQUAL.

Date: September 20, 2021

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3030 Union Road
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 FAX 716-684-3937

PRODUCT SPECIFICATIONS**SMALL DIAMETER
REPAIR CLAMPS****Minimum Requirements:**

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Shall meet or exceed AWWA/ANSI C230, latest revision
- Clamp shall be rated for a minimum working pressure of 125 psi.
- Clamp band (body) and fasteners material shall be stainless steel (ASTM A240 Type 304 minimum)
- Nuts and bolts shall be minimum Type 304 stainless steel or fluorocarbon coated. Fluorocarbon coating shall have corrosion resistance (salt spray ASTM B117) up to 2,000 hours.
- Lugs material shall be stainless steel (Type 304 minimum) or fusion bonded epoxy coated ductile iron meeting or exceeding ASTM A536, latest revision.
- Gasket shall be virgin SBR per ASTM D2000, latest revision. NBR is also allowed.

**PRE-APPROVED MANUFACTURERS:**

- ROMAC INDUSTRIES: STYLE SC,
- SMITH-BLAIR: STYLE 244, 245.
- NO SUBSTITUTIONS ALLOWED

Date: September 20, 2021

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 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS**RESTRAINED FLANGED ADAPTERS****Minimum Requirements:**

- Restraint shall be accomplished by use of a gland that incorporates wedges that increase their resistance to pull out as pressure or external forces increase.
- The restrained flange adapter shall be comprised of two rings made of ductile iron conforming to ASTM A536.
- The restraining ring shall be suitable for flanges conforming to AWWA C115 flange drilling.
- Nuts and bolts shall be fluorocarbon coated or Type 304 stainless steel, high strength, low alloy.
- Torque limiting twist off nuts shall be used to insure the proper actuation of the wedges. When the nut is sheared off, a standard hex head shall remain.
- Provide fusion bonded epoxy coating on the gasket ring and shop primer on the body.
- Restrained flange adapter shall be suitable for use on ductile iron pipe.

**PRE-APPROVED MANUFACTURERS:**

- EBAA IRON, SERIES 2100 MEGAFLANGE,
- OR APPROVED EQUAL.

Date: September 20, 2021

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 FAX 716-684-3937

PRODUCT SPECIFICATIONS**FLANGED COUPLING ADAPTERS****Minimum Requirements:**

- Shall meet or exceed ANSI/NSF 61, latest revision.
- The body shall be ductile iron conforming to ASTM A536. The bolt circle, bolt size, and spacing shall conform to AWWA C115 flange drilling.
- The follower gland shall be ASTM A536 ductile iron.
- Gaskets and "O" rings shall be grade 30 standard.
- Nuts and bolts shall be fluorocarbon coated or Type 304 stainless steel, high strength, low alloy.
- Provide fusion bonded epoxy coating on the gasket ring and shop prime enamel on the body.
- Flange coupling adapter shall not be provided with anchor studs, which are not allowed.
- Flange coupling adapter shall be suitable for use on ductile or cast iron pipe to the outside diameter specified.
- Flange coupling adapters shall be restrained as shown, specified, or require

**PRE-APPROVED MANUFACTURERS:**

- SMITH-BLAIR, STYLE 912, 913(LONG BARREL)
- EBAA SERIES 1000
- DRESSER, STYLE 128,
- FORD FFCA,
- HYMAX 2100,
- OR APPROVED EQUAL.

Date: September 20, 2021

Sheet Number

1 of 1

**Erie County Water Authority**

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 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS**SLEEVE TYPE FLEXIBLE COUPLINGS****Minimum Requirements:**

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Shall meet or exceed AWWA C219, latest revision.
- Working pressure shall be 150 psi, minimum.
- Material: Steel, with epoxy coated sleeve.
- Gasket: Manufacturer's standard best quality for the service intended.
- Bolts and Nuts: Buried or submerged couplings shall be provided with Type 304 stainless steel or fluorocarbon coated bolts and nuts.
- Couplings shall be designed for a field working pressure and a hydrostatic test pressure of 170 psi.

Harnessing:

- Harness couplings to restrain pressure piping.
- Adjacent flanges shall be tied with bolts of corrosion resistant alloy steel. Provide flange mounted stretcher bolt plates and lugs as required and to be designed by coupling manufacturer, unless otherwise approved.
- Conform to dimensions, size, spacing and materials for lugs, bolts, washers, and nuts as recommended by manufacturer and approved by ENGINEER for the pipe size, wall thickness and test pressure required. However, the following minimum bolting shall be provided if not specifically stated by the ENGINEER.

Pipe Diameter (In.)	Minimum Number of Bolts	Bolt Diameter (In.)	At (Degrees)
4	2	5/8	180
6-8	2	3/4	180
10-12	2	7/8	180
14-20	4	1	90
24-48	4	1-1/2	90

- Remove pipe stop unless otherwise shown or specified.
- Couplings 16-inches to 24-inches shall be furnished as long laying lengths of 16-inches. Couplings over 24-inches shall be furnished as 10-inch lengths.

**PRE-APPROVED MANUFACTURERS:**

- DRESSER INDUSTRIES, STYLE 138, FOR SIZES UP TO 12-INCHES,
- DRESSER INDUSTRIES, STYLE 38, FOR SIZES OVER 12-INCHES,
- SMITH-BLAIR, TYPE 411, (OR TYPE 441 WHERE SPECIFIED),
- OR APPROVED EQUAL.

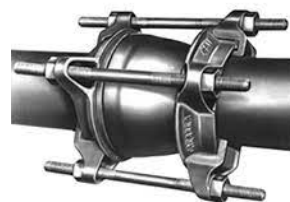
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3030 Union Road
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 FAX 716-684-3937

PRODUCT SPECIFICATIONS**JOINT CLAMPS****Minimum Requirements:****JOINT CLAMPS:**

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Joint clamps shall be furnished to permanently stop or prevent leaks through the jointing materials of bell and spigot joints.
- Clamp shall be fully adjustable to provide a close fit on the bell and spigot and shall be designed to be installed on pipes without interruption of water service.
- Manufacturers standard rubber gasket shall shut the leak off when compressed by the spigot ring drawn up, in turn, by bolts connected to a bell ring.

**PRE-APPROVED MANUFACTURERS:
JOINT CLAMPS:**

- SMITH-BLAIR, STYLE #274,
- DRESSER, STYLE 160,
- OR APPROVED EQUAL.

Date: September 20, 2021

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3030 Union Road
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 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS

COMPRESSION COUPLINGS

Minimum Requirements:

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Shall meet or exceed the requirements of AWWA C800 (latest revision), Section A.2 and ASTM B88, latest revision, and Federal Specification WW-T-799a.
- For use on steel and copper tubing, and PVC pipe.
- Nut and body shall be Ductile Iron, electro galvanic coated.
- Gasket shall be NBR material
- Working pressure shall be 150 psi, minimum.
- Temperature Range: -40 to +212°F

**PRE-APPROVED MANUFACTURERS:**

- TPS, SERIES 6000
- OR APPROVED EQUAL.

Date: September 20, 2021

**Erie County Water Authority**

3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS
RESTRAINED COUPLINGS
Minimum Requirements:

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Shall meet or exceed AWWA C219 /ANSI/AWWA C111/A21.11, and ASTM D2000, latest revision.
- Working pressure shall be 150 psi, minimum.
- Joint restraint to prevent axial separation shall be incorporated into the design of the sleeve or coupling used to connect two plain ends of same or dissimilar materials, such as Ductile Iron pipe, steel pipe, PVC pipe (C900 or ASTM D2241) and or High Density Polyethylene (HDPE) pipe. Internal pipe wall stiffeners must be used when restraining HDPE.
- Ductile Iron components shall be of a minimum of 65-45-12 ductile iron meeting the requirements of ASTM A536 of the latest revision.
- Sealing gaskets shall be constructed of SBR and Certified to requirements of ANSI/NSF 61.

**PRE-APPROVED MANUFACTURERS:**

- EBAA 3800,
- OR APPROVED EQUAL.

Date: September 20, 2021



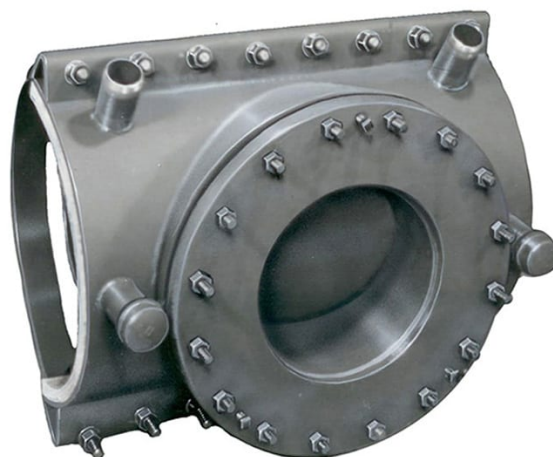
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PRODUCT SPECIFICATIONS

REPAIR SADDLES FOR PCCP

Minimum Requirements:

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Shall be strap design.
- Material for the straps, bales, nuts, and washers shall be stainless steel (Type 304 minimum).
- The repair sleeves shall have a separate gland which permits installation and reinforcement of the pipe prior to the cutting of the prestress wires.
- Straps shall tighten to conform to the curvature of the pipe.
- The repair gland shall have a fusion epoxy coated pressure plate and broad gasket set in a retaining groove of the pressure plate which is gusseted to eliminate flexing.
- Body shall be ASTM A-36, A516 Grade 70 steel or equal.
- Gasket shall be Nitrile Butadiene Rubber (NBR, Buna-N) per ASTM D2000. Gasket temperature range -40°F to 212°F (-40°C - 100°C)
- Bolts shall be corrosion resistant, high strength low alloy (AWWA C-111, ANSI 21.11). Optional Stainless Steel, 18-8 Type 304.
- Repair Saddle shall have a heavy coat of corrosion resistant shop coat primer on sleeve, gland, and straps.
- Pressure plate of gland shall be epoxy coated (fusion applied per ANSI/AWWA C-213).
- Manufacturers shall have minimum ten (10) years experience specializing in the design and manufacture of these type of tapping saddles.



PRE-APPROVED MANUFACTURERS:

- JCM: #116,
- THOMPSON PIPE GROUP,
- OR APPROVED EQUAL.

Date: September 20, 2021

**Erie County Water Authority**

3030 Union Road
 Cheektowaga NY 14227
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 FAX 716-684-3937

PRODUCT SPECIFICATIONS**HYMAX COUPLINGS****Minimum Requirements:**

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Shall meet or exceed AWWA C219, latest revision.
- Working pressure shall be 150 psi, minimum.
- Material: Center sleeve shall be fabricated of high strength carbon steel tubing. Compression end rings to be either one bolt or two fabricated of carbon steel.
- Gasket: Two layered gaskets of which the inner ring is removable to expand the range of the coupling. Material shall be EPDM or high grade NBR (Nitrile) according to NSF61.
- Bolts and Nuts: Buried or submerged couplings shall be provided with type 304 stainless steel. Bolts to be coated with an anti-seize coating to prevent galling.
- Coating: Interior and exterior shall be provided with NFS-61 approved fusion bonded epoxy coating.
- Harnessing: as specified in Category 20.

**PRE-APPROVED MANUFACTURERS:**

- DRESSER INDUSTRIES STYLE 262 FOR SIZES UP TO 12-INCHES,
- KRAUSZ HYMAX,
- NO SUBSTITUTIONS ALLOWED

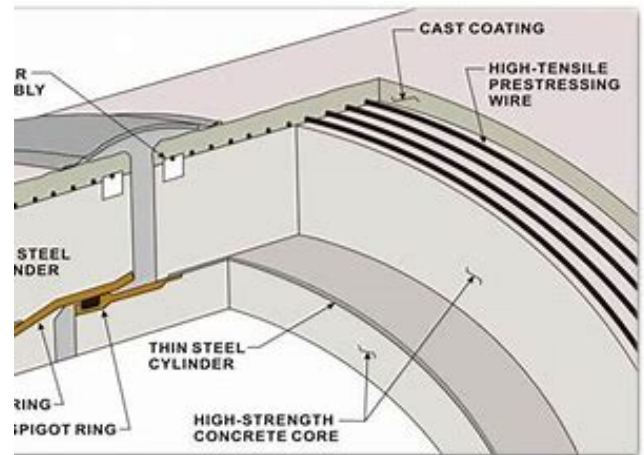
Date: September 20, 2021

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FAX 716-684-3937

PRODUCT SPECIFICATIONS**PRESTRESSED CONCRETE CYLINDRICAL PIPE****Minimum Requirements:**

- Prestressed concrete cylinder pipe shall consist of a steel shell with steel bell and spigot end-rings welded to the ends of the cylinder.
- Joint O-ring gaskets shall be interchangeable with other pipe of same size of other manufacturers. The composition of the rubber shall be either natural or synthetic rubber. Gaskets removed from existing pipe shall not be reused.
- All prestressed concrete cylinder pipe, fittings, and accessories must be new materials in first-class condition. Used or recycled materials will not be allowed, regardless of condition. Pipe shall not be supplied from inventory but shall be manufactured specifically for this Contract.
- Steel cylinders shall meet the requirements of AWWA C301 and shall be of sufficient thickness such that the stress in the cylinder at the specified working pressure plus surge is no greater than 50% of the specified minimum yield of the material as stated in AWWA C301 section 4.4.7.1; and in no case shall the cylinder thickness be less than 0.0747" (14 gauge).
- The required area of steel for prestressed concrete pipe shall have a single layer of prestressing. Any design with multiple layers of prestressing wire shall not be acceptable.
- All prestressed concrete pipe shall be manufactured in nominal 20-foot laying lengths. Concrete cores for pipe shall be manufactured per AWWA 301.
- The pipe "Class" shall be clearly marked per AWWA C301. Markings indicating the pipe class and identifying each pipe in reference to the laying schedule shall also be included. Each pipe shall have an identification number to correlate production information such as concrete core placement, prestressing and mortar coating. A record of this production information shall be furnished. Each length of straight and special pipe and each fitting shall be plainly marked on the interior on the bell end.

**PRE-APPROVED MANUFACTURERS:**

- THOMPSON PIPE GROUP,
- FORTERRA/US PIPE,
- OR APPROVED EQUAL.

Date: September 20, 2021

Sheet Number

1 of 2



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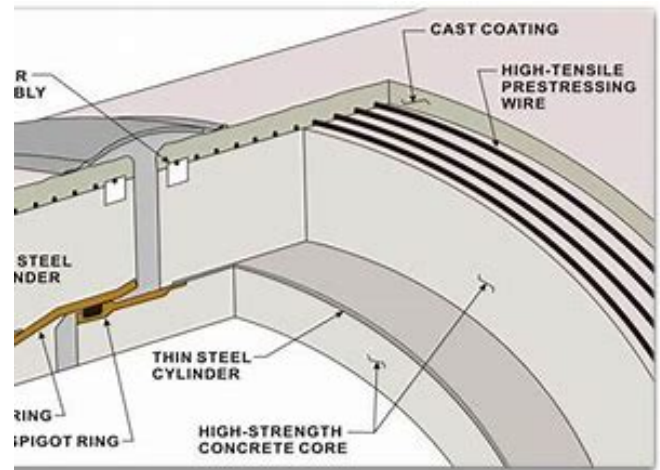
PRODUCT SPECIFICATIONS

PRESTRESSED CONCRETE CYLINDRICAL PIPE

Minimum Requirements:

Design Conditions

- Prestressed concrete cylinder pipe and fittings shall have a single design for each size of pipe furnished. There shall be no circumstance where multiple designs will be acceptable for any given size with the exceptions of: a design for restrained areas where heavier cylinders will be required; and, a design for deep stream/road/railroad crossings. The single design per size shall be in accordance with AWWA C304 for the following parameters:
 - a) Pipe inside diameter (di): As shown on plans.
 - b) Operating pressure (Pw): See Section 15051, Buried Piping Installation.
 - c) Surge pressure (Pt): 100 psi, minimum, or as otherwise specified.
 - d) Total design pressure: (cumulative sum of b and c), minimum, or as otherwise specified.
 - e) Field hydrostatic test pressure (Pft):
Hydrostatic Test Pressure: 170 psi.
 - f) Internal Working Pressure: 170 psi.
 - g) Safety Factor: 2.0 (based on conditions described in 1.03.A.5.)
 - h) Laying Condition: As shown on plans.
 - i) Depth of cover (H): As shown on plans (8 feet minimum).
 - j) Soil weight: 120 lbs. per cubic foot.
 - k) Live loading: AASHTO H20.
- In combination with the internal pressures, pipe, fittings, and specials shall be designed for the external condition listed below which results in a single class of pipe for each size of pipe:
 - 1) Earth cover for existing grade as shown on Drawings, plus all applicable transient and live loads.
 - 2) Earth cover for proposed grade as shown on Drawings plus all applicable transient and live loads.
 - 3) All combinations of earth cover between the existing and proposed grades as shown on the drawings plus the applicable live loads (highway or railroad)



PRE-APPROVED MANUFACTURERS:

- THOMPSON PIPE GROUP,
- FORTERRA/US PIPE,
- OR APPROVED EQUAL.

Date: September 20, 2021

CATEGORY 21

REPAIR CLAMPS

**Erie County Water Authority**

3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS
**PRESSURE PIPE REPAIR CLAMPS
 (4" DIA. & LARGER)**
Minimum Requirements:

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Shall meet or exceed AWWA/ANSI C230, latest revision
- Repair clamps shall be full circle, with a minimum length of 12-inches unless otherwise specified. Bands are to be single section for sizes to 12 inches and double or triple sections for sizes over 12 inches.
- Clamp shall be rated for a minimum working pressure of 125 psi.
- Clamp band (body) and fasteners material shall be stainless steel (ASTM A240 Type 304 minimum)
- Nuts and bolts shall be minimum Type 304 stainless steel or fluorocarbon coated. Fluorocarbon coating shall have corrosion resistance (salt spray ASTM B117) up to 2,000 hours.
- Lugs material shall be fusion bonded epoxy coated ductile iron meeting or exceeding ASTM A536, latest revision. Lugs shall be field removable.
- Gasket shall be virgin SBR per ASTM D2000, latest revision. NBR is also allowed.
- Repair clamps with a separate keeper bar will not be accepted nor repair clamps with two bolts on a 7.5-inch full circle clamp.
- When ordered, provide tapped repair clamps with stainless steel outlet taps for corporation stops in CC (AWWA) thread.

**PRE-APPROVED MANUFACTURERS:**

- FORD METER BOX:
 - STYLE F1, FOR SIZES UP TO 12"
 - STYLE F2 & F3, FOR SIZES OVER 12"
- ROMAC INDUSTRIES:
 - STYLES CL1, FOR SIZES TO 12"
 - STYLES CL2, & CL3 FOR SIZES OVER 12"
- SMITH-BLAIR:
 - STYLE 226, FOR SIZES UP TO 12"
 - STYLE 228, FOR SIZES OVER 12"
 - 238 AND 239 FOR TAPPED CLAMPS.
- NO SUBSTITUTIONS ALLOWED

Date: September 20, 2021

CATEGORY 23

SERVICE REPAIR AND CONNECTION



Erie County Water Authority
3030 Union Road
Cheektowaga NY 14227
Tel 716-684-1510
FAX 716-684-3937

PRODUCT SPECIFICATIONS

**SERVICE FITTINGS: UNIONS,
COUPLINGS, & ADAPTERS**

Minimum Requirements:

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Service fittings shall have a body cast from corrosion resistant bronze in accordance with ASTM B62 (85-5-5-5).
- Connections Shall meet or exceed applicable sections of AWWA C800, latest revision, and be suitable for flared connection to Type "K" copper pipe.
- Working pressure shall be 150 psi, minimum.
- **MUST COMPLY WITH U.S. SAFE DRINKING WATER ACT, (LATEST REVISION)**



PRE-APPROVED MANUFACTURERS:

- **BRASS NIPPLE 2"X8" IPT**
 - MERIT BRASS
 - MCDONALD
 - OR APPROVED EQUAL
- **1/4" BRASS NIPPLE (CLOSE – 6")**
 - MERIT BRASS
 - OR APPROVED EQUAL
- **3/8" BRASS NIPPLE (CLOSE – 6")**
 - MERIT BRASS
 - OR APPROVED EQUAL
- **1/2" BRASS NIPPLE (CLOSE – 6")**
 - MERIT BRASS
 - OR APPROVED EQUAL
- **3/4" BRASS NIPPLE (CLOSE – 6")**
 - MERIT BRASS
 - OR APPROVED EQUAL
- **1" BRASS NIPPLE (CLOSE – 12")**
 - MERIT BRASS
 - OR APPROVED EQUAL
- **1-1/4" BRASS NIPPLE (CLOSE – 12")**
 - MERIT BRASS
 - OR APPROVED EQUAL
- **1-1/2" BRASS NIPPLE (CLOSE – 12")**
 - MERIT BRASS
 - OR APPROVED EQUAL
- **2" BRASS NIPPLE (CLOSE – 12")**
 - MERIT BRASS
 - OR APPROVED EQUAL

Date: September 20, 2021

CATEGORY 23.A

Erie County Water Authority
3030 Union Road
Cheektowaga NY 14227
Tel 716-684-1510
FAX 716-684-3937

PRODUCT SPECIFICATIONS**SERVICE FITTINGS: UNIONS,
COUPLINGS, & ADAPTERS****Minimum Requirements:****PRE-APPROVED MANUFACTURERS:**

- **3/8" & 1/2" BRASS HEX NIPPLE-MALE PIPE THREAD**
 - MERIT BRASS
 - OR APPROVED EQUAL
- **INSERT FOR POLYETHYLENE TUBING (3/4"-2")**
 - MUELLER
 - FORD
 - OR APPROVED EQUAL
- **COPPER DISC (3/4" - 2")**
 - MUELLER
 - FORD
 - MCDONALD
 - OR APPROVED EQUAL
- **PLUG, BRASS (1/2" CORP. THREAD - 2" CORP. THREAD)**
 - MUELLER
 - FORD
 - MCDONALD
 - OR APPROVED EQUAL
- **BUSHING, REDUCING, CORP. THREAD (3/4"-2")**
 - FORD
 - MERIT BRASS
 - OR APPROVED EQUAL
- **BUSHING, REDUCING, CORP. THREAD TO PIPE THREAD (1" -2")**
 - FORD
 - OR APPROVED EQUAL

Date: September 20, 2021



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PRODUCT SPECIFICATIONS

SERVICE FITTINGS: UNIONS, COUPLINGS, & ADAPTERS

Minimum Requirements:



PRE-APPROVED MANUFACTURERS:

- **UNIONS, COPPER TO COPPER, THREE PARTS**
 - MUELLER CO
 - FORD
 - OR APPROVED EQUAL
- **UNIONS, COPPER TO IRON, THREE PARTS:**
 - MUELLER
 - OR APPROVED EQUAL
- **UNIONS, COPPER TO COPPER, TWO PARTS:**
 - MUELLER CO #H-15405,
 - FORD C02-XX,
 - OR APPROVED EQUAL.
- **UNIONS, COPPER TO LEAD:**
 - FORD
 - OR APPROVED EQUAL
- **STRAIGHT MALE ADAPTER:**
 - MUELLER CO,
 - FORD
 - OR APPROVED EQUAL.
- **STRAIGHT FEMALE ADAPTER:**
 - MUELLER CO,
 - FORD,
 - OR APPROVED EQUAL.
- **PETCOCK, BRASS, MALE TO FEMALE PIPE THREAD:**
 - WINTERS
 - OR APPROVED EQUAL

Date: September 20, 2021



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PRODUCT SPECIFICATIONS

SERVICE FITTINGS: UNIONS, COUPLINGS, & ADAPTERS

Minimum Requirements:



PRE-APPROVED MANUFACTURERS:

- **CAP, BRASS (1/2" – 2")**
 - MCDONALD
 - OR APPROVED EQUAL
- **BUSHING, REDUCING, NPT (1/4" – 3")**
 - MCDONALD
 - OR APPROVED EQUAL
- **BUSHING, REDUCING, MALE PIPE THREAD TO CORP. THREAD**
 - FORD
 - OR APPROVED EQUAL
- **BRASS ELBOW, 45° (1/4" – 2" FPT)**
 - MCDONALD
 - OR APPROVED EQUAL
- **BRASS ELBOW, 90° (1/4" – 2" FPT)**
 - MCDONALD
 - OR APPROVED EQUAL
- **BRASS ELBOW, 90°-STREET (1/4" – 2" FPT)**
 - MCDONALD
 - OR APPROVED EQUAL
- **BRASS TEE, FPT (1/4" – 2")**
 - MCDONALD
 - OR APPROVED EQUAL
- **BRASS COUPLING, FPT (1/4" -2")**
 - MCDONALD
 - OR APPROVED EQUAL
- **BRASS UNION, FPT (1/2" – 2")**
 - MCDONALD
 - OR APPROVED EQUAL

Date: September 20, 2021

CATEGORY 23.A

Erie County Water Authority
3030 Union Road
Cheektowaga NY 14227
Tel 716-684-1510
FAX 716-684-3937

PRODUCT SPECIFICATIONS**Minimum Requirements:****PRE-APPROVED MANUFACTURERS:**

- **EIGHTH BEND COUPLING WITH GASKET:**
 - MUELLER CO #H-15063,
 - FORD LA02-XX
 - OR APPROVED EQUAL.
- **QUARTER BEND COUPLING WITH GASKET:**
 - MUELLER CO #H-15068,
 - FORD L02-XX,
 - OR APPROVED EQUAL

Date: September 20, 2021

Sheet Number

5 of 5

**Erie County Water Authority**

3030 Union Road
Cheektowaga NY 14227
Tel 716-684-1510
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PRODUCT SPECIFICATIONS**CORPORATION STOPS****Minimum Requirements: (CATEGORY 23.B)**

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Corporation stops stem, washer, nut, Body, and key material shall be bronze meeting or exceeding ASTM B62, latest revision.
- Shall be ball valve type.
- Inlet shall be male threaded to conform to AWWA C800 with standard corporation stop thread to match the saddle.
- Outlet connections shall be fitted with a coupling nut for flared tube service, or a compression type fitting for water service lines, unless otherwise specified.
- Components shall be suitable for operating pressure meeting or exceeding AWWA C-800 criteria for high pressure application.

**PRE-APPROVED MANUFACTURERS:**

- **BRASS, PLUG VALVE, CC THREAD TO COPPER FLARE (5/8"X3/4")**
 - FORD
 - MUELLER
 - OR APPROVED EQUAL
- **BRASS, BALL VALVE, CC THREAD TO COPPER FLARE (3/4" – 2")**
 - FORD
 - MUELLER
 - OR APPROVED EQUAL
- **BRASS, BALL VALVE, CC THREAD TO COPPER COMPRESSION (1/2" – 2")**
 - FORD
 - MUELLER
 - OR APPROVED EQUAL

Date: September 20, 2021



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PRODUCT SPECIFICATIONS

CORPORATION STOPS



PRE-APPROVED MANUFACTURERS:

- **BRASS, BALL VALVE, MALE IRON PIPE TO COPPER FLARE (3/4" -1")**
 - FORD
 - MUELLER
 - OR APPROVED EQUAL
- **BRASS, BALL VALVE, CC THREAD TO MALE IRON PIPE THREAD (3/4" -1")**
 - FORD
 - MUELLER
 - OR APPROVED EQUAL
- **BRASS, BALL VALVE, CC THREAD TO FEMALE IRON PIPE THREAD (2")**
 - FORD
 - MUELLER
 - OR APPROVED EQUAL
- **2" CORP THREAD TO 2" MALE PIPE THREAD**
 - FORD
 - MUELLER
 - OR APPROVED EQUAL

Date: September 20, 2021



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Tel 716-684-1510
FAX 716-684-3937

PRODUCT SPECIFICATIONS**CORPORATION STOPS****PRE-APPROVED MANUFACTURERS:**

- **CORP BEND-SWIVEL 90, BRASS (3/4" -2" FLARE/COMPRESSION)**
 - FORD
 - MUELLER
 - OR APPROVED EQUAL
- **CORP BEND-SWIVEL 45, BRASS (3/4" -2" FLARE/COMPRESSION)**
 - FORD
 - MUELLER
 - OR APPROVED EQUAL

Date: September 20, 2021

Sheet Number

3 of 3



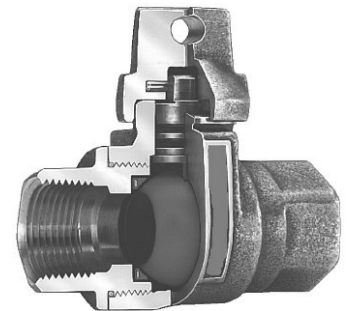
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 FAX 716-684-3937

PRODUCT SPECIFICATIONS

CURB STOPS

Minimum Requirements: (CATEGORY 23.C)

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Shall be manufactured to meet or exceed AWWA C800, latest revision.
- Body and component material shall be brass meeting or exceeding ASTM B62 (85-5-5-5), latest revision.
- Shall be the ball valve type with full port opening, quarter turn to open or close, and shall be suitable for potable water service buried application.
- Shall have a tee-head with a locking wing.
- Shall be watertight against flow in either direction.
- Seal around the stem shall consist of two O-rings.
- Shall have a working pressure of 300 psi, minimum. Components shall be suitable for operating pressure meeting or exceeding AWWA C-800 criteria for high pressure application.
- Shall have a pack-joint compression fitting on the inlet.



PRE-APPROVED MANUFACTURERS:

- MUELLER:
 - 3/4-INCH TO 2-INCH COPPER TO COPPER
 - 3/4-INCH TO 2-INCH COPPER TO IRON
 - 3/4-INCH TO 2-INCH IRON TO IRON
- FORD:
 - 3/4-INCH TO 2-INCH COPPER TO COPPER
 - 3/4-INCH TO 2-INCH COPPER TO IRON
 - 3/4-INCH TO 2-INCH IRON TO IRON
- OR APPROVED EQUAL

Date: September 20, 2021

CATEGORY 24

SERVICE SADDLES



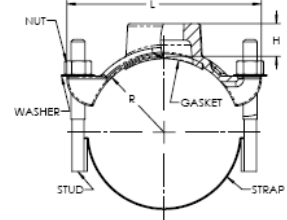
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 Cheektowaga NY 14227
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 FAX 716-684-3937

PRODUCT SPECIFICATIONS

SERVICE SADDLES (FOR D.I., A.C.P., & PVC)

Minimum Requirements:

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Shall meet or exceed AWWA C800, latest revision.
- Shall be double strap design or single shell band.
- Saddle material shall be ductile iron meeting or exceeding ASTM A536, latest revision or 304 SS.
- Material for the straps, bales, nuts, and washers shall be stainless steel (Type 304 minimum).
- Straps or shell band shall tighten to conform to the curvature of the pipe.
- An O-ring gasket confined in a retaining groove shall seal as the straps are tightened (double strap service saddle).
- EPDM to be rubber insulating boot for 304 SS shell band service saddle.
- The saddle shall have an outlet for the service connection that will accommodate an NPT or AWWA thread.
- Shall have a factory applied epoxy coating (DI only).



PRE-APPROVED MANUFACTURERS:

- SMITH-BLAIR (Series 317, 366)
- FORD METER BOX (FC202, FCD202)
- MUELLER (DR-2S)
- AY MCDONALD (4855A, 4856A)
- NO SUBSTITUTES ALLOWED.

Date: September 20, 2021



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 FAX 716-684-3937

PRODUCT SPECIFICATIONS

SERVICE SADDLES (FOR PCCP)

Minimum Requirements:

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Shall meet or exceed AWWA C800, latest revision.
- Shall be double strap design or single shell band.
- Saddle material shall be ductile iron meeting or exceeding ASTM A536, latest revision or 304 SS.
- Material for the straps, bales, nuts, and washers shall be stainless steel (Type 304 minimum).
- Straps or shell band shall tighten to conform to the curvature of the pipe.
- An O-ring gasket confined in a retaining groove shall seal as the straps are tightened (double strap service saddle).
- EPDM to be rubber insulating boot for 304 SS shell band service saddle.
- The saddle shall have an outlet for the service connection that will accommodate an NPT or AWWA thread.
- Shall have a factory applied epoxy coating



PRE-APPROVED MANUFACTURERS:

- JCM: #425,
- THOMPSON PIPE GROUP,
- NO SUBSTITUTES ALLOWED.

Date: September 20, 2021

Sheet Number

1 of 1

CATEGORY 27

OFFSETS – D.I. MECHANICAL JOINT



Erie County Water Authority
 3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS

DUCTILE IRON MECHANICAL JOINT OFFSETS

Minimum Requirements:

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Offsets shall be mechanical joint ductile iron compact body and shall meet or exceed AWWA/ANSI C153/A21.53 (latest revision) or C110/A21.1, latest revision.
- Joints shall meet or exceed AWWA/ANSI C111/ A21.11, latest revision.
- Fitting body material shall be ductile iron meeting or exceeding ASTM 536, latest revision.
- Pressure classification shall be 350, minimum.
- Working pressure shall be 150 psi, minimum.
- Mechanical or push-on joints shall be the rubber gasket compression type.
- Potable water main and fittings shall be cement lined and seal coated which shall meet or exceed AWWA/ANSI C104/A21.4, latest revision, except it shall be double thickness and a bituminous seal coat meeting NSF/ANSI Standard 61.
- Buried pipe and fittings shall be provided with an exterior bituminous coating in accordance with AWWA C151.
- Fittings may be lined with an NSF/ANSI Standard 61 approved fusion bonded epoxy meeting the applicable sections of AWWA C116.
- Fittings shall be suitable for use with polyvinyl chloride pressure pipe.



PRE-APPROVED MANUFACTURERS:

- AMERICAN CAST IRON PIPE COMPANY,
- CLOW WATER SYSTEMS COMPANY, A DIVISION OF MCWANE, INC.,
- GRIFFIN PIPE PRODUCTS COMPANY,
- SIGMA CORPORATION,
- STAR PIPE PRODUCTS, INC.,
- TYLER, A DIVISION OF MCWANE, INC.,
- UNITED STATES PIPE AND FOUNDRY COMPANY.
- OR APPROVED EQUAL.

Date: September 20, 2021

CATEGORY 29

METER COUPLING – SEWER REPAIR
MATERIAL



Erie County Water Authority
 3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS

WATER METER COUPLINGS, FLANGES, & GASKETS

Minimum Requirements:

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Shall meet or exceed AWWA C800, latest revision.
- Working pressure of 150 psi, minimum.

WATER METER COUPLING

- Meter couplings shall be bronze hex body with iron pipe thread, and bronze nut drilled for wire seal.

WATER METER FLANGES

- Meter flanges shall be bronze, tapped for iron pipe or have male iron pipe thread.

WATER METER GASKETS (RUBBER)

- Gaskets shall be 1/8-inch thick, not reinforced rubber.

WATER METER GASKETS (COMPOSITE)

- Gaskets shall be of composite material.



PRE-APPROVED MANUFACTURERS:

WATER METER COUPLINGS:

- FORD #C38 STRAIGHT BODY STYLE A,
- FORD #L38-NL, ANGLE,
- OR APPROVED EQUAL

WATER METER FLANGES:

- FORD #CF31-NL, #CF38-NL
- FORD #6F OR M; AND FORD #7F
- MCDONALD #7610-55
- OR APPROVED EQUAL

WATER METER GASKETS (RUBBER):

- FORD: #GT108, #GT114, #GT120R, #GT140, AND #GT141
- OR APPROVED EQUAL.

WATER METER GASKETS (COMPOSITE):

- FORD GT109, GT116, and GT121
- OR APPROVED EQUAL.

Date: September 20, 2021

**Erie County Water Authority**

3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS**METER BOX LIDS & RINGS****Minimum Requirements:**

- Meter box lids shall be locking, cast iron per ASTM A48, Class 25
- Standard pentagon bolt shall be furnished with locking lids
- The meter box lid shall meet or exceed a minimum proof load of 25,000 pounds on a 9" x 9" area.
- Extension Rings shall be cast iron per ASTM A48, Class 25
- Lids and rings shall be coated with a shop coat to minimize rusting prior to delivery (DI only).

**PRE-APPROVED MANUFACTURERS:**

- FORD METER BOX
- OR APPROVED EQUAL

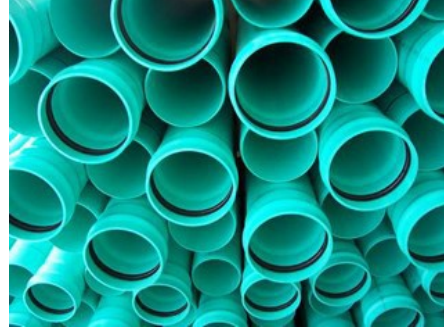
Date: September 20, 2021

**Erie County Water Authority**

3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS**PVC SEWER PIPE, & FITTINGS****Minimum Requirements:**

- All plastic sewer pipe and fittings shall conform to the requirements of ASTM D3034.
- All joints shall be of the bell and spigot type and conform to ASTM D3212. Gaskets shall be in accordance with ASTM F477.
- All bells shall be formed integrally with the pipe and shall contain a factory installed elastomeric gasket which is positively retained.
- All fittings shall have a push-on joint, unless otherwise specified, which is compatible with the pipe and shall conform to ASTM D3034.

**PRE-APPROVED MANUFACTURERS:**

- IPEX,
- NATIONAL PIPE AND PLASTICS, INC.,
- OR APPROVED EQUAL.

Date: September 20, 2021



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 Cheektowaga NY 14227
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PRODUCT SPECIFICATIONS

CORRUGATED FLEXIBLE HDPE UNDERDRAIN PIPE & FITTINGS

Minimum Requirements:

- Corrugated polyethylene pipe for storm sewers shall be manufactured of virgin PE compounds, which conform to the requirements of Type 111, Category "4 or 5," Grade P33, Class C; or Grade P34, Class C in accordance with ASTM D1248.
- Pipe stiffness of 12-inch size pipe at 5 percent deflection shall be 45 psi, 18-inch size pipe at 5 percent deflection shall be 40 psi, and 36-inch size pipe at 5 percent deflection shall be 22 psi
- Pipe shall be supplied with perforations and shall be supplied in 20-foot nominal lengths.
- All perforated pipe shall be supplied with manufacturer's standard perforations.
- All pipe shall be labeled and marked by the manufacturer in accordance with AASHTO Specification M294.
- Preformed fittings shall meet the same requirements as the pipe as specified above.
- Couplings used to join sections of piping shall be manufactured of the same materials as the adjoining piping and shall be spin-on type couplings.



PRE-APPROVED MANUFACTURERS:

- ADVANCED DRAINAGE SYSTEMS, INC. (ADS),
- OR APPROVED EQUAL.

Date: September 20, 2021

**Erie County Water Authority**

3030 Union Road
 Cheektowaga NY 14227
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 FAX 716-684-3937

PRODUCT SPECIFICATIONS**CORRUGATED HDPE DRAINAGE
PIPE & FITTINGS****Minimum Requirements:**

- HDPE drain pipe shall be N-12 WT IB pipe (per AASHTO), shall have a smooth interior and annular exterior corrugations. Pipe 4-through 10-inch (100 to 250 mm) pipe shall meet AASHTO M252, Type S. Pipe 12-through 60-inch (300 to 1500 mm) pipe shall meet AASHTO M294, Type S or ASTM F2306
- Pipe stiffness of 12-inch size pipe at 5 percent deflection shall be 45 psi, 18-inch size pipe at 5 percent deflection shall be 40 psi, and 36-inch size pipe at 5 percent deflection shall be 22 psi
- All pipe shall be labeled and marked by the manufacturer in accordance with AASHTO Specification M294.
- Fittings shall conform to AASHTO M252, AASHTO M294, or ASTM F2306.
- Pipe shall be joined using a bell & spigot joint meeting the requirements of AASHTO M252, AASHTO M294, or ASTM F2306. The joint shall be watertight according to the requirements of ASTM D3212. Gaskets shall meet the requirements of ASTM F477. Gaskets shall be installed by the pipe manufacturer and covered with a removable, protective wrap to ensure the gasket is free from debris.

**PRE-APPROVED MANUFACTURERS:**

- ADVANCED DRAINAGE SYSTEMS, INC. (ADS),
- OR APPROVED EQUAL.

Date: September 20, 2021



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PRODUCT SPECIFICATIONS

CORRUGATED METAL PIPE, & FITTINGS

Minimum Requirements:

- Corrugated metal pipe shall be manufactured from galvanized steel coils conforming to the applicable requirements of AASHTO M-218 or ASTM A929.
- Corrugated metal pipe shall be manufactured in accordance with the applicable requirements of AASHTO M-36 or ASTM A-760.
- CMP shall be manufactured from galvanized steel and shall have 2 2/3" x 1/2" corrugations.
- All pipe shall be labeled and marked by the manufacturer in accordance with AASHTO Specification M36.
- Preformed fittings shall meet the same requirements as the pipe as specified above.
- Couplings used to join sections of piping shall be manufactured of the same materials as the adjoining piping with a minimum of 18-gauge steel. Couplings for pipe up to 48" diameter shall be one piece, with bolt, bar and strap connector. Couplings shall be H-12 Hugger Band as manufactured by Contech Engineered Solutions or equal.



PRE-APPROVED MANUFACTURERS:

- CONTECH,
- OR APPROVED EQUAL.

Date: September 20, 2021



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PRODUCT SPECIFICATIONS

FLEXIBLE COUPLINGS

Minimum Requirements:

- Flexible sewer couplings shall consist of Type 304 stainless steel clamps and housing with a one-piece neoprene sleeve.
- Shall connect to pipe of the same or different size and same or different material.
- Shall provide a positive seal against infiltration and exfiltration.
- Bushings are not permitted.



PRE-APPROVED MANUFACTURERS:

- FERNCO (STANDARD, SS SHEAR RINGS, STRONG BACK RC, 5000 SERIES STRONG BACK, NO-HUB)
- OR APPROVED EQUAL.

Date: September 20, 2021

CATEGORY 31

COPPER TUBING

**Erie County Water Authority**

3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS**TYPE K COPPER TUBING FOR WATER SERVICES****Minimum Requirements:**

- Shall meet or exceed ANSI/NSF 61, latest revision.
- Shall meet or exceed the requirements of AWWA C800 (latest revision), Section A.2 and ASTM B88, latest revision, and Federal Specification WW-T-799a. Buried copper piping to a maximum 2-inch diameter shall be type K, soft temper, suitable for use with flared fittings. Exposed copper piping shall be Type L hard temper tubing.
- Fittings shall conform to ANSI B16.22
- Threaded fittings for underground tubing shall be of the compression type utilizing a totally confined grip seal and coupling nut.
- All copper piping and accessories must be new materials in first-class condition. Used or recycled materials will not be allowed, regardless of condition.

Notes:

- Soldered fittings are acceptable on above ground tubing.
- **MARKING:** All items shall be marked or labeled with the following information:
 - Metal or alloy designation.
 - Temper.
 - Size and schedule.
 - ASTM specification number.
 - Name and location of supplier.

**PRE-APPROVED MANUFACTURERS:**

- WIELAND,
- JMF,
- OR APPROVED EQUAL.

Date: September 20, 2021

Sheet Number

1 of 1

CATEGORY 36

NUTS, BOLTS, AND SOCKET CLAMPS



Erie County Water Authority
3030 Union Road
Cheektowaga NY 14227
Tel 716-684-1510
FAX 716-684-3937

PRODUCT SPECIFICATIONS
FLUOROCARBON COATED NUTS
AND BOLTS

Minimum Requirements:

- Fastener shall be high strength low alloy weathering steel per ANSI/AWWA C111/A21.1 and ASTM A242.
- Nuts and bolts shall have fluorocarbon coating for corrosion resistance. Corrosion resistance (salt spray ASTM B117), up to 2,000 hours.



PRE-APPROVED MANUFACTURERS:

- BIRMINGHAM FASTENER,
- ROMAC INDUSTRIES, INC, R-BLUE,
- NO SUBSTITUTIONS ALLOWED.

Date: September 20, 2021



Erie County Water Authority
 3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS

THREADED HARNESSING RODS AND BOLTING ACCESSORIES

Minimum Requirements:

- Threaded harnessing rods shall only be used when approved by the ENGINEER.
- Harness rods and nuts shall be heat treated steel with a minimum yield strength of 70,000 psi and a minimum ultimate strength of 110,000 psi.
- Threads shall conform to American Standard Course Threads.
- Rods and nuts shall be galvanized, or cadmium plated, unless otherwise specified.
- Non-coated materials may be protected with the application of two (2) coats of a bituminous preservative coating after installation.
- Oil, grease, paint, or any coating which requires drying will not be acceptable.



PRE-APPROVED MANUFACTURERS:

THREADED ROD & COUPLINGS:

- EMPIRE,
- OR APPROVED EQUAL.

FRICTION CLAMPS:

- EMPIRE,
- OR APPROVED EQUAL.

Date: September 20, 2021

Sheet Number

1 of 1

CATEGORY 45

PCCP ADAPTERS



Erie County Water Authority
 3030 Union Road
 Cheektowaga NY 14227
 Tel 716-684-1510
 FAX 716-684-3937

PRODUCT SPECIFICATIONS

PCCP ADAPTERS

Minimum Requirements:

- Manufacturer shall have minimum 10 years' experience fabricating adapters.
- Manufacturer shall be a member of the American Concrete Pressure Pipe Association and hold a current audit certification from Lloyd's Register for the facility in which the fittings will be fabricated.
- Working pressure: 175 psi
- Steel thickness of all adapter fittings shall be designed in accordance with Chapter 8 of the AWWA M9 Manual for Concrete Pressure Pipe.
- Fabrication of the adapters shall be as per AWWA M9 Manual and the AWWA C301 Standard for the Manufacture of Prestressed Concrete Steel Cylinder Pipe.
- Interior and exterior concrete/mortar coating shall be as per the AWWA C301 Standard.
- Rubber gasket meeting the requirements of AWWA C301 shall be included.
- Grout bands shall be included.
- Laying length: plain end of adapter shall be long enough to accommodate the installation of solid sleeve and mechanical joint restraint, which includes enough access to properly tighten fasteners used to connect solid sleeve and mechanical joint restraint.



PRE-APPROVED MANUFACTURERS:

- THOMPSON PIPE GROUP
- OR APPROVED EQUAL.

Date: September 20, 2021

APPENDIX B
INSURANCE REQUIREMENTS
ERIE COUNTY WATER AUTHORITY

**WATERMAIN MATERIALS PURCHASE CONTRACT,
JANUARY 1, 2022 THROUGH DECEMBER 31, 2023
PROJECT NO: 202200001**

Insurance specs:

The following minimum insurance requirements shall apply to vendors providing services to the Erie County Water Authority (the Authority). If a service or project, in the opinion of the Authority, represents an unusual or exceptional risk, the Authority may establish additional insurance requirements for that service or project. All insurance required herein shall be obtained at the sole cost and expense of the contractor, including deductibles and self-insured retentions, and shall be in full force and effect on the contract commencement date and for the lifetime use of vendors "Product" and/or applicable statute of limitation. These requirements include but are not limited to the minimum insurance requirements.

Insurance Requirements:

a. Workers Compensation:

Part 1: Workers Compensation: Statutory

Part 2: Employers Liability: \$1,000,000.

Note: If New York State domiciled employees are used, coverage to be New York Statutory for both Parts 1 and 2

b. New York Disability Benefits Liability: Statutory coverage if New York State domiciled employees are used.

c. Commercial General Liability:

- \$2,000,000. General Aggregate
- \$2,000,000. Products/Completed Operations Aggregate
- \$1,000,000. Each Occurrence
- \$1,000,000. Personal Injury/Advertising Liability
- Erie County Water Authority to be scheduled as an Additional Insured for both on-going and completed operations (attach Additional Insured endorsement to Certificate of Insurance)
- Insurance to be primary and non-contributory

d. Automobile Liability:

- \$1,000,000. Each Accident
- Erie County Water Authority to be scheduled as an Additional Insured.

e. Umbrella Liability:

- \$5,000,000. Each Occurrence
- \$5,000,000. Aggregate
- Erie County Water Authority to be scheduled as an Additional Insured

Certificates of Insurance to be provided to the Authority prior to start of work as follows:

ACORD 25 including copy of Additional Insured Endorsement

Note: If coverage provided for NYS domiciled employees require Forms C 105.2 and DB 120.1 for Workers Compensation and NYS DBL.

Certificates of Insurance, on forms approved by the New York State Department of Insurance, must be submitted to the Authority prior to the award of contract. Renewals of Certificates of Insurance, on forms approved by the New York State Department of Insurance, must be received by the Authority 30 days prior to the expiration of the insurance policy period.

Certificates of Insurance and renewals, on forms approved by the New York State Department of Insurance, must be submitted to the Authority prior to the award of contract. Each insurance carrier issuing a Certificate of Insurance shall be rated by A. M. Best no lower than "A-" with a Financial Strength Code (FSC) of at least VII. The professional service provider shall name the Authority, its officers, agents and employees as additional insured on a Primary and Non-Contributory Basis, including a Waiver of Subrogation endorsement (form CG 20 26 11 85 or equivalent), on all applicable liability policies. Any liability coverage on a "claims made" basis should be designated as such on the Certificate of Insurance. Such insurance shall continue through the term of this Agreement and vendor shall purchase at his sole expense either 1) an Extended Reporting Endorsement (also, known as Tail Coverage); or 2) Prior Acts Coverage from new insurer with a retroactive date back to the date of, or prior to, the inception of this Agreement; or 3) demonstrate through Certificates of Insurance that vendor has Maintained continuous coverage with the same or original insurer. Coverage provided under items; 1), 2), or 3) will continue as long as the law allows.

To avoid confusion with similar insurance company names and to properly identify the insurance company, please make sure that the insurer's National Association of Insurance Commissioners (N.A.I.C.) identifying number or A. M. Best identifying number appears on the Certificate of Insurance. Also, at the top of the Certificate of Insurance, please list the project number.

Acceptance of a Certificate of Insurance and/or approval by the Authority shall not be construed to relieve the outside vendor of any obligations, responsibilities or liabilities.

Certificates of Insurance should be e-mailed to mmusarra@ecwa.org or mailed to Ms. Molly Jo Musarra, Claim Representative/Risk Manager Erie County Water Authority, 295 Main Street – Room 350, Buffalo, New York 14203-2494, or If you have any questions you can contact Ms. Musarra by e-mail or phone (716) 849-8465.