

**CONTRACT DOCUMENTS**

**AND TECHNICAL SPECIFICATIONS**

**FOR THE**

# **SHELL POTABLE WATER LINE**

**ST. JOHN THE BAPTIST PARISH, LOUISIANA**

**PARISH PRESIDENT**

**Natalie Robottom**

**COUNCIL**

**Larry Sorapuru, Jr., Councilman at Large, Division A**

**Jaclyn Hotard, Councilwoman at Large, Division B**

**Kurt Becnel, Councilman District I**

**Julia Remonet, Councilman District II**

**Lennix Madere, Jr., Councilman District III**

**Marvin Perrilloux, Councilman District IV**

**Michael Wright, Councilman District V**

**Larry Snyder, Councilman District VI**

**Thomas Malik, Councilman District VII**

**SEPTEMBER 2018**



**N-Y JOB NO. 17007**

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**SECTION 00010**

**ADVERTISEMENT FOR BIDS**

**St. John the Baptist Parish Council (herein referred to as the "Owner")**

Sealed bids shall be received by the Owner for the construction of the project described as follows: Potable water main installation on the north side of US 61 from Concha Lane to west of Terre Haute Road.

Bids shall be addressed to the St. John the Baptist Parish Council and delivered to the receptionist at the Parish President's Office in the Percy Hebert Building, 1801 West Airline Hwy, LaPlace, LA. not later than **2:45 o'clock P.M. on Tuesday, November 27, 2018. Bid envelope shall be marked "Sealed Bid – Shell Water Line"**. Any bids received after the specified time and date will not be considered. The sealed bids will be publicly opened and read aloud at 3:00 o'clock P. M. that same date in the St. John the Baptist Parish Joel S. McTopy Council Chambers located at 1801 West Airline Hwy, LaPlace, LA.

**A Non-Mandatory Pre-Bid meeting will be held on Thursday, November 8, 2018 at 10:00 A.M. in the Joel S. McTopy Council Chambers located at 1801 West Airline Hwy., LaPlace, LA. All interested bidders are encouraged to attend. All questions should be directed to Jean Stewart, Director of Purchasing, [j.stewart@stjohn-la.gov](mailto:j.stewart@stjohn-la.gov) or [J.gauthier@stjohn-la.gov](mailto:J.gauthier@stjohn-la.gov) on or before November 15, 2018.**

The Information for Bidders, Form of Bid Proposal, Form of Contract, Plans, Specifications and Forms of Bid Bond, Performance Bond, insurance and other contract documents may be examined at the Office of N-Y Associates, Inc. located at 2750 Lake Villa Drive, Suite 100, Metairie, LA 70002, Phone (504) 885-0500. Copies may be obtained at that office upon payment of \$200 which constitutes the cost of reproduction and handling. Details may be viewed, and electronic bids are being accepted @ [www.centralbidding.com](http://www.centralbidding.com).

The Owner reserves the right to accept or reject any and all bids and to waive any irregularities or informalities incidental thereto, and to accept any bid, which the Owner feels, serves their best interest. Such action will be in accordance with Title 38 of the Louisiana Revised Statutes.

Bids shall be received from Bidders only on the Bid Form in the Bidding Documents which is issued to him in his name, as provided in the Louisiana Revised Statutes R.S. 37:2162(b). A single bid shall be submitted for all portions of the Contract Work.

Each Bidder must deposit with his/her bid, security in the amount equal to five percent (5%) of the total bid in the form of a certified check, cashier's check or bid bond.

All bidders must show proof that he/she is licensed in the State of Louisiana to perform this type of construction. ***Contractor's license number must appear on the face of the sealed envelope containing the bid.***

*St. John the Baptist Parish Council, being a government agency, is exempt from all sales tax. The vendor awarded the contract will be provided documentation to support their tax-free purchases for this project. Therefore, the amount you bid should contain no sales tax.*

The successful bidder will be required to furnish a Performance and Payment Bond written by a company licensed to do business in Louisiana, in the amount equal to one hundred percent (100%) of the contract price. Certificates of Insurance will also be required as specified in the bid package.

No bidder may withdraw his/her bid within forty-five (45) days after the actual date of opening thereof.

The Contractor shall begin mobilization and procurement of necessary materials within ten (10) working days of the receipt of the Notice to Proceed.

Any person with disabilities requiring Special Accommodation must contact The St. John the Baptist Parish Council Office at (985) 652-9569 no later than seven (7) days prior to bid opening. Participation by minority and female owned business, as well as businesses located in this Parish is encouraged.

ST. JOHN THE BAPTIST PARISH COUNCIL

**Publish:**

**Wednesday, October 24, 2018**

**Wednesday, October 31, 2018**

**Wednesday, November 7, 2018**

## **BIDDER'S CHECKLIST**

- Bid Forms including all unit prices and bid sheets. (Remember: In case of mathematical discrepancies the unit price shall take precedence – so check the unit prices and extensions carefully).
- Authorized signature of bidder on bid forms.
- Bid Bond or bid security.
- Bidder is advised to pay strict attention to bond requirements.
- Acknowledge all addenda.
- Contractor's name and license number on the outside of the envelope.
- Proper labeling as bid for the project on outside of the envelope.
- Delivered to the Purchasing and Procurement Department.

# LOUISIANA UNIFORM PUBLIC WORK BID FORM

**TO:** St. John the Baptist Parish  
1801 W. Airline Hwy.  
Laplace, LA 70068  
\_\_\_\_\_  
*(Owner to provide name and address of owner)*

**BID FOR:** St. John the Baptist Parish  
Shell Potable Water Line  
\_\_\_\_\_  
*(Owner to provide name of project and other identifying information)*

The undersigned bidder hereby declares and represents that she/he; a) has carefully examined and understands the Bidding Documents, b) has not received, relied on, or based his bid on any verbal instructions contrary to the Bidding Documents or any addenda, c) has personally inspected and is familiar with the project site, and hereby proposes to provide all labor, materials, tools, appliances and facilities as required to perform, in a workmanlike manner, all work and services for the construction and completion of the referenced project, all in strict accordance with the Bidding Documents prepared by: N-Y Associates., Inc.  
\_\_\_\_\_ and dated: \_\_\_\_\_.  
*(Owner to provide name of entity preparing bidding documents.)*

Bidders must acknowledge all addenda. The Bidder acknowledges receipt of the following **ADDENDA:** (Enter the number the Designer has assigned to each of the addenda that the Bidder is acknowledging) \_\_\_\_\_.

**TOTAL BASE BID:** For all work required by the Bidding Documents (including any and all unit prices designated "Base Bid" \* but not alternates) the sum of:  
\_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

**ALTERNATES:** For any and all work required by the Bidding Documents for Alternates including any and all unit prices designated as alternates in the unit price description.

**Alternate No. 1** *(Alternate No.1 is a deduct alternate for installing an 8" water main in lieu of a 12" water main)* for the lump sum of:  
\_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

**Alternate No. 2** *(Owner to provide description of alternate and state whether add or deduct)* for the lump sum of:  
\_\_\_\_\_ N/A \_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

**Alternate No. 3** *(Owner to provide description of alternate and state whether add or deduct)* for the lump sum of:  
\_\_\_\_\_ N/A \_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

**NAME OF BIDDER:** \_\_\_\_\_

**ADDRESS OF BIDDER:** \_\_\_\_\_

**LOUISIANA CONTRACTOR'S LICENSE NUMBER:** \_\_\_\_\_

**NAME OF AUTHORIZED SIGNATORY OF BIDDER:** \_\_\_\_\_

**TITLE OF AUTHORIZED SIGNATORY OF BIDDER:** \_\_\_\_\_

**SIGNATURE OF AUTHORIZED SIGNATORY OF BIDDER \*\*:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

\* The Unit Price Form shall be used if the contract includes unit prices. Otherwise it is not required and need not be included with the form. The number of unit prices that may be included is not limited and additional sheets may be included if needed.

\*\* If someone other than a corporate officer signs for the Bidder/Contractor, a copy of a corporate resolution or other signature authorization shall be required for submission of bid. Failure to include a copy of the appropriate signature authorization, if required, may result in the rejection of the bid unless bidder has complied with La. R.S. 38:2212(B)5.

**BID SECURITY** in the form of a bid bond, certified check or cashier's check as prescribed by LA RS 38:2218.A is attached to and made a part of this bid.

# LOUISIANA UNIFORM PUBLIC WORK BID FORM

## UNIT PRICE FORM

**TO:** St. John the Baptist Parish  
1801 W. Airline Hwy.  
Laplace, LA 70068

**BID FOR:** St. John the Baptist Parish  
Shell Potable Water Line

*(Owner to provide name and address of owner)*

*(Owner to provide name of project and other identifying information)*

**UNIT PRICES:** This form shall be used for any and all work required by the Bidding Documents and described as unit prices. Amounts shall be stated in figures and only in figures.

DESCRIPTION:	REMOVAL OF STRUCTURES AND OBSTRUCTIONS <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.#	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
202-01-00100	1 LUMP SUM	\$3,000.00	\$10,000.00

DESCRIPTION:	TEMPORARY EROSION CONTROL <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.#	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
204-01-10000	1 LUMP SUM		

DESCRIPTION:	TRAFFIC MAINTENANCE AGGREGATE (TRUCK MEASUREMENT) <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.#	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
402-01-00100	20 CY		

DESCRIPTION:	ASPHALTIC CONCRETE PAVEMENT PATCHING (9" THICK) <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.#	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
510-01-00100	17 SY		

DESCRIPTION:	HYDRO-SEEDING <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.#	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
739-01-00100	1 ACRE		

DESCRIPTION:	MOBILIZATION <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.#	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
727-01-00100	1 LUMP SUM		

DESCRIPTION:	MAINTENANCE OF TRAFFIC, TEMP. SIGNS, AND BARRICADES <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.#	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
NS-MNT-20032	1 LUMP SUM		

DESCRIPTION:	AIR RELEASE VALVE W/ MANHOLE 1" <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.#	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
NS-P55-23500	1 EACH		

DESCRIPTION:	FIELD ENGINEERING AND SURVEYING <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# _____		
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE
S-006	1	LUMP SUM	UNIT PRICE EXTENSION (Quantity times Unit Price)
DESCRIPTION:	WATER MAIN (8") (PVC C900) <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# _____		
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE
W-102	40	LF	UNIT PRICE EXTENSION (Quantity times Unit Price)
DESCRIPTION:	WATER MAIN (8") (PVC C900) <input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 1		
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE
W-103	3400	LF	UNIT PRICE EXTENSION (Quantity times Unit Price)
DESCRIPTION:	WATER MAIN (12") (PVC C900) <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# _____		
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE
W-104	3400	LF	UNIT PRICE EXTENSION (Quantity times Unit Price)
DESCRIPTION:	GATE VALVE AND VALVE BOX (8") <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# _____		
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE
W-406	1	EACH	UNIT PRICE EXTENSION (Quantity times Unit Price)
DESCRIPTION:	GATE VALVE AND VALVE BOX (8") <input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 1		
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE
W-407	3	EACH	UNIT PRICE EXTENSION (Quantity times Unit Price)
DESCRIPTION:	GATE VALVE AND VALVE BOX (12") <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# _____		
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE
W-408	3	EACH	UNIT PRICE EXTENSION (Quantity times Unit Price)
DESCRIPTION:	PIPE RESTRAINTS (8") <input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 1		
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE
W-704	76	EACH	UNIT PRICE EXTENSION (Quantity times Unit Price)
DESCRIPTION:	PIPE RESTRAINTS (12") <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# _____		
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE
W-706	76	EACH	UNIT PRICE EXTENSION (Quantity times Unit Price)
DESCRIPTION:	TRANSITIONAL COUPLINGS (8") <input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 1		
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE
W-802	1	EACH	UNIT PRICE EXTENSION (Quantity times Unit Price)
DESCRIPTION:	TRANSITIONAL COUPLINGS (12") <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# _____		
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE
W-804	1	EACH	UNIT PRICE EXTENSION (Quantity times Unit Price)

DESCRIPTION:	DUCTILE IRON FITTINGS <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# _____		
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE
W-901	6500	POUNDS	
			UNIT PRICE EXTENSION (Quantity times Unit Price)
DESCRIPTION:	FIRE HYDRANT ASSEMBLY <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# _____		
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE
W-902	1	EACH	
			UNIT PRICE EXTENSION (Quantity times Unit Price)
DESCRIPTION:	WATERLINE VERTICAL OFFSET (8") <input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 1		
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE
W-909	1	EACH	
			UNIT PRICE EXTENSION (Quantity times Unit Price)
DESCRIPTION:	WATERLINE VERTICAL OFFSET (12") <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# _____		
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE
W-911	1	EACH	
			UNIT PRICE EXTENSION (Quantity times Unit Price)

Wording for "DESCRIPTION" is to be provided by the Owner.  
All quantities are estimated. The contractor will be paid based upon actual quantities as verified by the Owner

**BID BOND**

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned,

\_\_\_\_\_

as Principal, and \_\_\_\_\_

as Surety, are hereby held and firmly bound unto

\_\_\_\_\_ as OWNER in the penal sum of  
\_\_\_\_\_ for the payment of which,

well and truly to be made, we hereby jointly and severally bind ourselves, successors and assigns.

Signed this \_\_\_\_\_ day of \_\_\_\_\_, 2018. The Condition of the above obligation is such that whereas the Principal has submitted to \_\_\_\_\_ a certain BID, attached hereto and hereby made a part hereof to enter into a contract in writing, for the

\_\_\_\_\_  
\_\_\_\_\_

NOW, THEREFORE,

- a) If said BID shall be rejected, or
- b) If said BID shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto (properly completed in accordance with said BID) and shall furnish a BOND for his faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said BID, then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received hereby stipulates and agrees that the obligations of said Surety and its BOND shall be in no way impaired or affected by any extension of the time within which the OWNER may accept such BID; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

\_\_\_\_\_  
Principal

\_\_\_\_\_  
Surety

BY: \_\_\_\_\_

NOTE: Surety bonds shall be procured according to Louisiana State Law. Any surety bond written for a public works project shall be written by a surety or insurance company currently on the U. S. Department of the Treasury Financial Management Service list of approved bonding companies which is published annually in the Federal Register, or by a Louisiana domiciled insurance company with at least an A-rating in the latest printing of the A. M. Best's Key Rating Guide to write individual bonds up to ten percent of policyholders' surplus as shown in the A. M. Best's Key Rating Guide or by an insurance company that is either domiciled in Louisiana or owned by Louisiana residents and is licensed to write surety bonds.

**AFFIDAVIT**

STATE OF LOUISIANA

PARISH OF \_\_\_\_\_

BEFORE ME, the undersigned authority personally came and appeared,

\_\_\_\_\_, who after first being sworn, deposes and says: that he is \_\_\_\_\_ (a partner of the firm of, etc.)

\_\_\_\_\_. The party making the foregoing Proposal or bid; that such bid is genuine and not collusive or a sham; that said bidder has not colluded, conspired, connived, or agreed directly or indirectly, with any bidder or person to put in a sham bid, or that such other person shall refrain from bidding, and has not in any manner, directly or indirectly, sought by agreement, or collusion, or communication or conference with any person to fix the bid price of affiance or any other bidder, or to fix any overhead profit or cost element of said bid price or that of any other bidder, or to secure any advantage against ST. JOHN THE BAPTIST PARISH, State of Louisiana, (Owner), or any person interested in the proposed Contract; and that all statements contained in said proposal or bid, or the contents thereof, or divulged information or data relative hereto to any association or any member or agent thereof, are true.

\_\_\_\_\_

SWORN TO AND SUBSCRIBED

BEFORE ME ON THIS \_\_\_\_\_

DAY OF \_\_\_\_\_, 2018

\_\_\_\_\_  
(Notary Public)

My commission expires \_\_\_\_\_.

**CONTRACT FORM**  
**FOR**  
**SHELL POTABLE WATER LINE**  
**ST. JOHN THE BAPTIST PARISH, LOUISIANA**

THIS AGREEMENT, made this \_\_\_\_\_ day of \_\_\_\_\_, 2018 at the St. John the Baptist Parish Government, State of Louisiana by and between St. John the Baptist Parish, Louisiana, hereinafter called "Owner" and \_\_\_\_\_, hereinafter called the "Contractor."

WITNESSETH THAT, the Owner and Contractor do mutually agree as follows:

1. In consideration of the price for the work herein specified in the bid proposal to be paid by the Owner to the Contractor at the time and in a manner hereinafter provided, the Contractor does hereby agree to construct complete in every detail as follows:

**SHELL POTABLE WATER LINE**  
**ST. JOHN THE BAPTIST PARISH, LOUISIANA**

in compliance with the Advertisement of Bids, Proposal Form, Contract, Performance Bond, General Conditions, Specifications, Plans, and such Addenda thereto as may be issued prior to execution of this Contract, all in a thorough and workmanlike manner.

2. This price shall include the cost and expense to furnish all materials, supplies, machinery, equipment, tools, superintendence, labor, insurance, transportation, and other accessories and services necessary to complete this project, in accordance with the Contract Documents.
3. The Contractor shall commence work under this Contract within **ten (10) days** from the date of the written "Notice to Proceed" issued by the Owner. The Contractor shall complete all work under the Contract within **Ninety (90) calendar days** from the date of the "Notice to Proceed." The Owner has determined, and the Contractor agrees, that the liquidated damages for a delay in completion of this Contract will be **Five Hundred Dollars (\$500.00)** per calendar day in excess of the stated time of completion.
4. That upon satisfactory completion of the work and approval by the Engineer, the Owner will issue a written acceptance of the work to the Contractor, who will immediately thereafter file same with the Recorder of Mortgages in St. Tammany Parish.

5. A retainage of ten percent (10%) shall be withheld from each progress payment. Upon successful clearance of the lien, the Contractor shall submit a final invoice, with the clear lien certificate, for payment by the Owner in accordance with invoice payment procedures outlined in Article 14.13 Final Payment. The retainage amount for contracts \$500,000.00 or greater shall be five percent (5%).
6. The Owner agrees to pay the Contractor for the performance of the Contract as provided in the Specifications, and to make monthly payments on account thereof provided in the General Conditions. The contract amount, as presented in bid by Contractor, is \$ \_\_\_\_\_.
7. Owner and Contractor specifically agree and declare that Owner shall be deemed and considered the statutory employer of Contractor's employees.

8. **HOLD HARMLESS, DEFEND AND INDEMNIFICATION AGREEMENT**

\_\_\_\_\_ (Other Party) agrees to save and hold harmless, protect, defend, and indemnify St. John the Baptist Parish the City of Slidell, Louisiana, its officers, agents, employees and volunteers, from and against any and all claims, demands, expenses and liability arising out of injury or death to any person or the damage, loss or destruction of any property which may occur or in any way grow out of any act or omission of \_\_\_\_\_ (Other Party), its agents, servants and employees, or any and all costs, expenses and/or attorney fees incurred by St. John the Baptist Parish as a result of any claim, demands, and/or causes of action, except those claims, demands, and/or causes of action arising out of the negligence of St. John the Baptist Parish, Louisiana, its agents, representatives, employees and volunteers. \_\_\_\_\_ (Other Party) agrees to investigate, handle, respond to, provide defense for and defend any such claims, demands or suits at its sole expense and agrees to bear all other costs and expenses related thereto, even if the claim, demand or suit is groundless, false or fraudulent.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed in **three (3)** original counterparts on the day and year first hereinabove written.

WITNESSES:

	Contractor
	Signature
	Printed Name
	Title

WITNESSES:

	<b><u>ST. JOHN THE BAPTIST PARISH</u></b>
	Owner
	Signature
	Natalie Robottom
	Printed Name
	Parish President
	Title

**PERFORMANCE AND PAYMENT BOND**

KNOW ALL MEN BY THESE PRESENTS: That we (1) \*

\_\_\_\_\_ and (2) \*

\_\_\_\_\_ hereinafter called "Principal" and (3) \*

\_\_\_\_\_ a Surety Company  
authorized to do and doing business in the State of Louisiana, hereinafter called  
"Surety" are held and firmly bound unto St. John the Baptist Parish, Louisiana,  
hereinafter called "Owner" in penal sums of

\_\_\_\_\_ dollars  
(\$ \_\_\_\_\_) Performance Bond and \_\_\_\_\_ dollars  
(\$ \_\_\_\_\_) Payment Bond in lawful money of the United States, for the payment of  
which sum well and truly to be made, we bind ourselves, our heirs, executors,  
administrators, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that, whereas, the Principal entered  
into a certain contract with the Owner dated the \_\_\_\_\_ day of \_\_\_\_\_,  
2018, a copy of which is hereto attached and made a part hereof for the furnishing of:

SHELL POTABLE WATER LINE  
ST. JOHN THE BAPTIST PARISH, LOUISIANA

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all  
the undertakings, covenants, terms, conditions and agreements of said contract during  
the original term thereof which may be granted by the owner, with or without notice to  
the Surety, and if he shall satisfy all claims and demands incurred under such contract,  
and shall fully indemnify and save harmless the Owner from all costs and damages  
which it may suffer by reason of failure to do so, and shall reimburse and repay the  
Owner all outlay and expense which the Owner may incur in making good any default,  
and shall promptly make payment to all persons, firms, subcontractors, and  
corporations furnishing materials for or performing labor in the prosecution of the work  
provided for in such contract, and any authorized extension or modification thereof,  
including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs  
on machinery, equipment, and tools, consumed or used in connection with the  
prosecution of such work, and all insurance premiums on said work whether by  
subcontractor or otherwise, then this obligation shall be void; otherwise to remain in full  
force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and  
agrees that no change, extension of time, alterations or addition to the terms of the  
contract or to the work to be performed thereunder or the specifications accompanying  
the same shall in anywise affect its obligation on this bond, and it does hereby waive

notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work of the Specifications.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is execute in **three (3)** originals each one of which shall be deemed an original, this the \_\_\_\_\_ day of \_\_\_\_\_, 2018.

ATTEST: \_\_\_\_\_  
(Principal Secretary) Principal

BY: \_\_\_\_\_

\_\_\_\_\_

Address

\_\_\_\_\_  
Witness as to Principal

\_\_\_\_\_  
Address

ATTEST: \_\_\_\_\_  
(Surety) Secretary

(SEAL) \_\_\_\_\_  
Surety

\_\_\_\_\_  
Witness as to Surety BY: \_\_\_\_\_  
Attorney-in-Fact

\_\_\_\_\_  
Address

\_\_\_\_\_  
Address

NOTE: DATE OF BOND MUST NOT BE PRIOR TO DATE OF THIS AGREEMENT.

- \* 1. Correct name of Contractor.
- \* 2. A Corporation, a partnership, or an Individual, as case may be.
- \* 3. Correct name of Surety.

**CHANGE ORDER FORM**  
**ST. JOHN THE BAPTIST PARISH, LOUISIANA**

---

Change Order No.: \_\_\_\_\_

Date: \_\_\_\_\_

Contract Recordation Date: \_\_\_\_\_

Instrument No.: \_\_\_\_\_

---

Name of Project:

Project No.:

Engineer:

Contractor:

---

It is hereby mutually agreed that when this change order has been signed by the contracting parties the following described changes in the work required by the contract shall be executed by the contractor without changing the terms of the contract except as herein stipulated and agreed. The parties hereto certify that this Change Order is consistent with and within the original scope of this Contract.

---

Description of Changes:

Justification for Changes:

---

Contractor's Proposal for the Above Described Change:

I/We hereby agree to the modifications of the contract as described above and furnish all materials and labor and perform all work in connection therewith in accordance with the requirements for similar work in existing contract except as otherwise stipulated herein, for the following consideration:

---

Name of Project: \_\_\_\_\_

Contractor: \_\_\_\_\_

---

Contractor's Signature

---

Contractor's Printed/ Typed Name

Change Order No. \_\_\_\_\_

---

Name of Project: \_\_\_\_\_

Architect/ Engineer: \_\_\_\_\_

\_\_\_\_\_  
Architect/ Engineer's Signature

\_\_\_\_\_  
Architect/ Engineer's Printed/ Typed Name

---

RECOMMENDED BY: St. John the Baptist Parish, Utilities Department

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

---

APPROVED BY:

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

---

STATEMENT OF CONTRACT AMOUNT:

	COST	TIME (DAYS)
ORIGINAL CONTRACT AMOUNT	\$ _____	_____
PREVIOUS ADDITION	\$ _____	_____
TOTAL	\$ _____	_____
PREVIOUS DEDUCTIONS	\$ _____	_____
NET PRIOR TO CHANGE	\$ _____	_____
AMOUNT OF CHANGE (ADD)	\$ _____	_____
CONTRACT AMOUNT TO DATE	\$ _____	_____

---

**ST. JOHN THE BAPTIST PARISH, LOUISIANA  
CERTIFICATE OF SUBSTANTIAL COMPLETION**

**PROJECT NAME:**

SHELL POTABLE WATER LINE

\_\_\_\_\_

**PROJECT NUMBER:** \_\_\_\_\_

**INSTRUMENT NUMBER:** \_\_\_\_\_

**DATE OF RECORDATION:** \_\_\_\_\_

**CONTRACT DATE:** \_\_\_\_\_

**OWNER:**

St. John the Baptist Parish, Louisiana  
1801 W. Airline Hwy.  
Laplace, LA 70068

**CONTRACTOR:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The Work performed under this Contract has been reviewed and found, to the Architect/Engineer's best knowledge, information, and belief, to be substantially complete. Substantial Completion is the stage in the progress of the Work when the Work or designated portion is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use. The date of the Substantial Completion of the Project or portion designated above is the date of issuance established by this Certificate, which is also the date of commencement of applicable warranties required by the Contract Documents, except as stated below:

\_\_\_\_\_

A list of items to be completed or corrected is attached hereto. The failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. Unless otherwise agreed to in writing, the date of commencement of warranties for items on the attached list will be the date of issuance of the final Certificate of Payment or the date of final payment.

**Cost estimate of Work that is incomplete or defective \$** \_\_\_\_\_.

The Contactor will complete or correct the Work on the list of items attached hereto **within Forty-five (45) days** from the above date of Substantial Completion.

<b>Contractor</b>	<b>Signature</b>	<b>Date</b>
<b>Architect/Engineer</b>	<b>Signature</b>	<b>Date</b>

*The Owner accepts the Work or designated portion as substantially complete*  
\_\_\_\_\_ *(date of substantial completion).*

**RECOMMENDED BY:**

<b>St. John the Baptist Parish Utilities Department</b>		<b>Date</b>
---	--	-------------

**APPROVED BY:**

<b>St. John the Baptist Parish Owner</b>		<b>Date</b>
--	--	-------------

## INSTRUCTIONS TO BIDDERS

### 1. DEFINED TERMS

Terms used in these Instructions to Bidders which are defined in the Standard General Conditions of the Construction Specifications have the meanings assigned to them in the General Conditions.

### 2. QUALIFICATIONS OF BIDDERS

To demonstrate his qualifications for the Project, each Bidder must be prepared to submit within five days of Owner's request written evidence of the types set forth in the Supplementary Conditions or General Conditions, such as financial data, previous experience and evidence of authority to conduct business in the jurisdiction where the Project is located.

### 3. EXAMINATION OF CONTRACT DOCUMENTS AND SITE

- 3.1 Before submitting his Bid, each bidder must (a) examine the Contract Documents thoroughly, (b) visit the site to familiarize himself with local conditions that may in any manner affect performance of the Work, (c) familiarize himself with Federal, State and local laws, ordinances, rules and regulations affecting performance of the Work; and (d) carefully correlate his observations with the requirements of the Contract Documents.
- 3.2 The submission of a Bid will constitute an incontrovertible representation by the Bidder that he has complied with every requirement of this Article 3.

### 4. INTERPRETATIONS

All questions about the meaning or intent of the Contract Documents shall be submitted to Engineer in writing. Replies will be issued by Addenda mailed or delivered to all parties recorded by Engineer as having received the bidding documents. Questions received less than five days prior to the date of opening of Bids will not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

### 5. BID SECURITY

The amount and type of Bid Security is stated in the Invitation to bid. The required security must be in the form of a certified or bank cashier's check made payable to Owner or a bid bond issued by a surety licensed to conduct business in the state. Surety bonds shall be procured according to Louisiana State Law. Any surety bond written for a public works project shall be written by a surety or insurance company currently on the U.S. Department of the Treasury Financial Management Service list of approved bonding companies which is published annually in the Federal Register, or by a Louisiana domiciled insurance company with at least an A rating in the latest printing of the A. M. Best's Key Rating Guide to write individual bonds up to ten percent of policyholders' surplus as shown in the A. M. Best's Key Rating Guide. The Bid Security of the successful Bidder will be retained until he has executed the Agreement and furnished the required Contract Security, whereupon it will be returned; if he fails to execute Security within 10 days of the Notice of Award, Owner may annul the Notice of Award and the Bid Security of that Bidder will be forfeited. The Bid Security of any Bidder whom the Owner

believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of the seventh day after the executed Agreement is delivered by Owner to Contractor and the required Contract Security is furnished or the sixty-first day after the Bid opening. Bid Security of other Bidders will be returned within seven days of the Bid opening.

## 6. CONTRACT TIME

6.1 The number of days for the completion of Work (the Contract Time) is set forth in the Contract Form and will be included in the executed Agreement. Any provisions for liquidated damages are set forth in the Contract Documents. The contract time is established in calendar days.

6.2 If Work cannot proceed due to weather or other conditions not under the control of the contractor for 65% or more of the normal work day, then that day may be added to the contract time in subsequent change order if verified by the City's inspector. Rain days will not be granted for weekends or holidays unless those days were requested as work days and approved in writing by the St. John the Baptist Parish, Utilities Department at least 48 hours prior to commencing the weekend or holiday work. Holidays for the City of Slidell include New Year's Day, Martin Luther King Day, Mardi Gras Day, President's Day, Good Friday, Memorial Day, 4<sup>th</sup> of July, Labor Day, Veterans Day, Thanksgiving and the day after Thanksgiving, Christmas Eve, Christmas Day, and New Year's Eve.

## 7. SUBCONTRACTORS, ETC.

7.1 If the Supplementary Conditions or Specifications require the identity of certain Subcontractors and other persons and organizations to be submitted to Owner in advance of the Notice of Award, the apparent low Bidder, any other Bidder so requested, will within seven days after the day of the Bid opening submit to Owner a list of all Subcontractors and other persons and organizations (including those who are to furnish the principal items of material and equipment) proposed for those portions of the Work as to which such identification is so required. Such list shall be accompanied by an experience statement with pertinent information as to similar projects and other evidence of qualification for each such Subcontractor, person and organization if requested by Owner. If Owner or Engineer after due investigation has reasonable objection to any proposed Subcontractor, other person or organization, he may before giving the Notice of Award request the apparent low Bidder to submit an acceptable substitute without an increase in his Bid price. If the apparent low Bidder declines to make any such substitution, he will thereby sacrifice his Bid Security.

7.2 In contracts where the Contract Price is on the basis of Cost of the Work Plus a Fee, Contractor, prior to the Notice of Award, must identify in writing the Owner those portions of the Work that he proposes to subcontract and after the Notice of Award may only subcontract other portions of the Work with Owner's written consent.

## 8. BID FORM

8.1 The Bid Form is included in the Contract Documents; additional copies may be obtained from Engineer.

8.2 Bid Forms must be completed legibly in ink or by computer. The Bid price of each item on the form must be stated in numerals. In case of mathematical discrepancies the unit price shall take precedence. When the bid price is requested in words and figures, this shall be done. In case of a discrepancy in these prices, the words shall take precedence. Any interlineations, alterations, or erasures must be initialed.

8.3 The authority of the person submitting the bid shall meet the criteria as defined in Louisiana Revised Statute 38:2212.A.(1)(c) shown here:

**Louisiana Revised Statute 38:2212.1.A.(c)(i)** Evidence of agency, corporate, or partnership authority shall be required for submission of a bid... The authority of the signature of the person submitting the bid shall be deemed sufficient and acceptable if any of the following conditions are met:

**(aa)** The signature on the bid is that of any corporate officer listed on the most current annual report on file with the secretary of state, or the signature on the bid is that of any member of a partnership or partnership in commendams listed in the most current partnership records on file with the secretary of state. Or;

**(bb)** The signature on the bid is that of an authorized representative of the corporation, partnership, or other legal entity and the bid is accompanied by a corporate resolution, certification as to the corporate principal, or other documents indicating authority which are acceptable to the public entity.

Or;

**(cc)** The corporation, partnership, or other legal entity has filed in the appropriate records of the secretary of state in which the public entity is located, an affidavit, resolution, or other acknowledged or authentic document indicating the names of all parties authorized to submit bids for public contracts. Such document on file with the secretary of state shall remain in effect and shall be binding upon the principal until specifically rescinded and canceled from the records of the office.

8.4 Bids by partnerships must be executed in the partnership name and signed by a partner, his title must appear under this signature and the official address of the partnership must be shown below the signature.

8.5 All names must be typed or printed below the signature.

8.6 The Bid shall contain an acknowledgment of receipt of all Addenda (the numbers of which shall be filled in on the Bid Form).

8.7 An executed affidavit, contained in the contract documents, shall be submitted prior to bid award.

## 9. SUBMISSION OF BIDS

Bids shall be submitted at the time and place indicated in the Invitation for Bid and shall be submitted in an opaque sealed envelope, marked with the Project title, name and address of the Bidder, Contractor's license number for state in which the work is to be done, and accompanied by the Bid Security and other required documents.

## 10. MODIFICATION AND WITHDRAWAL OF BIDS

Bids may be modified or 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 at any time prior to the opening of Bids. Any interlineations, alterations, or erasure must be initialed.

## 11. OPENING OF BIDS

Bids shall be opened as indicated in the Invitation to Bid.

## 12. BIDS TO REMAIN OPEN

All Bids shall remain open for 45 days after the day of the Bid Opening, unless noted otherwise in the Advertisement for Bids; however, Owner may, in their sole discretion, release any Bid and return the Bid Security prior to that date.

## 13. AWARD OF CONTRACT

13.1 Owner reserves the right to reject any and all Bids and Waive any and all informalities, and the right to disregard all nonconforming or conditional Bids or counter proposals.

13.2 In evaluating Bids, Owner shall consider the qualifications of the Bidders, whether or not the Bids comply with the prescribed requirements, and alternates and unit prices if requested in the Bid forms. He may consider the qualifications and experience of Subcontractors and other persons and organizations (including those who are to furnish the principal items of material or equipment) proposed for those portions of the Work as to which the identity of Subcontractors and other persons and organizations to do the Work in accordance with the Contract Documents to Owner's satisfaction within the prescribed time. Owner reserves the right to reject the Bid of any Bidder who does not pass any such evaluation to Owner's satisfaction.

13.3 If a contract is to be awarded, it will be awarded to the lowest responsible Bidder whose evaluation by Owner indicates to Owner that the award will be in the best interests of the Project and the Owner.

13.4 If the contract is awarded, Owner will give the apparent successful Bidder a Notice of Award within 45 days, unless noted otherwise in the Advertisement for Bids.

13.5 Simultaneously with delivery of the executed counterparts the agreement to Owner, Contractor shall deliver to Owner the required Contract Security.

13.6 Bids may be rejected if conditions described in Act No. 864 of House Bill 1490 or Act No. 945 of House Bill 1292 are discovered.

13.7 In accordance with La. R.S. 38:2227 and LA. R.S. 38:2212.10, each bidder on this project must submit the completed Attestation Clause (Past Criminal Convictions of Bidders and Verification of Employees) form found within this bid package. The Attestation Clause form shall be submitted to the City of Slidell within 10 days after the opening of bids.

13.8 If any city permits are required for construction, associated permits fees will not be assessed for this project.

\_\_\_\_\_  
**Name of Project**

\_\_\_\_\_  
**Project No.**

**ATTESTATIONS**

Appearer, as a Bidder on the above-entitled Public Works Project, does hereby attest that:

**LA. R.S. 38:2227 PAST CRIMINAL CONVICTIONS OF BIDDERS**

A. No sole proprietor or individual partner, incorporator, director, manager, officer, organizer, or member who has a minimum of a ten percent (10%) ownership in the bidding entity named below has been convicted of, or has entered a plea of guilty or nolo contendere to any of the following state crimes or equivalent federal crimes:

- (a) Public bribery (R.S. 14:118)
- (b) Corrupt influencing (R.S. 14: 120)
- (c) Extortion (R.S. 14:66)
- (d) Money laundering (R.S. 14:230)

B. Within the past five years from the project bid date, no sole proprietor or individual partner, incorporator, director, manager, officer, organizer, or member who has a minimum of a ten percent (10%) ownership in the bidding entity named below has been convicted of, or has entered a plea of guilty or nolo contendere to any of the following state crimes or equivalent federal crimes, during the solicitation or execution of a contract or bid awarded pursuant to the provisions of Chapter 10 of Title 38 of the Louisiana Revised Statutes:

- (a) Theft (R.S. 14:67)
- (b) Identity Theft (R.S. 14:67.16)
- (c) Theft of a business record (R.S.14:67.20)
- (d) False accounting (R.S. 14:70)
- (e) Issuing worthless checks (R.S. 14:71)
- (f) Bank fraud (R.S. 14:71.1)
- (g) Forgery (R.S. 14:72)
- (h) Contractors; misapplication of payments (R.S. 14:202)
- (i) Malfeasance in office (R.S. 14: 134)

**LA. R.S. 38:2212.10 Verification of Employees**

- A. Appearer is registered and participates in a status verification system to verify that all employees in the state of Louisiana are legal citizens of the United States or are legal aliens.
- B. If awarded the contract, Appearer shall continue, during the term of the contract, to utilize a status verification system to verify the legal status of all new employees in the state of Louisiana.
- C. If awarded the contract, Appearer shall require all subcontractors to submit to it a sworn affidavit verifying compliance with Paragraphs (A) and (B) of this Subsection.

\_\_\_\_\_  
**NAME OF BIDDER**

\_\_\_\_\_  
**NAME OF AUTHORIZED SIGNATORY OF BIDDER**

\_\_\_\_\_  
**DATE**

\_\_\_\_\_  
**TITLE OF AUTHORIZED SIGNATORY OF BIDDER**

\_\_\_\_\_  
**SIGNATURE OF AUTHORIZED SIGNATORY OF BIDDER**

**CORPORATE RESOLUTION**

EXCERPT FROM MINUTES OF THE BOARD OF DIRECTORS OF \_\_\_\_\_  
\_\_\_\_\_, INCORPORATED. At the  
meeting of directors of \_\_\_\_\_, Incorporated, duly noticed  
and held on \_\_\_\_\_ 20 \_\_\_\_\_, a  
quorum being there present, on motion duly made and seconded. It was:

RESOLVED. That \_\_\_\_\_, be and is hereby appointed,  
constituted and designated as agent and attorney-in-fact of the Corporation with full power  
and authority to act on behalf of this Corporation in all negotiations, bidding, concerns and  
transactions with **St. John the Baptist Parish Council** or any of its agencies, departments,  
employees or agents, including but not limited to, the execution of all bids, papers,  
documents, affidavits, bonds, sureties, contracts and acts and to receive and receipt  
therefore all purchase orders and notices issued pursuant to the provisions of any such bid or  
contract, this Corporation hereby ratifying, approving, confirming and accepting each and  
every such act performed by the said agent and attorney-in-fact.

I hereby certify the foregoing to be a true  
and correct copy of an excerpt of the  
minutes of the above dated meeting of the  
Board of Directors of said Corporation, and  
the same has not been revoked or rescinded.

\_\_\_\_\_  
(Secretary-treasurer)

\_\_\_\_\_ 20\_\_\_\_\_  
(Date)

*(This form or other document which establishes Evidence of Agency in accordance with LA  
R.S. 38:2212 et seq. shall be included in Bid Envelope)*

**PAST CRIMINAL CONVICTIONS OF BIDDERS ATTESTATION (LA. R.S. 38:2227)**

STATE OF LOUISIANA

PARISH OF \_\_\_\_\_

BEFORE ME, the undersigned Notary Public PERSONALLY CAME AND APPEARED,

I, \_\_\_\_\_, (Appearer) the owner/authorized representative of

\_\_\_\_\_  
Company / Individual / Legal Entity Name

Appearer, as a Bidder on the herein named Project, does hereby attest that:

A. No sole proprietor or individual partner, incorporator, director, manager, officer, organizer, or member who has a minimum of a ten percent (10%) ownership in the bidding entity named herein, including any silent or dormant owner or manager, has been convicted of, or has entered a plea of guilty or nolo contendere to, any of the following state crimes or equivalent federal crimes:

- (a) Public bribery (R.S. 14:118)
- (b) Corrupt influencing (R.S. 14:120)
- (c) Extortion (R.S. 14:66)
- (d) Money laundering (R.S. 14:230)

B. For five years prior to the project bid date, no sole proprietor or individual partner, incorporator, director, manager, officer, organizer, or member who has a minimum of a ten percent (10%) ownership in the bidding entity named herein, including any silent or dormant owner or manager, has been convicted of, or has entered a plea of guilty or nolo contendere to any of the following state crimes or equivalent federal crimes, during the solicitation or execution of a contract or bid awarded pursuant to the provisions of Chapter 10 of Title 38 of the Louisiana Revised Statutes:

- (a) Theft (R.S. 14:67)
- (b) Identity Theft (R.S. 14:67.16)
- (c) Theft of a business record (R.S. 14:67.20)
- (d) False accounting (R.S. 14:70)
- (e) Contractor's misapplication of payments (R.S. 14:202)
- (f) Bank fraud (R.S. 14:71.1)
- (g) Forgery (R.S. 14:72)
- (h) Issuing worthless checks (R.S.14:71)
- (i) Malfeasance in office (R.S. 14:134)

\_\_\_\_\_  
Name of Bidder

\_\_\_\_\_  
Signature of Authorized Signatory of Bidder

Project Name/Number

Title of Authorized Signatory

SUBSCRIBED AND SWORN BEFORE ME ON THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_  
Notary Signature

Printed Notary Name: \_\_\_\_\_ Notary/Bar Roll Number: \_\_\_\_\_

My Commission is for/expires: \_\_\_\_\_



**Certification Regarding  
Debarment, Suspension, and Other Responsibility  
Matters Primary Covered Transactions**

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 13 CFR Part 145. The regulations were published as Part VII of the May 26, 1988 *Federal Register* (pages 19160-19211). Copies of the regulations are available from local offices of the U.S. Small Business Administration.

**(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS ON REVERSE)**

- (1) The prospective primary participant certifies to the best of its knowledge and belief that it and its principals:
  - (a) Are not presently debarred, suspended, proposed for disbarment, declared ineligible, or Voluntarily excluded from covered transactions by any Federal department or agency;
  - (b) Have not within a three-year period preceding this application been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
  - (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
  - (d) Have not within a three-year period preceding this application had one or more public transactions (Federal, State, or local Terminated for cause of default.
- (2) Where the Prospective primary participant is unable to certify to any of the statements in this Certification, such prospective primary participant shall attach an explanation to this proposal

Business Name: -

\_\_\_\_\_

Date \_\_\_\_\_

By \_\_\_\_\_

Name and Title of Authorized Representative

\_\_\_\_\_

Signature of Authorized Representative

## INSTRUCTIONS FOR CERTIFICATION

1. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.
2. The inability of a person to provide the certification required below will not necessarily result in denial participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the Prospective primary participant to furnish a certification or an explanation shall disqualify such person from participation in this transaction.
3. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.
4. The prospective primary participant shall provide immediate written notice to the department or agency to which this proposal is submitted if at any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
5. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is submitted for assistance in obtaining a copy of those regulations (13 CFR Part 145).
6. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.
7. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered transaction, provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
8. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the ineligibility of its principals. Each participant may, but is not required to check the Non-Procurement List
9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings
10. Except for transactions authorized under paragraph 6 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

**ST. JOHN THE BAPTIST PARISH  
NON-SOLICITATION AND UNEMPLOYMENT AFFIDAVIT  
(Pursuant to La. R.S. 38:2224 and La. R.S. 23:1726(B))**

STATE OF \_\_\_\_\_

PARISH/COUNTY OF \_\_\_\_\_

Before me, the undersigned authority, came and appeared,

I, \_\_\_\_\_, the owner/authorized representative of

\_\_\_\_\_, who, being first duly sworn, deposed and state that I personally  
Company/Individual/Legal Entity Name

and as an authorized representative of the above identified legal person executes this continuing affidavit stating that neither the above named Company nor a person acting on its behalf, either directly or indirectly, employed, paid, nor promised any gift, consideration or commission to any person or legal entity to procure or assist in procuring this public contract, other than persons regularly employed by Company whose services were in the regular course of their duties for Company in connection with the construction, alteration or demolition of a public building or project.

The above named Company, if awarded, continually affirms that no part of the contract price received by the Company was paid or will be paid to any person, corporation, firm, association, or other organization for soliciting the contract, other than the payment of their normal compensation to persons regularly employed by the affiant whose services were in the regular course of their duties for the Company.

The above named Company hereby attests and certifies that it does not have any unpaid assessment or penalty levied against it regarding unemployment compensation and currently does and will continue to properly classify each employee.

<p>_____ Signature of Authorized Signatory</p> <p>_____ Printed Name of Signatory</p> <p>_____ Title of Authorized Signatory</p> <p>_____ Project Name/Number</p>	<p>SUBSCRIBED AND SWORN BEFORE ME ON THIS</p> <p>_____ DAY OF _____ 2018.</p> <p>_____ Notary Signature</p> <p>Printed Notary Name: _____</p> <p>Notary/Bar Roll Number: _____</p> <p>My Commission is for/expires on: _____</p>
---	--

**REQUIRED SIGNATURE PAGE FOR PROPOSALS**

*This page, signed by an authorized officer of your Company, must accompany your packet as the cover page.*

I, the undersigned, having carefully examined the Request for Proposals, propose to furnish services in accordance therewith as set forth in the attached proposal.

I hereby certify that this proposal is genuine and not a sham or collusive proposal, or made in the interests or on behalf of any person not therein named; and I have not directly or indirectly induced or solicited any Contractor or supplier on the above work to put in a sham proposal or any person or corporation to refrain from submitting a proposal; and that I have not in any manner sought by collusion to secure to myself an advantage over any other contractor(s) or person(s).

*In order to induce the Parish to consider this proposal, the Company irrevocably waives any existing rights which it may have, by contract or otherwise, to require another person or corporation to refrain from submitting a proposal to or performing work or providing supplies to St. John the Baptist Parish, and Company further promises that it will not in the future directly or indirectly induce or solicit any person or corporation to refrain from submitting a bid or proposal to or from performing work or providing supplies to St. John the Baptist Parish.*

**Please type or print legibly information below.**

---

Proposer hereby acknowledges receipt of the Solicitation and agrees to Terms and Conditions set forth in this RFP.

**PROPOSER INFORMATION**

Firm Name: \_\_\_\_\_

Address: \_\_\_\_\_ City/State/Zip: \_\_\_\_\_

Phone No.: \_\_\_\_\_ Fax No.: \_\_\_\_\_

**AUTHORIZATION TO PROPOSE (must be signed):**

By: \_\_\_\_\_  
Signature Offer Date Printed Name

EMAIL ADDRESS: \_\_\_\_\_

Primary Contact Person (If other than above):

Name: \_\_\_\_\_ Phone No: \_\_\_\_\_ Fax No: \_\_\_\_\_

Title: \_\_\_\_\_ E-mail Address: \_\_\_\_\_

**If this proposal is being submitted on behalf of an agent/broker, please complete section below:**

Submitted on behalf of: \_\_\_\_\_

Phone No: \_\_\_\_\_ Fax No: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

**ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE**

and

Issued and Published Jointly by

**ACEC**

AMERICAN COUNCIL OF ENGINEERING COMPANIES



**ASCE** American Society  
of Civil Engineers



**National Society of  
Professional Engineers**  
*Professional Engineers in Private Practice*

AMERICAN COUNCIL OF ENGINEERING COMPANIES

ASSOCIATED GENERAL CONTRACTORS OF AMERICA

AMERICAN SOCIETY OF CIVIL ENGINEERS

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*A Practice Division of the*

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These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor (EJCDC C-520 or C-525, 2007 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the Narrative Guide to the EJCDC Construction Documents (EJCDC C-001, 2007 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (EJCDC C-800, 2007 Edition).

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## ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

### 1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
  2. *Agreement*—The written instrument 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 Contract 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. *Bidder*—The individual or entity who submits a Bid directly to Owner.
  7. *Bidding Documents*—The Bidding Requirements and the proposed Contract Documents (including all Addenda).
  8. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.
  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 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 Documents*—Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
13. *Contract Price*—The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
14. *Contract Times*—The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.
15. *Contractor*—The individual or entity with whom Owner has entered into the Agreement.
16. *Cost of the Work*—See Paragraph 11.01 for definition.
17. *Drawings*—That part of the Contract 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.
18. *Effective Date of the Agreement*—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
19. *Engineer*—The individual or entity named as such in the Agreement.
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.
22. *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.
23. *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.
24. *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.
25. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
26. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

27. *Notice of Award*—The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.
28. *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 Contract Documents.
29. *Owner*—The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
30. *PCBs*—Polychlorinated biphenyls.
31. *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.
32. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.
33. *Project*—The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
34. *Project Manual*—The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.
35. *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.
36. *Resident Project Representative*—The authorized representative of Engineer who may be assigned to the Site or any part thereof.
37. *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.
38. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.
39. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

40. *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.
41. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
42. *Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
43. *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.
44. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
45. *Successful Bidder*—The Bidder submitting a responsive Bid to whom Owner makes an award.
46. *Supplementary Conditions*—That part of the Contract Documents which amends or supplements these General Conditions.
47. *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 Subcontractor.
48. *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.
49. *Unit Price Work*—Work to be paid for on the basis of unit prices.
50. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.
51. *Work Change Directive*—A written statement to Contractor issued on or after the Effective Date of the 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.

## 1.02 *Terminology*

A. The words and terms discussed in Paragraph 1.02.B through F are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. *Intent of Certain Terms or Adjectives:*

1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

C. *Day:*

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

D. *Defective:*

1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
  - a. does not conform to the Contract Documents; or
  - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
  - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

E. *Furnish, Install, Perform, Provide:*

1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
  2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
  3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
  4. 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.
- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

## **ARTICLE 2 – PRELIMINARY MATTERS**

### *2.01 Delivery of Bonds and Evidence of Insurance*

- A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of 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 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.

### *2.02 Copies of Documents*

- A. Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. 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 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 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 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. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer for timely review:
  - 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;
  - 2. a preliminary Schedule of Submittals; and
  - 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.06 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.07 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
  - 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of

the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

### **ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE**

#### **3.01 *Intent***

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner.
- C. Clarifications and interpretations of the Contract 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 Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
  2. No provision of any such standard, specification, manual, 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 Contract Documents. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

#### **3.03 *Reporting and Resolving Discrepancies***

- A. *Reporting Discrepancies:*

1. *Contractor's Review of Contract Documents Before Starting Work:* Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract 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 discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.
2. *Contractor's Review of Contract Documents During Performance of Work:* If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) any standard, specification, manual, or code, or (c) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies:*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
  - a. the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract 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 Contract Documents would result in violation of such Law or Regulation).

3.04 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:
  1. A Field Order;
  2. Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); or

3. Engineer's written interpretation or clarification.

### 3.05 *Reuse of Documents*

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

### 3.06 *Electronic Data*

- A. Unless otherwise stated in the Supplementary Conditions, the data furnished by Owner or Engineer to Contractor, or by Contractor to Owner or Engineer, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.
- C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

## **ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL 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 or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

#### 4.02 *Subsurface and Physical Conditions*

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

- 1. those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and
- 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

- 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
- 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
- 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

#### 4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If Contractor believes that any subsurface or physical condition 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 Contract Documents; or
- 3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 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 9.07 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 with respect to 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 Contract 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 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, neither Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall 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 Contract 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 Supplementary Conditions:

1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data provided by others; and
2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
  - a. reviewing and checking all such information and data;
  - b. locating all Underground Facilities shown or indicated in the Contract 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 Contract 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 Contract 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 such Underground Facility.
2. If Engineer concludes that a change in the Contract 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 or indicated with reasonable accuracy in the Contract 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:* The Supplementary Conditions identify those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at the Site.
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
  - 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
  - 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
  - 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract 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.A); 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. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to

permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 4.06.E.

- 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 written notice to Contractor: (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, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not 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 of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.
- B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the 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 or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed each bond.
- 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 promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

### 5.02 *Licensed Sureties and Insurers*

- A. All bonds and insurance required by the Contract 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 Supplementary Conditions.

### 5.03 *Certificates of Insurance*

- A. Contractor shall deliver to Owner, with copies to each additional insured and loss payee identified in the 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.
- B. Owner shall deliver to Contractor, with copies to each additional insured and loss payee identified in the 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.

- C. Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.
- D. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.
- E. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.

5.04 *Contractor's Insurance*

- A. Contractor shall purchase and maintain such 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 Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:
  - 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:
    - a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
    - b. 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 required by this Paragraph 5.04 shall:
  - 1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, be written on an occurrence basis, include as additional insureds (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, members, partners,

employees, agents, consultants, and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;

2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;
3. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;
4. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the 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);
5. 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
6. include completed operations coverage:
  - a. Such insurance shall remain in effect for two years after final payment.
  - b. Contractor shall furnish Owner and each other additional insured identified in the 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 Contract Documents.

#### 5.06 *Property Insurance*

- A. Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:
  1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of

them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee;

2. be written on a Builder's Risk "all-risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions.
  3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
  4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;
  5. allow for partial utilization of the Work by Owner;
  6. include testing and startup; and
  7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued.
- B. Owner shall purchase and maintain such equipment breakdown insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee.
- C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other loss payee to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.
- D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

- E. If Contractor requests in writing that other special insurance be included in the property insurance policies provided under this Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.

5.07 *Waiver of Rights*

- A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or loss payees thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for:
1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
  2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 *Receipt and Application of Insurance Proceeds*

- A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.
- B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

5.09 *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 Contract 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 2.01.B. 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 Contract 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.

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

- A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

## 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 Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. 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 Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

### 6.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a 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 Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.
- 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 Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

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. Such adjustments will comply with any provisions of the General Requirements applicable thereto.
  2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

6.05 *Substitutes and "Or-Equals"*

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the 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:
      - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
      - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole; and
      - 3) it has a proven record of performance and availability of responsive service.
    - b. Contractor certifies that, if approved and incorporated into the Work:
      - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
      - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

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 if 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 requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.
- d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
  - 1) shall certify that the proposed substitute item will:
    - a) perform adequately the functions and achieve the results called for by the general design,
    - b) be similar in substance to that specified, and
    - c) be suited to the same use as that specified;
  - 2) will state:
    - a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time,
    - b) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
    - c) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;
  - 3) will identify:
    - a) all variations of the proposed substitute item from that specified, and
    - b) available engineering, sales, maintenance, repair, and replacement services; and
  - 4) shall 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.

- B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract 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 Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 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 may require Contractor to furnish additional data about the proposed substitute item. 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 a Change Order in the case of a substitute and 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 Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- 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 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 Agreement, and if Contractor has submitted a list thereof in accordance with the 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 Bidding Documents or the Contract 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. 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 Contract Documents:
  - 1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity; nor
  - 2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any 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 Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as a loss payee 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, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by 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 Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its

use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

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

#### 6.08 *Permits*

- A. Unless otherwise provided in the 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 Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

#### 6.09 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work 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 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.
- C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner

and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

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 and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any 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 the Work 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 Contract 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, 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. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
  - 1. all persons on the Site or who may be affected by the Work;
  - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
  - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, 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.
- C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
- D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property referred to in Paragraph 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 anyone employed by any of them, or anyone for whose acts

any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

- F. Contractor's duties and responsibilities for safety and 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 Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

#### 6.17 *Shop Drawings and Samples*

- A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

##### 1. *Shop Drawings:*

- a. Submit number of copies specified in the General Requirements.
- b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

##### 2. *Samples:*

- a. Submit number of Samples specified in the Specifications.

- b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.
- B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. *Submittal Procedures:*

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

D. *Engineer's Review:*

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the

Contract 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 shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. *Resubmittal Procedures:*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

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 that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
  1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
  2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
  1. observations by Engineer;
  2. recommendation by Engineer or payment by Owner of any progress or final payment;

3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
4. use or occupancy of the Work or any part thereof by Owner;
5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;
6. any inspection, test, or approval by others; or
7. 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 and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable .
- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 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 extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
  1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
  2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

6.21 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.
- B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.
- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

**ARTICLE 7 – OTHER WORK AT THE SITE**

7.01 *Related Work at Site*

- A. Owner may perform other work related to the Project at the Site with Owner's employees, or through other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract 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, each utility owner, and Owner, if Owner is performing other work with Owner's employees, proper and safe

access to the Site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected. 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.

#### 7.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:
  - 1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
  - 2. the specific matters to be covered by such authority and responsibility will be itemized; and
  - 3. the extent of such authority and responsibilities will be provided.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

#### 7.03 *Legal Relationships*

- A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.
- B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's wrongful actions or inactions.
- C. Contractor shall be liable to Owner and any other contractor under direct contract to Owner for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's wrongful action or inactions.

## ARTICLE 8 – OWNER’S RESPONSIBILITIES

### 8.01 *Communications to Contractor*

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

### 8.02 *Replacement of Engineer*

- A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

### 8.03 *Furnish Data*

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

### 8.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

### 8.05 *Lands and Easements; Reports and Tests*

- A. Owner’s duties with respect to 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 relating to existing surface or subsurface structures at the Site.

### 8.06 *Insurance*

- A. Owner’s responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

### 8.07 *Change Orders*

- A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

### 8.08 *Inspections, Tests, and Approvals*

- A. Owner’s responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

### 8.09 *Limitations on Owner’s Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor’s means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws

and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 *Undisclosed Hazardous Environmental Condition*

A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

8.11 *Evidence of Financial Arrangements*

A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents.

8.12 *Compliance with Safety Program*

A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed pursuant to Paragraph 6.13.D.

**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 Contract Documents.

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 Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. 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 authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 *Authorized Variations in Work*

- A. Engineer may authorize minor variations in the Work from the requirements of the Contract 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 Contract 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 or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

9.05 *Rejecting Defective Work*

- A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract 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.

9.06 *Shop Drawings, Change Orders and Payments*

- A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.
- B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.
- C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.
- D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 *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.

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

- A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.
- B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.
- C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.
- D. When functioning as interpreter and judge under this Paragraph 9.08, 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.

9.09 *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 Contract 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 Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 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 Contract Documents.

- E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.

#### 9.10 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Engineer has been informed pursuant to Paragraph 6.13.D.

### **ARTICLE 10 – CHANGES IN THE WORK; CLAIMS**

#### 10.01 *Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by 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 Contract 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 Contract 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.D.

#### 10.03 *Execution of Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer 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 Contract 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 the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

#### 10.05 *Claims*

- A. *Engineer's Decision Required:* All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.
- B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 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). 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 Times 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).
- C. *Engineer's Action:* Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:
  - 1. deny the Claim in whole or in part;
  - 2. approve the Claim; or
  - 3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.

- E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.
- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

## **ARTICLE 11 – COST OF THE WORK; 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, except those excluded in Paragraph 11.01.B, 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 not include any of the costs itemized in Paragraph 11.01.B, and shall include only the following items:
  - 1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, 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, as imposed by Laws and Regulations.
  - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
  - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 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, express and courier services, and similar petty cash items in connection with the Work.
  - i. The costs of premiums for all bonds and insurance Contractor is required by the Contract 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, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 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.
- 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 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 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. *Cash Allowances:*
1. Contractor agrees that:
    - a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
    - b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in

the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. *Contingency Allowance:*

1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 *Unit Price Work*

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. 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 9.07.

C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:

1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
2. there is no corresponding adjustment with respect to any other item of Work; and
3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

**ARTICLE 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. 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 Contract 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 Contract 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 Contract 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 Paragraphs 12.01.C.2.a and 12.01.C.2.b 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 may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times 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 covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

## 12.03 *Delays*

- A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times 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.
- B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.
- D. Owner, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors 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.
- E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for 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.

## **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. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.

### *13.02 Access to Work*

- A. Owner, Engineer, their consultants and 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, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

### *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 Contract 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 Paragraph 13.04.C; and
  - 3. as otherwise specifically provided in the Contract 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, Contractor shall, if requested by Engineer, uncover such Work 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.
- C. If it is found that the uncovered 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.
- D. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, 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 Contract 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. Promptly after receipt of written notice, 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).

- B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

### 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 the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the 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:
  - 1. repair such defective land or areas; or
  - 2. correct such defective Work; or
  - 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
  - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. 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.
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 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.
- E. 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 for 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 Contract 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 Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct, or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, 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 Contract 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 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 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

#### *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 of the executed Work as an experienced and qualified design professional, and on Engineer's

review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

- a. the Work has progressed to the point indicated;
  - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and any other qualifications stated in the recommendation); and
  - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
- a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or
  - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
- a. to supervise, direct, or control the Work, or
  - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
  - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
  - d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or
  - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 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 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. Ten 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 will 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 remedies the reasons for such action.
3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1 and subject to interest as provided in the Agreement.

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.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a 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.
- D. 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.
- E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the tentative list.

#### 14.05 *Partial Utilization*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 14.04.A through D for that part of the Work.
2. 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.
3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 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.
4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 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 Contract 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:
  - a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.6;
  - b. consent of the surety, if any, to final payment;
  - c. a list of all Claims against Owner that Contractor believes are unsettled; and

- d. 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 might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

*B. Engineer's Review of Application and Acceptance:*

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten 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. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

*14.08 Final Completion Delayed*

- A. 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 (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, 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 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.

#### 14.09 *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 Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and
  2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as 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 granted 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 Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule 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 repeated disregard of the authority of Engineer; or
  4. Contractor's violation in any substantial way of any provisions of the Contract Documents.
- B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:
1. 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);

2. 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
  3. complete the Work as Owner may deem expedient.
- C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds 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.
- D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.
- E. 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.
- F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.

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, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
  2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;
  3. 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. 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, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 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. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.

B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.

C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:

1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions; or

2. agrees with the other party to submit the Claim to another dispute resolution process; or
3. gives written notice to the other party of the intent to submit the Claim to a court of competent jurisdiction.

## ARTICLE 17 – MISCELLANEOUS

### 17.01 *Giving Notice*

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
  1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or
  2. 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 Contract 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 General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

### 17.04 *Survival of Obligations*

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

### 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. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.



SUPPLEMENTARY CONDITIONS  
SECTION 00800

SUPPLEMENTARY CONDITIONS  
(TO ACCOMPANY STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT, EJCDC  
NO. C-700 [2007 EDITION] FOR ST. JOHN THE BAPTIST PARISH CONSTRUCTION PROJECTS)

SECTION 00800

SUPPLEMENTARY CONDITIONS

PART I      AMENDMENTS TO GENERAL CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (General Conditions) and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

ARTICLE 1    DEFINITIONS

SC-1.01

The terms used in these Supplementary Conditions which are defined in the Standard General Conditions of the Construction Contract (General Conditions) have the meanings assigned to them in the General Conditions.

ARTICLE 2    PRELIMINARY MATTERS

SC-2.02

Amend the first sentence of Paragraph 2.02.A of the General Conditions to read as follows:

"Five sets of the Contract Documents shall be furnished to the CONTRACTOR, at no charge, for construction purposes."

And so amended, Paragraph 2.02 remains in effect.

ARTICLE 5 BONDS AND INSURANCE

SC-5.04

The limits of liability for the insurance required by Paragraph 5.04 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

Contractor shall obtain, pay for and keep in force, at its own expense, minimum insurance effective in all localities where Contractor may perform the work hereunder, with such carriers as shall be acceptable to Council:

- A. **Statutory Workman's Compensation** covering all state and local requirements and Employer's Liability Insurance covering all persons employed by Contractor in connection with this agreement.

The limits for "A" above shall be not less than:

1. Employers liability limits of \$1,000,000/\$1,000,000/\$1,000,000
2. Some contracts may require USL&H or maritime coverage. This should be checked out with Insurance Dept/Legal Dept.
3. **WAIVER OF SUBROGATION in favor of St. John the Baptist Parish Council should be indicated on certificate.**
4. No excluded classes of personnel or employees shall be allowed on Council's premises.

- B. **Commercial General Liability**, including:

1. Contractual liability assumed by this agreement
2. Owners and Contractor's Protective Liability (if Contractor is a General Contractor)
3. Personal and advertising liability
4. Completed operations
5. Medical payments

The limits for "B" above shall not be less than:

1. \$1,000,000 each occurrence limit
2. \$2,000,000 general aggregate limit other than products-completed operations
3. \$1,000,000 personal and advertising injury limit
4. \$1,000,000 products/completed operations aggregate limit
5. \$50,000 fire damage limit
6. \$5,000 medical expense limit (desirable but not mandatory)
7. \$1,000,000 CSL each occurrence WITH NO annual aggregate will be acceptable in lieu of 1 + 2 above. Must include BFCGL endorsement.

ARTICLE 6 CONTRACTOR'S RESPONSIBILITIES

SC-6.06

Delete Paragraph 6.06.G of the General Conditions in its entirety and insert the following in its place:

"G. All Work performed for CONTRACTOR by a Subcontractor will be pursuant to an appropriate Agreement between CONTRACTOR and the Subcontractor which specifically binds the Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of OWNER and ENGINEER."

Add a new paragraph immediately after Paragraph 6.06.G of the General Conditions which is to read as follows:

"6.06.H OWNER or ENGINEER may furnish to any such Subcontractor, Supplier, or other person or organization, to the extent practicable, information about amounts paid to CONTRACTOR in accordance with CONTRACTOR's Applications for Payment on account of the particular Subcontractor's, Supplier's, other person's, or other organization's Work."

SC-6.16

Amend the third sentence of Paragraph 6.16 of the General Conditions to read as follows:

"If ENGINEER and OWNER determine that a change in the Contract Documents is required because of the action taken by CONTRACTOR in response to such an emergency, a Work Change Directive or Change Order will be issued."

And so amended, Paragraph 6.16 remains in effect.

ARTICLE 9 ENGINEER'S STATUS DURING CONSTRUCTION

SC-9.01

Amend the second sentence of Paragraph 9.01 of the General Conditions to read as follows:

"The duties and responsibilities and the limitations of authority of ENGINEER as OWNER's representative during construction are set forth in the Contract Documents and will not be changed except by written direction of OWNER."

And so amended, Paragraph 9.01 remains in effect.

SC-9.04

Delete the third sentence of Paragraph 9.04, Authorized Variations in Work, of the General Conditions in its entirety, and so amended, Paragraph 9.04 remains in effect.

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

SC-13.04

Amend the first sentence of Paragraph 13.04.B of the General Conditions to read as follows:

"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 and with OWNER's written approval, 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."

And so amended, Paragraph 13.04 remains in effect.

SC-13.07

Delete Paragraph 13.07.D of the General Conditions in its entirety and insert the following in its place:

- D. "Notwithstanding any other provision of this section or the Contract Documents to the contrary, this provision shall not serve to limit any causes of action which the OWNER may have against the CONTRACTOR for Defective Work or for otherwise failing to fulfill CONTRACTOR's obligations under the Contract Documents; nor shall this provision serve to limit the time in which such causes of action shall be asserted."

SC-13.09

Amend the second sentence of Paragraph 13.09.B of the General Conditions to read as follows:

"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, 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."

And so amended, Paragraph 13.09 remains in effect.

## ARTICLE 14 PAYMENTS TO CONTRACTOR AND COMPLETION

### SC-14.04

Insert prior to the first sentence of Paragraph 14.04.A of the General Conditions the following:

"Substantial completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the OWNER can occupy or utilize the Work for its intended use."

And so amended, Paragraph 14.04 remains in effect.

## ARTICLE 17 MISCELLANEOUS

Amend "ARTICLE 17 MISCELLANEOUS PROVISIONS of the General Conditions to add the following provisions:

### PART II OTHER PROVISIONS

#### EXHIBIT A

A listing of the duties, responsibilities, and limitations to authority of the resident project representative (RPR).

END OF SECTION 0080

**EXHIBIT A****A Listing of the Duties, Responsibilities, and Limitations to Authority of the Resident Project Representative (RPR)****A. General**

RPR as Owner's agent at the site, will act as directed by and under the supervision of the Owner, and will confer with ENGINEER regarding RPR's actions. RPR's dealings in matters pertaining to the on-site Work shall in general be with ENGINEER and CONTRACTOR keeping OWNER advised as necessary. RPR's dealings with subcontractors shall only be through or with the full knowledge and approval of CONTRACTOR. RPR shall generally communicate with OWNER with the knowledge of and under the direction of ENGINEER.

**B. Duties and Responsibilities of RPR**

- 1. Schedules:**

Review the progress schedule, schedule of Shop Drawing submittals, and other required schedules prepared by CONTRACTOR and consult with ENGINEER concerning acceptability.
- 2. Conferences and Meetings:**

Attend meetings with CONTRACTOR, such as preconstruction conferences, progress meetings, job conferences, and other Project-related meetings, and prepare and circulate copies of minutes thereof.
- 3. Liaison:**
  - a. Serve as ENGINEER's liaison with CONTRACTOR, working principally through CONTRACTOR's superintendent, and assist in understanding of the Contract Documents, and assist ENGINEER in serving as OWNER's liaison with CONTRACTOR when CONTRACTOR's operations affect OWNER's on-site operations.
  - b. Assist in obtaining from OWNER additional details or information when required for proper execution of the Work.
- 4. Shop Drawings and Samples:**
  - a. Record date of receipt of Shop Drawings and samples.
  - b. Receive samples, which are furnished at the site by CONTRACTOR, and notify ENGINEER of availability of samples for examination.
  - c. Advise ENGINEER and CONTRACTOR of the commencement of any Work requiring a Shop Drawing or sample if the submittal has not been approved by ENGINEER.

**5. Review of Work, Rejection of Defective Work, Inspections, and Tests:**

- a. Conduct on-site observations of the Work in progress to assist ENGINEER in determining if the Work is in general proceeding in accordance with the Contract Documents.
- b. Report to ENGINEER whenever RPR believes that any Work is unsatisfactory, faulty or defective, or does not conform to the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test, or approval required to be made; and advise ENGINEER of Work that RPR believes should be corrected or rejected, or should be uncovered for observation, or requires special testing, inspection, or approval.
- c. Verify that tests, equipment, and systems start-up and operating and maintenance training are conducted in the presence of appropriate personnel, and that CONTRACTOR maintains adequate records thereof; and observe, record, and report to ENGINEER appropriate details relative to the test procedures and start-ups.
- d. Accompany visiting inspectors, other than the OWNER's, representing public or other agencies having jurisdiction over the Project, record the result of these inspections, and report to ENGINEER.

**6. Interpretation of Contract Documents:**

Report to ENGINEER when clarifications and interpretations of the Contract Documents are needed and transmit to Contract clarifications and interpretations as issued by the ENGINEER.

**7. Modifications:**

Consider and evaluate CONTRACTOR's suggestions, for modifications in Drawings or Specifications and report with RPR's recommendations to ENGINEER. Transmit to CONTRACTOR decisions as issued by ENGINEER.

**8. Records:**

- a. Maintain at the job site orderly files for correspondence, reports of job conferences, Shop Drawings and samples, reproductions of original Contract Documents including all Work Directive Changes, Addenda, Change Orders, Field Orders, additional Drawings issued subsequent to the execution of the Contract, ENGINEER's clarification and interpretations of the Contract Documents, progress reports, and other Project-related documents.
- b. Keep a diary or log book recording CONTRACTOR hours on the job site, weather conditions, data relative to questions of Work Directive Changes, Change Orders or changed conditions, list of job site visitors, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures, and send copies to ENGINEER.

SECTION 01010

SUMMARY OF WORK

PART 1 - GENERAL

1.01 WORK COVERED BY CONTRACT DOCUMENTS/REQUIREMENTS INCLUDED

- A. The work of this contract includes extending the dead end 12" water line on Airline Highway (U.S. 61) west of Terre Haute Road 3430 LF to Concha Lane.
- B. The Contractor shall furnish all labor, materials, equipment, tools, services, and incidentals to complete all work required by these specifications and as shown on the drawings.
- C. The Contractor shall perform the work complete, in place and ready for continuous service, and shall include repairs, replacements, and restoration required as a result of damages caused during this construction.
- D. The Contractor shall furnish and install all materials, equipment, and labor which is reasonably and properly inferable and necessary for the proper completion of the work, whether specifically indicated in the Contract Documents or not.

1.02 CONTRACTS

The Contract consists of a unit bid price. The Bidder shall complete the schedule of all unit prices included in the Bid Form and shall accept all fixed unit prices listed therein. The total Bid will be determined as the sum of the products of the estimated quantity of each item and the unit price bid. The final Contract Price will be subject to adjustment according to final measured, used, or delivered quantities as provided in Division 1, and the unit prices in the bid will apply to such final quantities except that unit prices will be subject to change by Change Order if quantities vary more than twenty-five percent (25%).

1.03 WORK SEQUENCE

- A. All work to be done under this contract shall be done with no disruption of water service, except during water line tie-ins, and with minimum inconvenience to traffic. The Contractor shall coordinate his work with the Utilities Department to insure all construction in the roadway is marked properly and vehicles are able to travel safely around the construction zone.

1.04 CONSTRUCTION AREAS

- A. Contractor shall limit his use of the construction areas for work and storage to allow for:
  - 1) Commercial Use.
  - 2) Owner use.
  - 3) Public use.
- B. Coordinate use of work site under direction of Engineer.
- C. Assume full responsibility for the protection and safekeeping of products under this contract, stored on the site.
- D. Move any stored products, under Contractor's control, which interfere with operations of the Owner or separate contractor.
- E. Obtain and pay for the use of additional storage or work areas needed for operations.

1.05 OWNER OCCUPANCY

- A. Contractor shall at all times conduct his operations as to insure the least inconvenience to the general public.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

## SECTION 01025

### MEASUREMENT AND PAYMENT

#### PART 1 – GENERAL

- A. Refer to Proposal Form
- B. Payment shall include all compensation to be received by the Contractor for furnishing all tools, equipment, supplies, and manufactured articles, and for all labors, operations, and incidentals appurtenant to complete the work being described, as necessary to complete the various items of the work all in accordance with the requirement of the Contract Documents, including all costs of compliance with the regulations of public agencies having jurisdiction. The Contractor is hereby on notice that no separate payment will be made for any item not specifically called out, but that is required to properly complete the project.

#### PART 2 – PRODUCTS (NOT USED)

#### PART 3 – EXECUTION (NOT USED)

#### PART 4 – MEASUREMENT AND PAYMENT

##### 4.01 SCOPE

The Total Bid Price shall cover all work required by the Contract Documents. All costs in connection with the proper and successful completion of the work, including furnishing all materials, equipment, supplies, and appurtenances; providing all construction equipment, and tools; and performing all necessary labor and supervision to fully complete the work, shall be included in the unit and lump sum prices bid. All work not specifically set forth as a pay item in the Bid Form shall be considered a subsidiary obligation of the Contractor and all costs in connection therewith shall be included in the prices bid.

##### 4.02 ESTIMATED QUANTITIES

All estimated quantities stipulated in the Bid Form or other Contract Documents are approximate and are to be used only (a) as a basis for estimating the probable cost of the work, and (b) for the purpose of comparing the bids submitted for the work. The actual amounts of work done and materials furnished under unit price items may differ from the estimated quantities. The basis of payment for work and materials will be the actual amount of work done and materials furnished. No compensation will be given for any quantities not used.

- 4.03 REMOVAL OF STRUCTURES AND OBSTRUCTIONS (ITEM NO. 202-01-00100)
- A. Measurement: Measurement for payment for Removal of Structures and Obstructions will be made on a negotiated basis for each obstruction encountered that will need to be removed.
  - B. Payment: Payment for this item will be negotiated on a case by case basis for each item deemed to be in conflict with the progress of the project. Money for removals will be drawn off of the "Not to Exceed" price on the bid sheet. No payments for Removal of Structures and Obstructions will be made until a cost has been agreed to with the Project Engineer and accepted by the Owner.
- 4.04 REMOVAL OF ASPHALT DRIVEWAYS (ITEM NO. 202-02-02000) (NOT USED)
- 4.05 REMOVAL OF ASPHALTIC CONCRETE PAVEMENT (ITEM NO. 202-02-02020) (NOT USED)
- 4.06 REMOVAL OF PORTLAND CEMENT CONCRETE PAVEMENT (ITEM NO. 202-02-02021) (NOT USED)
- 4.07 REMOVAL OF CONCRETE WALKS AND DRIVES (ITEM NO. 202-02-06100) (NOT USED)
- 4.08 TEMPORARY EROSION CONTROL (ITEM NO. 204-01-10000)
- A. Measurement: Measurement for payment for temporary erosion control will be made on a lump sum basis.
  - B. Payment: Payment for temporary erosion control will be made at the lump sum price bid and will constitute full compensation for providing all labor, materials, equipment and incidentals required for layout of all types of temporary erosion control (including obtaining and maintaining necessary permits, silt fencing, hay bales, and inlet protection). Payment will be made on monthly estimates based on a percentage of the work completed.
- 4.09 CLASS II BASE COURSE (6" THICK) (STONE OR CRUSHED SLAG) (ITEM NO. 302-02-02060) (NOT USED)

4.10 TRAFFIC MAINTENANCE AGGREGATE (ITEM NO. 402-01-00100)

- A. Measurement: Measurement for traffic maintenance aggregate where required will be on a unit price basis per cubic yard in approved vehicles. The body shall be that of any shape that actual delivered contents may be readily and accurately determined and will remain constant. Unless all approved vehicles for the work are of uniform capacity, each vehicle must bear a plainly legible identification number that coincides with a list provided to the Engineer indicating its approved capacity. Delivery or truck tickets along with vehicle identification number must be submitted with the monthly invoice in order to be considered for payment.
- B. Payment: The total cubic yardage of traffic maintenance aggregate, as determined above, will be paid for at the unit price bid, and this price and payment will constitute complete compensation for furnishings, placement, and compaction of aggregate as required for maintenance of roadways, driveways, and access roads and for furnishing all equipment and labor required to complete the item in accordance with the plans and specifications.

4.11 COLD PLANING ASPHALTIC CONCRETE PAVEMENT (ITEM NO. 509-01-00100)  
(NOT USED)

4.12 ASPHALTIC CONCRETE PAVEMENT PATCHING (ITEM NO. 510-01-00100)

- A. Measurement: Measurement for payment for asphalt pavement patching will be made by actual field measurement per square yard delivered and placed.
- B. Payment: Payment for this item will be made for the actual square yardage of asphaltic concrete paving installed and will be paid at the unit price bid. The work will include all installation, labor, equipment, tools, base material, tack coats, prime coats, geotextile fabric, and high performance geo-grid.

4.13 PORTLAND CEMENT CONCRETE PAVEMENT (ITEM NO. 601-01-00300)  
(NOT USED)

4.14 CONCRETE WALK (4" THICK) (ITEM NO. 706-01-00300) (NOT USED)

4.15 CONCRETE DRIVE (6" THICK) (ITEM NO. 706-02-00200) (NOT USED)

4.16 HANDICAPPED CURB RAMPS (ITEM NO. 706-04-00100) (NOT USED)

4.17 HYDRO-SEEDING (ITEM NO. 739-01-00100)

- A. Measurement: Measurement for payment for hydro-seeding will be made by actual field measurement per acre installed.
- B. Payment: Payment for this item will be made for the actual acres of area hydro-seeding installed as determined by field measurement and will be paid at the unit price bid. The work will include all installation, labor, equipment, tools, materials and disposal of debris in accordance with the plans and specifications.

4.18 MOBILIZATION (ITEM NO. 727-01-00100)

- A. Measurement: Measurement for payment for mobilization and demobilization will be on a lump-sum basis as specified herein.
- B. Payment: Payment for mobilization and demobilization shall cover all preparatory work, obtaining all permits, insurance and bonds, movement of personnel, equipment, supplies and incidentals to the project site, preconstruction photographs and videos, the establishment of temporary offices, and other construction facilities necessary for work on this project. It shall include removal of all personnel, equipment, supplies and incidentals from the project site, removal of temporary offices and other construction facilities necessary for work on this project, all as required for the proper performance and completion of the work.

Payment will be made at the contract lump sum price, subject to the following provisions:

Partial payments for mobilization and demobilization will be made in accordance with the following schedule up to a maximum of 5 percent of the total contract amount (including this item), and payment of any remaining amount will be made upon completion of all work under the contract.

<u>Percent of Total Contract Amount Earned</u>	<u>Allowable Percent of the Lump Sum Price for the Item</u>
1 <sup>st</sup> Partial Estimate	25%
10%	50%
25%	75%
50%	100%

No price adjustments will be made for this item due to changes in the work.

4.19 REFLECTORIZED RAISED PAVEMENT MARKERS (ITEM NO. 731-02-00100)  
(NOT USED)

4.20 MAINTENANCE OF TRAFFIC, TEMP. SIGNS AND BARRICADES (ITEM NO. NS-MNT-20032)

- A. Measurement: Measurement for payment for temporary signs and barricades will be made on a lump sum basis.
- B. Payment: Payment for this item will be made at the lump sum price bid and will constitute full compensation for providing all labor, materials, equipment and services required for traffic control devices and maintenance throughout the duration of the project including flagmen, barricades, cones, etc. in accordance with Section 02050. Payment for preparation of a traffic control plan stamped and sealed by a Professional Engineer shall be included in this item. The lump sum payment will be pro-rated for equal monthly payments throughout the anticipated duration of the project. No adjustments will be made as a result of extensions to the project contract time.

4.21 AIR RELEASE VALVE W/ MANHOLE 1" (ITEM NO. NS-P55-23500)

- A. Measurement: Measurement for valves will be made by the actual field measurement on an each item basis for the size of valve indicated.
- B. Payment: Payment for valves will be made at the contract unit prices which will include equipment, excavation, valve box, connections, testing, limestone bedding and backfill, and geotextile fabric, in accordance with the Contract Document. In the case of air release/vacuum valves, the valve manhole and tee connection are also included. Payment will be made at the contract unit prices for each complete valve assembly.

4.22 COMPOSITE PAVEMENT (ITEM NO. S-002) (NOT USED)

4.23 TEMPORARY ASPHALT PATCHING (ITEM NO. S-003) (NOT USED)

4.24 FIELD ENGINEERING AND SURVEYING (ITEM NO. S-006)

- A. Measurement: Measurement for payment for field engineering and surveying will be on a lump-sum basis as specified herein.
- B. Payment: Payment for field engineering and surveying shall cover all preparatory work, survey work, and field engineering required in execution of the project, including civil, structural or other professional engineering services specified or required to execute the Contractor's construction methods, all as required for the proper performance and completion of the work.

4.25 WATER MAIN (ITEM NOS. W-102, W-104)

- A. Measurement: Water main installed shall be measured for payment by field measurement of the linear feet installed measured along the centerline of the pipe at the top of the pipe for the size and type of water main indicated.
- B. Payment: The actual total linear feet of water main piping installed and accepted measured as provided above will be paid at the unit price bid and shall include all testing, labor, materials, tools and equipment necessary to layout and install the water main of the size and type indicated and complete tie-ins to existing water mains. Excavation, geotextile fabric, backfill, bedding material, shoring, and any materials required for installation of the water main shall be considered incidental to the unit price.

4.26 GATE VALVES VALVE BOX (ITEM NOS. W-406 AND W-408)

- A. Measurement: Measurement for valves will be made by the actual field measurement on an each item basis for the size of valve indicated.
- B. Payment: Payment for valves will be made at the contract unit prices which will include equipment, excavation, valve box, connections, testing, limestone bedding and backfill, and geotextile fabric, in accordance with the Contract Document. In the case of air release/vacuum valves, the valve manhole and tee connection are also included. Payment will be made at the contract unit prices for each complete valve assembly.

4.27 PIPE RESTRAINTS (ITEM NOS. W-706)

- A. Measurement: Measurement for pipe restraints will be made by the actual field measurement on an each item basis for the size of pipe restraint indicated.
- B. Payment: Payment will constitute full compensation for installing pipe restraints during construction including furnishing all materials, equipment, tools, labor and incidentals required to install the pipe restraints. Excavation, bedding, and any materials required for installation of the pipe restraints shall be considered incidental to the unit price.

4.28 TRANSITIONAL COUPLINGS (ITEM NOS. W-804)

- A. Measurement: Measurement for transitional couplings will be made by the actual field measurement on an each item basis for the size of transitional coupling indicated.
- B. Payment: Payment will constitute full compensation for installing transitional couplings during construction including furnishing all materials, equipment, tools, labor and incidentals required to install the couplings. Excavation, bedding, and any materials required for installation of the couplings shall be considered incidental to the unit price.

4.29 DUCTILE IRON FITTINGS (ITEM NO. W-901)

- A. Measurement: Measurement for payment of ductile iron fittings will be by unit weight per pound of the casting as indicated on the Bid Form. Measurement by unit weight per pound of the casting does not include the weight for additional accessories such as retainer glands. Weight tickets must be submitted with the monthly invoice to be considered for payment.
- B. Payment: Payment will constitute full compensation for furnishing and installing the ductile iron fittings complete, including furnishing all equipment, tools, labor and incidentals to the installation of the fittings in accordance with the plans and specifications.

4.30 FIRE HYDRANT ASSEMBLY (ITEM NO. W-902)

- A. Measurement: Measurement for fire hydrant assemblies will be made by the actual field measurement on an each item basis.
- B. Payment: Payment will constitute full compensation for installing fire hydrant assemblies during construction including furnishing all materials, equipment, tools, labor and incidentals required to install the fire hydrant assemblies. Excavation, geotextile fabric, backfill, joint restraints, bedding material, valves, valve boxes, shoring, optional vertical hydrant extensions and any materials required for installation of the hydrants shall be considered incidental to the unit price.

4.31 WATER SERVICE CONNECTION (ITEM NOS. W-903-1, W-903-2, W-903-3, W-903-4)  
(NOT USED)

4.32 ABANDONMENT OF WATERLINE (ITEM NOS. W-904, W-906)  
(NOT USED)

4.33 REMOVAL OF FIRE HYDRANTS (ITEM NO. W-910)  
(NOT USED)

4.34 WATERLINE VERTICAL OFFSET (ITEM NOS. W-911)

- A. Measurement: Measurement for waterline vertical offsets will be made by the actual field measurement on a per each item basis. Vertical offsets shall be defined as any instance in which the waterline vertical location must be adjusted by fittings to be installed at a depth different than as shown on the plans in order to maintain sufficient clearance from conflicting utilities or structures.

- B. Payment: Payment will constitute full compensation for vertical offset of waterlines during construction including furnishing all materials, equipment, tools, labor and incidentals required to install the offset. Excavation, geotextile fabric, bedding, joint restraints, fittings, couplings, pipe material, bedding material, shoring, and any other materials required for installation of the offset shall be considered incidental to the unit price.

4.36 WATER MAIN INSTALLED BY DIRECTIONAL DRILL (ITEM NO. W-913)  
(NOT USED)

END OF SECTION

## SECTION 01050

### FIELD ENGINEERING AND SURVEYING

#### PART 1 - GENERAL

##### 1.01 REQUIREMENTS INCLUDED

Contractor shall provide and pay for field engineering and field surveying services required for the project.

- 1) Survey work required in execution of the project.
- 2) Civil, structural or other professional engineering services specified, or required to execute the Contractor's construction methods.

##### 1.02 RELATED REQUIREMENTS

- A. Conditions of the Contract.
- B. Section 01010: Summary of Work.

##### 1.03 QUALIFICATIONS OF SURVEYOR OR ENGINEER

Registered professional engineer of the discipline or registered land surveyor required for the specific service on the project, licensed in the State of Louisiana, acceptable to the owner.

##### 1.04 SURVEY REFERENCE POINTS

- A. Existing basic horizontal and vertical control points for the project are those designated on the drawings.
- B. Locate and protect control points prior to starting work, and preserve all permanent reference points during construction.
  - 1) Make no changes or relocations without prior written notice to the Engineer.
  - 2) Report to the Engineer when any reference point is lost or destroyed, or requires relocation because of necessary changes in grades or locations.
  - 3) Require surveyor to replace project control points which may be lost or destroyed.
    - a) Establish replacements based on original survey control.

## 1.05 PROJECT SURVEY REQUIREMENTS

- A. Establish temporary bench marks as needed, referenced to data established by survey control points. Record locations, with horizontal and vertical data, on Project Record Documents.
- B. Establish lines and levels, locate and lay out, by instrumentation and similar appropriate means.
- C. From time to time, verify layouts by same methods, as directed by the Engineer.

## 1.06 RECORDS

Maintain a complete, accurate log of all control and survey work as it progresses.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

## SECTION 01152

### REQUESTS FOR PAYMENT

#### PART I - GENERAL

##### 1.01 REQUIREMENTS INCLUDED

Submit applications for payment to the Engineer in accord with the schedule established by Conditions of the Contract.

##### 1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Agreement between owner and Contractor: Unit Price.
- B. Conditions of the Contract: Progress Payments, Retainages and Final Payment.
- C. Section 01380: Construction Photographs and Video Taping.
- D. Section 01700: Contract Closeout.

##### 1.03 FORMAT AND DATA REQUIRED

- A. Submit payment requests in the form required by owner with itemized data typed on 8 ½ x 11 (minimum size) white paper continuation sheets.
- B. Provide itemized data on continuation sheet: format, schedules, line items and values.

##### 1.04 SUBSTANTIATING DATA FOR PROGRESS PAYMENTS

- A. All payment requests must be accompanied by a completed pay request checklist and must include a signed affidavit regarding previous payments received, a short progress narrative describing work performed since previous payment submittal, progress photos as per Section 01380, current project schedule and invoices for any stored materials billed. The pay request checklist form shall be as provided on page 01152-3. All items required on the checklist must be included with each pay request for the request to be considered.
- B. When the Owner or the Engineer requires additional substantiating data, the Contractor shall submit suitable information, with a cover letter.
- C. Submit one copy of all data required with a cover letter for each monthly pay request. Any additional substantiating data requested shall also be submitted as required in Part B above.

##### 1.05 PREPARATION OF APPLICATION FOR FINAL PAYMENT

- A. Fill in application form as specified for progress payments.
- B. Use continuation sheet for presenting the final statement of accounting as specified in section 01700 - Contract Closeout.

1.06 SUBMITTAL PROCEDURE

- A. Submit applications for payment to the Engineer at the times stipulated in the Agreement.
- B. Number: Four copies of each application.
- C. When the Engineer finds application properly completed and correct, he will transmit certificate for payment to the owner, with copy to Contractor.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

PAY REQUEST CHECKLIST  
(CONSTRUCTION CONTRACT)

PARTIAL PAY REQUEST:

- Pre-Construction Video (Date Submitted): \_\_\_\_\_
- Construction Schedule (Updated as needed) \_\_\_\_\_
- Progress Narrative \_\_\_\_\_
- Schedule of Values \_\_\_\_\_
- Progress Photos \_\_\_\_\_
- List of Stored Materials Billed \_\_\_\_\_
- Invoice for Stored Materials Billed \_\_\_\_\_
- Insurance for (off Site) \_\_\_\_\_
- Stored Materials Billed \_\_\_\_\_
- AIS Pay Request Certification \_\_\_\_\_

FINAL PAY REQUEST:

- Application for Payment \_\_\_\_\_
- w/Final Statement of Accounts \_\_\_\_\_
- Punch List (checked off) \_\_\_\_\_
- O & M Manuals (Date Submitted) \_\_\_\_\_
- Record Drawings (Date Submitted) \_\_\_\_\_
- Clear L & P Certificate \_\_\_\_\_
- Warranties & Bonds \_\_\_\_\_
- Consent of Surety to Final Payment \_\_\_\_\_
- Letter from Contractor stating that \_\_\_\_\_
- he shall warranty the work for \_\_\_\_\_
- one year following date of \_\_\_\_\_
- Substantial Completion \_\_\_\_\_
- Verification of Bond to Remain in \_\_\_\_\_
- effect for one year from Final \_\_\_\_\_
- Payment \_\_\_\_\_

END OF SECTION

## SECTION 01153

### CHANGE ORDER PROCEDURES

#### PART 1 – GENERAL

##### 1.01 REQUIREMENTS INCLUDED

- A. Promptly implement change order procedures.
  - 1. Provide full written data required to evaluate changes.
  - 2. Maintain detailed records of work done on a time-and-material/force account basis.
  - 3. Provide full documentation to Engineer on request.
- B. Designate in writing the member of Contractor's organization.
  - 1. Who is authorized to accept changes in the Work.
  - 2. Who is responsible for informing others in the contractors employ of the authorization of changes in the Work.
- C. Owner will designate in writing the person who is authorized to execute Change Orders.

##### 1.02 DEFINITIONS

- A. Change order: See General Conditions.

##### 1.03 PRELIMINARY PROCEDURES

- A. Owner or Engineer may initiate changes by submitting a Proposal Request to Contractor. Request will include:
  - 1. Detailed description of the Change, Products, and location of the change in the Project.
  - 2. Supplementary or revised Drawings and Specifications.
  - 3. The projected time span for making the change, and a specific statement as to whether overtime work is, or is not, authorized.
  - 4. A specific period of time during which the requested price will be considered valid.
  - 5. Such request is for information only, and is not an instruction to execute the changes, nor to stop work in progress.
- B. Contractor may initiate changes by submitting a written notice to Engineer, containing:

1. Description of the proposed changes.
2. Statement of the reason for making the changes.
3. Statement of the effect on the Contract Sum and the Contract Time.
4. Statement of the effect on the work of separate contractors.
5. Documentation supporting any change in Contract Sum or Contract Time, as appropriate.

#### 1.04 DOCUMENTATION OF PROPOSALS AND CLAIMS

- A. Support each quotation for a lump-sum proposal, and for each unit price which has not previously been established, with sufficient substantiating data to allow Engineer to evaluate the quotation.
- B. On request, provide additional data to support time and cost computations:
  1. Labor required.
  2. Equipment required.
  3. Products required.
    - a. Recommended source of purchase and unit cost.
    - b. Quantities required.
  4. Taxes, insurance and bonds.
  5. Credit for work deleted from Contract, similarly documented.
  6. Overhead and profit.
  7. Justification for any change in Contract Time.
- C. Support each claim for additional costs, and for work done on a time-and-material/force account basis, with documentation as required for a lump-sum proposal, plus additional information.
  1. Name of the Owner's authorized agent who ordered the work, and date of the order.
  2. Dates and times work was performed, and by whom.
  3. Time record, summary of hours worked, and hourly rates paid.
  4. Receipts and invoices for:
    - a. Equipment used, listing dates and times of use.
    - b. Products used, listing of quantities.
    - c. Subcontracts.

#### 1.05 PREPARATION OF CHANGE ORDERS

- A. Engineer will prepare each Change Order.
- B. Form: Owner's Form, to be provided to the Contractor.
- C. Change Order will describe changes in the Work, both additions and deletions, with attachments of revised Contract Documents to define details of the change.

- D. Change Order will provide an accounting of the adjustment in the Contract Sum and in the Contract Time.

#### 1.06 LUMP SUM/FIXED PRICE CHANGE ORDER

- A. Content of Change Orders will be based on, either:
  - 1. Engineer's Proposal Request and contractor's responsive Proposal as mutually agreed between Owner and Contractor.
  - 2. Contractor's Proposal for a change, as recommended by Engineer.
- B. Owner and Engineer will sign and date the Change Order as authorization for the Contractor to proceed with the changes.
- C. Contractor may sign and date the Change Order to indicate agreement with the terms therein.

#### 1.07 UNIT PRICE CHANGE ORDER

- A. Content of Change Orders will be based on, either:
  - 1. Engineer's definition of the scope of the required changes.
  - 2. Contractor's Proposal for a change, as recommended by Engineers.
  - 3. Survey of completed work.
- B. The amounts of the unit prices to be:
  - 1. Those stated in the Agreement.
  - 2. Those mutually agreed upon between Owner and Contractor.
- C. When quantities of each of the items affected by the Change Order can be determined prior to start of the work:
  - 1. Owner and Engineer will sign and date the Change Order as authorization for Contractor to proceed with the changes.
  - 2. Contractor may sign and date the Change Order to indicate agreement with the terms therein.
- D. When quantities of the items cannot be determined prior to start of the work:
  - 1. Engineer or Owner will issue a construction change authorization directing Contractor to proceed with the change on the basis of unit prices, and will cite the applicable unit prices.
  - 2. At completion of the change, Engineer will determine the cost of such work based on the unit prices and quantities used.

- a. Contractor shall submit documentation to establish the number of units of each item and any claims for a change in Contract Time.
3. Engineer will sign and date the Change Order to establish the change in Contract Sum and in Contract Time.
4. Owner and contractor will sign and date the change Order to indicate their agreement with the terms therein.

#### 1.08 CORRELATION WITH CONTRACTOR'S SUBMITTALS

- A. Periodically revise Schedule of Values and Application for Payment forms to record each change as a separate item of work, and to record the adjusted Contract Sum.
- B. Periodically revise the Construction Schedule to reflect each change in Contract Time.
  1. Revise subschedules to show changes for other items of work affected by the changes.
- C. Upon completion of work under a Change Order, enter pertinent changes in Record Documents.

#### PART 2 – PRODUCTS

Not Used.

#### PART 3 – EXECUTION

Not Used.

END OF SECTION

## SECTION 01200

### PROJECT MEETINGS

#### PART I - GENERAL

##### 1.01 REQUIREMENTS INCLUDED

A. Engineer shall schedule and administer pre-construction meeting, periodic progress meetings, and specially called meetings throughout progress of the work. At a minimum, he shall perform the following duties:

- 1) Prepare agenda for meetings.
- 2) Distribute written notice of each meeting.
- 3) Make physical arrangements for meetings.
- 4) Preside at meetings.
- 5) Record the minutes; include significant proceedings and decisions.
- 6) Reproduce and distribute copies of minutes.
  - (a) To participants in the meeting
  - (b) To parties affected by decisions made at the meeting

B. Representative of contractors, subcontractors and suppliers attending meetings shall be qualified and authorized to act on behalf of the entity each represents.

##### 1.02 RELATED REQUIREMENTS

- A. Instructions to Bidders: Pre-bid Conferences.
- B. Section 01340: Shop Drawings, Product Data and Samples.

##### 1.03 PRE-CONSTRUCTION MEETING

- A. Schedule prior to issuance of Notice to Proceed.
- B. Location: A central site, convenient for all parties, designated by the Engineer.
- C. Attendance:
  - 1) Owner's Representative.
  - 2) Engineer and his professional consultants.

- 3) Resident Project Representative.
- 4) Contractor's Superintendent.

D. Suggested Agenda:

- 1) Distribution and discussion of:
  - (a) List of major subcontractors and suppliers.
  - (b) Projected Construction Schedules.
  - (c) Values for progress payment purposes.
- 2) Critical work sequencing.
- 3) Major equipment deliveries and priorities.
- 4) Project Coordination:
  - (a) Designation of responsible personnel.
- 5) Procedures and processing of:
  - (a) Field decisions.
  - (b) Proposal requests.
  - (c) Submittals.
  - (d) Change Orders.
  - (e) Applications for Payment.
- 6) Adequacy of distribution of Contract Documents.
- 7) Procedures for maintaining Record Documents.
- 8) Use of premises:
  - (a) Work and storage areas.
  - (b) Owner's requirements.
- 9) Construction facilities, controls and construction aids.
- 10) Temporary utilities.
- 11) Safety and first-aid procedures.
- 12) Security procedures.

- 13) Housekeeping procedures.

#### 1.04 PROGRESS MEETINGS

- A. Schedule periodic meetings.
- B. Hold called meetings to review progress of the work.
- C. Location of the meetings: As designated by the Engineer.
- D. Attendance:
  - 1) Engineer, and his professional consultants, as needed.
  - 2) Contractor.
  - 3) Subcontractors, as appropriate to the agenda.
- E. Suggested Agenda:
  - 1) Review, approval of minutes of previous meeting.
  - 2) Review of work progress since previous meeting.
  - 3) Field observations, problems, conflicts.
  - 4) Problems which impede Construction Schedule.
  - 5) Review of off-site fabrication, delivery schedules.
  - 6) Corrective measures and procedures to regain projected schedule.
  - 7) Revisions to Construction Schedule.
  - 8) Progress, schedule, during succeeding work period.
  - 9) Coordination of schedules.
  - 10) Review submittal schedules; expedite as required.
  - 11) Maintenance of quality standards.
  - 12) Pending changes and substitutions.
  - 13) Review proposed changes for:
    - (a) Effect on Construction Schedule and on completion date.

(b) Effect on other contracts of the project.

14) Other business.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

## SECTION 01310

### CONSTRUCTION SCHEDULING

#### PART 1 – GENERAL

##### 1.01 PROGRAM DESCRIPTION

- A. A Critical Path Method (CPM) construction schedule shall be used to control the work of this Contract and to provide a definitive basis for determining job progress. The construction schedule shall be prepared, maintained, and updated by the Contractor. The construction schedule shall be reviewed by the Engineer as described herein. All work shall be done in accordance with the established CPM schedule and the Contractor and his/her subcontractors shall be responsible for cooperating fully with the Engineer and the Owner in effectively utilizing the CPM schedule.
- B. The CPM schedule to be prepared and submitted by the Contractor shall consist of a CPM network (diagram of activities) in the Time Scale Logic and a computer-generated schedule (print-out) as specified herein.
- C. Within ten calendar days following written Notice to Proceed, the Contractor shall submit to the Engineer for review and approval a Preliminary Guideline CPM Schedule covering the first 60 calendar days of Work to be performed.
- D. The Preliminary Guideline CPM Schedule shall:
  - 1. Illustrate a feasible CPM schedule for completion of the work under this Contract within the time specified.
  - 2. Provide an elementary example of a CPM schedule in the format to be used for the detailed CPM schedule specified. The Preliminary Guideline CPM Schedule is not as detailed as the CPM schedule required under this Contract.
  - 3. Establish mandatory milestone dates. Designate milestones on the Preliminary Guideline CPM Schedule with asterisks.
- E. The Preliminary Guideline CPM Schedule is not to be considered binding except for the time required for contract completion and the mandatory milestones.
- F. Contractor shall develop his own outline of the Work and prepare his proposed CPM schedule. The computer-based schedule shall be the product of a recognized commercial computer software producer and shall meet all of the requirements defined herein.

## 1.02 QUALIFICATIONS

- A. Have the capability of preparing and utilizing the specified CPM scheduling technique. A statement of CPM capability shall be submitted in writing to the Engineer within ten calendar days after the award of the Contract and will verify that either the Contractor's organization has in-house capability qualified to use the technique or that the Contractor employs a consultant who is so qualified. Capability shall be verified by description of the construction projects to which the Contractor or his/her consultant has successfully applied the CPM scheduling technique and which were controlled throughout the duration of the project by means of systematic use and updating of a computer-based CPM schedule. The submittal shall include the name of the individual on the Contractor's staff who will be responsible for the CPM schedule and for providing the required updating information.

## 1.03 NETWORK REQUIREMENTS

- A. The network shall show the order and inter-dependence of activities and the sequence in which the work is to be accomplished as planned by the Contractor. The basic concept of a network analysis diagram shall be followed to show how the start of a given activity is dependent on the completion of preceding activities and its completion restricts the start of following activities.
- B. Detailed network activities shall include: construction activities, the submittal and approval of samples of materials and shop drawings, the procurement of materials and equipment, fabrication of materials and equipment and their delivery, installation and testing, start-up and training. Break the work into activities with duration no longer than 20 working days each, except as to non-construction activities (such as procurement of materials and delivery of equipment) and any other activities for which the Engineer may approve the showing of longer duration. To the extent feasible, activities related to a specific physical area of the work shall be grouped on the network for ease of understanding and simplification.
- C. Separate activities shall be provided for each significant identifiable function in each trade area in each facility. Activities shall be so identified that there will be no reasonable doubt as to how much work remains on each. Specific activities which shall be included are: all sub contract work, all interface work between subcontractors and between the Contractor and subcontractors leakage tests of tanks and pipelines, electrical connections to each item of equipment, supplier and manufacturer technical assistance, mechanical connections to each item of equipment all tests concrete finishing, each item of site work, (including restraints on other activities) and all utilities, fuels and chemicals.
- D. Each activity on the network shall have the following indicated on the node

representing it.

1. A single duration (i.e., the single best estimate of elapsed time considering the scope of the work involved in the activity and the resources planned for accomplishing the activity) expressed in working days.
  2. A five character (or less) code indicative of the party responsible for accomplishing the activity.
  3. A cost estimate for each activity which, when accumulated with the cost of all activities, equals the total contract cost. Estimated overhead and profit shall be prorated throughout all activities. Materials costs shall be assigned to delivery activities.
  4. A brief description of the activity.
  5. Manpower estimate for each activity.
- E. The selection and number of activities shall be subject to the Engineer's approval. The detailed network shall be time scaled. In addition to the brief description, submit a separate list of all activities containing a detailed narrative of the scope of each activity, including the trades and subcontractors involved, the activity duration, and the cost of each activity as it pertains to the pay items on the Schedule of Values.
- F. To the extent that the network or any revision thereof shows anything not jointly agreed upon or fails to show anything jointly agreed upon, it shall not be deemed to have been approved by the Engineer. Failure to include on a network any element of work required for the performance of this Contract shall not excuse the Contractor from completing all work required within any applicable completion date, notwithstanding the review of the network by the Engineer.
- G. Except where earlier completions are specified, CPM schedules which show completion of all work prior to the contractor completion date may be approved by the Engineer but in no event shall they be acceptable as a basis for claim for delay against the Owner or Engineer by the Contractor.

#### 1.04 COMPUTER-GENERATED SCHEDULE REQUIREMENTS

- A. Each computer-generated schedule submittal from the CPM activity network shall include the following tabulations: a list of activities in numerical order, a list of activity precedence's, a schedule sequenced by Early Start Date and a schedule sequenced by Total Float. Each schedule shall include the following minimum items:
1. Activity numbers

2. Estimated duration
  3. Activity description
  4. Early start date (calendar dated)
  5. Early finish date (calendar dated)
  6. Latest allowable start date (calendar dated)
  7. Latest allowable finish date (calendar dated)
  8. Status (whether critical)
  9. Estimated cost of the activity
  10. Total float and free float
- B. In addition, each schedule shall be prefaced with the following summary data:
1. Contract name and number
  2. Contractor's name
  3. Contract duration
  4. Contract schedule
  5. The effective or starting date of the schedule (the date indicated in the Notice to Proceed).
- C. The work day to calendar date correlation shall be based on an 8-hour day and 40-hour week with adequate allowance for holidays, adverse weather and all other special requirements of the work.

#### 1.05 INITIAL CONFERENCE

- A. Within ten days following the receipt of the Notice to Proceed, meet with the Engineer to discuss and agree on the proposed standards for the CPM schedule. At this conference submit to the Engineer a preliminary network defining the planned operations during the first 60 calendar days after Notice to Proceed. The general approach for the balance of the project shall be indicated. Cost of activities expected to be completed or partially completed before submission and approval of the complete network shall be included.

## 1.06 APPROVED CPM SCHEDULE

- A. Within 45 days following the receipt of the Notice to Proceed, submit two prints of the proposed CPM activity network and a computer-generated schedule to the Engineer. Following review by the Engineer and Owner, the Contractor shall incorporate the Engineer's comments into the network and submit five prints and two reproducible of the revised network and two copies of the computer-generated schedule. This final submittal shall be delivered to the Engineer within 60 days after the Notice to Proceed.
- B. CPM schedules which contain activities showing negative float or which extend beyond the contract completion date in the computer-generated schedule will not be approved.
- C. The Contractor shall participate in the initial review and evaluation of the proposed network diagram and schedule by the Engineer. The approved network shall then be approved CPM schedule to be used for planning, organizing and directing the work, and reporting progress.
- D. Approval of the CPM activity network by the Engineer is advisory only and shall not relieve the Contractor of responsibility for accomplishing the work within the contract completion date. Omissions and errors in the approved CPM schedule shall not excuse performance less than that required by the Contract Approval by the Engineer in no way makes the Engineer an insurer of the CPM schedule's success or liable for time or cost overruns flowing from its shortcomings. The Owner hereby disclaims any obligation or liability by reason of approval by its agent, the Engineer, of the CPM schedule.
- E. The CPM activity network shall be prepared in accordance with the format used in the Preliminary Guideline CPM Schedule noted above. The network shall be submitted on sheets 24-in by 36-in and may be divided into as many separate sheets as required.

## 1.07 PROGRESS REPORTING

- A. Progress under the approved CPM schedule shall be evaluated monthly by the Contractor and the Engineer. Not less than seven days prior to each monthly progress meeting, they shall meet at the job-site and jointly evaluate the status of each activity on which work has started or is due to start, based on the preceding CPM schedule; to show actual progress, to identify those activities started and those completed during the previous period, to show the estimated time required to complete or the percent complete of each activity started but not yet completed and to reflect any changes indicated for the network. Activities shall not be considered to be complete until they are, in fact, 100 percent complete.
- B. At each progress meeting, submit a narrative report based on the CPM

schedule evaluation described above, in a format agreed upon by the Contractor and the Engineer. The report shall include a description of the progress during the previous period in terms of completed activities, and explanation of each activity which is showing a delay, a description of problem areas, current and anticipated delaying factors and their estimated impact on performance of other activities and completion dates and an explanation of corrective action taken or proposed. This report, as well as the CPM Status Report, will be discussed at each progress meeting.

#### 1.08 RESPONSIBILITY FOR SCHEDULE COMPLIANCE

- A. Whenever it becomes apparent from the current CPM schedule and CPM Status Report that delays to the critical path have resulted and the contract completion date will not be met, or when so directed by the Engineer, Contractor shall take some or all of the following actions at no additional cost to the Owner. He shall submit to the Engineer for approval, a written statement of the steps intended to take to remove or arrest the delay to the critical path in the approved schedule.
1. Increase construction manpower in such quantities and crafts as will substantially eliminate the backlog of work.
  2. Increase the number of working hours per shift, shifts per day, working days per week, the amount of construction equipment, or any combination of the foregoing, sufficiently to substantially eliminate the backlog of work.
  3. Reschedule activities to achieve maximum practical concurrence of accomplishment of activities and comply with the revised schedule.
- B. If when so requested by the Engineer, failure to submit a written statement of the steps intended to take or should fail to take such steps as approved by the Engineer, the Engineer may direct the Contractor to increase the level of effort in man-power (trades), equipment and work schedule (overtime, weekend and holiday work, etc) to be employed by the Contractor in order to remove or arrest the delay to the critical path in the approved schedule and the Contractor shall promptly provide such level of effort at no additional cost to the Owner.

#### 1.09 ADJUSTMENT OF CONTRACT SCHEDULE AND COMPLETION TIME

- A. If the Contractor desires to make changes in his/her method of operating which affect the approved CPM schedule, he/she shall notify the Engineer in writing stating what changes are proposed and the reason for the change. If the Engineer approves these changes, the Contractor shall review and submit for approval, without additional cost to the Owner, all of the affected portions of the CPM network. The CPM schedule shall be adjusted by the Contractor only after

prior approval of his/her proposed changes by the Engineer. Adjustments may consist of changing portions of the activity sequence, activity durations, division of approved activities, or other adjustments as maybe approved by the Engineer. The addition of extraneous, non-working activities and activities which add unapproved restraints to the CPM schedule shall not be approved.

- B. If the completion of any activity, whether or not critical, falls more than 100 percent behind its approved duration, submit for approval a schedule adjustment showing each such activity divided into two activities reflection completed versus uncompleted work.
- C. Shop drawings which are not approved on the first submittal or within the schedule time and equipment which do not pass the specified tests shall be immediately rescheduled.
- D. The contract completion time will be adjusted only for causes specified in this Contract. In the event the Contractor requests an extension of any contract completion date, he/she shall furnish such justification and supporting evidence as the Engineer may deem necessary to determine whether the Contractor is entitled to an extension of time under the provisions of this Contract. The Engineer will after receipt of such justification and supporting evidence, make findings offset and will advise the Contractor in writing thereof. If the Engineer finds that the Contractor is entitled to any extension of any contract completion date, the Engineer's determination as to the total number of days extension shall be based upon the currently approved CPM schedule and on all data relevant to the extension. Such data shall be included in the next updating of the schedule. Actual delays in activities which, according to the CPM schedule, do not affect any contract completion date shown by the critical path in the network will not be the basis for a change therein.
- E. Each request for change in any contract completion date shall be submitted by the Contractor to the Engineer within 30 days after the beginning of the delay for which a time extension is requested but before the date of final payment under this Contract. No time extension will be granted for requests which are not submitted within the foregoing time limit.
  - 1. From time to time it may be necessary for the contract schedule or completion time to be adjusted by the Owner to reflect the effects of job conditions, weather, technical difficulties, strikes, unavoidable delays on the part of the Owner or its representatives and other unforeseeable conditions which may indicate schedule adjustments or completion time extensions. Under such conditions, the Engineer will direct the Contractor to reschedule the work or contract completion time to reflect the changed conditions and the Contractor shall revise his/her schedule accordingly. No additional compensation will be made to the Contractor for such schedule changes except for unavoidable overall contract time extensions

beyond the actual completion of all unaffected work, in which case the Contractor shall take all possible action to minimize any time extension and any additional cost to the Owner. Available float time in the CPM schedule may be used by the Owner as defined by the Engineer, as well as by the Contractor.

- F. The Owner controls the float time in the approved CPM network and, therefore, without obligation to extend either the overall completion date or any intermediate completion dates set out in the CPM network, the Owner may initiate changes to the work that absorb float time only. Owner initiated changes that affect the critical path on the approved CPM network shall be the sole grounds for extending (or contracting) said completion dates. Contractor-initiated changes that encroach on the float time identified in the approved CPM network may be accomplished with the Owner's concurrence. Such changes, however, shall give way to Owner-initiated changes competing for the same float time.

#### PART 2 - PRODUCTS

Not Used.

#### PART 3 - EXECUTION

Not Used.

END OF SECTION

## SECTION 01340

### SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

#### PART 1 - GENERAL

##### 1.01 REQUIREMENTS INCLUDED

Submit shop drawings, product data and samples required by Contract Documents.

##### 1.02 RELATED REQUIREMENTS

- A. Conditions of the Contract: Definitions and Additional responsibilities of parties.
- B. Designate in a separate schedule, the dates for submission and the dates that reviewed shop drawings, product data and samples will be needed.

##### 1.03 SHOP DRAWINGS

- A. Drawings shall be presented in a clear and thorough manner.
  - 1) Details shall be identified by reference to sheet and detail as shown on contract drawings.
- B. Minimum sheet size: 8 1/2 inches by 11 inches.

##### 1.04 PRODUCT DATA

- A. Preparation
  - 1) Clearly mark each copy to identify pertinent products or models.
  - 2) Show performance characteristics and capacities.
  - 3) Show dimensions.
- B. Manufacturer's standard schematic drawings and diagrams.
  - 1) Modify drawings and diagrams to delete information which is not applicable to the work.
  - 2) Supplement standard information to provide information specifically applicable to the work.

##### 1.05 SAMPLES

- A. Office samples shall be of sufficient size and quantity to clearly illustrate:

- 1) Functional characteristics of the product, with integrally related parts and attachment devices.
- 2) Full range of color, texture and pattern.

#### 1.06 CONTRACTOR RESPONSIBILITIES

- A. Review shop drawings, product data and samples prior to submission.
- B. Determine and verify:
  - 1) Field measurements
  - 2) Field construction criteria
  - 3) Catalog numbers and similar data
  - 4) Conformance with specifications
  - 5) Confirm compatibility of equipment to be supplied within location to be erected.
- C. Coordinate each submittal with requirements of the work and of the contract documents.
- D. Notify the Engineer in writing, at time of submission, of any deviations in the submittals from requirements of the contract documents.
- E. Begin no fabrication or work which requires submittals until return of submittals with Engineer approval.

#### 1.07 SUBMISSION REQUIREMENTS

- A. Make submittals promptly in accordance with approved schedule, and in such sequence as to cause no delay in the work or in the work of any other contractor.
- B. Number of Submittals required:
  - 1) Shop Drawings and Product Data: Submit one (1) set of reproducibles and two (2) sets of prints of each shop drawing submittal for review. After final review in which there are no exceptions noted or referenced the contractor shall furnish the Engineer two (2) complete sets for use by the Engineer and Owner.
  - 2) Samples: Submit the number stated in each specification section.
- C. Submittals shall contain:
  - 1) The date of submission and the dates of any previous submissions.
  - 2) The project title and number.

- 3) Contract identification.
- 4) The names of:
  - (a) Contractor
  - (b) Supplier
  - (c) Manufacturer
- 5) Identification of the product, with the specification section number.
- 6) Field dimensions, clearly identified as such.
- 7) Relation to adjacent or critical features of the work or materials.
- 8) Applicable standards, such as ASTM or Federal specification numbers.
- 9) Identification of deviations from Contract Documents.
- 10) Identification of revisions on resubmittals.
- 11) A blank space for Contractor and Engineer stamps.
- 12) Contractor's stamp, initialed or signed, certifying to review of submittal, verification of products, field measurements and field construction criteria, and coordination of the information within the submittal with requirements of the work and of Contract Documents.

D. Submittals should be made using the Letter of Transmittal form attached to this section as page 01340-6. Submittals received without this submittal form will be returned to the Contractor without action. Transmittals shall be numbered in sequence for each Section of the Specifications. The number after the dash indicates the Section of the Specifications, and the number before the dash is the sequence number of the transmittal (1-15100 would be the first transmittal applicable to Section 15100 of the Specifications. 2-15100 would be the second transmittal for Section 15100, etc.)

#### 1.08 RESUBMISSION REQUIREMENTS

- A. Make any corrections or changes in the submittals required by the Engineer and resubmit until no exceptions are taken by the Engineer.
- B. Shop Drawings and Product Data:
  - 1) Revise initial drawings or data, and resubmit as specified for the initial submittal.
  - 2) Indicate any changes which have been made other than those requested by the Engineer.

C. Samples: Submit new samples as required for initial submittal.

#### 1.09 DISTRIBUTION

A. Distribute reproductions of Shop Drawings and copies of Product Data which carry the Engineer review stamp to:

- 1) Job site file
- 2) Record Documents file
- 3) Other affected contractors
- 4) Subcontractors
- 5) Supplier or Fabricator

B. Distribute samples which carry the Engineer review stamp as directed by the Engineer.

#### 1.10 ENGINEER DUTIES

A. Review submittals within 15 calendar days.

B. Affix review stamp and initials or signature, and indicate requirements, if any, for resubmittal.

C. Return submittals to Contractor.

#### 1.11 ENGINEER'S ACTION

A. Final unrestricted release. Work may proceed, provided it complies with contract documents, when submittal is returned with the following:

Marking: No exceptions taken

B. Final-But-Restricted Release. Work may proceed, provided it complies with notations and corrections on submittal and with contract documents, when submittal is returned with the following:

Marking: Revised as Noted.

C. Returned for Resubmittal. Do not proceed with work. Revise submittal in accordance with notations thereon, and resubmit without delay to obtain a different action marking. Do not allow submittals with the following marking (or unmarked submittals where a marking is required) to be used in connection with performance of the work:

Marking: Amend and Resubmit or  
Rejected - See Remarks

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

**LETTER OF TRANSMITTAL**

Transmittal of Shop Drawings, Monolith Drawings, Equipment Data, Material Sample or Manufacturer's Certificates of Compliance for Approval.

Project: \_\_\_\_\_

TO: N-Y ASSOCIATES, INC.  
 2750 LAKE VILLA DRIVE  
 METAIRIE, LA 70002

From: \_\_\_\_\_

Transmittal No. \_\_\_\_\_  
 (If Any)  
 Previous Transmittal No. \_\_\_\_\_

New Transmittal  
 Re-Submittal

Item No.	Description of Item Submitted, i.e., Type, Size, Model No., Etc.	Mfg. or Supplier	Mfg. or Contr. Cat., Curve, Drawing or Brochure No.	No. of Copies	Project Specification Section Number	Engineer's Use Only
						Action Code

Signature of Contractor: \_\_\_\_\_ Date: \_\_\_\_\_

(THIS SECTION TO BE USED ONLY BY THE ENGINEER TO DESIGNATE ACTION)

Action Codes. The following codes are given to the items submitted: A - No exceptions taken; B - Revise as noted; C - Amend and resubmit; D - Rejected. See remarks. Corrections and comments made on the shop drawings during this review do not relieve the contractor from compliance with requirements of the drawings and specifications.

Enclosure Returned (List by item No.) \_\_\_\_\_  
 By: N-Y ASSOCIATES, INC. Date: \_\_\_\_\_

Distribution Requested: Contractor \_\_\_\_\_ Engineer \_\_\_\_\_ Owner \_\_\_\_\_

SECTION 01380

CONSTRUCTION PHOTOGRAPHS AND VIDEOS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

Contractor shall employ a competent photographer to take construction record photographs and video DVDs prior to and periodically during course of the work.

1.02 PHOTOGRAPHY REQUIRED

- A. Video Survey as specified herein (pre-construction).
- B. Provide five (5) photographs each month of each major portion of the work taken at each major stage of construction.
- C. Provide digital files of each photograph identified with contract number, description of view and date.

1.03 COSTS OF PHOTOGRAPHY

Contractor shall pay costs for specified video and photography, and prints. Parties requiring additional photography or prints will pay photographer directly.

PART 2 - PRODUCTS

2.01 PRINTS

- A. Color:
  - 1. Paper: Single weight, white base.
  - 2. Finish: Smooth surface, glossy.
  - 3. Size: 4 in. x 5 in.
- B. Identify each print on back, listing:
  - 1. Name of project.
  - 2. Facility location.
  - 3. Orientation of view.
  - 4. Date and time of exposure.
  - 5. Name of Contractor.

2.02 VIDEOS

- A. Specifications for Audio-Video Survey

Prior to the start of construction of the contract, the Contractor shall furnish to the Engineer the video DVDs of the construction areas. The DVDs shall be reviewed by the Engineer and either approved or additional coverage will be required to fully show the physical conditions of the work areas. The Contractor shall have the additional coverage videoed and shall not begin work, including moving equipment and/or material on the project site, until the audio-video survey has been approved by the Engineer. After approval, the Contractor shall supply two copies of the audio-video survey to the Engineer. One copy of the DVDs will remain available for viewing by the Contractor and may be reviewed by him for any assistance that the DVDs may provide in resolving disputes which arise with the property owners claiming improper restoration of their properties. That copy of the DVDs will also be used as a guide by the Engineer, prior to issuance of final payments, in determining the adequacy of restoration and the extent of damages attributable to the Contractor's work. The remaining copy of the DVD will be delivered to the Owner.

B. Technical Requirements

The total audio-video recording system and the procedures employed in its use shall be such as to produce a finished product that will fulfill the technical requirements of the project, as well as those more subjective requirements of high-quality audio and video production. The video portion of the recording shall reproduce bright, sharp, clear pictures with accurate colors and shall be free from distortion or any other form of picture imperfection. The audio portion of the recording shall reproduce precise and concise explanatory notes by the camera operator with proper volume, clarity and freedom from distortion.

C. Recorder

The recorder shall be DVD format.

D. Camera

The color video camera shall have a horizontal resolution of at least 550 lines at center.

## PART 3 - EXECUTION

### 3.01 TECHNIQUE FOR STILL PHOTOGRAPHS

A. Factual presentation.

B. Correct exposure and focus.

1. High resolution and sharpness.
2. Maximum depth-of-field.
3. Minimum distortion.

### 3.02 VIEWS REQUIRED FOR STILL PHOTOGRAPHS

- A. Contractor shall photograph from locations to adequately illustrate condition of construction and state of progress. Consult with Engineer at each period of photography for instructions concerning views required.
- B. Prior to construction of the water line, five photographs of pertinent features shall be taken at various locations at the site as selected by the Engineer and promptly submitted to the Engineer. The same views shall be re-photographed during construction of the water line showing the installation of all material and pipe. Photographs shall also be taken upon completion of the project. Additional progress photographs shall be made monthly throughout the progress of the work at the same locations as above when work has taken place at that location during the month and submitted with each of the Contractor's applications for progress payment.

### 3.03 TECHNIQUE AND VIEWS REQUIRED FOR VIDEO TAPING

- A. At the start of production, an identification summary shall be read into the record while, at the same time, a wide-angle view with numeric displays shall be provided for a visual record. This summary will include (1) DVD number, (2) job title, (3) job location, (4) positional location at job start, (5) date and time, (6) weather and (7) any other notable conditions.

- B. Coverage

The recording shall include coverage of all surface features located within the construction zone-of-influence. This zone shall be defined as (1) the area within 500 feet of the water line and (2) areas directed by the Owner. The coverage shall be continuous (i.e., the camera shall not be turned off once photography has begun) to the greatest extent practically possible. If the camera must be turned off then a verbal message shall be inserted stating that the camera will be turned off and the reason for discontinuing coverage.

- C. Visibility

No recording shall be done during periods of significant precipitation, mist or fog. The recording shall only be done when sufficient sunlight is present to properly illuminate the subjects of recording.

- D. Experience

The operator in charge must have had previous experience video documenting a minimum of fifty miles of pre-construction work. Any apprentice operators must be continuously supervised by an above-described experienced operator.

### 3.04 DELIVERY OF PRINTS

- A. Preconstruction photographs shall be delivered to the Engineer prior to the mobilization of any equipment or materials or the beginning of construction on each pump station site.
- B. Deliver progress prints to Engineer to accompany each Application for Payment.

3.05 DELIVERY OF DVDs

- A. Recording Schedule

The recording shall be performed prior to the placement of any construction materials or equipment on the proposed construction site, but not more than seven weeks prior to the placement of materials or equipment.

- B. DVD Indexing

All DVDs and their storage cases shall be properly identified by DVD index number, project title and general project location. Displayed on the storage case of each DVD shall be a log of that DVD's contents. That log shall describe (1) the various segments contained on that DVD, (2) coverage start, direction and endpoints, with corresponding DVD player counter numbers. A cumulative index correlating the various segments of coverage to their corresponding DVDs shall be typed and supplied to the Owner.

- C. After approval of videos, deliver two record copies to Engineer.

- D. Unacceptable Documentation

The Owner shall have the authority to reject all or any portion of the DVD documentation not conforming to the specifications. Those rejected portions shall be retaped at no additional cost to the Owner.

- E. Specification Deviations

Any deviation from these specifications must have the written approval of the Owner/Engineer.

- F. Payment

There will be no separate payment for construction photographs and videos. Payment for the work covered under this section shall be included within the pay item for mobilization and demobilization. Video documentation will be made in accordance with the project specifications.

END OF SECTION

## SECTION 01410

### TESTING LABORATORY SERVICES

#### PART 1 - GENERAL

##### 1.01 REQUIREMENTS INCLUDED

Owner will employ and pay for the services of an independent testing laboratory to perform specified testing upon recommendation of the Engineer.

- 1) The Contractor shall cooperate with the laboratory to facilitate the execution of its required services.
- 2) Employment of the laboratory shall in no way relieve the Contractor's obligations to perform the work of the contract.

##### 1.02 RELATED REQUIREMENTS

- A. Conditions of the contract: Inspections and testing required by laws, ordinances, rules, regulations, orders or approvals of public authorities.
- B. Respective sections of Specifications: Certification of products.

##### 1.03 LABORATORY DUTIES

- A. Cooperate with the Engineer and Contractor to provide certified personnel after due notice.
- B. Perform specified inspections, sampling and testing of materials and methods of construction:
  - 1) Comply with specified standards.
  - 2) Ascertain compliance of materials with requirements of Contract Documents.
- C. Promptly notify the Engineer and Contractor of observed irregularities or deficiencies of work or products.
- D. Promptly submit one (1) copy of written report of each test and inspection to the Engineer, one (1) copy to the owner and two (2) copies to the Contractor. Each report shall include:
  - 1) Date issued.
  - 2) Project title and number.
  - 3) Testing laboratory name, address and telephone number.

- 4) Name and signature of laboratory inspector.
- 5) Date and time of sampling or inspection.
- 6) Record of temperature and weather conditions.
- 7) Date of test.
- 6) Identification of product and specification section.
- 9) Location of sample or test in the project.
- 10) Type of inspection or test.
- 11) Results of test and compliance with Contract Documents.
- 12) Interpretation of test results, when requested by the Engineer.

E. Perform additional tests as required by the Engineer or Owner.

#### 1.04 LIMITATIONS OF AUTHORITY OF TESTING LABORATORY

Laboratory is not authorized to:

- 1) Release, revoke, alter or enlarge on requirements of Contract Documents.
- 2) Approve or accept any portion of the work.
- 3) Perform any duties of the Contractor.

#### 1.05 CONTRACTOR'S RESPONSIBILITIES

- A. Cooperate with laboratory personnel; provide access to work, and to manufacturer's operations.
- B. Secure and deliver to the laboratory, when requested by the Engineer, adequate quantities of representational samples of materials proposed to be used and which require testing.
- C. Provide to the laboratory the preliminary design mix proposed to be used for concrete and other materials mixes which require control by the testing laboratory.
- D. Furnish copies of products test reports as required.
- E. Furnish incidental labor and facilities:
  - 1) To provide access to work to be tested.
  - 2) To obtain and handle samples at the project site or at the source of the product to be tested.
  - 3) To facilitate inspections and tests.
  - 4) For storage and curing of test samples.

- F. Notify laboratory sufficiently in advance of operations to allow for laboratory assignment of personnel and scheduling of tests. When tests or inspections cannot be performed after such notice, reimburse the Owner for laboratory personnel time and travel expenses incurred due to Contractor's negligence.
- G. Make arrangements with the laboratory and pay for additional samples and tests required for Contractor's convenience.
- H. Contractor to pay for all retesting as a result of test failure.

PART 2      PRODUCTS (NOT USED)

PART 3      EXECUTION (NOT USED)

END OF SECTION

## SECTION 01600

### MATERIAL AND EQUIPMENT

#### PART 1 - GENERAL

##### 1.01 REQUIREMENTS INCLUDED

###### A. Material and equipment incorporated into the work:

- 1) Conform to applicable specifications and standards.
- 2) Comply with size, make, type and quality specified, or as specifically approved, in writing, by the Engineer.
- 3) Manufactured and Fabricated Products:
  - (a) Design, fabricate and assemble in accord with the best engineering and shop practices.
  - (b) Manufacture like parts of duplicate units to standard sizes and gages, to be interchangeable.
  - (c) Two or more items of the same kind shall be identical, by the same manufacturer.
  - (d) Products shall be suitable for service conditions.
- 4) Do not use material or equipment for any purpose other than that for which it is designed or is specified.

##### 1.02 RELATED REQUIREMENTS

- A. Conditions of the Contract
- B. Section 01010: Summary of Work
- C. Section 01340: Shop Drawings, Product Data and Samples

##### 1.03 MANUFACTURER'S INSTRUCTIONS

- A. When Contract Documents require that installation of work shall comply with manufacturer's printed instructions, obtain and distribute copies of such instructions to parties involved in the installation, including two copies to the Engineer.
  - 1) Maintain one set of complete instructions at the job site during installation and until completion.

- B. Handle, install, connect, clean, condition and adjust products in strict accord with such instructions and in conformity with specified requirements.
  - 1) Should job conditions or specified requirements conflict with manufacturer's instructions, consult with Engineer for further instructions.
  - 2) Do not proceed with work without clear instructions.
- C. Perform work in accord with manufacturer's instructions. Do not omit any preparatory step or installation procedure unless specifically modified or exempted by Contract Documents.

#### 1.04 TRANSPORTATION AND HANDLING

- A. Arrange deliveries of products in accord with construction schedules; coordinate to avoid conflict with work and conditions at the site.
  - 1) Deliver products in undamaged condition, in manufacturer's original containers or packaging, with identifying labels intact and legible.
  - 2) Immediately upon delivery, inspect shipments to assure compliance with requirements of Contract Documents and approved submittals, and that products are properly protected and undamaged.
- B. Provide equipment and personnel to handle products by methods to prevent soiling or damage to products or packaging.

#### 1.05 STORAGE AND PROTECTION

- A. Store products in accord with manufacturer's instructions, with seals and labels intact and legible.
  - 1) Store products subject to damage by the elements in weathertight enclosure.
  - 2) Maintain temperature and humidity within the ranges required by manufacturer's instructions.
- B. Exterior Storage
  - 1) Store loose granular materials in a well-drained area on solid surfaces to prevent mixing with foreign matter and entrance to drainage systems.
- C. Arrange storage in a manner to provide easy access for inspection. Make periodic inspections of stored products to assure that products are maintained under specified conditions, and free from damage or deterioration.

#### D. Protection after Installation

- 1) Provide substantial coverings as necessary to protect installed products from damage from marine traffic and subsequent construction operations. Remove when no longer needed.

#### E. Private Property

- 1) Contractor must provide to the parish documentation of agreements for all use of private property for storage of material and equipment.

### 1.06 SUBSTITUTIONS AND PRODUCT OPTIONS

#### A. Products List

- 1) Within 30 days after contract date, submit to the Engineer a complete list of major products proposed to be used, with the name of the manufacturer, supplier, and the installing subcontractor.

#### B. Contractor's Options

- 1) For products specified only by reference standard, select any product meeting that standard.
- 2) For products specified by naming several products or manufacturers, select any one of the products or manufacturers named, which complies with the specifications.
- 3) For products specified by naming one or more products or manufacturers and "or equal", Contractor must submit a request as for substitutions for any product or manufacturer not specifically named.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

## SECTION 01700

### CONTRACT CLOSEOUT

#### PART 1 - GENERAL

##### 1.01 REQUIREMENTS INCLUDED

Comply with requirements stated in Conditions of the Contract and in specifications for administrative procedures in closing out the work.

##### 1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Conditions of the Contract: Fiscal provisions, legal submittals and additional administrative requirements.
- B. Section 01720: Project Record Documents.
- C. Section 01740: Warranties and Bonds.

##### 1.03 SUBSTANTIAL COMPLETION

- A. When the Contractor considers the work is substantially complete, he shall submit to the Engineer:
  - 1) A written notice that the work, or designated portion thereof, is substantially complete.
  - 2) A list of items to be completed or corrected.
- B. Within a reasonable time after receipt of such notice, the Engineer will make an inspection to determine the status of completion.
- C. Should the Engineer determine that the work is not substantially complete:
  - 1) The Engineer will promptly notify the Contractor, in writing, giving the reasons therefore.
  - 2) The Contractor shall remedy the deficiencies in the work, and send a second written notice of substantial completion to the Engineer.
  - 3) The Engineer will re-inspect the work.
- D. When the Engineer finds that the work is substantially complete, he will:

- 1) Prepare and deliver to the Owner a tentative Certificate of Substantial Completion on the appropriate parish form with - a tentative list of items to be completed or corrected before final payment.
- 2) After consideration of any objections made by the Owner as provided in Conditions of the Contract, and when the Engineer considers the work substantially complete, he will execute and deliver to the Owner and the contractor a definite Certificate of Substantial Completion with a revised tentative list of items to be completed or corrected.

#### 1.04 FINAL INSPECTION

- A. When Contractor considers the work is complete, he shall submit written certification that:
  - 1) Contract Documents have been reviewed.
  - 2) Work has been inspected for compliance with Contract Documents.
  - 3) Work has been completed in accordance with Contract Documents.
  - 4) Work is completed and ready for final inspection.
- B. Engineer will make an inspection to verify the status of completion with reasonable promptness after receipt of such certification.
- C. Should Engineer consider that the work is incomplete or defective:
  - 1) Engineer will promptly notify the contractor, in writing, listing the incomplete or defective work.
  - 2) Contractor shall take immediate steps to remedy the stated deficiencies and send a second written certification to Engineer that the work is complete.
  - 3) Engineer will re-inspect the work.
- D. When the Engineer finds that the work is acceptable under the Contract Documents, he shall request the Contractor to make closeout submittals.

#### 1.05 FINAL ADJUSTMENT OF ACCOUNTS

- A. Submit a final statement of accounting to the Engineer.
- B. Statement shall reflect all adjustments to the Contract Sum:

- 1) The original Contract Sum.
- 2) Additions and deductions resulting from:
  - (a) Previous Change Orders
  - (b) Unit Prices
  - (c) Penalties and Bonuses
  - (d) Deductions for liquidated damages
  - (e) Deductions for re-inspection payments
  - (f) Other adjustments
- 3) Total Contract Sum, as adjusted.
- 4) Previous payments.
- 5) Sum remaining due.

C Engineer will prepare a final Change order, reflecting approved adjustments to the contract sum which are not previously made by change orders.

#### 1.06 FINAL APPLICATION FOR PAYMENT

Contractor shall submit the final application for payment in accordance with procedures and requirements stated in the Conditions of the Contract.

#### 1.07 CONTRACTOR'S CLOSEOUT SUBMITTALS TO ENGINEER

- A. Project Record Documents.
- B. Warranties and Bonds.
- C. Evidence of Payment and Release of Liens: To requirements of General and Supplementary conditions.
- D. Certificates of Insurance for Products and Completed operations.
- E. As-Built Drawings and Point Files as per Section 01720.
- F. Maintenance Manuals.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

## SECTION 01720

### PROJECT RECORD DOCUMENTS

#### PART 1 - GENERAL

##### 1.01 DESCRIPTION

The Contractor shall maintain at the site for the Owner's permanent records one copy of:

1. Drawings.
2. Specifications.
3. Addenda.
4. Change Orders and other Modifications to the Contract.
5. Engineer Field Orders or Written Instructions.
6. Approved Shop Drawings, Product Data.
7. Field Test Records.
8. Construction Photographs.

##### 1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 01340: Shop Drawings, Product Data and Samples.
- B. Section 01700: Contract Closeout.

#### PART 2 - PRODUCTS (NOT USED)

#### PART 3 - EXECUTION

##### 3.01 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. The Contractor shall store documents and samples in his office apart from documents used for construction.
- B. The Contractor shall maintain documents in a clean, dry, legible condition and in good order. Do not use record documents for construction purposes.
- C. The Contractor shall make documents and samples available at all times for inspection by the Engineer and Owner.

##### 3.02 MARKING-UP RECORD DRAWINGS

The Contractor shall mark with red erasable pencil and, where necessary, use other pencil colors, as required.

### 3.03 RECORDING

- A. Label each document (including record prints and shop drawings) "PROJECT RECORD" in neat large printed letters.
- B. Record information concurrently with construction progress. Do not conceal any work until required information is recorded.
- C. Drawings. Legibly mark field drawings to record actual construction:
  - 1. Location of internal utilities and appurtenances concealed in the construction, referenced to visible and accessible features of the structure.
  - 2. Field changes of dimensions and details.
  - 3. Changes made by change order.
  - 4. Details not on original Contract Drawings.
- D. Specifications and Addenda. The Contractor shall legibly mark each Section to record:
  - 1. Manufacturer, trade name, catalog number and supplier of each product and item of equipment actually installed.
  - 2. Changes made by Field Order or by Change Order.

### 3.04 SUBMITTALS

- A. At Contract close-out deliver record documents to the Engineer including marked-up drawings, as-built survey, specifications, addenda, change orders and other modifications to contract; Engineers field orders and written instructions, approved shop drawings, product data, field test records and any other documents which serve as a record of actual field installation and construction different from the original contract documents. Engineer will submit them to Owner.
- B. The contractor shall provide an electronic point file containing the location of all installed features and fittings including fittings, valves, hydrants, offsets, etc. (referenced to state plane coordinates system 1983, zone 1702, Louisiana State Plane South with X, Y, and Z coordinates in feet). Points shall be collected by GPS by a surveyor licensed in the state of Louisiana, and shall include a description identifying the feature. The Contractor shall provide a point file that can be utilized in Auto-Cad or GIS mapping software to show the locations of installed features. The format shall be a text file (.txt) that can be opened in commonly available office software (i.e. Microsoft Excel).

C. Accompany submittals with transmittal letters in duplicates containing:

1. Date
2. Project title and number
3. Contractor's name and address
4. Title and number of each Record Document
5. Signature of Contractor or his authorized representative

END OF SECTION

## SECTION 01740

### WARRANTIES AND BONDS

#### PART 1 - GENERAL

##### 1.01 REQUIREMENTS INCLUDED

- A. Compile specified warranties and bonds.
- B. Compile specified service and maintenance contracts.
- C. Co-execute submittals when so specified.
- D. Review submittals to verify compliance with Contract Documents.
- E. Submit to Engineer for review and transmittal to owner.

##### 1.02 RELATED REQUIREMENTS

- A. Instructions to Bidders: Bid or Proposal Bonds.
- B. Conditions of the Contract: Performance Bond and Labor and Material Payment Bond.
- C. Conditions of the Contract: General Warranty of Construction.
- D. Section 01700: Contract Closeout.

##### 1.03 SUBMITTAL REQUIREMENTS

- A. Assemble warranties, bonds and service and maintenance contracts, executed by each of the respective manufacturers, suppliers, and subcontractors.
- B. Number of original signed copies required: Two (2) each.
- C. Table of Contents: Neatly typed, in orderly sequence. Provide complete information for each item.
  - 1. Product or work item.
  - 2. Firm, with name of principal, address and telephone number.
  - 3. Scope.
  - 4. Date of beginning of warranty, bond or service and maintenance contract.
  - 5. Duration of warranty, bond, or service maintenance contract.
  - 6. Provide information for Owner's personnel:
    - a. Proper procedure in case of failure.
    - b. Instances which might affect the validity of warranty or bond.
  - 7. Contractor, name of responsible principal, address and telephone number.

#### 1.04 FORM OF SUBMITTALS

- A. Prepare in duplicate packets.
- B. Format:
  - 1. Size 8 ½" x 11", punch sheets for standard 3-ring binder. Fold larger sheets to fit into binders.
  - 2. Cover: Identify each packet with typed or printed title "WARRANTIES AND BONDS". List:
    - a. Title of project.
    - b. Name of Contractor.
- C. Binders: Commercial quality, 3-ring, with durable and cleanable plastic covers.

#### 1.05 TIME OF SUBMITTALS

- A. Make submittals within ten days after Date of Substantial Completion, prior to final request for payment.
- B. For items of work, where acceptance is delayed materially beyond Date of Substantial Completion, provide updated submittal within ten days after acceptance, listing date of acceptance as start of warranty period.

#### 1.06 SUBMITTALS REQUIRED

Submit warranties, bonds, service and maintenance contracts as specified in respective sections of specifications.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

## SECTION 02030

### ENVIRONMENTAL PROTECTION

#### 1.01 DESCRIPTION

The work required by this Section shall consist of constructing and maintaining temporary erosion control features that satisfy the terms and conditions of the Storm Water Pollution Prevention Plan (SWPPP) and the National Pollution Discharge Elimination System (NPDES) General Permit. The SWPPP shall be comprised of Section 204 of the Louisiana Standard Specifications for Roads and Bridges, 2016 Edition, and latest revisions, or as amended herein. In addition, the Contractor shall obtain and maintain any Louisiana Department of Environmental Quality Storm Water General Permit for Construction Activities required for the project.

#### 1.02 GENERAL

The Contractor, by signing this contract, certifies under penalty of law that he understands and will abide by the terms and conditions of the Storm Water Pollution Prevention Plan (SWPPP) and the National Pollution Discharge Elimination System (NPDES) General Permit that require the discharges from construction sites be managed to prevent pollutants from entering waters of the United States in accordance with the Environmental Protection Agency's (EPA) regulations for storm water discharges with respect to 33 U.S.C. § 1342 (Sections 402(p) and 405 of Public Law 100-4).

Temporary erosion control will ensure economical, effective and continuous control of erosion and water pollution throughout the life of the contract. The Contractor shall prevent the transmission of soil particles and pollutants into streams, canals, and lakes. The Contractor shall be responsible for coordinating his SWPPP with the SWPPP for adjacent sites. The Contractor shall be responsible of properly sweeping and cleaning the streets in and around job sites on a daily basis.

The Contractor will submit an erosion control plan to the Owner before beginning clearing or earthwork operations. The plan shall indicate the items to be used and the coordination of this work with the scheduling of clearing and earthwork.

#### 1.03 PERMIT

The Contractor will be responsible for devising a satisfactory Storm Water Pollution Prevention Plan for the project prior to applying for the Storm Water General Permit for Construction Activities from the Louisiana Department of Environmental Quality if necessary. The LPDES NOTICE OF INTENT (NOI) TO DISCHARGE STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITY application, if necessary, must be completed by the Contractor, approved by the Owner, and submitted by the Contractor at least two days prior to the initiation of construction to:

STATE OF LOUISIANA  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
Permits Division  
Post Office Box 82135  
Baton Rouge, LA 70884-2135

All implementation duties to comply with the SWPPP and maintain the Storm Water General Permit will be the responsibility of the Contractor.

1.04            MATERIALS

The Contractor shall provide all labor, equipment and materials necessary to complete all work associated with this item.

END OF SECTION

## SECTION 02040

### TRAFFIC MAINTENANCE AGGREGATE

#### 1.01 DESCRIPTION

This work consists of furnishing, constructing, and removing temporary aggregate ramps and surfacing for maintenance of traffic in accordance with the following requirements.

All work under this section not specified otherwise shall be performed in accordance with Section 402 of the Louisiana Standard Specifications for Roads and Bridges, 2016 edition, and latest revisions, or as amended herein.

#### 1.02 GENERAL

Access to residences and businesses in the immediate construction area by way of temporary ramps and surfacing shall be established at the end of each workday. Unless directed by the Engineer, previously placed material removed to facilitate construction activities shall be stockpiled in the immediate area and reused for temporary ramps and surfacing as many times as is practical. New material shall be utilized only with the approval of the Engineer.

END OF SECTION

## SECTION 02050

### TRAFFIC MAINTENANCE

#### 1.01 DESCRIPTION

This work consists of the maintenance of traffic flow on all roadways within the scope of this project during the construction period, including installation and maintenance of any warning or advisory signs, barricades, flashing lights, temporary traffic signals, channeling devices, or other materials, devices and labor necessary to fulfill the requirements and specifications of this contract. All signs, barricades, warning devices, flashing lights and procedures shall comply with the Manual on Uniform Traffic Control Devices, as revised, and Section 713 of the Louisiana Standard Specifications for Roads and Bridges, 2016 Edition and its latest revisions for fabrication, installation and use.

#### 1.02 TRAFFIC MAINTENANCE

The Contractor shall be responsible for providing safe and expeditious movement of traffic through construction zones and must maintain the job site open to vehicular and pedestrian traffic at all times except as noted in this section and in the special provisions and other parts of the plans and specifications for this project.

Construction shall be phased such that lanes shall be maintained open to vehicular and pedestrian traffic. Assistance, such as flagmen to control traffic, shall be provided at the open lanes to allow passing of two-way traffic during peak-hour and operations.

The Contractor shall provide a Temporary Traffic Control Devices Plan (TTCDP) prepared by a Professional Engineer licensed in the state of Louisiana, for review and approval by the Utilities Department, prior to the start of construction. The Contractor shall be responsible for furnishing all work, materials, equipment and any other related items including proper construction warning signs, signals, lighting devices, markings, barricades/barriers, channelization, and hand signaling devices (flagging operations), etc., necessary to implement the TTCDP.

#### 1.03 SIGNS, BARRICADES, WARNING DEVICES AND FLASHING LIGHTS

This item includes but is not limited to all necessary signs, barricades, flashing lights, flagmen and warning devices as shown on the plans and also as shown in the Manual on Uniform Traffic Control Devices, as well as any such materials that may be required by the Utilities Department or the governing specifications (Section 713 Louisiana Standard Specifications for Roads and Bridges, 2016 Edition and latest revisions) of this project.

Sizes of sign and all materials shall comply with the Manual on Uniform Traffic Control Devices. Signs shall not be less than 36" in size. All barricades and signs shall have reflectorized sheeting.

END OF SECTION

## SECTION 02060

### ASPHALTIC CONCRETE

#### 1.01 DESCRIPTION

This section of the specifications includes the furnishing of all labor, materials, equipment, and the performance of all asphalt work required for the construction of the roadway in accordance with plan details and Section 502 of the Louisiana Standard Specifications for Roads and Bridges, 2016 Edition and its latest revisions.

The work consists of furnishing and constructing one or more courses of asphaltic concrete mixture applied hot in conformity with the lines, grades, thicknesses and typical sections shown on the plans.

#### 1.02 MATERIALS

The asphaltic concrete wearing course material shall be "Level 1" (PG70-22m) in accordance with Section 502.02 of the Louisiana Standard Specifications for Roads and Bridges, 2016 Edition.

The asphaltic concrete binder course material shall be "Level 1" (PG70-22m) in accordance with Section 502.02 of the Louisiana Standard Specifications for Roads and Bridges, 2016 Edition.

#### 1.03 GENERAL

Asphalt shall be batched and placed in accordance with the requirements of Section 503 of the Louisiana Standard Specifications for Roads and Bridges, 2016 Edition. The use of MTV's will not be permitted on this project. The mix formula shall be submitted to the Testing Laboratory for prior approval. Recycled material will be allowed per latest Louisiana Standard Specifications for Roads and Bridges, 2016 Edition and its latest revisions.

Asphalt courses shall be laid down at locations shown on the plans after application of prime coat to the compacted base course. Abutting edges of existing asphalt pavement shall be tack-coated.

Design and quality control shall be in accordance with Section 502 of the Louisiana Standard Specifications for Roads and Bridges, 2016 Edition. The Utilities Department will hire an independent testing lab to monitor plant and field operations.

The Engineer reserves the right to require removal and replacement of deficient areas.

END OF SECTION

SECTION 02100

HYDRO-SEEDING

1.01 DESCRIPTION

This work shall be done in accordance with sections 739 of the Louisiana Standard Specifications for Road and Bridges, 2016 Edition and its latest revisions. All necessary watering shall be done at no direct pay.

END OF SECTION

SECTION 02140

MOBILIZATION

1.01 DESCRIPTION

This work consists of preparatory work and operations, including those necessary for movement of personnel, equipment, supplies and incidental to the project site; the establishment of buildings and other facilities necessary for the work on the project; the costs of bonds and any required insurance; and other preconstruction expenses necessary for start of the work, excluding the cost of construction materials.

This work shall be performed in accordance with Section 727 of the Louisiana Standard Specifications for Roads and Bridges, 2016 Edition and its latest revisions.

END OF SECTION

## SECTION 02160

### SHEETING, SHORING, AND BRACING

#### PART I - GENERAL

##### 1.01 SCOPE

This section shall include supplying materials, services, and labor necessary to provide sheeting, shoring, and bracing or supports as required to provide a safe working condition for Contractor's personnel and to provide for protection of utilities, buildings, and structures. It shall be the sole responsibility of the Contractor to comply with these requirements.

##### 1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 02220: Excavation, Backfill, Fill and Grading
- B. Section 02221: Earth Excavation and Backfill in Trenches

##### 1.03 SUBMITTALS

Prior to beginning sheeting and shoring operations, and as a part of the excavation plan, the Contractor shall submit, in writing to the Engineer, his proposed plan to comply with the requirements of this Section. No excavation work shall be allowed to commence until the Contractor has fulfilled this requirement.

##### 1.04 SAFETY REQUIREMENTS

All sheeting, shoring, and bracing of excavations shall conform to requirements necessary to comply with local codes and authorities having jurisdiction.

#### PART 2 - PRODUCTS

##### 2.01 WOOD SHEETING

Wood for shoring and sheeting shall be green, rough cut hardwood (i.e. oak or hickory) Planking for sheeting and foundation lumber shall have a minimum thickness of 2 inches.

##### 2.02 STEEL SHEETING

Steel sheet piling shall be a continuous interlock design. The sheet piling must, be in good condition and shall provide a tight interlocking connection which will retard the infiltration of ground water. Steel sheeting is recommended at all deep water line installations.

## 2.03 TRENCH BOXES

### PART 3 - EXECUTION

#### 3.01 PERFORMANCE

The planning, installation and removal of all sheeting, shoring, bracing, and sheet piling shall be accomplished in such a manner as to maintain the required trench or excavated cross section and to maintain the undisturbed state of the soils adjacent to the trench and below the excavated bottom. All trenches and structural excavations shall be properly sheeted, shored and braced.

The use of horizontal strutting below the barrel of a pipe or structure or the use of a pipe as support for trench bracing will not be permitted.

Wood sheeting shall be left in place and the upper part of the sheeting shall be cut off 3 feet below the finished ground surface after backfilling. All bracing above this level shall also be removed. Lower bracing shall be left in place.

Steel sheeting, when determined necessary by the Contractor or when directed by the Engineer, shall be left in place and the upper part of sheeting shall be cut off 3 feet below the finished ground surface after backfilling. All bracing above this level shall be removed. The right of the Engineer to order sheeting and bracing left in place shall not be construed as creating any obligation on his part to issue such orders, and his failure to exercise his right to do so shall not relieve the Contractor from liability for damages to persons or property occurring from or upon the work occasioned by negligence or otherwise, growing out of a failure on the part of the contractor to leave in place in the trench sufficient sheeting and bracing to prevent any caving or moving of the ground adjacent to the sides of the trench.

Steel sheeting or piling which are withdrawn shall be extracted in a manner so as to prevent subsequent settlement of the pipe or produce additional loadings to the structure and to maintain the undisturbed state of the soil adjacent to the trench or in the immediate area.

END OF SECTION

## SECTION 02220

### EXCAVATION, BACKFILL, FILL AND GRADING FOR STRUCTURES

#### PART 1 - GENERAL

##### 1.01 SCOPE OF WORK

- A. Structural excavation shall consist of the removal of material for the construction of foundations for launching and receiving pits for horizontal directional drilling, and other excavation designated on the plans or in these specifications.
- B. Structural excavation and backfill shall consist of furnishing material, if necessary, and placing and compacting backfill material around structures to the lines and elevations designated on the plans or specified or directed by the Engineer.
- C. Structural excavation and backfill shall include the furnishing of all materials, equipment and incidentals which may be necessary to perform the excavations, place and compact the backfill, sheeting, bracing, and dewatering necessary. It shall also include the wasting or disposal of surplus excavated material in a manner and in locations approved by the Engineer.

##### 1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 01410: Testing Laboratory Services
- B. Section 02221: Earth Excavation and Backfill in Trenches
- C. Section 03100: Concrete Formwork

##### 1.03 QUALITY

- A. Testing Agency:
  - 1. In-place soil compaction tests to be performed by testing laboratory employed by Owner.
- B. Reference Standards:
  - 1. American Society for Testing and Materials (ASTM):
    - a. ASTM C 127, Density, Relative Density, and Absorbtion of Coarse Aggregate.
    - b. ASTM D 1557, Moisture-Density Relations of Soils Using 10-lb (4.5-kg) Hammer and 18-in (457-mm) Drop.
    - c. ASTM D 2487, Classification of Soils for Engineering Purpose.

- d. ASTM D 4253, Maximum Index Density and Unit Weight of Soils Using a Vibratory Table.
- e. ASTM D 4254, Minimum Index Density and Unit Weight of Soils and Calculation of Relative Density.

#### 1.04 JOB CONDITIONS

- A. Time of construction should be kept to a minimum.
- B. Sheet piling, shoring and dewatering during construction should be properly designed to keep a stable excavation at all times to prevent disturbance of the in-place soils.
- C. As specified in Section 02221, the Contractor shall provide, operate and maintain all necessary pumps, discharge lines, well points, etc., in sufficient number and capacity to keep all excavation, bases, pits, etc., in conformance with the indicated foundation construction condition at each structure at all times throughout the period of construction.
- D. As specified in Section 02221, the Contractor shall assume all responsibility for security of the excavation required, employing bracing, lining or other accepted means necessary to accomplish same.
- E. Excavated areas shall be cleared of all debris, water, slush, muck, and soft or loose earth and shall be conditioned to the entire satisfaction of the Engineer.
- F. All excavated material unsuitable for use or which will not be used shall be removed from the site of the work by the Contractor. The Contractor shall remove and dispose of excess backfill material, at his expense.
- G. All excavations encountering stumps, roots, logs, etc., at the grade of the pit shall be removed of such designated bottom items by the Contractor and refilled with proper material.

### PART 2 - PRODUCTS

#### 2.01 BACKFILL MATERIAL

- A. River sand shall be used as backfill material around all structures. River sand shall be good quality "Mississippi River Sand" free of roots, shells, or any other foreign matter and should not have more than 10 percent (by weight) of material passing a No. 200 sieve.
- B. The final six inches of depth around all structures not located within a pavement area shall be backfilled with topsoil and re-sodded as required.

## 2.02 BEDDING MATERIAL

Bedding material used for the foundation of any structures should consist of crushed limestone conforming to ASTM gradation for a 357 to a 467 size stone, with a bulk specific gravity no greater than 2.4, as determined by ASTM C 127. Bedding material shall be placed in loose lifts of 8 inches and shall be compacted to at least 75% of relative density in accordance with ASTM D 4253 and 4254.

Owner may test all bedding material per installation, in accordance with Section 01410.

## 2.03 GEOTEXTILE FABRIC

The contractor shall furnish geo-textile fabric, class "D" (non-woven) that conforms to Section 1019 of the Louisiana Standard Specifications for Roads and Bridges, 2016 Edition placed in accordance with the details shown on the plans.

## PART 3 - EXECUTION

### 3.01 INSPECTION

- A. The Contractor shall verify that preceding work affecting work of this Section has been satisfactorily completed.
- B. Correct conditions adversely affecting work of this section.

### 3.02 REMOVAL OF UNSUITABLE MATERIALS

- A. The Contractor shall remove unsuitable material from within the limits of the work specified in this section.
- B. Materials meeting requirements for approved fill for pipe installations shall be stockpiled as necessary and in such a manner satisfactory to the Engineer. Excavated material will not be allowed as backfill material around structures.
- C. All material excavated shall be placed so as to minimize interference with public travel and to permit proper access for inspection of the work.

END OF SECTION

## SECTION 02221

### EARTH EXCAVATION AND BACKFILL IN TRENCHES

#### PART 1 GENERAL

##### 1.01 SCOPE OF WORK

- A. This section includes, except as elsewhere provided, trenching for installation of pipelines and appurtenances, including drainage, filling, backfilling, disposal of surplus material and restoration of trench surfaces.
- B. Excavation shall extend to the width and depth shown on the drawings or as specified; or where not specified, Contractor shall confine his excavation to the least width practicable and shall provide suitable room for installing pipe, structures, and appurtenances.
- C. The contractor shall furnish and place all sheeting, bracing, and supports and shall remove from the excavation all materials which are unsuitable for backfill or which the Engineer may deem unsuitable for backfilling. The bottom of the excavation shall be firm, dry, and in all respects, acceptable. The Contractor shall deposit limestone for pipe bedding, or limestone refill for excavation below grade, directly on the bottom of the trench immediately after excavation has reached the proper depth and before the bottom of the trench has become softened or disturbed by any cause whatsoever.

##### 1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 02160: Sheeting, Shoring, and Bracing
- B. Section 02220: Excavation, Backfill, Fill and Grading

#### PART 2 - PRODUCTS

##### 2.01 RIVER SAND

River sand shall be used as backfill material under streets, state highways and driveways and shall be a good quality "Mississippi River Sand", free of roots, shells, or any other foreign matter, and should not have more than 10 percent (by weight) of material passing a No. 200 sieve.

##### 2.02 LIMESTONE PIPE BEDDING

Limestone used as bedding materials shall be from a source approved by the LA DOTD. Materials shall conform to the following gradation:

For Pipe Less than 18”  
Diameter  
Use Size #78

For Pipe 18” Diameter and  
Larger  
Use Size #67

<u>Sieve size</u>	<u>% Passing*</u>	<u>Sieve Size</u>	<u>Passing</u>
3/4 inch	100	1 inch	100
1/2 inch	90 - 100	3/4 inch	90 - 100
3/8 inch	40 - 75	3/8 inch	20 - 55
#4	5 - 25	#4	0 - 10
#8	0 - 10	#8	0 - 5
#16	0 - 5		

Total by dry weight passing each sieve (U. S. Standard) Squart openings.

Relative densities of 75%, in accordance with ASTM D 4253 and D4254, are required.

## 2.05 GEOTEXTILE FABRIC

The contractor shall furnish geo-textile fabric, class “D” (non-woven) that conforms with Section 1019 of the Louisiana Standard Specifications for Roads and Bridges, 2016 Edition placed in accordance with the details shown on the plans.

## PART 3 - EXECUTION

### 3.01 EXCAVATION

- A. Excavation shall be open cuts with vertical sides using sheeting and bracing as required, all sheeting and bracing for excavations shall be in accordance with OSHA regulations.
- B. In case the excavation for any pipeline, is ordered by the Engineer to be carried below the required depth, the Contractor shall fill the bottom of the excavation up to grade with bedding material, in a manner acceptable to the Engineer.
- C. If the Contractor excavates below grade through error or for his own convenience, or through failure to properly dewater the trench, or disturbs the subgrade before dewatering is sufficiently complete, he may be directed by the Engineer to excavate below grade as set forth in the preceding paragraphs; in which case the work of excavating below grade and finishing and placing the refill shall be performed at the Contractor's expense.

- D. All material excavated shall be placed so as to minimize interference with public travel and to permit proper access for inspection of the work.

### 3.02 DISPOSAL OF MATERIALS

- A. All excavated material shall be removed from the site of the work by the Contractor. The Contractor shall remove and dispose of material at his expense.
- B. Should conditions make it impracticable or unsafe to stack material adjacent to the trench, the material shall be hauled and stored at a location provided by the Contractor. When required, it shall be re-handled and used in backfilling the trench or hauled to the owner's storage site.

### 3.03 EXCAVATION TO REMOVE STUMPS, ROOTS, LOGS

- A. Stumps, roots, and logs, which are encountered within the trench area, shall be cut to a depth of one foot (1') below the bottom of the trench. The Contractor shall fill this excavated space with bedding material.
- B. When so required by the Engineer, the Contractor shall probe one foot (1') below the established bottom of the trench. If any stump, roots, logs, etc., are discovered by this probing, the Contractor shall cut them out just as if they had been visible in the trench.
- C. Blasting will not be allowed for the removal of stumps.

### 3.04 PLACEMENT OF BEDDING MATERIAL

- A. Bedding shall conform to the details on the drawings. When laying pipe, the groove for the pipe and bell hole must be accurately shaped, and the bedding material must be closely packed under and around the pipe.
- B. The bedding and pipe shall be enclosed in a geotextile fabric meeting the requirements of section 2.05 of this specification. Geotextile fabric shall be installed in accordance with the manufacturer's recommendations.
- C. Owner may test all bedding material per installation, in accordance with Section 01410.

### 3.05 BACKFILL

- A. As soon as practical after the pipe has been laid and jointed, backfill material (free from stones, pieces of lumber, and other foreign material) shall be hand placed and hand tamped to a depth over the top of the pipe as shown on the drawings.

- B. Where the pipes are laid in developed areas, the trench shall be filled with approved backfill material to an elevation six inches (6") below the existing grade. Materials and compaction should follow the Utilities Department Standard Plans. The remainder of the trench shall be filled with top soil.
- C. Where the pipes are laid in streets, the remainder of the trench above the bedding and up to the bottom of the specified paving shall be backfilled as shown on the drawings in layers not to exceed 2 feet, and shall be compacted to minimum 97% of maximum dry density at optimum water content in accordance with ASTM D-1557.
- D. Backfill around manholes shall be compacted by flooding. All backfill shall be compacted, especially under and over pipes connected to the manholes.
- E. Paving shall not be placed in backfill.
- F. All road surfaces adjacent to back-filling operations shall be broomed and hose-cleaned immediately after backfilling. Dust control measures shall be employed at all times.

### 3.06 RESTORING TRENCH SURFACE

- A. Where the trench occurs adjacent to paved streets, in shoulders, sidewalks, or in cross-country areas, the Contractor shall thoroughly consolidate the backfill and shall maintain the surface as the work progresses. If settlement takes place, he shall immediately deposit additional fill to restore the level of the ground.
- B. The surface of any driveway or any other area which is disturbed by the trench excavation, and which is not a part of the paved street, shall be restored by the Contractor to a condition at least equal to that existing before work began.
- C. In sections where the pipeline passes through grassed areas, the Contractor shall re-grade and re-sod all disturbed areas.

### 3.07 PROTECTION

Guard rails, curbing, and fencing in the vicinity of the Contractor's operations shall be adequately protected and, if necessary, removed and restored after backfilling. All curbing, fencing, or guard rails which are damaged during construction shall be replaced with material fully equal to that existing prior to construction. All roadway excavation shall be safely re-opened to traffic at the end of each working day. Temporary asphalt shall be in place within 72 hours after completion of all pipe laying procedures.

## SECTION 02230

### WATER DISTRIBUTION SYSTEM REQUIREMENTS

#### 1.01 DESCRIPTION

This section of the specifications provides supplemental guidance in addition to Specifications Sections 02610, 02615, 02622, and 02623 for installation of water lines.

#### 1.02 GENERAL

- A. In accordance with the Louisiana Sanitary Code (LAC 51:XII) Chapter 3, Section 335(B),
1. Any solder or flux which is used in the installation or repair of any public water system or any plumbing in a residential or nonresidential facility providing water for human consumption shall be lead free (i.e. shall not contain more than 0.2 percent lead). Any pipe, pipe fitting, plumbing fitting, fixture, and any other appurtenance which is used in the installation or repair of any public water system or any plumbing in a residential or nonresidential facility providing water for human consumption shall be lead free (i.e., shall not contain more than a weighted average of 0.25 percent lead when used with respect to the wetted surfaces of pipes, pipe fittings, plumbing fittings, fixtures, and any other appurtenances).
  2. Exception. The lead free requirement of Paragraph B.1 above shall not apply to:
    - a. leaded joints necessary for the repair of existing cast iron pipes;
    - b. pipes, pipe fittings, plumbing fittings, fixtures and any other appurtenances, including backflow preventers, that are used exclusively for nonpotable services such as manufacturing, industrial processing, irrigation, outdoor watering, or any other uses where the water is not anticipated to be used for human consumption.; or,
    - c. toilets, bidets, urinals, fill valves, flushometer valves, tub fillers, shower valves, service saddles, or water distribution main gate valves that are 2 inches in diameter or larger.
- B. In accordance with the Louisiana Sanitary Code (LAC 51:XII.237.A), all public water systems shall be designed and operated to maintain a **minimum pressure of 20 psig (140 kPa) at ground level at all points in the distribution system under all conditions of flow.**
- C. **Pressure and leakage testing and disinfection of the water lines must be performed in accordance with the latest AWWA Standards (i.e. C600, C605, and C651).**
- D. **Water lines are to be flushed and disinfected in accordance with the LA Sanitary Code (LAC 51:XII.353).** Pumps, pipes, wells, tanks and other parts of new systems shall be thoroughly disinfected by the use of chlorine or chlorine compounds before being placed in use. The rate of application of chlorine shall be in such proportion to the rate of

water entering the pipe or other appurtenances that the chlorine dose applied to the water shall be at least 50 mg/l. Chlorinated water shall be retained long enough to destroy non-spore-forming bacteria. The period shall be at least three hours and preferably longer, as may be directed. After the chlorine treated water has been retained for the required time, the chlorine residual at pipe extremities and at other representative points shall be at least 5 mg/l. If the residual is less than 5 mg/l, the disinfection procedure shall be repeated until a 5 mg/l residual is obtained, as required above.

Water from new systems, or from new parts of existing systems, shall not be furnished for consumer's use until tests performed by a laboratory which is certified by the State Health Officer have shown the new system or new part of the system to be free from contamination by coliform bacteria. Samples shall not be collected from the new facilities until such new facilities have been disinfected as prescribed in 353.A above, and the chlorinated water thoroughly flushed from the system.

- E. In accordance with the LA Sanitary Code (Title 51, Part XII), all materials including pipes, fittings, valves, and fire hydrants shall conform to the latest standards issued by the AWWA and ANSI/NSF, where such standards exist, and be acceptable to the reviewing authority.
- F. In accordance with the LA Sanitary Code (Title 51, Part XII), all tees, bends, plugs, and hydrants shall be provided with reaction blocking, tie rods or joints designed to prevent movement.
- G. Sewer and water mains shall be laid in separate trenches not less than 6 feet apart horizontally, when installed in parallel. Crossing water and sewer mains shall have a minimum vertical separation of 18 inches. In cases where it is not possible to maintain a 6 foot horizontal separation, the State Health Officer may allow a waiver of this requirement on a case by case basis if supported by data from the design engineer.
- H. When underwater surface water crossings are greater than 15 feet in width, the pipe shall have "flexible, restrained or welded watertight joints". Also, valves are required at both ends of water crossings so that the section can be isolated for testing or repair, and "permanent taps or other provisions to allow insertion of a small meter to determine leakage and obtain water samples shall be made on each side of the valve closest to the supply source.
- I. Continuous and uniform bedding shall be provided in the trench for all buried pipe. Backfill material shall be tamped in layers around the pipe and to a sufficient height above the pipe to adequately support and protect the pipe. Stones found in the trench shall be removed for a depth of at least six inches below the bottom of the pipe.

### 1.03 NOTIFICATION

Contractors shall notify the Utilities Department 48 hours prior to any field work relating to water lines, water valves, water meters, hydrants, etc. All water valves 16-inch and

larger shall be operated by parish personnel. Smaller valves may be operated (operated shall mean, opening and closing. If a contractor fails to reopen a valve which he had closed during construction, he may be held liable for any cost, safety or health related issues which can be related to his negligence of leaving the valve closed.) by the contractor under the direct supervision of Parish personnel.

The Utilities Department must be given a minimum of 48 hour notice before a tap is to be made on a water line (for meters, fire services and fire lines).

Where a tie-in fire service or water meter installation is to be made by other than water department personnel, the owner, contractor or his agent shall contact the St. Bernard Parish Sewer & Water Division 24 hours in advance for the inspection of the installation. The installation shall be inspected and approved by the Utilities Department prior to backfilling.

#### 1.04 LICENSE REQUIREMENTS

Per the requirements of LSA R.S. 40:1148 ET.SEQ, a Class IV Water Distribution Operator Certificate (License) is required to operate valves or complete a tie-in on any active (live) water distribution or water supply system in the Parish. Such license shall not be required for municipal and public works contractors who are properly licensed by the Louisiana State Licensing Board to construct water lines. However, contractors who operate, tie-in, or repair any water distribution or water supply line will be required to have such work overseen by an individual possessing a Class IV Water Distribution Operator Certificate (License). St. John the Baptist Parish will provide a Class IV operator for supervision of tie-ins if notice is provided to the Utilities Department at least 48 hours in advance.

#### 1.05 DOMESTICITY

All iron and/or steel lined or unlined pipes and fittings, manhole covers, municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials shall comply with the applicable requirements of the American Iron and Steel Requirements for DWSRF projects. Refer to the American Iron and Steel Requirements Guidance in the Federal Conditions portion of these specifications.

#### 1.04 WATER SERVICE CONNECTIONS

Water service connections, if disturbed, shall be removed and replaced from the main to the meter. No splicing of water service connections shall be allowed even if the connections are brand new.

END OF SECTION

## SECTION 02610

### WATER LINES

#### PART 1 - GENERAL

##### 1.01 SCOPE OF WORK

Furnish all labor, materials, equipment and incidentals required and install water line complete as shown on the drawings and as specified herein.

##### 1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 02615: Ductile Iron  
Section 02622: PVC Pipe  
Section 02623: HDPE Pipe

##### 1.03 SUBMITTALS

- A. The Contractor shall submit to the Engineer, within ten days after signing of the contract, a list of materials to be furnished, the names of the suppliers and the date of delivery of materials to the site.
- B. The Contractor shall submit for approval, as provided in the General Conditions, complete, detailed working drawings of all water lines.
- C. The Contractor shall submit and shall comply with the recommendations of the pipe manufacturer for handling, storing, and installing pipe and fittings.
- D. The Contractor shall submit the pipe manufacturer's certification of compliance with the specifications.

#### PART 2 - PRODUCTS

##### 2.02 IDENTIFICATION

Each length of pipe and each fitting shall be marked with the name of manufacturer, size and class. All gaskets shall be marked with the name of manufacturer, size, and proper insertion direction.

#### PART 3 - EXECUTION

##### 3.01 LAYING PIPE AND FITTINGS

- A. All buried piping shall be installed in accordance with recommendations of the pipe

manufacturer and as specified herein.

- B. Care shall be taken in handling, storage, and installation of pipe and fittings to prevent injury to the pipe or coatings. All pipe and fittings shall be examined before laying, and no piece shall be installed which is found to be defective. All damage to the pipe coatings shall be repaired according to the manufacturer's recommendations.
- C. All pipe and fittings shall be kept clean and shall be thoroughly cleaned before laying.
- D. Pipe shall be laid to lines and grades shown on the drawings with bedding and backfill as shown on the drawings and as specified in Section 02221. Blocking under the pipe will not be permitted.
- E. When laying is not in progress, including lunch time, the open ends of the pipe shall be closed by watertight plug or other approved means.
- F. Under no circumstances shall the pipe or accessories be dropped into the trench.
- G. New water lines 12 inches shall have a minimum of 4 feet of cover.
- H. Sewer and water mains shall be laid in separate trenches not less than 6 feet apart horizontally, when installed in parallel. Crossing water and sewer mains shall have a minimum vertical separation of 18 inches. In cases where it is not possible to maintain a 6 foot horizontal separation, the State Health Officer may allow a waiver of this requirement on a case by case basis if supported by data from the design engineer.
- I. There shall be a minimum of 24 inches of straight pipe before, after, or between all valves, fittings, or other appurtenances.
- J. Water service connections, if disturbed, shall be removed and replaced from the main to the meter. No splicing of water service connections shall be allowed even if the connections are brand new.

### 3.02 TESTING

- A. All water lines shall be field tested. The Contractor shall supply all labor, equipment, material, gages, pumps, and incidentals required for testing.
- B. The test pressure shall be 1.5 times the normal operating pressure or 100 psig, whichever is greater, unless noted otherwise. The test pressure shall be measured at the highest point along the test section.

- C. Testing shall be conducted after backfilling has been completed and before placement of permanent surface.
- D. Testing procedure shall be as follows:
- 1) Fill line slowly with water. Maintain flow velocity less than two feet (2') per second.
  - 2) Expel air completely from the line during filling and again before applying test pressure. Air shall be expelled by means of taps at points of highest elevation.
  - 3) Apply test pressure. Measure the quantity of water that must be pumped into the line to maintain pressure within 5 psi of the test pressure for a period of two (2) hours. This quantity is defined as leakage.
  - 4) Carefully examine any exposed pipe, fittings, and joints during the test.
- E. Allowable leakage: No pipe installation will be accepted if the leakage is greater than that determined by the following formula:

$$L = \frac{S D P^{1/2}}{133200}$$

L = Loss Gal/hr.

S = Length of pipe tested, in feet

D = Nominal diameter in inches

P = Average test pressure

Notes: The following shall be determined at the discretion of the Engineer.

- 1) Minimum Test pressure of 100 psig unless otherwise noted.
  - 2) Test duration shall be a minimum of two hours.
  - 3) All visible leaks are to be repaired regardless of the amount of leakage.
- F. If any test of pipe laid discloses leakage greater than that allowed, the Contractor shall, at his own expense, locate and repair the cause of leakage and retest the line.

### 3.03

#### CLEANING

At the conclusion of the work, the Contractor shall thoroughly clean all of the new pipelines by flushing with water or other means to remove all dirt, stones, pieces of wood, or other material which may have entered during the construction period. Debris cleaned from the lines shall be removed from the job site. If, after this cleaning, any obstructions remain, they shall be removed.

## SECTION 02615

### DUCTILE IRON PIPE AND FITTINGS

#### PART 1 - GENERAL

##### 1.01 SCOPE OF WORK

Furnish all labor, materials, equipment and incidentals required and install ductile iron pipe, and ductile iron fittings for buried piping complete as shown on the drawings and as specified herein.

##### 1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 02221: Earth Excavation and Backfill in Trenches

##### 1.03 SUBMITTALS

- A. The Contractor shall submit to the Engineer, within ten days after signing of the contract, a list of materials to be furnished, the names of the suppliers and the date of delivery of materials to the site.
- B. The Contractor shall submit for approval, as provided in the General Conditions, complete, detailed working drawings of all ductile iron pipe and fittings.
- C. The Contractor shall submit and shall comply with the recommendations of the pipe manufacturer for handling, storing, and installing pipe and fittings.
- D. The Contractor shall submit the pipe manufacturer's certification of compliance with the specifications.

#### PART 2 - PRODUCTS

##### 2.01 MATERIALS

- A. Ductile iron pipe shall conform to ANSI A21.51 and AWWA C151. Thickness of pipe shall be Class 51 for 8" diameter and smaller, class 52 for 10" diameter and larger.
- B. Fittings shall be ductile iron flanged, mechanical or boltless restrained joints meeting ANSI/AWWA C110/A2.10 and ANSI/AWWA C111/A21.11, Class 250, or ANSI/AWWA C153/A21.53, Class 350, compact standard. Fittings used for underground installations shall be mechanical joint. Fittings used for above-ground installations shall be flanged. All hydrants shall be swivel type.
- C. Restrained joints shall be provided for buried locations. Restrained joint pipe and

fittings for 12" and smaller diameter pipe shall be "Mechanical Joint with Retainer Gland" as manufactured by American Cast Iron Pipe Company, "Lok-Tyton" or "TR FLEX" as manufactured by U.S. Pipe Company, "Super-Lock" as manufactured by Clow Corporation, or equal. Restrained joint pipe and fittings for 14" and larger diameter pipe shall be "Lok-Fast" as manufactured by American Cast Iron Pipe Company, "Lok-Tyte" as manufactured by U.S. Pipe Company, "Super-Lock" as manufactured by Clow Corporation, or equal. Where bolts are required, they shall be stainless steel or Cor-Blue bolts constructed from corrosion-resistant, high-strength steel that conforms to ANSI/AWWA C111/A21.11. Cor-Blue bolts shall have a baked-on, ceramic-filled fluorocarbon resin that holds up in highly corrosive soil conditions.

- D. Fittings shall meet the requirements of ANSI/AWWA C110. Rubber gaskets shall conform to ANSI A21.11 for mechanical joints.
- E. All ductile iron pipe and fittings less than 12" in diameter shall have cement mortar lining and bituminous seal coat on the inside in accordance with AWWA C104 and coal tar epoxy coat on the outside in accordance with ANSI A21.4, or factory applied fusion bonded epoxy coating inside and out in accordance with all applicable provisions of AWWA C-550, protective epoxy coatings.

All ductile iron pipe and fittings 12" in diameter and larger shall have a polyurethane lining on the inside and a coal tar epoxy coating on the outside. Polyurethane shall consist of a polyisocyanate resin and polyol resin mixed in 1:1 ratio at the time of application. It shall be an ASTM-D16 Type V system and shall be 40 mils thick. The coal tar epoxy outside coating shall be in accordance with ANSI A21.4.

- F. All buried ductile iron pipe and fittings shall be encased in polyethylene encasement conforming to ANSI/AWWA C105.

## 2.02 IDENTIFICATION

Each length of pipe and each fitting shall be marked with the name of manufacturer, size and class. All gaskets shall be marked with the name of manufacturer, size, and proper insertion direction.

## PART 3 - EXECUTION

### 3.01 LAYING DUCTILE IRON PIPE AND FITTINGS

- A. All buried piping shall be installed in accordance with recommendations of the pipe manufacturer and as specified herein.
- B. Care shall be taken in handling, storage, and installation of pipe and fittings to prevent injury to the pipe or coatings. All pipe and fittings shall be examined before

laying, and no piece shall be installed which is found to be defective. All damage to the pipe coatings shall be repaired according to the manufacturer's recommendations.

- C. All pipe and fittings shall be kept clean and shall be thoroughly cleaned before laying.
- D. Pipe shall be laid to lines and grades shown on the drawings with bedding and backfill as shown on the drawings and as specified in Section 02221. Blocking under the pipe will not be permitted.
- E. When laying is not in progress, including lunch time, the open ends of the pipe shall be closed by watertight plug or other approved means.
- F. Under no circumstances shall the pipe or accessories be dropped into the trench.

### 3.02

#### CLEANING

At the conclusion of the work, the Contractor shall thoroughly clean all of the new pipelines by flushing with water or other means to remove all dirt, stones, pieces of wood, or other material which may have entered during the construction period. Debris cleaned from the lines shall be removed from the job site. If, after this cleaning, any obstructions remain, they shall be removed.

## SECTION 02622

### POLYVINYL CHLORIDE PIPE

#### PART 1 - GENERAL

##### 1.01 DESCRIPTION

- A. The Contractor shall furnish and install the polyvinyl chloride (PVC) pipe along with labor, materials and equipment necessary for installation in accordance with the Plans and Specifications.

##### 1.02 REFERENCES

- A. ASTM D1784 Specification for Rigid Poly(Vinyl Chloride) (PVC) Compounds and Chlorinated Poly(Vinyl Chloride) (CPVC) Compounds
- B. ASTM D1785 Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120
- C. ASTM F441 Specification for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe, Schedules 40 and 80
- D. ASTM F477 Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe
- E. ASTM F1674 Standard Test Method for Joint Restraint Products for Use with PVC Pipe
- F. AWWA C-900 (PVC) Pressure Pipe and Fabricated Fittings
- G. AWWA C-905 Polyvinyl Chloride (PVC) Water Transmission Pipe, Nominal Diameters 14 In. through 48 In. for Water Transmission and Distribution

##### 1.03 SUBMITTALS

- A. Certified mill tests shall be furnished the Engineer by the manufacturer for all pipe and fittings at least 10 days prior to shipment of material to the job site.

## PART 2 - PRODUCTS

### 2.01 MATERIALS

#### A. Pipe:

1. All polyvinyl chloride (PVC) pipe shall be extruded from PVC meeting the requirements of cell classification 12454-B as defined in ASTM D1784.
2. All polyvinyl chloride (PVC) pressure pipe 4 inches through 12 inches in diameter shall meet AWWA specification C-900, minimum class 150, DR18. PVC pipe 14 inches and larger in diameter shall meet AWWA specification C-905, minimum class 165, DR25.

#### B. Fitting and Specials:

1. The polyvinyl chloride fitting used in conjunction with Schedule 80 and SDR 26 polyvinyl chloride (PVC) pipe shall be in accordance with all applicable sections of ASTM Specifications.
2. PVC fittings in chlorine solution service shall be Schedule 80, suitable for outdoor installation.
3. The strength class of the fitting shall be not less than the strength of any adjoining pipe.
4. No polyvinyl chloride (PVC) pipe fitting will be allowed on PVC pipe used to transport water under pressure. All bends shall be ductile iron fittings meeting the requirements of Section 02615.

#### C. Joints:

1. The pipe will have integral bell elastomeric, gasketed joints in accordance with ASTM F477. The gaskets shall be inserted into the pipe bell at the factory prior to shipment.
2. All "O" rings furnished as part of any fitting, union, etc., conveying chloride solution shall be suitable for chlorine solution service.

#### D. Protective Coatings:

1. No protective coating will be required on polyvinyl chloride (PVC) pipe.

E. Restrained Joints:

1. Polyvinyl chloride (PVC) pipe shall be restrained using the Series 1100 PV or 1100 HV MEGALUG mechanical joint thrust restraint as manufactured by EBAA Iron, Inc. or approved equal.
2. The EBAA Iron Series 1100 PV or 1100 HV MEGALUG assembly shall be cast completely of closely controlled ductile iron conforming to ASTM A536, latest revision, and furnished with silicone bronze IFI 140 Grade 655 bolts. All glands and bolts shall be coated with two (2) coats of coal tar epoxy, Koppers 300-M Bitumastic or approved equal, with a minimum dry film thickness of eight (8) mils per coat.
3. Both types of restraining glands shall be wrapped with an eight (8) mil thick polyethylene tube for additional protection. The polyethylene wrap shall extend a minimum of two (2') feet in either direction from the gland and secured on the end with circumferential turns of tape.
4. All restrained joints shall be inspected at the job site after installation. Field touch-up and repair if needed shall be made by the Contractor under the supervision and inspection of a representative of the coating supplier.
5. All joint restrainers must meet all applicable requirements of the American Iron and Steel requirements. Refer to the American Iron and Steel Requirements Guidance in the Federal Conditions portion of these specifications.

PART 3 - EXECUTION

3.01 TESTING AND INSPECTION

- A. All pipe and fittings shall be subjected to a rigid inspection after delivery to the site and before being placed in the work. Any piece found defective by such field inspection will be rejected and shall be immediately removed from the premises.
- B. Water distribution lines shall be tested to a pressure of 50% above the normal operating pressure or 100 psi, whichever is greater. This pressure shall be maintained for a period of two hours with no discernible pressure loss.

END OF SECTION

## SECTION 02623

### HIGH DENSITY POLYETHYLENE PIPE AND FITTINGS

#### PART 1 - GENERAL

##### 1.01 SCOPE OF WORK

- A. Furnish all labor, materials, equipment and incidentals required and install high density polyethylene (HDPE) pipe and fittings complete as shown on the Drawings and as specified herein.

##### 1.02 RELATED WORK

- A. Earth Excavation and Backfill in Trenches are included in Section 02221.
- B. Ductile Iron Pipe and Fittings are included in Section 02615.

##### 1.03 SUBMITTALS

- A. Submit to the Engineer, in accordance with contract documents, the following information:
  - 1. List of materials to be furnished, the names of the suppliers and the date of delivery of materials to the site.
  - 2. The origin of the resin to be used in the manufacturing of the pipe including the supplier's name and production plant, as well as brand name and number.
  - 3. Documentation from the resin's manufacturer showing results of the following tests for resin identification:
    - a. Melt Flow Index – ASTM D1238
    - b. Density – ASTM D1505
  - 4. Manufacturer quality control manual describing implementation of quality control procedures during pipe manufacturing process.
  - 5. Pipe manufacturer's certification of compliance with this Section.
  - 6. One complete, detailed shop drawing of all polyethylene pipe, including the location of all fittings, joints and connections to structures.
  - 7. Manufacturer's recommendations for handling, storing and installing pipe

and fittings.

8. For each shipment of pipe of manufacturer's certification that the pipe was manufactured from the same resins identified in Paragraph 1.03A2 above.
9. Name, address and telephone number for manufacturer and distributor.

#### 1.04 REFERENCE STANDARDS

##### A. American Society for Testing and Materials (ASTM)

1. ASTM D1238 – Standard Method for Flow Rates Thermoplastics by Extrusion Plastometer.
2. ASTM D1248 – Standard Specification for Polyethylene Plastic Molding and Extrusion Materials.
3. ASTM D1505 – Standard Test Method for Density of Plastics by the Density-Gradient Technique.
4. ASTM D1603 – Standard Test Method for Carbon Black in Olefin Plastics.
5. ASTM D2657 – Standard Practice for Heat-Joining Polyethylene Pipe and Fittings.
6. ASTM D2837 – Standard Test Method for Obtaining Hydrostatic Design Basis for Thermoplastic Pipe Materials.
7. ASTM D3350 – Standard Specifications for Polyethylene Plastic Pipe and Fittings Materials.
8. ASTM F593 – Standard Specifications for Stainless Steel Bolts, Hex Cap Screws, and Studs.
9. ASTM F714 – Standard Specifications for Polyethylene (PE) Plastic Pipe (SDR-PR) Based on Outside Diameter.

##### B. American National Standards Institute (ANSI)

1. ANSI B16.1 – Grey Iron Fittings and Flanged Fittings.
2. ANSI B16.21 – Non-Metallic Flat Gaskets for Pipe Flanges.

##### C. Where reference is made to one of the above standards, the revision in effect at the time of bid opening shall apply.

## 1.05 QUALITY ASSURANCE

- A. All HDPE pipe and fittings shall be manufactured by a single manufacturer who is fully experienced, reputable and qualified in the manufacture of the polyethylene pipe to be furnished. All HDPE pipe and fittings shall be supplied by a single distributor who is fully experienced, reputable, and qualified with the distribution of the pipe to be furnished. The pipe shall be designed, constructed, and installed in accordance with the best practices and methods and shall comply with these specifications.
- B. All HDPE pipe to be installed under this Contract may be inspected at the factory for compliance with this Section by an independent testing laboratory provided by the Owner. The manufacturer's cooperation shall be required in these inspections. The cost of these plant inspections of all pipe approved for this Contract, plus the cost of inspection of a reasonable amount of disapproved pipe, will be borne by the Owner.
- C. Inspection of the pipe may also be made by the Engineer or other representatives of the Owner after delivery. The pipe shall be subject to rejection at any time on account of failure to meet any of the specified requirements, even though pipes may have been accepted as satisfactory at the place of manufacture. Pipe rejected after delivery shall be marked for identification and shall immediately be removed from the job.
- D. Resin Evaluation
  - 1. All incoming resin shall be sampled for conformance testing against test results supplied by the resin manufacturer. Samples shall be taken from the top and bottom of each compartment from every hopper car received. The following conformance tests shall be performed on the sample:
    - a. Melt Flow Index – ASTM D1238
    - b. Density – ASTM D1505
    - c. The results of these tests shall become part of the manufacturer's permanent quality control records.
- E. Finished Product Evaluation
  - 1. Each length of pipe produced shall be checked by production staff for the items listed below. The results of all measurements shall be recorded on production sheets that become part of the manufacturer's permanent records.
    - a. Pipe in process shall be checked visually, inside and out for cosmetic defects, (grooves, pits, hollows, etc.).

- b. Pipe outside diameter shall be measured using a suitable periphery tape to ensure conformation with ASTM F714.
- c. Pipe wall thickness shall be measured at 12 equally spaced locations around the circumference at both ends of the pipe to ensure conformance with ASTM F714.
- d. Pipe length shall be measured.
- e. Pipe marking shall be examined and checked for accuracy.
- f. Pipe ends shall be checked to ensure they are out square and clean.
- g. Subject inside surface to a “reverse and test” to ensure the pipe is free of oxidation (brittleness).

F. Stress Regression Testing

- 1. The polyethylene pipe manufacturer shall provide certification that stress regression testing has been performed on the specific polyethylene resin being utilized in the manufacture of this product. This stress regression testing shall have been done in accordance with ASTM D2837 and the manufacturer shall provide a product supplying a minimum Hydrostatic Design Basis (HDB) of 1600 psi as determined in accordance with ASTM D2837.

1.06 WARRANTY

- A. The pipe manufacturer shall provide a warranty against manufacturing defects of material and workmanship for a period of ten years after the final acceptance of the project by the Owner. The manufacturer shall replace, at no additional cost to the Owner, any defective pipe material within the warranty period.

PART 2 - PRODUCT

2.01 MATERIALS

A. Pipe

- 1. HDPE pipe is a flexible conduit and shall be designed to transfer imposed loads to the surrounding embedment medium. The pipe and fittings shall be free from all defects including indentations, delaminations, cracks, bubbles, pinholes, inclusions or occlusions which, due to their nature, degree, or extent, detrimentally affect the strength and serviceability of the pipe. Any pipe or fittings with such defects that, in the judgment of the Engineer, will

affect the strength and serviceability shall be repaired or rejected.

2. HDPE pipe resins shall be high molecular weight, high-density polyethylene with a cell classification number of 345444C in accordance with ASTM D3350. Pipe materials shall meet the requirements of Type III, Class C, Category 5, Grade P34 as defined in ASTM D1248, with a standard grade rating of 1600 psi at 73 degrees F and have a PPI recommended designation of PE 3408. Clean rework material generated by the manufacturer's own production may be used so long as the pipe or fittings produced meet all the requirements of this Section.
3. Polyethylene pipe shall be as manufactured by Chevron Phillips Chemical Company LP Performance Pipe; CSR Polypipe; US Fusion LLC or equal.
4. The polyethylene compound shall be suitably protected against degradation by ultraviolet light as required by ASTM D1603.
5. The pipe shall have the nominal dimensions shown on the Drawings and shall conform to the dimension requirements of the ductile iron pipe sizing system. The pipe shall meet the dimension requirements of Standard Dimension Ratio (SDR) 11.
6. All polyethylene pipe shall meet the requirements of ASTM F714.
7. The pipe shall be joined with burr, heat fusion joints. All joints shall be made in strict compliance with the manufacturer's recommendations.
8. Pipe shall be furnished in standard laying lengths not exceeding 50-ft.
9. All high-density polyethylene pipe and fittings shall be made from the same resin.
10. Fittings shall be fully pressure rated to match the pipe SDR pressure rating. All fittings shall be molded or fabricated by the manufacturer.

#### B. TRACING WIRE

1. All non-metallic pipe shall be marked with an electronic tracer wire and a detector tape. Tracer wire shall be laid directly over the pipe and shall terminate in valve boxes or pipeline markers. Detector tape shall be placed in the trench during backfilling and shall be placed about 12 inches from the top of the ground.
2. Tracer wire used with PVC or PE pipe shall be 14-gauge single strand copper with THWN coating for buried service. Splices in the tracer wire shall be made using a waterproof mechanical splice kit specifically

designated for underground connections to electrical or telephone wiring. Splice connection methods shall be approved by the Engineer prior to use.

3. Detector tape shall be color coded, foil backed and printed with the marking "WARNING/CAUTION WATER LINE BURIED BELOW." Detector tape shall be laid in the trench while backfilling, and shall be placed about 12 inches from the top of the ground.

## 2.02 PIPE IDENTIFICATION

- A. The following shall be continuously indent printed on the pipe or spaced at intervals not exceeding 5-ft:
  1. Name and/or trademark of the pipe manufacturer.
  2. Nominal pipe size.
  3. Dimension ratio.
  4. The letters PE followed by the polyethylene grade in accordance with ASTM D1248, followed by the hydrostatic design basis in 100's of psi, e.g., PE 3408.
  5. Manufacturing standard reference, e.g., ASTM F714.
  6. A production code from which the date and place of manufacture can be determined.

## PART 3 – EXECUTION

### 3.01 HANDLING

- A. Handling and laying of pipe and fittings shall be in accordance with the manufacturer's instruction and as specified herein.
- B. Pipes shall be stored on clean level ground, preferably turf or sand, free of sharp objects that could damage the pipe. Stacking of the polyethylene pipe shall be limited to a height that will not cause excessive deformation of the bottom layers of pipes under anticipated temperature conditions. Where necessary, due to ground conditions, the pipe shall be stored on wooden sleepers, spaced suitably and of such width as not to allow deformation of the pipe at the point of contact with the sleeper or between supports.
- C. Care shall be taken in loading, transporting, and unloading to prevent injury to the pipe. The handling of the pipe shall be in such a manner that the pipe is not damaged by dragging it over sharp and cutting objects. Ropes, fabric or rubber

protected slings and straps shall be used when handling pipes. Chains, cables or hooks inserted into the pipe ends shall not be used. Two slings spread apart shall be used for lifting each length of pipe. Slings shall not be positioned at butt-fused joints. Pipe or fittings shall not be dropped.

- D. All pipe or fittings shall be examined before laying and no piece shall be installed which is found to be defective. The maximum allowable depths of cuts, scratches or gouges on the exterior of the pipe are 10 percent of wall thickness. The interior pipe surface shall be free of cuts, gouges or scratches. Any damage to the pipe shall be repaired as directed by the Engineer. If any defective pipe section is discovered after it has been laid, it shall be removed completely and the ends of the pipeline rejoined, at the Contractor's expense.

### 3.02 LAYING PIPE AND FITTINGS

- A. All pipe and fittings shall be thoroughly cleaned before laying, shall be kept clean until they are used in the work and when laid, shall conform to the lines and grades shown on the Drawings.
- B. All pipe shall be sound and clean before laying (or hanging). Good alignment shall be preserved in laying. The deflection shall not exceed that recommended by manufacturer.
- C. When laying is not in progress, including during lunchtime, the open ends of the pipe shall be closed by watertight plugs or other approved means. All plugs shall be OD fitting plugs. No plugs will be allowed that require insertion of the plug into the pipe.
- D. When cutting pipe is required, the cutting shall be done by machine, leaving a smooth cut at right angles to the axis of the pipe.
- E. The pipe shall be joined by the method of thermal butt fusion, as outlined in ASTM D2657. All joints shall be made in strict compliance with the manufacturer's recommendations by a factory qualified joining technician as designated by the pipe manufacturer with a minimum of three years experience with the fusion equipment to be used.
- F. Fittings shall be connected to HDPE pipe in accordance with manufacturer's recommendations.
- G. Flanged connections shall consist of the following:
  - 1. A high density polyethylene flange adapter, made by the manufacturer from the same resin as the pipe, and fully pressure rated to match the pipe SDR pressure rating, thermally butt-fused to the stub end of the pipe.
  - 2. A stainless steel back-up ring (conforming to ANSI B16.1) fitted to the

polyethylene flange adapter and shaped as necessary to suit the outside dimension of the pipe.

3. A full-face neoprene gasket, conforming to ANSI B16.21.
  4. Corrosion resistant bolts and nuts of Type 316 stainless steel as specified in ASTM F593. Bolts shall be tightened alternately and evenly to the manufacturer's specified torques. After installation a bitumastic coating shall be applied to bolts and nuts.
  5. Contractor shall refer to pipe manufacturer's requirements for appropriate bolting procedure.
- H. Where polyethylene pipe is connected to valves, where the inside pipe diameter is smaller than the diameter of the valve disk, HDPE valve spacers shall be placed between the flanges of the valve and pipe. Valve spacers shall be manufactured by the HDPE pipe manufacturer and shall meet the same requirements as the HDPE pipe and fittings. Valve spacers shall be installed as recommended by the manufacturer. Care shall be taken to ensure that the valve disk can turn easily without coming into contact with valve spacers or pipe wall, and to ensure that no leakage will occur at the spacer.
- I. Mechanical connections of HDPE pipe to Ductile Iron or PVC piping, mechanical joint fittings, or valves shall be through a self-restraining, fusible mechanical joint adaptor with an integral, internal stainless steel insert. Mechanical joint adaptor shall be of the same SDR rating as the pipe. A separate, loose insert will not be allowed.

### 3.03 TESTING

- A. Contractor shall supply all labor, equipment, material, gauges, pumps, meters and incidentals required for testing. Pressure test each water line upon completion of installing the pipe. Testing procedures shall be as specified in Section 02610. Water lines shall be tested to 50% greater than the operating pressure or 100 psi, whichever is greater.

### 3.04 CLEANING

- A. At the conclusion of the work, the Contractor shall thoroughly clean all new pipelines by flushing with water to remove any foreign material, which may have entered during the construction period. Debris cleaned from the lines shall be removed from the job site.

END OF SECTION

## SECTION 02640

### RESTRAINED JOINTS

#### PART 1 – GENERAL

All valves, fittings, plugs reducers, etc., shall have restrained joints. Hydrants, hydrant valves and hydrant tees shall be restrained. Unless field conditions and / or special design conditions necessitate, use of thrust blocking shall not be permitted. Thrust blocks are permitted only when adequate length of pipe cannot be restrained due to field conditions and /or for temporary construction. Length of restrained pipes shall be per the restrained joint table in the drawings. In-line valves shall be restrained adequately to ensure stability of the system. Unless field conditions and / or special design conditions do not permit, it is required that in-line valves be restrained at a distance of 60'.

Refer to Section 02615 – Ductile Iron Pipe and Fittings and Section 02622 – Polyvinyl Chloride (PVC) Pipe for restrained joint specifications.

All joint restrainers shall comply with the applicable requirements of the American Iron and Steel Requirements. Refer to the American Iron and Steel Requirements Guidance in the Federal Conditions portion of these specifications.

(End of Section)

## SECTION 02660

### VALVES AND APPURTENANCES

#### PART 1 - GENERAL

##### 1.01 SCOPE OF WORK

- A. Furnish all labor, materials, equipment and incidentals required to install, complete and ready for operation, all valves and appurtenances as shown on the drawings and as specified herein.
- B. The equipment shall include, but not be limited to, the following:
  - 1. Gate Valves

##### 1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Excavation and backfill for pipe is included in Section 02221.
- B. Piping is included in Section 02615, 02622, and 02623.
- C. Waterlines in Section 02610.

##### 1.03 DESCRIPTION OF SYSTEMS

All of the equipment and materials specified herein are intended to be standard for use in controlling the flow of waste.

##### 1.04 QUALIFICATIONS

All of the types of valves and appurtenances shall be products of well established reputable firms who are fully experienced, reputable and qualified in the manufacture of the particular equipment to be furnished. The equipment shall be designed, constructed and installed in accordance with standard practices and methods and shall comply with these specifications as applicable.

##### 1.05 SUBMITTALS

- A. Submit to the Engineer, within 30 days after execution of the contract, a list of materials to be furnished, the names of the suppliers and the date of delivery of materials to the site.
- B. Complete shop drawings of all valves and appurtenances shall be submitted to the Engineer for approval in accordance with the requirements of Section 01340 and the General Conditions.

## 1.06 TOOLS

Special tools, if required for normal operation and maintenance, shall be supplied with the equipment.

## PART 2 - PRODUCTS

### 2.01 MATERIALS AND EQUIPMENT

#### A. Valves:

1. Gate Valves
  - a. All gate valves shall be resilient wedge/resilient seat type, have ductile iron bodies, bronze non-rising stem and conform to AWWA C509 or C515.
  - b. Gate valves shall be rated at 200 psi water working pressure with 400 psi hydrostatic test for structural soundness for 2" through 12" and 150 psi water working pressure with 300 psi hydrostatic test for structural soundness in 20" size. Testing shall be conducted in accordance with AWWA C500.
  - c. End connections shall be in accordance with ANSI B 16.1 125# flange drilling and mechanical joints per AWWA C111 without accessories.
  - d. All ductile iron shall comply with ASTM A536 Gr. 65-45-12. Castings shall be clean and sound without defects. No plugging or welding of defects will be allowed.
  - e. Stems shall be manganese bronze having a minimum tensile strength of 60,000 psi and a minimum yield of 20,000 psi for 20" valve.
  - f. Bolts shall be electrozinc plated steel with ex heads and hex nuts in accordance with ASTM A307 and ASTM A563 respectively.
  - g. Gate valves shall be non-rising stem (NRS) meeting requirements of AWWA C500. Valves shall be furnished o-ring stem seals using 2 o-rings set in the seal plate.
  - h. Direction to open shall be counter-clockwise unless otherwise specified.
  - i. The inside and outside of all valves, together with all working parts except bronze and machined faces, shall be coated in accordance with AWWA standards.
  - j. Marking shall be in accordance with AWWA C500 standards, to include name of manufacturer, year of manufacture, maximum working pressure and size of valve.
  - k. Valves must be of domestic United States of America.
2. Actuators
  - a. Worm gear actuators shall be provided on all valves six inches and larger. Actuators shall be enclosed in a cast iron housing, with outboard seals to protect the bearings and other internal components. The actuator shaft and

gear quadrant shall be supported on permanently lubricated bronze bearings.

- b. Buried actuators shall be 90% grease filled. Input shaft and fasteners shall be stainless steel. Actuator mounting brackets shall be totally enclosed.

### PART 3 - SPACING AND LOCATION IDENTIFICATION

#### 3.01 GATE VALVE SPACING

- A. Valves shall be installed at each intersection and must be equipped with a two, three or four valve pattern, as shown on the plans.
- B. Valves shall be placed so that no single case of pipe breakage shall require shutting off from service an artery. Any discrepancies between the plans and these minimum standards shall be brought to the attention of the engineer prior to construction.

#### 3.02 LOCATION IDENTIFICATION

- A. The letters "WV" shall be placed in the face of both new and existing curb pointing to all water valves.

### PART 4 - EXECUTION

#### 4.01 INSTALLATION

- A. All valves and appurtenances shall be installed in the locations shown, true to alignment and rigidly supported. Any damage to the above items shall be repaired to the satisfaction of the Engineer before they are installed.
- B. After installation, all valves and appurtenances shall be tested at least one (1) hour at the working pressure corresponding to the class of pipe, unless a different test pressure is specified. If any joint proves to be defective, it shall be repaired to the satisfaction of the Engineer.

#### 4.02 SHOP PAINTING

Ferrous surfaces of valves and appurtenances shall be painted in accordance with Section 09900 unless specified elsewhere. All pipe connection openings shall be capped to prevent the entry of foreign matter prior to installation.

#### 4.03 INSPECTION AND TESTING

Completed pipe shall be subjected to hydrostatic pressure test for two (2) hours at full working pressure. All leaks shall be repaired and lines retested as approved by the Engineer.

END OF SECTION

## SECTION 02670

### FIRE HYDRANTS

#### PART 1 – GENERAL

##### 1.01 SCOPE OF WORK

The Contractor shall provide all labor, materials and equipment required for furnishing and installing new fire hydrants in locations shown on the drawings in accordance with these specifications and as described in the drawings.

##### 1.02 NOTICE OF CLOSED SPECIFICATION

Prospective bidders are hereby notified that the specifications for fire hydrants are “closed” in accordance with La. R.S. 38:2291-2292. Approval of the public entity identifying specific reasons necessitating this declaration is attached to this specification.

If a potential supplier wishes to submit for prior approval, he shall do so no later than 7 working days prior to the bid opening in accordance with La. R.S. 38:2295(c).

#### PART 2 – MATERIALS

Fire hydrants shall be dry-barrel compression type, conforming to AWWA Standard C502, having a six inch (6") inlet, and a hub connection of the mechanical joint type. The hydrant shall have two (2) two and one-half inch (2½") hose nozzles, one (1) four and one-half (4½") steamer (pumper) connection and shall have a five and one-quarter inch (5¼") valve opening. The operating nut shall be a standard five-point type, and shall open left (counter-clockwise). Hose and pumper nozzle threads shall conform to existing equipment of the St. Bernard Parish Fire Department. Hydrants shall be Mueller Centurion A-423.

##### 2.01 HYDRANT SPECIFICATIONS

- a. Fire hydrants shall be rated for a working pressure of 250 Psig. (1725 kPa).
- b. Fire hydrants shall be of the compression type, opening against the pressure and closing with the pressure.
- c. Fire hydrants shall have a minimum 5-1/4” main valve opening and a minimum inside lower/upper barrel diameter (I.D.) of 7” to assure maximum flow performance. Pressure loss at 1,000 GPM shall not exceed the following values:

4.5” Pumper Nozzle: 2.50psi

- d. Fire hydrants shall be three-way in design, having one 4.5” pumper nozzle and two 2-1/2” hose nozzle(s). Nozzle thread type shall be as specified by the enduser. Nozzles shall thread counterclockwise into hydrant barrel utilizing “o” ring seals. A suitable nozzle lock shall be in place to prevent inadvertent nozzle removal.

- e. The bonnet assembly shall provide an oil reservoir and lubrication system that automatically circulates lubricant to all stem threads and bearing surfaces each time the hydrant is operated. This lubrication system shall be sealed from the waterway and any external contaminants by use of “o” ring seals. An anti-friction washer shall be in place above the thrust collar to further minimize operating torque. The oil reservoir shall be factory filled with a low viscosity, FDA approved non-toxic oil lubricant which will remain fluid through a temperature range of  $-60^{\circ}$  F. to  $+150^{\circ}$  F.
- f. The operating nut shall be a one piece design, manufactured of ASTM B-584 bronze. It shall be pentagon in shape and the nut dimensions shall be as specified by the enduser. The operating nut shall be affixed to the bonnet by means of an ASTM B-584 bronze hold down nut. The hold down nut shall be threaded into the bonnet in such a manner as to prevent accidental disengagement during the opening cycle of the hydrant. The use of Allen head set screws as a means of retention is unacceptable. A resilient weather seal shall be incorporated into the hold down nut, for the purpose of protecting the operating mechanism from the elements.
- g. The direction of the opening shall be counter-clockwise. An arrow shall be cast on the bonnet flange to indicate the specified opening direction.
- h. The hydrant bonnet shall be attached to the upper barrel by not less than eight bolts and nuts and sealed by an “o” ring.
- i. Hydrants shall be a “traffic-model” having upper and lower barrels joined at the ground line by a separate and breakable “swivel” flange providing  $360^{\circ}$  rotation of upper barrel for proper nozzle facing. This flange shall employ not less than eight bolts. The safety flange segments shall be located under the upper barrel flange to prevent the segments from falling into the lower barrel when the hydrant is struck. The pressure seal between the barrels shall be an “o” ring. The proper ground line shall be cast clearly on the lower barrel and shall provide not less than 18” of clearance from the centerline of the lowest nozzle to the ground.
- j. The operating stem shall consist of two pieces, not less than 1 1/4” diameter (excluding threaded or machined areas) and shall be connected by a stainless steel safety coupling. The safety coupling shall have an integral internal stop to prevent the coupling from sliding down into the lower barrel when the hydrant is struck. Screws, pins, bolts, or fasteners used in conjunction with the stem couplings shall also be stainless steel. The top of the lower stem shall be recessed 2” below the face of the safety flange to prevent water hammer in the event of a “drive over” where a vehicle tire might accidentally depress the main valve.
- k. The lower barrel shall be an integrally cast unit. The use of threaded on or mechanically attached flanges is deemed unacceptable. The hydrant bury depth shall be clearly marked on the hydrant lower barrel.

- l. Composition of the main valve shall be a molded rubber having a durometer hardness of 95 +/- 5 and shall be reversible in design to provide a spare in place. Plastic (polyurethane) main valves are unacceptable. The main valve shall have a cross section not less than 1".
- m. Hydrants shall be equipped with (2) two drain valves which drain the barrel when the hydrant is closed and seal shut when the hydrant is opened. These drain valves shall be an integral part of the one piece bronze upper valve plate. They shall operate without the use of springs, toggles, tubes, levers or other intricate synchronizing mechanisms.
- n. The upper valve plate, seat ring and drain ring (shoe bushing) must be ASTM B-584 bronze and work in conjunction to form an all bronze drain way. A minimum of two (2) internal and two (2) external drain openings are required. Drains ported through an iron shoe must be bronze lined.
- o. The bronze seat ring shall thread into a bronze drain ring (or shoe bushing) providing a bronze to bronze connection. Seat rings shall be "o" ring pressure sealed
- p. The shoe inlet size and connection type shall be as specified (flanged, MJ, etc.), having ample blocking pads for sturdy setting and the MJ connection must have two strapping lugs to secure the hydrant to piping. A minimum of six bolts and nuts is required to fasten the shoe to the lower barrel.
- q. The interior of the shoe including the lower valve plate and stem cap nut shall have a protective coating that meets the requirements of AWWA C-550. If a stem cap nut is utilized, it must be locked in place by a stainless steel lock washer or similar non-corrosive device that will prevent the cap nut from backing-off during normal use.
- r. Hydrants shall be warranted by the manufacturer against defects in materials or workmanship for a period of ten years (10) from the date of manufacture. The manufacturing facility for the hydrant must have current ISO certification.
- s. Hydrants shall be Mueller Super Centurion 250 (A423).
- t. Optional vertical hydrant extension shall be placed as required for proper placement of hydrant.
- u. Hydrants shall be factory painted (per OEM specifications) with a particular color based on size of water main. The following describe color code requirements for newly constructed fire hydrants: (\* Color as per the Parish)
  - a. \* body – visibility
  - b. \* top – 4" main
  - c. \* top – 6" main
  - d. \* top – 8" main
  - e. \* top – 10" & above
  - f. \* cap – valve on hydrant

Failure to comply with any of these above requirements is sufficient cause for rejection of proposed hydrants.

#### 2.02 HYDRANT VALVES

A 6-inch resilient seat gate valve (NRS) shall be installed on all new hydrant leads regardless of water line size.

#### 2.03 HYDRANT TEES

All hydrant tees shall be swivel type.

### PART 3 – LOCATION

3.01 Fire hydrant spacing shall not be greater than 500 feet in residential areas, or 350 feet in commercial areas. Any facility that requires fire protection shall not be farther than 250 feet from a fire hydrant.

The minimum size of water main which provides for fire protection and serving fire hydrants shall be six-inch diameter.

### PART 4 – EXECUTION

4.01 Install new fire hydrants as detailed in the drawings and in strict accordance with the manufacturer's recommendations.

### PART 5 – EXISTING FIRE HYDRANTS

5.01 All existing hydrants shall be removed and delivered to a location designated by the owner.

(End of Section)

## SECTION 02690

### CLEARANCE

#### 1.01 DESCRIPTION

Adequate clearance shall be maintained between water lines and existing utilities.

#### 1.02 CLEARANCE BETWEEN WATER LINES AND SANITARY SEWER LINES

Sewer and water mains shall be laid in separate trenches not less than 6 feet apart horizontally, when installed in parallel. Crossing water and sewer mains shall have a minimum vertical separation of 18 inches. In cases where it is not possible to maintain a 6 foot horizontal separation, the State Health Officer may allow a waiver of this requirement on a case by case basis if supported by data from the design engineer.

#### 1.03 CLEARANCE BETWEEN WATER LINES AND ANY PRIVATE UTILITY LINES

Minimum clearance between a water line and any private utility line shall be 6-feet (measured horizontally). Private utilities shall be installed in private servitudes.

#### 1.04 CLEARANCE BETWEEN WATER LINES AND BUILDINGS

Water lines shall not be installed closer than 10-feet (measured horizontally) from any building foundation, wall or building overhang. This 10-foot clearance may be reduced to 6-feet in areas with commercial zoning with limited right-of-way and with approval of the Utilities Department.

END OF SECTION

## SECTION 02700

### PRESSURE TESTING AND DISINFECTION OF WATER LINES

#### PART 1 – GENERAL

##### 1.01 SCOPE OF WORK

Furnish all labor, materials, equipment and related items required to disinfect and pressure test all pipelines and other potable water facilities.

##### 1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 02221: Excavation and Backfilling in Trenches
- B. Sections 02610, 02615, 02622, and 02623

#### PART 2 – PRODUCTS

##### 2.01 DISINFECTING CHEMICALS

- A. Disinfecting chemicals shall comply with AWWA C651. Dry chlorine compounds such as calcium hypochlorite (HTH) shall have at least 60% available chlorine by weight when dissolved in water. The disinfectant used shall be approved by the Engineer.
- B. For small water systems and plumbing work, commercial stabilized sodium hypochlorite solution (12% minimum) or household bleach (5.25% minimum) without additives, may be used with prior approval of the Engineer.
- C. The disinfectant used shall be delivered to the work site in original unopened and sealed containers bearing the original labels indicating the percentage of available chlorine. The disinfectant shall be recently purchased, and shall be safely stored and handled. During storage, disinfectants shall not be exposed to the weather or direct sunlight, and shall not be opened before use. Chlorine compounds in dry form shall not be stored over 6 months, and liquid compounds shall not be stored over 30 days before use.

##### 2.02 OTHER COMPOUNDS

No chemicals or compounds other than those listed above shall be used for disinfection of potable water lines. No swimming pool or spa chemicals containing bromine, isocyanurate, amines, ammonia, or nitrogen or peroxide compounds shall be used.

#### PART 3 – EXECUTION

##### 3.01 PRESSURE TESTING AND DISINFECTION OF WATER LINES

- A. All new and/or modified segments of the water distribution system shall be tested to a pressure of 50% above the normal operating pressure or 100 p.s.i. whichever is greater. This pressure shall be maintained for a period of two (2) hours with no discernible pressure loss. Leaks shall be repaired by removing and replacing faulty sections. The pressure test shall be performed by the contractor under the direct supervision of the Utilities Department. Before being placed in service, all new, modified and/or contaminated segments of the water distribution system shall be flushed and disinfected (chlorinated) by the contractor under the direct supervision of the Utilities Department.

- B. Flushing should be done at flow rates sufficient to provide a velocity in the lines of at least 2.5 feet per second. Disinfection should comply with AWWA Standard C651, "Disinfecting Water Mains".
- C. In order to minimize backflow (back siphon, back pressure) or undesired reversal of the flow of unclean liquids into the drinking water distribution system, as a minimum, the use of a single check valve is required during flushing. When practical (mains up to 12" in diameter) a floater meter must be used for flushing. Utilizing a floater meter will provide the necessary backflow prevention and also will help the parish to account for the water use. As always, the contractor will not be charged for using any reasonable amount of water for flushing.
- D. Only after satisfactory pressure testing and disinfection (chlorination), and successful bacteriological analysis from a state certified microbiology lab is completed can the segment be tied into the existing water distribution system. Under no circumstances will the contractor be allowed to make a tie-in to the existing water distribution system without direct supervision of the Utilities Department. All costs associated with the testing and chlorination procedures shall be the responsibility of the contractor.
- E. Typically the contractor will not be charged for the water used to flush, pressure test and chlorinate the system. The contractor will be charged for the excess water when the water distribution system will require an excess amount of water to be properly flushed, pressure tested and chlorinated, due to negligence of the contractor.

(End of Section)

SECTION 02800

CLASS II BASE COURSE

1.01 DESCRIPTION

This work consists of the furnishing and placement of Class II roadway and shoulder base course on a prepared surface in accordance with these specifications, in conformance with the materials, lines, grades, and thickness outlined in the Utilities Department Standard Plans, while following Section 302 of the Louisiana Standard Specifications for Roads and Bridges, 2016 Edition.

1.02 MATERIALS

All Class II base material shall conform to section 1003.03.1 (Stone), Table 1003-6 of the Louisiana Standard Specifications for Roads and Bridges, 2016 Edition. No alternates will be allowed, unless specified in writing by the Engineer.

Class II Base Course testing shall be performed as directed by the Utilities Department, and follow Section 302 of the Louisiana Standard Specifications for Roads and Bridges, 2016 Edition.

END OF SECTION

## SECTION 02900

### GEOTEXTILE / GEOGRID MATERIALS (ROADWAY BASE)

#### 1.01 DESCRIPTION (GEOTEXTILE FABRIC)

This work consists of furnishing and placing geotextile fabric under all new asphalt, concrete, and composite roadway bases, in accordance with these specifications. All work shall be performed according to Section 203.11 of the 2016 Edition of the Louisiana Standard Specifications for Roads and Bridges, including the latest supplements, and the Utilities Department Standard Plans.

#### 1.02 MATERIALS (GEOTEXTILE FABRIC)

The geotextile fabric shall comply with Section 1019, "Class D" (non-woven) of the Louisiana Standard Specifications for Roads and Bridges, 2016 Edition including the latest supplements. All geotextile fabric shall be placed as specified by the Utilities Department Standard Plans.

#### 1.03 DESCRIPTION (GEOGRID)

This work consists of furnishing and placing geogrid under all new asphalt, concrete, and composite roadway bases. The geogrid shall be composed of a single layer and integrally formed with triangular apertures and high-profile ribs exhibiting significant dimensional stability through all ribs and junctions of the geogrid structure. The geogrid shall maintain its reinforcement and aggregate confinement capabilities under repeated dynamic loads while in service. The geogrid shall also be resistant to ultraviolet degradation, damage under normal construction practices and all forms of biological and chemical degradation normally encountered in road construction. Geogrid layers shall be placed as shown on the Utilities Department Standard Plans.

#### 1.04 SUBMITTALS (GEOGRID)

Submit representative geogrid product sample.

Submit geogrid product data sheet and certification from the Manufacturer that the geogrid product supplied meets the requirements of the MATERIALS of this Section.

Submit Manufacturer's installation instructions and general recommendations.

1.05 MATERIALS (GEOGRID)

The geogrid shall be integrally formed through punching and drawing of extruded sheets of polypropylene. The geogrid shall be oriented in three substantially equilateral directions so the resulting ribs have a high degree of molecular orientation which continues at least in part through the mass of the integral node.

The resulting geogrid structure shall have apertures that are triangular in shape, and shall have ribs with depth-to-width ratios greater than 1.0.

Prevent excessive mud, wet concrete, epoxy or other deleterious materials from coming in contact with and affixing to the geogrid materials. Geogrid materials should not be left directly exposed to sunlight for more than six months, or as recommended by the manufacturer.

The geogrid shall have typical characteristics shown in the table below, and shall be certified in writing by the manufacturer to meet these characteristics. The geogrid shall be Tensar TX160 or approved equal.

<b>Properties</b>	<b>Longitudinal</b>	<b>Diagonal</b>	<b>Transverse</b>	<b>General</b>
Rib Pitch <sup>(2)</sup> , mm (in)	40 (1.60)	40 (1.60)	-	
Mid-rib depth <sup>(2)</sup> , mm (in)	-	1.3 (0.06)	1,2(0.06)	
Mid-rib width <sup>(2)</sup> , mm (in)	-	0.9 (0.04)	1.2 (0.05)	
Rib shape				rectangular
Aperture shape				triangular
Junction Efficiency <sup>(3)</sup> , %				93
Aperture stability <sup>(4)</sup> , kg-cm/deg @ 5.0 kg-cm				3.6
Radial stiffness at low strain <sup>(5)</sup> , kN/m @ 0.5% strain (lb/ft @ 0.5% strain)				300 (20,580)
Resistance to chemical degradation <sup>(6)</sup>				100%
Resistance to ultra-violet light and weathering <sup>(7)</sup>				70%

1. Unless indicated otherwise, values shown are minimum average roll values (MARVs) determined in accordance with ASTM D4759-02. Brief descriptions of test procedures are given in the following notes.
2. Nominal dimensions.
3. Load transfer capability determined in accordance with ASTM D6637-10 and ASTM D7737-11 and expressed as a percentage of ultimate tensile strength.
4. In-plane torsional rigidity measured by applying a moment to the central junction of a 225mm x 225mm specimen restrained at its perimeter in accordance with GRI-GG9 modified.
5. Radial stiffness is determined from tensile stiffness measured in any in-plane axis from testing in accordance with ASTM D6637-10.
6. Resistance to loss of load capacity or structural integrity when subjected to chemically aggressive environments in accordance with EPA 9090 immersion testing.
7. Resistance to loss of load capacity or structural integrity when subjected to 500 hours of ultraviolet light and aggressive weathering in accordance with ASTM D4355-05.

As the project permits and at the contractors' discretion, two layers of standard performance geogrid may be used in lieu of a single layer of high performance geogrid; with a minimum 5" compacted lift of aggregate over each geogrid layer. Alternate high performance geogrid will be considered if they can demonstrate quantifiable performance enhancement equal to or greater than the performance criteria defined below. For approval, research and data must be specific to the particular geogrid being proposed as an alternate and in compliance with all of the following performance-based criteria:

(1) Accelerated Pavement Testing (APT) at a facility in the United States, completed in compliance with NCHRP Report 512 and Synthesis 325 and AASHTO R-50. Total equivalent single axle loads (ESALs) trafficked on each section tested must fall within the range of ESALs predicted in the design of those sections. Testing must be performed on paved asphalt structures, comparing optimized geogrid stabilized sections to thicker asphalt concrete control sections, with identical subgrade conditions and materials. APT test sections must be able to demonstrate all of the following:

- All test sections (optimized and control) must demonstrate a minimum of 10,000 ESALs at less than 1/2-inch permanent surface deformation.
- The geogrid optimized test sections must achieve a minimum 100,000 ESALs at less than 1/2-inch permanent surface deformation.
- The same or less permanent surface deformation in the geogrid stabilized section compared to the thicker control section; with a 1-inch reduction of asphalt concrete and 2-inch reduction of aggregate base in the geogrid section.

(2) No proposed equal high performance geogrid will be accepted based on material index properties or explanations of performance based on testing of geogrid index properties; geogrid will be evaluated on in ground performance.

(3) Any submittal for an alternate high performance geogrid must be accompanied with the following:

(a) A written statement from a credible third-party independent reviewer that proper calibration and validation testing has been performed for the geogrid being proposed and its demonstrated performance is fully in accordance with these specifications.

(b) A submittal package that includes performance studies referenced in section above and documented evidence of calibration and validation testing.

(c) Any other information as requested by the Engineer.

END OF SECTION

## SECTION 03500

### INCIDENTAL PAVEMENT REPAIR

#### 1.01 DESCRIPTION

This work consists of furnishing all equipment, labor and materials required for the repair or reconstruction of the following items, but not limited to asphalt, curb, concrete panels, sidewalks, driveways, handicap ramps and footlaps damaged by the contractor and not scheduled for removal in the plans or not designated by the engineer. Any damage due to the contractor's truck traffic on haul routes is included in this section. All work shall conform to Roadway Restoration and Pavement Patching Details of the Utilities Department Standard Detail Plans, Sections 02060, 03400 and 02090 of these Specifications, and Section 706 of the Louisiana Standard Specifications for Roads & Bridges, 2016 Edition and its latest revisions, unless indicated otherwise.

#### 1.02 MEASUREMENT AND PAYMENT

All labor, material, equipment and incidentals necessary to perform the work by the general contractor under this section shall be included at no direct pay and at no cost to the owner.

END OF SECTION

## SECTION 03610

### ASPHALTIC TACK COAT

#### 1.01 DESCRIPTION

This work consists of preparing and treating existing asphaltic or portland cement concrete pavement surfaces with asphalt material in conformity with the lines shown on the plans or established in the field.

All work shall be performed in accordance with Section 504 of the Louisiana Standard Specifications for Roads and Bridges, 2016 Edition, and latest revisions, except as otherwise noted in these specifications.

#### 1.02 MATERIALS

Materials shall be in accordance with the requirements of Section 504.02 of the Louisiana Standard Specifications for Roads and Bridges, 2016 Edition.

END OF SECTION

SECTION 03620

ASPHALTIC PRIME COAT

1.01 DESCRIPTION

This work consists of preparing and treating a surface with asphalt material in conformity with the plans or established by the Engineer.

All work shall be performed in accordance with the provisions of Section 505 of the Louisiana Standard Specifications for Roads and Bridges, 2016 Edition, and latest revisions, or as amended herein.

1.02 MATERIALS

Materials shall be in accordance with the requirements of Section 505.02 of the Louisiana Standard Specifications for Roads and Bridges, 2016 Edition.

END OF SECTION

SECTION 03640

ASPHALTIC CONCRETE PAVEMENT PATCHING

1.01 DESCRIPTION

This work consists of patching existing asphaltic concrete pavement in accordance with these specifications and in conformity with the lines and typical sections shown on the plans or as directed by the Engineer.

All work shall be performed in accordance with the provisions of Section 510 of the Louisiana Standard Specifications for Roads and Bridges, 2016 Edition, and latest revisions, or as amended herein.

Removal of both asphalt and related base material shall be measured separately for payment.

The contractor will be required to perform the asphalt patching work at a minimum of three lifts. The final lift shall be two inches (2") of wearing course.

END OF SECTION

## SECTION 03700

### SAW-CUTTING PAVEMENT (FULL-DEPTH)

#### 1.01 DESCRIPTION

This work consists of furnishing all materials, equipment, labor, and appurtenances to saw-cut existing concrete pavement at full-depth, approximately 7-9" inches thick, in accordance with contract drawings and the specifications herein.

Note: When removing concrete panels saw cuts on joints shall be made, if the adjacent panels or curb and gutter combinations are to remain, contractor is not allowed to overcut into adjacent concrete panels. The Contractor shall be required to replace adjacent concrete panels from joint to joint at his own expense if overcutting occurs.

In order to restrict construction activity to one side of the street, the contractor shall be required to create a longitudinal joint at the centerline of the roadway by saw cutting full depth for the length of any concrete panel to be removed which spans across the centerline of the roadway.

#### 1.02 MATERIALS

The Contractor shall provide all necessary materials and equipment necessary to complete all work associated with this item as shown on the plans.

END OF SECTION

## SECTION 05500

### MISCELLANEOUS METAL

#### PART 1 - GENERAL

##### 1.01 SCOPE OF WORK

- A. Furnish all labor, materials, equipment and incidentals required and install covers, grates, frames, manhole rungs, catch basin castings, and other miscellaneous metal as shown on the drawings and specified herein. The miscellaneous metal items include, but are not limited to, the following:
1. Anchors or anchor bolts except those specified to be furnished with all equipment.
  2. Cast iron frames, covers, grates.
  3. Steel plates, angle frames, plates, and miscellaneous angles and channels as shown on the drawings.

##### 1.03 COORDINATION

- A. The work of this section shall be completely coordinated with the work of other sections. Verify at the site both the dimensions and work of other trades adjoining items of work in this section before fabrication and installation of items herein specified.
- B. Furnish to the pertinent trades all items included under this section that are to be built into the work of other sections.

##### 1.04 SHOP DRAWINGS

Detail drawings, as provided for in the General Conditions and Section 01340, showing sizes of members, method of assembly, anchorage, and connection to other members shall be submitted to the Engineer for approval before fabrication.

##### 1.05 FIELD MEASUREMENTS

Field measurements shall be taken at the site to verify or supplement indicated dimensions and to insure proper fitting of all items.

##### 1.06 REFERENCE SPECIFICATIONS

Unless otherwise specified, materials shall conform to the following:

Carbon Structural Steel	ASTM A36
Welded and Seamless Steel Pipe	ASTM A53
Gray Iron Castings	ASTM A48, Class 30
Galvanizing, general	ASTM A123
Galvanizing, hardware	ASTM A153
Galvanizing, assemblies	ASTM A386
Aluminum (extruded shapes)	ASTM B209, 6063 T5 (Alum. alloy)
Aluminum (extruded pipe)	ASTM B209, 6063 T6 (Alum. alloy)
Aluminum Sheet and Plate	ASTM B209, 6061 T6 (Alum. alloy)
Bolts and Nuts	ASTM A307
Stainless Steel Bolts, Bars, Shapes	AISI, Type 302
Stainless Steel Plate and Sheet	AISI, Type 304
Welding Rods for Steel	AWS Spec. for Arc Welding

## PART 2 - PRODUCTS

### 2.01 ANCHORS, BOLTS, AND FASTENING DEVICES

- A. Anchors, bolts, etc., shall be furnished as necessary for installation of the work of this section.
- B. The bolts used to attach the various members to the anchors shall be the sizes shown or required.
- C. Wedge anchors shall be an imperial-sized steel threaded stud with an integral cone expander and a three-segment expansion clip. The stud shall be manufactured from carbon steel unless specified as stainless and the expansion clip shall have two undercutting embossments per segment and be manufactured from 316 stainless steel. The anchor shall have been tested and qualified for performance in cracked concrete per ACI 355.2 and ICC-ES AC193. Material shall be as noted on the drawings. If not listed, galvanized steel.

### 2.02 STEEL ITEMS

- A. Galvanized steel grating shall be fabricated as shown. Angle frames for hatches, beams, grates, etc., shall be furnished complete with welded strap anchors attached. Furnish all miscellaneous aluminum shown but not otherwise detailed.
- B. Miscellaneous steel shall be fabricated and installed in accordance with the drawings and shall include; angles, support brackets, splice plates, anchor bolts; and any other miscellaneous steel called for on the drawings and not otherwise specified.

### 2.03 CAST IRON FRAMES AND COVERS

- A. Heavy duty manhole frame and cover shall be as manufactured by East Jordan Iron

Works, Inc., Pattern V1503 standard size or approved equal. Covers to have letters "WATER" embossed on top, as required.

B. Valve Boxes

Valve boxes shall be of strong, tough even-grained cast iron. Valve boxes shall be two-part screw type adjustable with covers having the word "WATER" embossed on top as applicable. Valve boxes shall be screw type with drop a lid, unless otherwise specified.

PART 3 - EXECUTION

3.01 FABRICATION

- A. All miscellaneous metal work shall be formed true to detail, with clean, straight, sharply defined profiles and smooth surfaces of uniform color and texture and free from defects impairing strength or durability.
- B. Connections and accessories shall be of sufficient strength to safely withstand stresses and strains to which they will be subjected. Steel accessories and connections to steel or cast iron shall be steel, unless otherwise specified. Threaded connections shall be made so that the threads are concealed by fitting.
- C. Welded joints shall be rigid and continuously welded or spot welded as specified or shown. The face of welds shall be dressed flush and smooth. Exposed joints shall be close fitting and jointed where least conspicuous.
- D. Welding of parts shall be in accordance with the Standard Code for Arc and Gas Welding in Building Construction of the AWS and shall only be done where shown, specified, or permitted by the Engineer. All welding shall be done only by welders certified as to their ability to perform welding in accordance with the requirements of the AWS Code. Component parts of built-up members to be welded shall be adequately supported and clamped or held by other adequate means to hold the parts in proper relation for welding.
- E. Welding of aluminum shall conform to the applicable provisions of the AA-30 for aluminum structures. The general recommendations and regulations of AWS D1.1 as applicable shall apply to welded aluminum.
- F. Castings shall be of good quality, strong, tough, even-grained, smooth, free from scale, lumps, blisters, sand holes, and defects of any kind which render them unfit for the service for which they are intended. Castings shall be thoroughly cleaned and will be subjected to a hammer inspection in the field by the Engineer. All finished surfaces shown on the drawings and/or specified shall be machined to a true plane surface and shall be true and seat at all points without rocking. Allowances shall be made in the patterns so that the thickness specified or shown shall not be reduced in

obtaining finished surfaces. Castings will not be acceptable if the actual weight is less than 95 percent of the theoretical weight computed from the dimensions shown. The Contractor shall provide facilities for weighing castings in the presence of the Engineer showing true weights, certified by the supplier.

- G. All steel finish work shall be thoroughly cleaned, by effective means, of all loose mill scale, rust, and foreign matter before shipment and shall be given one shop coat of primer compatible with finish coats specified in Painting Section after fabrication but before shipping. Paint shall be applied to dry surfaces and shall be thoroughly and evenly spread and well worked into joints and other open spaces. Abrasions in the field shall be touched up with primer immediately after erection.
- H. Galvanizing, where required, shall be the hot-dip zinc process after fabrication. Following all manufacturing operations, all items to be galvanized shall be thoroughly cleaned, pickled, fluxed, and completely immersed in a bath of molten zinc. The resulting coating shall be adherent and shall be the normal coating to be obtained by immersing the items in a bath of molten zinc and allowing them to remain in the batch until their temperature becomes the same as the bath. Coating shall be not less than 2 oz. per sq. ft. of surface.

### 3.02 INSTALLATION

- A. All steel surfaces to come in contact with exposed concrete shall receive a protective coating of an approved heavy bitumastic troweling mastic applied in accordance with the manufacturer's instructions prior to installation.
- B. Where aluminum contacts a dis-similar metal, apply a heavy brush coat of zinc-chromate primer followed by two coats of aluminum metal and masonry paint to the dis-similar metal.
- C. Where aluminum contacts concrete, apply a heavy coat of approved alkali resistant paint to the concrete.

END OF SECTION

