



**ST. TAMMANY PARISH**

MICHAEL B. COOPER  
PARISH PRESIDENT

**NOTICE TO BIDDERS**

**ST. TAMMANY PARISH**

Sealed bids will be received by the Department of Procurement, until 2:00 p.m., **Tuesday, January 9, 2023**, and then opened and read publicly at that time by the Procurement Staff for the following project:

**Bid # 23-50-2 - Cross Gates Water System Well Improvements**

Each paper bid must be submitted in a sealed envelope. The outside of the envelope shall show the Name and Address of the Bidder, the State Contractor's License Number of the Bidder (if the work is estimated at \$50k or more), the Bid Name and the Bid Number.

**The project classification is:**

**Specialty: Water Well Drilling**

This bid package is available online at [www.bidexpress.com](http://www.bidexpress.com) or LaPAC <https://wwwcfprd.doa.louisiana.gov/osp/lapac/pubmain.cfm>. It is the Vendor's responsibility to check Bid Express, or LaPAC frequently for any possible addenda that may be issued. The Parish is not responsible for a Vendor's failure to download any addenda documents required to complete a submission.

Bids will be received at 21454 Koop Dr., Suite 2F, Mandeville, LA 70471 from each bidder or his agent and given a written receipt, by certified mail with return receipt requested, or electronically at [www.bidexpress.com](http://www.bidexpress.com).

**The Non-Mandatory pre-bid meeting will be held at St. Tammany Parish Government Office Complex, Building "B" 21454 Koop Dr. Mandeville, LA 70471, 3<sup>rd</sup> Floor Staff Conference Room on Thursday, December 14, 2023, from 2:00 PM to 3:00 PM.**

Procurement Department

# BID PROPOSAL

ST. TAMMANY PARISH  
GOVERNMENT



BID PACKAGE FOR

## CROSS GATES WATER SYSTEM WELL IMPROVEMENTS

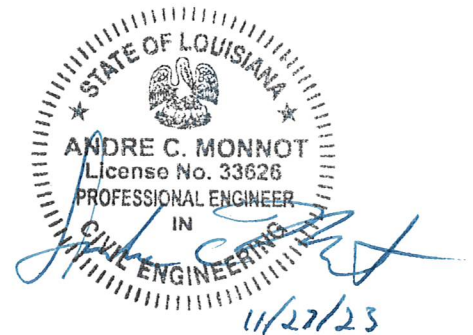
**LDH/OPH Permit No. P 23-09-103-103**

BID NO.: 23-50-2

November, 2023

Construction Estimate:  
\$ 2,670,000

Version 2023 Q1



## Section 01

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## Section 02

### Instructions to Bidders

Bidders are urged to promptly review the requirements of this specification and submit questions for resolution as early as possible during the bid period. Questions or concerns must be submitted in writing to the Procurement Department no later than 2:00 CST seven (7) working days prior to the bid opening date. Otherwise, this will be construed as acceptance by the bidders that the intent of the specifications is clear and that competitive bids may be obtained as specified herein. Protests with regard to the specification documents will not be considered after bids are opened.

1. Bid security is required. Be sure that your bid includes such security as is necessary to meet Parish requirements and is properly signed. The bid must be fully completed. All applicable Louisiana license numbers must be affixed.
2. The Owner is the St. Tammany Parish Government (the “Parish”).
3. The terms “he/his” and “it/its” may be used interchangeably.
4. The terms “Owner,” the “Parish,” and “St. Tammany Parish” may be used interchangeably.
5. The successful Bidder understands the limited contract time in the contract is **546 calendar days**, and shall submit any request for an extension of time in accordance with the General and Supplementary Conditions. Said request will reflect the days requested and the reason for same. No extension request is guaranteed or absolute.
6. Bidder specifically understands that acknowledgment of the General Conditions is required. Bidder specifically understands that signature of receipt of the General Conditions is mandated. **The Bidder’s signature on the “Louisiana Uniform Public Work Bid Form” will serve as acknowledgment of the Bidder’s receipt and understanding of the General Conditions as well as any Supplementary Conditions.**
7. ***If any additional work is performed by the contractor without written approval by owner, the cost of the work will be borne by the contractor and will not be reimbursed by the Parish.***
8. **Only** the Louisiana Uniform Public Bid Form, the Unit Price Form (if necessary), the bid security, and written evidence of authority of person signing the bid shall be submitted on or before the bid opening time and date provided for in the Bid Documents. Necessary copies of the Louisiana Uniform Public Work Forms and Unit Price Forms (if necessary) will be furnished for Bidding. Bound sets of the Contract Documents are for Bidder’s information and should not be used in submitting Bids.

9. All other documents and information required are to be submitted by the low Bidder within ten (10) days after the opening of the bids, and at the same time of day and location as given for the opening of the bids in the Bid Documents.
10. Each Bid must be submitted in a sealed envelope, unless submitted electronically. The outside of the envelope shall show the name and address of the Bidder, the State Contractor's License Number of the Bidder (if work requires contractor's license), and the Project name and the Bid number. In the case of an electronic bid proposal, a contractor may submit an authentic digital signature on the electronic bid proposal accompanied by the contractor's license number, Project name and the Bid number.
11. The price quoted for the Work shall be stated in words and figures on the Bid Form, and in figures only on the Unit Price Form. The price in the Bid shall include all costs necessary for the complete performance of the Work in full conformity with the conditions of the Contract Documents, and shall include all applicable Federal, State, Parish, Municipal or other taxes. The price bid for the items listed on the Unit Price Form will include the cost of all related items not listed, but which are normally required to do the type of Work bid.
12. The Bid shall be signed by the Bidder. The information required on the Louisiana Uniform Public Work Bid Form must be provided. Evidence of agency, corporate, or partnership authority is required and shall be provided in conformance with LSA-R.S. 38:2212(B).
13. Only a Contractor licensed by the State to do the type of Work as indicated on the Notice to Bidders can submit a Bid. The Bidder's signature on the Bid Form certifies that he holds an active license under the provisions of Chapter 24 of Louisiana Revised Statutes Title 37. Failure to be properly licensed constitutes authority for the Owner to reject the Bid.
14. Bidders shall not attach any conditions or provisions to the Bid. Any conditions or provisions so attached may, at the sole option of the Owner, cause rejection of the Bid.
15. A Bid Guarantee of five percent (5%) of the amount of the total Bid, including Alternates, must accompany the Proposal and, at the option of the Bidder, may be a cashier's check, certified check or a satisfactory Bid Bond. The Bid Guarantee must be attached to the Louisiana Uniform Public Work Bid Form. No Bid will be considered unless it is so guaranteed. Cashier's check or certified check must be made payable to the order of the Owner. Cash deposits will not be accepted. The Owner reserves the right to cash or deposit the cashier's check or certified check. Such guarantees shall be made payable to the Parish of St. Tammany. In accordance with LSA-R.S. 38:2218(C), if a bid bond is used, it 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 in good standing licensed to write bid bonds

which is either domiciled in Louisiana or owned by Louisiana residents. It is **not** required to be on any AIA form.

16. Bid securities of the three (3) lowest Bidders will be retained by the Owner until the Contract is executed or until final disposition is made of the Bids submitted. Bid securities of all other Bidders will be returned promptly after the canvas of Bids. Bids shall remain binding for forty-five (45) days after the date set for Bid Opening. The Parish shall act within the forty-five (45) days to award the contract to the lowest responsible bidder or reject all bids. However, the Parish and the lowest responsible bidder, by mutual written consent, may agree to extend the deadline for award by one or more extensions of thirty (30) calendar days. In the event the Owner issued the Letter of Award during this period, or any extension thereof, the Bid accepted shall continue to remain binding until the execution of the Contract.
17. A Proposal may be withdrawn at any time prior to the scheduled closing time for receipt of Bids, provided the request is in writing, executed by the Bidder or its duly authorized representative and is filed with the Owner prior to that time. When such a request is received, the Proposal will be returned to the Bidder unopened. A bid withdrawn under the provisions of LSA-R.S. 38:2214(C) cannot be resubmitted.
18. Written communications, over the signature of the Bidder, to modify Proposals will be accepted and the Proposal corrected in accordance therewith if received by the Owner prior to the scheduled closing time for receipt of Bids. Oral, telephonic or telegraphic Modifications will not be considered.
19. No oral interpretation obligating the Owner will be made to any Bidder as to the meaning of the Drawings, Specifications and Contract Documents. Every request for such an interpretation shall be made in writing and addressed and forwarded to the Owner. Inquiries received within seven (7) days prior to the day fixed for opening of the Bids may not be given consideration. Every interpretation made to the Bidder shall be in the form of an addendum to the Specifications. All such Addenda shall become part of the Contract Documents. Failure of the Owner to send or failure of Bidder to receive any such interpretation shall not relieve any Bidder from any obligation under this Bid as submitted without Modification. All Addenda shall be issued in accordance with the Public Bid Law, LSA-R.S. 38:2212(O).
20. The Owner reserves the right to reject any or all Bids for just cause in accordance with the Public Bid Law, LSA-R.S. 38:2214(B). Incomplete, informal, illegible, or unbalanced Bids may be rejected. Reasonable grounds for belief that any one Bidder is concerned directly or indirectly with more than one Bid will cause rejection of all Bids wherein such Bidder is concerned. If required, a Bidder shall furnish satisfactory evidence of its competence and ability to perform the Work stipulated in its Proposal. Incompetence will constitute cause for rejection. If the Parish determines that the bidder is not responsive or responsible for any reason whatsoever, the bid may be rejected in accordance with State law.



21. Contractor shall be liable without limitation to the Parish for any and all injury, death, damage, loss, destruction, damages, costs, fines, penalties, judgments, forfeitures, assessments, expenses (including attorney fees), obligations, and other liabilities of every name and description, which may occur or in any way arise out of any act or omission of Contractor, its owners, agents, employees, partners or subcontractors.
22. Upon notice of any claim, demand, suit, or cause of action against the Parish, alleged to arise out of or be related to this Contract, Contractor shall investigate, handle, respond to, provide defense for, and defend at its sole expense, even if the claim, demand, suit, or cause of action is groundless, false, or fraudulent. The Parish may, but is not required to, consult with or assist the Contractor, but this assistance shall not affect the Contractor's obligations, duties, and responsibilities under this section. Contractor shall obtain the Parish's written consent before entering into any settlement or dismissal.
23. It is understood and agreed that neither party can foresee the exigencies beyond the control of each party which arise by reason of an Act of God or force majeure; therefore, neither party shall be liable for any delay or failure in performance beyond its control resulting from an Act of God or force majeure. The Parish shall determine whether a delay or failure results from an Act of God or force majeure based on its review of all facts and circumstances. The parties shall use reasonable efforts, including but not limited to, use of continuation of operations plans (COOP), business continuity plans, and disaster recovery plans, to eliminate or minimize the effect of such events upon the performance of their respective duties under this Contract.
24. Contractor shall fully indemnify and hold harmless the Parish, without limitation, for any and all injury, death, damage, loss, destruction, damages, costs, fines, penalties, judgments, forfeitures, assessments, expenses (including attorney fees), obligations, and other liabilities of every name and description, which may occur or in any way arise out of any act or omission of Contractor, its owners, agents, employees, partners or subcontractors. The Contractor shall not indemnify for the portion of any loss or damage arising from the Parish's act or failure to act.
25. Contractor shall fully indemnify and hold harmless the Parish, without limitation, from and against damages, costs, fines, penalties, judgments, forfeitures, assessments, expenses (including attorney fees), obligations, and other liabilities in any action for infringement of any intellectual property right, including but not limited to, trademark, trade-secret, copyright, and patent rights.

When a dispute or claim arises relative to a real or anticipated infringement, the Contractor, at its sole expense, shall submit information and documentation, including formal patent attorney opinions, as required by the Parish.

If the use of the product, material, service, or any component thereof is enjoined for any reason or if the Contractor believes that it may be enjoined, Contractor, while ensuring appropriate migration and implementation, data integrity, and minimal delays of performance, shall at its sole expense and in the following order of precedence: (i) obtain

for the Parish the right to continue using such product, material, service, or component thereof; (ii) modify the product, material, service, or component thereof so that it becomes a non-infringing product, material, or service of at least equal quality and performance; (iii) replace the product, material, service, or component thereof so that it becomes a non-infringing product, material, or service of at least equal quality and performance; or, (iv) provide the Parish monetary compensation for all payments made under the Contract related to the infringing product, material, service, or component, plus for all costs incurred to procure and implement a non-infringing product, material, or service of at least equal quality and performance. Until this obligation has been satisfied, the Contractor remains in default.

The Contractor shall not be obligated to indemnify that portion of a claim or dispute based upon the Parish's unauthorized: i) modification or alteration of the product, material or service; ii) use of the product, material or service in combination with other products not furnished by Contractor; or, iii) use of the product, material or service in other than the specified operating conditions and environment.

26. Bidders shall familiarize themselves with and shall comply with all applicable Federal and State Laws, municipal ordinances and the rules and regulations of all authorities having jurisdiction over construction of the Project, which may directly or indirectly affect the Work or its prosecution. These laws and/or ordinances will be deemed to be included in the Contract, as though herein written in full.
27. Each Bidder shall visit the site of the proposed Work and fully acquaint itself with all surface and subsurface conditions as they may exist so that it may fully understand this Contract. Bidder shall also thoroughly examine and be familiar with drawings, Specifications and Contract Documents. The failure or omission of any Bidder to receive or examine any form, instrument, Drawing or document or to visit the site and acquaint itself with existing conditions shall in no way relieve any Bidder from any obligation with respect to its Bid and the responsibility in the premises.
28. The standard contract form enclosed with the Proposal documents is a prototype. It is enclosed with the Contract Documents for the guidance of the Owner and the Contractor. It has important legal consequences in all respects and consultation with an attorney is encouraged. Contractor shall be presumed to have consulted with its own independent legal counsel.
29. When one set of Contract plans show the Work to be performed by two or more prime Contractors, it is the responsibility of each Bidder to become knowledgeable of the Work to be performed by the other where the Work upon which this bid is submitted is shown to come into close proximity or in conflict with the Work of the other. In avoiding conflicts, pressure pipe lines must be installed to avoid conflict with gravity pipe lines and the Bidder of the smaller gravity pipe line in conflict with the larger gravity pipe line must include in his Bid the cost of a conflict box at these locations. The location of and a solution to the conflicts do not have to be specifically noted as such on the plans.

30. Bidder shall execute affidavit(s) attesting compliance with LSA-R.S. 38:2212.10, 38:2224, 38:2227, each as amended, and other affidavits as required by law, prior to execution of the contract.
31. Sealed Bids shall be delivered to St. Tammany Parish Government at the office of **St. Tammany Parish Government, Department of Procurement, 21454 Koop Drive, Suite 2-F, Mandeville, LA 70471**, and a receipt given, until the time and date denoted in Notice to Bidders, at which time and place the Bids shall be publicly opened and read aloud to those present. In accordance with LSA-R.S. 38:2212(H), the designer's final estimated cost of construction shall be read aloud upon opening bids. Sealed Bids may also be mailed by certified mail to **St. Tammany Parish Government, Department of Procurement, 21454 Koop Drive, Suite 2-F, Mandeville, LA 70471**, and must be received before the bid opening. Bids may also be submitted electronically. Information concerning links for electronic bidding is contained in the Notice to Bidders. It is the responsibility of the Bidders to ensure that bids are delivered in a timely fashion. **Late bids, regardless of reason, will not be considered, and will be returned to bidder.**
32. Paper bids shall be placed in a sealed envelope, marked plainly and prominently as indicated in the Notice to Bidders, and these Instructions, and addressed:

**St. Tammany Parish Government  
Department of Procurement  
21454 Koop Drive, Suite 2-F  
Mandeville, LA 70471**

33. See Notice to Bidders for availability of Drawings, Specifications and Contract Documents via electronic methods.
34. The successful Bidder shall be required to post in each direction a public information sign, 4' x 4' in size, at the location of the project containing information required by the Owner. The Owner shall supply this information.
35. The award of the Contract, if it is awarded, will be to the lowest responsible Bidder, in accordance with State Law. No award will be made until the Owner has concluded such investigations as it deems necessary to establish the responsibility and qualifications of the Bidder to do the Work in accordance with the Contract Documents to the satisfaction of the Owner within the time prescribed as established by the Department based upon the amount of work to be performed and the conditions of same. The written contract and bond shall be issued in conformance with LSA-R.S. 38:2216. If the Contract is awarded, the Owner shall give the successful Bidder written notice of the award within forty-five (45) calendar days after the opening of the Bids in conformance with LSA-R.S. 38:2215(A), or any extension as authorized thereunder.

36. At least three days prior to the execution of the Contract, the Contractor shall deliver to the Owner the required Bonds.
37. Failure of the successful Bidder to execute the Contract and deliver the required Bonds within ten (10) days of the Notice of the Award shall be just cause for the Owner to annul the award and declare the Bid and any guarantee thereof forfeited. Award may then be made to the next lowest responsible bidder.
38. In order to ensure the faithful performance of each and every condition, stipulation and requirement of the Contract and to indemnify and hold harmless the Owner from any and all damages, either directly or indirectly arising out of any failure to perform same, the successful Bidder to whom the Contract is awarded shall furnish a Performance and Payment Bond in an amount of at least equal to one hundred percent (100%) of the Contract Price. The Contract shall not be in force or binding upon the Owner until such satisfactory Bond has been provided to and approved by the Parish. The cost of the Bond shall be paid for by the Contractor unless otherwise stipulated in the Special Provisions.
39. No surety Company will be accepted as a bondsman which has no permanent agent or representative in the State upon whom notices referred to in the General Conditions of these Specifications may be served. Service of said notice on said agent or representative in the State shall be equal to service of notice on the President of the Surety Company, or such other officer as may be concerned.
40. In conformance with LSA-R.S. 38:2219(A)(1)(a), (b), and (c):

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.

For any public works project, no surety or insurance company shall write a bond which is in excess of the amount indicated as approved by the U.S. Department of the Treasury Financial Management Service list or by a Louisiana domiciled insurance company with an A- rating by A.M. Best up to a limit of ten percent of policyholders' surplus as shown by A.M. Best; companies authorized by this Paragraph who are not on the treasury list shall not write a bond when the penalty exceeds fifteen percent of its capital and surplus, such capital and surplus being the amount by which the company's assets exceed its liabilities as reflected by the most recent financial statements filed by the company with the Department of Insurance.

In addition, any surety bond written for a public works project shall be written by a surety or insurance company that is currently licensed to do business in the state

of Louisiana. All contractors must comply with any other applicable provisions of LSA-R.S. 38:2219.

41. Should the Contractor's Surety, even though approved and accepted by the Owner, subsequently remove its agency or representative from the State or become insolvent, bankrupt, or otherwise fail, the Contractor shall immediately furnish a new Bond in another company approved by the Owner, at no cost to the Owner. The new Bond shall be executed under the same terms and conditions as the original Bond. The new bond shall be submitted within thirty (30) days of such time as the Owner notifies Contractor or from the time Contractor learns or has reason to know that the original surety is no longer financially viable or acceptable to the Parish, whichever occurs first. In the event that Contractor fails or refuses to timely secure additional surety, then the Owner may secure such surety and thereafter deduct such cost or expense from any sum due, or to become due to Contractor.
42. The Contractor's bondsman shall obligate itself to all the terms and covenants of these Specifications and of contracts covering the Work executed hereunder. The Owner reserves the right to do Extra Work or make changes by altering, adding to deducting from the Work under the conditions and in the manner herein before described without notice to the Contractor's surety and without in any manner affecting the liability of bondsman or releasing it from any of its obligations hereunder.
43. The Bond shall also secure for the Owner the faithful performance of the Contract in strict accordance with plans, specifications, and other Contract Documents. It shall protect the Owner against all lien laws of the State and shall provide for payment of reasonable attorney's fees for enforcement of Contract and institution or concursus proceedings, if such proceedings become necessary. Likewise, it shall provide for all additional expenses of the Owner occurring through failure of the Contractor to perform.
44. The surety of the Contractor shall be and does hereby declare and acknowledge itself by acceptance to be bound to the Owner as a guarantor, jointly and in solido, with the Contractor, for fulfillment of terms of the Contract.
45. The performance Bond and Labor and Material Bond forming part of this Contract shall be continued by Contractor and its Surety for a period of one (1) year from date of acceptance of the Work/Project by Owner to assure prompt removal and replacement of all defective material, equipment, components thereof, workmanship, etc., and to assure payment of any damage to property of Owner or others as a result of such defective materials, equipment, workmanship, etc.
46. Contractor, upon receipt of the executed contract, bond, change order, purchase order, and Notice to Proceed shall record the contract and bond with the Clerk of Court, obtain a Certificate of Recordation from the Clerk of Court, and forward this Certificate immediately to the Department of Procurement. The Department will not issue the purchase order until receipt of the Certificate of Recordation.

47. Contractor shall secure and maintain at its expense such insurance that will protect it and the Parish from claims for injuries to persons or damages to property which may arise from or in connection with the performance of Services or Work hereunder by the Contractor, his agents, representatives, employees, and/or subcontractors. The cost of such insurance shall be included in Contractor's bid.
48. The Contractor shall not commence work until it has obtained all insurance as required for the Parish Project. If the Contractor fails to furnish the Parish with the insurance protection required and begins work without first furnishing Parish with a currently dated certificate of insurance, the Parish has the right to obtain the insurance protection required and deduct the cost of insurance from the first payment due the Contractor. Further deductions are permitted from future payments as are needed to protect the interests of the Parish including, but not limited to, renewals of all policies.
49. Payment of Premiums: The insurance companies issuing the policy or policies shall have no recourse against the Parish of St. Tammany for payment of any premiums or for assessments under any form of policy.
50. Deductibles: Any and all deductibles in the described insurance policies shall be assumed by and be at the sole risk of the Contractor.
51. Authorization of Insurance Company(ies) and Rating: All insurance companies must be authorized to do business in the State of Louisiana and shall have an A.M. Best rating of no less than A-, Category VII.
52. Policy coverages and limits must be evidenced by Certificates of Insurance issued by Contractor's carrier to the Parish and shall reflect:

Date of Issue: Certificate must have current date.

Named Insured: The legal name of Contractor under contract with the Parish and its principal place of business shall be shown as the named insured on all Certificates of Liability Insurance.

Name of Certificate Holder: St. Tammany Parish Government, Office of Risk Management, P. O. Box 628, Covington, LA 70434

Project Description: A brief project description, including Project Name, Project Number and/or Contract Number, and Location.

Endorsements and Certificate Reference: All policies must be endorsed to provide, and certificates of insurance must evidence the following:

Waiver of Subrogation: The Contractor's insurers will have no right of recovery or subrogation against the Parish of St. Tammany, it being the intention of the parties that all insurance policy(ies) so affected shall protect

both parties and be the primary coverage for any and all losses covered by the below described insurance. *Policy endorsements required for all coverages.*

Additional Insured: The Parish of St. Tammany shall be named as additional named insured with respect to general liability, marine liability, pollution/environmental liability, automobile liability and excess liability coverages. *Policy endorsements required.*

Hold Harmless: Contractor's liability insurers shall evidence their cognizance of the Hold Harmless and Indemnification in favor of St. Tammany Parish Government by referencing same on the face of the Certificate(s) of Insurance.

Cancellation Notice: Producer shall provide thirty (30) days prior written notice to the Parish of policy cancellation or substantive policy change.

53. The types of insurance coverage the Contractor is required to obtain and maintain throughout the duration of the Contract shall be designated by a separate document issued by the Office of Risk Management.
54. It is the intent of these instructions that they are in conformance with State Bid Laws. Should there be any discrepancy or ambiguity in these provisions, the applicable State Bid Law shall apply.
55. The letting of any public contract in connection with funds that are granted or advanced by the United States of America shall be subject to the effect, if any, of related laws of said United States and valid rules and regulations of federal agencies in charge, or governing use and payment of such federal funds.
56. Protests based on alleged solicitation improprieties that are apparent before bid opening, or the time set for receipt of initial proposals must be filed with and received by the Procurement Department BEFORE these times. Any other protest shall be filed no later than ten (10) calendar days after: the opening of the bid; the basis of the protest is known; or the basis of the protest should have been known (whichever is earlier).
57. It is the Parish's policy to provide a method to protest exclusion from a competition or from the award of a contract, or to challenge an alleged solicitation irregularity. It is always better to seek a resolution within the Parish system before resorting to outside agencies and/or litigation to resolve differences. All protests must be made in writing, and shall be concise and logically presented to facilitate review by the Parish. The written protest shall include:

The protester's name, address, and fax and telephone numbers and the solicitation, bid, or contract number;

A detailed statement of its legal and factual grounds, including a description of the resulting prejudice to the protester;

Copies of relevant documents;

All information establishing that the protester is an interested party and that the protest is timely; and

A request for a ruling by the agency; and a statement of the form of relief requested.

The protest shall be addressed to St. Tammany Parish Government Department of Procurement, P.O. Box 628, Covington, LA 70434

The protest review shall be conducted by the Parish Legal Department.

Only protests from interested parties will be allowed. Protests based on alleged solicitation improprieties that are apparent before bid opening, or the time set for receipt of initial proposals, must be filed with and received by the Department of Procurement BEFORE those deadlines.

Any other protest shall be filed no later than ten (10) calendar days after the basis of the protest is known, or should have been known (whichever is earlier).

The Parish will use its best efforts to resolve the protest within thirty (30) days of the date that it is received by the Parish. The written response will be sent to the protestor via mail and fax, if a fax number has been provided by the protestor. The protester can request additional methods of notification.

58. The last day to submit questions and/or verification on comparable products will be no later than 2:00 pm CST, seven (7) working days prior to the opening date of the bid/proposal due date. Further, any questions or inquires must be submitted via fax to 985-898-5227, or via email to [Procurement@stpgov.org](mailto:Procurement@stpgov.org). Any questions or inquiries received after the required deadline to submit questions or inquiries will not be answered.
59. St. Tammany Parish Government contracts to be awarded are dependent on the available funding and/or approval by members designated and/or acknowledged by St. Tammany Parish Government. At any time, St. Tammany Parish Government reserves the right to cancel the award of a contract if either or both of these factors is deficient.
60. Any action by the Parish to disqualify any Bidder on the grounds that they are not a responsible Bidder shall be conducted in accordance with LSA-R.S. 38:2212(X).
61. Failure to complete or deliver within the time specified or to provide the services as specified in the bid or response will constitute a default and may cause cancellation of the contract. Where the Parish has determined the contractor to be in default. The Parish reserves the right to purchase any or all products or services covered by the contract on the



open market and to charge the contractor with the cost in excess of the contract price. Until such assessed charges have been paid, no subsequent bid or response from the defaulting contractor will be considered.

62. If any part of the provisions contained herein and/or in the Specifications and Contract for the Work shall for any reason be held invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions of this Agreement or attachment, but it shall be construed as if such invalid, illegal, or unenforceable provision or part of a provision had never been contained herein.

## Section 03

### **Summary of Work**

**I. Work to Include:**

New water well, electrical service, and various related items at the Ozone Pines site. Well improvements, utility lines, and related items at the Willow Wood site.

**II. Location of Work:**

Ozone Pines – 61134 N. Military Road, Slidell, LA 70461-1802  
Willow Wood – 200 Cross Gates Blvd., Slidell, LA 70461-4119

**III. Documents: Bid Documents dated November, 2023, and entitled:**

CROSS GATES WATER SYSTEM  
WELL IMPROVEMENTS  
BID NO.23-50-2

**IV. OTHER REQUIREMENTS (as applicable)**

**When not otherwise specified herein, all work and materials shall conform to the requirements of the Louisiana Department of Transportation and Development hereafter called LDOTD (2006 Edition of Louisiana Standard Specifications for Roads and Bridges).**

**If the parties anticipate that federal funding may be applied to the project stated under this section, the Provider/Contractor must comply and assure compliance with Section 12 Federal Clauses where applicable.**

Section 04

LOUISIANA UNIFORM PUBLIC WORK BID FORM

TO: St. Tammany Parish Government
21454 Koop Dr., Suite 2F
Mandeville, La 70471

(Owner to provide name and address of owner)

BID FOR: Cross Gates Water System
Well Improvements
Bid No.23-50-2

(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: Principal Engineering, Inc. and dated: November, 2023.

(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 (Owner to provide description of alternate and state whether add or deduct) for the lump sum of:

N/A \_\_\_\_\_ 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 FOLLOWING ITEMS ARE TO BE INCLUDED WITH THE SUBMISSION OF THIS LOUISIANA UNIFORM PUBLIC WORK BID FORM:**

\* 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.

\*\* **A CORPORATE RESOLUTION OR WRITTEN EVIDENCE** of the authority of the person signing the bid for the public work as prescribed by 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 R.S. 38:2218(A) attached to and made a part of this bid.

\*\*\* **W-9** – If a vendor has not done business with the Parish, the vendor should submit an updated W-9 with their response.

**LOUISIANA UNIFORM PUBLIC WORK BID FORM**  
**UNIT PRICE FORM**

**TO:**

St. Tammany Parish Government

21454 Koop Drive, Suite 2F

Mandeville, LA., 70471

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

**BID FOR:**

Cross Gates Water System

Well Improvements

Bid. No. 23-50 -2

*(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: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ WILLOW WOOD MOBILIZATION (TU22000204)				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION ( <i>Quantity times Unit Price</i> )
1	1	LS		
DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ WILLOW WOOD WELL REHABILITATION (TU22000204)				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION ( <i>Quantity times Unit Price</i> )
2	1	LS		
DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ OZONE PINES MOBILIZATION (TU22000209)				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION ( <i>Quantity times Unit Price</i> )
3	1	LS		
DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ OZONE PINES TEST HOLE (TU22000209)				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION ( <i>Quantity times Unit Price</i> )
4	1	LS		
DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ OZONE PINES TEST WELL (TU22000209)				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION ( <i>Quantity times Unit Price</i> )
5	1	LS		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ OZONE PINES FINISHED WELL CASING, 18" x 0.375" THICK (TU22000209)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION ( <i>Quantity times Unit Price</i> )
6	1	LS		
DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ OZONE PINES WELL SCREEN, 10" DIAMETER (TU22000209)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION ( <i>Quantity times Unit Price</i> )
7	1	LS		
DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ OZONE PINES WELL HEAD & MOTOR (TU22000209)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION ( <i>Quantity times Unit Price</i> )
8	1	LS		

**All quantities are estimated. The contractor will be paid based upon actual quantities as verified by the Owner.**

**Section 05**

**AFFIDAVIT PURSUANT TO LSA-R.S. 38:2224 and 38:2227  
FOR BIDDERS FOR PUBLIC WORKS CONTRACTS**

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

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

**BEFORE ME**, the undersigned authority, in and for the above stated State and Parish (or County), personally came and appeared:

\_\_\_\_\_

Print Name

who, after first being duly sworn, did depose and state:

1. That affiant is appearing on behalf of \_\_\_\_\_, who is seeking a public contract with St. Tammany Parish Government.
  
2. That affiant employed no person, corporation, firm, association, or other organization, either directly or indirectly, to secure the public contract under which he received payment, other than persons regularly employed by the affiant whose services in connection with the construction, alteration or demolition of the public building or project or in securing the public contract were in the regular course of their duties for affiant; and
  
3. That no part of the contract price received by affiant 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 in connection with the construction, alteration or demolition of

the public building or project were in the regular course of their duties for affiant.

4. If affiant is a sole proprietor, that after July 2, 2010, he/she has not been convicted of, or has not entered a plea of guilty or *nolo contendere* to any of the crimes or equivalent federal crimes listed in LSA-R.S. 38:2227(B).
5. If affiant is executing this affidavit on behalf of a juridical entity such as a partnership, corporation, or LLC, etc., that no individual partner, incorporator, director, manager, officer, organizer, or member, who has a minimum of a ten percent ownership in the bidding entity, has been convicted of, or has entered a plea of guilty or *nolo contendere* to any of the crimes or equivalent federal crimes listed in LSA-R.S. 38:2227(B).
6. If affiant is a sole proprietor, that neither affiant, nor his/her immediate family is a public servant of St. Tammany Parish Government or the Contract is not under the supervision or jurisdiction of the public servant's agency.
7. If affiant is executing this affidavit on behalf of a juridical entity such as a partnership, corporation, or LLC, etc., that no public servant of St. Tammany Parish Government, or his/her immediate family, either individually or collectively, has more than a 25% ownership interest in the entity seeking the Contract with St. Tammany Parish Government if the Contract will be under the supervision or jurisdiction of the public servant's agency.



\_\_\_\_\_  
**Printed Name:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Entity name:** \_\_\_\_\_

**THUS SWORN TO AND SUBSCRIBED BEFORE ME,  
THIS \_\_\_\_\_, DAY OF \_\_\_\_\_, 202\_\_.**

\_\_\_\_\_  
**Notary Public**

**Print Name:** \_\_\_\_\_

**Notary I.D./Bar No.:** \_\_\_\_\_

**My commission expires:** \_\_\_\_\_

**AFFIDAVIT PURSUANT TO LSA-R.S. 38:2212.10 CONFIRMING  
REGISTRATION AND PARTICIPATION IN A STATUS VERIFICATION  
SYSTEM**

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

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

**BEFORE ME**, the undersigned authority, in and for the above stated State and Parish (or County), personally came and appeared:

\_\_\_\_\_

Print Name

who, after first being duly sworn, did depose and state:

1. That affiant is appearing on behalf of \_\_\_\_\_, a private employer seeking a bid or a contract with St. Tammany Parish Government for the physical performance of services within the State of Louisiana.
  
2. That affiant 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; and
  
3. That affiant 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.
  
4. That affiant shall require all subcontractors to submit to the affiant a sworn affidavit verifying compliance with this law.

\_\_\_\_\_  
**Printed Name:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Name of Entity:** \_\_\_\_\_

**THUS SWORN TO AND SUBSCRIBED BEFORE ME,  
THIS \_\_\_\_\_, DAY OF \_\_\_\_\_, 202\_\_.**

\_\_\_\_\_  
**Notary Public**

**Print Name:** \_\_\_\_\_

**Notary I.D./Bar No.:** \_\_\_\_\_

**My commission expires:** \_\_\_\_\_



## Section 06

### INSURANCE REQUIREMENTS\*

Construction Project: Cross Gates Water System Well Improvements

Project/Quote/Bid#: 23-50-2

#### **\*\*\*IMPORTANT – PLEASE READ\*\*\***

**Prior to submitting your quote or bid, it is recommended that you review these insurance requirements with your insurance broker/agent.**

*These requirements modify portions of the insurance language found in the General Conditions and/or Supplementary General Conditions; however, there is no intention to remove all sections pertaining to insurance requirements and limits set forth in the General Conditions and/or Supplementary General Conditions, only to amend and specify those items particular for this Project.*

- A. The Provider shall secure and maintain at its expense such insurance that will protect it and St. Tammany Parish Government (the "Parish") from claims for bodily injury, death or property damage as well as from claims under the Workers' Compensation Acts that may arise from the performance of services under this agreement. All certificates of insurance shall be furnished to the Parish and provide thirty (30) days prior notice of cancellation to the Parish, in writing, on all of the required coverage.
- B. All policies shall provide for and certificates of insurance shall indicate the following:
1. Waiver of Subrogation: The Provider's insurers will have no right of recovery or subrogation against the Parish of St. Tammany, it being the intention of the parties that all insurance policy(ies) so affected shall protect both parties and be the primary coverage for any and all losses covered by the below described insurance.
  2. Additional Insured: St. Tammany Parish Government shall be named as Additional Insured with respect to general liability, automobile liability and excess liability coverages, as well as marine liability and pollution/environmental liability, when those coverages are required or necessary.
  3. Payment of Premiums: The insurance companies issuing the policy or policies will have no recourse against St. Tammany Parish Government for payment of any premiums or for assessments under any form of policy.
  4. Project Reference: The project(s) and location(s) shall be referenced in the Comment or Description of Operations section of the Certificate of Insurance (Project ##-###, or Bid # if applicable, Type of Work, Location).
- C. Coverage must be issued by insurance companies authorized to do business in the State of Louisiana. Companies must have an A.M. Best rating of no less than A-, Category VII. St. Tammany Parish Risk Management Department may waive this requirement only for Workers Compensation coverage at their discretion.

Provider shall secure and present proof of insurance on forms acceptable to St. Tammany Parish Government, Office of Risk Management no later than the time of submission of the Contract to the Parish. However, should any work performed under this Contract by or on behalf of Provider include exposures that are not covered by those insurance coverages, Provider is not relieved of its obligation to maintain appropriate levels and types of insurance necessary to protect itself, its agents and employees, its subcontractors, St. Tammany Parish Government (Owner), and all other interested third parties, from any and all claims for damage or injury in connection with the services performed or provided throughout the duration of this Project, as well as for any subsequent periods required under this Contract.

The insurance coverages checked (✓) below are those required for this Contract.

- 1. **Commercial General Liability\*** insurance – **Occurrence Form** - with a Combined Single Limit for bodily injury and property damage of at least \$2,000,000 per Occurrence / \$4,000,000 General Aggregate and \$4,000,000 Products-Completed Operations. Contracts over \$1,000,000 may require higher limits. The insurance shall provide for and the certificate(s) of insurance shall indicate the following coverages:
  - a) Premises - operations;
  - b) Broad form contractual liability;
  - c) Products and completed operations;
  - d) Personal/Advertising Injury;
  - e) Broad form property damage (for Projects involving work on Parish property);
  - f) Explosion, Collapse and Damage to underground property.
  - g) Additional Insured forms CG 2010 and CG 2037 in most current edition are required.
  
- 2. **Business Automobile Liability\*** insurance with a Combined Single Limit of \$1,000,000 per Occurrence for bodily injury and property damage, and shall include coverage for the following:
  - a) Any auto;
  - or**
  - b) Owned autos; **and**
  - c) Hired autos; **and**
  - d) Non-owned autos.
  
- 3. **Workers' Compensation/Employers Liability insurance\*** - Workers' Compensation coverage as required by State law. Employers' liability limits shall be a minimum of \$1,000,000 each accident, \$1,000,000 each disease, \$1,000,000 disease policy aggregate. When water activities are expected to be performed in connection with this project, coverage under the USL&H Act, Jones Act and/or Maritime Employers Liability (MEL) must be included. **Coverage for owners, officers and/or partners in any way engaged in the Project shall be included in the policy.** The names of any excluded individual must be shown in the Description of Operations/Comments section of the Certificate.
  
- 4. **Pollution Liability and Environmental Liability\*** insurance in the minimum amount of \$1,000,000 per occurrence / \$2,000,000 aggregate including full contractual liability and third party claims for bodily injury and/or property damage, for all such hazardous waste, pollutants and/or environmental exposures that may be affected by this project stemming from pollution/environmental incidents as a result of Contractor's operations.

If coverage is provided on a claims-made basis, the following conditions apply:

- 1) the retroactive date must be prior to or coinciding with the effective date of the Contract, or prior to the commencement of any services provided by the Contractor on behalf of the Parish, whichever is earlier; AND
- 2) continuous coverage must be provided to the Parish with the same retro date for 24 months following acceptance or termination of the Project by the Parish either by
  - a) continued renewal certificates **OR**
  - b) a 24 month Extended Reporting Period

\*The Certificate must indicate whether the policy is written on an occurrence or claims-made basis and, if claims-made, the applicable retro date must be stated.

5. **Contractor's Professional Liability/Errors and Omissions\*** insurance in the sum of at least \$1,000,000 per claim / \$2,000,000 aggregate is required when work performed by Contractor or on behalf of Contractor includes professional or technical services including, but not limited to, construction administration and/or management, engineering services such as design, surveying, and/or inspection, technical services such as testing and laboratory analysis, and/or environmental assessments. An occurrence basis policy is preferred.

If coverage is provided on a claims-made basis, the following conditions apply:

- 1) the retroactive date must be prior to or coinciding with the effective date of the Contract, or prior to the commencement of any services provided by the Contractor on behalf of the Parish, whichever is earlier; AND
- 2) continuous coverage must be provided to the Parish with the same retro date for 24 months following acceptance or termination of the Project by the Parish either by
  - a) continued renewal certificates **OR**
  - b) a 24 month Extended Reporting Period

\*The Certificate must indicate whether the policy is written on an occurrence or claims-made basis and, if claims-made, the applicable retro date must be stated.

6. **Marine Liability/Protection and Indemnity\*** insurance is required for any and all vessel and/or marine operations in the minimum limits of \$1,000,000 per occurrence / \$2,000,000 per project general aggregate. The coverage shall include, but is not limited to, the basic coverages found in the Commercial General Liability insurance and coverage for third party liability

**\*Excess/Umbrella Liability** insurance may be provided to meet the limit requirements for any Liability coverage. For example: if the General Liability requirement is \$3,000,000 per occurrence, but the policy is only \$1,000,000 per occurrence, then the excess policy should be at least \$2,000,000 per occurrence thereby providing a combined per occurrence limit of \$3,000,000.)

7. **Owners Protective Liability (OPL)** shall be furnished by the Contractor and shall provide coverage in the minimum amount of \$3,000,000 CSL each occurrence / \$3,000,000 aggregate. **St. Tammany Parish Government, ATTN: Risk Management Department, P. O. Box 628, Covington, LA 70434 shall be the first named insured on the policy.**

8. **Builder's Risk Insurance** written on an "all-risk" policy form shall be furnished by Contractor for 100% of the contract cost. Any contract modifications increasing the contract cost will require an increase in the limit of the Builder's Risk policy. Deductibles should not exceed \$5,000 and Contractor shall be responsible for all policy deductibles. This insurance shall cover materials at the site, stored off the site, and in transit. The Builder's Risk Insurance shall include the interests of the Owner, Contractor and Subcontractors and shall terminate only when the Project is accepted in writing. **St. Tammany Parish Government, ATTN: Risk Management Department, P. O. Box 628, Covington, LA 70434 shall be the first named insured on the policy.**

9. **Installation Floater Insurance**, on an "all-risk" form, shall be furnished by Contractor and carried for the full value of the materials, machinery, equipment and labor for each location. The Contractor shall be responsible for all policy deductibles. The Installation Floater Insurance shall provide coverage for property owned by others and include the interests of the Owner, Contractor and Subcontractors and shall terminate only when the Project is accepted in writing. **St. Tammany Parish Government, ATTN: Risk Management Department, P. O. Box 628, Covington, LA 70434 shall be the first named insured on the policy.**

- D. All policies of insurance shall meet the requirements of the Parish prior to the commencing of any work. The Parish has the right, but not the duty, to approve all insurance coverages prior to commencement of work. If any of the required policies are or become unsatisfactory to the Parish as to form or substance; or if a company issuing any policy is or becomes unsatisfactory to the Parish, the Provider shall promptly obtain a new policy, timely submit same to the Parish for approval, and submit a certificate thereof as provided above. The Parish agrees not to unreasonably withhold approval of any insurance carrier selected by Provider. In the event that Parish cannot agree or otherwise authorize a carrier, Provider shall have the option of selecting and submitting a new insurance carrier within 30 days of said notice by the Parish. In the event that the second submission is insufficient or is not approved, then the Parish shall have the unilateral opportunity to thereafter select a responsive and responsible insurance carrier all at the cost of Provider and thereafter deduct from Provider's fee the cost of such insurance.
- E. Upon failure of Provider to furnish, deliver and/or maintain such insurance as above provided, this contract, at the election of the Parish, may be declared suspended, discontinued or terminated. Failure of the Provider to maintain insurance shall not relieve the Provider from any liability under the contract, nor shall the insurance requirements be construed to conflict with the obligation of the Provider concerning indemnification.
- F. Provider shall maintain a current copy of all annual insurance policies and agrees to provide a certificate of insurance to the Parish on an annual basis or as may be reasonably requested for the term of the contract or any required Extended Reporting Period. Provider further shall ensure that all insurance policies are maintained in full force and effect throughout the duration of the Project and shall provide the Parish with annual renewal certificates of insurance evidencing continued coverage, without any prompting by the Parish.
- G. It shall be the responsibility of Provider to require that these insurance requirements are met by all contractors and sub-contractors performing work for and on behalf of Provider. Provider shall further ensure the Parish is named as an additional insured on all insurance policies provided by said contractor and/or sub-contractor throughout the duration of the project.
- H. Certificates of Insurance shall be issued as follows:

**St. Tammany Parish Government  
Attn: Risk Management  
P O Box 628  
Covington, LA 70434**

To avoid contract processing delays, be certain the project name/number is included on all correspondence including Certificates of Insurance.

**\*NOTICE: St. Tammany Parish Government reserves the rights to remove, replace, make additions to and/or modify any and all of the insurance requirements at any time.**

**Any inquiry regarding these insurance requirements should be addressed to:**

**St. Tammany Parish Government  
Office of Risk Management  
P O Box 628  
Covington, LA 70434  
Telephone: 985-898-5226  
Email: riskman@stpgov.org**

## Section 07

### Project Signs

#### 1. General

- a. Work to include providing and installing two (2) project sign(s) at the beginning of the project. Should more than one sign be required, it will be reflected in the bidding documents.

#### 2. Materials

- a. The printed project sign(s) shall be 3/8" primed Medium Density Overlay (MDO) **OR** 3-millimeter corrugated plastic secured to exterior plywood (4' x 4').
- b. Contractor shall not use previously provided templates and/or fonts.

#### 3. Execution

- a. The sign(s) shall be printed on a project-by-project basis in black and white, using the template and font provided to the Contractor by the St. Tammany Parish Government Project Manager.
- b. All signage proofed and approved by State Tammany Parish Government before project sign(s) are to be produced by the Contractor.
- c. Exact placement of the project sign(s) must be coordinated with, and approved by, the St. Tammany Parish Government Project Manager prior to sign installation.
- d. The sign(s) is to be installed such that the bottom of the sign is a minimum of 5' above the existing ground elevation.
- e. Sign(s) is to be maintained throughout the period of construction. If sign(s) is damaged or destroyed, repair and/or replacement of sign(s) will be at Contractor's expense.
- f. Contractor is responsible for the removal of all project signs upon issuance of final acceptance by the St. Tammany Parish Government Project Manager at no direct pay.
- g. Cost to be included in "Mobilization" bid items, No. 1 (Willow Wood), and No. 5 (Ozone Pines).



Blank Template of Parish Project Sign:

# PROGRESS



**MICHAEL B. COOPER**  
Parish President

\_\_\_\_\_  
Councilmember Name  
Council District X

Total Dollar \$  
amount specified

**\$XXX,XXX.XX**

**Project Name**

Description of  
Project Work

Name of Street, Bridge,  
Subdivision, etc. stated

Short Description of Project stated  
here

**Example of a Completed Parish Project Sign:**

# PROGRESS



**MICHAEL B. COOPER**  
Parish President

**RYKERT O. TOLEDANO, JR**  
Council District 5

**\$514,444.40**

**Dove Park**  
**Subdivision Drainage**  
Drainage Improvements along  
Swallow St., Sparrow St.,  
Partridge St. and Egret St.

**Section 08**

**General Conditions for St. Tammany Parish Government**

**This index is for illustrative purposes only and is not intended to be complete nor exhaustive.**

**All bidders/contractors are presumed to have read and understood the entire document. Some information contained in these conditions may not be applicable to all projects.**

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## 01.00 DEFINITIONS OF TERMS

Whenever used in these General Conditions or in other Contract Documents, the following terms shall have the meanings indicated, and these shall be applicable to both the singular and plural thereof.

- 01.01 A.A.S.H.T.O American Association of State Highway and Transportation Officials. When A.A.S.H.T.O. is referred to in these Specifications it takes the meaning of the specification for materials and methods of testing specified by this association and the specification stated is considered to be a part of the Specifications as if written herein in full.
- 01.02 A.C.I American Concrete Institute. When A.C.I. is referred to in these Specifications it takes the meaning of the specification for materials and methods of testing specified by this institute and the specification stated is considered to be a part of the Specifications as if written herein in full.
- 01.03 Addenda Written or graphic instruments issued prior to the opening of bids which clarify, correct, modify or change the bidding or Contract Documents.
- 01.04 Advertisement The written instrument issued by the Owner at the request of the Owner used to notify the prospective bidder of the nature of the Work. It becomes part of the Contract Documents.
- 01.05 Agreement The written agreement or contract between the Owner and the Contractor covering the Work to be performed and the price that the Owner will pay. Other documents, including the Proposal, Addenda, Specifications, plans, surety, insurance, etc., are made a part thereof.
- 01.06 Application for Payment The form furnished by the Owner which is to be used by the Contractor in requesting incremental (progress) payments and which is to include information required by Section 28.01 and an affidavit of the Contractor. The affidavit shall stipulate that progress payments theretofore received from the Owner on account of the Work have been applied by Contractor to discharge in full of all Contractor's obligations reflected in prior applications for payment.
- 01.07 A.S.T.M. American Society of Testing Materials. When A.S.T.M. is referred to in these Specifications it takes the meaning of the specification for materials and methods of testing specified by this society and the specification stated is considered to be a part of the Specifications as if written herein in full.
- 01.08 Bid The offer or Proposal of the Bidder submitted on the prescribed form setting forth all the prices for the Work to be performed.
- 01.09 Bidder Any person, partnership, firm or corporation submitting a Bid for the Work.

- 01.10 Bonds Bid, performance and payment bonds and other instruments of security, furnished by the Contractor and its surety in accordance with the Contract Documents and Louisiana law.
- 01.11 Change Order A written order to the Contractor signed by the Owner authorizing an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Time after execution of the Agreement.
- 01.12 Contract Documents The Agreement, Addenda, Contractor's Bid and any documentation accompanying or post-bid documentation when attached as an exhibit, the Bonds, these General Conditions, the Advertisement for Bid, Notice to Contractor, all supplementary conditions, the Specifications, the Drawings, together with all Modifications issued after the execution of the Agreement.
- 01.13 Contract Price The total monies payable to the Contractor under the Contract Documents.
- 01.14 Contract Time The number of consecutive calendar days stated in the Agreement for the completion of the Work.
- 01.15 Contractor The person, firm, corporation or provider with whom the Owner has executed the Agreement.
- 01.16 Defective Work When work which is unsatisfactory, faulty or deficient for any reason whatsoever, or does not conform to the Contract Documents, or does not meet the requirements of any inspection, test or approval referred to in the Contract Documents, or has been damaged prior to the Owner's recommendation or acceptance.
- 01.17 Drawings The Drawings and plans which show the character and scope of the Work to be performed and which have been prepared or approved by the Owner and are referred to in the Contract Documents.
- 01.18 Field Order A written order issued by the Owner or his agent which clarifies or interprets the Contract Documents.
- 01.19 Modification (a) A written amendment of the Contract Documents signed by both parties, (b) A Change Order, (c) A written clarification or interpretation issued by the Owner or his agent. Modification may only be issued after execution of the Agreement.
- 01.20 Notice of Award The written notice by Owner to the lowest responsible Bidder stating that upon compliance of the conditions enumerated in the Notice of Award, or enumerated in the Bid documents, the Owner will deliver the Contract Documents for signature. The time for the delivery of the Contract Documents can be extended in conformance with Louisiana Law.

- 01.21 Notice to Contractor Instructions, written or oral given by Owner to Contractor and deemed served if given to the Contractor's superintendent, foreman or mailed to Contractor at his last known place of business.
- 01.22 Notice to Proceed A written notice given by the Owner fixing the date on which the Contract Time will commence, and on which date the Contractor shall start to perform his obligation under the Contract Documents. Upon mutual consent by both parties, the Notice to Proceed may be extended.
- 01.23 Owner St. Tammany Parish Government, acting herein through its duly constituted and authorized representative, including but not limited to the Office of the Parish President or its designee, its Chief Administrative Officer, and/or Legal Counsel. St. Tammany Parish Government (hereinafter, the "Parish") and Owner may be used interchangeably.
- 01.24 Project The entire construction to be performed as provided in the Contract Documents.
- 01.25 Project Representative The authorized representative of the Owner who is assigned to the Project or any parts thereof.
- 01.26 Proposal The Bid submitted by the Bidder to the Owner on the Proposal form setting forth the Work to be done and the price for which the Bidder agrees to perform the Work.
- 01.27 Shop Drawings All drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by the Contractor, Subcontractor, Manufacturer, Supplier or Distributor and which illustrate the equipment, material or some portion of the Work.
- 01.28 Specifications The Instructions to Bidders, these General Conditions, the Special Conditions and the Technical Provisions. All of the documents listed in the "Table of Contents."
- 01.29 Subcontractor An individual, firm or corporation having a direct Contract with the Contractor or with any other Subcontractor for the performance of a part of the Project Work.
- 01.30 Substantial Completion The date as certified by the Owner or its agent when the construction of the Project or a specified part thereof is sufficiently complete in accordance with the Contract Documents so that the Project or specified part can be utilized for the purposes for which it was intended; or if there is no such certification, the date when final payment is due in accordance with Section 28.
- 01.31 Superintendent Contractor's site representative. The person on the site who is in full and complete charge of the Work.
- 01.32 Time Unless specifically stated otherwise, all time delays shall be calculated in calendar days.

01.33 Work Any and all obligations, duties and responsibilities necessary to the successful completion of the Project assigned to or undertaken by the Contractor under the Contract Documents, usually including the furnishing of all labor, materials, equipment and other incidentals.

01.34 The terms “he/himself” may be used interchangeably with “it/itself.”

## 02.00 PROPOSAL

02.01 All papers bound with or attached to the Proposal Form are a necessary part thereof and must not be detached.

02.02 For submitting Bids, the only forms allowed shall be the “Louisiana Uniform Public Work Bid Form”, “Louisiana Uniform Public Works Bid Form Unit Price Form” (if necessary), the Bid Bond, and written evidence of authority of person signing the bid. Necessary copies of the Louisiana Uniform Public Work Forms will be furnished for Bidding. Bound sets of the Contract Documents are for Bidder's information and should not be used in submitting Bids.

02.03 Proposal forms must be printed in ink or typed, unless submitted electronically. Illegibility or ambiguity therein may constitute justification for rejection of the Bid.

02.04 Each Bid must be submitted in a sealed envelope, unless submitted electronically. The outside of the envelope shall show the name and address of the Bidder, the State Contractor’s License Number of the Bidder (if work requires contractor’s license), and the Project name and number for which the Bid is submitted, along with the Bid number.

02.05 The price quoted for the Work shall be stated in words and figures on the Bid Form, and in numbers only on the Unit Price Form. The price in the Proposal shall include all costs necessary for the complete performance of the Work in full conformity with the conditions of the Contract Documents, and shall include all applicable Federal, State, Parish, Municipal or other taxes. The price bid for the items listed on the Unit Price Form will include the cost of all related items not listed, but which are normally required to do the type of Work bid.

02.06 The Bid shall be signed by the Bidder. The information required on the Louisiana Uniform Public Work Bid Form must be provided. Evidence of agency, corporate, or partnership authority is required and shall be provided in conformance with LSA-R.S. 38:2212(B).

02.07 Only the Contractors licensed by the State to do the type of Work involved can submit a Proposal for the Work. The envelope containing the Proposal shall have the Contractor's license number on it. Failure to be properly licensed constitutes authority by the Owner for rejection of Bid.

- 02.08 Bidders shall not attach any conditions or provisions to the Proposal. Any conditions or provisions so attached may, at the sole option of the Owner, cause rejection of the Bid or Proposal.
- 02.09 A Bid Guarantee of five percent (5%) of the amount of the total Bid, including Alternates, must accompany the Proposal and, at the option of the Bidder, may be a cashier's check, certified check or a satisfactory Bid Bond. The Bid Guarantee must be attached to the Louisiana Uniform Public Work Bid Form. No Bid will be considered unless it is so guaranteed. Cashier's check or certified check must be made payable to the order of the Owner. Cash deposits will not be accepted. The Owner reserves the right to cash or deposit the cashier's check or certified check. Such guarantees shall be made payable to the Parish of St. Tammany. In accordance with LSA-R.S. 38:2218(C), if a bid bond is used, it 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 in good standing licensed to write bid bonds which is either domiciled in Louisiana or owned by Louisiana residents. It is **not** required to be on any AIA form.
- 02.10 Bid securities of the three (3) lowest Bidders will be retained by the Owner until the Contract is executed or until final disposition is made of the Bids submitted. Bid securities of all other Bidders will be returned promptly after the canvas of Bids. Bids shall remain binding for forty-five (45) days after the date set for Bid Opening. The Parish shall act within the forty-five (45) days to award the contract to the lowest responsible bidder or reject all bids as permitted by Public Bid Law. However, the Parish and the lowest responsible bidder, by mutual written consent, may agree to extend the deadline for award by one or more extensions of thirty (30) calendar days. In the event the Owner issued the Letter of Award during this period, or any extension thereof, the Bid accepted shall continue to remain binding until the Execution of the Contract.
- 02.11 A Proposal may be withdrawn at any time prior to the scheduled closing time for receipt of Bids, provided the request is in writing, executed by the Bidder or its duly authorized representative and is filed with the Owner prior to that time. When such a request is received, the Proposal will be returned to the Bidder unopened.
- 02.12 Written communications, over the signature of the Bidder, to modify Proposals will be accepted and the Proposal corrected in accordance therewith if received by the Owner prior to the scheduled closing time for receipt of Bids. Oral, telephonic or telegraphic Modifications will not be considered.
- 02.13 No oral interpretation obligating the Owner will be made to any Bidder as to the meaning of the Drawings, Specifications and Contract Documents. Every request for such an interpretation shall be made in writing and addressed and forwarded to the Owner. No inquiry received within seven (7) days prior to the day fixed for opening of the Bids shall

be given consideration. Every interpretation made to the Bidder shall be in the form of an addendum to the Specifications. All such Addenda shall become part of the Contract Documents. Failure of Bidder to receive any such interpretation shall not relieve any Bidder from any obligation under this Bid. All Addenda shall be issued in accordance with the Public Bid Law, LSA-R.S. 38:2212(O)(2)(a) and (b).

- 02.14 The Owner reserves the right to reject any or all Bids for just cause in accordance with the Public Bid Law, LSA-R.S. 38:2214(B). Incomplete, informal or unbalanced Bids may be rejected. Reasonable grounds for belief that any one Bidder is concerned directly or indirectly with more than one Bid will cause rejection of all Bids wherein such Bidder is concerned. If required, a Bidder shall furnish satisfactory evidence of its competence and ability to perform the Work stipulated in its Proposal. Incompetence will constitute cause for rejection. If the Parish determines that the bidder is not responsive or responsible for any reason whatsoever, the bid may be rejected in accordance with State law.
- 02.15 The Contractor shall indemnify and hold harmless the Owner from any and all suits, costs, penalties or claims for infringement by reason of use or installation of any patented design, device, material or process, or any trademark and copyright in connection with the Work agreed to be performed under this Contract, and shall indemnify and hold harmless the Owner for any costs, expenses and damages which it may be obliged to pay by reason of any such infringement at any time during the prosecution or after completion of the Work.
- 02.16 Bidders shall familiarize themselves with and shall comply with all applicable Federal and State Laws, municipal ordinances and the rules and regulations of all authorities having jurisdiction over construction of the Project, which may directly or indirectly affect the Work or its prosecution. These laws and/or ordinances will be deemed to be included in the Contract, as though herein written in full.
- 02.17 Each Bidder shall visit the site of the proposed Work and fully acquaint itself with all surface and subsurface conditions as they may exist so that it may fully understand this Contract. Bidder shall also thoroughly examine and be familiar with drawings, Specifications and Contract Documents. The failure or omission of any Bidder to receive or examine any form instrument, Drawing or document or to visit the site and acquaint itself with existing conditions, shall in no way relieve any Bidder from any obligation with respect to its Bid and the responsibility in the premises.
- 02.18 The standard contract form enclosed with the Proposal documents is a prototype. It is enclosed with the Contract Documents for the guidance of the Owner and the Contractor. It has important legal consequences in all respects and consultation with an attorney is encouraged. Contractor shall be presumed to have consulted with its own independent legal counsel.
- 02.19 When one set of Contract plans show the Work to be performed by two or more prime Contractors, it is the responsibility of each Bidder to become knowledgeable of the Work to be performed by the other where the Work upon which this bid is submitted is shown to come into close proximity or into conflict with the Work of the other. In avoiding conflicts,



pressure pipe lines must be installed to avoid conflict with gravity pipe lines and the Bidder of the smaller gravity pipe line in conflict with the larger gravity pipe line must include in his Bid the cost of a conflict box at these locations. The location of and a solution to the conflicts do not have to be specifically noted as such on the plans.

- 02.20 Bidder shall execute affidavit(s) attesting compliance with LSA-R.S. 38:2212.10, 38:2224, 38:2227, each as amended, and other affidavits as required by law, prior to execution of the contract.
- 02.21 Sealed Proposals (Bid) shall be received by St. Tammany Parish Government at the office of St. Tammany Parish Government, Department of Procurement, 21454 Koop Drive, Suite 2-F, Mandeville, LA 70471, until the time and date denoted in Notice to Bidders, at which time and place the Proposals (Bids), shall be publicly opened and read aloud to those present. In accordance with LSA-R.S. 38-2212(A)(3)(c)(i), the designer's final estimated cost of construction shall be read aloud upon opening bids. Sealed Proposals (Bids) may also be mailed by certified mail to St. Tammany Parish Government, Department of Procurement, 21454 Koop Drive, Suite 2-F, Mandeville, LA 70471, and must be received before the bid opening. Bids may also be submitted electronically. Information concerning links for electronic bidding is contained in the Notice to Bidders.
- 02.22 Proposals (Bids) shall be executed on Forms furnished and placed in a sealed envelope, marked plainly and prominently as indicated in the Notice to Bidders, and these General Conditions, and addressed:

St. Tammany Parish Government  
Department of Procurement  
21454 Koop Drive, Suite 2-F  
Mandeville, LA 70471

- 02.23 Complete sets of Drawings, Specifications, and Contract Documents may be secured at the Office of the Owner. See Notice to Bidders for deposit schedule.
- 02.24 The successful bidder shall be required to post in each direction a public information sign, 4' x 8' in size, at the location of the project containing information required by the Owner. The Owner shall supply this information.
- 03.00 AWARD, EXECUTION OF DOCUMENTS, BONDS, ETC.
- 03.01 The award of the Contract, if it is awarded, will be to the lowest responsible Bidder, in accordance with State Law. No award will be made until the Owner has concluded such investigations as it deems necessary to establish the responsibility, qualifications and financial ability and stability of the Bidder to do the Work in accordance with the Contract Documents to the satisfaction of the Owner within the time prescribed as established by the Department based upon the amount of work to be performed and the conditions of same. The written contract and bond shall be issued in conformance with LSA-R.S.

38:2216. The Owner reserves the right to reject the Bid of any Bidder in accordance with the Public Bid Law, LSA-R.S. 38:2214. If the Contract is awarded, the Owner shall give the successful Bidder written notice of the award within forty-five (45) calendar days after the opening of the Bids in conformance with LSA-R.S. 38:2215(A), or any extension as authorized thereunder.

- 03.02 At least three counterparts of the Agreement and of such other Contract Documents as practicable shall be signed by the Owner and the Contractor. The Owner shall identify those portions of the Contract Documents not so signed and such identification shall be binding on both parties. The Owner and the Contractor shall each receive an executed counterpart of the Contract Documents.
- 03.03 Prior to the execution of the Agreement, the Contractor shall deliver to the Owner the required Bonds.
- 03.04 Failure of the successful Bidder to execute the Agreement and deliver the required Bonds within twenty (20) days of the Notice of the Award shall be just cause for the Owner to annul the award and declare the Bid and any guarantee thereof forfeited.
- 03.05 In order to ensure the faithful performance of each and every condition, stipulation and requirement of the Contract and to indemnify and save harmless the Owner from any and all damages, either directly or indirectly arising out of any failure to perform same, the successful Bidder to whom the Contract is awarded shall furnish a surety Bond in an amount of at least equal to one hundred percent (100%) of the Contract Price. The Contract shall not be in force or binding upon the Owner until such satisfactory Bond has been provided to and approved by the Parish. The cost of the Bond shall be paid for by the Contractor unless otherwise stipulated in the Special Provisions.
- 03.06 No surety Company will be accepted as a bondsman who has no permanent agent or representative in the State upon whom notices referred to in the General Conditions of these Specifications may be served. Services of said notice on said agent or representative in the State shall be equal to service of notice on the President of the Surety Company, or such other officer as may be concerned.
- 03.07 In conformance with LSA-R.S. 38:2219(A)(1)(a), (b), and (c):

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.

For any public works project, no surety or insurance company shall write a bond which is in excess of the amount indicated as approved by the U.S. Department of the Treasury Financial Management Service list or by a Louisiana domiciled insurance company with an A- rating by A.M. Best up to a limit of ten percent of policyholders' surplus as shown by A.M. Best; companies authorized by this Paragraph who are not on the treasury list shall not write a bond when the penalty exceeds fifteen percent of its capital and surplus, such capital and surplus being the amount by which the company's assets exceed its liabilities as reflected by the most recent financial statements filed by the company with the Department of Insurance.

In addition, any surety bond written for a public works project shall be written by a surety or insurance company that is currently licensed to do business in the state of Louisiana. All contractors must comply with any other applicable provisions of LSA-R.S. 38:2219.

- 03.08 Should the Contractor's Surety, even though approved and accepted by the Owner, subsequently remove its agency or representative from the State or become insolvent, bankrupt, or otherwise fail, the Contractor shall immediately furnish a new Bond in another company approved by the Owner, at no cost to the Owner. The new Bond shall be executed under the same terms and conditions as the original Bond. The new bond shall be submitted within thirty (30) days of such time as the Owner notifies Contractor or from the time Contractor learns or has reason to know that the original surety is no longer financially viable or acceptable to the Parish, whichever occurs first. In the event that Contractor fails or refuses to timely secure additional surety, then the Owner may secure such surety and thereafter deduct such cost or expense from any sum due or to become due Contractor.
- 03.09 The Contractor's bondsman shall obligate itself to all the terms and covenants of these Specifications and of contracts covering the Work executed hereunder. The Owner reserves the right to do Extra Work or make changes by altering, adding to deducting from the Work under the conditions and in the manner herein before described without notice to the Contractor's surety and without in any manner affecting the liability of bondsman or releasing it from any of its obligations hereunder.
- 03.10 The Bond shall also secure for the Owner the faithful performance of the Contract in strict accordance with plans and Specifications. It shall protect the Owner against all lien laws of the State and shall provide for payment of reasonable attorney fees for enforcement of Contract and institution or concursus proceedings, if such proceedings become necessary. Likewise, it shall provide for all additional expenses of the Owner occurring through failure of the Contractor to perform.
- 03.11 The surety of the Contractor shall be and does hereby declare and acknowledge itself by acceptance to be bound to the Owner as a guarantor, jointly and in solido, with the Contractor, for fulfillment of terms of Section 03.00.
- 03.12 The performance Bond and Labor and Material Bond forming part of this Contract shall be continued by Contractor and its Surety for a period of one (1) year from date of

acceptance of this Contract by Owner to assure prompt removal and replacement of all defective material, equipment, components thereof, workmanship, etc., and to assure payment of any damage to property of Owner or others as a result of such defective materials, equipment, workmanship, etc.

- 03.13 Contractor shall pay for the cost of recording the Contract and Bond and the cost of canceling same. Contractor shall also secure and pay for all Clear Lien and Privilege Certificates (together with any updates) which will be required before any final payment is made, and that may be required before any payment, at the request of the Owner, its representative, agent, architect, engineer and the like. All recordation and Clear Lien and Privilege Certificate requirements shall be in accordance with those requirements noted herein before in contract Specifications.

#### 04.00 SUBCONTRACTS

- 04.01 Contractor shall be fully responsible for all acts and omissions of its Subcontractors and of persons and organizations for whose acts any of them may be liable to the same extent that it is responsible for the acts and omissions of persons directly employed by it. Nothing in the Contract Documents shall create any contractual relationship between Owner and any Subcontractor or other person or organization having a direct Contract with Contractor, nor shall it create any obligation on the part of the Owner to pay or to see to the payment of any monies due any Subcontractor.

- 04.02 Nothing in the Contract Documents shall be construed to control the Contractor in dividing the Work among approved Subcontractors or delineating the Work to be performed by any trade.

- 04.03 The Contractor agrees to specifically bind every Subcontractor to all of the applicable terms and conditions of the Contract Documents prior to commencing Work. Every Subcontractor, by undertaking to perform any of the Work, shall thereby automatically be deemed bound by such terms and conditions.

- 04.04 The Contractor shall indemnify and hold harmless the Owner and their agents and employees from and against all claims, damages, losses and expenses including Attorney's fees arising out of or resulting from the Contractor's failure to bind every Subcontractor and Contractor's surety to all of the applicable terms and conditions of the Contract Documents.

#### 05.00 ASSIGNMENT

- 05.01 Neither party to this Contract shall assign or sublet its interest in this Contract without prior written consent of the other, nor shall the Contractor assign any monies due or to become due to it under this Contract without previous written consent of the Owner, nor without the consent of the surety unless the surety has waived its right to notice of assignment.

## 06.00 CORRELATION, INTERPRETATION AND INTENT OF CONTRACT DOCUMENTS.

- 06.01 It is the intent of the Specifications and Drawings to describe a complete Project to be constructed in accordance with the Contract Documents. The Contract Documents comprise the entire Agreement between Owner and Contractor. Alterations, modifications and amendments shall only be in writing between these parties.
- 06.02 The Contract Documents are intended to be complimentary and to be read *in pari materii*, and what is called for by one is as binding as if called for by all. If Contractor finds a conflict, error or discrepancy in the Contract Documents, it shall call it to the Owner's attention, in writing, at once and before proceeding with the Work affected thereby; however, it shall be liable to Owner for its failure to discover any conflict, error or discrepancy in the Specifications or Drawings. In resolving such conflicts, errors and discrepancies, the documents shall be given precedence in the following order: Agreement, Modifications, Addenda, Special Conditions, General Conditions, Construction Specifications and Drawings. The general notes on the plans shall be considered special provisions. Figure dimensions on Drawings shall govern over scale dimensions and detail Drawings shall govern over general Drawings. Where sewer connections are shown to fall on a lot line between two lots, the Contractor shall determine this location by measurement not by scale. Any Work that may reasonably be inferred from the Specifications or Drawings as being required to produce the intended result shall be supplied whether or not it is specifically called for. Work, materials or equipment described herein which so applied to this Project are covered by a well-known technical meaning or specification shall be deemed to be governed by such recognized standards unless specifically excluded.
- 06.03 Unless otherwise provided in the Contract Documents, the Owner will furnish to the Contractor (free of charge not to exceed ten (10) copies) Drawings and Specifications for the execution of Work. The Drawings and Specifications are the property of the Owner and are to be returned to it when the purpose for which they are intended have been served. The Contractor shall keep one copy of all Drawings and Specifications, including revisions, Addenda, details, Shop Drawings, etc. on the Work in good order and available to the Owner or the regulatory agency of the governmental body having jurisdiction in the area of the Work.

## 07.00 SHOP DRAWINGS, BROCHURES AND SAMPLES

- 07.01 After checking and verifying all field measurements, Contractor shall submit to Owner for approval, five copies (or at Owner's option, one reproducible copy) of all Shop Drawings, which shall have been checked by and stamped with the approval of Contractor and identified as Owner may require. The data shown on the Shop Drawings will be complete with respect to dimensions, design criteria, materials of construction and the like to enable Owner to review the information as required.

- 07.02 Contractor shall also submit to Owner, for review with such promptness as to cause no delay in Work, all samples as required by the Contract Documents. All samples will have been checked by and stamped with the approval of Contractor identified clearly as to material, manufacturer, any pertinent catalog numbers and the use for which intended. At the time of each submission, Contractor shall in writing call Owner's attention to any deviations that the Shop Drawings or samples may have from the requirements of the Contract Documents.
- 07.03 Owner will review with reasonable promptness Shop Drawings and samples, but its review shall be only for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents. The review of a separate item as such will not indicate approval of the assembly in which the item functions. Contractor shall make any corrections required by Owner and shall return the required number of corrected copies of Shop Drawings and resubmit new samples for review. Contractor shall direct specific attention in writing or on resubmitted Shop Drawings to revisions other than the corrections called for by Owner on previous submissions. Contractor's stamp of approval on any Shop Drawing or sample shall constitute a representation to Owner that Contractor has determined and verified all quantities, dimensions, field construction criteria, materials catalog numbers and similar data and thereafter assumes full responsibility for doing so, and that it has reviewed or coordinated each Shop Drawing or sample with the requirements of the Work and the Contract Documents.
- 07.04 Where a Shop Drawing or sample submission is required by the Specifications, no related Work shall be commenced until the submission has been reviewed by Owner. A copy of each reviewed shop Drawing and each inspected sample shall be kept in good order by Contractor at the site and shall be available to Owner.
- 07.05 Owner's review of Shop Drawings or samples shall not relieve Contractor from its responsibility for any deviations from the requirements of the Contract Documents unless Contractor has in writing called Owner's attention to such deviation at the time of submission and Owner has given written approval to the specific deviation, nor shall any review by Owner relieve Contractor from responsibility for errors or omissions in the Shop Drawings. The mere submittal of shop drawings which contain deviations from the requirements of plans, specifications and/or previous submittals in itself does not satisfy this requirement.
- 08.00 RECORD DRAWINGS
- 08.01 The Contractor shall keep an accurate record in a manner approved by the Owner of all changes in the Contract Documents during construction. In Work concerning underground utilities, the Contractor shall keep an accurate record in a manner approved by the Owner of all valves, fittings, etc. Before the Work is accepted by the Owner, and said acceptance is recorded, the Contractor shall furnish the Owner a copy of this record.

- 08.02 Contractor shall keep an accurate drawing measured in the field to the nearest 0.1' of the location of all sewer house connections. The location shown shall be the end of the connection at the property line measured along the main line of pipe from a manhole.
- 08.03 Contractor shall keep an accurate drawing of the storm water drainage collection system. Inverts to the nearest 0.01' and top of castings shall be shown as well as location of all structures to the nearest 0.1'. Upon completion of the Work, the plan will be given to the Owner.

#### 09.00 PROGRESS OF WORK

- 09.01 Contractor shall conduct the Work in such a professional manner and with sufficient materials, equipment and labor as is considered necessary to ensure its completion within the time limit specified.
- 09.02 The Owner shall issue a Notice to Proceed to the Contractor within twenty (20) calendar days from the date of execution of the Contract. Upon mutual consent by both parties, the Notice to Proceed may be extended. The Contractor is to commence Work under the Contract within ten (10) calendar days from the date the Notice to Proceed is issued by the Owner.
- 09.03 The Contractor, immediately after being awarded the Contract, shall prepare and submit for the Owner's approval an estimated progress schedule for the work to be performed, as well as a construction signing layout for all roads within the project area. The Contractor shall not start work or request partial payment until the work schedule has been submitted to the Owner for approval.
- 09.04 Revisions to the original schedule will be made based on extension of days granted for inclement weather or change orders issued under the contract. No other revision shall be made which affects the original completion or updated completion date, whichever is applicable.
- 09.05 Failure of the Contractor to submit an estimated progress schedule or to complete timely and on schedule the Work shown on the progress schedule negates any and all causes or claims by the Contractor for accelerated completion damages. These accelerated damage claims shall be deemed forfeited.
- 09.06 Meetings will be held as often as necessary to expedite the progress of the job. Meetings will be held during normal working hours at the jobsite and shall be mandatory for the Contractor and all Sub-Contractors working on the project. Meetings may be requested by the Owner at any time and at the discretion of the Owner.

#### 10.00 OWNER'S RIGHT TO PROCEED WITH PORTIONS OF THE WORK

- 10.01 Upon failure of the Contractor to comply with any notice given in accordance with the provisions hereof, the Owner shall have the alternative right, instead of assuming charge of the entire Work, to place additional forces, tools, equipment and materials on parts of the Work. The cost incurred by the Owner in carrying on such parts of the Work shall be payable by the Contractor. Such Work shall be deemed to be carried on by the Owner on account of the Contractor. The Owner may retain all amounts of the cost of such Work from any sum due Contractor or those funds that may become due to Contractor under this Agreement.
- 10.02 Owner may perform additional Work related to the Project by itself or it may let any other direct contract which may contain similar General Conditions. Contractor shall afford the other contractors who are parties to such different contracts (or Owner, if it is performing the additional Work itself) reasonable opportunity for the introduction and storage of materials and equipment and the execution of Work, and shall properly connect and coordinate its Work with the subsequent work.
- 10.03 If any part of Contractor's Work depends upon proper execution or results upon the Work of any such other contractor (or Owner), Contractor shall inspect and promptly report to Owner in writing any defects or deficiencies in such Work that render it unsuitable for such proper execution and results. Failure to so report shall constitute an acceptance of the other Work as fit and proper for the relationship of its Work except as to defects and deficiencies which may appear in the other Work after the execution of its Work.
- 10.04 Whatever Work is being done by the Owner, other Contractors or by this Contractor, the parties shall respect the various interests of the other parties at all times. The Owner may, at its sole discretion, establish additional rules and regulations concerning such orderly respect of the rights of various interests.
- 10.05 Contractor shall do all cutting, fitting and patching of its Work that may be required to integrate its several parts properly and fit to receive or be received by such other Work. Contractor shall not endanger any Work of others by cutting, excavating or otherwise altering Work and will only alter Work with the written consent of Owner and of the other contractors whose Work will be affected.
- 10.06 If the performance of additional Work by other contractors or Owner is not noted in the Contract Documents, written notice thereof shall be given to Contractor prior to starting any such additional Work. If Contractor believes that the performance of such additional Work by Owner or others may cause additional expense or entitles an extension of the Contract Time, the Contractor may make a claim therefor. The claim must be in writing to the Owner within thirty (30) calendar days of receipt of notice from the Owner of the planned additional Work by others.



## 11.00 TIME OF COMPLETION

- 11.01 The Notice to Proceed will stipulate the date on which the Contractor shall begin work. That date shall be the beginning of the Contract Time charges.
- 11.02 Contractor shall notify the Owner through its duly authorized representative, in advance, of where Contractor's work shall commence each day. A daily log shall be maintained by Contractor to establish dates, times, persons contacted, and location of work. Specific notice shall be made to the Owner if the Contractor plans to work on Saturday, Sunday, or a Parish approved holiday. If notice is not received, no consideration will be given for inclement weather and same shall be considered a valid work day.
- 11.03 The Work covered by the Plans, Specifications and Contract Documents must be completed sufficiently for acceptance within the number of calendar days specified in the Proposal and/or the Contract, commencing from the date specified in the Notice to Proceed. It is hereby understood and mutually agreed, by and between the Contractor and the Owner, that the time of completion is an essential condition of this Contract, and it is further mutually understood and agreed that if the Contractor shall neglect, fail or refuse to complete the Work within the time specified, or any proper extension thereof granted by the Owner, then the Contractor does hereby agree, as partial consideration for the awarding of this Contract, to pay the Owner \$1,500.00 per day as specified in the Contract, not as a penalty, but as liquidated damages for such breach of contract for each and every calendar day that the Contractor shall be in default after the time stipulated in the Contract for completing the Work. It is specifically understood that the Owner shall also be entitled to receive a reasonable attorney fee and all costs in the event that Contractor fails to adhere to this agreement and this contract is referred to counsel for any reason whatsoever. Reasonable attorney fees shall be the prevailing hourly rate of the private sector, and in no event shall the hourly rate be less than \$175.00 per hour. All attorney fees shall be paid to the operating budget of the Office of the Parish President.
- 11.04 Prior to final payment, the Contractor may, in writing to the Owner, certify that the entire Project is substantially complete and request that the Owner or its agent issue a certificate of Substantial Completion. See Section 29.00.
- 11.05 The Owner may grant an extension(s) of time to the Contractor for unusual circumstances which are beyond the control of the Contractor and could not reasonably be foreseen by the Contractor prior to Bidding. Any such request must be made in writing to the Owner within seven (7) calendar days following the event occasioning the delay. The Owner shall have the exclusive and unilateral authority to determine, grant, and/or deny the validity of any such claim.
- 11.06 Extensions of time for inclement weather shall be processed as follows:

Commencing on the start date of each job, the Parish Inspector assigned to same shall keep a weekly log, indicating on each day whether inclement weather has

prohibited the Contractor from working on any project within the specific job, based upon the following:

1. Should the Contractor prepare to begin work on any day in which inclement weather, or the conditions resulting from the weather, prevent work from beginning at the usual starting time, and the crew is dismissed as a result, the Contractor will not be charged for a working day whether or not conditions change during the day and the rest of the day becomes suitable for work.
2. If weather conditions on the previous day prevent Contractor from performing work scheduled, provided that no other work can be performed on any project within the package. The Parish Inspector shall determine if it is financially reasonable to require the Contractor to deviate from the schedule and relocate to another location.
3. If the Contractor is unable to work at least 60% of the normal work day due to inclement weather, provided that a normal working force is engaged on the job.

Any dispute of weather conditions as related to a specific job shall be settled by records of the National Weather Service.

#### 11.07 Extensions of time for change orders

When a change order is issued, the Owner and Contractor will agree on a reasonable time extension, if any, to implement such change. Consideration shall be given for, but not limited to, the following:

1. If material has to be ordered;
2. Remobilization and or relocation of equipment to perform task; and
3. Reasonable time frame to complete additional work.

Time extensions for change orders shall be reflected on the official document signed by the Owner and Contractor.

11.08 At the end of each month, the Owner or its agent will furnish to the Contractor a monthly statement which reflects the number of approved days added to the contract. The Contractor will be allowed fourteen (14) calendar days in which to file a written protest setting forth in what respect the monthly statement is incorrect; otherwise, the statement shall be considered accepted by the Contractor as correct.

11.09 Apart from extension of time for unavoidable delays, no payment or allowance of any kind shall be made to the Contractor as compensation for damages because of hindrance or delay for any cause in the progress of the Work, whether such delay be avoidable or unavoidable.

## 12.00 LIQUIDATED DAMAGES

12.01 In case the Work is not completed in every respect within the time that may be extended, it is understood and agreed that per diem deductions of the sum of \$1,500.00 for liquidated damages, as stipulated in the Proposal and/or Contract, shall be made from the total Contract Price for each and every calendar day after and exclusive of the day on which completion was required, and up to the completion of the Work and acceptance thereof by the Owner. It is understood and agreed that time is of the essence to this Contract, and the above sum being specifically herein agreed upon in advance as the measure of damages to the Owner on account of such delay in the completion of the Work. It is further agreed that the expiration of the term herein assigned or as may be extended for performing the Work shall, *ipso facto*, constitute a putting in default, the Contractor hereby waiving any and all notice of default. The Contractor agrees and consents that the Contract Price, reduced by the aggregate of the entire damages so deducted, shall be accepted in full satisfaction of all Work executed under this Contract. It is further understood and agreed that Contractor shall be liable for a reasonable attorney fee and all costs associated with any breach of this agreement, including but not limited to this subsection. In the event that any dispute or breach herein causes referrals to counsel, then Contractor agrees to pay a reasonable attorney fee at the prevailing hourly rate of the private sector. In no event shall the hourly rate be less than \$175.00 per hour.

## 13.00 LABOR, MATERIALS, EQUIPMENT, SUPERVISION, PERMITS AND TAXES

13.01 The Contractor shall provide and pay for all labor, materials, equipment, supervision, subcontracting, transportation, tools, fuel, power, water, sanitary facilities and all incidentals necessary for the completion of the Work in substantial conformance with the Contract Documents.

13.02 The Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. It shall at all times maintain good discipline and order at the site.

13.03 Unless otherwise specifically provided for in the Specifications, all workmanship, equipment, materials, and articles incorporated in the Work covered by this Contract are to be new and of the best grade of their respective kinds for the purpose intended. Samples of materials furnished under this Contract shall be submitted for approval to the Owner when and as directed.

13.04 Whenever a material or article required is specified or shown on the plans by using the name of a proprietary product or of a particular manufacturer or vendor, any material or article which shall perform adequately the duties imposed by the general design will be considered equal, and satisfactory, providing the material or article so proposed is of equal substance and function and that all technical data concerning the proposed substitution be approved by the Owner prior to the Bidding. The Owner shall have the exclusive and

unilateral discretion to determine quality and suitability in accordance with LSA-R.S. 38:2212(T)(2).

- 13.05 Materials shall be properly and securely stored so as to ensure the preservation of quality and fitness for the Work, and in a manner that leaves the material accessible to inspection. Materials or equipment may not be stored on the site in a manner such that it will interfere with the continued operation of streets and driveways or other contractors working on the site.
- 13.06 The Contractor, by entering into the Contract for this Work, sets itself forth as an expert in the field of construction and it shall supervise and direct the Work efficiently and with its best skill and attention. It shall be solely responsible for the means, methods, techniques, sequences and procedures of construction.
- 13.07 Contractor shall keep on the Work, at all times during its progress, a competent resident Superintendent, who shall not be replaced without written Notice to Owner except under extraordinary circumstances. The Superintendent will be Contractor's representative at the site and shall have authority to act on behalf of Contractor. All communications given to the Superintendent shall be as binding as if given to the Contractor. Owner specifically reserves the right to approve and/or disapprove the retention of a new superintendent, all to not be unreasonably withheld.
- 13.08 Any foreman or workman employed on this Project who disregards orders or instructions, does not perform his Work in a proper and skillful manner, or is otherwise objectionable, shall, at the written request of the Owner, be removed from the Work and shall be replaced by a suitable foreman or workman.
- 13.09 The Contractor and/or its assigned representative shall personally ensure that all subcontracts and divisions of the Work are executed in a proper and workmanlike manner, on scheduled time, and with due and proper cooperation.
- 13.10 Failure of the Contractor to keep the necessary qualified personnel on the Work shall be considered cause for termination of the Contract by the Owner.
- 13.11 Only equipment in good working order and suitable for the type of Work involved shall be brought onto the job and used by the Contractor. The Contractor is solely responsible for the proper maintenance and use of its equipment and shall hold the Owner harmless from any damages or suits for damages arising out of the improper selection or use of equipment. No piece of equipment necessary for the completion of the Work shall be removed from the job site without approval of the Owner.
- 13.12 All Federal, State and local taxes due or payable during the time of Contract on materials, equipment, labor or transportation, in connection with this Work, must be included in the amount bid by the Contractor and shall be paid to proper authorities before acceptance. The Contractor shall furnish all necessary permits and certificates and comply with all laws and

ordinances applicable to the locality of the Work. The cost of all inspection fees levied by any governmental entity whatsoever shall be paid for by the Contractor.

- 13.13 In accordance with St. Tammany Police Jury Resolution 86-2672, as amended, the Contractor must provide in a form suitable to the Owner an affidavit stating that all applicable sales taxes for materials used on this project have been paid.
- 13.14 During the period that this Contract is in force, neither party to the Contract shall solicit for employment or employ an employee of the other.
- 13.15 All materials or equipment shown on the Drawings or included in these specifications shall be furnished unless written approval of a substitute is obtained from the Designer, or Owner if no separate designer.
- 13.16 If a potential supplier wishes to submit for prior approval a particular product other than a product specified in the contract documents, he shall do so no later than seven working days prior to the opening of bids. Within three days, exclusive of holidays and weekends, after such submission, the prime design professional shall furnish to both the public entity and the potential supplier written approval or denial of the product submitted. The burden of proof of the equality of the proposed substitute is upon the proposer and only that information formally submitted shall be used by the Designer in making its decision.
- 13.17 The decision of the Designer/Owner shall be given in good faith and shall be final.

#### 14.00 QUANTITIES OF ESTIMATE, CHANGES IN QUANTITIES, EXTRA WORK

- 14.01 Whenever the estimated quantities of Work to be done and materials to be furnished under this Contract are shown in any of the documents, including the Proposal, such are given for use in comparing Bids and the right is especially reserved, except as herein otherwise specifically limited, to increase or diminish same not to exceed twenty-five percent (25%) by the Owner to complete the Work contemplated by this Contract. Such increase or diminution shall in no way vitiate this Contract, nor shall such increase or diminution give cause for claims or liability for damages.
- 14.02 The Owner shall have the right to make alterations in the line, grade, plans, form or dimensions of the Work herein contemplated, provided such alterations do not change the total cost of the Project, based on the originally estimated quantities, and the unit prices bid by more than twenty-five percent (25%) and provided further that such alterations do not change the total cost of any major item, based on the originally estimated quantities and the unit price bid by more than twenty-five (25%). (A major item shall be construed to be any item, the total cost of which is equal to or greater than ten percent (10%) of the total Contract Price, computed on the basis of the Proposal quantity and the Contract unity price). Should it become necessary, for the best interest of the Owner, to make changes in excess of that herein specified, the same shall be covered by supplemental agreement either before or after the commencement of the Work and without notice to the sureties. If such alterations diminish the quantity of Work to be done, such shall not constitute a claim for

damages for anticipated profits for the Work dispensed with, but when the reduction in amount is a material part of the Work contemplated, the Contractor shall be entitled to only reasonable compensation as determined by the Owner for overhead and equipment charges which it may have incurred in expectation of the quantity of Work originally estimated, unless specifically otherwise provided herein; if the alterations increase the amount of Work, the increase shall be paid according to the quantity of Work actually done and at the price established for such Work under this Contract except where, in the opinion of the Owner, the Contractor is clearly entitled to extra compensation.

- 14.03 Without invalidating the Contract, the Owner may order Extra Work or make changes by altering, adding to, or deducting from the Work, the Contract sum being adjusted accordingly. The consent of the surety must first be obtained when necessary or desirable, all at the exclusive discretion of the Owner. All the Work of the kind bid upon shall be paid for at the price stipulated in the Proposal, and no claims for any Extra Work or material shall be allowed unless the Work is ordered in writing by the Owner.
- 14.04 Extra Work for which there is no price or quantity included in the Contract shall be paid for at a unit price or lump sum to be agreed upon in advance in writing by the Owner and Contractor. Where such price and sum cannot be agreed upon by both parties, or where this method of payment is impracticable, the Owner may, at its exclusive and unilateral discretion, order the Contractor to do such Work on a Force Account Basis.
- 14.05 In computing the price of Extra Work on a Force Account Basis, the Contractor shall be paid for all foremen and labor actually engaged on the specific Work at the current local rate of wage for each and every hour that said foremen and labor are engaged in such Work, plus ten percent (10%) of the total for superintendence, use of tools, overhead, direct & indirect costs/expenses, pro-rata applicable payroll taxes, pro-rata applicable workman compensation benefits, pro-rata insurance premiums and pro-rata reasonable profit. The Contractor shall furnish satisfactory evidence of the rate or rates of such insurance and tax. The Contractor will not be able to collect any contribution to any retirement plans or programs.
- 14.06 For all material used, the Contractor shall receive the actual cost of such material delivered at the site of the Work, as shown by original receipted bill, to which shall be added five percent (5%). There will be absolutely no additional surcharges or additional fees attached hereto with respect to this subsection.
- 14.07 For any equipment used that is owned by the Contractor, the Contractor shall be allowed a rental based upon the latest prevailing rental price, but not to exceed a rental price as determined by the Associated Equipment Distributors (A.E.D. Green Book).
- 14.08 The Contractor shall also be paid the actual costs of transportation for any equipment which it owns and which it has to transport to the Project for the Extra Work. There will be absolutely no additional surcharges or additional fees attached hereto with respect to this subsection.

- 14.09 If the Contractor is required to rent equipment for Extra Work, but not required for Contract items, it will be paid the actual cost of rental and transportation of such equipment to which no percent shall be added. The basis upon which rental cost are to be charged shall be agreed upon in writing before the Work is started. Actual rental and transportation costs shall be obtained from receipted invoices and freight bills.
- 14.10 No compensation for expenses, fees or costs incurred in executing Extra Work, other than herein specifically mentioned herein above, will be allowed.
- 14.11 A record of Extra Work on Force Account basis shall be submitted to the Owner on the day following the execution of the Work, and no less than three copies of such record shall be made on suitable forms and signed by both the Owner or his representative on the Project and the Contractor. All bids for materials used on extra Work shall be submitted to the Owner by the Contractor upon certified statements to which will be attached original bills covering the costs of such materials.
- 14.12 Payment for Extra Work of any kind will not be allowed unless the same has been ordered in writing by the Owner.

15.00 STATUS OF THE ENGINEER (NOT APPLICABLE)

16.00 INJURIES TO PERSONS AND PROPERTY

- 16.01 The Contractor shall be held solely and exclusively responsible for all injuries to persons and for all damages to the property of the Owner or others caused by or resulting from the negligence of itself, its employees or its agents, during the progress of or in connection with the Work, whether within the limits of the Work or elsewhere under the Contract proper or as Extra Work. This requirement will apply continuously and not be limited to normal working hours or days. The Owner's construction review is for the purpose of checking the Work product produced and does not include review of the methods employed by the Contractor or to the Contractor's compliance with safety measures of any nature whatsoever. The Contractor agrees to pay a reasonable attorney fee and other reasonable attendant costs of the Owner in the event it becomes necessary for the Owner to employ an attorney to enforce this section or to protect itself against suit over the Contractor's responsibilities. Attorney fees shall be at the prevailing hourly rate of the private sector. The attorney fee hourly rate shall not be less than \$175.00 per hour. All attorney fees collected shall be paid to the operating budget of the Office of the Parish President.
- 16.02 The Contractor must protect and support all utility infrastructures or other properties which are liable to be damaged during the execution of its Work. It shall take all reasonable and proper precautions to protect persons, animals and vehicles or the public from the injury, and wherever necessary, shall erect and maintain a fence or railing around any excavation, and place a sufficient number of lights about the Work and keep same burning from twilight until sunrise, and shall employ one or more watchmen as an additional security whenever needed. The Contractor understands and agrees that the Owner may request that security

be placed on the premises to ensure and secure same. The Owner shall have exclusive authority to request placement of such security. Contractor agrees to retain and place security as requested, all at the sole expense of Contractor. Additional security shall not be considered a change order or reason for additional payment by the Owner. The Contractor must, as far as practicable and consistent with good construction, permit access to private and public property and leave fire hydrants, catch basins, streets, etc., free from encumbrances. The Contractor must restore at its own expense all injured or damaged property caused by any negligent act of omission or commission on its part or on the part of its employees or subcontractors, including, but not limited to, sidewalks, curbing, sodding, pipes conduits, sewers, buildings, fences, bridges, retaining walls, tanks, power lines, levees or any other building or property whatsoever to a like condition as existed prior to such damage or injury.

- 16.03 In case of failure on the part of the Contractor to restore such property or make good such damage, the Owner may upon forty-eight (48) hours' notice proceed to repair or otherwise restore such property as may be deemed necessary, and the cost thereof will be deducted from any monies due or which may become due under its Contract.
- 16.04 Contractor agrees to protect, defend, indemnify, save, and hold harmless St. Tammany Parish Government, its elected and appointed officials, departments, agencies, boards and commissions, their officers, agents servants, employees, including volunteers, from and against any and all claims, demands, expense and liability arising out of injury or death to any person or the damage, loss or destruction of any property to the extent caused by any negligent act or omission or willful misconduct of Contractor, its agents, servants, employees, and subcontractors, or any and all costs, expense and/or attorney fees incurred by St. Tammany Parish Government as a result of any claim, demands, and/or causes of action that results from the negligent performance or non-performance by Contractor, its agents, servants, employees, and subcontractors of this contract. Contractor agrees to investigate, handle, respond to, provide defense for and defend any such claims, demand, or suit at its sole expense and agrees to bear all other costs and expenses related thereto caused by any negligent act or omission or willful misconduct of Contractor, its agents, servants, employees, and subcontractors.
- 16.05 As to any and all claims against Owner, its agents, assigns, representatives or employees by any employee of Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts as may be liable, the indemnification obligation under Paragraph 16.04 shall not be limited in any way or by any limitation on the amount or type of damages, compensation or benefits payable by or for Contractor or any Subcontractor under workmen's compensation acts, disability benefit acts or other employee benefit acts.
- 16.06 No road shall be closed by the Contractor to the public except by written permission of the Owner. If so closed, the Contractor shall maintain traffic over, through and around the Work included in his Contract, with the maximum practical convenience, for the full twenty-four hours of each day of the Contract, whether or not Work has ceased temporarily. The Contractor shall notify the Owner at the earliest possible date after the Contract has



been executed and, in any case, before commencement of any construction that might in any way inconvenience or endanger traffic, in order that necessary and suitable arrangements may be determined. Any and all security, maintenance, labor or costs associated with traffic control herein shall be at the sole expense of Contractor. This expense shall be paid directly by the Contractor. This expense shall not be considered as a change order nor shall it allow the Contractor any additional cost reimbursement whatsoever. All traffic deviations herein shall be coordinated with the appropriate law enforcement officials of this Parish.

- 16.07 The convenience of the general public and residents along the Works shall be provided for in a reasonable, adequate and satisfactory manner. Where existing roads are not available as detours, and unless otherwise provided, all traffic shall be permitted to pass through the Work. In all such cases, the public shall have precedence over Contractor's vehicles insofar as the traveling public's vehicles shall not be unduly delayed for the convenience of the Contractor. In order that all unnecessary delay to the traveling public may be avoided, the Contractor shall provide and station competent flagmen whose sole duties shall consist of directing and controlling the movement of public traffic either through or around the Work. Any and all security, maintenance, labor or costs associated with traffic control herein shall be at the sole expense of Contractor. This expense shall be paid directly by the Contractor. This expense shall not be considered as a change order nor shall it allow the Contractor any additional cost reimbursement whatsoever. All traffic deviations herein shall be coordinated with the appropriate law enforcement officials of this Parish.
- 16.08 The Contractor shall arrange its Work so that no undue or prolonged blocking of business establishments will occur.
- 16.09 Material and equipment stored on the right of way or work site shall be so placed and the Work at times shall be so conducted as to ensure minimum danger and obstruction to the traveling public.
- 16.10 During grading operations when traffic is being permitted to pass through construction, the Contractor shall provide a smooth, even surface that will provide a satisfactory passageway for use of traffic. The road bed shall be sprinkled with water if necessary to prevent a dust nuisance, provided the dust nuisance is a result of the Work.
- 16.11 Fire hydrants shall be accessible at all times to the Fire Department. No material or other obstructions shall be placed closer to a fire hydrant than permitted by ordinances, rules or regulations or within fifteen (15) feet of a fire hydrant, in the absence of such ordinance, rules or regulations.
- 16.12 The Contractor shall not, without the written permission of the Owner, do Work for a resident or property owner abutting the Work at the time that this Work is in progress.
- 16.13 No Work of any character shall be commenced on railroad right-of-way until the Railroad Company has issued a permit to the Owner and has been duly notified by the Contractor in writing (with a copy forwarded to the Owner) of the date it proposes to begin Work, and

until an authorized representative of the Railroad Company is present, unless the Railroad Company waives such requirements. All Work performed by the Contractor within the right-of-way limits of the railroad shall be subject to the inspection and approval of the chief engineer of the Railroad Company or its authorized representative. Any precautions considered necessary by said chief engineer to safeguard the property, equipment, employees and passengers of the Railroad Company shall be taken by the Contractor without extra compensation. The Contractor shall, without extra compensation, take such precautions and erect and maintain such tell-tale or warning devices as the Railroad Company considers necessary to safeguard the operation of its trains. The temporary vertical and horizontal clearance specified by the chief engineer of the Railroad Company in approving these shall be maintained at all times. No steel, brick, pipe or any loose material shall be left on the ground in the immediate vicinity of the railway track. Before any Work is done within Railroad right of way, the Contractor shall provide and pay all costs of any special insurance requirements of the Railroad.

- 16.14 The Contractor, shall, without extra compensation, provide, erect, paint and maintain all necessary barricades. Also, without extra compensation, the Contractor shall provide suitable and sufficient lights, torches, reflectors or other warning or danger signals and signs, provide a sufficient number of watchmen and flagmen and take all the necessary precautions for the protection of the Work and safety of the Public.
- 16.15 The Contractor shall erect warning signs beyond the limits of the Project, in advance of any place on the Project where operations interfere with the use of the road by traffic, including all intermediate points where the new Work crosses or coincides with the existing road. All barricades and obstructions shall be kept well painted and suitable warning signs shall be placed thereon. All barricades and obstructions shall be illuminated at night and all lights or devices for this purpose shall be kept burning from sunset to sunrise.
- 16.16 Whenever traffic is maintained through or over any part of the Project, the Contractor shall clearly mark all traffic hazards. No direct payment will be made for barricades, signs and illumination therefore or for watchmen or flagmen.
- 16.17 The Contractor will be solely and completely responsible for conditions on the job site, including safety of all persons and property during performance of the Work. This requirement will apply continuously and not be limited to normal working hours. The duty of the Owner to conduct construction review of the Contractor's performance is not intended to include review of the adequacy of the Contractor's safety measures, in, or near the construction site.

#### 17.00 SANITARY PROVISIONS

- 17.01 The Contractor shall provide and maintain in a neat, sanitary condition such accommodations for the use of its employees as may be necessary to comply with the rules

and regulations of the State Health Agency or of the other authorities having jurisdiction and shall permit no public nuisance.

#### 18.00 RIGHTS OF WAY

18.01 The Owner will furnish the Contractor with all necessary rights-of-way for the prosecution of the Work. The rights of way herein referred to shall be taken to mean only permission to use or pass through the locations or space in any street, highway, public or private property in which the Contractor is to prosecute the Work.

18.02 It is possible that all lands and rights of way may not be obtained as herein contemplated before construction begins, in which event the Contractor shall begin its Work upon such land and rights of way as the Owner may have previously acquired. Any delay in furnishing these lands by the Owner can be deemed proper cause for adjustment in the Contract amount and/or in the time of completion.

#### 19.00 PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE

19.01 The Contractor shall not enter upon private property for any purpose without first obtaining permission from the Owner, as well as the private property owner and/or and private property Lessees. The Contractor shall use every precaution necessary for the preservation of all public and private property, monuments, highway signs, telephone lines, other utilities, etc., along and adjacent to the Work; the Contractor shall use every precaution necessary to prevent damage to pipes, conduits, and other underground structures; and shall protect carefully from disturbance or damage all land monuments and property marks until an authorized agent has witnessed or otherwise referenced their location and shall not remove them until directed. The street and highway signs and markers that are to be affected by the Work shall be carefully removed when the Work begins and stored in a manner to keep them clean and dry. The Contractor must obtain all necessary information in regard to existing utilities and shall give notice in writing to the owners or the proper authorities in charge of streets, gas, water, pipes, electric, sewers and other underground structures, including conduits, railways, poles and pole lines, manholes, catch basins, fixtures, appurtenances, and all other property that may be affected by the Contractor's operations, at least forty-eight (48) hours before its operations will affect such property. The Contractor shall not hinder or interfere with any person in the protection of such Work or with the operation of utilities at any time. When property, the operation of railways, or other public utilities are endangered, the Contractor shall at its own expense, maintain flagmen or watchmen and any other necessary precautions to avoid interruption of service or damage to life or property, and it shall promptly repair, restore, or make good any injury or damage caused by its negligent operations in an acceptable manner. The Contractor must also obtain all necessary information in regard to the installation of new cables, conduits, and transformers, and make proper provisions and give proper notifications, in order that same can be installed at the proper time without delay to the Contractor or unnecessary inconvenience to the Owner.

19.02 The Contractor shall not remove, cut or destroy trees, shrubs, plants, or grass that are to remain in the streets or those which are privately owned, without the proper authority. Unless otherwise provided in the Special Provisions or the Proposal, the Contractor shall replace and replant all plants, shrubs, grass and restore the grounds back to its original good condition to the satisfaction of the Owner and/or the property owner. The Contractor shall assume the responsibility of replanting and guarantees that plants, shrubs, grass will be watered, fertilized and cultivated until they are in a growing condition. No direct payment will be made for removing and replanting of trees, shrubs, plants or grass unless such items are set forth in the Proposal.

19.03 When or where direct damage or injury is done to public or private property by or on account of any negligent act, omission, neglect or otherwise of the Contractor, it shall make good such damage or injury in an acceptable manner.

#### 20.00 CONTRACTORS RESPONSIBILITY FOR WORK

20.01 Until final acceptance of the Work by the Owner as evidence by approval of the final estimate, the Work shall be in the custody and under the charge and care of the Contractor and it shall take every necessary precaution against injury or damage to any part thereof by the action of the elements or from the non-execution of the Work; unless otherwise provided for elsewhere in the Specifications or Contract. The Contractor shall rebuild, repair, restore and make good, without extra compensation, all injuries or damages to any portion of the Work occasioned by any of the above causes before its completion and acceptance, and shall bear the expenses thereof. In case of suspension of the Work from any cause whatever, the Contractor shall be responsible for all materials and shall properly and securely store same, and if necessary, shall provide suitable shelter from damage and shall erect temporary structures where necessary. If in the exclusive discretion of the Owner, any Work or materials shall have been damaged or injured by reason of failure on the part of the Contractor or any of its Subcontractors to so protect the Work, such materials shall be removed and replaced at the sole expense of the Contractor. Such amount shall be deducted from any sum due or to be due Contractor.

20.02 The Contractor shall give all notice and comply with all Federal, State, and local laws, ordinances, and regulations in any manner affecting the conduct of the Work, and all such orders and decrees as exist, or may be enacted by bodies or tribunals having any jurisdiction or authority over the Work, and shall indemnify and hold harmless the Owner against any claim or liability arising from, or based on, the violation of any such law, ordinance, regulation, order or decree, whether by itself, its employees or Subcontractors.

#### 21.00 TESTS AND INSPECTIONS CORRECTION & REMOVAL OF DEFECTIVE WORK

21.01 Contractor warrants and guarantees to Owner that all materials and equipment will be new unless otherwise specified and that all Work will be of good quality and free from faults or

defects and in accordance with the requirements of the Contract Documents. All unsatisfactory Work, all faulty or Defective Work and all Work not conforming to the requirements of the Contract Documents at the time of acceptance shall be considered Defective. Prompt and reasonable notice of all defects shall be given to the Contractor.

- 21.02 If the Contract Documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any Work to specifically be inspected, tested or approved by some public body, Contractor shall assume full responsibility therefor, pay all costs in connection therewith and furnish Owner the required certificates of inspection, testing or approval. All other inspections, tests and approval required by the Contract Documents shall be performed by organizations acceptable to Owner and Contractor and the costs thereof shall be borne by the Contractor unless otherwise specified.
- 21.03 Contractor shall give Owner timely notice of readiness of the Work for all inspections, tests or approvals. If any such Work required to be inspected, tested or approved is covered without written approval of Owner, it must, if requested by Owner, be uncovered for observation, and such uncovering shall be at Contractor's expense unless Contractor has given Owner timely notice of its intention to cover such Work and Owner has not acted with reasonable promptness in response to such notice.
- 21.04 Neither observations by Owner nor inspections, tests or approvals shall relieve Contractor from its obligations to perform the Work in accordance with the requirements of the Contract Document.
- 21.05 Owner and its representatives will at reasonable times have access to the Work. Contractor shall provide proper and safe facilities for such access and observation of the Work and also for any inspection or testing thereof by others.
- 21.06 If any Work is covered contrary to the written request of Owner, it must, be uncovered for Owner's observation and replaced at Contractor's expense. If any Work has been covered which Owner has not specifically requested to observe prior to its being covered, or if Owner considers it necessary or advisable that covered Work be inspected or tested by others, the Contractor, at Owner's request, shall uncover, expose or otherwise make available for observations, inspections or testing as Owner may require, that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is Defective, Contractor shall bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction, including compensation for additional professional services, and an appropriate deductive Change Order shall be issued. If, however, such Work is not found to be Defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction.
- 21.07 If the Work is Defective, or Contractor fails to supply sufficient skilled workmen or suitable materials or equipment, or if the Contractor fails to make prompt payments to Subcontractors or for labor, materials or equipment, Owner may order Contractor to stop

the Work, or any portion thereof, until the cause of 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 or any other party.

- 21.08 Prior to approval of final payment, Contractor shall promptly, without cost to Owner and as specified by Owner, either correct any Defective Work, whether or not fabricated, installed or completed, or if the Work has been rejected by Owner, remove it from the site and replace it with non-defective Work. If Contractor does not correct such Defective Work or remove and replace such rejected Work within a reasonable time, all as specified in a written notice from Owner, Owner may have the deficiency corrected or the rejected Work removed and replaced. All direct or indirect costs of such correction or removal and replacement including compensation for additional professional services shall be paid by Contractor, and an appropriate deductive Change Order shall be issued. Contractor shall also bear the expense of making good all Work of others destroyed or damaged by its correction, removal or replacement of its Defective Work.
- 21.09 If, after the approval of final payment and prior to the expiration of one year after the date of Substantial Completion or such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the Contract Documents, any Work is found to be Defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions, either correct such Defective Work or if it has been rejected by Owner, remove it from the site and replace it with non-defective Work. If Contractor does not promptly comply with the terms of such instructions, Owner may have the Defective Work corrected or the rejected Work removed and replaced, and all direct and indirect costs of such removal and replacement, including compensation for additional professional services, shall be paid by Contractor. The Contractor agrees to pay a reasonable attorney fee and other reasonable attendant costs of the Owner in the event it becomes necessary for the Owner to employ an attorney to enforce this section or to protect itself against suit over the Contractor's responsibilities. Attorney fees shall be at the prevailing hourly rate of the private sector. The attorney fee hourly rate shall not be less than \$175.00 per hour. All attorney fees collected shall be paid to the operating budget of the Office of the Parish President.
- 21.10 If, instead of requiring correction or removal and replacement of Defective Work, Owner (and prior to approval of final payment) prefers to accept it, the Owner may do so. In such case, if acceptance occurs prior to approval of final payment, a Change Order shall be issued incorporating the necessary revisions in the Contract Documents, including appropriate reduction in the Contract Price, or, if the acceptance occurs after approval of final payment, an appropriate amount shall be paid by Contractor to Owner.
- 21.11 If Contractor should fail to progress the Work in accordance with the Contract Documents, including any requirements of the Progress Schedule, Owner, after seven (7) days written Notice to Contractor, may, without prejudice to any other remedy Owner may have, make good such deficiencies and the cost thereof including compensation for additional professional services shall be charged against Contractor. In such cases, a Change Order shall be issued incorporating the necessary revisions in the Contract Documents including

an appropriate reduction in the Contract Price. If the payments then or thereafter due Contractor are not sufficient to cover such amount, Contractor shall pay the difference to Owner.

- 21.12 The Owner may appoint representatives to make periodic visits to the site and observe the progress and quality of the executed Work. These representatives shall be governed by the same restrictions placed on the Owner by these Specifications. The governing body of the Federal, State or local government exercising authority in the area of the Work may appoint representatives to observe the progress and quality of the Work. Contractor shall cooperate with and assist these representatives in the performance of their duties.
- 21.13 The Contractor shall be responsible for the faithful execution of its Contract and the presence or absence of the Owner's or Government's Representative is in no way or manner to be presumed or assumed to relieve in any degree the responsibility or obligation of the Contractor.
- 21.14 The Contractor shall notify the Owner and the Governmental Agency having jurisdiction as to the exact time at which it is proposed to begin Work so the Owner may provide for inspection of all materials, foundations, excavations, equipment, etc., and all or any part of the Work and to the preparation or manufacture of materials to be used whether within the limits of the Work or at any other place.
- 21.15 The Owner or its representatives shall have free access to all parts of the Work and to all places where any part of the materials to be used are procured, manufactured or prepared. The Contractor shall furnish the Owner all information relating to the Work and the material therefor, which may be deemed necessary or pertinent, and with such samples of materials as may be required. The Contractor, at its own expense, shall supply such labor and assistance as may be necessary in the handling of materials for proper inspection or for inspection of any Work done by it.
- 21.16 No verbal instructions given to the Contractor by the Owner, Project Representative or any of their agents shall change or modify the written Contract. Contractors shall make no claims for additional payments or time based upon verbal instructions.

## 22.00 SUBSURFACE CONDITIONS

- 22.01 It is understood and agreed that the Contractor is familiar with the subsurface conditions that will be encountered and its price bid for the Work includes all of the costs involved for Work in these conditions and it is furthermore agreed that it has taken into consideration, prior to its Bid and acceptance by Owner, all of the subsurface conditions normal or unusual that might be encountered in the location of the Work.
- 22.02 Should the Contractor encounter during the progress of the Work subsurface conditions at the site materially differing from those shown on the Drawings or indicated in the Specifications, the attention of the Owner shall be directed to such conditions before the

conditions are disturbed. If the Owner finds that the conditions materially differ from those shown on the Drawings or indicated in the Specifications, it shall at once make such changes in the Drawings or Specifications as it may find necessary, and any increase or decrease in cost or extension of time resulting from such changes shall be adjusted in the same manner as provided for changes for Extra Work. The Contractor shall submit breakdowns of all costs in a manner as instructed and approved by the Owner.

## 23.00 REMOVAL AND DISPOSAL OF STRUCTURES AND OBSTRUCTIONS

- 23.01 Bidder shall thoroughly examine the site of the Work and shall include in its Bid the cost of removing all structures and obstructions in the way of the Work.
- 23.02 The Contractor shall remove any existing structures or part of structures, fence, building or other encumbrances or obstructions that interfere in any way with the Work. Compensations for the removal of any structure shall be made only if the item(s) to be removed was/were listed as pay item(s) on the Proposal.
- 23.03 If called for in the Special Conditions, all privately and publicly owned materials and structures removed shall be salvaged without damage and shall be piled neatly and in an acceptable manner upon the premises if it belongs to an abutting property owner, otherwise at accessible points along the improvements. Materials in structures which is the property of the Owner or property of any public body, private body or individual which is fit for use elsewhere, shall remain property of the original Owner. It shall be carefully removed without damage, in sections which may be readily transported; same shall be stored on or beyond the right of way. The Contractor will be held responsible for the care and preservation for a period of ten (10) days following the day the last or final portion of the materials stored at a particular location are placed thereon. When privately owned materials are stored beyond the right of way, the Contractor will be held responsible for such care and preservation for a period of ten (10) days responsibility period for care and preservation of the materials begins. The Contractor must furnish the Owner with evidence satisfactory that the proper owner of the materials has been duly notified by the Contractor that the said owner must assume responsibility for its materials on the date following the Contractor's ten (10) day responsibility.

## 24.00 INSURANCE

- 24.01 Contractor shall secure and maintain at its expense such insurance that will protect it and the Parish from claims for injuries to persons or damages to property which may arise from or in connection with the performance of Services or Work hereunder by the Contractor, his agents, representatives, employees, and/or subcontractors. The cost of such insurance shall be included in Contractor's bid.
- 24.02 The Contractor shall not commence work until it has obtained all insurance as required for the Parish Project. If the Contractor fails to furnish the Parish with the insurance protection



required and begins work without first furnishing Parish with a currently dated certificate of insurance, the Parish has the right to obtain the insurance protection required and deduct the cost of insurance from the first payment due the Contractor. Further deductions are permitted from future payments as are needed to protect the interests of the Parish including, but not limited to, renewals of all policies.

- 24.03 Payment of Premiums: The insurance companies issuing the policy or policies shall have no recourse against the Parish of St. Tammany for payment of any premiums or for assessments under any form of policy.
- 24.04 Deductibles: Any and all deductibles in the described insurance policies shall be assumed by and be at the sole risk of the Contractor.
- 24.05 Authorization of Insurance Company(ies) and Rating: All insurance companies must be authorized to do business in the State of Louisiana and shall have an A.M. Best rating of no less than A-, Category VII.
- 24.06 Policy coverages and limits must be evidenced by Certificates of Insurance issued by Contractor's carrier to the Parish and shall reflect:

Date of Issue: Certificate must have current date.

Named Insured: The legal name of Contractor under contract with the Parish and its principal place of business shall be shown as the named insured on all Certificates of Liability Insurance.

Name of Certificate Holder: St. Tammany Parish Government, Office of Risk Management, P. O. Box 628, Covington, LA 70434

Project Description: A brief project description, including Project Name, Project Number and/or Contract Number, and Location.

Endorsements and Certificate Reference: All policies must be endorsed to provide, and certificates of insurance must evidence the following:

Waiver of Subrogation: The Contractor's insurers will have no right of recovery or subrogation against the Parish of St. Tammany, it being the intention of the parties that all insurance policy(ies) so affected shall protect both parties and be the primary coverage for any and all losses covered by the below described insurance. *Policy endorsements required for all coverages.*

Additional Insured: The Parish of St. Tammany shall be named as additional named insured with respect to general liability, marine liability, pollution/environmental liability, automobile liability and excess liability coverages. *Policy endorsements required.*

Hold Harmless: Contractor's liability insurers shall evidence their cognizance of the Hold Harmless and Indemnification in favor of St. Tammany Parish Government by referencing same on the face of the Certificate(s) of Insurance.

Cancellation Notice: Producer shall provide thirty (30) days prior written notice to the Parish of policy cancellation or substantive policy change.

24.07 The types of insurance coverage the Contractor is required to obtain and maintain throughout the duration of the Contract, include, but is not limited to:

1. Commercial General Liability insurance with a Combined Single Limit for bodily injury and property damage of at least \$1,000,000 per Occurrence/\$3,000,000 General Aggregate/Products-Completed Operations Per Project. The insurance shall provide for and the certificate(s) of insurance shall indicate the following coverages:
  - a) Premises - operations;
  - b) Broad form contractual liability;
  - c) Products and completed operations;
  - d) Personal Injury;
  - e) Broad form property damage;
  - f) Explosion and collapse.
2. Marine Liability/Protection and Indemnity insurance is required for any and all vessel and/or marine operations in the minimum limits of \$1,000,000 per occurrence/\$2,000,000 per project general aggregate. The coverage shall include, but is not limited to, the basic coverages found in the Commercial General Liability insurance and coverage for third party liability.
3. Contractors' Pollution Liability and Environmental Liability insurance in the minimum amount of \$1,000,000 per occurrence, \$2,000,000 general aggregate and include coverage for full contractual liability and for all such environmental and/or hazardous waste exposures affected by this project.
4. Business Automobile Liability insurance with a Combined Single Limit of \$1,000,000 per Occurrence for bodily injury and property damage, and shall include coverage for the following:
  - a) Any automobiles;
  - b) Owned automobiles;
  - c) Hired automobiles;
  - d) Non-owned automobiles;
  - e) Uninsured motorist.

5. Workers' Compensation/Employers Liability insurance: worker's compensation insurance coverage and limits as statutorily required; Employers' Liability Coverage shall be not less than \$1,000,000 each accident, \$1,000,000 each disease, \$1,000,000 disease policy aggregate, except when projects include exposures covered under the United States Longshoremen and Harbor Workers Act, Maritime and/or Jones Act and/or Maritime Employers Liability (MEL) limits shall be not less than \$1,000,000/\$1,000,000/\$1,000,000. *Coverage for owners, officers and/or partners shall be included in the policy and a statement of such shall be made by the insuring producer on the face of the certificate.*
  6. Owners Protective Liability (OPL) (formerly Owners and Contractors Protective Liability (OCP) Insurance) shall be furnished by the Contractor naming St. Tammany Parish Government as the Named Insured and shall provide coverage in the minimum amount of \$1,000,000 combined single limit (CSL) each occurrence, \$2,000,000 aggregate. Any project valued in excess of \$3,000,000 shall be set by the Office of Risk Management. The policy and all endorsements shall be addressed to St. Tammany Parish Government, Office of Risk Management, P. O. Box 628, Covington, LA 70434.
  7. Builder's Risk Insurance shall be required on buildings, sewage treatment plants and drainage pumping stations, and shall be written on an "all-risk" or equivalent policy form in the amount of the full value of the initial Contract sum, plus value of subsequent Contract modifications and cost of materials supplied or installed by others, comprising 100% total value for the entire project including foundations. Deductibles should not exceed \$5,000 and Contractor shall be responsible for any and all policy deductibles. This insurance shall cover portions of the work stored off the site, and also portions of the work in transit. In addition, Installation Floater Insurance, on an "all-risk" form, will be carried on all pumps, motors, machinery and equipment on the site or installed. Both the Builder's Risk Insurance and the Installation Floater Insurance shall include the interests of the Owner, Contractor, Subcontractors, and Sub-subcontractors and shall terminate only when the Project has been accepted. St. Tammany Parish Government, P. O. Box 628, Covington, LA 70434 shall be the first named insured on the Builder's Risk and Installation Floater Insurance.
  8. Professional Liability (errors and omissions) insurance in the sum of at least One Million Dollars (\$1,000,000) per claim with Two Million Dollars (\$2,000,000) annual aggregate.
  9. An umbrella policy or excess policy may be required and/or allowed to meet minimum coverage limits, subject to the review and approval by St. Tammany Parish Government, Office of Risk Management.
- 24.08 All policies of insurance shall meet the requirements of the Parish of St. Tammany prior to the commencing of any work. The Parish of St. Tammany has the right, but not the duty, to approve all insurance policies prior to commencing of any work. If at any time, it

becomes known that any of the said policies shall be or becomes unsatisfactory to the Parish of St. Tammany as to form or substance; or if a company issuing any such policy shall be or become unsatisfactory to the Parish of St. Tammany, the Contractor shall promptly obtain a new policy, timely submit same to the Parish of St. Tammany for approval and submit a certificate thereof as provided above. The Parish agrees to not unreasonably withhold approval of any insurance carrier selected by Contractor. In the event that Parish cannot agree or otherwise authorize said carrier, Contractor shall have the option of selecting and submitting new insurance carrier within 30 days of said notice by the Parish. In the event that the second submission is insufficient or is not approved, then the Parish shall have the unilateral opportunity to thereafter select a responsive and responsible insurance carrier all at the cost of Contractor and thereafter deduct from Contractor's fee the cost of such insurance.

- 24.09 Upon failure of Contractor to furnish, deliver and/or maintain such insurance as above provided, the contract, at the election of the Parish of St. Tammany, may be forthwith declared suspended, discontinued or terminated. Failure of the Contractor to maintain insurance shall not relieve the Contractor from any liability under the contract, nor shall the insurance requirements be construed to conflict with the obligation of the Contractor concerning indemnification.
- 24.10 Contractor shall maintain a current copy of all annual insurance policies and provide same to the Parish of St. Tammany as may be reasonably requested.
- 24.11 It shall be the responsibility of Contractor to require that these insurance requirements are met by all contractors and sub-contractors performing work for and on behalf of Contractor. Contractor shall further ensure the Parish is named as additional insured on all insurance policies provided by said contractor and/or sub-contractor throughout the duration of the project, and that renewal certificates for any policies expiring prior to the Parish's final acceptance of the project shall be furnished to St. Tammany Parish Government, Department of Legal, Office of Risk Management, without prompting.

**NOTICE:**

*These are only an indication of the coverages that are generally required. Additional coverages and/or limits may be required for projects identified as having additional risks or exposures. Please note that some requirements listed may not necessarily apply to your specific services. St. Tammany Parish Government reserves the right to remove, replace, make additions to and/or modify any and all of the insurance requirement language upon review of the final scope of services presented to Office of Risk Management prior to execution of a contract for services.*

**For inquiries regarding insurance requirements, please contact:**

**St. Tammany Parish Government**

**Office of Risk Management**

**P. O. Box 628**

**Covington, LA 70434**

**Telephone: 985-898-5226**

**Email: [riskman@stpgov.org](mailto:riskman@stpgov.org)**

24.12 Nothing contained in these insurance requirements is to be construed as limiting the extent of the Contractor's Responsibility for payment of damages resulting from its operations under this Contract.

25.00 OWNER'S RIGHT TO OCCUPANCY

25.01 The Owner shall have the right to use, at any time, any and all portions of the Work that have reached such a stage of completion as to permit such occupancy, provided such occupancy does not hamper the Contractor or prevent its efficient completion of the Contract or be construed as constituting an acceptance of any part of the Work.

25.02 The Owner shall have the right to start the construction of houses, structures or any other building concurrent with the Contractor's Work.

26.00 SURVEY HORIZONTAL AND VERTICAL CONTROL

26.01 The Owner shall provide surveys for construction to establish reference points which in its judgment are necessary to enable Contractor to layout and proceed with its Work. Contractor shall be responsible for surveying and laying out the Work and shall protect and preserve the established reference points and shall make no changes or relocations without the prior written approval of the Owner. Contractor shall report to Owner whenever any reference point is lost or destroyed and the Owner shall decide if the reference point shall be replaced by its or the Contractor's forces.

- 26.02 The Contractor shall establish lines and grades with its own forces in sufficient number and location for the proper execution of the Work.
- 26.03 If the Contractor, during the construction, damages the established property corners and/or other markers and thereafter requests the Owner to re-stake same in order to complete the project, this expense will be borne solely by the Contractor.
- 27.00 TERMINATION OF THE CONTRACT, OWNER'S AND CONTRACTORS RIGHT TO STOP WORK.
- 27.01 If the Contractor should be adjudged bankrupt (voluntarily or involuntarily) or if it should make a general assignment for the benefit of its creditors, or if a receiver should be appointed on account of its insolvency, or if it should persistently or repeatedly refuse or should fail (except in cases for which extension of time is provided) to supply enough properly skilled workmen or proper materials, or if it should fail to make prompt payment to Subcontractors or for material or labor, or persistently disregard laws, ordinances or the instructions of the Owner, or otherwise be guilty of a substantial violation of any provision of the Contract, then the Owner, upon the certificate of the Owner that, in its unilateral discretion and judgment, believes sufficient cause exists to justify such action, may, without prejudice to any other right or remedy and after giving the Contractor ten (10) calendar days written notice, terminate the employment of the Contractor and take possession of the premises and of all materials, tools and appliances thereon and finish the Work by whatever method the Owner may deem expedient.
- 27.02 Failure of the Contractor to start the Work within the time limit specified herein or substantial evidence that the progress being made by the Contractor is sufficient to complete the Work within the specified time shall be grounds for termination of the Contract by the Owner.
- 27.03 Before the Contract is terminated, the Contractor and its surety will first be notified in writing by the Owner of the conditions which make termination of the Contract imminent. When after ten (10) calendar days' notice is given and if satisfactory effort has not been made by the Contractor or its surety to correct the conditions, the Owner may declare, in its exclusive discretion, that the Contract is terminated and so notify the Contractor and its surety accordingly.
- 27.04 Upon receipt of notice from the Owner that the Contract has been terminated, the Contractor shall immediately discontinue all operations. The Owner may then proceed with the Work in any lawful manner that it may elect until Work is finally completed.
- 27.05 The exclusive right is reserved to the Owner to take possession of any machinery, implements, tools or materials of any description that shall be found upon the Work, to account for said equipment and materials, and to use same to complete the Project. When the Work is finally completed, the total cost of same will be computed. If the total cost is less than the Contract Price, the difference will not be paid to the Contractor or its surety.

- 27.06 In case of termination, all expenses incident to ascertaining and collecting losses under the Bond, including legal services, shall be assessed against the Bond.
- 27.07 If the Work should be stopped under any order of any court or public authority for period of sixty (60) calendar days, through no act or fault of the Contractor or anyone employed by it, or if the Owner shall fail to pay the Contractor within a reasonable time any sum certified by the Owner, then the Contractor may, upon ten (10) calendar days written notice to the Owner, stop Work or terminate this Contract and recover from the Owner payment for all Work properly and professionally executed in a workmanlike manner. This loss specifically includes actual cost of materials and equipment, together with all wages inclusive of all federal, state, and local tax obligations. This loss specifically includes reimbursement of all insurances on a pro-rata basis from the date of termination to date of policy period. This loss excludes and specifically does not include recovery by the Contractor for lost profit, indirect & direct expenses, overhead, and the like.

#### 28.00 PAYMENTS TO THE CONTRACTOR

- 28.01 Monthly certificates for partial payment, in a form approved by the Owner, shall be transmitted to the Owner upon receipt from the Contractor and acceptance by the Owner. In accordance with LSA-R.S. 38:2248(A), when the Contract Price is less than five hundred thousand dollars, these certificates shall be equal to ninety percent (90%) of both the Work performed and materials stored at the site; and when the Contract Price is five hundred thousand dollars or more, these certificates shall be equal to ninety-five percent (95%) of both the Work performed and materials stored at the site. Partial payment certificates shall include only Work, materials and equipment that are included in official Work Order and which meet the requirements of plans, Specifications and Contract Documents. These monthly estimates shall show the amount of the original estimate for each item, the amount due on each item, the gross total, the retained percentage, the amount previously paid and the net amount of payment due.
- 28.02 After final completion and acceptance by the Owner of the entire Work, and when the Contract Price is less than five hundred thousand dollars, the Owner shall issue to the Contractor Certificate of Payment in sum sufficient to increase total payments to ninety percent (90%) of the Contract Price. After final completion and acceptance by the Owner of the entire Work, and when the Contract Price is five hundred thousand dollars or more, the Owner shall issue to the Contractor Certificate of Payment in sum sufficient to increase total payments to ninety-five percent (95%) of the Contract Price.
- 28.03 When the Contract Price is less than five hundred thousand dollars, the final payment certificate of the remaining ten percent (10%) of the Contract Price, minus any deduction for deficient or Defective Work or other applicable deductions, will be issued by the Owner forty-five (45) days after filing acceptance in the Mortgage Office of the Parish and a Clear Liens and Privilege Certificate has been secured. When the Contract Price is five hundred thousand dollars or more, the final payment certificate of the remaining five percent (5%)

of the Contract Price, minus any deduction for deficient or Defective Work or other applicable deductions, will be issued by the Owner forty-five (45) days after filing acceptance in the Mortgage Office of the Parish and a Clear Liens and Privilege Certificate has been secured. Before issuance of the final payment certificate, the Contractor shall deposit with the Owner a certificate from the Clerk of Court and Ex-Officio Recorder of Mortgages from the Parish in which the Work is performed to the effect that no liens have been registered against Contract Work.

- 28.04 When, in the opinion of the Contractor, the Work provided for and contemplated by the Contract Documents has been substantially completed, the Contractor shall notify the Owner in writing that the Work is substantially complete and request a final inspection. The Owner shall proceed to perform such final inspection accompanied by the Contractor. Any and all Work found by this inspection to be Defective or otherwise not in accordance with the plans and Specifications shall be corrected to the entire satisfaction of the Owner and at the sole expense of the Contractor. If the Contract is found to be incomplete in any of its details, the Contractor shall at once remedy such defects, and payments shall be withheld and formal acceptance delayed until such Work has been satisfactorily completed.
- 28.05 If payment is requested on the basis of materials and equipment not incorporated in the Work, but delivered and suitably stored and protected from damage and theft at the site, the Request for Payment shall also be accompanied by such data, satisfactory to the Owner, as will establish Owner's title to the material and equipment and protect its interest therein, including applicable insurance.
- 28.06 Each subsequent Request for Payment shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied to discharge in full all of Contractor's obligations reflected in prior Request for Payment.
- 28.07 Each subsequent request for payment shall include an affidavit by Contractor that Contractor, all subcontractors, agents, material suppliers and all other persons supplying material to the project upon which State of Louisiana and/or St. Tammany sales taxes are lawfully due have paid these taxes and that all supplies and materials purchased for this project and for which Contractor has been paid have had all lawfully due State and/or St. Tammany sales taxes paid.
- 28.08 The Bid Proposal, unless otherwise modified in writing, and the Contract constitute the complete Project. The Contract Prices constitute the total compensation payable to Contractor and the cost of all of the Work and materials, taxes, permits and incidentals must be included into the Bid submitted by the Contractor and included into those items listed on the Proposal.
- 28.09 Any additional supporting data required by the Owner in order to substantiate Contractor's request for payment shall be furnished by Contractor at no cost to the Owner.
- 28.10 Owner may withhold from payment to Contractor as may be necessary to protect itself from loss on account of:



- (1) Defective and/or inferior work;
- (2) Damage to the property of Owner or others caused by Contractor;
- (3) Failure by Contractor to make payments properly to sub-contractors or to pay for labor, materials or equipment used on this project;
- (4) Failure by Contractor to pay taxes due on materials used on this project;
- (5) Damage by Contractor to another Contractor;
- (6) Insolvency;
- (7) Bankruptcy, voluntary or involuntary;
- (8) Revocation of corporate status;
- (9) Failure to follow corporate formalities;
- (10) Unprofessional activities;
- (11) Unworkmanlike performance;
- (12) Fraud and/or misrepresentation of any kind.

#### 29.00 ACCEPTANCE AND FINAL PAYMENT(S)

- 29.01 Upon receipt of written notice from Contractor that the work is substantially complete and usable by Owner or the Public in suitable manner, the Owner and the Contractor shall jointly inspect the work.
- 29.02 If the Owner by inspection determines that the work is not substantially complete in a suitable manner for use by the Owner or the Public, then the Owner shall so notify the Contractor in writing stating such reason. All reasons need not be disclosed unless actually known. The Owner is afforded an opportunity to amend said notices as are reasonably possible.
- 29.03 If the Owner by its inspection determines that the work is substantially complete, it shall prepare a list of all items not satisfactorily completed and shall notify the Contractor and Owner in writing that the work is substantially complete and subject to satisfactory resolution of those items on the list (punch list). Punch lists may be amended from time to time by Owner in the event that additional deficiencies are discovered. In accordance with LSA-R.S. 38:2248(B), any punch list generated during a construction project shall include the cost estimates for the particular items of work the design professional has developed based on the mobilization, labor, material, and equipment costs of correcting each punch list item. The design professional shall retain his working papers used to determine the punch list items cost estimates should the matter be disputed later. The contract agency shall not withhold from payment more than the value of the punch list. Punch list items completed shall be paid upon the expiration of the forty-five (45) day lien period. The provisions of this Section shall not be subject to waiver.
- 29.04 Upon determination of substantial completeness with the punch list, the Contract Time is interrupted and the Contractor is given a reasonable time not to exceed thirty (30) consecutive calendar days to effect final completion by correcting or completing all of those items listed on the punch list. If the items on the punch list are not completed in a satisfactory manner within the thirty day period, then the Contract Time will begin to run

again and will include for purposes of determining liquidated damages the thirty day period the grace period being withdrawn.

- 29.05 Upon receipt by Owner of written determination that all work embraced by the contract has been completed in a satisfactory manner, the Owner shall provide a written acceptance to Contractor who shall record Owner's written acceptance with the recorder of Mortgages, St. Tammany Parish. The Contractor shall properly prepare, submit and pay for all costs associated with said Acceptance. The Contractor is also responsible for preparation, re-submission and payment of any and all updated certificates.
- 29.06 Retainage monies, minus those funds deducted in accordance to the requirements of this agreement including but not limited to Paragraph 28.10, shall be due Contractor not earlier than forty-six (46) calendar days after recordation of certificate of Owner's acceptance provided the following:
- (1) Contractor shall prepare, secure, pay for and submit clear lien and privilege certificate, signed and sealed by Clerk of Court or Recorder of Mortgages, Parish of St. Tammany and dated at least forty-six (46) days after recordation of certificate of acceptance;
  - (2) Ensure that the official representative of the Owner has accepted as per LSA-R.S. 38:2241.1, *et seq.* and that all following sub-sections have been properly satisfied as per law;
  - (3) Ensure that all signatures are affixed and that there exists the requisite authority for all signatures;
  - (4) Ensure accurate and proper legal descriptions;
  - (5) Properly identify all parties and/or signatories;
  - (6) Properly identify all mailing addresses;
  - (7) Correctly set for the amount of the contract, together with all change orders;
  - (8) Set out a brief description of the work performed;
  - (9) Reference to any previously recorded contract, lien or judgment inscription that may affect the property;
  - (10) Certification that substantial completion has occurred, together with any applicable date(s);
  - (11) Certification that no party is in default and/or that the project has been abandoned.

29.07 After securing the clear lien and privilege certificate the Contractor shall prepare its final application for payment and submit to Owner. The Owner shall approve application for payment, or state its objections in writing and forward to Contractor for resolution.

### 30.00 NOTICE AND SERVICE THEREOF

30.01 Any Notice to Contractor from the Owner relative to any part of this Contract shall be in writing and shall be considered delivered and the service thereof completed when said notice is posted; by certified mail, return receipt requested to the said Contractor at its last given address, or delivered in person to said Contractor or its authorized representative on the Work.

### 31.00 INTENTION OF THESE GENERAL CONDITIONS

31.01 These General Conditions shall be applicable to all contracts entered into by and between the Owner and Contractors, except as may be altered or amended with the consent of the Owner, and/or provided for in the Special Conditions of each contract. Contractor shall be presumed to have full knowledge of these General Conditions which shall be applicable to all contracts containing these General Conditions, whether Contractor has obtained a copy thereof or not.

### 32.00 SEVERABILITY

32.01 If any one or more or part of any of the provisions contained herein and/or in the Specifications and Contract for the Work shall for any reason be held invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions of this Agreement or attachment, but it shall be construed as if such invalid, illegal, or unenforceable provision or part of a provision had never been contained herein.

32.02 CHANGING THESE CONDITIONS: Owner reserves the right to change or modify these General Conditions as it deems best, or as required by law. The General Conditions may also be modified for a particular project by the use of Special Conditions prior to the issuance of the Advertisement for Bid. However, once an advertisement for bid is made for any specific project, any changes to the General Conditions as they affect that specific project must be made in writing and issued via an addendum in accordance with State Law.

### 33.00 LAW OF THE STATE OF LOUISIANA

33.01 The Contract Documents shall be governed by the Law of the State of Louisiana.

33.02 The Contractor agrees to pay reasonable attorney's fees and other reasonable attendant

costs, in the event that it becomes necessary for the Owner to employ an attorney in order to enforce compliance with or any remedy relating to any covenants, obligations, or conditions imposed upon the Contractor by this Agreement. Attorney fees shall be based upon the prevailing hourly rate of attorney rates in the private sector. In no case shall the hourly rate be less than \$175.00 per hour. All attorney fees collected shall be paid the operating budget of the Office of the Parish President.

- 33.03 The jurisdiction and venue provisions shall apply to all contractors, sureties, and subcontractors. The 22nd Judicial District for the Parish of St. Tammany shall be the court of exclusive jurisdiction and venue for any dispute arising from these General Conditions and/or any contract executed in conjunction with these General Conditions. All parties specifically waive any rights they have or may have for removal of any disputes to Federal Court, or transfers to different State District Court.
- 33.04 Contractor warrants that it has and/or had received a copy of these General Conditions at all times material hereto; Contractor further agrees that it has read and fully and completely understands each and every condition herein.
- 33.05 The property description will be more fully set out by an attached exhibit.
- 33.06 The Contractor warrants that it has the requisite authority to sign and enter this agreement.
- 33.07 It is specifically understood and agreed that in the event Contractor seeks contribution from the Parish or pursues its legal remedies for any alleged breach of this agreement by the Parish, then the following list of damages SHALL NOT BE RECOVERABLE BY CONTRACTOR. This list includes, but is not limited to:
1. indirect costs and/or expenses;
  2. direct costs and/or expenses;
  3. time-related costs and/or expenses;
  4. award of extra days;
  5. costs of salaries or other compensation of Contractor's personnel at Contractor's principal office and branch offices;
  6. expenses of Contractor's principal, branch and/or field offices;
  7. any part of Contractor's capital expenses, including any interest on Contractor's capital employed for the work;
  8. any other charges related to change orders;
  9. overhead and general expenses of any kind or the cost of any item not specifically and expressly included in Cost of Work.

33.08 DEFAULT AND WAIVERS

It is understood that time is of the essence. It is specifically understood between the parties that Contractor waives any and all notice to be placed in default by the Owner. This subsection shall supersede and prime any other subsection herein above that is in conflict. The Owner specifically reserves its right and specifically does not waive the requirement

to be placed in default by the Contractor as per law.

33.09 St. Tammany Parish Government contracts to be awarded are dependent on the available funding and/or approval by members designated and/or acknowledged by St. Tammany Parish Government. At any time St. Tammany Parish Government reserves the right to cancel the award of a contract if either or both of these factors is deficient.

33.10 It is the Parish's policy to provide a method to protest exclusion from a competition or from the award of a contract, or to challenge an alleged solicitation irregularity. It is always better to seek a resolution within the Parish system before resorting to outside agencies and/or litigation to resolve differences. All protests must be made in writing, and shall be concise and logically presented to facilitate review by the Parish. The written protest shall include:

1. The protester's name, address, and fax and telephone numbers and the solicitation, bid, or contract number;
2. A detailed statement of its legal and factual grounds, including a description of the resulting prejudice to the protester;
3. Copies of relevant documents;
4. All information establishing that the protester is an interested party and that the protest is timely; and
5. A request for a ruling by the agency; and a statement of the form of relief requested.

The protest shall be addressed to Director of Procurement, St. Tammany Parish Government, P.O. Box 628, Covington, LA 70434.

The protest review shall be conducted by the Parish Procurement Department.

Only protests from interested parties will be allowed. Protests based on alleged solicitation improprieties that are apparent before bid opening, or the time set for receipt of initial proposals must be filed with and received by the Procurement Department BEFORE those deadlines.

Any other protest shall be filed no later than ten (10) calendar days after the basis of the protest is known, or should have been known (whichever is earlier).

The Parish will use its best efforts to resolve the protest within thirty (30) days of the date that it is received by the Parish. The written response will be sent to the protestor via mail and, fax, if a fax number has been provided by the protestor. The protestor can request additional methods of notification.

Last day to submit questions and/or verification on comparable products will be no later

than 2:00 pm CST, seven (7) working days prior to the opening date of the bid/proposal due date. Further any questions or inquires must be submitted via fax to 985-898-5227, or via email to [Procurement@stpgov.org](mailto:Procurement@stpgov.org). Any questions or inquires received after the required deadline to submit questions or inquires will not be answered.

## CORPORATE RESOLUTION

EXCERPT FROM MINUTES OF MEETING OF THE BOARD OF DIRECTORS OF INCORPORATED.

AT THE MEETING OF DIRECTORS OF \_\_\_\_\_ INCORPORATED, DULY NOTICED AND HELD ON \_\_\_\_\_, 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 THE PARISH OF ST. TAMMANY 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 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 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

\_\_\_\_\_

DATE

\_\_\_\_\_

## Section 10

### Certificate of Insurance Instructions

The below information is intended to guide Contractors on what information is needed to be listed on the Certificate of Insurance. All Insurance limit requirements can be found in Attachment D.

- **Certificate Holder** – STPG must be listed as the certificate holder, and it must include our address of: P.O. Box 628, Covington, LA 70434
  - Reason: the certificate holder is where cancellations of coverage, or updated certificates are mailed. If a vendor terminates a policy, we will be notified.
- **Additional Insured** – We must be named as an additional insured so that if there is a lawsuit against the vendor for a project, their coverage will cover STPG as well if we are named in the lawsuit.
  - We must be named in the Description of Operations box – reason: there could be other additional insureds, and we want to have no doubt that we are one of the additional insureds.
  - We must be named as additional insured on the following coverages: General liability, Auto Liability, Umbrella/Excess Liability, Environmental/Pollution Liability.
  - Professional Liability policies do not allow for an additional insured by most carriers.
- **Project Name & Contract #** - We need this listed in the Description of Operations, again so that if there is a lawsuit, we have proof that coverage was active for that project.
- **Waiver of Subrogation** – This can either be listed in the Description of Operations or checked off in the appropriate columns.

From the Insurance Requirement form:

*Waiver of Subrogation: The Provider's insurers will have no right of recovery or subrogation against the Parish of St. Tammany, it being the intention of the parties that all insurance policy(ies) so affected shall protect both parties and be the primary coverage for any and all losses covered by the below described insurance.*

- **Owners Protective Liability (OPL) or (OCP)** – Certificate of Insurance for OCP names St. Tammany Parish Government as the Insured and the Certificate Holder.
- Sample of Certificate of Insurance (COI) can be found on page 2.
- Please refer to this section in the package labeled “Insurance Requirements” for limits required for this project

Any questions regarding insurance requirements please contact the Risk Department at 985-898-5226 or email [riskman@stpgov.org](mailto:riskman@stpgov.org)





# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:		
	PHONE (A/C, No. Ext):	FAX (A/C, No):	
	E-MAIL ADDRESS:		
	INSURER(S) AFFORDING COVERAGE		NAIC #
INSURED	INSURER A :		
	INSURER B :		
	INSURER C :		
	INSURER D :		
	INSURER E :		
	INSURER F :		

**COVERAGES**

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	<b>GENERAL LIABILITY</b> <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC						EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ \$
	<b>AUTOMOBILE LIABILITY</b> <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS						COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
	<b>UMBRELLA LIAB</b> <input type="checkbox"/> OCCUR <b>EXCESS LIAB</b> <input type="checkbox"/> CLAIMS-MADE DED <input type="checkbox"/> RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$ \$
	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below						<input type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Project Name:  
Contract #:

(Name St. Tammany Parish Government as an additional insured).

**CERTIFICATE HOLDER****CANCELLATION**St. Tammany Parish Government  
P.O. Box 628  
Covington, LA 70434

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

# Section 11

Bond No.: \_\_\_\_\_

## CONTRACT AGREEMENT BETWEEN PARISH AND CONTRACTOR

**BY: ST. TAMMANY PARISH GOVERNMENT**

**UNITED STATES OF  
AMERICA**

**WITH:**

**STATE OF LOUISIANA  
ST. TAMMANY PARISH**

This agreement is entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between: «txtREQCompanyName», hereinafter called the "Contractor", whose business address is «txtREQAddress», «txtREQCity», «txtREQState» «txtREQZip» and the St. Tammany Parish Government, hereinafter called the "Parish", whose business address is P.O. Box 628, Covington, LA 70434 (collectively, the "Parties") for «txtPROJECTNAME» project. Witnessed that the Contractor and the Parish, in consideration of premises and the mutual covenants, consideration and agreement herein contained, agree as follows:

## 1. SCOPE OF SERVICES

The Contractor shall furnish all labor and materials and perform all of the work required to build, construct and/or complete in a thorough and workmanlike manner:

«txtScopeSummary»

## 2. CONSTRUCTION DOCUMENTS

It is recognized by the Parties herein that said Construction Documents, including by way of example and not of limitation, the plans and Specifications, General Conditions, Supplementary General Conditions, any addenda thereto, the drawings (if any), and the bid, quote or other procurement documents impose duties and obligations upon the Parties herein, and said Parties thereby agree that they shall be bound by said duties and obligations. For these purposes, all of the provisions contained in the aforementioned Construction Documents are incorporated herein by reference with the same force and effect as though said Construction Documents were herein set out in full. Copies of the aforementioned Construction Documents are in the possession of both the Contractor and the Parish for reference.

**3. TIME FOR COMPLETION**

The work shall be commenced on a date to be specified in a written order of the Parish and shall be completed within «intCompletionTime» calendar days from and after said date.

**4. COMPENSATION TO BE PAID TO THE CONTRACTOR**

The Parish will pay and the Contractor will accept in full consideration for the performance of the Contract the sum of «curREQGrandTotal» dollars.

**5. PERFORMANCE AND PAYMENT BOND**

To these presents personally came and intervened \_\_\_\_\_,  
(Name of Attorney in Fact)  
herein acting for \_\_\_\_\_, a corporation organized  
(Surety)  
and existing under the laws of the State of \_\_\_\_\_, and duly authorized to transact business in the State of Louisiana, as surety, who declared that having taken cognizance of this Contract and of the Construction Documents mentioned herein, he hereby in his capacity as its Attorney in Fact obligates his company, as surety for the said Contractor, unto the said Parish, up to the sum of «curREQGrandTotal». The condition of this performance and payment bond

shall be that should the Contractor herein not perform the Contract in accordance with the terms and conditions hereof, or should said Contractor not fully indemnify and save harmless the Parish from all costs and damages which he may suffer by said Contractor's non-performance or should said Contractor not pay all persons who have fulfilled obligations to perform labor and/or furnish materials in the prosecution of the work provided for herein, including by way of example, workmen, laborers, mechanics, and furnishers of materials, machinery, equipment and fixtures, then said surety agrees and is bound to so perform the Contract and make said payment(s).

Contractor and Parish specifically agree to and recognize (1) the statutory employer relationship existing between the Parish and any employees performing work under this Contract as employees of the Contractor or employees of the "Sub-Contractor", and (2) that the work performed by the employees of the Contractor and the employees of the "Sub-Contractor" is part of the Parish's business, occupation or trade and is essential to the ability of the Parish to generate their products or services, all of which is in accordance with LSA-R.S. 23:1061, and as may be amended.

## 6. LIABILITY AND INDEMNIFICATION

### A. Duty to Defend

Upon notice of any claim, demand, suit, or cause of action against the Parish, alleged to arise out of or be related to this Contract, Contractor shall investigate, handle, respond to, provide defense for, and defend at its sole expense, even if the claim, demand, suit, or cause of action is groundless, false, or fraudulent. The Parish may, but is not required to, consult with or assist the Contractor, but this assistance shall not affect the Contractor's obligations, duties, and responsibilities under this section. Contractor shall obtain the Parish's written consent before entering into any settlement or dismissal.

### B. Contractor Liability

Contractor shall be liable without limitation to the Parish for any and all injury, death, damage, loss, destruction, damages, costs, fines, penalties, judgments, forfeitures, assessments, expenses (including attorney fees), obligations, and other liabilities of every name and description, which may occur or in any way arise out of any act or omission of Contractor, its owners, agents, employees, partners or subcontractors.

**C. Force Majeure**

It is understood and agreed that neither party can foresee the exigencies beyond the control of each party which arise by reason of an Act of God or force majeure; therefore, neither party shall be liable for any delay or failure in performance beyond its control resulting from an Act of God or force majeure. The Parish shall determine whether a delay or failure results from an Act of God or force majeure based on its review of all facts and circumstances. The parties shall use reasonable efforts, including but not limited to, use of continuation of operations plans (COOP), business continuity plans, and disaster recovery plans, to eliminate or minimize the effect of such events upon the performance of their respective duties under this Contract.

**D. Indemnification**

Contractor shall fully indemnify and hold harmless the Parish, without limitation, for any and all injury, death, damage, loss, destruction, damages, costs, fines, penalties, judgments, forfeitures, assessments, expenses (including attorney fees), obligations, and other liabilities of every name and description, which may occur or in any way arise out of any act or omission of Contractor, its

owners, agents, employees, partners or subcontractors. The Contractor shall not indemnify for the portion of any loss or damage arising from the Parish's act or failure to act.

**E. Intellectual Property Indemnification**

Contractor shall fully indemnify and hold harmless the Parish, without limitation, from and against damages, costs, fines, penalties, judgments, forfeitures, assessments, expenses (including attorney fees), obligations, and other liabilities in any action for infringement of any intellectual property right, including but not limited to, trademark, trade-secret, copyright, and patent rights.

When a dispute or claim arises relative to a real or anticipated infringement, the Contractor, at its sole expense, shall submit information and documentation, including formal patent attorney opinions, as required by the Parish.

If the use of the product, material, service, or any component thereof is enjoined for any reason or if the Contractor believes that it may be enjoined, Contractor, while ensuring appropriate migration and implementation, data integrity, and



minimal delays of performance, shall at its sole expense and in the following order of precedence: (i) obtain for the Parish the right to continue using such product, material, service, or component thereof; (ii) modify the product, material, service, or component thereof so that it becomes a non-infringing product, material, or service of at least equal quality and performance; (iii) replace the product, material, service, or component thereof so that it becomes a non-infringing product, material, or service of at least equal quality and performance; or, (iv) provide the Parish monetary compensation for all payments made under the Contract related to the infringing product, material, service, or component, plus for all costs incurred to procure and implement a non-infringing product, material, or service of at least equal quality and performance. Until this obligation has been satisfied, the Contractor remains in default.

The Contractor shall not be obligated to indemnify that portion of a claim or dispute based upon the Parish's unauthorized: i) modification or alteration of the product, material or service; ii) use of the product, material or service in combination with other products not furnished by Contractor; or, iii) use of the

product, material or service in other than the specified operating conditions and environment.

## **7. MODIFICATION OF CONTRACT TERMS**

Provided that any alterations which may be made in the terms of the Contract or in the work to be done under it, or the giving by the Parish of any extensions of time for the performance of the Contract, or any other forbearance on the part of either the Parish or the Contractor to the other shall not in any way release the Contractor or the Surety from their liability hereunder, notice to the Surety of any such alterations, extensions or other forbearance being hereby waived.

## **8. TERMINATION, CANCELLATION, AND SUSPENSION**

### **A. Termination**

The term of this Contract shall be binding upon the Parties hereto until the work has been completed by the Provider and accepted by the Parish, and all payments required to be made to the Provider have been made. But, this Contract may be terminated upon thirty (30) days written notice under any or all of the following conditions:

- 1) By mutual agreement and consent of the Parties hereto;
- 2) By the Parish as a consequence of the failure of the Provider to comply with the terms, progress, or quality of the work in a satisfactory manner, proper allowances being made for circumstances beyond the control of the Provider;
- 3) By either party upon failure of the other party to fulfill its obligations as set forth in this Contract;
- 4) By the Parish with less than thirty (30) days' notice due to budgetary reductions and changes in funding priorities by the Parish;
- 5) In the event of the abandonment of the project by the Parish.

Upon termination, the Provider shall be paid for actual work performed prior to the Notice of Termination, either based upon the established hourly rate for services actually performed, or on a pro-rata share of the basic fee based upon the phase or percentage of work actually completed, depending on the type of compensation previously established under this Contract.

Upon Termination, the Provider shall deliver to the Parish all original documents, notes, drawings, tracings, computer files, and other files pertaining to this Contract or the Work performed, except for the Provider's personal and administrative files.

**B. Cancellation**

The continuation of this Contract is contingent upon the appropriation of funds to fulfill the requirements of the Contract by the Parish. If the Parish fails to appropriate sufficient monies to provide for the continuation of this or any other Contract, or if such appropriation is reduced by the veto of Parish President by any means provided in the appropriations Ordinance to prevent the total appropriation for the year from exceeding revenues for that year, or for any other lawful purpose, and the effect of such reduction is to provide insufficient monies for the continuation of the Contract, the Contract shall terminate on the date of the beginning of the first fiscal year for which funds are not appropriated. It is understood and agreed that paragraph (9)(C) below may preempt this paragraph, all at the exclusive and unilateral option of the Parish.

**C. Suspension**

Should the Parish desire to suspend the work, but not definitely terminate the Contract, the Parish shall supply the Provider with thirty (30) days' notice. The Parish will also

supply Provider thirty (30) days' notice that the work is to be reinstated and resumed in full force. Provider shall receive no additional compensation during the suspension period. The Parties may revisit the terms of this Contract during the suspension period. The suspension shall not exceed six (6) months, unless mutually agreed upon between the Parties.

- D.** Failure to complete or deliver within the time specified or to provide the services as specified in the bid or response will constitute a default and may cause cancellation of the contract. Where the Parish has determined the contractor to be in default. The Parish reserves the right to purchase any or all products or services covered by the contract on the open market and to charge the contractor with the cost in excess of the contract price. Until such assessed charges have been paid, no subsequent bid or response from the defaulting contractor will be considered.
- E.** In the event of a default and/or breach of this agreement and this matter is forwarded to legal counsel, then the prevailing party may be entitled to collect a reasonable attorney fees and all costs associated therewith whether or not litigation is initiated. Attorney fees shall be based upon the current, reasonable prevailing rate for counsel in the private

sector. The Parties agree to be responsible for such attorney fees, together for all with legal interest from date of agreement breach, plus all costs of collection.

- F.** Termination or cancellation of this agreement will not affect any rights or duties arising under any term or condition herein.
- G.** As to the filing of voluntary or involuntary bankruptcy by Provider, Provider agrees that if any execution or legal process is levied upon its interest in this Contract, or if any liens or privileges are filed against its interest, or if a petition in bankruptcy is filed against it, or if it is adjudicated bankrupt in involuntary proceedings, or if it should breach this Contract in any material respect, the Parish shall have the right, at its unilateral option, to immediately cancel and terminate this Contract. In the event that Provider is placed in any chapter of bankruptcy, voluntarily or involuntarily, or otherwise triggers any provision of the preceding sentence herein, it is understood and agreed that all materials, goods and/or services provided shall be and remain the property of the Parish. All rights of Provider as to goods, wares, products, services, materials and the like supplied to Parish shall be deemed forfeited.

## **9. RECORDATION OF CONTRACT**

Contractor authorizes Parish to deduct from any payment due herein costs and service fees for recordation of this Contract in full or an excerpt hereof, or any revisions or modifications thereof as required by law.

## **10. AUTHORITY TO ENTER CONTRACT**

The undersigned representative of Contractor warrants and personally guarantees that he/she has the requisite and necessary authority to enter and sign this Contract on behalf of the corporate entity, partnership, etc. The undersigned Parties warrant and represent that they each have the respective authority and permission to enter this Contract. In the event that Contractor is a member of a corporation, partnership, L.L.C., L.L.P., or any other juridical entity, the Parish requires, as an additional provision, that Contractor supply a certified copy of a corporate resolution authorizing the undersigned to enter and sign this Contract. Another option to fulfill this additional provision he/she can supply Louisiana Secretary of State Business filings confirming that he/she is a managing member of a

corporation, partnership, L.L.C., L.L.P., or any other juridical entity which authorizes the undersigned to enter and sign this Contract.

In Witness thereof, the Parties hereto on the day and year first above written have executed this Contract in One (1) counterparts, each of which shall, without proof or accountancy for the other counterparts, be deemed an original thereof.

**WITNESSES:**

**CONTRACTOR:**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Date



Bond No.: \_\_\_\_\_

**WITNESSES:**

**ST. TAMMANY PARISH  
GOVERNMENT:**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
**Michael B. Cooper**  
**Parish President**

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name

**APPROVED BY:**

\_\_\_\_\_  
**Assistant District Attorney- Civil** (Surety)  
**Division**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name

## Section 12

**Department of the Treasury (DOT) & American Rescue Plan Act (ARPA)  
Federal Contract Clauses  
WATER SECTOR PROGRAM  
31 CFR Part 35 Subpart A**

### **1. EQUAL EMPLOYMENT OPPORTUNITY**

During the performance of this contract, the contractor agrees as follows:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:

Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

(3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.

(4) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(5) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(6) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(7) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(8) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance:

Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States. The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: *Provided*, That if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon

contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

**2. DAVIS-BACON ACT**, as amended (40 U.S.C. 3141-3148). When required by Federal program legislation, all prime construction contracts in excess of \$2,000 awarded by non-Federal entities must include a provision for compliance with the Davis-Bacon Act (40 U.S.C. 3141-3144, and 3146-3148) as supplemented by Department of Labor regulations (29 CFR Part 5, "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction"). In accordance with the statute, contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week. The non-Federal entity must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency. The contracts must also include a provision for compliance with the Copeland "Anti-Kickback" Act (40 U.S.C. 3145), as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that each contractor or subrecipient must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency.

### **3. COMPLIANCE WITH THE CONTRACT WORK HOURS AND SAFETY STANDARDS ACT.**

(1) *Overtime requirements.* No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less

than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) *Violation; liability for unpaid wages; liquidated damages.* In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of \$27 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

(3) *Withholding for unpaid wages and liquidated damages.* The Parish shall upon its own action or upon written request of an authorized representative of the Department of Labor or U.S. Treasury withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) *Subcontracts.* The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (4) of this section.

#### **4. RIGHTS TO INVENTIONS MADE UNDER A CONTRACT OR AGREEMENT**

If the Federal award meets the definition of “funding agreement” under 37 CFR § 401.2 (a) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that “funding agreement,” the recipient or subrecipient must comply with the requirements of 37 CFR Part 401, “Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements,” and any implementing regulations issued by the awarding agency.

#### **5. CLEAN AIR ACT**

(1) The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 *et seq.*

(2) The Contractor agrees to report each violation to the Parish and understands and agrees that the Parish will, in turn, report each violation as required to assure notification to the federal awarding agency, and the appropriate Environmental Protection Agency Regional Office.

(3) The Contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by ARPA.

#### **6. FEDERAL WATER POLLUTION CONTROL ACT**

(1) The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 7401 *et seq.*

(2) The Contractor agrees to report each violation to the Parish and understands and agrees that the Parish will, in turn, report each violation as required to assure notification to the Federal awarding agency, and the appropriate Environmental Protection Agency Regional Office.

(3) The Contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by ARPA.

## **7. SUSPENSION AND DEBARMENT**

(1) This contract is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such, the contractor is required to verify that none of the contractor's principals (defined at 2 C.F.R. § 180.995) or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).

(2) The contractor must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.

(3) This certification is a material representation of fact relied upon by the Parish. If it is later determined that the contractor did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to the Parish, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.

(4) The bidder or proposer agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

## **8. BYRD ANTI-LOBBYING ACT**

The Contractor will be expected to comply with Federal statutes required in the Anti-Lobbying Act. Contractors who apply or bid for an award of more than \$100,000 shall file the required certification. Each tier certifies to the tier above that it will not and has not used federally appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any federal award. Such disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certification(s) to the federal awarding agency.

## **9. PROCUREMENT OF RECOVERED MATERIALS**

In the performance of this Contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired—

- i. Competitively within a timeframe providing for compliance with the Contract performance schedule;
- ii. Meeting Contract performance requirements; or
- iii. At a reasonable price.

Information about this requirement, along with the list of EPA-designate items, is available at EPA's Comprehensive Procurement Guidelines web site, <https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program>.

## **10. PROHIBITION ON CONTRACTING FOR COVERED TELECOMMUNICATIONS EQUIPMENT OR SERVICES.**

(a) *Definitions.* As used in this clause, the terms backhaul; covered foreign country; covered telecommunications equipment or services; interconnection arrangements; roaming; substantial or essential component; and telecommunications equipment or services have the meaning as defined in Public Law 115-232, section 889, Prohibitions on Expending ARPA Award Funds for Covered Telecommunications Equipment or Services (Interim), as used in this clause—

(b) *Prohibitions.*

(1) Section 889(b) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019, Pub. L. No. 115-232, and 2 C.F.R. § 200.216 prohibit the head of an executive agency on or after Aug. 13, 2020, from obligating or expending grant, cooperative agreement, loan, or loan guarantee funds on certain telecommunications products or from certain entities for national security reasons.

(2) Unless an exception in paragraph (c) of this clause applies, the contractor and its subcontractors may not use grant, cooperative agreement, loan, or loan guarantee funds from a federal Agency to:

- (i) Procure or obtain any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology of any system;
- (ii) Enter into, extend, or renew a contract to procure or obtain any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology of any system;
- (iii) Enter into, extend, or renew contracts with entities that use covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system as described in Public Law 115-232, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities). (a) For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities). (b) Telecommunications or video surveillance services provided by such entities or using such equipment. (c) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country;
- (iv) Provide, as part of its performance of this contract, subcontract, or other contractual instrument, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system.

(3) In implementing the prohibition under Public Law 115-232, section 889, subsection (f), paragraph (1), heads of executive agencies administering loan, grant, or subsidy programs shall prioritize available funding and technical support to assist affected businesses, institutions and organizations as is reasonably necessary for those affected entities to transition from covered communications equipment and services, to procure replacement equipment and services, and to ensure that communications service to users and customers is sustained.

(4) See Public Law 115-232, section 889 for additional information.

(5) See also § 200.471.

(c) *Exceptions.*

(1) This clause does not prohibit contractors from providing—

- (i) A service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or
- (ii) Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.

(2) By necessary implication and regulation, the prohibitions also do not apply to:

- (i) Covered telecommunications equipment or services that:
  - i. Are *not used* as a substantial or essential component of any system; *and*
  - ii. Are *not used* as critical technology of any system.
- (ii) Other telecommunications equipment or services that are not considered covered telecommunications equipment or services.

(d) *Reporting requirement.*

(1) In the event the contractor identifies covered telecommunications equipment or services used as a substantial or essential component of any system, or as critical technology as part of any system, during contract performance, or the contractor is notified of such by a subcontractor at any tier or by any other source, the contractor shall report the information in paragraph (d)(2) of this clause to the recipient or subrecipient, unless elsewhere in this contract are established procedures for reporting the information.

(2) The Contractor shall report the following information pursuant to paragraph (d)(1) of this clause:

(i) Within one business day from the date of such identification or notification: The contract number; the order number(s), if applicable; supplier name; supplier unique entity identifier (if known); supplier Commercial and Government Entity (CAGE) code (if known); brand; model number (original equipment manufacturer number, manufacturer part number, or wholesaler number); item description; and any readily available information about mitigation actions undertaken or recommended.

(ii) Within 10 business days of submitting the information in paragraph (d)(2)(i) of this clause: Any further available information about mitigation actions undertaken or recommended. In addition, the contractor shall describe the efforts it undertook to prevent use or submission of covered telecommunications equipment or services, and any additional efforts that will be incorporated to prevent future use or submission of covered telecommunications equipment or services.

(e) *Subcontracts*. The Contractor shall insert the substance of this clause, including this paragraph (e), in all subcontracts and other contractual instruments.

## **11. DOMESTIC PREFERENCES FOR PROCUREMENTS.**

As appropriate, and to the extent consistent with law, the contractor should, to the greatest extent practicable, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States. This includes, but is not limited to iron, aluminum, steel, cement, and other manufactured products.

For purposes of this clause:

*Produced in the United States* means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

*Manufactured products* mean items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

## **12. COMPLIANCE WITH FEDERAL EXECUTIVE ORDERS**

This is an acknowledgement that American Rescue Plan Act will be used to fund the Contract only. The Contractor will comply with all applicable federal law, regulations, executive orders, policies, procedures, and directives.

## **13. NO OBLIGATION BY THE FEDERAL GOVERNMENT**

The Federal Government is not a party to this Contract and is not subject to any obligations or liabilities to the non-Federal entity, Contractor, or any other party pertaining to any matter resulting from the Contract.

## **14. PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS OR RELATED ACTS**

The Contractor acknowledges that 31 U.S.C. Chap. 38 (Administrative Remedies for False Claims and Statements) applies to the Contractor's actions pertaining to this contract.

## **15. CONTRACTING WITH SMALL AND MINORITY BUSINESSES, WOMEN'S BUSINESS ENTERPRISES, AND LABOR SURPLUS AREA FIRMS.**

(a) Any party to this contract must take all necessary affirmative steps to assure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible. These steps are also required for the hiring of any subcontractors under this contract.

(b) Affirmative steps must include:

(1) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;

(2) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;

(3) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises;

- (4) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises; and
- (5) Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.

#### **16. COPYRIGHT AND DATA RIGHTS**

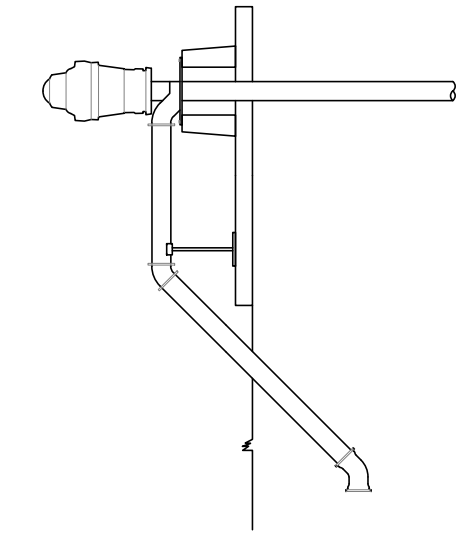
The Contractor grants to the Parish, a paid-up, royalty-free, nonexclusive, irrevocable, worldwide license in data first produced in the performance of this contract to reproduce, publish, or otherwise use, including prepare derivative works, distribute copies to the public, and perform publicly and display publicly such data. For data required by the contract but not first produced in the performance of this contract, the Contractor will identify such data and grant to the Parish or acquires on its behalf a license of the same scope as for data first produced in the performance of this contract. Data, as used herein, shall include any work subject to copyright under 17 U.S.C. § 102, for example, any written reports or literary works, software and/or source code, music, choreography, pictures or images, graphics, sculptures, videos, motion pictures or other audiovisual works, sound and/or video recordings, and architectural works. Upon or before the completion of this contract, the Contractor will deliver to the Parish data first produced in the performance of this contract and data required by the contract but not first produced in the performance of this contract in formats acceptable by the Parish.

**Note:**

**Davis-Bacon Act is NOT applicable to this project.**



# Section 13

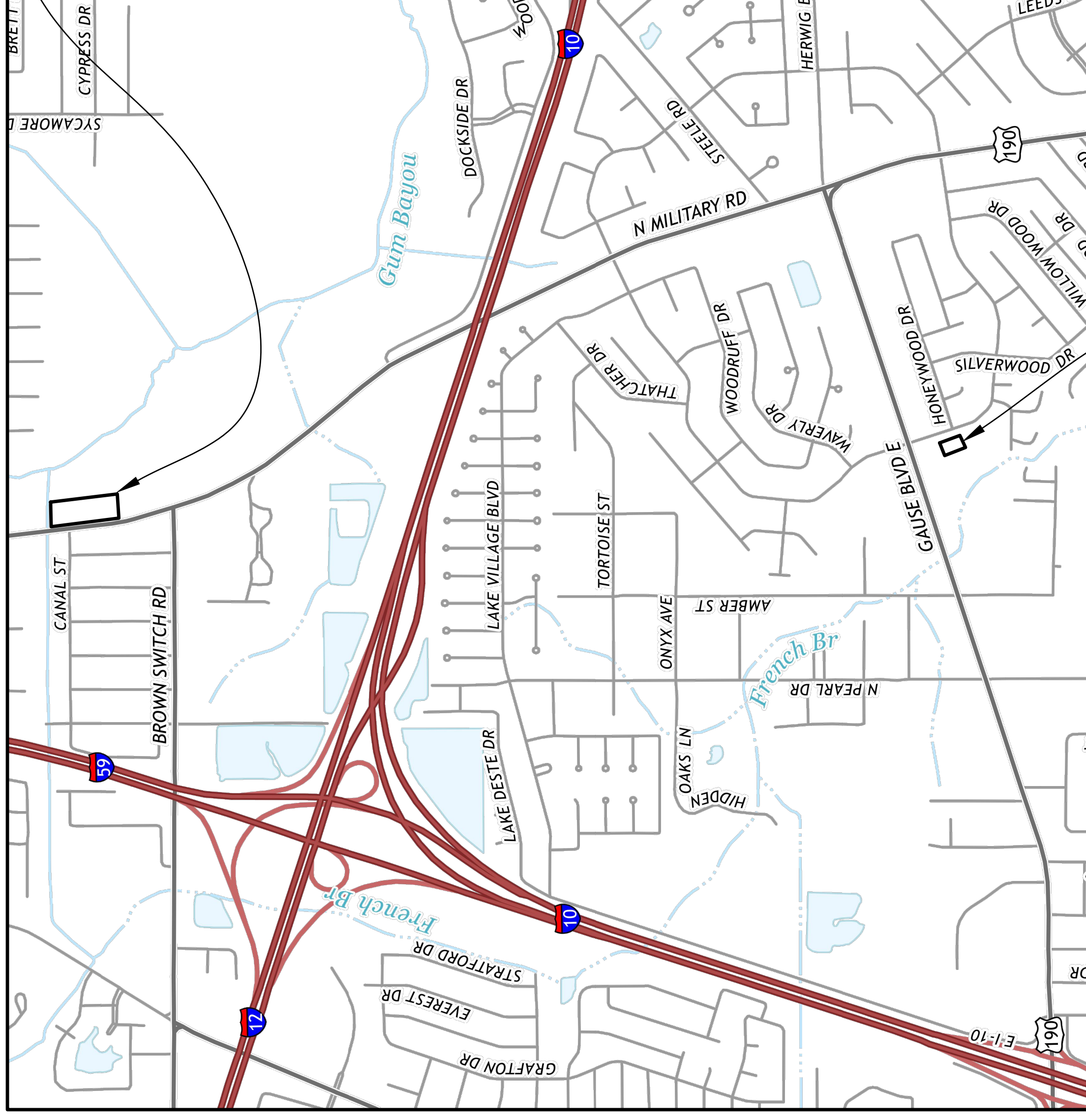


## INDEX TO SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	GENERAL NOTES, LOCATION MAP, AND CONTACTS
3	WILLOW WOOD SITE PLAN (WELL UPGRADE)
4	OZONE PINES SITE PLAN (NEW WELL)
5	OZONE PINES EROSION CONTROL PLAN (NEW WELL)
6	OZONE PINES GRADING PLAN (NEW WELL)
7-9	OZONE PINES CROSS SECTIONS
10	WATER WELL DETAILS

# ST TAMMANY PARISH GOVERNMENT DEPARTMENT OF UTILITIES CROSS GATES WATER SYSTEM WELL IMPROVEMENTS

CROSS GATES WATER TOWER #1; TU22000204  
CROSS GATES WATER TOWER #2; TU22000209  
NOVEMBER 2023  
BID NO. 23-4-2



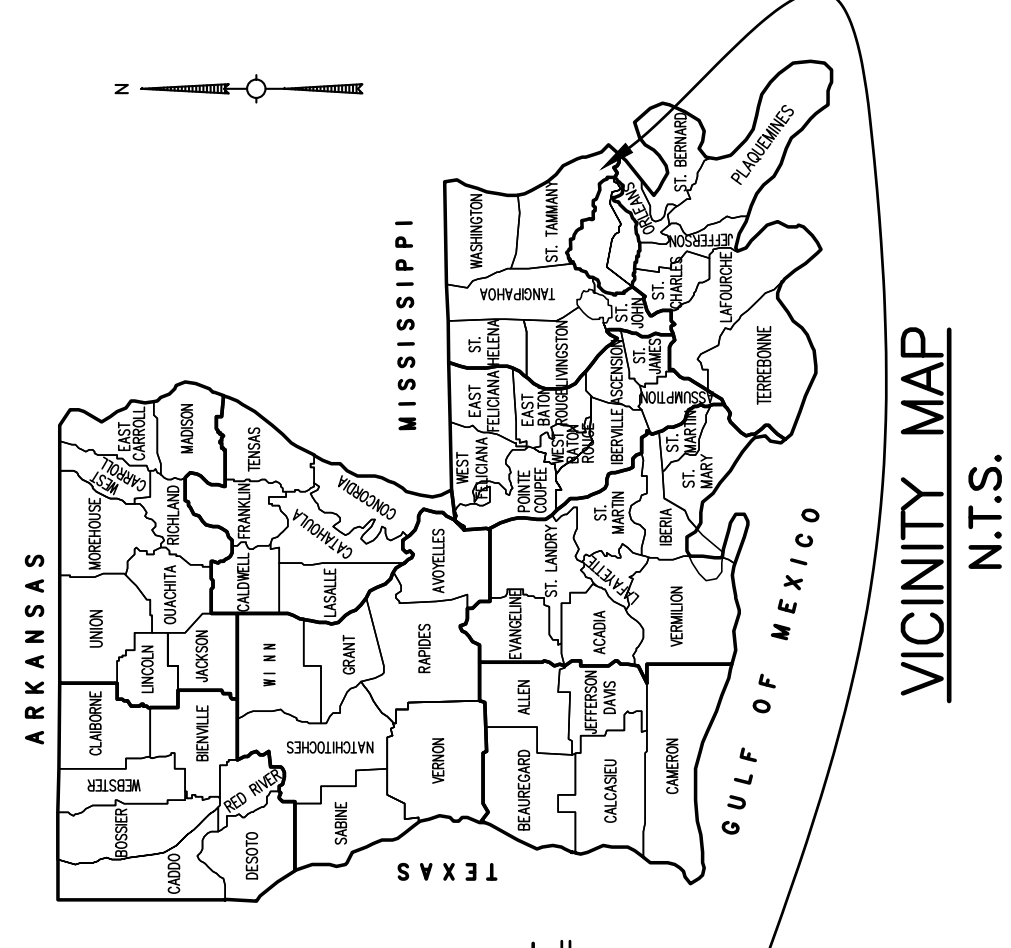
LOCATION MAP  
SCALE: 1 INCH = 1000 FEET



THE 2016 EDITION OF THE LOUISIANA DOTD STANDARD SPECIFICATION FOR ROADS AND BRIDGES, AS AMENDED BY THE PROJECT SPECIFICATIONS, SHALL GOVERN THIS PROJECT.



CLASSIFICATION: MUNICIPAL & PUBLIC WORKS CONSTRUCTION



VICINITY MAP  
N.T.S.

PLANS PREPARED BY AND  
RECOMMENDED FOR APPROVAL:

PRINCIPAL ENGINEERING, INC.  
FIRM LICENSE NO. 3168  
ANDRE C. MONNOT, P.E.  
VICE PRESIDENT

ACCEPTED FOR CONSTRUCTION BY:

DEPARTMENT OF UTILITIES  
CHRISTOPHER P. TISSUE, P.E.  
DIRECTOR

PARISH PRESIDENT  
HON. MIKE COOPER

### COUNCIL MEMBERS

MARTY DEAN	DISTRICT I
DAVID FITZGERALD	DISTRICT II
MARTHA CAZAUBON	DISTRICT III
MICHAEL LORINO JR	DISTRICT IV
RYKERT TOLEDANO JR	DISTRICT V
CHERYL TANNER	DISTRICT VI - VICE CHAIRMAN
JAMES J. DAVIS	DISTRICT VII
CHRIS CANULETTE	DISTRICT VIII
MIKE SMITH	DISTRICT IX
MAUREEN "MO" O'BRIEN	DISTRICT X
ARTHUR LAUGHLIN	DISTRICT XI
JERRY BINDER	DISTRICT XII
JAKE AIREY	DISTRICT XIII - CHAIRMAN
RONALD RANDOLPH	DISTRICT XIV



DEPT. OF UTILITIES  
ST. TAMMANY PARISH  
GOVERNMENT  
620 N. TYLER STREET  
COVINGTON, LA 70433

PRELIMINARY PLANS  
NOT FOR CONSTRUCTION

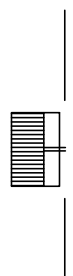

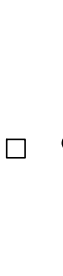


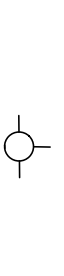
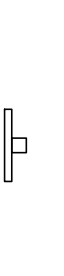


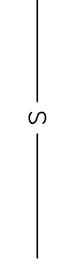


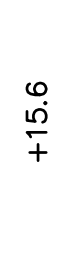
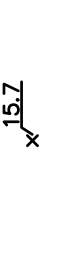
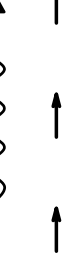






DESIGNED BY:	ACM
CHECKED BY:	TMS
SUBMITTED BY:	PRINCIPAL ENG
PROJECT No.:	TU22000204
ISSUE DATE:	NOV 2023
APPROVED BY:	---
SHEET SIZE:	ANSI D
SCALE:	

CROSS GATES WATER SYSTEM  
WELL IMPROVEMENTS  
SLIDELL, LOUISIANA  
PROJECT No.: TU22000204  
TITLE SHEET

SHEET NO.  
**1**  
SHEET 1 OF 10



## LEGEND:

	CATCH BASIN
	POWER POLE
	COLUMN/POST
	TREE
	IRON ROD SET
	UTILITY BOX
	FIRE HYDRANT
	WATER SYMBOL
	DRAIN LINE
	FENCE LINE
	OVERHEAD ELECTRIC
	SEWER LINE
	WATER LINE
	SERVITUDE
	RIGHT OF WAY/PROPERTY LINE
	EXIST. GRADE
	REQ'D GRADE
	SURFACE FLOW
	SWALE
	SEWER CLEANOUT
	TELEPHONE RISER

## ABBREVIATIONS

RCP	REINFORCED CONCRETE PIPE
OMP	CORRUGATED METAL PIPE
INV	INVERT
HDPE	HIGH DENSITY POLYETHYLENE
P/L	PROPERTY LINE
PVC	POLYVINYL CHLORIDE PIPE
OMPA	CORRUGATED METAL ARCH PIPE
RCPA	REINFORCED CONCRETE ARCH PIPE
W.L.	WATER LINE
G.V.	GATE VALVE
T.C.	TOP OF CASTING
U.E.	UNDERGROUND ELECTRIC
BFP	BACK FLOW PREVENTER
D.I.	DUCTILE IRON
PCC	PORTLAND CEMENT CONCRETE

## GENERAL NOTES:

- ALL ELEVATIONS SHOWN ON THE PLANS ARE NAVD(88).
- NOISE CONTROL – CONTRACTOR SHALL TAKE REASONABLE MEASURES TO PREVENT UNNECESSARY NOISE APPROPRIATE FOR THE AMBIENT SOUND LEVELS IN THE AREA DURING WORKING HOURS. ALL CONSTRUCTION MACHINERY & VEHICLES SHALL BE EQUIPPED WITH PRACTICAL SOUND MUFFLING DEVICES, AND OPERATED IN A MANNER TO CAUSE THE LEAST NOISE.
- DUST CONTROL – CONTRACTOR SHALL TAKE REASONABLE MEASURES TO PREVENT UNNECESSARY DUST. EACH SURFACE SUBJECT TO DUSTING SHALL BE KEPT MOIST WITH WATER OR BY APPLICATION OF CHEMICAL DUST SUPPRESSANT AS OFTEN AS REQUIRED TO MINIMIZE DUST. DUSTY MATERIALS IN PILES OR IN TRANSIT SHALL BE COVERED TO PREVENT DUST.
- VIBRATION CONTROL – VIBRATIONS RESULTING FROM PILE DRIVING, CONSTRUCTION EQUIPMENT AND VEHICULAR TRAFFIC MAY AFFECT AND DAMAGE EXISTING STRUCTURES AND UTILITIES. VIBRATIONS SHALL BE MONITORED BY AN INDEPENDENT TESTING LAB AND LIMITED TO 0.25 INCH PER SECOND AT ALL STRUCTURES INCLUDING BUILDINGS AND POOLS. IF AT ANY TIME ANY MONITOR IN ANY DIRECTION RECORDS A READING OF 0.20 INCHES PER SECOND, THE LABORATORY TECHNICIAN SHALL NOTIFY THE CONTRACTOR AND THE OWNER'S FIELD REPRESENTATIVE IMMEDIATELY. THE CONTRACTOR SHALL RECORD THE ACTIVITY AND LOCATION CAUSING THE READING.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYING OUT THE WORK AND VERIFYING ALL MEASUREMENTS AND GRADES PRIOR TO BEGINNING OF CONSTRUCTION. PROJECT VERTICAL AND HORIZONTAL CONTROLS HAVE BEEN INDICATED ON THE PLANS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH BASE LINE AND ADDITIONAL T.B.M.'S BEFORE DESTROYING REFERENCED MONUMENTS/ANALS/CROSS CUTS, ETC.
- ANY DISCREPANCIES DISCOVERED ON THE PLANS OR DRAWINGS, OR BETWEEN THE PLANS AND SPECIFICATIONS, SHALL BE REPORTED TO THE ENGINEER BEFORE ANY WORK BEGINS. FAILURE TO DO SO MAY RESULT IN THE REMOVAL OF RECENT WORK AT NO ADDITIONAL COST TO THE OWNER AND SUCH ERRORS SHALL NOT BE AUTOMATIC GROUNDS FOR CONTRACT MODIFICATION. UPON THE DISCOVERY OF DISCREPANCIES BETWEEN REQUIREMENTS WITHIN THE PROJECT PLANS AND SPECIFICATIONS, THE ENGINEER RESERVES THE RIGHT TO ENFORCE UP TO THE MOST STRINGENT REQUIREMENTS AS HE DEEMS NECESSARY FOR THE SUCCESS OF THE PROJECT.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL OSHA STANDARDS FOR EXCAVATION AND TRENCHING SAFETY ARE IMPLEMENTED AT ALL TIMES DURING ANY AND ALL EXCAVATION AND TRENCHING OPERATIONS.
- LOCATION OF EXISTING UTILITIES SHOWN ON PLANS ARE APPROXIMATE ONLY. ADDITIONALLY, THERE MAY BE UTILITIES PRESENT NOT SHOWN ON THESE PLANS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE HORIZONTAL AND VERTICAL LOCATION AND DEPTH OF ALL EXISTING UTILITIES THAT WILL AFFECT THE PROPOSED WORK BEFORE CONSTRUCTION. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES.
- THE CONTRACTOR SHALL PROTECT TREES, SHRUBBERY, SOD AND OTHER VEGETATION, NOT SPECIFIED FOR REMOVAL BY DRAWINGS OR SPECIFICATIONS, AND SHALL REPAIR OR REPLACE SUCH ITEMS AS ARE DAMAGED DURING CONSTRUCTION OF THE PROJECT WITH THE SAME TYPES AND QUALITY AS THOSE THAT ARE DAMAGED. SUCH REPAIR OR REPLACEMENT SHALL BE TO THE SATISFACTION OF THE ENGINEER AND THE OWNER OF THE PROPERTY INVOLVED, AND SHALL BE AT NO COST TO THE OWNER.
- THE CONTRACTOR SHALL CONTACT ALL PUBLIC AND PRIVATE UTILITIES AND LOUISIANA ONE CALL AT LEAST FOUR (4) WORKING DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION AROUND THEIR RESPECTIVE UTILITIES. UNDERGROUND UTILITIES ARE EXISTING AND WILL REMAIN IN THE CONSTRUCTION AREA. THE EXISTING UTILITY LOCATIONS ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. BEFORE ANY EXCAVATION, THE CONTRACTOR SHALL CALL LOUISIANA ONE CALL FOR FURTHER LOCATION OF UTILITIES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF THE SLOPES AND ADJOINING AREAS THAT ARE OUTSIDE THE LIMITS OF CONSTRUCTION.
- MATERIAL NOT DESIRED TO BE RETAINED BY ST. TAMMANY PARISH SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF SITE IN A LEGAL AND LAWFUL MANNER.

## COORDINATION OF WORK:

- CONTRACTOR SHALL COORDINATE AND COOPERATE WITH OTHER CONTRACTORS EMPLOYED BY THE OWNER. CONSTRUCTION OF ELEVATED WATER STORAGE TANKS AND CONSTRUCTION OF WELL, CONTROLS, AND BUILDING BY THREE SEPARATE CONTRACTORS COMBINE TO COMPLETE TWO INTEGRATED, FUNCTIONING WATER PRODUCTION SITES. CONSTRUCTION OF OZONE PINES WATER DISTRIBUTION SYSTEM IS BY FOURTH CONTRACTOR.
- ORDER OF OPERATIONS (CONTRACT CALENDAR DAYS FROM NTP)
  - THE NOTICES TO PROCEED FOR THE DIFFERENT PROJECTS ARE NOT SIMULTANEOUS.

### WILLOW WOOD:

TANK CONTRACTOR FIRST CONSTRUCTS WILLOW WOOD TANK AND TIE-IN PIPING. ELEVATED TANK IS DISINFECTED, CONNECTED TO SYSTEM, AND ENTERS SERVICE. SUBSTANTIAL COMPLETION DUE BY DAY 441.

WELL CONTRACTOR BEGINS WORK UPON COMPLETION OF WILLOW WOOD TANK. WELL AND HYDRO-PNEUMATIC TANK ARE REMOVED FROM SERVICE. ELEVATED TANK REMAINS IN SERVICE, CONNECTED TO DISTRIBUTION SYSTEM.

BUILDING CONTRACTOR IS REQUIRED TO BEGIN WORK FOLLOWING COMPLETION OF THE WELL IMPROVEMENTS. SUBSTANTIAL COMPLETION IS REQUIRED 434 DAYS FROM THE NOTICE TO PROCEED FOR THIS CONTRACT.

STARTUP AND COMMISSIONING AT WILLOW WOOD SHALL BE CONDUCTED WITH JOINT PARTICIPATION BY TANK AND BUILDING CONTRACTOR.

### OZONE PINES:

TANK CONTRACTOR SEQUENCES FOUNDATION CONSTRUCTION, STEEL ERECTION, ETC. FROM WILLOW WOOD TO OZONE PINES. TANK CONTRACT SUBSTANTIAL COMPLETION DUE BY DAY 553. TANK MAY REMAIN OUT OF SERVICE AT INITIAL COMPLETION, UNTIL DISTRIBUTION PIPING COMPLETION BY DISTRIBUTION CONTRACTOR.

WELL CONTRACTOR COMPLETES NEW WELL CONSTRUCTION, THEN COMPLETES REMAINING WORK. WELL CONTRACT SUBSTANTIAL COMPLETION IS DUE BY DAY 546.

TANK, WELL, AND BUILDING CONTRACTORS SHALL OPERATE SIMULTANEOUSLY AT OZONE PINES SITE WITHIN LIMITS SHOWN ON THE DRAWINGS.

BUILDING CONTRACTOR BEGINS WORK FOLLOWING SUBSTANTIAL COMPLETION OF THE NEW WELL. AS NOTED ABOVE, SUBSTANTIAL COMPLETION IS REQUIRED 434 DAYS FROM THE NOTICE TO PROCEED.

STARTUP AND COMMISSIONING AT OZONE PINES SHALL BE CONDUCTED WITH JOINT PARTICIPATION BY TANK AND BUILDING CONTRACTOR.

## CODE COMPLIANCE:

- THIS IS A DRINKING WATER PROJECT. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LOUISIANA SANITARY CODE PROVISIONS (LAC TITLE 51, PART XII), REQUIREMENTS INCORPORATED BY REFERENCE THEREIN, AND THE PROJECT DOCUMENTS.
- CONTRACTOR SHALL COMPLY WITH AND CONSTRUCT THE WATER WELL IN ACCORDANCE WITH LAC TITLE 56, PART 1, AND THE PROJECT DOCUMENTS.
- ALL EQUIPMENT, COATINGS, LININGS, OR MATERIAL IN CONTACT WITH DRINKING WATER SHALL BE NSF 61 APPROVED.
- CONTRACTOR SHALL COMPLY WITH ALL ST. TAMMANY PARISH CODES AND ORDINANCES.
- AWWA STANDARDS:
  - ALL WORK SHALL CONFORM TO APPLICABLE AWWA STANDARDS.

### LADOTD DISTRICT 62 CONTACT LIST

DEPARTMENT	CONTACT	TELEPHONE
PERMITTING	ERNEST MATHERNE	(985) 375-0130

### UTILITY CONTACT LIST

UTILITY	OWNER	CONTACT	TELEPHONE
WATER	ST TAMMANY PARISH	FIELD OPERATIONS SUPERVISOR	(985) 893-1717
SEWER	ST TAMMANY PARISH	FIELD OPERATIONS SUPERVISOR	(985) 893-1717
ELECTRIC	CLECO	TAYLOR CREECH	(985) 867-4635
ELECTRIC	WASHINGTON-ST. TAMMANY	HERB GORNOR	(985) 643-6612
GAS	ATMOS	JEFFREY RAIFORD	(985) 729-0993
STREET/DRAINAGE	ST. TAMMANY PARISH DPW	KEVIN DAVID	(985) 848-2557
COMMUNICATION	CHARTER	KEVIN DAVID	(985) 285-4702
COMMUNICATION	A&T	STEVE BERGERON	(985) 327-6432

CROSS GATES WATER SYSTEM  
WELL IMPROVEMENTS  
SLIDELL, LOUISIANA  
PROJECT No.: TU22000204  
GENERAL NOTES & LEGEND

SHEET NO.

2

SHEET 2 OF 10



DEPT. OF UTILITIES  
ST. TAMMANY PARISH  
GOVERNMENT  
620 N. TYLER STREET  
COVINGTON, LA 70433

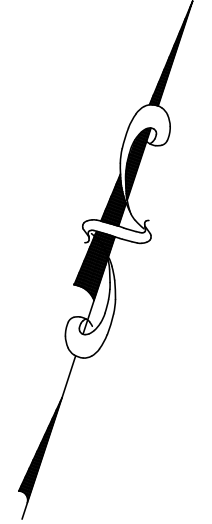
DATE:

DESCRIPTION OF REVISION

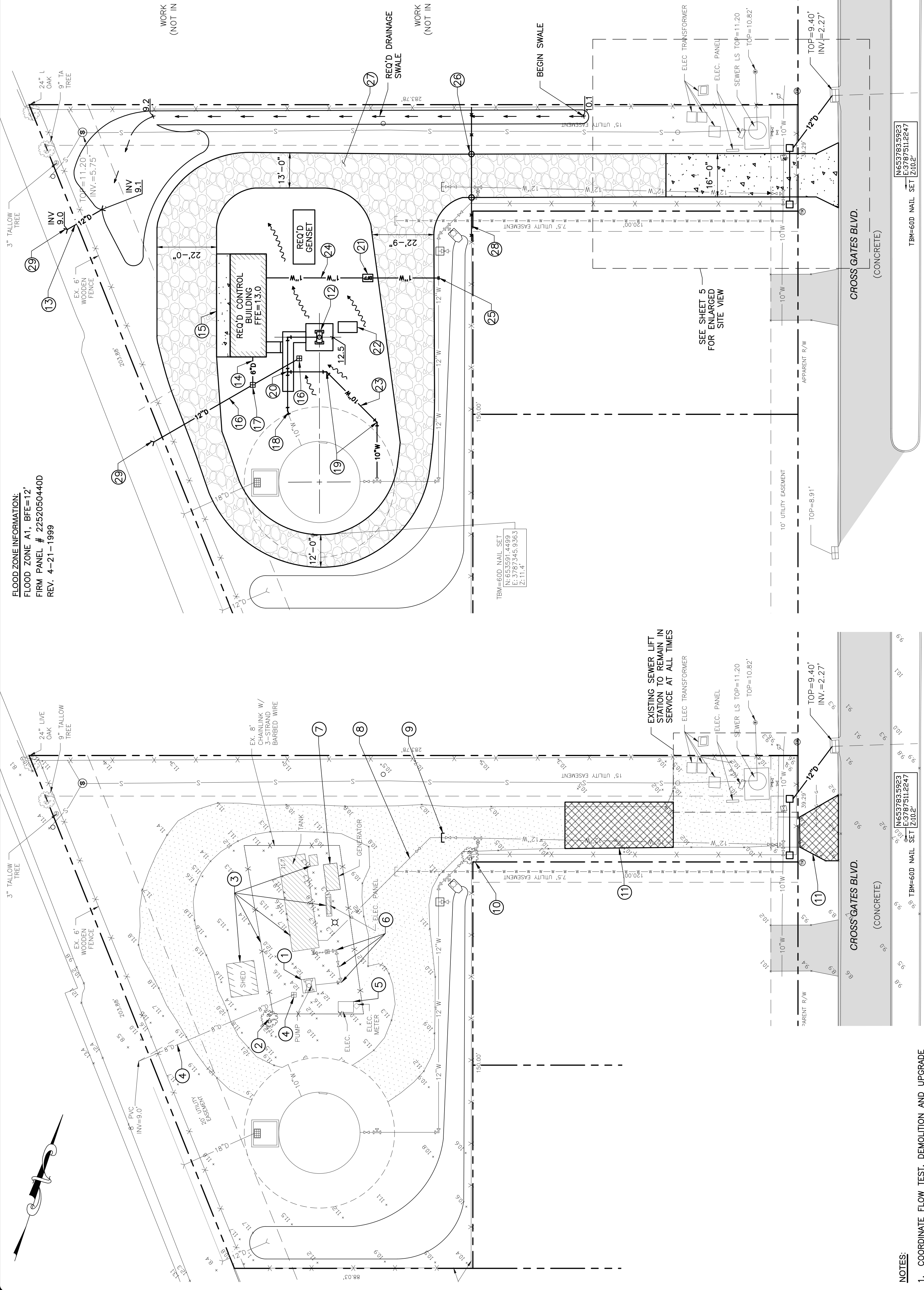
No.

DESIGNED BY:	ACM
DRAWN BY:	LMR
CHECKED BY:	TMS
SUBMITTED BY:	PRINCIPAL ENG
PROJECT No.:	TU22000204
ISSUE DATE:	NOV 2023
APPROVED BY:	---
SHEET SIZE:	ANSI D
SCALE:	

PRELIMINARY PLANS  
NOT FOR CONSTRUCTION



**FLOOD ZONE INFORMATION:**  
 FLOOD ZONE A1, BFE=12'  
 FIRM PANEL # 2252050400  
 REV. 4-21-1999



- DEMOLITION PLAN KEYNOTES:**
- 1 REMOVE WELL MOTOR, PUMP, CASING, DRAIN, CONCRETE STAND, AND APRON, (SEE SHEET 10)
  - 2 REMOVE EX. 8" TALLOW TREE
  - 3 REMOVE EX. STRUCTURES
  - 4 REMOVE EX. 8" PVC DRAIN AND DROP INLET
  - 5 REPLACE EX. TRANSFORMERS
  - 6 REMOVE ALL EX. PIPE/FITTINGS
  - 7 REMOVE EX. GENSET AND FOUNDATION
  - 8 REMOVE EX. 6" WATER LINE
  - 9 CAP EX. 12" LINE
  - 10 REMOVE EX. 12" TALLOW TREE
  - 11 REMOVE EX. STONE, PLACED BY TANK CONTRACTOR

WORK BY OTHERS  
(NOT IN CONTRACT)

- SITE PLAN KEYNOTES:**
- 12 REQ'D WELL-HEAD AND CASING EXTENSION (SEE SHEET 10)
  - 13 REQ'D 16 LF 12" RCP
  - 14 REQ'D 6" PVC DRAIN
  - 15 REQ'D 5" PCC APRON (6" THICK)
  - 16 REQ'D 12" RCP DRAINLINE
  - 17 REQ'D DROP INLET
  - 18 REQ'D 10" 22.5' BEND
  - 19 REQ'D 10" 45' BEND (2)
  - 20 REQ'D 10"x10"x10" TEE
  - 21 REQ'D BACKFLOW PREVENTER
  - 22 REQ'D TRANSFORMER
  - 23 REQ'D 10" PVC WATER LINE (C900 DR 16)
  - 24 REQ'D 1" WATER SERVICE
  - 25 REQ'D STAINLESS STEEL TAPPING SADDLE AND BANDS, ROMAC OR EQUAL
  - 26 REQ'D 6'x18" LONG WOODEN ROLLER GATE
  - 27 REQ'D AGGREGATE SURFACE DRIVE
  - 28 REQ'D 6' WOODEN FENCE
  - 29 FLAP GATE, HANSON MODEL A

WORK BY OTHERS  
(NOT IN CONTRACT)

WORK BY OTHERS  
(NOT IN CONTRACT)

WORK BY OTHERS  
(NOT IN CONTRACT)

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WORK BY OTHERS  
(NOT IN CONTRACT)



DEPT. OF UTILITIES  
 TAMMANY PARISH  
 GOVERNMENT  
 620 N. TYLER STREET  
 COVINGTON, LA 70433

**PRELIMINARY PLANS  
 NOT FOR CONSTRUCTION**

DESCRIPTION OF REVISION  
 No. DATE

DESIGNED BY:	ACM
CHECKED BY:	TMS
DRAWN BY:	LMR
SUBMITTED BY:	PRINCIPAL ENG
PROJECT No.:	TU22000204
ISSUE DATE:	NOV 2023
APPROVED BY:	---
SHEET SIZE:	ANSI D
SCALE:	

**CROSS GATES WATER SYSTEM  
 WELL IMPROVEMENTS  
 SLIDELL, LOUISIANA  
 PROJECT No.: TU22000204  
 WILLOW WOOD SITE PLAN  
 (WELL UPGRADE)**

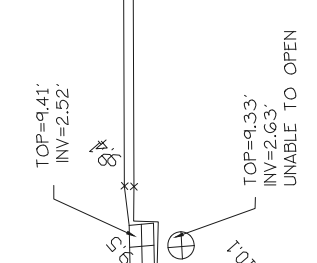
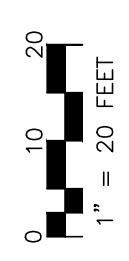
SHEET NO. **3**  
 SHEET 3 OF 10

- NOTES:**
1. COORDINATE FLOW TEST, DEMOLITION AND UPGRADE OF EXISTING WELL-HEAD WITH OWNER AND OTHER CONTRACTOR.
  2. CONTRACTOR SHALL REMOVE AND DELIVER THE FOLLOWING EXISTING EQUIPMENT TO A LOCATION DESIGNATED BY THE OWNER (CONTRACTOR SHALL PAY SPECIAL ATTENTION AS TO NOT DAMAGE THE ITEMS DURING REMOVAL AND DELIVERY):
    - WELL PUMP
    - MOTOR



**DEMOLITION PLAN**  
 SCALE: 1"=20'

**SITE PLAN**  
 SCALE: 1"=20'







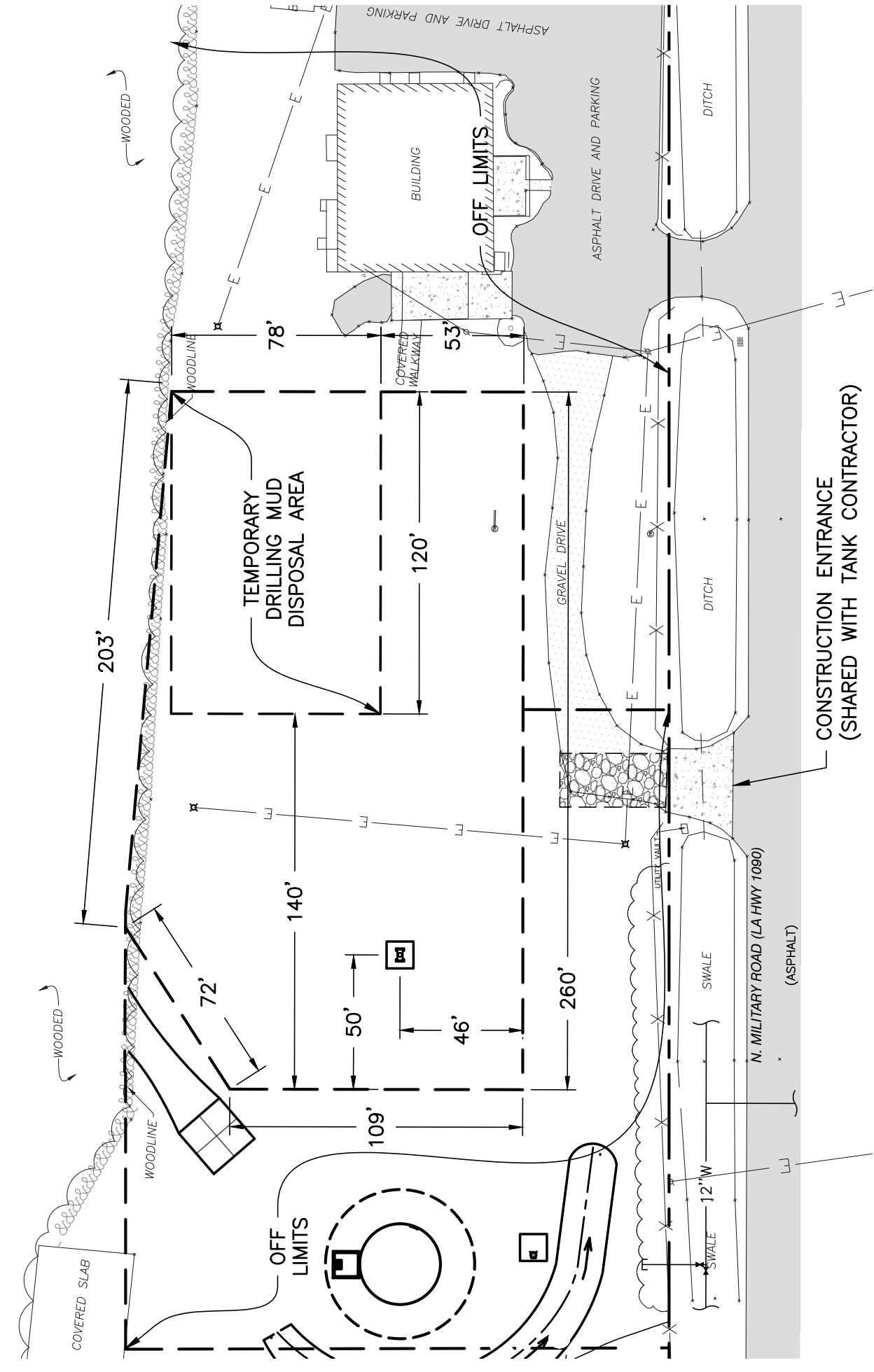
DEPT. OF UTILITIES  
ST. TAMMANY PARISH  
GOVERNMENT  
620 N. TYLER STREET  
COVINGTON, LA 70433

PRELIMINARY PLANS  
NOT FOR CONSTRUCTION

DESIGNED BY: ACM	DATE:
DRAWN BY: LMR	DESCRIPTION OF REVISION:
CHECKED BY: TMS	No.
SUBMITTED BY: PRINCIPAL ENG	
PROJECT No.: TU22000204	
ISSUE DATE: NOV 2023	
APPROVED BY: ---	
SHEET SIZE: ANSI D	
SCALE:	

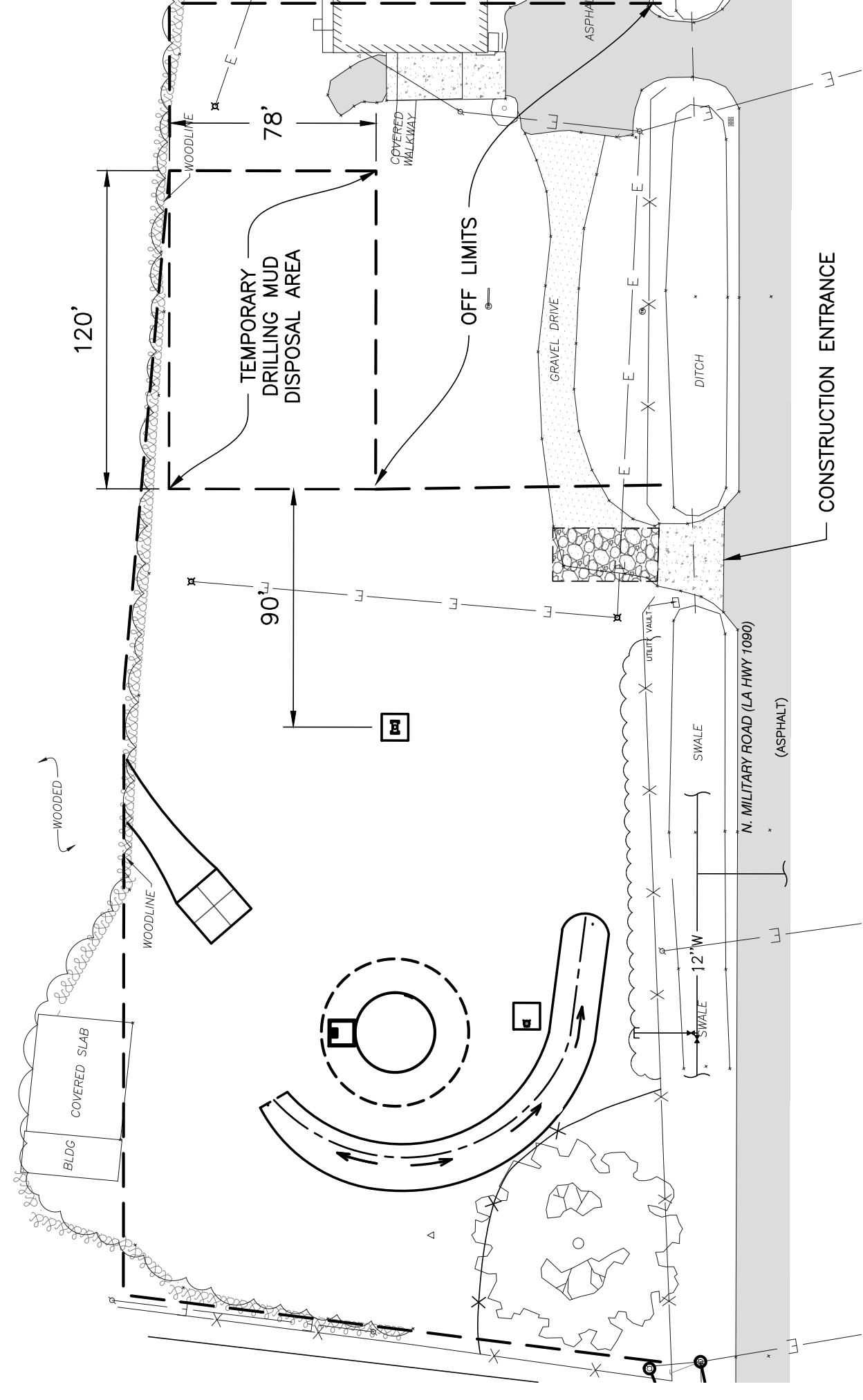
CROSS GATES WATER SYSTEM  
WELL IMPROVEMENTS  
SLIDELL, LOUISIANA  
PROJECT No.: TU22000204  
OZONE PINES SITE PLAN  
(NEW WELL)

SHEET NO.  
**4**  
SHEET 4 OF 10



**LIMITS OF WORK  
(PRIOR TO TANK COMPLETION)**

SCALE: 1" = 50'



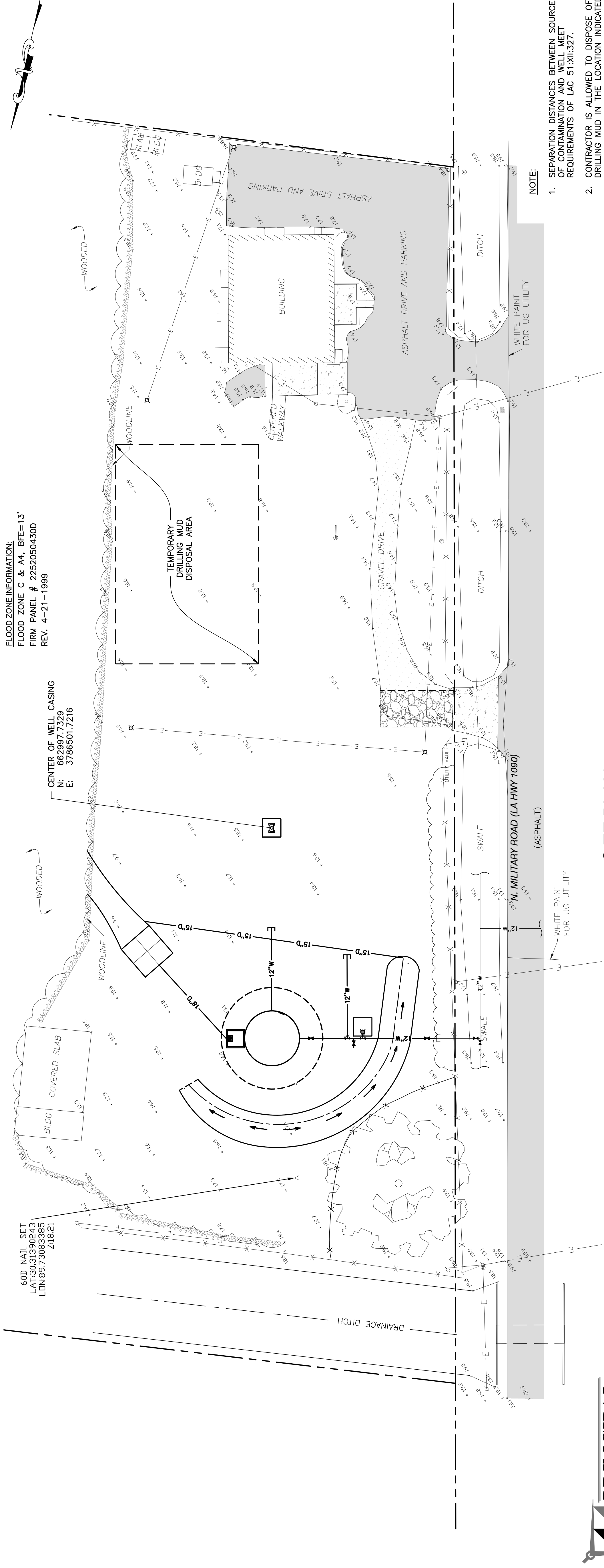
**LIMITS OF WORK  
(AFTER TANK COMPLETION)**

SCALE: 1" = 50'

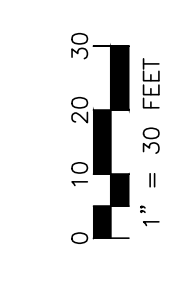
FLOOD ZONE INFORMATION:  
FLOOD ZONE C & A4, BFE=13'  
FIRM PANEL # 22520504300  
REV. 4-21-1999

CENTER OF WELL CASING  
N: 662997.7329  
E: 3786501.7216

60D NAIL SET  
LOT 30, 31, 30, 24, 3  
LDN89, 73083385  
218, 21



- NOTE:**
- SEPARATION DISTANCES BETWEEN SOURCES OF CONTAMINATION AND WELLS MUST MEET REQUIREMENTS OF LAC 51:XI:327.
  - CONTRACTOR IS ALLOWED TO DISPOSE OF DRILLING MUD IN THE LOCATION INDICATED ON THIS PLAN. DRILLING MUD MUST BE REMOVED AND EXCAVATED IN ACCORDANCE WITH THE GRADING PLAN PRIOR TO SUBSTANTIAL COMPLETION.



**SITE PLAN**  
SCALE: 1" = 30'





DEPT. OF UTILITIES  
ST. TAMMANY PARISH  
GOVERNMENT  
620 N. TYLER STREET  
COVINGTON, LA 70433

DESCRIPTION OF REVISION  
DATE:

PRELIMINARY PLANS  
NOT FOR CONSTRUCTION

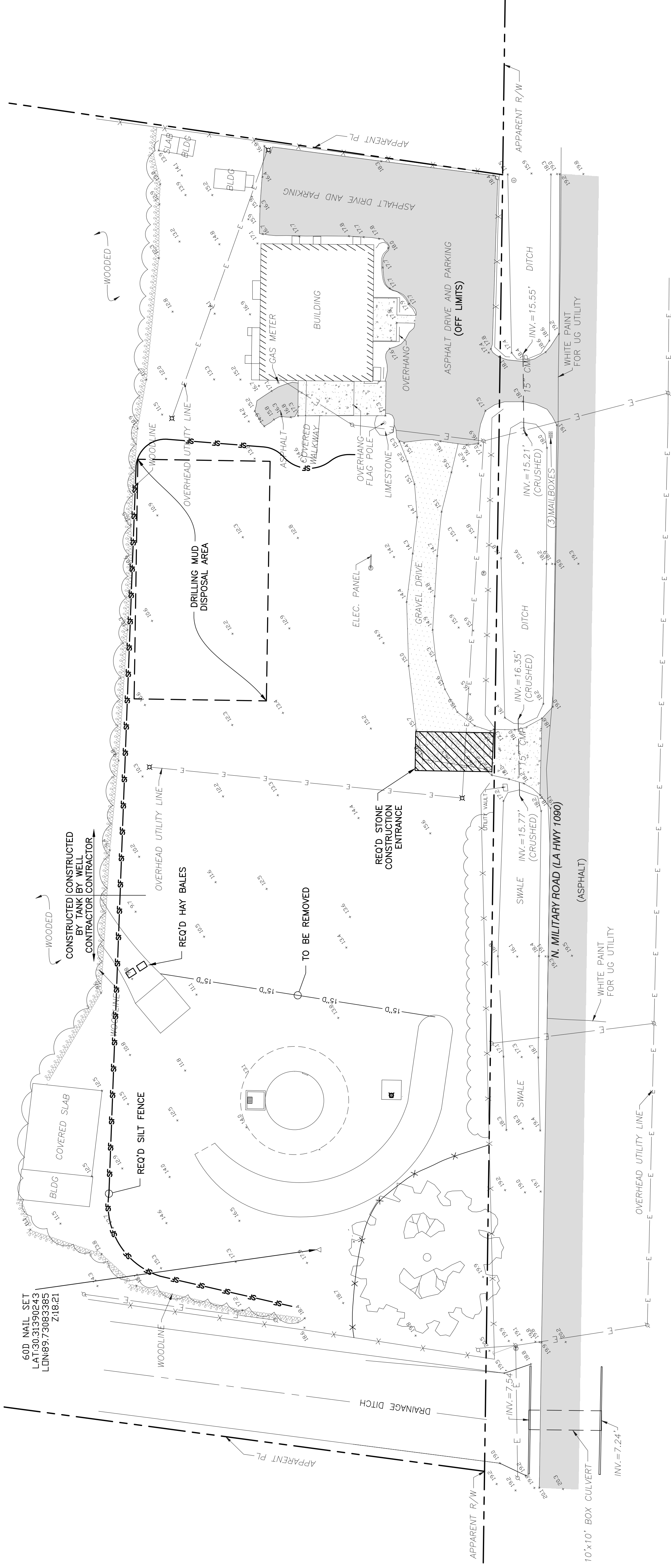
DESIGNED BY:	ACM
CHECKED BY:	TMS
DRAWN BY:	LMR
SUBMITTED BY:	PRINCIPAL ENG
PROJECT No.:	TU22000204
ISSUE DATE:	NOV 2023
APPROVED BY:	---
SHEET SIZE:	ANSI D
SCALE:	

CROSS GATES WATER SYSTEM  
WELL IMPROVEMENTS  
SLIDELL, LOUISIANA  
PROJECT No.: TU22000204  
OZONE PINES EROSION CONTROL  
PLAN (NEW WELL)

SHEET NO.

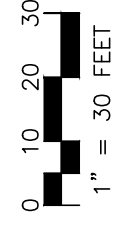
5

SHEET 5 OF 10



### EROSION CONTROL PLAN

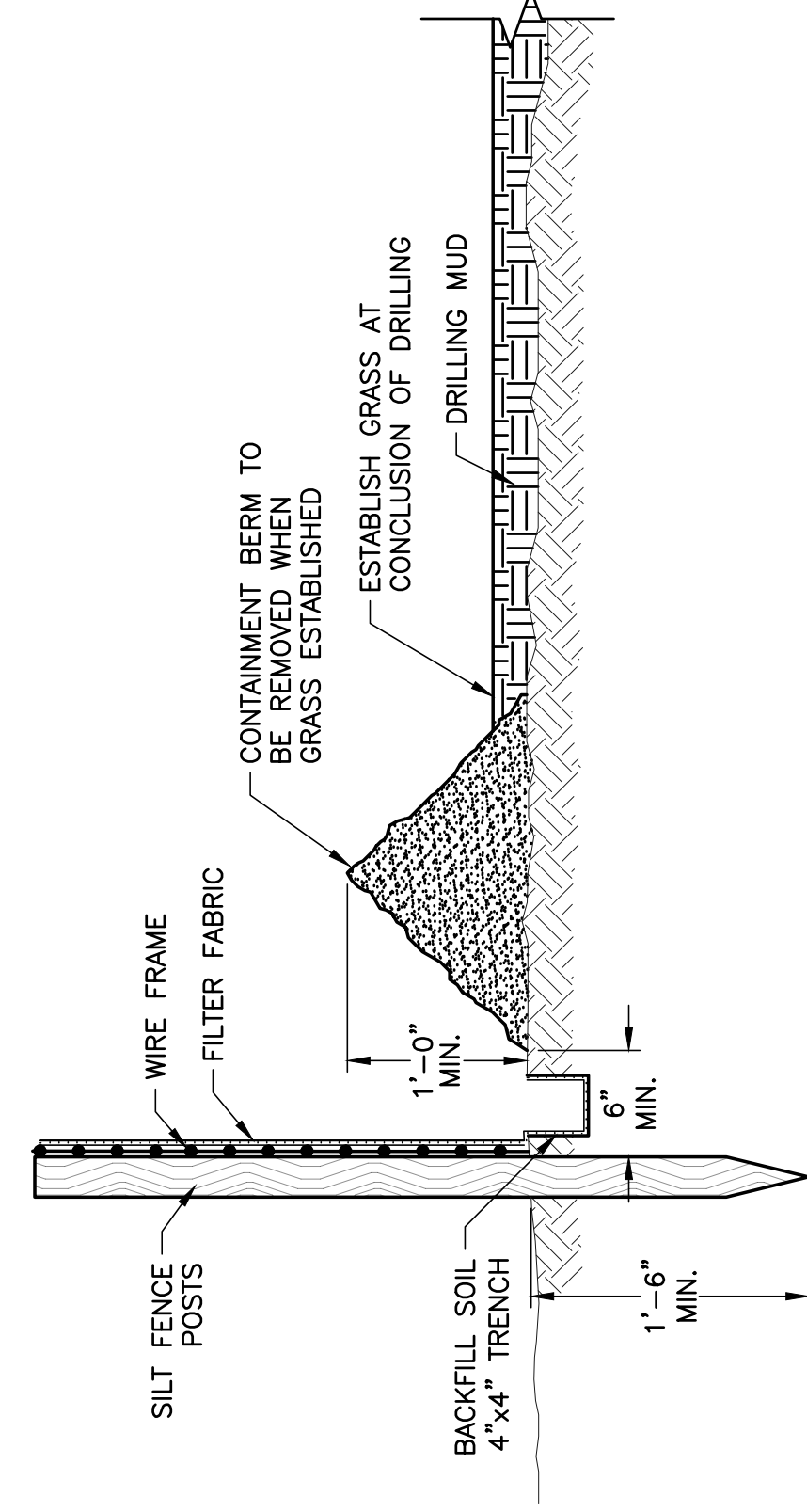
SCALE: 1"=30'



- NOTES:
1. WELL CONTRACTOR SHALL CONSTRUCT TEMPORARY STONE CONSTRUCTION ENTRANCE WHERE INDICATED ON THIS PLAN AND AS REQUIRED ON EC-01. STONE ENTRANCE SHALL REMAIN AFTER PROJECT COMPLETION.
  2. WELL CONTRACTOR TO MAINTAIN SILT FENCE AND STONE CONSTRUCTION ENTRANCE ESTABLISHED BY TANK CONTRACTOR FOR PROJECT DURATION.
  3. BLDG CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF STONE CONSTRUCTION ENTRANCE AT PROJECT COMPLETION.
  4. REFER TO EC-01 STANDARD PLANS FOR EROSION CONTROL DETAILS.

LEGEND:

- S— SILT FENCE
- HAY BALES
- ▨▨▨ CONSTRUCTION ENTRANCE



### MUD DISPOSAL AREA SECTION

SCALE: N.T.S.





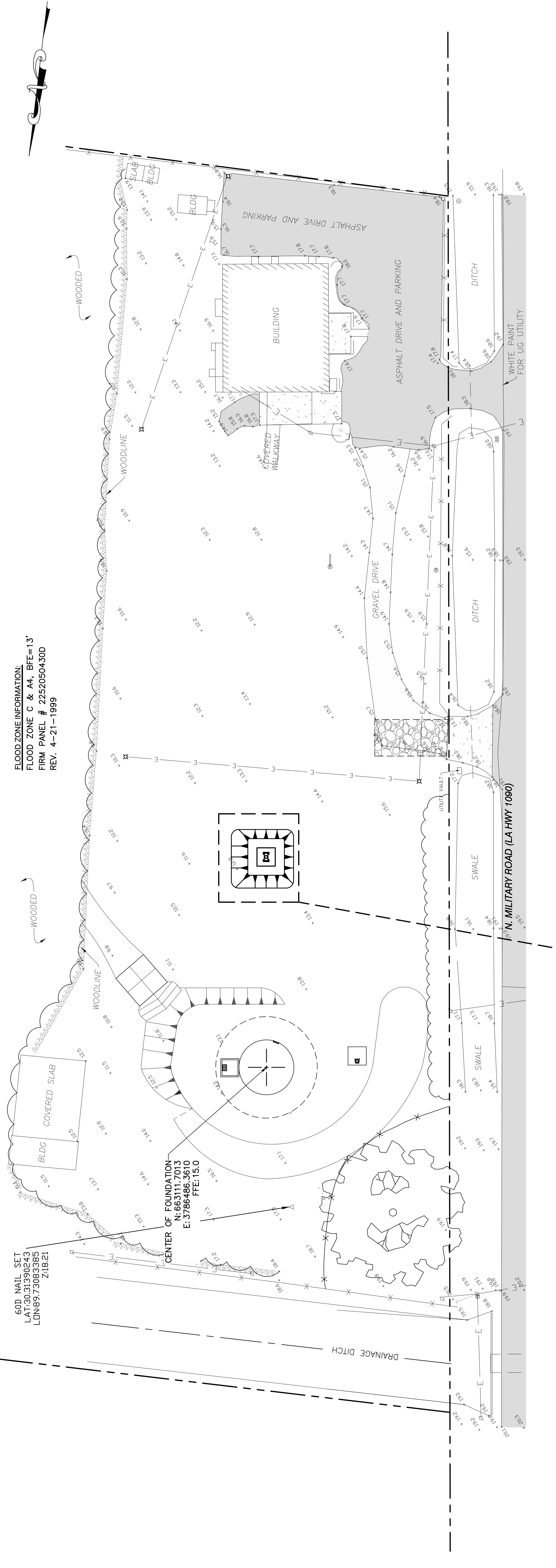
DEPT. OF UTILITIES  
ST. TAMMANY PARISH  
GOVERNMENT  
620 N. TYLER STREET  
COVINGTON, LA 70433

No.	DESCRIPTION OF REVISION	DATE:
PRELIMINARY PLANS NOT FOR CONSTRUCTION		

DESIGNED BY: ACM	CHECKED BY: TMS	PROJECT No.: TU22000204	ISSUE DATE: NOV 2023	APPROVED BY: ---	SHEET SIZE: ANSI D	SCALE:
DRAWN BY: LMR	SUBMITTED BY: PRINCIPAL ENG	TU22000209				

CROSS GATES WATER SYSTEM  
WELL IMPROVEMENTS  
SLIDELL, LOUISIANA  
PROJECT No.: TU22000204  
OZONE PINES GRADING PLAN  
(NEW WELL)

SHEET NO. **6**  
SHEET 6 OF 10

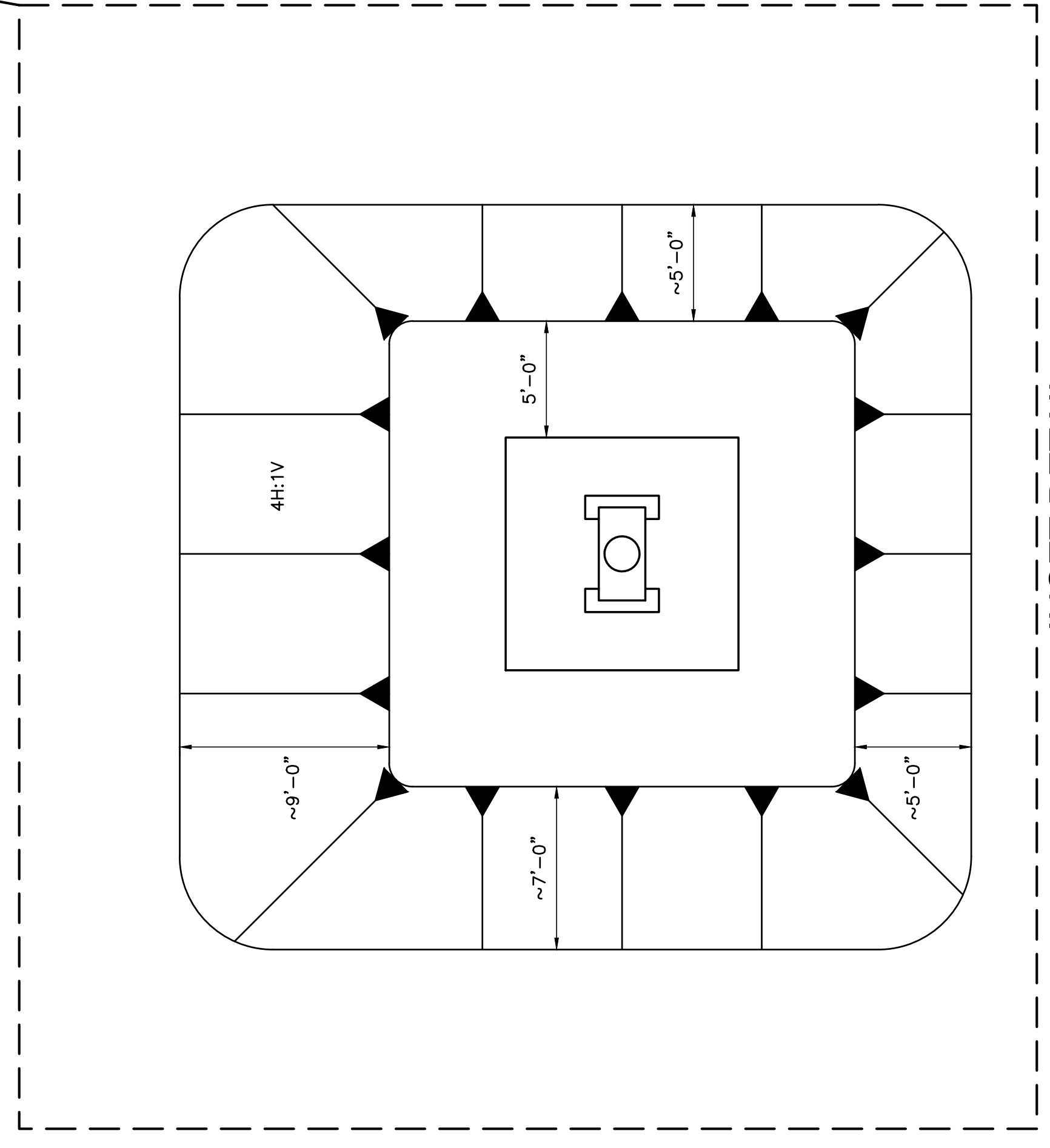


FLOOD ZONE INFORMATION:  
FLOOD ZONE C & A4, BFE=13'  
FIRM PANEL # 2252050430D  
REV. 4-21-1999

60D NAIL SET  
LAT:30.31390243  
LON:-90.73083385  
218.21

CENTER OF FOUNDATION  
N: 663111.7013  
E: 3786486.3610  
FFE: 15.0

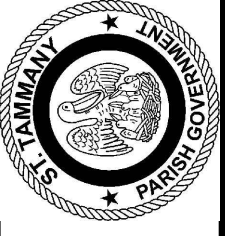
**GRADING PLAN**  
SCALE: 1" = 30'



**INSET DETAIL**  
SCALE: 1" = 5'







DEPT. OF UTILITIES  
ST. TAMMANY PARISH  
GOVERNMENT  
620 N. TYLER STREET  
COVINGTON, LA 70433

PRELIMINARY PLANS  
NOT FOR CONSTRUCTION

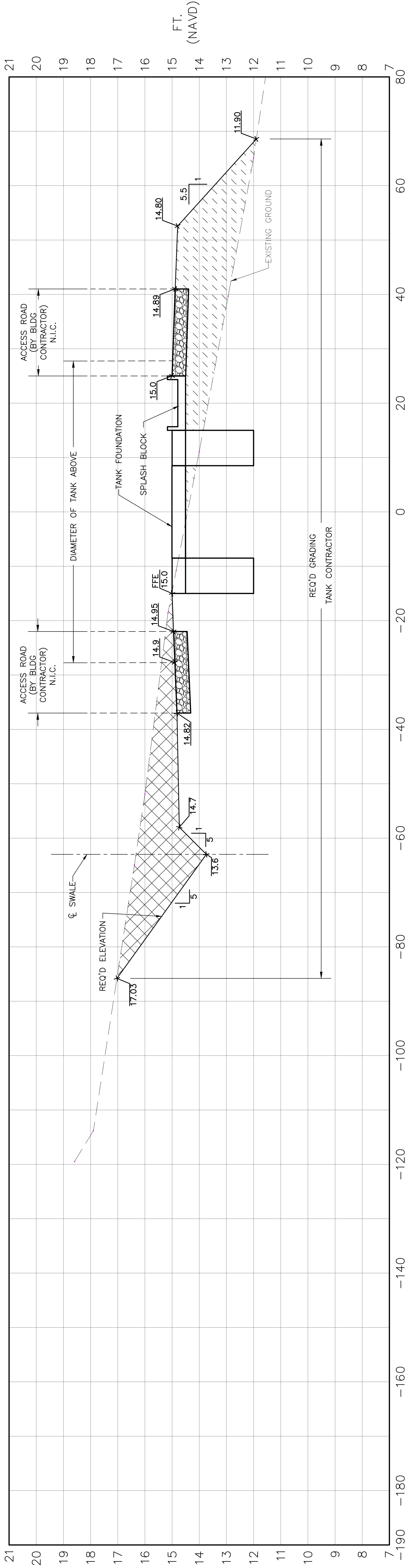
DATE: \_\_\_\_\_ DESCRIPTION OF REVISION \_\_\_\_\_ No. \_\_\_\_\_

DESIGNED BY:	ACM
DRAWN BY:	LMR
CHECKED BY:	TMS
SUBMITTED BY:	PRINCIPAL ENG
PROJECT No.:	TU22000204
ISSUE DATE:	NOV 2023
APPROVED BY:	---
SHEET SIZE:	ANSI D
SCALE:	

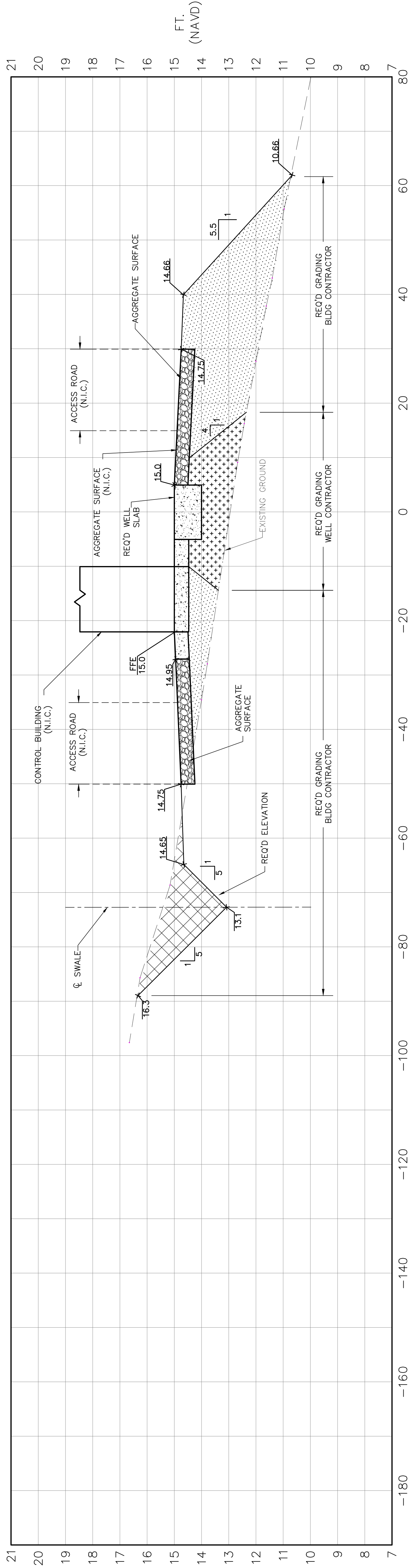
CROSS GATES WATER SYSTEM  
WELL IMPROVEMENTS  
SLIDELL, LOUISIANA  
PROJECT No.: TU22000204  
OZONE PINES  
CROSS SECTIONS

SHEET NO. 7

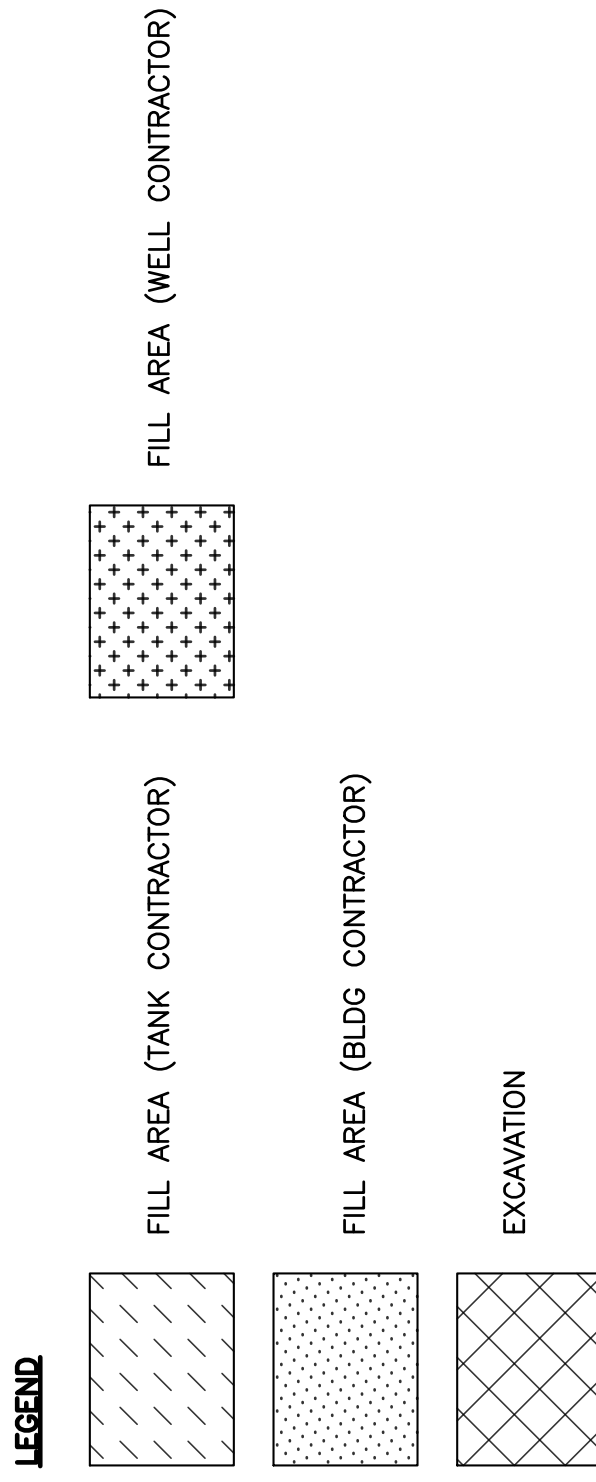
SHEET 7 OF 10



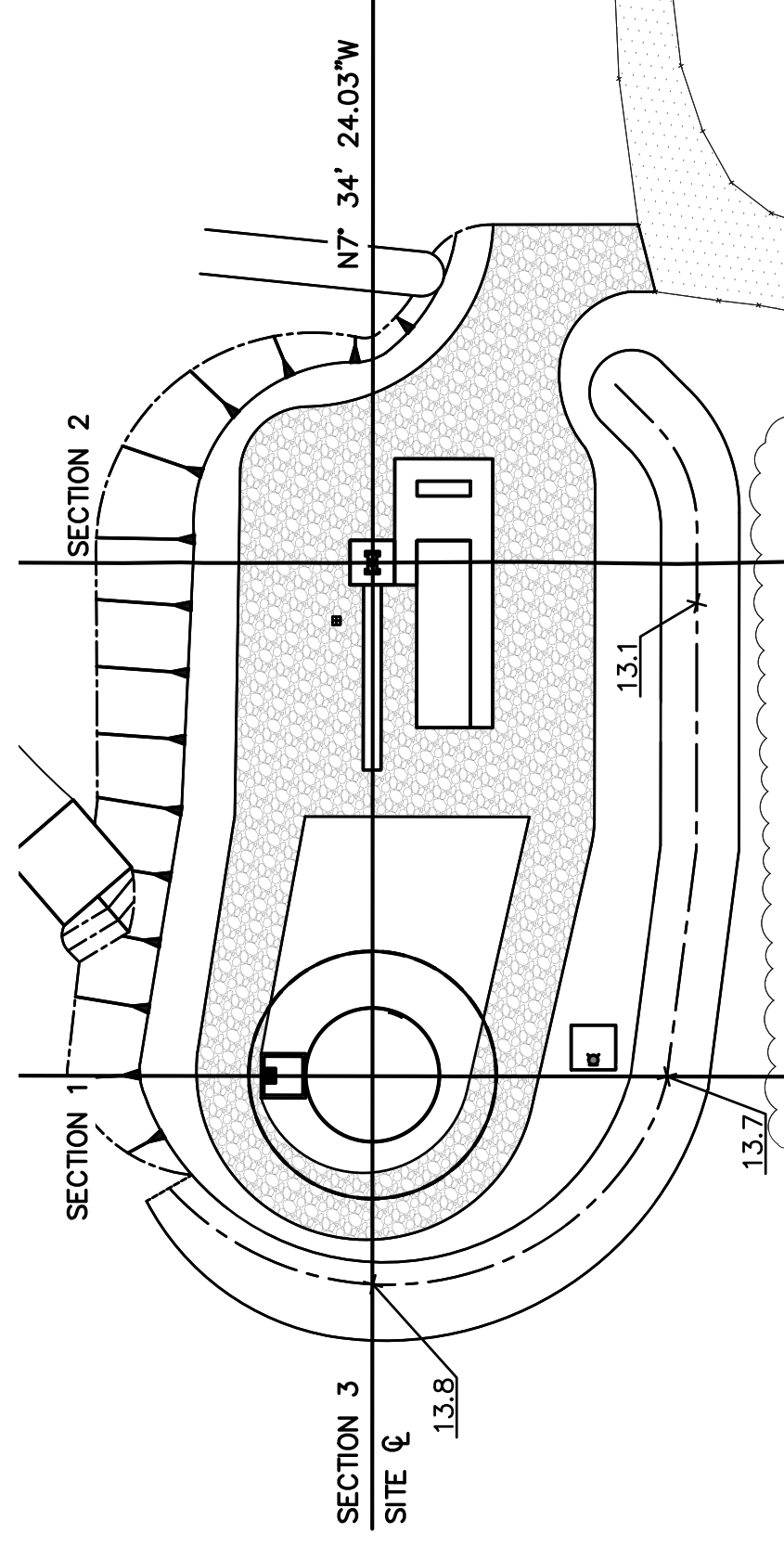
SECTION 1



SECTION 2



NOTE:  
PRIOR TO FILLING OPERATIONS, STRIP THE AREA TO REMOVE SILTY TOPSOIL, ORGANICS OR SOFT MATERIAL TO AN APPROXIMATE DEPTH OF 10 INCHES. REFER TO SPECIFICATION SECTION 02200.





DEPT. OF UTILITIES  
ST. TAMMANY PARISH  
GOVERNMENT  
620 N. TYLER STREET  
COVINGTON, LA 70433

**PRELIMINARY PLANS  
NOT FOR CONSTRUCTION**

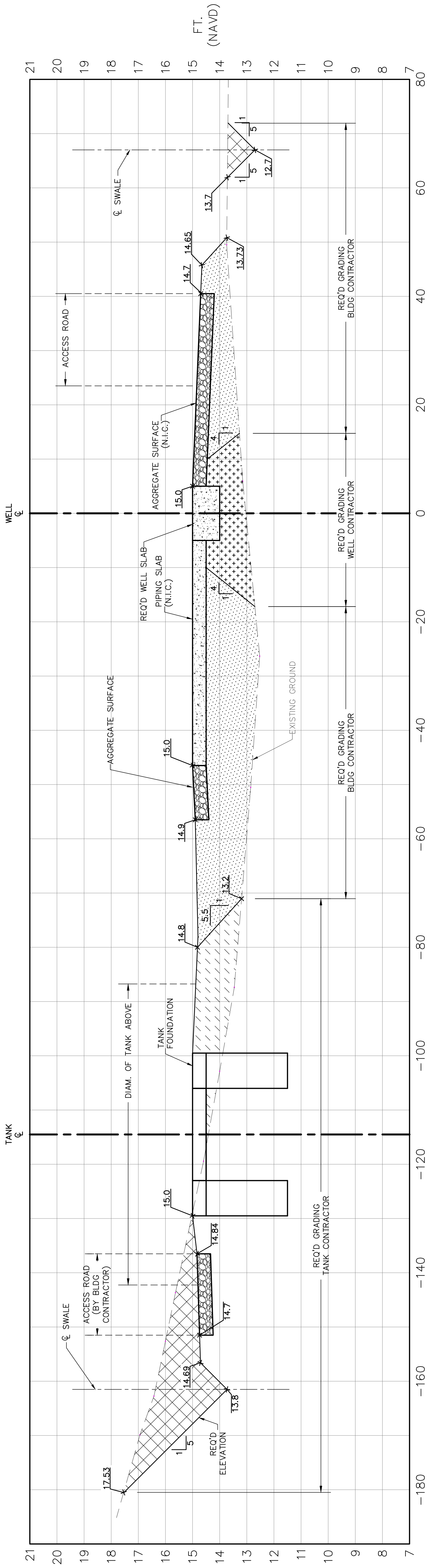
No.	DESCRIPTION OF REVISION	DATE:

DESIGNED BY: ACM	CHECKED BY: TMS	PROJECT No.: TU22000204
DRAWN BY: LMR	SUBMITTED BY: PRINCIPAL ENG	ISSUE DATE: NOV 2023
		APPROVED BY: ---
		SHEET SIZE: ANSI D
		SCALE: ---

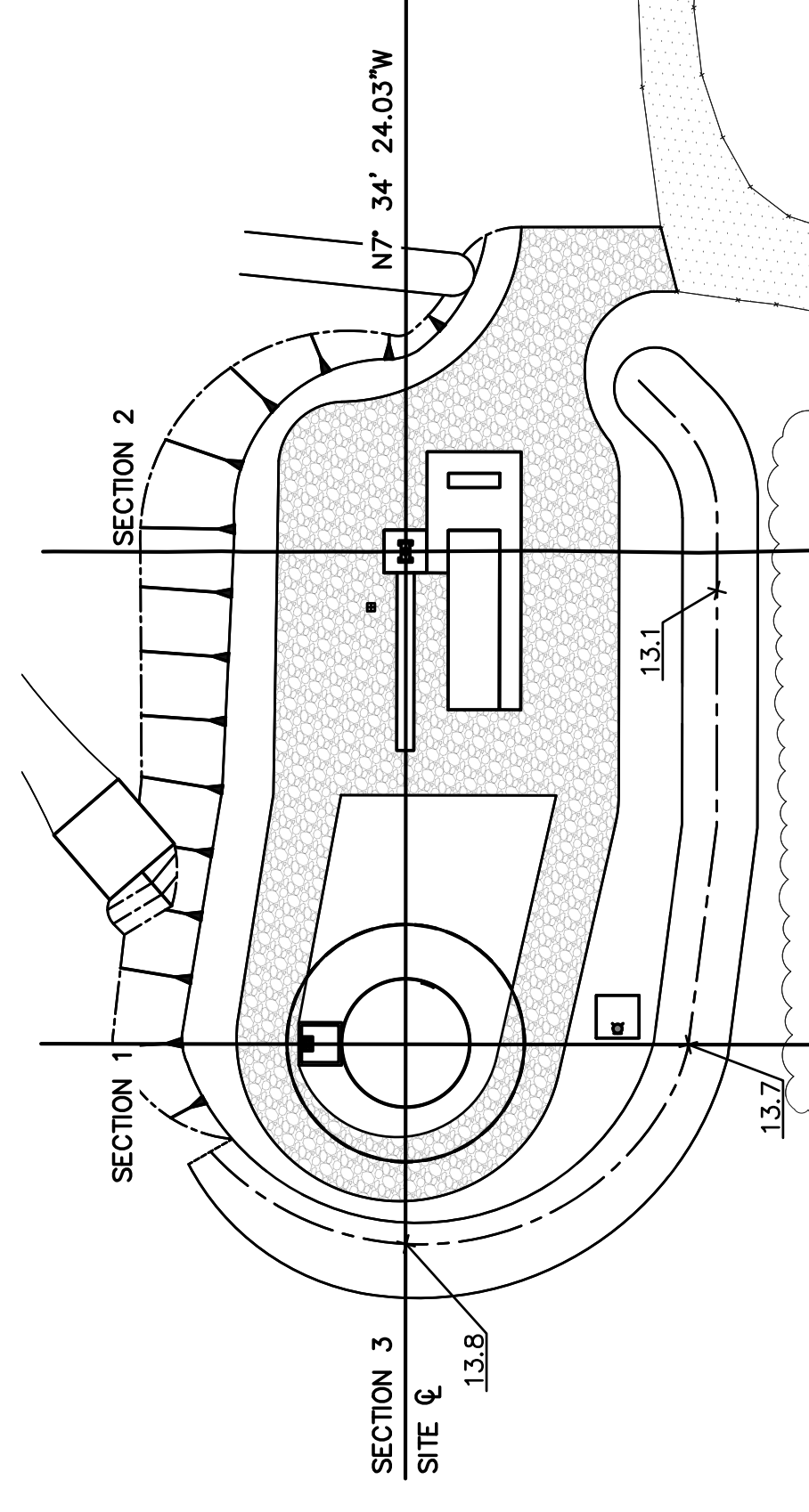
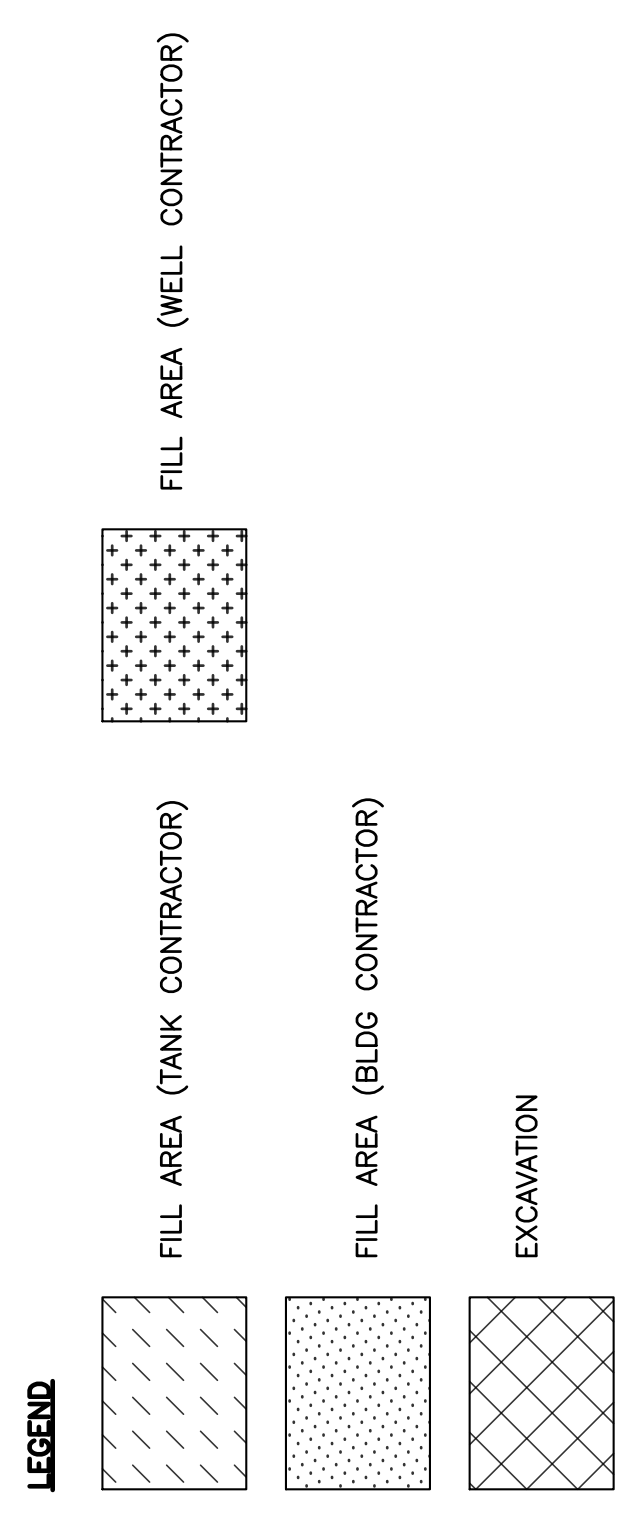
**CROSS GATES WATER SYSTEM  
WELL IMPROVEMENTS  
SLIDELL, LOUISIANA**

PROJECT No.: TU22000204  
OZONE PINES  
CROSS SECTIONS

SHEET NO.  
**8**  
SHEET 8 OF 10



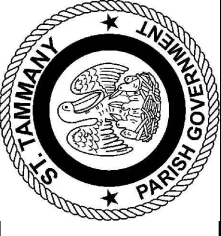
**SECTION 3**



**NOTE:**  
PRIOR TO FILLING OPERATIONS, STRIP THE AREA TO REMOVE SILTY TOPSOIL, ORGANICS OR SOFT MATERIAL TO AN APPROXIMATE DEPTH OF 10 INCHES. REFER TO SPECIFICATION SECTION 02200.







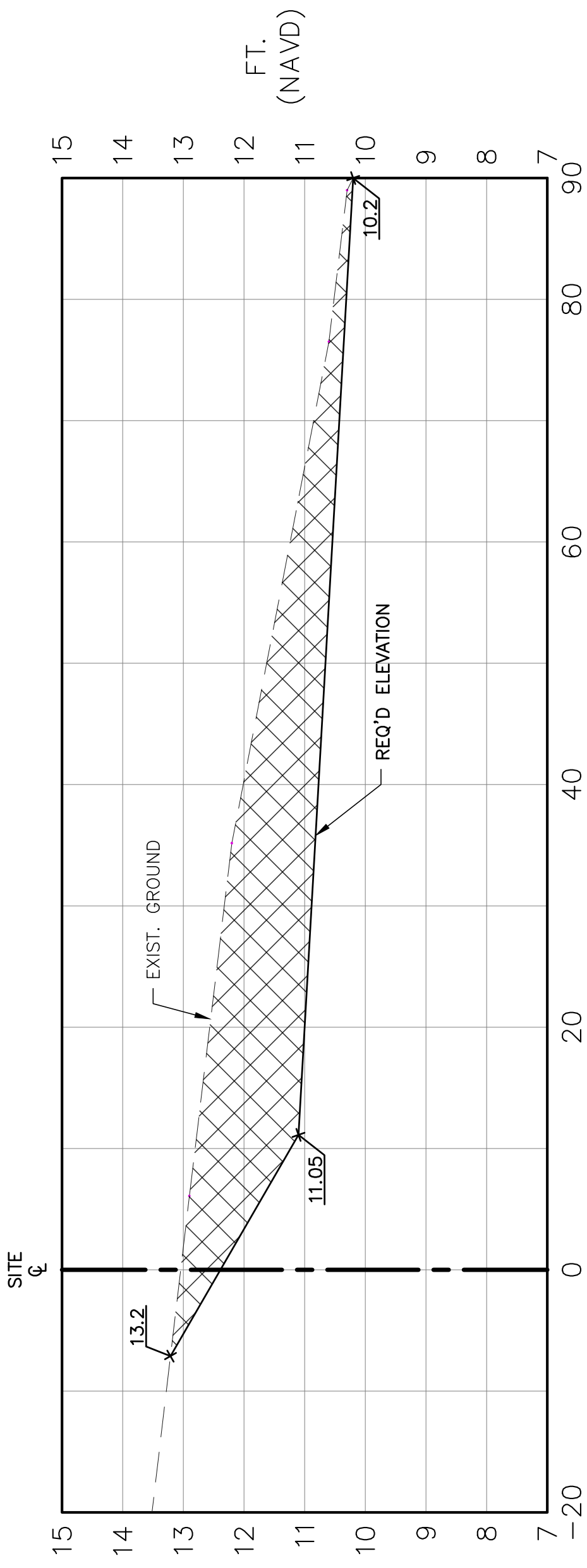
DEPT. OF UTILITIES  
ST. TAMMANY PARISH  
GOVERNMENT  
620 N. TYLER STREET  
COVINGTON, LA 70433

PRELIMINARY PLANS  
NOT FOR CONSTRUCTION

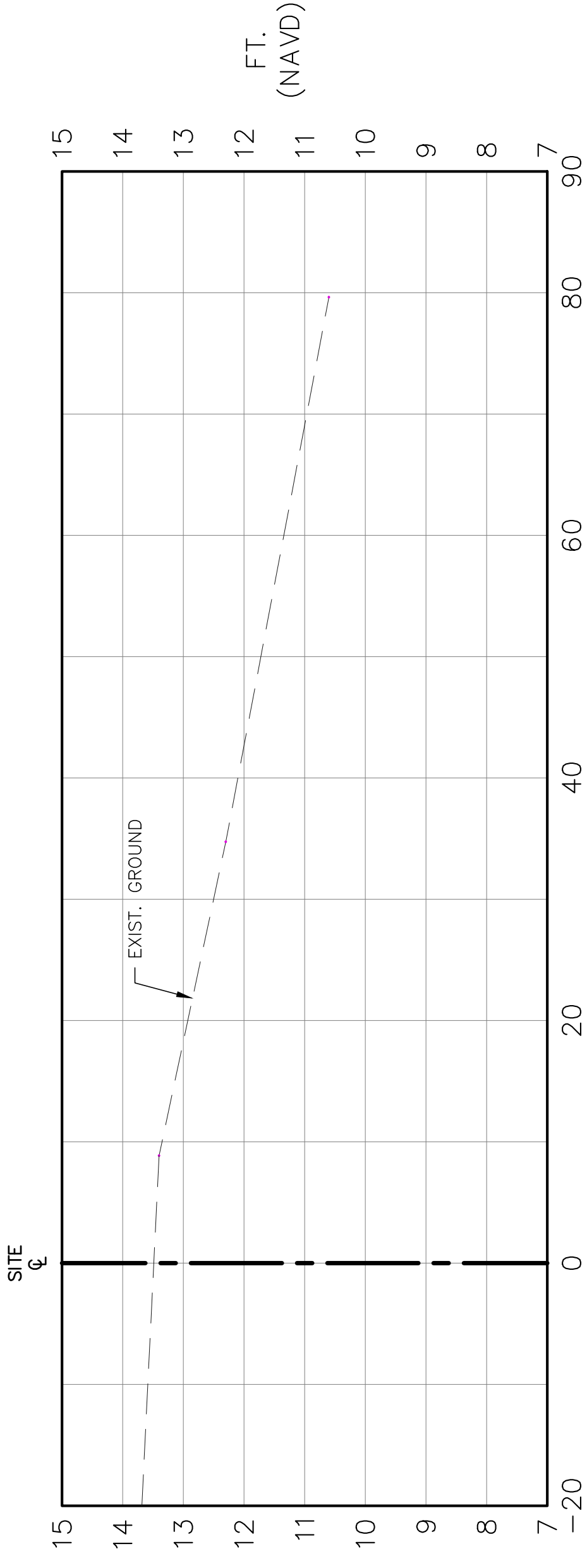
DESIGNED BY: ACM	DATE: NOV 2023
CHECKED BY: TMS	ISSUE DATE: NOV 2023
DRAWN BY: LMR	APPROVED BY: ---
SUBMITTED BY: PRINCIPAL ENG	SHEET SIZE: ANSI D
PROJECT No.: TU22000204	SCALE:

CROSS GATES WATER SYSTEM  
WELL IMPROVEMENTS  
SLIDELL, LOUISIANA  
PROJECT No.: TU22000204  
OZONE PINES  
CROSS SECTIONS

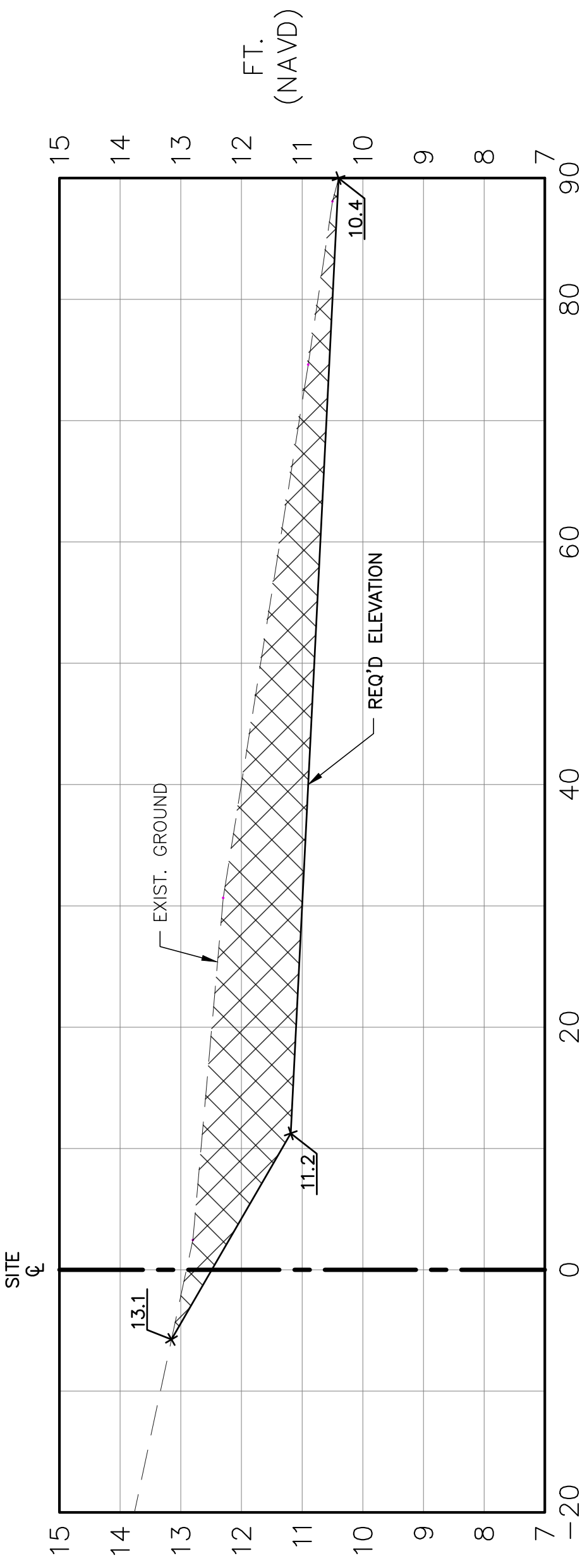
SHEET NO. **9**  
SHEET 9 OF 10



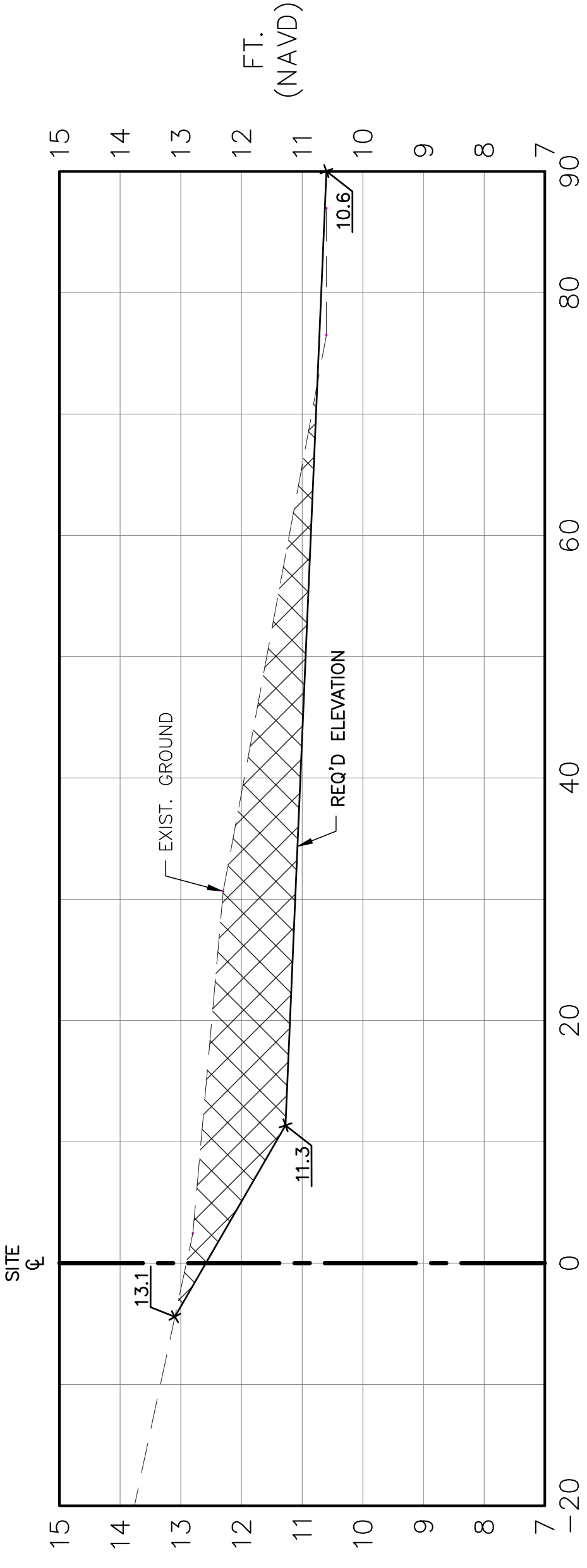
**A** SECTION



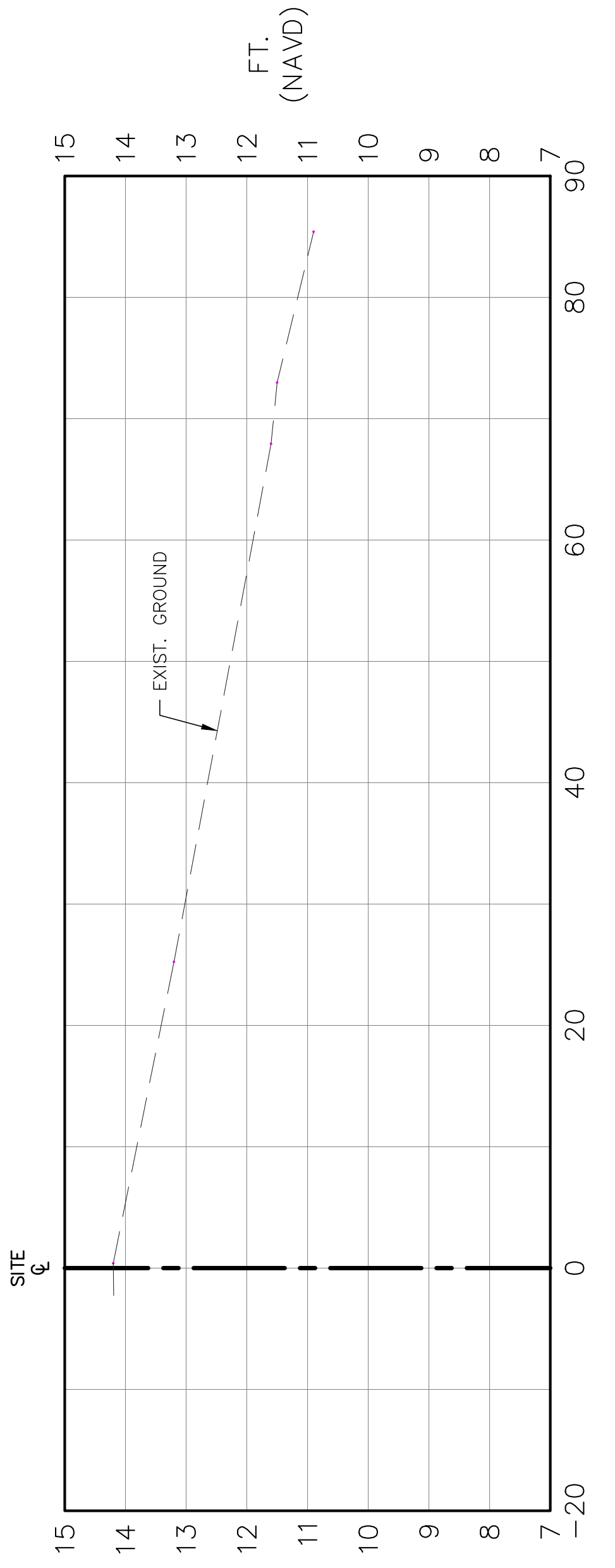
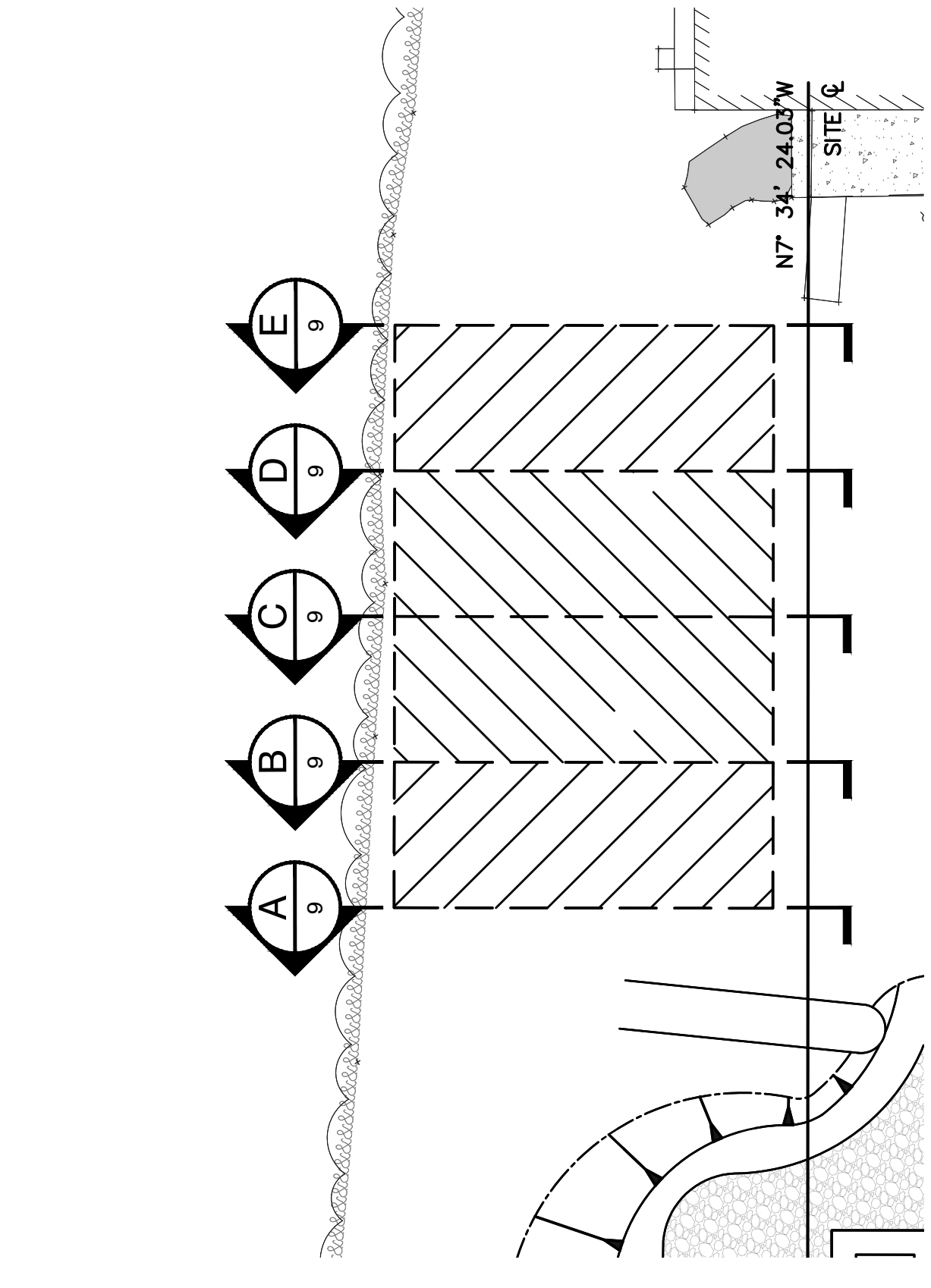
**B** SECTION



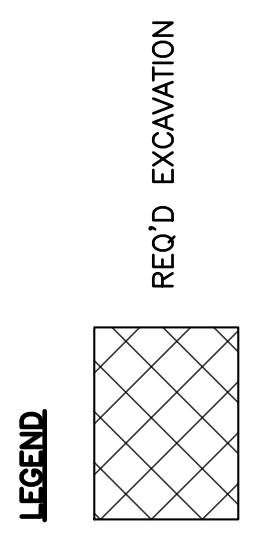
**C** SECTION



**D** SECTION



**E** SECTION



NOTE:  
PRIOR TO FILLING OPERATIONS, STRIP THE AREA TO REMOVE SILTY TOPSOIL, ORGANICS OR SOFT MATERIAL TO AN APPROXIMATE DEPTH OF 10 INCHES. REFER TO SPECIFICATION SECTION 02200.





DEPT. OF UTILITIES  
ST. TAMMANY PARISH  
GOVERNMENT  
620 N. TYLER STREET  
COVINGTON, LA 70433

PRELIMINARY PLANS  
NOT FOR CONSTRUCTION

DESIGNED BY:	ACM
DRAWN BY:	LMR
CHECKED BY:	TMS
SUBMITTED BY:	PRINCIPAL ENG
PROJECT No.:	TU22000204
ISSUE DATE:	NOV 2023
APPROVED BY:	---
SHEET SIZE:	ANSI D
SCALE:	

CROSS GATES WATER SYSTEM  
WELL IMPROVEMENTS  
SLIDELL, LOUISIANA  
PROJECT No.: TU22000204  
WATER WELL DETAILS

DATE: \_\_\_\_\_  
DESCRIPTION OF REVISION: \_\_\_\_\_  
No. \_\_\_\_\_

SHEET NO. 10  
SHEET 10 OF 10

- NOTES:**
- ALL WORK SHALL COMPLY WITH ANWA A100-20, AS AMENDED BY THE CONTRACT DOCUMENTS.
  - OZONE PINES WATER WELL SCOPE OF WORK: PROVIDE MUNICIPAL WATER WELL COMPLETE AND USABLE. UNDER THE PRICES BID, CONTRACTOR SHALL COMPLETE A TEST BOREHOLE, CONDUCT TESTING TO IDENTIFY POTENTIAL PRODUCTION ACQUIFER STRATA, COLLECT AND ANALYZE WATER SAMPLES AT POTENTIAL ACQUIFER DEPTHS, SUBMIT TEST RESULTS AND RECOMMENDATIONS FOR APPROVAL, CONSTRUCT AND DEVELOP A TEST WELL AT SELECTED DEPTH, PERFORM TEST WELL CHEMICAL ANALYSIS, SUBMIT TEST WATER RESULTS AND RECOMMENDATIONS, COMPLETE THE PRODUCTION WELL, PERFORM OPERATIONAL PUMP TEST, DISINFECT, SUBMIT TEST RESULTS AND RECOMMENDATIONS, SUBMIT EQUIPMENT SELECTION FOR APPROVAL, AND COMPLETE WELL HEAD CONSTRUCTION IN ACCORDANCE WITH THE DRAWINGS. SEE SPECIFICATIONS.

- WILLOW WOOD WATER WELL SCOPE OF WORK: MODIFY EXISTING MUNICIPAL WATER WELL AS SHOWN, COMPLETE AND USABLE. UNDER THE PRICES BID, CONTRACTOR SHALL REMOVE EXISTING PUMP, PIPING, CONCRETE BASE, CASING, DRAIN PIPE, EXISTING CASING, PERFORM OPERATIONAL PUMP TEST, SELECT, SUBMIT APPROVAL AND COMPLETE WELL HEAD CONSTRUCTION IN ACCORDANCE WITH THE DRAWINGS. SEE SPECIFICATIONS.
- LINESHAFT TURBINE PUMP SHALL BE MULTI-STAGE WATER LUBRICATED, CAST IRON IMPELLER BOWL AND DISCHARGE BODY ASTM A53 STEEL COLUMN, 416 STAINLESS STEEL SHAFT, WITH SILICON BRONZE IMPELLERS AND BEARING RETAINERS. STRAINER SHALL BE OF STAINLESS STEEL. LINESHAFT BEARINGS SHALL BE EPDM. PUMP SHALL BE GOULDS OR EQUAL.

**WELL PUMP DATA**

NUMBER OF PUMPS	WILLOW WOOD	OZONE PINES
TAG NUMBER	MP-01-WW	MP-01-OP
PUMP TYPE	LINESHAFT TURBINE	LINESHAFT TURBINE
PUMP COLUMN DIA., IN.	6	10
PUMP COLUMN HT., FT.*	40	60
PUMP FLOW, GPM	500	1000
TDH, FT.*	165	187
MOTOR SIZE, HP*	40	100
MOTOR SPEED, RPM	1800	1800
VOLTAGE, V	460	460
POWER	3PH, 60HZ	3PH, 60HZ

\*VALUES ARE BASIS OF BID, AND SHALL BE CONFIRMED OR MODIFIED AFTER WELL PUMP TEST.

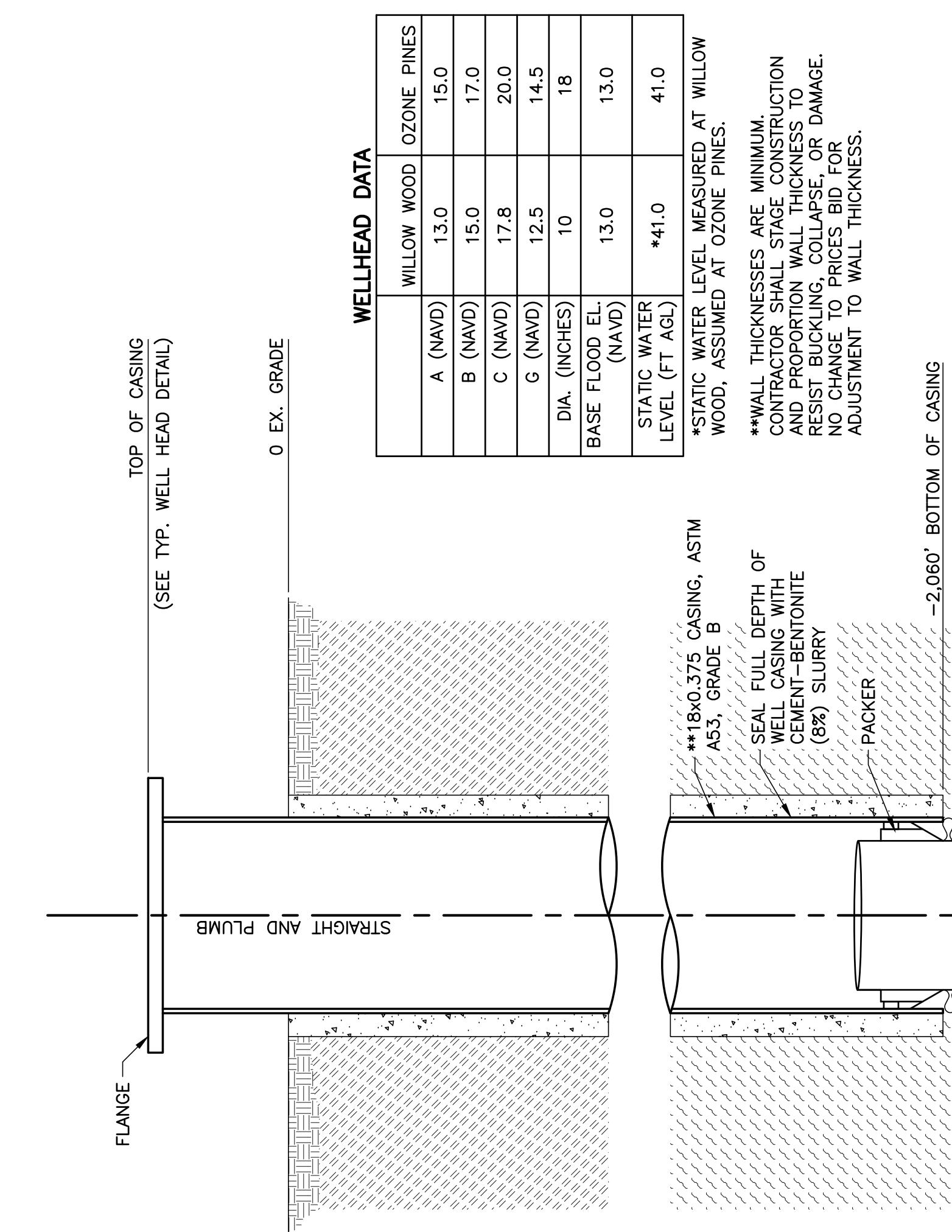
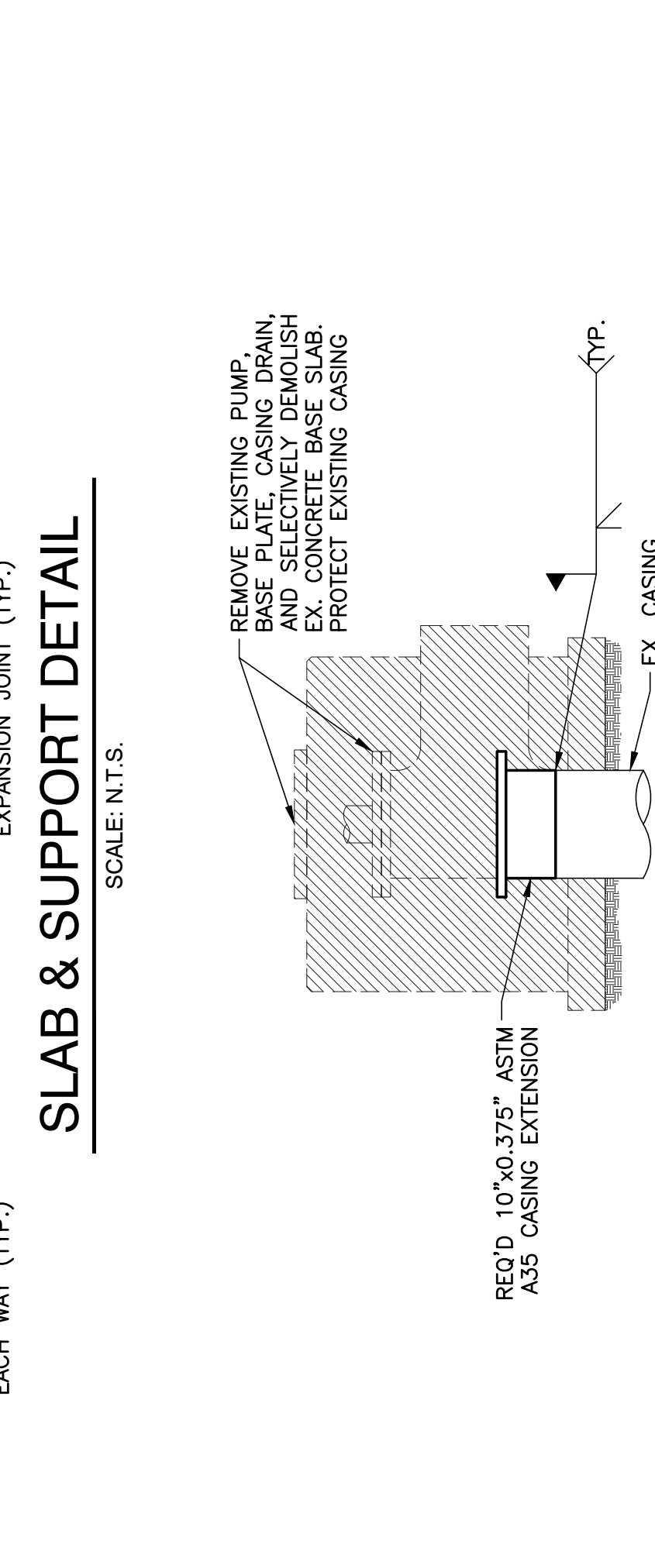
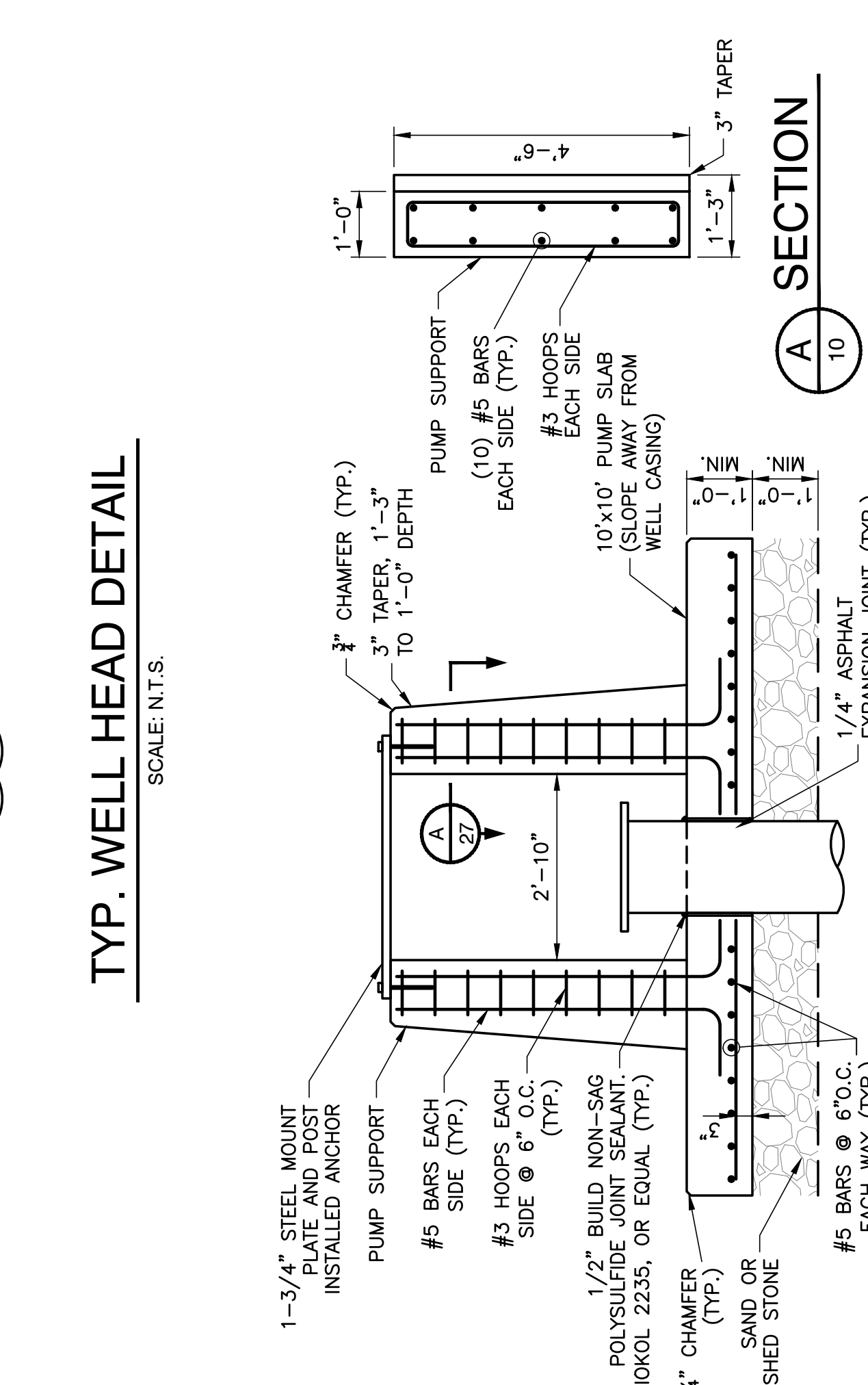
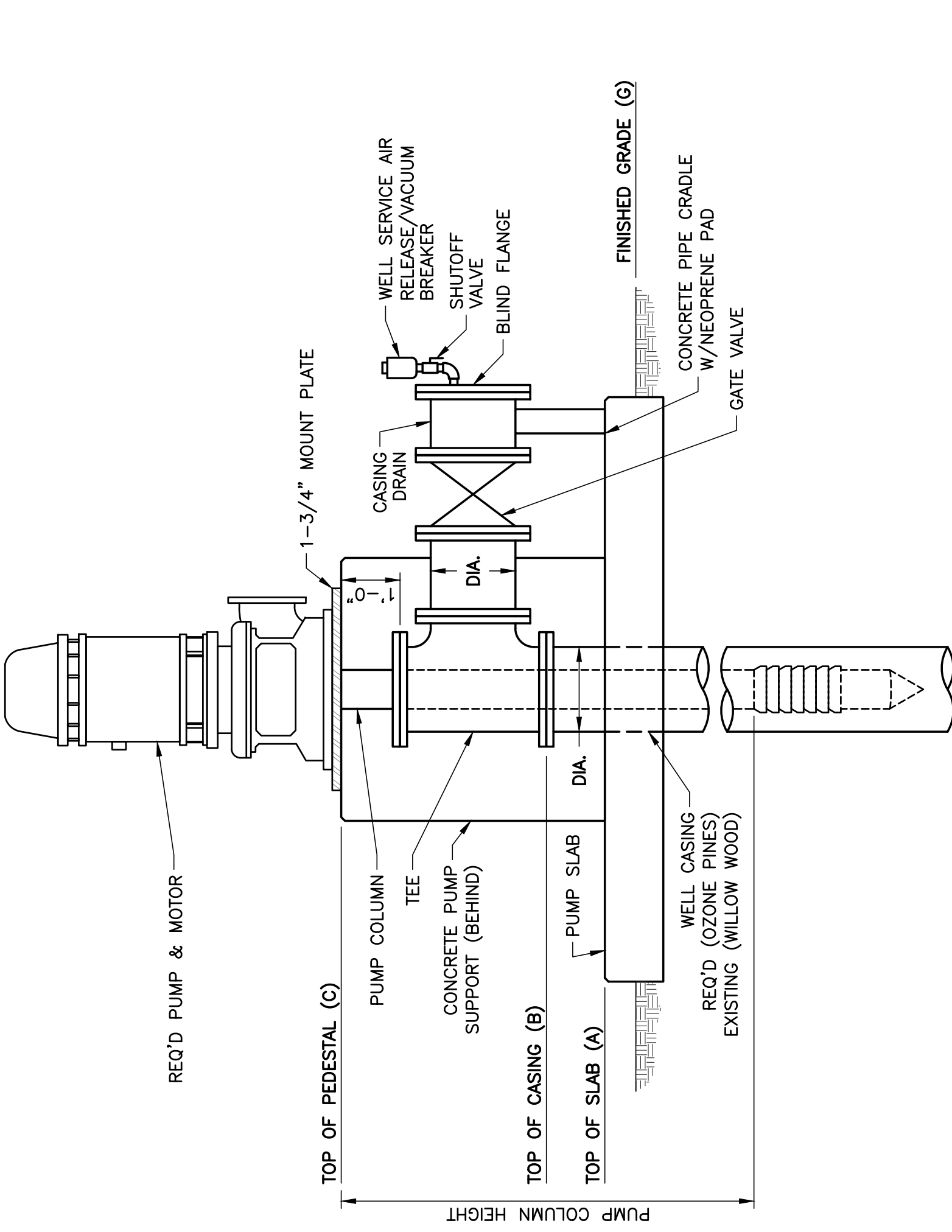
- CASING DEPTH, SCREENED DEPTHS, SCREEN SLOT SIZE, AND SCREEN LENGTH ARE BASIS OF BID. PROJECT VALUES SHALL BE CONFIRMED BY WELL BOREHOLE TESTING, GRAIN SIZE ANALYSIS, AND TEST WELL. ADJUSTMENT IN UNIT PRICE ITEM QUANTITIES SHALL BE MADE, AND EQUITABLE ADJUSTMENT IN LUMP SUM PRICES BID WILL BE MADE FOR CHANGES REQUIRED.
- SCREEN SHALL BE STAINLESS STEEL SCREEN PRE-PACKED WITH SYNTHETIC FILTER MEDIA, JOHNSON SCREENS MUNI-PAK, OR EQUAL. DIAMETER AND LENGTH SHALL BE CHECKED AGAINST REQUIRED SLOT SIZE, TO YIELD NO LESS THAN 2,000 GPM WITH A SCREEN WATER VELOCITY LESS THAN 0.1 FT/S.

**SCREEN DATA (OZONE PINES)**

REQ'D SCREEN CAPACITY (GPM)	2000
INNER DIAMETER (IN)	10
SLOT (IN)*	0.02
LENGTH (FT)*	100
OPENING/FT (IN <sup>2</sup> )*	74
SCREEN VELOCITY (FT/S)*	0.087

\*VALUES ARE BASIS OF BID, AND SHALL BE CONFIRMED OR MODIFIED AFTER BOREHOLE TESTING AND SIEVE ANALYSIS.

- DISINFECTION OF WELLS SHALL BE ACCORDING TO ANWA C654.
- PRIOR TO PLACEMENT IN SERVICE, THE WELLS SHALL BE SAMPLED FOR THE NATIONAL PRIMARY DRINKING WATER CONTAMINANTS, AND FOR TOTAL COLIFORM.



**WELLHEAD DATA**

	WILLOW WOOD	OZONE PINES
A (NAVD)	13.0	15.0
B (NAVD)	15.0	17.0
C (NAVD)	17.8	20.0
G (NAVD)	12.5	14.5
DIA. (INCHES)	10	18
BASE FLOOD EL. (NAVD)	13.0	13.0
STATIC WATER LEVEL (FT AGL.)	*41.0	41.0

\*STATIC WATER LEVEL MEASURED AT WILLOW WOOD, ASSUMED AT OZONE PINES.  
\*\*WALL THICKNESSES ARE MINIMUM CONTRACTOR SHALL VERIFY CONSTRUCTION AND PROVISION WALL THICKNESSES TO RESIST BUCKLING COLLAPSE OR DAMAGE. NO CHANGE TO PRICES BID FOR ADJUSTMENT TO WALL THICKNESS.



**WILLOW WOOD CASING EXTENSION**  
SCALE: N.T.S.

**OZONE PINES WATER WELL**  
SCALE: N.T.S.

## SECTION 01010 - SUMMARY OF WORK

### PART 1 - GENERAL

#### 1.01 ORDER OF OPERATIONS

- A. The Owner has elected to construct the improvements to the Cross Gates water system with four contracts. The first contract (by others) includes the construction of two (2) new elevated steel water storage tanks; one at the Willow Wood site and one at the Ozone Pines site. The second contract (this contract) includes a new well at the Ozone Pines site and improvements to the existing well at the Willow Wood site. The third contract includes control buildings, process equipment, mechanical work and sitework at the two well sites. The fourth contract includes installation of a waterline to connect the Cross Gates System to the new Ozone Pines system (by others). The Notice to Proceed for the tank project has been issued. The Notice to Proceed for this contract will be issued next following receipt of bids and award of contract. The Notice to Proceed for the water mains project (fourth contract) may be delayed as determined by the Engineer.
- a. WELL IMPROVEMENT PROJECT. The contractor for this project (well construction and well improvements project) cannot mobilize to the Willow Wood site until the tank contractor has substantially completed the work. Access to the Ozone Pines site and work is allowed following pile driving operations by the tank contractor. The Tank contractor is required to reach substantial completion at the Willow Wood site 441 calendar days from the Notice to Proceed as noted below. The contractor (for this contract) is then required to complete work at both sites in 546 calendar days from the Notice to Proceed.
  - b. STORAGE TANK PROJECT. The contractor for the storage tank project is required to mobilize to the Willow Wood site first. The required time to complete the work at the Willow Wood site is 441 calendar days from issuance of the Notice to Proceed. It is anticipated that the tank contractor will begin work at the Ozone Pines site simultaneously while the tank at the Willow Wood site is under construction. The additional contract time to construct the second tank at Ozone Pines is 112 calendar days. The total time to complete the storage tank work at both sites is 553 calendar days from the Notice to Proceed.
  - c. BUILDING CONSTRUCTION PROJECT. The Contractor for the Building project is required to mobilize to the Willow Wood site first following substantial completion by the tank contractor. Exterior mechanical work cannot begin until the well rehabilitation work is complete. Construction activities at the Ozone Pines site cannot begin until the well construction is complete. The time to complete the Building Construction project is 434 calendar days from the Notice to Proceed.

- d. N. MILITARY ROAD & BROWNSWITCH ROAD WATER MAINS. The work to construct the new water mains along N. Military Road and Brownsitch will be completed by others as part of another contract. The construction of the water mains may be concurrent to the water tower construction at Ozone Pines. Upon completion of the new water mains along N. Military and Brownsitch, the tank at Ozone Pines shall be connected to the expanded Cross Gates Water System.

## 1.02 WORK REQUIRED BY THE CONTRACT

- A. The Work of this Contract consists of the construction of a new water well at the Ozone Pines site located at 61134 North Military Road in Slidell, LA, and improvements to the existing well at the Willow Wood site located at 200 Cross Gates Blvd. in Slidell, LA.
  - a. The new water well at the Ozone Pines site includes new well construction, valves, and miscellaneous site work. Additional work includes grading, site cleanup, and other miscellaneous items as indicated on the Drawings and specified herein.
  - b. The well improvements at the Willow Wood site include new well pump, motor, well screen, valves, and site work. Other items of work include site grading and cleanup and other miscellaneous items as indicated on the Drawings and specifications herein.
- B. The Contractor shall perform the Work complete, in place, and ready for continuous service, and shall include repairs, testing, startup, cleanup, replacements and restoration required as a result of damages caused during this construction.
- C. 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.
- 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.
- E. The Contractor shall perform the Work under a lump sum price contract as stated in the Bid Form.

## 1.03 REQUIREMENTS

- A. The Contractor shall assume full responsibility for the protection and safekeeping of products under this Contract, stored on the site.
- B. The Contractor shall move any stored products, under Contractor's control, which interfere with operations of the Owner or separate contractor.

- C. The Contractor shall obtain and pay for the use of additional storage or work areas needed for Contractor's operations.

#### 1.04 WORK SEQUENCE

- A. The Contractor shall begin work on the project within ten (10) days of the Notice to Proceed and complete the work within the period specified in the contract.

#### 1.05 QUALITY OF WORK

- A. All work shall be subject to examination and approved by the Engineer and by all inspectors and authorities having jurisdiction. The Contractor shall replace all imperfect or condemned work with work conforming to all applicable requirements and codes to the satisfaction of the Engineer without additional cost to the Owner. If any work is covered before inspection and approval, the Contractor shall bear all costs for uncovering it, correcting it if necessary, and covering it again, at no additional cost to the Owner.

#### 1.06 ENVIRONMENTAL CONTROLS

- A. Provisions for Control of Erosion and Pollutants: Sufficient precautions shall be taken during construction to minimize the run-off of polluting substances such as silt, clay, fuels, oils, bitumens, calcium chloride, or other materials harmful to humans, fish, or other life, into the ground and surface waters of the State. Control measures shall be adequate to assure that turbidity in the receiving waters will not be increased more than otherwise required by the State or other controlling agency. Special precautions shall be taken in the use of construction equipment to prevent operations which promote erosion. The Contractor shall be responsible for obtaining all permits in conjunction with the conveyance of storm water during construction activities.
- B. In the event of inclement weather the Contractor shall protect the Work and materials and equipment against damage or injury from the weather. Damaged Work and materials shall be removed and replaced. If, in the opinion of Engineer, any portion of Work or materials has been damaged or injured by reason of failure on the part of the Contractor to so protect the Work, neither additional time nor additional payment for removal and replacement will be given by the Owner to the Contractor.
- C. Public Nuisance:
  - 1. The Contractor shall not create a public nuisance, including, but not limited to, encroachment on adjacent lands, flooding of adjacent lands, or excessive noise.

2. Sound levels from Contractor operations shall not exceed 45 dBA 7 PM to 6 AM or 55 dBA 7 AM to 6 PM, unless approved otherwise in writing. This sound level shall be measured at the exterior of the nearest exterior wall of the nearest residence or business. Levels at operating equipment shall not exceed 85 dBA at the equipment at any time. Sound levels in excess of these values are sufficient cause to have the work halted until equipment can be quieted to these levels. Work stoppage by the Engineer for excessive noise shall not relieve the Contractor of any obligations under the contract, including, but not limited to, performance of the work at the contract time and contract price.
3. No additional payment to the Contractor will be made for time lost due to work stoppage resulting from the creation of a public nuisance.

D. Work Hours:

No work shall be done between 6:00 p.m. to 7:00 a.m. nor on Saturdays, Sundays, or legal holidays without permission of Owner. However, emergency work may be done without prior permission.

Night work may be undertaken as a regular procedure with the permission of Owner; such permission, however, may be revoked at any time by Owner if Contractor fails to maintain adequate equipment and supervision for the proper prosecution and control of the work at night. Regular working hours shall not exceed a maximum of 40 hours per week. Requests to work during other than regular working hours as established by Contractor must be submitted to the Engineer at least 72 hours in advance of the period for such overtime work and shall set forth the proposed schedule for work to give the Engineer ample time to arrange for his personnel to be at the site of the work.

The contractor shall pay for all additional engineering charges to the Owner on account of the overtime work which may be authorized as stated above. Such engineering charges shall be a subsidiary obligation of the Contractor and no extra payment shall be made by the Owner on account of such overtime work. Engineer overtime charges shall be assessed in accordance with the terms of the Owner 's agreement with the Engineer.

E. Hazardous Locations

1. For operations in hazardous locations, the Contractor shall use spark-proof tools and explosion-proof temporary lighting and shall not use electric power tools, open flame devices, electric welding or any device or methods which might conceivably cause ignition or explosion.
2. If a working area atmosphere is unsafe, the Contractor shall furnish, install, operate and later remove such temporary auxiliary ventilating facilities as are necessary to provide a safe atmosphere.

3. The Contractor shall instruct its employees and the employees of all subcontractors to avoid smoking while in the hazardous areas. Suitable prominent "No Smoking" signs shall be placed at locations where hazardous gas could be present.

#### 1.07 PERMITS

Upon notice of award, the Contractor shall immediately apply for all applicable permits not previously obtained by the Owner to do the work from the appropriate governmental agency or agencies. No work shall commence until all applicable permits have been obtained and copies delivered to the Engineer. The costs for obtaining all permits shall be borne by the Contractor.

**PART 2 – PRODUCTS (NOT USED)**

**PART 3 – EXECUTION (NOT USED)**

**END OF SECTION**

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## SECTION 01025 - MEASUREMENT AND PAYMENT

### PART 1 - GENERAL

#### 1.01 DESCRIPTION

- A. The Contractor shall furnish all labor, materials, tools, equipment, appurtenances, and all services necessary to perform all Work required, at the lump sum or unit prices for the items listed herein.
- B. The items listed below beginning with Article 1.03 are the same pay items listed in the Unit Prices Table of Section 00300 - Louisiana Uniform Public Works Bid Form. These items constitute all of the pay items for completion of the Contract. No direct or separate payment will be made for providing miscellaneous, temporary, or accessory works, plant, services, Contractor's or Engineer's field offices, layout surveys, job signs, sanitary requirements, testing, safety devices, approval and record drawings, water supplies, power, removal of waste, watchmen, bonds, insurance, taxes, and all other requirements of the Contract Documents. Compensation for all such services, things and materials required for a complete and usable facility shall be included in the prices stipulated for the lump sum and unit pay items listed herein.

#### 1.02 ESTIMATED QUANTITIES

The estimated quantities for unit price bid items, as listed in the Louisiana Uniform Public Works Bid Form Unit Prices Table, are approximate only, and are included solely for the purpose of comparison of Bids. Certain pay item quantities are based on theoretical plan quantity and will not be adjusted; these items are noted in 1.03 or on the Drawings. The Owner does not expressly or by implication agree that the nature of the materials encountered below the surface of the ground, or the actual quantities of material encountered or required will correspond therewith and reserves the right to increase or decrease any quantity, or to eliminate any quantity, as Owner may deem necessary.

#### 1.03 PAY ITEMS

- A. ITEM 1 – WILLOW WOOD MOBILIZATION
  - 1. Description and Measurement: Includes all work as identified in Section 01505 – Mobilization associated with mobilization to the Willow Wood site. Mobilization for this item and Item 3 shall not exceed 5% of the total contract price for the Base Bid. No partial measurement will be made for this item. Measurement will be made upon completion of all required items in Section 01505.

2. Payment: Mobilization will be paid at the lump sum price listed in the Unit Prices Table.
- B. ITEM 2 – WILLOW WOOD WELL REHABILITATION
1. Description and Measurement: Includes all labor, materials, and equipment necessary for rehabilitation of the existing well at the Willow Wood site. This pay item shall include all work associated with improvements to the casing, screen, well head, connection to existing piping, pump and motor. Measurement will be made on total percent complete of this item.
  2. Payment: Willow Wood Well Rehabilitation will be paid by the lump sum price listed in the Unit Prices Table.
- C. ITEM 3 – OZONE PINES MOBILIZATION
1. Description and measurement: Includes all work as identified in Section 01505 – Mobilization associated with mobilization to the Ozone Pines site. Mobilization for this item (3) and Item 1 shall not exceed 5% of the total contract price for the Base Bid. No partial measurement will be made for this item. Measurement will be made upon completion of all required work in Section 01505.
  2. Payment: This item shall be paid by the LUMP SUM price given in the prices bid table.
- D. ITEM 4 – OZONE PINES TEST HOLE
1. Description and measurement: Includes all labor, materials, equipment, and incidentals necessary for completing the well test hole at the Ozone Pines site. Measurement will be made by the linear foot installed and accepted.
  2. Payment: This item shall be paid at the linear foot price given in the prices bid table.
- E. ITEM 5 – OZONE PINES TEST WELL
1. Description and measurement: Includes all labor, materials, equipment, and incidentals necessary to construct a test well. This item includes payment for drilling, casing, testing, and any other incidentals required for proper execution of the work. Measurement will be made by the linear foot installed and accepted by the Engineer.
  2. Payment: This item shall be paid at the linear foot price given in the prices bid table.
- F. ITEM 6 – OZONE PINES FINISHED WELL CASING, 18" X 0.375" THICK
1. Description and measurement: Includes all labor, materials, equipment, and incidentals necessary to construct the finished well casing in accordance with the drawings and specifications. This item includes payment for drilling, driving casing, grouting, and any other incidentals required for proper execution of the work. Measurement will be made on the linear foot installed and accepted by the Engineer.

2. Payment: This item shall be paid at the linear foot price given in the prices bid table.
- G. ITEM 7 – OZONE PINES WELL SCREEN, 10” DIAMETER
1. Description and measurement: Includes all labor, materials, and incidentals necessary to furnish and install the well screen in accordance with the drawings and specifications. Measurement will be made by the linear foot installed and accepted by the Engineer.
  2. Payment: This item shall be paid at the linear foot price given in the prices bid table.
- H. ITEM 8 – OZONE PINES WELL HEAD AND MOTOR
1. Measurement: Includes all labor, materials, equipment, and incidentals necessary to furnish and install the new pump, shaft, motor, and other items required in accordance with the drawings and specifications. Measurement will be made by a lump sum based on schedule of values submitted by the Contractor and accepted by the Engineer.
  2. Payment: This item shall be paid by the lump sum price given in the prices bid table.

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

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**

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## SECTION 01041 - PROJECT COORDINATION

### PART 1 - GENERAL

#### 1.01 REQUIREMENTS

The Contractor shall plan, schedule, and coordinate his operations in a manner that will facilitate the simultaneous progress of the work included under other contracts outside the scope of these Contract Documents. The Contractor shall plan, schedule and coordinate with all utilities in a manner conducive to timely and efficient progress in the execution of the contract.

#### 1.02 NOTICE TO PROPERTY OWNERS AND UTILITIES

A. The Contractor shall, as provided in the General Conditions, notify owners of adjacent property and utilities when prosecution of the Work may affect them. Utilities and other concerned agencies shall be contacted at least 48 hours prior to cutting or closing streets or other traffic areas or excavating near underground utilities or pole lines. When it is necessary to temporarily deny the access of owners or tenants to their property, or when any utility service connections must be interrupted, Contractor shall give notices sufficiently in advance to enable the affected persons to provide for their needs. Notices shall conform to any applicable local ordinance and, whether delivered orally or in writing, shall include appropriate information concerning the interruptions and instructions on how to limit their inconvenience.

B. Notice to Electric Utility:

The Contractor shall review with Electric Utility the construction methods to be used in the vicinity of that entity's power lines. This review shall establish which lines, if any, need temporary relocation or de-energizing work being required. The Contractor shall be responsible for notifying and coordinating with Utility officials prior to and during the construction of all facilities within the project limits. The Contractor shall schedule work activities in cooperation with the utility personnel to ensure uninterrupted electrical service to the public. The Contractor shall coordinate all construction activities that affect Electric Utility facilities through the local representative of the local office.

C. Notice to Gas Utility:

The Contractor shall review with the Gas Utility any work to be done in the vicinity of gas lines. Where temporary relocation of gas lines or reinforcement of coating is required, the Contractor shall meet with the Gas Utility as soon as possible, but no less than thirty (30) days in advance of when relocation is required. The Contractor shall give at least 48 hours' notice for temporary

shutdown of gas mains and other notification as required by the Gas Utility when working in the vicinity of gas mains.

### 1.03 CONNECTIONS TO EXISTING FACILITIES

- A. Unless otherwise specified or indicated, the Contractor shall make all necessary connections to existing facilities including structures, drain lines, and shall make all necessary connections to existing utilities such as water, sewer, gas, telephone, and electric. In each case, the Contractor shall receive permission from the Owner or the Utility prior to undertaking connections. A minimum of 48 hours of prior notification is required. The Contractor shall protect facilities against deleterious substances and damage.
- B. Connections to existing facilities which are in service shall be thoroughly planned in advance, and all required equipment, materials and labor shall be on hand at the time of undertaking the connections. Work shall proceed continuously (around the clock if necessary) to complete connections in the minimum time. Operation of valves of other appurtenances on existing utilities, when required, shall be by or under the direct supervision of the utility company.

### 1.04 OPERATION OF EXISTING FACILITIES

- A. All existing facilities shall be kept in continuous operation throughout the construction period. No interruption will be permitted. Provided permission, if any, is obtained from the Owner in advance, portions of the existing facilities may be taken out of service for short periods corresponding with periods of minimum service demands.
- B. The Contractor shall provide temporary facilities and make temporary modifications as necessary to keep the existing facilities in operation during the construction period.

### 1.05 COORDINATION OF STRUCTURAL, MECHANICAL, AND ELECTRICAL WORK

The Contractor shall coordinate all details of the equipment with other related parts of the Work including verification that all structures, piping, wiring, and equipment components are compatible. The Contractor shall be responsible for all structural and other alterations in the Work required to accommodate equipment differing in dimensions or other characteristics from that shown in the Contract Drawings or Specifications.

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

## **PART 3 - EXECUTION (NOT USED)**

### **END OF SECTION**

## SECTION 01043 - JOB SITE ADMINISTRATION

### PART 1 - GENERAL

#### 1.01 SITE ADMINISTRATION

- A. The Contractor shall be responsible for all areas of the site used by the Contractor and shall exert full control over the actions of all employees, all subcontractors, all suppliers, and other persons with respect to the use and preservation of property and existing facilities, except as such controls are specifically reserved to the Owner and the Engineer. A full-time superintendent, who is a regular full-time employee of the Contractor, shall be on site at all times during the Work. The Contractor's full-time superintendent shall be on site at all times during the Work, including any activities by subcontractors or suppliers.
- B. The Contractor has the right to exclude from the areas of the site used by the Contractor all persons who have no purpose related to the Work or its inspection, except the Owner's personnel required to operate and maintain the existing treatment facilities. The Contractor may require all persons in the areas of the site used by the Contractor to observe the same safety regulations as required of its employees.

#### 1.02 UNFAVORABLE CONSTRUCTION CONDITIONS

- A. The Contractor shall confine his operations to work which will not be adversely affected by unfavorable weather, wet ground, or other unsuitable construction conditions. No portion of the Work shall proceed under conditions which would adversely affect the quality or efficiency of the Work, unless suitable special precautions or countermeasures are taken by the Contractor.

#### 1.03 LAND FOR CONSTRUCTION PURPOSES

- A. The Contractor shall provide arrangements with the Owner for any land required for construction purposes including the storage of materials and equipment. The location and extent of the areas so used shall be as directed by the Owner. The Contractor shall immediately move stored material or equipment if any occasion arises, as determined by Owner, requiring access to the area used for storage. Materials or equipment shall not be placed on the property of Owner until Owner has agreed to the location to be used for storage.
- B. The Contractor shall provide arrangements for additional land required for construction, if necessary, beyond that furnished by the Owner. This work shall be considered a subsidiary obligation of the Contractor and all costs in connection therewith shall be absorbed by the Contractor.

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

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**



## SECTION 01047 - CONTROL OF WORK

### PART 1 - GENERAL

#### 1.01 SITE WORK

- A. The Contractor shall furnish all necessary equipment and labor that will be sufficient to produce a satisfactory quality of work at a rate of progress which will insure the completion of the work within the Contract Time. If at any time such equipment and labor appear to the Engineer to be insufficient for producing the quality of work required at the rate of progress aforesaid, the Engineer may order the Contractor to increase the efficiency, change the character, increase the personnel, or increase the equipment, and the Contractor shall conform to such order. Failure of the Engineer to give any such order shall in no way relieve the Contractor of the obligation to complete the Work within the Contract Time.

#### 1.02 PRIVATE LAND

- A. Contractor shall not enter or occupy private land outside of easements, except by permission of the landowner.

#### 1.03 OPEN EXCAVATIONS

- A. All open excavations shall be adequately safeguarded by providing temporary barricades, caution signs, lights and other means to prevent accidents to persons and damage to property. The Contractor shall provide suitable and safe bridges and other crossings for accommodating travel by pedestrians and workmen. Bridges provided for access during construction shall be removed when no longer required. The length or size of excavation will be controlled by the particular surrounding conditions but shall always be confined to the limits prescribed by the Engineer. If the excavation becomes a hazard, or if it excessively restricts traffic at any point, the Engineer may require special construction procedures such as limiting the length of the open trench, prohibiting stacking excavated material in the street and requiring that the trench shall not remain open overnight.
- B. The Contractor shall take precautions to prevent injury to the public due to open trenches. All trenches, excavated material, equipment, or other obstacles which could be dangerous to the public shall be well lighted at night.

#### 1.04 TEST PITS

- A. Test pits for the purpose of locating underground pipeline or structures in advance of underground construction features shall be excavated and backfilled at the direction of the Engineer. Test pits shall be backfilled immediately after their purpose has been

satisfied and the surface restored and maintained in a manner satisfactory to the Engineer.

#### 1.05 CARE AND PROTECTION OF PROPERTY

- A. The Contractor shall be responsible for the preservation of all public and private property and shall use every precaution necessary to prevent damage thereto. If any direct or indirect damage is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work on the part of the Contractor, such property shall be restored by the Contractor, at the Contractor's expense, to a condition similar or equal to that existing before the damage was done.

#### 1.06 PROTECTION AND RELOCATION OF EXISTING STRUCTURES AND UTILITIES

- A. The Contractor shall assume full responsibility for the protection of all buildings, structures, and utilities, public or private, including poles, signs, services to buildings, utilities in the street, gas pipes, water pipes, hydrants, sewers, drains and electric and telephone cables, whether or not they are shown on the Drawings. The Contractor shall carefully support and protect all such structures and utilities from damage of any kind. Any damage resulting from the Contractor's operations shall be repaired by the Contractor.
- B. Assistance will be given the Contractor in determining the location of existing services. The Contractor, however, shall bear full responsibility for obtaining all locations of underground structures and utilities (including existing water services, electrical duct banks, drain lines and sewers). Services to buildings shall be maintained, and all costs or charges resulting from damage thereto shall be borne by the Contractor.

#### 1.07 CLEANUP AND DISPOSAL OF EXCESS MATERIAL

- A. During execution of the Work, the Contractor shall keep the site of its operations in as clean and neat a condition as is possible. The Contractor shall dispose of all residues resulting from the Work and, at the conclusion of the Work, shall remove and haul away any surplus excavation, broken pavement, lumber, equipment, temporary structures and any other refuse remaining from the construction operations and shall leave the entire site of the work in a neat and orderly condition.
- B. In order to prevent environmental pollution arising from the construction activities related to the performance of this Contract, the Contractor shall comply with, and shall require all subcontractors to comply with, all applicable Federal, State and local laws and regulations concerning waste material disposal, as well as the specific requirements stated in this Section and elsewhere in the Specifications.

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

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**

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## SECTION 01050 - SITE CONDITION VIDEO SURVEY

### PART 1 - GENERAL

#### 1.01 DESCRIPTION

- A. Prior to the start of construction on the Contract, the Contractor shall furnish to the Engineer audio-video recordings (AVR's) of the construction area. In addition, the Contractor shall supply the (AVR's) of the interior and exterior of structures requested by the Owner. Also, date stamped photos of the inside of the structures are required of the surveyed properties. The minimum coverage area is indicated on the plans. The Engineer shall review the AVR's and photos and either approve or additional coverage will be required to fully show the physical conditions of the work areas. The Contractor shall have the additional coverage recorded and shall not begin work, including moving equipment and/or material on the project site, until the AVR survey has been approved by the Engineer. After approval, the Contractor shall supply two copies of the AVR's and photos to the Engineer. One copy of the AVR and photos will remain available for viewing by the Contractor and may be reviewed by him for any assistance that the AVR may provide in resolving disputes, which arise with the property owners claiming improper restoration of their properties. That copy of the AVR and photos 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 AVR and photos will be delivered to the Owner. The video and photos will be used as a record of existing site conditions and 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.
- B. The Contractor is required to get signed consent from the property owner prior to conducting the survey. If the property owner does not allow access to their property, documentation shall be provided to the Engineer.

### PART 2 - PRODUCTS

#### 2.01 TECHNICAL REQUIREMENTS

- A. 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, tearing, rolls 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.

## 2.02 OPERATOR EXPERIENCE

The video survey should be conducted by an independent company experienced in this field. The operator in charge of the video recording should have had previous experience video documenting a minimum of five (5) public works construction projects. Any apprentice operators should be continuously supervised by an above-described experienced operator.

## PART 3 - EXECUTION

### 3.01 GENERAL

- A. Coverage. The video 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 the construction site, and areas directed by the Owner as described above. The surface features within the construction zone shall include, but not be limited to, all structures, slabs, sidewalks, retaining walls, equipment, and fences. Of particular concern shall be the existence, or non-existence, of any faults, fractures, or defects.
- B. Identification Summary. At the start of production, at the beginning of a new tank/well site, 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) tape 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.
- C. Character Printout. All video recordings must, by electronic means, display continuously and simultaneously, generated transparent digital information to include (1) the date and the time of the recording, or as directed by the Engineer, (3) the name of the site, (4) the project name, and (5) the direction of the view. The time and date shall appear linearly in the bottom left-hand corner (e.g. 9-20-15 8:30:15).

The remainder of the printed information shall appear at the bottom of the viewing screen. To maximize viewing area no more than twenty-four rasters shall be used to express the transparent digital information.

- D. Visibility. No recording shall be done during periods of significant precipitation, mist or fog. The recording shall only illuminate the subjects of recording.

### 3.02 RECORDING SCHEDULE

The preconstruction video 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.

### 3.03 VIDEO INDEXING

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

### 3.04 UNACCEPTABLE DOCUMENTATION

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

**END OF SECTION**

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## SECTION 01090 - REFERENCE STANDARDS

### PART 1 - GENERAL

#### 1.01 REQUIREMENTS INCLUDED

Abbreviations and acronyms used in the Contract Documents to identify reference standards.

#### 1.02 QUALITY ASSURANCE

- A. Application: When a standard is specified by reference, the Contractor shall comply with requirements and recommendations stated in that standard, except when requirements are modified by the Contract Documents or applicable codes establish stricter standards.
- B. Publication Date: The publication in effect on the date of issue of the Contract Documents, except when a specific publication date is specified.

#### 1.03 ABBREVIATIONS, NAMES, AND ADDRESSES OF ORGANIZATIONS

The Contractor shall obtain copies of referenced standards directly from the publication source, when needed for proper performance of work, or when required for submittal by the Contract Documents.

AA	Aluminum Association 818 Connecticut Avenue, N.W. Washington, DC 20006
AASHTO	American Association of State Highway and Transportation Officials 444 North Capitol Street, N.W. Washington, DC 20001
ACI	American Concrete Institute Box 19150, Reford Station Detroit, MI 48219
AI	Asphalt Institute Asphalt Institute Building College Park, MD 20740
AISC	American Institute of Steel Construction 1221 Avenue of the Americas New York, NY 10020

AISI	American Iron and Steel Institute 1000 16th Street, N.W. Washington, DC 20036
ANSI	American National Standards Institute 1430 Broadway New York, NY 10018
ASHRAE	American Society of Heating, Refrigerating and Conditioning Engineers 1791 Tullie Circle, N.E. Atlanta, GA 30329
ASME	American Society of Mechanical Engineers Two Park Avenue New York, NY 10016
ASTM	American Society for Testing and Materials 100 Bar Harbor Drive West Conshocken, PA 19428
AWWA	American Water Works Association 6666 W. Quincy Avenue, Denver, CO 80235
AWS	American Welding Society 2501 NW 7th Street Miami, FL 33125
CRSI	Concrete Reinforcing Steel Institute 180 North LaSalle Street, Suite 2110 Chicago, IL 60601
FS	Federal Specification General Services Administration Specifications and Consumer Information Distribution Section (WFSIS) Washington Navy Yard, Building 197 Washington, DC 20407
LSSRB	Louisiana Standard Specifications for Roads and Bridges Louisiana Department of Transportation and Development Headquarters Administration Building - Room 100 1201 Capitol Access Road Baton Rouge, Louisiana 70802

MLSFA	Metal Lath/Steel Framing Association 221 North LaSalle Street Chicago, IL 60601
NAAMM	National Association of Architectural Metal Manufacturers 221 North LaSalle Street Chicago, IL 60601
NEMA	National Electrical Manufacturers' Association 2101 L Street, N.W. Washington, DC 20037
OSHA	Occupational Safety and Health Administration 200 Constitution Ave NW Washington, DC 20210
PCA	Portland Cement Association 5420 Old Orchard Road Skokie, IL 20076
PCI	Prestressed Concrete Institute 20 North Wacker Drive Chicago, IL 60606
SDI	Steel Door Institute 712 Lakewood Center North Cleveland, OH44107
SMACNA	Sheet Metal and Air Conditioning Contractors" National Association 8224 Old Court House Road Vienna, VA 22180
SSPC	Steel Structures Painting Council 4400 Fifth Avenue Pittsburg, PA
UL	Underwriters' Laboratories, Inc. 333 Pfingston Road Northbrook, IL 60062

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

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**

## SECTION 01152 - APPLICATIONS FOR PAYMENT

### PART 1 - GENERAL

#### 1.01 REQUIREMENTS INCLUDED

The Contractor shall 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: Lump-Sum.
- B. Conditions of the Contract: Progress Payments, Retainages and Final Payment.
- C. Section 01380: Construction Photographs.
- D. Section 01700: Contract Closeout.

#### 1.03 FORMAT AND DATA REQUIRED

- A. The Contractor shall submit payment applications in the form required by the Owner with itemized data typed on 8 ½ x 11 white paper continuation sheets.
- B. The Contractor shall provide itemized data on continuation sheet: format, schedules, line items and values.

#### 1.04 SUBSTANTIATING DATA FOR PROGRESS PAYMENTS

- A. All payment applications shall be accompanied by a completed pay application checklist and shall 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 updated project schedule, and invoices for any stored materials billed. The pay application checklist form shall be as provided on Page 01152-3. All items required on the checklist must be included with each pay application for the application to be processed.
- B. When the Owner or the Engineer requires additional substantiating data, the Contractor shall submit suitable information, with a cover letter.
- C. The Contractor shall submit one copy of all data required with a cover letter for each monthly pay application. Any additional substantiating data requested shall also be submitted as required in Part B above.

#### 1.05 PREPARATION OF APPLICATION FOR FINAL PAYMENT

- A. The Contractor shall complete application form as specified for progress payments.
- B. The Contractor shall use continuation sheet for presenting the final statement of accounting as specified in section 01700 - Contract Closeout.

#### 1.06 SUBMITTAL PROCEDURE

- A. The Contractor shall submit applications for payment to the Engineer at the times stipulated in the Agreement.
- B. Number required: Three original copies of each application, or as determined at the Preconstruction Conference.
- C. Once the Engineer determines the application properly completed and correct, a certificate for payment will be prepared and transmitted to the Owner, with a copy to the Contractor.

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

#### **PART 3 - EXECUTION (NOT USED)**

PAY APPLICATION CHECKLIST  
(CONSTRUCTION CONTRACT)

PARTIAL APPLICATION:

- Pre-Construction Video (Date Submitted): \_\_\_\_\_
- Construction Schedule (Updated) \_\_\_\_\_
- Progress Narrative \_\_\_\_\_
- Schedule of Values \_\_\_\_\_
- Affidavit Re: Previous Payments \_\_\_\_\_
- Progress Photos \_\_\_\_\_
- List of Stored Materials Billed \_\_\_\_\_
- Invoice for Stored Materials Billed \_\_\_\_\_
- Insurance for (off Site) \_\_\_\_\_
- Stored Materials Billed \_\_\_\_\_

FINAL APPLICATION:

- Application for Payment \_\_\_\_\_
- w/Final Statement of Accounts \_\_\_\_\_
- Punch List (checked off) \_\_\_\_\_
- O & M Manuals (Date Submitted) \_\_\_\_\_
- Record Drawings (Date Submitted) \_\_\_\_\_
- Spare Parts Lists \_\_\_\_\_
- Receipt for Material \_\_\_\_\_
- (Spare Parts) Delivered \_\_\_\_\_
- To Owner \_\_\_\_\_
- Clear L & P Certificate \_\_\_\_\_
- Warranties & Bonds \_\_\_\_\_
- Consent of Surety to Final Payment \_\_\_\_\_
- Letter from Contractor stating \_\_\_\_\_
- warranty of 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

- A. The Contractor shall promptly implement Change Order procedures as follows:
  - 1. The Contractor shall provide full written data required to evaluate changes.
  - 2. The Contractor shall maintain detailed records of work done on a time and material basis.
  - 3. The Contractor shall provide full documentation to Engineer.
- B. The Contractor shall designate in writing, and submit to the Engineer, the member of Contractor's organization as follows:
  - 1. Person authorized to accept changes in the Work.
  - 2. Person responsible for informing others in the Contractor's employ of the authorization of changes in the Work.
- C. The Owner will designate in writing the person authorized to execute Change Orders.

#### 1.02 RELATED REQUIREMENTS

- A. Conditions of the Contract are included in the Agreement, General Conditions and Supplementary Conditions, including the following:
  - 1. Methods of determining cost or credit to Owner resulting from changes in Work made on a time and material basis.
  - 2. Contractor's claims for additional costs.

#### 1.03 DEFINITIONS

- A. Change Order: See General Conditions of the Contract.
- B. Work Directive Change: A written order to the Contractor, signed by the Owner and the Engineer, which amends the Contract Documents as described and authorizes Contractor to proceed with a change which affects the Contract Sum or the Contract Time, for inclusion in a subsequent Change Order.
- C. Field Order: A written order to the Contractor signed by the Engineer and the Contractor, which is issued to interpret/clarify the Contract Documents, order

minor changes in the work, and/or memorialize trade-off agreements. The Work described by a Field Order shall be accomplished without change to the Contract Sum, Contract Time, and without claims for other costs.

#### 1.04 PRELIMINARY PROCEDURES

A. The Owner or the Engineer may initiate changes by submitting a Request for Proposal (RFP) to the 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, or to stop work in progress.

B. The Contractor may initiate changes by submitting a written Proposal to the Engineer. The Proposal shall include the following:

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.

#### 1.05 WORK DIRECTIVE CHANGE AUTHORIZATION

A. In lieu of a Request for Proposal (RFP), the Engineer may issue a Work Directive Change Authorization for the Contractor to proceed with a change for subsequent inclusion in a Change Order.

B. Authorization will describe changes in the Work, both additions and deletions, with attachments of revised Contract Documents to define details of the change and will designate the method of determining any change in the Contract Sum and any change in Contract Time.

C. The Owner and the Engineer will sign and date the Work Directive Change Authorization as authorization for the Contractor to proceed with the changes.

D. The Contractor shall sign and date the Work Directive Change Authorization to indicate agreement with the terms therein.

#### 1.06 DOCUMENTATION OF PROPOSALS AND CLAIMS

A. The Contractor shall 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. The Contractor shall provide additional data to support time and cost computations as follows:

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. The Contractor shall support each claim for additional costs and for work done on a time and material basis, with documentation as required for a lump sum proposal, plus additional information as follows:

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 (The Contractor shall also provide full documentation supporting the subcontract amount).

#### 1.07 PREPARATION OF CHANGE ORDERS AND FIELD ORDERS

A. Engineer will prepare Change Orders and Field Orders.

B. The Change Order will describe changes in the Work, both additions and deletions, with attachments of revised Contract Documents to define details of the change.

- C. The Change Order will provide an accounting of the adjustment in the Contract Sum and in the Contract Time.
- D. The Field Order will describe interpretations or clarifications of Contract Documents, order minor changes in the Work, and/or memorialize trade-off agreements.
- E. Field Order work shall be accomplished without change in the Contract Sum, Contract Time, and/or claims for other costs.
- F. Change Order and Field Order forms for Owner will be provided by the Engineer. The Contractor shall provide the Change Orders and Field Orders on correct forms as provided.

#### 1.08 LUMP SUM CHANGE ORDER PROCEDURE

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

#### 1.09 WORK DIRECTIVE CHANGE AUTHORIZATION PROCEDURE

- A. The Engineer and the Owner may issue a Work Directive Change Authorization directing the Contractor to proceed with the changes.
- B. At completion of the change, the Contractor shall submit itemized accounting and supporting data as provided herein.
- C. The Engineer will determine the allowable cost of such work, as provided in General Conditions and Supplementary Conditions.
- D. The Engineer will sign and date the Change Order to establish the change in the Contract Price and in the Contract Time.
- E. The Contractor shall sign and date the Change Order to indicate agreement therewith.

- F. The Owner will sign and date the Change Order to indicate agreement therewith.
- G. All time and material Work shall be documented and approved by the Project Representative on a daily basis.

1.10 CORRELATION WITH CONTRACTOR'S SUBMITTALS

- A. The Contractor shall periodically revise the Schedule of Values and Request for Payment forms to record each change as a separate item of Work, and to record the adjusted Contract Sum.
- B. The Contractor shall periodically revise the Construction Schedule to reflect each change in Contract Time.
  - 1. The Contractor shall revise subcontractor schedules to show changes for other items of work affected by the changes.
- C. Upon completion of work under a Change Order, the Contractor shall enter pertinent changes in Record Documents.

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

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**

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## SECTION 01200 - PROJECT MEETINGS

### PART 1 - GENERAL

#### 1.01 REQUIREMENTS INCLUDED

- A. The Engineer will schedule and administer a preconstruction meeting, construction progress meetings, and specially called meetings throughout the progress of the work. The Engineer will:
  - 1. Prepare agenda for meetings.
  - 2. Make physical arrangements for meetings.
  - 3. Preside at meetings.
  - 4. Record notes; including significant proceedings and decisions.
  - 5. Reproduce and distribute copies of minutes.
- B. The Contractor shall attend all meetings. When appropriate, the Contractor shall require subcontractors and suppliers to attend. Those in attendance shall be qualified and authorized to act on behalf of the entity each represents.
- C. The Contractor shall attend and identify at the meetings the actual status of the Contract Work. When the Work is not being performed consistently with the Contract Documents and construction schedules, the Contractor shall identify at the meetings the steps being taken to resolve the inconsistency.
- D. The Contractor shall provide all required documentation including Construction Schedule and required updates to Construction Schedule in accordance with Section 01311 – Construction Schedules.

#### 1.02 PRE-CONSTRUCTION MEETING

- A. The Contractor shall participate in a preconstruction meeting to be held after the effective date of the Agreement and prior to the date of Notice to Proceed.
- B. The following shall be in attendance:
  - 1. The Owner's Representative and other staff as appropriate.
  - 2. The Engineer's Representative.
  - 3. The Resident Project Representative.
  - 4. The Contractor's Project Manager
  - 5. The Contractor's Construction Superintendent.
  - 6. Subcontractors as appropriate.
  - 7. Suppliers as appropriate.
  - 8. Utility representatives as appropriate.
  - 9. Others as appropriate.

- C. The Contractor shall supply sufficient copies of the following documents:
1. Construction Schedule.
  2. Schedule of Values.
  3. List of Subcontractors.
  4. List of Suppliers.
  5. Schedule of Submittals.
- D. The following matters shall be addressed:
1. Distribution and discussion of:
    - a. Project Construction Schedule.
    - b. Schedule of Values.
    - c. List of Subcontractors.
    - d. List of Suppliers.
    - e. Schedule of Submittals.
  2. Critical work sequencing.
  3. Project Coordination.
  4. Designation of responsible personnel.
  5. Procedures and processing of:
    - a. Applications for Payment.
    - b. Submittals.
    - c. Field decisions.
    - d. Proposal requests.
    - e. Change Orders.
  6. Procedures for maintaining Record Documents.
  7. Use of premises:
    - a. Contractor's Field Office, work and storage areas.
    - b. Owner's requirements.
  8. Construction facilities and controls.
  9. Temporary utilities.
  10. Housekeeping procedures.
  11. Insurance certifications.
  12. Liquidated damages for delay.
  13. Laboratory testing of material requirements.



14. Notice to Proceed and Final Completion date.

### 1.03 CONSTRUCTION PROGRESS MEETINGS

- A. Construction progress meetings will be held monthly with the first meeting 30 days after the date of Notice to Proceed.
- B. Special construction progress meetings will be held as required by progress of the Work.
- C. The following shall be in attendance:
  - 1. The Owner's Representative and other staff as appropriate.
  - 2. The Engineer and his professional consultants as appropriate.
  - 3. The Contractor's Representative and/or construction Superintendent.
  - 4. Subcontractors as appropriate.
  - 5. Suppliers as appropriate.
  - 6. Others as appropriate.
- D. The following matters shall be addressed:
  - 1. Review of progress during succeeding work period.
  - 2. Revisions to Construction Schedule.
  - 3. Problems which impede Construction Schedule.
  - 4. Field observations, problems, conflicts.
  - 5. Review of off-site fabrication and delivery schedules.
  - 6. Corrective measures and procedures for Construction Schedule.
  - 7. Remaining Submittals.
  - 8. Review of Record Drawings.
  - 9. Payment applications and processing.
  - 10. Maintenance of quality standards.
  - 11. Review proposed changes and Change Orders:
    - a. Effect on Construction Schedule and completion date.
    - b. Effect on other contracts of the Project.
  - 12. Other matters as appropriate.

- E. The Contractor shall be prepared to discuss the above topics and to make commitments for resolving deficiencies.
- F. The Contractor shall provide sufficient copies of the following documents for each meeting:
  - 1. Revised Construction Schedule in accordance with Section 01311.
  - 2. Revised Submittal Schedule.
  - 3. Current Submittal Log in accordance with Section 01340.
  - 4. Updated Record Drawings.

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

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**

## SECTION 01300 - SUBMITTALS

### PART 1 - GENERAL

#### 1.01 DESCRIPTION OF REQUIREMENTS

- A. This Section describes the procedures and requirements for submittals of materials, equipment, and other items to be incorporated into the Work, such as shop drawings, product data, and samples. The requirements for administrative submittals are described in other sections.
- B. Additional individual item submittal requirements are specified in the Sections for each item of work.
- C. Definitions. The work-related submittals of this Section, in addition to the definitions of the General Conditions and elsewhere in the Contract Documents, are further categorized for convenience as follows:
  - 1. Shop drawings include specially prepared technical data of all forms including drawings, diagrams, performance curves, data sheets, schedules, templates, patterns, reports, calculations, instructions, measurements, and similar information not in standard printed form for application to more than one project.
  - 2. Product data includes standard printed information on materials, products and systems, not specifically prepared for this project, other than the designation of selections from among available choices printed therein.
  - 3. Samples include both fabricated and unfabricated physical examples of materials, products, and units of work, both as complete units and as smaller portions of units of work, either for limited visual inspection or (where indicated) for more detailed testing and analysis.
  - 4. Other non-administrative submittals include warranties, certifications, maintenance agreements, survey data and reports, field measurement data, factory and quality testing reports, record drawings, operating and maintenance manuals, and other items applicable to the Work that are not processed as shop drawings, product data, or samples.

#### 1.02 GENERAL SUBMITTAL REQUIREMENTS

- A. Scheduling. Required administrative submittals shall include submittal requirements and time schedules for coordination and integration of submittal activity with related work.

1. Within ten (10) days after the Notice to Proceed, a schedule shall be submitted to the Engineer for all material and equipment items. For each required item, the date shall be given for intended submission of the drawing to the Engineer for review and the date required for its incorporation into the Work.
- B. Coordination of Submittal Times. The Contractor shall prepare and transmit each submittal to the Engineer sufficiently in advance of performing related work or other applicable activities, such that the installation will not be delayed or improperly sequenced by processing times, including resubmittal if required. Coordinate each submittal with other submittals, testing, purchasing, delivery, and similar sequenced activities. There will be no extension of Contract Time given due to Contractor's failure to transmit submittals to the Engineer sufficiently in advance of the work.
- C. Preparation of Submittals. The Contractor shall provide permanent marking on each submittal to include all of the following items:
1. The date of submittal, and the date(s) of any previous submittal(s).
  2. The project title and number.
  3. The names of:
    - a. Contractor.
    - b. Supplier.
    - c. Manufacturer.
    - d. Subcontractor.
  4. Identification of Specification Section number and equipment tag numbers.
  5. Notification to the Engineer in writing, at the time of submission, of any deviations in the submittal from the requirements of the Contract Documents.
  6. The Contractor's review stamp, signed or initialed, certifying Contractor's review of submittal, and that verification of products required, field dimensions, adjacent construction Work, and coordination of information within the submittal, has been completed and is in accordance with the requirements of the Work and the Contract Documents.
  7. A 4" x 6" minimum blank space for the Engineer's review stamp and review comments.
  8. Identification of revisions on resubmittals.
  9. Field dimensions clearly identified as such.
  10. Relation to adjacent or critical features of the Work.
  11. Applicable standards, such as ASTM or Federal Specification numbers.
  12. Any submittal sheets or drawings showing more items than the particular item under consideration shall have all but the pertinent description of the item for which review is requested crossed out or blanked out. Standard drawing or data sheets with multiple options unmarked will cause the submittal to be returned not reviewed.

- E. Transmittal Form. All submittals shall be accompanied by the Contractor's standard submittal transmittal form. Any submittal not accompanied by such a form, or where all applicable items on the form are not completed, will be returned not reviewed. Submittals received from sources other than the Contractor, such as suppliers or subcontractors, will not be reviewed by the Engineer.
- F. Transmittal Identification. The Contractor shall number transmittals in sequence for each Division and each Section of the Specifications. The Contractor shall identify resubmittals with a letter of the alphabet following the original number, using A for the first resubmittal, B for the second resubmittal, etc.
- G. Resubmittal. The Contractor shall be allowed to make one (1) resubmittal to address the Engineers comments if the original submittal is returned for resubmittal. Any review of subsequent resubmittals will be considered Contractor required engineering services and treated in accordance with the requirements of the specifications. There will be no extension of Contract Time given due to Contractor's failure to adequately address all of the Engineer's comments in the first resubmittal.
- H. Engineer's Review. The Engineer will review the Contractor's submittal, and upon completion will return to the Contractor marked with one of the following designations, with required action by the Contractor:
  - 1. "Reviewed: No Exceptions." No further submission is required by the Contractor for this item.
  - 2. "Reviewed: Exceptions Noted." No further submission is required by the Contractor for this item. The Contractor shall incorporate all of the Engineer's review notes into the Work.
  - 3. "Revise and Resubmit." The Contractor shall incorporate all of the Engineer's review notes into a revised submittal and resubmit, in accordance with Paragraph G. above.
  - 4. "Rejected." The item submitted is not in conformance with the Contract Documents, and cannot be used on this project. The Contractor shall provide the item as specified, and resubmit in accordance with Paragraph G. above.
  - 5. "Information Only." No further submission is required by the Contractor for this item.
- I. Record Document. After the Engineer's review, if no further submission is required by the Contractor, the reviewed document shall be printed and

maintained by the Contractor as the "Record Document". The Contractor shall not proceed with installation of materials, products or systems until a copy of the final reviewed document is in possession of the Contractor.

### 1.03 SPECIFIC CATEGORY REQUIREMENTS

- A. Shop Drawings. The Contractor shall provide newly prepared information, on reproducible sheets, with graphic information at accurate scale (except as otherwise indicated), with name of preparer (firm name) indicated. The Contract Drawings shall not be traced or reproduced by any method for use as or in lieu of detail shop drawings. Drawings shall show dimensions and note which are based upon field measurements. Drawings shall identify materials and products and indicate compliance with standards and special coordination requirements. The Contractor shall not allow shop drawing copies without the appropriate final review markings by the Engineer to be used in connection with the Work.
- B. Product Data. The Contractor shall collect all required data into one comprehensive submittal for each unit of work or system, and clearly mark the choices and options applicable to the Work. The Contractor shall include manufacturer's standard printed recommendations for application and use, compliance with standards, application of labels and seals, notation of field measurements which have been checked, and special coordination requirements. Maintain one (1) set of product data (for each submittal) at project site, available for reference by the Engineer or others.
- C. Samples. The Contractor shall provide samples identical with final condition of proposed materials or products for the work. Range samples shall be included (not less than three (3) units) where unavoidable variations must be expected and shall describe or identify variations between units of each set. The Contractor shall provide a full set of optional samples where the Engineer's selection is required. Information shall be included with each sample to show generic description, source or product name and manufacturer, limitations, and compliance with standards.
  - 1. Submittal. The Contractor shall provide submittal of a single set of samples for the Engineer's review.
  - 2. Quality Control Set. The Contractor shall maintain a final set of samples at the project site, in suitable condition and available for quality control comparisons by the Engineer and the Owner.

### 1.04 SUBMITTAL SCHEDULING

- A. Review Time. Unless otherwise specified, a minimum of fifteen (15) calendar days following receipt of submittals shall be included in the project schedule for the

Engineer's review. A suitable longer period shall be included in the project schedule where the Engineer's review must be delayed for coordination with subsequent submittals due to the Contractor's submittal sequencing.

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

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**

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## SECTION 01311 - CONSTRUCTION SCHEDULE

### PART 1 - GENERAL

#### 1.01 REQUIREMENTS INCLUDED

- A. Within ten (10) days after the effective date of the Agreement, the Contractor shall submit to the Engineer for review a preliminary Construction Schedule indicating the starting and completion dates of the various stages of the work.
- B. The Contractor shall submit a revised Construction Schedule monthly with each request for payment.
- C. The Construction Schedule shall be coordinated and updated with all changes including Field Orders, Work Directive Changes, and Change Orders through the completion of the Work.

#### 1.02 FORM OF SCHEDULES

- A. The Contractor shall prepare all schedules in the form of a horizontal bar chart. The chart shall include the following:
  - 1. A separate horizontal bar for each trade or operation.
  - 2. A horizontal time scale: Identify the first work day of each week.
  - 3. Scale and Spacing to allow for notations and future revisions.
  - 4. A minimum sheet size of 8-1/2" X 11".
- B. The Construction Schedule shall:
  - 1. Show the complete sequence of construction by activity.
  - 2. Show the dates for the beginning and completion of each major element of construction.
  - 3. Show projected percentage of completion for each item, as of the first day of each month.
- C. A Submittals Schedule for Shop Drawings, Product Data, and Samples, shall be provided and shall include the following:
  - 1. Dates of Contractor's submittals.
  - 2. Dates the submittal items will be required for inclusion in the Work.

#### 1.04 CONSTRUCTION SCHEDULE REVISIONS

- A. Construction Schedule revisions shall indicate the progress of each activity to the date of submission.
- B. Construction Schedule revisions shall show changes occurring since previous submission of schedule to include the following:

1. Major changes in scope.
  2. Activities modified since previous submission.
  3. Revised projections of progress and completion.
  4. Other identifiable changes.
- C. The Contractor shall provide a narrative report as needed to define:
1. Problem areas, anticipated delays, and the impact on the schedule.
  2. Corrective action recommended and its effect.

#### 1.05 SUBMISSIONS

- A. The Contractor shall submit the initial Construction Schedule in accordance with the General Conditions.
1. The Engineer will review and return a review copy within ten (10) days after receipt.
  2. If required, the Contractor shall resubmit within seven (7) days after return of review copy.
- B. The Contractor shall submit a revised Construction Schedule with each application for payment.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

**END OF SECTION**

## SECTION 01370 - SCHEDULE OF VALUES

### PART 1 - GENERAL

#### 1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall submit to the Engineer for review a preliminary Schedule of Values allocated to the various portions of the Work within ten (10) days after bid opening, ten (10) days after the effective date of the Agreement, and at any other time required in the specifications. The Notice to Proceed will not be issued prior to receipt of a Schedule of Values acceptable to the Engineer. Upon request of the Engineer, the Contractor shall provide supporting documentation for substantiating the values used.
- B. The Schedule of Values shall be used as a basis for the Contractor's Applications for Payment. The sum of all values listed in the Schedule shall equal the total Contract Price. General Conditions (mobilization, bonds, insurance, etc.) shall be no more than 5% of the total Contract Price.

#### 1.02 FORM AND CONTENT OF SCHEDULE OF VALUES

- A. The Schedule shall be on minimum 8-1/2 in. x 11 in. white paper. The Contractor's standard form and/or automated printout will be considered for acceptance by the Engineer upon the Contractor's request, provided the standard form includes all of the requirements herein. The Schedule shall be identified as follows:
  - 1. Title of Project and location.
  - 2. Engineer and Project number.
  - 3. Name and Address of Contractor.
  - 4. Date of submission.
- B. The Schedule shall list the installed value of the appropriate component parts for each item of the Work in sufficient detail to serve as a basis for computing values for progress payments during construction. Component Parts shall be defined as any single item with a value of more than \$5,000.00, or defined by separate construction trade, whichever is of less value. The Engineer may direct further break down of additional parts. Component parts shall be identified by Specification Section, where applicable.
- C. The Schedule shall be itemized by each separate structure. For projects with multiple site locations, the Schedule shall be itemized by each separate location.

### 1.03 SCHEDULE OF MAJOR EQUIPMENT ITEM VALUES

- A. Major equipment items, defined as any item with a value of more than \$20,000, shall be subdivided into components to include the following:
1. Preparation and processing of submittal and any required resubmittals.
  2. Fabrication and delivery to the Site (subdivided further by equipment items as defined in the equipment list contained in the Specification Section for the equipment).
  3. Installation (subdivided further by equipment items as defined in the equipment list contained in the Specification Section for the equipment).
  4. Start-up and operator training.
  5. Delivery of spare parts, warranties, and Operation & Maintenance Manuals to the Owner.

### 1.04 REQUIRED ITEMS

- A. In addition to the requirements above, the Schedule shall contain separate items as listed below (at a minimum, and as applicable):
1. General Conditions (to include mobilization)
  2. Demolition
  3. Bypass Pumping
  4. Paving
  5. Coatings
  6. Mechanical Equipment
  7. Piping
  8. Electrical Equipment
  9. Electrical Work
  10. Site Restoration
  11. Submission of Record Documents

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

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**

## **SECTION 01380 – CONSTRUCTION PHOTOGRAPHS**

### **PART 1 - GENERAL**

#### **1.01 SCOPE OF WORK**

- A. The Contractor shall employ a competent photographer to take construction record photographs prior to and periodically during the course of the Work.
- B. Progress payments will not be processed unless photographs are included and current with construction progress.

#### **1.02 SUBMITTALS**

- A. The Contractor shall provide at least six (6) photographs each month of each major portion of the work taken at each major stage of construction. The Contractor shall provide digital files of each photograph identified with project title, description of view and date.

### **PART 2 - PRODUCTS**

#### **2.01 PRINTS**

- A. All prints shall be color as follows:
  - 1. Paper: 20lb Bond Paper.
  - 2. Print Size: 3 ½ in. x 5 in.
  - 3. Each picture shall be date stamped.
  - 3. Prints: 1 column and 2 rows of pictures per sheet.
- B. Each print shall be identified by caption below the picture, listing:
  - 1. Project Subject / Item.
  - 2. Location / Station.
  - 3. Direction of view.

### **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 conditions of construction and state of progress.
- B. Prior to construction, at least six photographs of pertinent features shall be taken at various locations at the site and promptly submitted to the Engineer. Additional progress photographs shall be made monthly throughout the progress of the work and of significant milestones items or areas when work has taken place at that location during the month and submitted with each of the Contractor's applications for payment.

### 3.03 DELIVERY OF PHOTOGRAPHS AND PRINTS

- A. Preconstruction photographs shall be delivered to the Engineer prior to the beginning of construction.
- B. Digital photographs shall be of at least 4 megapixels and shall be clear, sharp and encompass depth of field. The photographs shall be submitted as a color printed composite PDF, digital PDF file and original digital camera files on a CD/DVD ROM. Two (2) printed colored PDFs on bond paper and (2) CD/DVD ROMS labeled with the Project Title and date shall be furnished with each set of photographs. All digital photographs taken during construction by the contractor shall be retained, and a copy of all digital files shall be delivered on CD/DVD ROM to the Engineer at the completion of the project or as directed by the Engineer or Project Representative.

**END OF SECTION**

## SECTION 01400 - TESTING LABORATORY

### PART 1-GENERAL

#### 1.01 REQUIREMENTS

- A. The Contractor shall provide the services of an independent testing laboratory to perform specified testing upon recommendation of the Engineer. All samples of the Work will be collected by the testing laboratory. Any equipment, supplies, and delivery services required for testing will be provided by the testing laboratory.
- B. The Contractor shall cooperate with the laboratory to facilitate the execution of the required testing services. Representatives of the testing laboratory shall have access to the work at all times and facilities for such access shall be provided in order that the laboratory may perform its functions properly. The Contractor shall consult the testing laboratory in advance to determine the time required to perform the tests and to issue findings. The testing laboratory shall be notified by the Contractor of any schedule changes.

#### 1.02 CONTRACTOR'S RESPONSIBILITIES

The Contractor shall:

- A. Coordinate with the laboratory to request testing, as directed by the Engineer.
- B. Secure and deliver to the laboratory, when requested by 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 material test reports as required.
- E. Furnish incidental labor and facilities:
  - 1. To provide access to Work to be tested.
  - 2. To facilitate inspections and tests.
  - 3. For field storage and curing of test samples.
- G. 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 Owner for laboratory personnel and travel expenses incurred due to Contractor's negligence.

- H. Make arrangements with laboratory and pay for additional samples and tests required by failed test results, or for the Contractor's convenience.

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

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**



## SECTION 01505 - MOBILIZATION

### PART 1 - GENERAL

#### 1.01 SCOPE OF WORK

The Contractor shall set up necessary construction facilities including storage areas, temporary facilities, Contractor's field offices and such sanitary and other facilities as are required by local or state law or regulation; all as required for the proper performance and completion of the Work.

A. The Contractor shall provide all items of work covered in this Section which shall include but not be limited to the following principal items:

1. Establishment on site of all Contractor's field offices, facilities, and equipment required for the first month of operation.
2. Installation of temporary construction power, wiring, and lighting facilities.
3. Development of construction water supply.
4. Provision of on-site sanitary facilities and potable water facilities as specified.
5. Establishment of Contractor's work and storage yard.
6. Procurement and submittal of all required subcontractor insurance certificates and bonds.
7. Obtaining all required permits.
8. Posting of all OSHA required notices and other information as required by Federal, State and Local Agencies.
9. The Contractor's superintendent established at the job site full time.
10. Provision of a detailed construction schedule acceptable to the Owner for project use as specified.
11. Erection of two project signs as specified.
12. Provision of pre-construction site survey video.

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

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**

## **SECTION 01515 - TEMPORARY UTILITIES**

### **PART 1 - GENERAL**

#### **1.01 SCOPE OF WORK**

The Contractor shall provide equipment that is adequate for the performance of the work under this contract within the time specified. All equipment shall be kept in satisfactory operating condition, shall be capable of safely and efficiently performing the required work, and shall be subject to inspection and approval by the Owner's representative at any time within the duration of the Contract. All work hereunder shall conform to the applicable requirements of the OSHA Standards for Construction and shall conform with requirements of the National Electric Code.

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

### **PART 3 - EXECUTION**

#### **3.01 POWER AND LIGHTING**

- A. **Power:**  
The Contractor shall provide all necessary power required for construction operations under the Contract and shall provide and maintain all temporary power lines required to perform the work in a safe and satisfactory manner.
  
- B. **Construction Lighting:**  
All work conducted at night or under conditions of deficient daylight shall be suitably lighted to ensure proper work and to afford adequate facilities for inspection and safe working conditions.
  
- C. **Approval of Electrical Connections:**  
All temporary connections for electricity shall be subject to approval of the Owner and the power company representative and shall be removed in like manner prior to final acceptance at work.
  
- D. **Separation of Circuits:**  
Lighting circuits shall be separated from power circuits.
  
- E. **Construction Wiring:**  
All wiring for temporary electric light and power shall be properly installed and maintained and securely fastened in place. All electrical facilities shall conform to the requirements of Subpart K of the OSHA Safety and Health Standards for Construction and shall be subject to approval of the Owner.

### 3.02 WATER SUPPLY

- A. General:  
The Contractor shall provide an adequate supply of water for construction purposes. The Contractor shall pay the water utility for water used at the job site.
- B. The Contractor shall provide and operate all pumping facilities, pipelines, valves, hydrants, storage tanks, and all other equipment necessary for the adequate development and operation of the temporary water supply system. The Contractor shall insure the adequate functioning of the temporary water supply system and shall be solely liable for any claims arising from the use of same, including discharge or waste of water therefrom.
- C. Potable Water: All drinking water on the site during construction shall be furnished by the Contractor.
- D. Water Connections:  
The Contractor shall not make connection to, or draw water from, any fire hydrant or pipeline without first obtaining permission of the authority having jurisdiction over the use of said fire hydrant or pipeline and from the agency owning the affected water system. For each such connection made, the Contractor shall first attach to the fire hydrant or pipeline a backflow preventer, valve, and meter, if required by the said authority, of a size and type acceptable to said authority and agency. Only approved hydrants wrenches may be used to open and close hydrants. In instances where connections are made to water pipelines for the purpose of pressure testing newly constructed force mains or sewers, a double check valve system and pressure gauge shall be utilized to prevent back flow into the water main system.
- E. Removal of Water Connections:  
Before final acceptance of the Work on the project, all temporary connections and piping installed by the Contractor shall be entirely removed, and all affected improvements shall be restored to their original condition, or better, to the satisfaction of the Owner and to the agency owning the affected utility.
- F. Fire Protection:  
The construction plant and all other parts of the work shall be connected with the Contractor's water supply system and shall be adequately protected against damage by fire. Hose connections and hose, water casks, chemical equipment, or other sufficient means shall be provided for fighting fires in the temporary structures and other portions of the work, and responsible persons shall be designated and instructed in the operation of such fire apparatus so as to prevent or minimize the hazard of fire. The Contractor's fire protection program shall conform to the requirements of Subpart F of the OSHA Standards for Construction.

### 3.03 SANITATION

A. Toilet Facilities:

Fixed or portable chemical toilets shall be provided wherever needed for the use of employees. Toilets at construction job sites shall conform to the requirements of Subpart D, Section 1026.51 of the OSHA Standards for Construction.

B. Sanitary and Other Organic Wastes:

The Contractor shall establish and provide regular collection of all sanitary and organic wastes. All wastes and refuse from sanitary facilities provided by the Contractor or organic materials wastes from any other source related to the Contractor's operations shall be disposed of away from the site in accordance with all laws and regulations pertaining thereto.

### 3.04 SAFETY

A. Public Safety:

During the performance of the work the Contractor shall erect and maintain temporary fences, bridges, railings, and barriers as necessary for the prevention of accidents. The Contractor shall take all other necessary precautions and place proper guards for the prevention of accidents. The Contractor shall erect and maintain suitable and sufficient lights and other signals.

**END OF SECTION**

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## SECTION 01600 - MATERIALS AND EQUIPMENT

### PART 1 - GENERAL

#### 1.01 REQUIREMENTS

1. All materials and equipment furnished and installed under this contract shall conform to the general stipulations set forth in this Section, except as otherwise specified in other sections of these Specifications. All materials and equipment furnished under this contract shall be submitted to the Engineer for review. The Contractor shall not incorporate into the Work any materials or equipment not submitted for review and accepted by the Engineer.

#### 1.02 WORKMANSHIP

1. The Contractor shall guarantee all equipment against faulty or inadequate design, improper assembly or erection, defective workmanship or materials, and leakage, breakage, or other failure. Materials shall be suitable for service conditions.
2. All equipment shall be new and designed, fabricated, and assembled in accordance with the best modern engineering and shop practice. Individual parts shall be manufactured to standard sizes and gauges so that repair parts furnished at any time, can be installed in the field. Like parts of duplicate units shall be interchangeable. Equipment shall not have been in service at any time prior to delivery, except as required by tests.
3. Except where otherwise specified, structural and miscellaneous fabricated steel used in equipment shall conform to AISC standards. Unless otherwise specified, all steel which will be submerged, all or in part, during normal operation of the equipment shall be at least  $\frac{1}{4}$  inch thick.

#### 1.03 MATERIALS AND EQUIPMENT

1. The Contractor shall be fully responsible for all materials and equipment furnished under this Contract and shall furnish necessary replacements at any time prior to expiration of the Correction Period.
2. The Contractor shall stock additional supplies of materials and equipment as the Contractor deems necessary for timely and efficient execution of this Contract.

### PART 2 - PRODUCTS (NOT USED)

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**



## SECTION 01610 - DELIVERY, STORAGE AND HANDLING

### PART 1 - GENERAL

#### 1.01 SCOPE OF WORK

- A. This Section specifies the general requirements for the delivery, handling, storage, and protection for all items required in the construction of the work. Specific requirements, if any, are specified with the related item.

#### 1.02 TRANSPORTATION AND DELIVERY

- A. Items shall be transported and handled in accordance with the manufacturer's instructions and requirements.
- B. The Contractor shall schedule delivery to reduce long term on-site storage prior to installation and/or operation. Equipment shall not be delivered to the sites more than three weeks prior to installation without written authorization from the Engineer.
- C. The Contractor shall coordinate delivery with installation to ensure minimum holding time for items that are hazardous, flammable, easily damaged or sensitive to deterioration.
- D. Products shall be delivered to the sites in the manufacturer's original sealed containers or other packing systems, complete with instructions for handling, storing, unpacking, protecting, and installing.
- E. All items delivered to the two (2) sites shall be unloaded and placed in a manner that will not hamper the Owner's normal operation.
  - 1. Willow Wood. The operation of the sewer lift station shall not be hampered. Items shall not be stored within five (5) feet of the existing fence.
  - 2. Ozone Pines. Delivery and storage of materials and equipment shall be confined to the work limits indicated on the plans. The Parish owned building on-site shall remain in operation throughout construction. Access and deliveries shall be made at the "Exclusive Construction Entrance" indicated on the site plan.
- F. The Contractor shall provide all necessary equipment and personnel to unload items delivered to the sites.
- G. The Contractor shall promptly inspect shipment to assure that products comply with requirements, quantities are correct, and items are undamaged. For items furnished by others, the Contractor shall perform inspection in the presence of the Engineer. The Contractor shall notify the Engineer verbally, and in writing, of any problems.

### 1.03 STORAGE AND PROTECTION

- A. The Contractor shall store and protect products in accordance with the manufacturer's instructions, with seals and labels intact and legible. Storage instructions shall be studied by the Contractor and reviewed with the Engineer. Instructions shall be carefully followed, and a written record kept by the Contractor. The Contractor shall arrange storage to permit access for inspection by the Engineer.
- B. Loose granular materials shall be stored on solid flat surfaces in a well-drained area. The Contractor shall prevent mixing with foreign matter.
- C. Cement and lime shall be stored under a roof and off the ground and shall be kept completely dry at all times. All structural, miscellaneous, and reinforcing steel shall be stored off the ground or otherwise to prevent accumulations of dirt or grease and in a position to prevent accumulations of standing water and to minimize rusting. Beams shall be stored with the webs vertical. Precast concrete shall be handled and stored in a manner to prevent accumulations of dirt, standing water, staining, chipping, or cracking. Brick, block, and similar masonry products shall be handled and stored in a manner to reduce breakage, cracking and spalling to a minimum.
- D. All mechanical and electrical equipment and instruments subject to corrosive damage from the atmosphere if stored outdoors (even though covered by canvas) shall be stored in a weathertight building to prevent injury. The building may be a temporary structure on the site or elsewhere, but it shall be satisfactory to the Engineer. The building shall be provided with adequate ventilation to prevent condensation. The Contractor shall maintain temperature and humidity within the range required by the manufacturer.
  - 1. All equipment shall be stored fully lubricated with oil, grease and other lubricants unless otherwise instructed by the manufacturer.
  - 2. Moving parts shall be rotated a minimum of once weekly to ensure proper lubrication and to avoid metal-to-metal "welding". Upon installation of the equipment, the Contractor shall start the equipment, at least half load, once weekly for an adequate period of time to ensure that the equipment does not deteriorate from lack of use.
  - 3. Lubricants shall be changed upon completion of installation and as frequently as required thereafter during the period between installation and acceptance. New lubricants shall be put into the equipment at the time of acceptance.
  - 4. Prior to acceptance of the equipment, the Contractor shall require the manufacturer inspect the equipment and certify that its condition has not been detrimentally affected by the long storage period. Such certifications by the manufacturer shall be deemed to mean that the equipment is judged by the manufacturer to be in a condition equal to that of equipment that

has been shipped, installed, tested, and accepted in a minimum time period. As such, the manufacturer will guarantee the equipment equally in both instances. If such certification is not provided, the equipment shall be judged to be defective and shall be removed and replaced.

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

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**

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## SECTION 01700 - CONTRACT CLOSEOUT

### PART 1 - GENERAL

#### 1.01 SCOPE OF WORK

- A. The Contractor shall comply with all requirements stated in Contract Documents in closing out the Contract.

#### 1.02 RE-INSPECTION FEES

- A. Should the Engineer perform re-inspections due to failure of the Work to comply with claims of status of completion made by the Contractor the following shall apply:
  - 1. Owner will compensate Engineer for such additional services.
  - 2. Owner will deduct the amount of such compensation from the final payment to the Contractor.

#### 1.03 FINAL SUBMITTALS

- A. No application for final payment will be accepted until all required submittals have been made to the Engineer and processed by the Engineer, including, but not limited to, the following:
  - 1. Consent of Surety to Final Payment as specified in the General and Supplementary Conditions.
  - 2. Affidavit of Final Payment and Release as specified in the General and Supplementary Conditions.
  - 3. Project Record Documents as specified in Section 01720.
  - 4. All submittals required by federal, state, and local regulatory agencies.
  - 5. Record Drawings.

#### 1.04 FINAL ADJUSTMENT OF ACCOUNTS

- A. The Contractor shall submit a final statement of accounting to the Engineer.
- B. The Statement shall reflect all adjustments to the Contract Price as follows:
  - 1. The original Contract Price.
  - 2. Additions and deductions resulting from:
    - a. Previous Change Orders.
    - b. Allowances (if applicable).
    - c. Unit Prices (if applicable).
    - d. Deductions for uncorrected work.

- e. Deductions for liquidated damages.
  - f. Deductions for re-inspection payments.
  - g. Deductions for resubmittal review payments.
  - 3. Total Contract Price, as adjusted.
  - 4. Previous payments.
  - 5. Sum remaining due.
- C. The Engineer will prepare a final Change Order, reflecting approved adjustments to the Contract Price which were not made by previous Change Orders.

#### 1.05 FINAL PAYMENT

- A. The Contractor shall submit the final Application for Payment in accordance with procedures and requirements stated in the General and Supplementary Conditions.
- B. Final payment will be made to the Contractor in accordance with the General and Supplementary Conditions.

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

#### **PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**

## **SECTION 01710 - CLEANING**

### **PART 1 - GENERAL**

#### **1.01 SCOPE OF WORK**

- A. The Contractor shall execute cleaning on a daily basis during progress of the Work, and at completion of the Work, as required by the Contract Documents.

#### **1.02 DISPOSAL REQUIREMENTS**

- A. Cleaning and disposal operations shall comply with all local, state, and federal codes, ordinances, regulations, and anti-pollution laws.

### **PART 2-PRODUCTS**

#### **2.01 MATERIALS**

- A. Cleaning materials which will not create hazards to health or property, and which will not damage surfaces shall be used only.
- B. The Contractor shall only use cleaning materials and methods recommended by the manufacturer of the surface material to be cleaned.
- C. The Contractor shall use cleaning materials only on surfaces recommended by cleaning material manufacturer.

### **PART 3-EXECUTION**

#### **3.01 DURING CONSTRUCTION**

- A. Premises shall be kept free from accumulation of waste materials or rubbish caused by Contractor's operations. The Contractor shall oversee cleaning and ensure that building and grounds are maintained free from accumulations of waste material and rubbish.
- B. At reasonable intervals during progress of work, the Contractor shall clean-up site, buildings, and access, and dispose of waste materials, rubbish, and debris. Appropriate containers shall be provided and located on site for collection of waste materials, rubbish, and debris. The Contractor shall not allow waste materials, rubbish, and debris to accumulate and become an unsightly or hazardous condition.
- C. Waste materials shall be transported in a controlled manner with as few handlings as possible. Dusty debris and dusty areas shall be sprinkled with water.

- D. Burning or burying of rubbish and waste materials on the site shall not be performed. Disposal of volatile fluid wastes (such as mineral spirits, oil, or paint thinner) in storm or sanitary sewer systems shall not be performed. The Contractor shall remove waste materials, rubbish and debris from the site and legally dispose of at public or private dumping areas off the Owner's property.
- E. The Contractor shall properly clean up and dispose of any chemicals and materials which may be toxic or hazardous in accordance with all federal, state, and local codes.

### 3.02 DUST CONTROL

- A. The Contractor shall clean interior spaces prior to the start of finish painting and continue cleaning on an as-needed basis until painting is finished.
- B. The Contractor shall schedule operations so that dust and other contaminants resulting from cleaning process will not fall on wet or newly coated surfaces.
- C. The Contractor shall broom clean interior building areas when ready to receive finish painting and continue cleaning on an as-needed basis until building is ready for acceptance or occupancy.

### 3.03 FINAL CLEANING

- A. The Contractor shall employ skilled workmen for final cleaning.
- B. The Contractor shall remove grease, mastic, adhesives, dust, dirt, stains, fingerprints, labels and other foreign materials from interior and exterior surfaces.
- C. The Contractor shall wash and shine glazing and mirrors.
- D. The Contractor shall polish glossy surfaces to a clear shine.
- E. For ventilating systems, the Contractor shall:
  - 1. Clean permanent filters and replace disposable filters if units were operated during construction.
  - 2. Clean ducts, blowers, and coils if units were operated without filters during construction.
- F. The Contractor shall broom clean exterior paved surfaces; rake clean other surfaces of the grounds.
- G. The Contractor shall remove waste materials and rubbish from and about the site as well as tools, construction equipment, machinery and surplus materials.



- H. Prior to final completion, or Owner occupancy, the Contractor shall conduct an inspection of interior and exterior surfaces and all work areas, to verify that the entire site where Work was performed is clean. The Contractor shall clean any areas found to be not clean.

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

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**

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## SECTION 01720 - PROJECT RECORD DOCUMENTS

### PART 1 - GENERAL

#### 1.01 SCOPE OF WORK

- A. The Contractor shall maintain at the site at all times during construction one copy of the following Project Record Documents:
  - 1. Conformed Drawings.
  - 2. Conformed Specifications.
  - 3. Change Orders and other modifications to the Contract.
  - 4. Engineer's Field Orders or written instructions.
  - 5. Approved Shop Drawings, Product Data and Samples.
  - 6. Field test records.
  - 7. Construction photographs.
  - 8. Current updated progress schedule.
- B. Progress payments will not be approved unless Project Record Documents are current with construction progress.

#### 1.02 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. Documents and samples shall be stored in the Contractor's office apart from documents used for construction.
  - 1. The Contractor shall provide files and racks for storage of documents.
  - 2. The Contractor shall provide locked cabinet or secure storage space for storage of samples.
- B. Documents and samples shall be filed in accordance with specification section numbers.
- C. Documents shall be maintained in a clean, dry, legible condition and in good order. Record Documents shall not be used for construction purposes.
- D. Documents and samples shall be made available at all times for inspection by the Engineer and Owner.

#### 1.03 MARKING DEVICES

- A. The Contractor shall provide felt tip marking pens for recording information in the color codes designated by the Engineer. Record Documents shall be marked accordingly.

## 1.04 RECORDING

- A. Each Record Document shall be labelled "PROJECT RECORD" with rubber stamp.
- B. The Contractor shall record information concurrently with construction progress, and shall not conceal any work until required information is recorded.
- C. Drawings shall be legibly marked to record actual construction, and shall include the following:
  - 1. Locations of all underground pipe and conduits installed.
  - 2. Elevations where applicable for all underground piping installed or located.
  - 3. Locations of all underground utilities, structures, obstacles, etc. encountered during construction, whether being installed or not, in the manner indicated above for underground pipes and conduits.
  - 4. Location of internal utilities and appurtenances concealed in the construction by referencing to visible and accessible features of the structure.
  - 5. Field changes of dimension and detail.
  - 6. Changes made by Field Order or by Change Order.
  - 7. Details not on original Drawings.
  - 8. Location and elevation of all equipment and piping.
  - 9. Location and elevation of all structures including channels and platforms.
  - 10. Identify pumping equipment installed by manufacturer's name, model number, impeller size, rated capacity and serial number.
- D. Specifications shall be legibly marked by each Section to record the following:
  - 1. Manufacturer, trade name, catalog number, and supplier of each product and item of equipment actually installed.
  - 2. Changes made by Field Order, Change Order, or other modifications to the Contract.
- F. Reviewed submittals:
  - 1. One set of record drawings for each process equipment item, piping, electrical system and instrumentation system.

G. The Contractor shall provide certified site survey and elevations.

1.05 FINAL SUBMITTAL

A. At Contract closeout, all Record Documents shall be delivered to the Engineer.

B. The submittal shall have a transmittal letter containing the following:

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.

C. Final Acceptance will not be granted until the Record Documents have been turned over and accepted by the Engineer as complete.

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

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**

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## **SECTION 01730 - OPERATING AND MAINTENANCE DATA**

### **PART I - GENERAL**

#### **1.01 REQUIREMENTS INCLUDED**

- A. The Contractor shall compile product data and related information appropriate for Owner's maintenance and operation of products furnished under contract. The Contractor shall prepare operating and maintenance data as specified in this section and as referenced in other pertinent sections of the specifications.
- B. The Contractor shall instruct the Owner's personnel in maintenance of products and in operation of equipment and systems.

#### **1.02 RELATED REQUIREMENTS**

- A. Section 01300: Submittals.
- B. Section 01700: Contract Closeout.
- C. Section 01740: Warranties and Bonds.

#### **1.03 FORM OF SUBMITTALS**

- A. The Contractor shall prepare data in form of an instructional manual for use by the Owner's personnel.
- B. The format shall be as follows:
  - 1. DVD/ROM.
  - 2. PDFs.
  - 3. Text: Manufacturer's printed data, or typewritten.
  - 4. Drawings: Full size PDFs
  - 5. Fly-leaf for each separate product or each piece of operating equipment.
    - a. Description of product and major component parts of equipment.
    - b. Indexed tabs.
  - 6. Identification of each volume with typed or printed title "OPERATING AND MAINTENANCE INSTRUCTIONS", and the following:
    - a. Title of project.
    - b. Identification of separate structure as applicable.
    - c. Identification of general subject matter covered in the manual.

#### **1.04 MANUAL FOR EQUIPMENT AND SYSTEMS**

- A. The Contractor shall submit three (3) copies of complete manual in final form.

B. The manual content, for each unit of equipment and system, shall be as follows:

1. Description of unit and component parts.
  - a. Function, normal operating characteristics, and limiting conditions.
  - b. Performance curves, engineering data and tests.
  - c. Complete nomenclature and commercial number of replaceable parts, which are cross-referenced with manufacturer's parts list.
2. Operating procedures:
  - a. Start-up, break-in, routine and normal operating instructions.
  - b. Regulation, control, stopping, shutdown and emergency instructions.
  - c. Summer and winter operating instructions (if applicable).
  - d. Special operating instructions.
3. Maintenance Procedures:
  - a. Routine operations.
  - b. Guide to "trouble-shooting".
  - c. Disassemble, repair and reassemble.
  - d. Alignment, adjusting and checking.
4. Servicing and lubrication schedule with list of lubricants required.
5. Manufacturer's printed operating and maintenance instructions.
6. Description of sequence of operation by control manufacturer.
7. Original manufacturer's parts list, illustrations, assembly drawings and diagrams required for maintenance.
  - a. Predicted life of parts subject to wear.
  - b. Items recommended to be stocked as spare parts.
8. As-installed control diagrams by controls manufacturer.
9. As-installed color-coded piping diagrams.
10. Charts of valve tag numbers, with location and function of each valve.
11. List of original manufacturer's spare parts, manufacturer's current prices, and recommended quantities to be maintained in storage.
12. Other data as required under pertinent sections of specifications.

C. Content, for each electric and electronic system, as appropriate:



1. Description of system and component parts.
    - a. Function, normal operating characteristics, and limiting conditions.
    - b. Performance curves, engineering data and tests.
    - c. Complete nomenclature and commercial number of replaceable parts.
  2. Circuit directories of panel boards.
    - a. Electrical service.
    - b. Controls.
    - c. Communications.
  3. As-installed color-coded wiring diagrams.
  4. Operating procedures:
    - a. Routine and normal operating instructions.
    - b. Sequences required.
    - c. Special operating instructions.
  5. Maintenance procedures:
    - a. Routine operations.
    - b. Guide to "trouble-shooting".
    - c. Disassembly, repair and reassembly.
    - d. Adjustment and checking.
  6. Manufacturer's printed operating and maintenance instructions.
  7. List of original manufacturer's spare parts, manufacturer's current prices, and recommended quantities to be maintained in storage.
  8. Other data as required under pertinent sections of specifications.
- D. The Contractor shall Prepare and include additional data when the need for such data becomes apparent during instruction of Owner's personnel.
- E. Additional requirements for operating and maintenance data: Respective sections of specifications.

#### 1.05 SUBMITTAL SCHEDULE

- A. The Contractor shall Submit preliminary draft of proposed formats and outlines of contents for Engineer's review.
- B. The Contractor shall Submit one (1) copy of completed data in final form fifteen days prior to final inspection. Copy will be returned after final inspection with comments.

- C. The Contractor shall Submit specified number of copies of approved data in final form within ten (10) days after final inspection.

1.06 INSTRUCTION OF OWNER'S PERSONNEL

- A. Prior to final inspection or acceptance, the Contractor shall fully instruct the Owner's designated operating and maintenance personnel in operation, adjustment and maintenance of products, equipment, and systems. This shall include a minimum of four (4) hours of instruction at each site. This shall be in addition to the minimum of four (4) hours required for start-up and testing.
- B. Operating and maintenance manual shall constitute the basis of instruction. The Contractor shall review contents of the manual with the Owner's designated operating and maintenance personnel, in full detail, to explain all aspects of operations and maintenance.

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

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**

## SECTION 01740 - WARRANTIES AND BONDS

### PART 1 - GENERAL

#### 1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall compile specified warranties and bonds.
- B. The Contractor shall compile specified service and maintenance contracts.
- C. The Contractor shall co-execute submittals when so specified.
- D. The Contractor shall review submittals to verify compliance with Contract Documents.
- E. The Contractor shall submit to Engineer for review and transmittal to owner.

#### 1.02 RELATED REQUIREMENTS

- A. Conditions of the Contract: Performance Bond and Labor and Material Payment Bond.
- B. Conditions of the Contract: General Warranty of Construction.
- C. Section 01700: Contract Closeout.
- D. Section 01730: Operating and Maintenance Data.

#### 1.03 SUBMITTAL REQUIREMENTS

- A. The Contractor shall assemble warranties, bonds, and service and maintenance contracts, executed by each of the respective manufacturers, suppliers, and subcontractors as specified in respective sections of these specifications
- B. Table of Contents: Neatly typed, in orderly sequence. The Contractor shall provide complete information for each item as follows:
  - 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. 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, with name of responsible principal, address, and telephone number.

#### 1.04 FORM OF SUBMITTALS

##### A. Format:

1. Size 8 ½" x 11" or legal-size sheets.
2. Scanned, original signed PDFs on DVD-ROM with case
3. Cover: Identify each DVD and case with typed or printed title "WARRANTIES AND BONDS". List:
  - a. Title of project.
  - b. Name of Contractor.

#### 1.05 TIME OF SUBMITTALS

- A. The Contractor shall 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, the Contractor shall provide an updated submittal within ten days after acceptance, listing date of acceptance as start of warranty period.

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

#### **PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**

## **SECTION 02200 EARTHWORK**

### **PART 1 - GENERAL**

#### **1.1 DESCRIPTION OF WORK:**

- A. This section specifies the requirements for furnishing all equipment, materials, labor, tools, and techniques for earthwork including, but not limited to, the following:
1. Site preparation.
  2. Excavation.
  3. Underpinning.
  4. Filling and backfilling.
  5. Grading.
  6. Soil Disposal.
  7. Clean Up.

#### **1.2 DEFINITIONS:**

- A. Unsuitable Materials:
1. Fills: Topsoil; frozen materials; construction materials and materials subject to decomposition; clods of clay and stones larger than 3 inches; organic material, including silts, which are unstable; and inorganic materials, including silts, too wet to be stable and any material with a liquid limit and plasticity index exceeding 40 and 20 respectively. Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of optimum moisture content at time of compaction, as defined by ASTM D1557.
  2. Existing Subgrade (Except Footing Subgrade): Same materials as 1.2.A.1, that are not capable of direct support of slabs, pavement, and similar items with possible exception of improvement by compaction, proof rolling, or similar methods.
- B. Building Earthwork: Earthwork operations required in area enclosed by a line located 5 feet outside of principal building perimeter. It also includes earthwork required for auxiliary structures and buildings.
- C. Trench Earthwork: Trenchwork required for utility lines.

- D. Site Earthwork: Earthwork operations required in area outside of a line located 5 feet outside of principal building perimeter and within new construction area with exceptions noted above.
- E. Degree of compaction: Degree of compaction is expressed as a percentage of maximum density obtained by laboratory test procedure. This percentage of maximum density is obtained through use of data provided from results of field test procedures presented in ASTM D1556, ASTM D2167, and ASTM D6938.
- F. Fill: Satisfactory soil materials used to raise existing grades. The term “fill” means fill or backfill as appropriate.
- G. Backfill: Soil materials or controlled low strength material used to fill an excavation.
- H. Unauthorized excavation: Removal of materials beyond indicated sub-grade elevations or indicated lines and dimensions without written authorization by the Engineer’s representative. No payment will be made for unauthorized excavation or remedial work required to correct unauthorized excavation.
- I. Authorized additional excavation: Removal of additional material authorized by the Engineer based on the determination by the soils testing agency that unsuitable bearing materials are encountered at required sub-grade elevations. Removal of unsuitable material and its replacement as directed will be paid on the basis of Conditions of the Contract relative to changes in work.
- J. Subgrade: The undisturbed earth or the compacted soil layer immediately below granular sub-base, drainage fill, or topsoil materials.
- K. Structure: Buildings, foundations, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
- L. Borrow: Satisfactory soil imported from off-site for use as fill or backfill.
- M. Drainage course: Layer supporting slab-on-grade used to minimize capillary flow of pore water.
- N. Bedding course: Layer placed over the excavated sub-grade in a trench before laying pipe. Bedding course shall extend up to the spring line of the pipe.
- O. Sub-base Course: Layer placed between the sub-grade and base course for asphalt paving or layer placed between the sub-grade and a concrete pavement or walk.

- P. Utilities include on-site underground pipes, conduits, ducts, and cables as well as underground services within buildings.
- Q. Debris: Debris includes all materials located within the designated work area not covered in the other definitions and shall include but not be limited to items like vehicles, equipment, appliances, building materials or remains thereof, tires, any solid or liquid chemicals or products stored or found in containers or spilled on the ground.
- R. Contaminated soils: Soil that contains contaminants as defined and determined by the Engineer's Representative or the Contractor's testing agency.

### **1.3 RELATED WORK:**

- A. Materials testing and inspection during construction: Section 01400, Testing Laboratory.
- B. Safety requirements General Conditions.
- C. Protection of existing utilities, fire protection services, existing equipment, roads, and pavements: General Conditions.
- D. Subsurface Investigation: Appendix.

### **1.4 CLASSIFICATION OF EXCAVATION:**

- A. Unclassified Excavation: Removal and disposal of pavements and other man-made obstructions visible on surface; utilities, and other items including underground structures indicated to be demolished and removed; together with any type of materials regardless of character of material and obstructions encountered.

### **1.5 MEASUREMENT AND PAYMENT FOR EXCAVATION:**

- A. Measurement: There shall be no measurement and payment for excavation.

### **1.6 SUBMITTALS:**

- A. Submit in accordance with Section 01300, Submittals.
- B. Furnish to Engineer:
  - 1. Soil samples.
    - a. Classification in accordance with ASTM D2487 for each on-site or borrow soil material proposed for fill, backfill, structural fill.
    - b. Laboratory compaction curve in accordance with ASTM D1557 for each on site or borrow soil material proposed for fill, or structural fill.
    - c. Test reports for compliance with ASTM D2940 requirements for subbase material.

- d. Pre-excavation photographs and video in the vicinity of the existing structures to document existing site features, including surfaces finishes, cracks, or other structural blemishes that might be misconstrued as damage caused by earthwork operations. One set of photos and video shall be taken prior to slab demolition.
- 2. Contractor shall submit procedure and location for disposal of unused satisfactory material. Proposed source of fill or structural fill material obtained off-site.

**1.8 APPLICABLE PUBLICATIONS:**

A. Publications listed below form a part of this specification to the extent referenced.

Publications are referenced in text by basic designation only.

B. American Association of State Highway and Transportation Officials (AASHTO):

T99-10.....Standard Method of Test for Moisture-Density Relations of  
Soils Using a 5.5 lb Rammer and a 12-inch Drop

T180-10.....Standard Method of Test for Moisture-Density Relations of  
Soils using a 10 lb Rammer and an 18-inch Drop

C. American Society for Testing and Materials (ASTM):

C33-03.....Concrete Aggregate

D448-08 .....Standard Classification for Sizes of Aggregate for Road  
and Bridge Construction

D698-07e1.....Standard Test Method for Laboratory Compaction  
Characteristics of Soil Using Standard Effort (12,400 ft.  
lbf/ft<sup>3</sup> )

D1140-00 .....Amount of Material in Soils Finer than the No. 200 Sieve

D1556-07 .....Standard Test Method for Density and Unit Weight of Soil  
in Place by the Sand Cone Method

D1557-09 .....Standard Test Methods for Laboratory Compaction  
Characteristics of Soil Using Modified Effort (56,000 ft-  
lbf/ft<sup>3</sup>)

D2167-08 .....Standard Test Method for Density and Unit Weight of Soil  
in Place by the Rubber Balloon Method



- D2487-11 .....Standard Classification of Soils for Engineering Purposes  
(Unified Soil Classification System)
- D6938-10 .....Standard Test Method for In-Place Density and Water  
Content of Soil and Soil-Aggregate by Nuclear Methods  
(Shallow Depth)

**PART 2 - PRODUCTS**

**2.1 MATERIALS:**

- A. General: Provide structural fill following removal of unsuitable surface material.
- B. Fill and Structural Fill: Material in compliance with ASTM D2487 Soil Classification Groups SP, SM, SC, CL, or any combination of these groups; free of rock or gravel larger than 1 inch in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter. Material approved from off-site sources having a minimum dry density of 110 pcf, a maximum Plasticity Index of 20, and a maximum Liquid Limit of 40.

**PART 3 - EXECUTION**

**3.1 SITE PREPARATION:**

- A. Disposal: All materials removed from the property shall be disposed of at a legally approved site for the specific materials, and all removals shall be in accordance with all applicable Federal, State, and local regulations.

**3.2 EXCAVATION:**

- A. Building Earthwork:
  - 1. Excavation shall be accomplished as required by drawings and specifications.
  - 2. Excavate any unsuitable material. The geotechnical investigation determined that there is 10-12 inches of silty topsoil with organics at both sites.
  - 3. Remove the silty topsoil, organics, or soft materials to a solid bottom.

**3.3 FILLING AND BACKFILLING:**

- A. General: Do not fill or backfill until all debris, water, unsatisfactory soil materials, obstructions, and deleterious materials have been removed from excavation. For fill and

backfill, use materials meeting the criteria specified herein, as applicable. Borrow will be supplied at no additional cost to the Owner.

- B. Proof rolling: The subgrade in the non-pile supported areas shall be proof rolled with a tandem axle vehicle weighing approximately 20 tons. Additional soft spots shall be removed.
- C. Placing: Place materials in horizontal layers not exceeding 8 inches in loose depth. Place no material on surfaces that are muddy, frozen, or contain frost.
- D. Compaction: Compact with approved equipment (hand or mechanized) well suited to soil being compacted. Do not operate mechanized vibratory compaction equipment within 10 feet of new or existing buildings without prior approval of the Engineer's representative. Backfill shall be placed and compacted to at least 90 percent laboratory maximum density for cohesive materials or 95 percent laboratory maximum density for cohesionless material, according to ASTM D698 or ASTM D1557.

### **3.4 DISPOSAL OF UNSUITABLE AND EXCESS EXCAVATED MATERIAL:**

- A. Disposal: Remove surplus satisfactory soil and waste material, including unsatisfactory soil, trash, and debris, and legally dispose of it off the site.
- B. Remove from site and dispose of any excess excavated materials after all fill and backfill operations have been completed.
- C. Segregate all excavated contaminated soil designated by the Engineer's representative from all other excavated soils, and stockpile on site on 15 mil polyethylene sheets with a polyethylene cover. A designated area shall be selected for this purpose. Dispose of excavated contaminated material in accordance with State and Local requirements.

### **3.5 CLEAN UP:**

Upon completion of earthwork operations, clean areas within contract limits, remove tools, and equipment. Provide site clear, clean, free of debris, and suitable for subsequent construction operations. Remove all debris, rubbish, and excess material from the site.

**END OF SECTION**

## SECTION 02300 - EXCAVATION AND BACKFILL

### PART 1 - GENERAL

#### 1.01 SCOPE OF WORK

- A. The Work under this Section includes, except as provided elsewhere, trenching for installation of pipelines and appurtenances, including excavation, 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, the Contractor shall confine the 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 necessary sheeting, bracing, and supports in accordance with OSHA regulations.
- D. The Contractor shall remove from the excavation all materials which are unsuitable for backfill, including that which the Engineer deems unsuitable for backfill.

#### 1.02 RELATED WORK

Section 02140: Dewatering

Section 02160: Sheeting, Shoring, and Bracing

### PART 2 - PRODUCTS

#### 2.01 BACKFILL AND BEDDING MATERIAL

Backfill and bedding material shall be granular material, stone, or an approved blend as shown on the Drawings.

#### 2.02 FOUNDATION MATERIAL

Foundation material shall be as shown on the Drawings.

#### 2.03 GEOTEXTILE FABRIC

Geotextile fabric shall be Mirafi 500X, or approved equal.

## **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. The bottom of the excavation shall be firm, dry, and in all respects, acceptable. If required on the Drawings, the Contractor shall install limestone for pipe bedding, or limestone refill for excavation below grade. This material shall be placed directly onto 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 whatever.
- C. In case the excavation for any pipeline is directed by the Engineer to be carried below the required depth, the Contractor shall fill the bottom of the excavation up to grade with compacted bedding material.
- D. If the Contractor excavates below grade through error or for convenience, or through failure to properly dewater the trench, or disturbs the subgrade before dewatering is sufficiently complete, the Engineer may direct the Contractor 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 no additional cost to the Owner.
- E. 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. Excavated material shall be stacked without excessive surcharge on the trench bank and without obstructing free access to hydrants and valves. Inconvenience to traffic and abutters shall be avoided as much as possible. Excavated material shall be segregated for use in backfilling as specified below.
- B. All excavated material which is either unsuitable for backfill or that will not be used for backfill in the same location shall be removed from the site of the Work by the Contractor. The Contractor shall remove and properly dispose of excess excavated material.
- C. 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 rehandled and used in backfilling the trench, or hauled to the Owner's designated storage site, or disposed of properly.

### **3.03 REMOVAL OF STUMPS, ROOTS, AND 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 and removed. The Contractor shall fill the excavated space with compacted bedding material.
- B. When directed by the Engineer, the Contractor shall probe one foot (1') below the established bottom of the trench. If any stumps, roots, or logs are discovered by this probing, the Contractor shall remove them as required in Paragraph A above.
- C. Blasting shall not be used for the removal of stumps, roots, and logs. All removed stumps, roots, and logs shall be disposed of properly.

#### 3.04 TEST PITS

Test pits for the purpose of locating underground utilities or structures in advance of the construction may be excavated by the Contractor. Test pits shall be backfilled immediately after the desired information has been obtained. The backfilled surface shall be restored and maintained in a manner satisfactory to the Engineer. Test pits and related restoration and shall be at no additional cost to the Owner.

#### 3.05 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 shall be accurately shaped, and the bedding material shall be closely packed under and around the pipe.
- B. If required on the Drawings, the bedding and pipe shall be enclosed in a geotextile fabric. Geotextile fabric shall be installed in accordance with the manufacturer's recommendations.

#### 3.06 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 pipes are laid in developed areas, the trench shall be filled with approved backfill material to an elevation six inches below the existing grade. The remainder of the trench shall be filled with top soil.
- C. Where pipes are laid within street rights-of-ways, the remainder of the trench above the bedding shall be backfilled as shown on the Drawings.
- D. All road surfaces adjacent to backfilling operations shall be broomed and hose cleaned immediately after backfilling.

### 3.07 RESTORING TRENCH SURFACE

- A. The Contractor shall thoroughly consolidate the backfill and shall maintain the surface as the work progresses. If settlement takes place, additional fill shall be installed to restore the level to the adjacent ground.
- B. The surface of any street, driveway, sidewalk or any other area which is disturbed by the trench excavation, 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 maintained grassed areas, the Contractor shall regrade and re-sod all disturbed areas.

### 3.08 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.

### 3.09 TESTING

Compaction tests shall be performed for each lift of bedding and backfill, at no less than one per 100 linear feet of trench. Re-testing for failed result shall be at no additional cost to the Owner.

**END OF SECTION**

## SECTION 02525 – WATER WELLS

### PART I – GENERAL

Construct water well(s) as specified in Section 01010 - Summary of Work, as shown on the drawings, and according to AWWA A100-20, as modified by the project documents. The well construction and water well capacity shall be based on the allowable safe yield of the new well determined by a well pump test as required by Louisiana Sanitary Code (LAC 51, Part XII) , and as approved by the Engineer. The new well site shall be no closer than 25 feet from any existing wells. Prepare documentation and make all notifications to LA DNR.

Qualifications: Contractor (or sub-contracted Well Driller) shall be licensed by the Louisiana Contractor’s Board in “Specialty: Water Well Drilling”; shall be listed as an active water well driller by the Louisiana Department of Natural Resources and shall have successfully completed no less than 5 public water supply wells exceeding 1,800 ft in the last 5 years. Submit qualifications and references prior to construction for approval.

Submittals: Contractor shall submit all required information listed in Louisiana Administrative Code, Title 56, Part I, and as required by the Contract Documents. Sequence of work and submittals shall generally be as follows:

1. Well Construction and Well Test Plan - Submit and receive Engineer’s approval prior to any well drilling activities. Include procedures for decommissioning dry wells in the event water is not encountered.
2. Drill & Test Borehole – Construct test borehole to required depth, perform resistivity and electronic sensing tests to determine productive aquifer strata. Submit logs and recommendations.
3. Construct Test Well – Construct and develop complete and functioning test well.
4. Pumping Test – Perform capacity test and submit results of test well yield,
5. Water Quality Testing - sample and test the quality of the test well water,
6. Design Well - design a permanent well based upon initial testing of well based upon lithology and groundwater data, and
7. Submit Water Well Test and Permanent Well Design Report - provide water quality lab results, pump test results, drillers log, lithology log, and submit a well construction design for approval PRIOR to the start of final well construction (submit prior to installing any permanent well features), and
8. Obtain Approval – Final well construction cannot start until engineer approval of Water Well Test Report and Permanent Well Design with proposed construction details,
9. Construct Well – Build production well in accordance with approved well construction detail and contract specifications. The final well construction details must be provided in the post-construction as-builts.
10. Production Well Pump Test – Establish aquifer and well flow characteristics as specified. Recommend and submit pump equipment for approval.

Well construction shall be in accordance with the Louisiana State Sanitary code -which includes, but is not limited to, requirements for well screen, casing, gravel pack, well pump, disinfection, water meters and testing requirements. All design requirements, material specifications, and testing contained in this document shall be used and submittals shall be made promptly in accordance with Section 01300. Failure to follow the construction and submittal procedures outlined may, at engineer's discretion, result in rejection of the well and the Contractor having to remove the well casing and screen, re-drill the well, and reinstall the proper features per an engineer approved design.

## **PART II – PRODUCTS**

Materials shall be as required by the drawings, referenced in Part III of this specification, Execution, related specification sections as applicable, and as in this Part II.

Deep Well Vertical Turbine Pump: Furnish, install, and make operational a deep well water lubricated lineshaft turbine pump with above ground discharge, in accordance with this specification and the drawings. Materials in contact with water shall be NSF 61 certified.

Approved Manufacturers:

1. Goulds
2. Sulzer
3. Or approved equal

Dimensions, pumped flow, pressure, and depth shown on drawings are basis of bid. Contractor's design report shall confirm or recommend alteration to pump and drive equipment based on production well pump test results. Submit manufacturer's pump curves with combined multi-stage performance annotated with design point, substantiated with pump test system prediction.

### Pump Construction

1. Discharge Head – ASTM A48 Class 30 cast iron, or fabricated steel, with rabbet fit for mounting driver and pump column assembly support. Discharge flange machined to ANSI standards. Headshaft shall couple above the stuffing box.
2. Stuffing Box – Cast iron, containing no less than 5 acrylic graphite packing rings and grease chamber. Packing gland shall be bronze, secured with stainless steel studs and adjusting nuts.
3. Column Pipe – ASTM A53, Grade B, furnished in threaded sections no greater than 10 ft.
4. Bowls – Close grained ASTM A48 Class 30 Cast Iron. Free from blow holes, sand holes, or other fault. Vitreous enamel lined waterways.
5. Bowl Bearings – C-844 Bronze, with replaceable wear rings
6. Impellers – CDA 872 Cast bronze, fastened to shaft with 416 stainless steel taper split collet
7. Discharge Case – ASTM A48 Class 30 Cast Iron.
8. Suction Case – C-844 bronze replaceable wear ring, grease packed C-844 bronze bearing, protected by bronze C-844 sand collar.
9. Bowl shaft – ASTM A582 416 stainless steel, ground and polished. Extend through the stuffing box.
10. Strainer – stainless steel.



11. Motor – See Section 16150.

### **PART III – EXECUTION**

Well Construction and Well Test Plan: Prior to the start of well drilling activities at the site, the contractor must submit a well construction test plan that describes:

1. Type of drill method to be used (mud rotary, or air rotary),
2. GPS location and target depth of the test well,
3. Qualifications of the rig geologist,
4. Test borehole diameter for unconsolidated sediment,
5. Type and diameter of temporary casing,
6. Description of pumping test procedures,
7. Abandonment procedures and methods in the event of a dry hole,
8. Water quality sampling and testing including identifying certified analytical laboratory to be used, and
9. Other details as required under the DH Design Requirements.

Well Testing: After the engineer approves the Well Construction and Testing Plan and before permanent well construction, at least one test well of a diameter meeting specifications included herein and to the contracted minimum depth requirements shall be drilled into the water bearing stratum.

A GPS instrument will be used to determine the geographic coordinates of the well. This information shall meet requirements of the World Geodetic System 1984 (WGS 84 and the correct UTM Zone – 41, 42, or 43) in decimal degrees. The initial borehole shall be used to determine the location and character of the water bearing strata and to obtain samples of the various formations.

The contractor must collect samples of drilling cuttings. The samples shall be taken at every change of strata and at depth intervals not to exceed 10 ft. A driller's log shall be made based on the cuttings obtained. The drill cuttings shall be divided, put into suitable containers, and labeled. If the test hole fails to indicate the presence of water bearing strata or is abandoned for any other reason, the test hole shall be abandoned and plugged-in conformance to Louisiana State Sanitary code. At the completion of the test hole, a drillers log shall be prepared containing the following information:

- Depth of water bearing strata;
- Results of water sample analysis from the various candidate strata;
- Lithology log with type, thickness, and depth of different material strata contacts;
- Color, size, and soil description of cuttings; and

- Proposed well construction details based upon lithology and water bearing strata found and contract specifications.

The drillers log must be submitted as part of the Water Well Test and Permanent Well Design Report.

Permanent Well Depth. The well shall be drilled to a minimum depth as described in these plans and specifications in an attempt to find potable water meeting state sanitary water quality requirements. The depth of the test and permanent well shall take into consideration the drawdown depth, screen depth and pump submergence as described in the Design Requirements document.

Well Pumping Test: To determine the expected yield from the test well and to assure acceptable water quality, a pumping test shall be performed in the well. The test well shall be constructed in accordance with state sanitary code requirements. The results of the pumping test must be submitted as part of the Water Well Test and Permanent Well Design Report and must include data table, graphs, and pumping test descriptions.

Water Well Test Report - PRIOR to the start of final well construction, the contractor must provide the engineer a water well test report that includes water quality lab results, pump test results, drillers log, lithology log, and a permanent well construction design for approval. The Water Well Test and Permanent Well Design Report must be submitted and approved by the engineer prior to installing any permanent well features.

The Water Well Test and Permanent Well Design Report shall include:

1. Water quality lab results
2. Pump test results
3. Driller's log, lithology log and permanent well construction design that must include
  - a. Location in decimal degrees
  - b. Number of screens and depth of screen settings in the well
  - c. Size of well screen inside and outside diameters and length
  - d. Pipe material (material schedule and specification).
  - e. Standard screen slot opening, mm and spacing.
  - f. Effective open area of screen (sq cm per meter).
  - g. Transmitting capacity (liters/meter).
  - h. Sieve analysis of the material to be screened.
  - i. A graphic showing screen and casing with adjacent lithology types
  - j. Calculations supporting screen slot size
  - k. Photo of screen slot pattern
  - l. Results of filter pack selection analysis

Structural integrity of the well is the complete responsibility of the Contractor. Well construction shall be sequenced to prevent buckling, displacement, or other defect of casing, screen and downhole components. After approval of the Water Well Test and Permanent Well Design Report, the Contractor may start construction of the permanent production well.

Permanent Well Casing. The allowable casing and screen material is specified herein. In unconsolidated material, casing shall extend to the top of the well screen. Wells will be cased above grade as shown on the drawings. Each section of casing will be joined with standard couplings and full-threaded joints, or by proper welding, so that all joints are sound and watertight. Well casing alignment shall not interfere with the proper installation and operation of the pump. The bottom of the casing shall be fitted with a metal well screen that will permit maximum transmission of water without clogging.

Permanent Well Screen. The casing will be fitted with a well screen that will permit optimal transmission of water without clogging. Screen shall only be placed in the interval of the aquifer targeted. To prevent flow of sewage, bacteria, and other contaminants typically found at the groundwater surface, wells must be screened below the confining specified above. The material of construction, opening requirements, minimum lengths and placement shall be per the Design Requirements document, the contract drawings, and these specifications.

Filter Pack. The width of the filter pack must be larger than the casing by at least 6-inches, meaning 3 inches of space or annulus on each side of the casing. Above the filter pack, the annular space between the casing and the borehole will be filled with gravel, overburden, or concrete as follows:

1. The annular space between the well screen and borehole shall be filled with material that will form a filter to minimize production of fines and not clog the slots in the screen (e.g., washed, well-graded silica sand).
2. The filter pack must extend 20 ft. above the top of the topmost screen interval.
3. If sieve analysis demonstrates acceptable filtering achieved by the synthetic filter media, the formation may be directly collapsed upon the outer screen during development, if approved by the Engineer.

Sealing: Above the filter pack, the annular space between the casing and the borehole must be filled with grout or a neat cement as follows:

1. The annular space above the filter pack up must be sealed with at least 10 ft of bentonite installed approximately 15 ft above the topmost well screen.
2. A neat cement grout seal must be placed from the top of the bentonite to within 3 m beneath the ground surface. The grout shall be placed in one continuous mass and shall be impermeable.
3. All aggregate shall contain less than 5 percent of shale, clay lumps, coal, lignite, soft or unfragmented stone, or other deleterious materials.

Well Development- After construction is complete; the well shall be thoroughly developed. The developing equipment shall be of sufficient capacity to remove all drilling fluids, sand, rock cuttings or any other foreign matter. The wells shall be thoroughly cleaned from top to bottom before beginning the well tests. Overpumping for well development is NOT approved for this project. Only well development methods that involve surging and removal of sediment from the casing/screen will be approved. Mechanical surging, air-surging, and high velocity jetting may

be used to develop the well. Development shall continue until turbidity of the water meets state sanitary code turbidity standards, or conditions of AWWA A100 4.8.2 are met.

Performance Testing: Upon completion of the permanent production well, the Driller shall at a minimum conduct a continuous 6- hour pumping test at the designed flow rate. Drawdown will be recorded from time-zero at the following time intervals:

First 5 minutes—every 30 seconds  
Next 5 minutes – every minute  
Next 50 minutes—every 10 minutes  
Next 2 hours—every 20 minutes  
Next 2 hours—every 40 minutes  
Last hour—one sample at end

If water levels are recorded digitally with a transducer, smaller time intervals are often programmed into the software. This is acceptable. The above guidance serves as minimum time intervals. Recovery data will also be recorded at intervals described above. Recovery data will be recorded until drawdown reaches 90% of pre- pumping levels.

Well Disinfection. The well shall be disinfected to remove bacteriological contamination that may cause the well- water supply to be unsafe for human consumption. The chlorine solution used for disinfecting the well shall be of such volume and strength and shall be so applied that a concentration of at least 50 ppm of available chlorine shall be obtained for the entire water depth of the well, and this solution shall remain in the well for a period of at least 12 hr. If the samples collected after disinfection show bacteriological contamination, the contractor shall prepare and apply to the entire depth of the well a total volume of the chlorine solution of at least 100 mg/L of available chlorine equal to at least four times the volume of water in the well. The contractor shall allow this solution to remain in the well for a period of at least 24 hr.

Source protection - Surface drainage within 100 feet of the wellhead shall ensure no ponding, flooding or collection of runoff adjacent to the well. Identify all sources of contamination and ensure the proposed well site meets minimum standoff distances required by the State Sanitary code.

Well Pump – A multi-stage lineshaft turbine pump shall be installed as shown on the drawings. Control of the pump shall be as indicated on the drawings.

Backflow Prevention – An appropriate backflow prevention device and shut-off valve (downstream of the backflow device) must be placed on the above-ground well discharge piping to prevent water from flowing back down the well.

## **WATER QUALITY SAMPLING AND ANALYSIS**

The Contractor shall perform water quality sampling and testing at the source. The Contractor shall utilize well- qualified and equipped testing firm, acceptable to Owner.

Sample, test, and report for the National Primary Drinking Water Regulations (NPDWR) and Secondary Drinking Water Standards (NSDWR).

Work Hours: Contractor shall observe project work hours. During test well and production well drilling and grouting, or other critical task, Contractor may request weekend and 24-hr operations. Requests shall be in writing to Engineer no later than 7 days prior. Owner may deny, grant, or revoke such permission, at Owner's sole discretion, without result to Contract performance period or costs.

Site Operations. No known water source is available at the Ozone Pines site, Contractor may install temporary rig supply well. Waste fluids shall not be discharged from the site

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## **SECTION 02580 - PIPELINE INSTALLATION AND TESTING**

### **PART 1 - GENERAL**

#### 1.01 Description

- A. The Contractor shall furnish all labor, equipment and materials required to perform all work required for installation of pipelines as indicated on the drawings and specified herein.
- B. The Drawings indicate the alignment of all known pipelines within the limits of the Work, based upon records. The Contractor shall inspect the entire project to verify the location of all existing pipelines and to determine the existence of any conflicts with the Work. The location of proposed pipelines may be field adjusted, with prior approval from the Engineer, to avoid conflicts with other utilities. Damage to any pipelines by the Contractor, subcontractors, material and equipment suppliers or other persons, prior to acceptance, shall be repaired by the Contractor to the satisfaction of the Engineer and Owner at no additional cost to the Owner.

#### 1.02 Construction Layout

The Contractor shall establish all lines and grades and stake out all work on this project from controls shown on the Drawings.

#### 1.03 Related Work

Section 02160 - Sheeting, Shoring, and Bracing  
Section 02300 - Excavation and Backfill  
Section 15042 - Ductile Iron Pipe  
Section 15064 - Plastic Pressure Pipe

### **PART 2 - PRODUCTS**

- 2.03 Identification tape shall be color coded, foil backed with lettering reading “WARNING (or CAUTION) - BURIED WATERLINE (or WASTEWATER) LINE”.

### **PART 3 - EXECUTION**

#### 3.01 General

- A. The installation of pipelines shall be strictly in accordance with these specifications, latest applicable AWWA standards, and the manufacturer’s requirements and recommendations.
- B. Trenching requirements are included in Section 02160 - Sheeting, Shoring and Bracing, and Section 02300 - Excavation and Backfill.

- C. Pipe installation shall be accomplished with pipe sections and fittings such that pipe cutting is held to an absolute minimum. Should pipe cutting be required, cutting shall be done in a neat manner, without damage to the pipe or to the lining. Cuts shall be smooth, straight, and at right angles to the pipe axis. After cutting, the end of the pipe shall be dressed with a file to remove all roughness and sharp corners. All cutting of pipe shall be done with mechanical equipment only. Pipe ends shall be cut with a saw or abrasive wheel. Field cut holes for saddles shall be cut with mechanical pipe cutters.
- D. The interior of all pipe and fittings shall be thoroughly cleaned of foreign matter, and for waterlines, shall be swabbed with chlorine prior to installation and shall be kept clean until the work has been accepted. Swabbing herein shall mean the forceful introduction of a large sponge type device through a pipe to remove debris, such as stones and sand. Before jointing, all joint contact surfaces shall be wire brushed if necessary, wiped clean, and kept clean until jointing is completed. Precautions shall be taken to prevent foreign material from entering the pipe during installation. Debris, tools, clothing, or other materials shall not be placed in or allowed to enter the pipe.
- E. A representative of the Owner shall be present or shall be given the chance to inspect all installed pipe prior to backfill. The Owner may require the Contractor to uncover any or all water distribution system items installed for inspection, at no additional cost to the Owner.

### 3.02 Water System Valves and Hydrants Operation

- A. All existing water distribution system valves and hydrants shall be operated by the Owner. The Contractor shall not operate water system valves or hydrants without prior written permission from the Owner. The Contractor may be allowed to operate water system valves or hydrants without prior written permission only when the Owner's representatives are present at all times during operation and give specific verbal permission.

### 3.03 Material Handling

- A. Pipes, fittings, couplings, and all other incidentals and accessories shall be handled in a manner that will insure installation in sound, undamaged condition. Equipment, tools, and methods used in handling and installing pipe and fittings shall not damage the pipe and fittings. Hooks inserted in ends of pipe shall have broad, well-padded contact surfaces. When lifting with slings, only wide fabric choker slings capable of safely carrying the load shall be used to lift, move, or lower pipe and fittings. Wire ropes and chains shall not be used. Slings shall be of sufficient capacity for the load and shall be inspected before use. Worn or damaged equipment shall not be used.
- B. All pipe and fitting coatings which have been damaged shall be repaired by the Contractor before installation. Any such repairs shall be done in total conformance with the manufacturer's requirements and recommendations, shall use approved materials only, and shall be subject to final acceptance by the Engineer.



### 3.05 Connection to Existing Piping

- A. The Owner's representative shall be present during all work being done at the tie-in points. All tie-in locations shall be excavated, and existing piping shall be investigated (material type, size, outside diameter, condition, photograph, etc.) prior to ordering material and equipment, and especially prior to the cutting of the existing pipe. Connections between new work and existing piping shall be made using fittings suitable for the conditions encountered and as indicated on the drawings. Each connection to an existing pipe shall be made at a time and under conditions which will least interfere with service to customers, and as authorized by the Owner.
- B. Facilities shall be provided for proper dewatering and for disposal of all water removed from the dewatered lines and excavations without damage to adjacent properties.

### 3.06 Allowable Clearance Between Pipelines

- A. Between Waterlines and Wastewater Lines - When wastewater lines are parallel to waterlines, the clearance shall be a minimum of 10 feet (measured horizontally); when wastewater lines and waterlines cross, vertical clearance shall be 18 inches, with the waterline crossing above the wastewater line.
- B. Between Waterlines and Any Private Utility Lines - Minimum clearance between a waterline and any private utility line shall be 6 feet (measured horizontally).

### 3.07 Pipe Marking

- A. All pipelines shall be installed with buried warning tape. All non-metallic pipelines shall be installed with detector wire.
- B. Warning tape shall be laid in the trench while backfilling and shall be placed between 12 to 18 inches above the top of the pipe.
- B. Detector wire shall be laid directly over the pipe and shall terminate in valve boxes, meter boxes, or bored or drilled crossings.

### 3.08 Pipeline Pressure Testing

- A. All pipelines shall be pressure tested. The Contractor shall supply all labor, equipment, material, gauges, pumps, and incidentals required for testing.
- B. The test pressure shall be 150 psig for waterlines and 100 psig for sewer force mains, unless noted otherwise. The test pressure shall be measured at the highest point along the test section.
- C. Testing shall be conducted only after backfilling has been completed.
- D. Testing procedure shall be as follows:

- 1) Fill line slowly with water. Maintain flow velocity less than two feet 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 five (5) psig 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 for leakage during the test.

E. Allowable leakage: Leakage shall be less than that determined by the following formula:

$$L = \frac{(S)(D)(P)^{1/2}}{133,200}$$

L = Loss in gallons per hour  
 S = Length of pipe tested in feet  
 D = Nominal pipe diameter in inches  
 P = Recorded test pressure in psig

- F. If any test of a pipeline section discloses leakage greater than that allowed, the Contractor shall, at no additional cost to the Owner, locate and repair the cause of leakage and retest the line.
- G. All visible leaks shall be repaired regardless of the amount of leakage.

### 3.09 Waterline Disinfection

- A. Before being placed into service, all new, modified, and/or contaminated segments of the water distribution system shall be cleaned, flushed, and disinfected (chlorinated) by the Contractor under the direct supervision of the Owner. The disinfection of piping shall conform to AWWA C651 "Standard for Disinfection of Water Mains". All disinfection procedures shall be in full compliance with the Louisiana Sanitary Code (Code), Part XII Water Supplies, Chapter 3, Section 353. The procedures to be used, including the chemicals to be used, shall be submitted to the Engineer for approval.
- B. The interior of the piping shall be thoroughly cleaned, flushed, disinfected, flushed, and tested. Flushing shall be done at flow rates sufficient to provide a velocity in the lines of at least 2.5 feet per second.
- C. The Contractor shall arrange for sampling and bacteriological testing to be conducted by the Owner. Water prepared for sampling, and water used for flushing, shall not have a chlorine residual higher than that normally maintained in the water system. The piping shall be cleaned, flushed, disinfected, flushed, and tested as many times as necessary to

achieve a suitable bacteriological test result, at no additional cost to the Owner. No additional Contract Time will be awarded the Contractor for work necessary due to failed bacteriological testing.

- D. Only after satisfactory pressure testing, disinfection, and successful bacteriological test results from the Owner is completed, shall the waterline segment be connected to the existing water distribution system. Under no circumstances shall the Contractor make a connection to the existing water distribution system without direct supervision of the Owner.

### 3.10 Water Usage

- A. Water for flushing, pressure testing, and disinfection may be obtained by the Contractor from the Owner's water system. In order to prevent backflow (back siphon, back pressure) or reversal of the flow of potentially unclean liquids into the drinking water system a separate check valve, as a minimum, shall be used by the Contractor at the point of connection to the Owner's system. A meter shall be used to record the Contractor's water usage.
- B. The Contractor will not be charged for the water used in filling, flushing, testing, and chlorinating of pipelines. The Contractor will be charged for any water necessary for retesting due to negligence of the Contractor, and for any water necessary due to failed bacteriological testing.

**END OF SECTION**

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## SECTION 02920 – SEEDING AND SODDING

### PART 1 - GENERAL

#### 1.01 REQUIREMENT

- A. The Contractor shall provide all labor, materials, and equipment to install seeding and sodding, with fertilizing and mulching for all disturbed areas that are not to be paved or otherwise treated in accordance with the Contract Documents. The Contractor shall re-establish vegetative cover in all areas where such cover existed prior to the beginning of the Work, and in areas so designated on the Drawings.
- B. The Work under this Section includes furnishing and placing topsoil, seed and sod, and mulching, fertilizing, watering, and maintenance until final acceptance by the Owner.

#### 1.02 QUALITY ASSURANCE

- A. The Contractor shall deliver a satisfactory stand of grass as specified. If necessary, the Contractor shall repeat any or all the work, including grading, seeding or sodding, fertilizing, and watering until a satisfactory stand is obtained.
- B. A satisfactory stand of grass is herein defined as a full lawn cover of the predominant vegetative species existing prior to the beginning of the Work, or species as required herein, over areas to be seeded or sodded. Grass shall be alive and growing, free from weeds, and leaving no bare spots larger than one square foot in area, separated by at least 10 feet in distance.
- C. If a satisfactory stand of grass has not been obtained within a reasonable period of time, the Engineer will instruct the Contractor in writing that the vegetative cover is not adequate and additional measures as determined by the Engineer, including installation of sodding on areas previously treated with seed applications, shall be undertaken by the Contractor to establish the required satisfactory stand of grass, at no additional cost to the Owner.

### PART 2 - PRODUCTS

#### 2.01 MATERIALS

- A. Fertilizer: Fertilizer shall be a commercial, chemical type, uniform in composition, free flowing, conforming to state and federal laws and suitable for application with equipment designed for that purpose.

- B. Seed: Seed shall be delivered in original unopened packages bearing an analysis of the contents. Seed shall be guaranteed 95 percent pure with a minimum germination rate of 80 percent.
1. The following grass species may be established by seeding procedures.
    - a. Hulled Bermuda
    - b. Pensacola Bahia
    - c. Kentucky 31 Fescue
- C. Sod: The Contractor shall furnish sod equal to and similar in type as that disturbed by the Contractor's operations.
1. The following grass species shall be established by sodding procedures:
    - a. St. Augustine
    - b. Centipede
    - c. All other species not listed under Seeding.
  2. The following areas shall have vegetative cover restored by sodding procedures, regardless of the grass species.
    - a. Slopes steeper than four (4) horizontal to one (1) vertical.
    - b. Locations subject to concentrations of water flow or erosion including but not limited to roadway ditch bottoms and flume areas where storm water runoff is concentrated.
    - c. Repair of eroded areas within areas previously seeded.
- D. Mulch: Mulch shall be a fibrous, wood cellulose product produced for this purpose. It shall be dyed green and shall contain no growth or germination inhibiting substances and shall be manufactured so that when thoroughly mixed with seed, fertilizer, and water, in the proportions indicated it will form a homogenous slurry which is capable of being sprayed.
- E. Topsoil: Topsoil stockpiled during excavation may be used. If additional topsoil is required to replace topsoil removed during construction, it shall be obtained off site at no additional cost to the Owner. Topsoil shall be fertile, natural surface soil, capable of supporting the grassing specified.
- F. Water: Water shall be clean, fresh, and free of substances that would inhibit vigorous growth of turf. The Contractor shall make whatever arrangements necessary to ensure an adequate supply of water to meet the needs for the work. The Contractor shall furnish all necessary hose, equipment, attachments, and accessories for the adequate irrigation of lawns and planted areas as required.

## **PART 3 - EXECUTION**

### **3.01 GENERAL**

- A. Weather Conditions: Fertilizing, seeding, sodding, or mulching operations shall not be conducted when wind velocities exceed 15 miles per hour or when the ground is frozen, unduly wet, or otherwise not in a tillable condition.

- B. Soil Preparation: The ground to be seeded shall be graded in conformance with the Drawings and shall be loose and free of large rocks, roots, and other material which will interfere with the work. Areas to be sodded shall be pulverized or tilled to a depth of 3 inches.
- C. Soil Placement: Topsoil shall be spread evenly over all planting areas to a depth of 4 inches.
- D. Method of Seed Application: Fertilizer, seed, and mulch may be applied separately (Dry Method), or they may be mixed with water and the homogeneous slurry applied by spraying (Hydraulic Method), except that all slopes 3 units horizontal to 1 unit vertical or steeper shall be stabilized by the Hydraulic Method.
- E. Sod placement shall begin upon arrival on site. Sod shall be placed with no space between edges and staggered to prevent a continuous seam. Sod shall be rolled, or hand tamped after placement.

### 3.02 DRY METHOD

- A. Fertilizing: The fertilizer shall be spread uniformly at the rate of approximately 1 pound per 55 square feet. The fertilizer shall be raked in and thoroughly mixed with the soil to a depth of approximately 2 inches prior to the application of seed or mulch.
- B. Seeding: The seed shall be broadcast uniformly at the rate of approximately 1 pound per 730 square feet. After the seed has been distributed it shall be incorporated into the soil by raking or by other approved methods.
- C. Mulch Application: Mulch shall be applied at the rate approximately 1 pound (air dried weight) per 30 square feet.

### 3.03 HYDRAULIC METHOD

The hydraulic method shall consist of the uniform application by spraying of a homogeneous mixture of water, seed, fertilizer, and mulch. The slurry shall be prepared by mixing the ingredients in the same proportions as indicated above. The slurry shall have the proper consistency to adhere to the earth slopes without lumping or running. Mixing time of materials shall not exceed 45 minutes from the time the seeds come into contact with the water in the mixer to the complete discharge of the slurry onto the slopes; otherwise, the batch shall be recharged with seed. The mixture shall be applied using equipment containing a tank having a built-in, continuous agitation and recirculation system, and a discharge system which will allow application of the slurry to the slopes at a continuous and uniform rate. The application rates of the ingredients shall be the same as those specified for the Dry Method. The nozzle shall produce a spray that does not concentrate the slurry nor erode the soil.

#### 3.04 WATERING

Upon completion of the seeding and/or sodding, the entire area shall be soaked to saturation by a fine spray. The new planting shall be kept watered by a sprinkling system on the Site during dry weather or whenever necessary for proper establishment of the planting until final project acceptance. At no time shall the planting be allowed to dry out. Care shall be taken to avoid excessive washing or puddling on the surface and any such damage caused thereby shall be repaired by the Contractor, at no additional cost to the Owner.

#### 3.05 MAINTENANCE PRIOR TO FINAL ACCEPTANCE

The Contractor shall maintain the planted areas in a satisfactory condition until final acceptance of the project. Such maintenance shall include the filling, leveling, and repairing of any washed or eroded areas, and sufficient watering to maintain the plant materials in a healthy condition. The Engineer may require replanting of any areas in which the establishment of the vegetative ground cover does not appear to be developing satisfactorily.

**END OF SECTION**



## SECTION 03300 - CAST-IN-PLACE CONCRETE

### PART 1 - GENERAL

#### 1.01 DESCRIPTION

- A. Scope: Contractor shall provide all labor, materials, equipment, and incidentals as shown, specified, and required to furnish and install cast-in-place concrete, reinforcement and related materials.
- B. Coordination: Review installation procedures under other Sections and coordinate the installation of items that must be installed in the concrete.

#### 1.02 QUALITY ASSURANCE

- A. Source Quality Control:
  - 1. Concrete Testing Service:
    - a. Contractor shall employ a testing laboratory to perform materials evaluation, testing and design of concrete mixes.
    - b. Contractor's laboratory will also evaluate concrete delivered to and placed at the site.
  - 2. Quality Control: Contractor's laboratory will perform sampling and testing during concrete placement, as follows:
    - a. Sampling: ASTM C 172.
    - b. Slump: ASTM C 143, one test for each load at point of discharge.
    - c. Air Content: ASTM C 31, one for each set of compressive strength specimens.
    - d. Compressive Strength: ASTM C 39, one set for each 50 cubic yards or fraction thereof for each class of concrete; a minimum of one set for each pour of structural concrete; 1 specimen tested at 7 days, 2 specimens tested at 28 days.
- B. Reference Standards: Comply with the applicable provisions and recommendations of the following, except as otherwise shown or specified.
  - 1. ACI 301, Specifications for Structural Concrete for Building (includes ASTM Standards referred to herein except ASTM A 36).
  - 2. ACI 347, Recommended Practice for Concrete Formwork.
  - 3. ACI 304, Recommended Practice for Measuring, Mixing, Transporting, and Placing Concrete.
  - 4. ACI 315, Manual of Standard Practice for Detailing Reinforced Concrete Structures.
  - 5. ACI 305, Recommended Practice for Hot Weather Concreting.
  - 6. ACI 306, Recommended Practice for Cold Weather Concreting
  - 7. ASTM A36, Structural Steel.
  - 8. Concrete Reinforcing Steel Institute, Manual of Standard Practice, include ASTM Standards referred herein.

### 1.03 SUBMITTALS

- A. Mix Design: In advance of concrete operations, materials proposed for use in concrete will be sampled and tested to determine their compliance with these specifications. Mix proportions shall be reviewed by the laboratory for each strength and type of concrete required and reports submitted to the Engineer for approval, showing the mix designs. Include the following information in concrete mix design:
1. Proportions of cement, fine and coarse aggregate, and water
  2. Water-cement ratio, 28-day compressive and design strength, slump, and air content
  3. Type of cement and aggregate
  4. Aggregate gradation
  5. Type and dosage of admixtures
  6. Special requirements for pumping
  7. Range of ambient temperature and humidity for which design is valid
  8. Special characteristics of mix which require precautions in mixing, placing, or finishing techniques to achieve finished product specified
- B. Samples: Submit samples of materials as specified and may be requested by the Engineer including names, sources, and descriptions.
- C. Shop Drawings: Submit the following for approval in accordance with the General Requirements and with additional requirements as specified.
1. Copies of manufacturer's specifications with application and installation instructions for proprietary materials and items, including admixtures and bonding agents.
  2. Drawings for fabrication, bending, and placement of concrete reinforcement. Comply with ACI 315, Chapters 1 thru 8. For walls, show elevations to a minimum scale of 3 inch to 1 foot. Show bar schedules, stirrup spacing, diagrams of bent bars, arrangements, and assemblies, as required for the fabrication and placement of concrete reinforcement.
  3. List of concrete materials and concrete mix designs proposed for use. Include the results of all tests performed to qualify the materials and to establish the mix designs in accordance with ACI 301, 3.9. Submit written report to Engineer for each proposed concrete mix at least 15 days prior to start of Work. Do not begin concrete production until mixes have been reviewed and are acceptable to Engineer. Mix designs may be adjusted when material characteristics, job conditions, weather, test results or other circumstances warrant. Do not use revised concrete mixes until submitted to and accepted by Engineer.
- D. Laboratory Test Reports: Submit copies of historical laboratory test reports for concrete cylinders, materials and mix design tests. Production of concrete to comply with specified requirements is the responsibility of the Contractor.

## 1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver concrete reinforcement materials to the site bundled, tagged, and marked. Use tags indicating bar size, lengths, and other information corresponding to markings shown on placement diagrams.
- B. All materials used for concrete shall be kept clean and free from all foreign matter during transportation and handling and kept separate until measured and placed in the mixer. Bins or platforms having hard clean surfaces shall be provided for storage. Suitable means shall be taken during hauling, piling and handling to ensure that segregation of the coarse and fine aggregate particles does not occur, and the grading is not affected.

## PART 2 - PRODUCTS

### 2.01 CONCRETE MIX DESIGN

- A. Concrete Paving for Drives: Unless noted otherwise, mix design shall be Type B as defined in the LSSRB, 2016 Edition and latest revisions.
- B. Concrete for Incidentals: Unless noted otherwise, mix design shall be Type M as defined in the LSSRB, 2016 Edition and latest revisions.

### 2.02 CONCRETE MATERIALS

- A. Portland Cement:
  - 1. Wet Well and Valve Box: ASTM C 150, Type II.
  - 2. All other Uses: ASTM C 150, Type I.
- B. Aggregates: ASTM C33.
  - 1. Fine Aggregate: Clean, sharp, natural sand free from loam, clay, lumps or other deleterious substances. Dune sand, bank run sand and manufactured sand are not acceptable.
  - 2. Coarse Aggregate: Clean, uncoated, processed aggregate containing no clay, mud, loam, or foreign matter, as follows:
    - a. Crushed stone, processed from natural rock or stone.
    - b. Washed gravel, either natural or crushed. Use of slag and pit or bank run gravel is not permitted.
- C. Coarse Aggregate Size: Size to be in accordance with ASTM C33, Nos. 57 or 67, unless permitted otherwise by Engineer.
- D. Water: Clean, potable.
- E. Air-Entraining Admixture: ASTM C 260.
- F. Water-Reducing Admixture: ASTM C 494. Only use admixtures which have been tested and accepted in mix designs.
- G. Slump Limits: Proportion and design mixes to result in concrete slump at the point of placement of not less than one inch and not more than four inches.

### 2.03 FORM MATERIALS

- A. Provide form materials with sufficient stability to withstand pressure of placed concrete without bow or deflection.
- B. Exposed Concrete Surfaces: Acceptable panel-type to provide continuous, straight, smooth, as-cast surfaces. Use largest practical sizes to minimize form joints.
- C. Unexposed Concrete Surfaces: Suitable material to suit project conditions.
- D. Provide ¾ inch chamfer at all exposed corners.

#### 2.04 REINFORCING MATERIALS

- A. Reinforcing Bars: ASTM A615, Grade 60.
- B. Welded Wire Fabric: ASTM A185.
- C. Steel Wire: ASTM A82.
- D. Supports for Reinforcement: Bolsters, chairs, spacers, and other devices for spacing, supporting and fastening reinforcement in place.
  - 1. Use wire bar type supports complying with CRSI recommendations, except as specified below. Wood, brick, or other unacceptable materials shall not be used.
  - 2. For slabs on grade, supports shall have sand plates or horizontal runners where base materials will not support chair legs.
  - 3. For all concrete surfaces, where legs of supports are in contact with forms, provide supports complying with CRSI, Manual of Standard Practice as follows:  
Either hot-dip galvanized, plastic protected or stainless steel legs.

#### 2.05 GROUT

- A. Non-metallic, 100 percent solids, high strength epoxy grout.
  - 1. Use clean well graded sand with epoxy resins suitable for use on dry or damp surfaces.
  - 2. Product and Manufacturer; Provide one of the following:
    - a. Euco High Strength Grout by the Euclid Chemical Company.
    - b. Sikadur 42 Grout by Sika Chemical Company.
    - c. Five Star Epoxy Grout by U.S. Grout Corporation.
    - d. Or equal.
- B. Nonshrink, Nonmetallic Grout:
  - 1. Premixed nonstaining cementitious grout requiring only the addition of water at the job site.
  - 2. Product and Manufacturer: Provide one of the following:
    - a. Euco N-S by the Euclid Chemical Company.
    - b. Masterflow 713 by Master Builders Company.
    - c. Five Star by U.S. Grout Corporation.
    - d. Or equal.
- C. Ordinary Cement-Sand Grout:

1. Except where otherwise specified use 1 part cement to 3 parts sand complying with the following:
  - a. Cement: ASTM C 150, Type I.
  - b. Sand: ASTM C 33.

## 2.06 JOINTS

- A. Expansion joint filler shall be preformed expansion joint filler complying with ASTM D1752, Type II cork.
- B. Joint sealer:
  1. Exterior and Interior Joints in Horizontal Planes: Two-Component Polyurethane Sealant:
    - a. Polyurethane-based, 2-part elastomeric sealant complying with the following:
      - (1) FS TT-S-00227, Type 1 (self-leveling) Class A.
      - (2) Water Immersion Bond, FS TT-S-00227; Elongation of 25 percent with no adhesive failure.
      - (3) Hardness (Standard Conditions), ASTM C 661: 30-40.
      - (4) Stain and Color Change, FS TT-S-00227 and ASTM C 510: No discoloration or stain.
      - (5) Accelerated Aging, ASTM C 793: No change in sealant characteristics after 250 hours in weatherometer.
    - b. Product and Manufacturer: Provide one of the following:
      - (1) Sonolastic Paving Joint Sealant by Sonneborn Division of Contech Incorporated.
      - (2) Vulkem 255 by Mameco International.
      - (3) Or equal.

## PART 3 - EXECUTION

### 3.01 INSPECTION

The Contractor shall examine the substrate and the conditions under which Work is to be performed and notify the Engineer of unsatisfactory conditions. The Contractor shall not proceed with the Work until unsatisfactory conditions have been corrected in a manner acceptable to Engineer.

### 3.02 FORMWORK

- A. Formwork: Construct formwork so that concrete members and structures are correct size, shape, alignment, elevation, and position, complying with ACI 347.
- B. Provide openings in formwork to accommodate Work of other trades. Accurately place and securely support items built into forms.
- C. Clean and adjust forms prior to concrete placement. Apply form release agents or wet forms, as required. Retighten forms during and after concrete placement if required to eliminate mortar leaks.

### 3.03 REINFORCEMENT, JOINTS, AND EMBEDDED ITEMS

- A. Comply with the applicable recommendations of specified codes and standards, and ACI Manual No. SP-66, latest edition, for details and methods of reinforcement placement and supports.
- B. Clean reinforcement to remove loose rust and mill scale, earth, ice, and other materials which reduce or destroy bond with concrete.
- C. Position, support, and secure reinforcement against displacement during formwork construction or concrete placement. Locate and support reinforcing by metal chairs, runners, bolsters, spacers and hangers, as required.
  - 1. Place reinforcement to obtain the minimum concrete converges as shown and as specified in ACI 318. Arrange, space, and securely tie bars and bar supports together with 16 gauge wire to hold reinforcement accurately in position during concrete placement operations. Set with ties so that twisted ends are directed away from exposed concrete surfaces.
  - 2. Reinforcing steel shall not be secured to forms with wire, nails or other ferrous metal. Metal supports subject to corrosion shall not touch formed or exposed concrete surfaces.
- D. Provide sufficient numbers of supports of strength required to carry reinforcement. Reinforcing bars shall not be placed more than 2 inches beyond the last leg of any continuous bar support. Supports shall not be used as bases for runways for concrete conveying equipment and similar construction loads.
- E. Splices: Provide standard reinforcement splices by lapping ends, placing bars in contact, and tying tightly with wire. Comply with requirements for minimum lap of spliced bars.
- F. Install welded wire fabric in as long lengths as practical, lapping at least one mesh.
- G. Concrete shall not be placed until the reinforcing steel is inspected and approved by the Engineer for placing concrete. All concrete placed in violation of this provision will be rejected.
- H. Joints: Provide construction, isolation, and control joints as indicated or required. Locate construction joints so as to not impair the strength and appearance of the structure. Place isolation and control joints in slabs on ground to stabilize differential settlement and random cracking.
- I. Installation of Embedded Items: Set and build into the Work anchorage devices and embedded items required for other Work that is attached to or supported by cast-in-place concrete. Use setting diagrams, templates and instructions provided under other Sections and other contracts for locating and setting. Refer also to Paragraph 1.01.B., Coordination, above.

### 3.04 CONCRETE AND PLACEMENT

- A. Only ready-mixed concrete shall be used. It shall be in accordance with ASTM C 94.

- B. Concrete Placement: Comply with ACI 304, placing concrete in a continuous operation within planned joints or sections. Placement shall not begin until work of other trades affecting concrete is completed.
- C. Consolidate placed concrete using mechanical vibrating equipment with hand rodding and tamping, so that concrete is worked around reinforcement and other embedded items and into all parts of forms.
- D. Protect concrete from physical damage or reduced strength due to weather extremes during mixing, placement, and curing.
  - 1. In cold weather comply with ACI 306.
  - 2. In hot weather comply with ACI 305.

### 3.05 QUALITY OF CONCRETE WORK

- A. Make all concrete solid, compact and smooth, and free of laitance, cracks and cold joints.
- B. Cut out and properly replace to the extent ordered by the Engineer, or repair to the satisfaction of the Engineer, surfaces which contain cracks or voids, are unduly rough, or are in any way defective. Patches or plastering shall not be used.
- C. Repair, removal, and replacement of defective concrete as ordered by the Engineer shall be at no additional cost to the Owner.

### 3.06 CURING

- A. Begin initial curing after placing and finishing concrete as soon as free water has disappeared from exposed surfaces. Where possible, keep continuously moist for not less than 72 hours. Continue curing with the use of moisture-retaining cover or membrane-forming curing compound. Cure formed surfaces by moist curing until forms are removed. Provide protection as required to prevent damage to exposed concrete surfaces.
- B. Forms on structural walls shall be left in place for a minimum of 72 hours unless a cylinder break indicates the strength of the concrete has reached 75 percent of design strength.
- C. Forms on structural floors and ceiling shall be left in place until a cylinder break indicates the strength of the concrete has reached 85 percent of design strength.

### 3.07 FINISHES

- A. After placing concrete slabs, do not work the surface further until ready for floating. Begin floating when the surface water has disappeared or when the concrete has stiffened sufficiently. Check and level the surface plane to a tolerance not exceeding 3 inch in 10 feet when tested with a 10-foot straightedge placed on the surface at not less than 2 different angles. Cut down high spots and fill all low spots. Uniformly slope surfaces to drains. Immediately after leveling, refloat the surface to a uniform, smooth, granular texture.

- B. After floating, begin the first trowel finish operation using a trowel. Begin final troweling when the surface produces a ringing sound as the trowel is moved over the surface.
- i. Consolidate the concrete surface with the final hand troweling operation. Finish shall be free of trowel marks, uniform in texture and appearance, and with a surface plane tolerance not exceeding 1/8 inch in 10 feet when tested with a 10-foot straight edge. Grind smooth surface defects.
  - ii. Use trowel finish for the following: Interior exposed slabs unless otherwise shown or specified.
  - iii. Apply non-slip broom finish to exterior concrete slab and elsewhere as shown on the Drawings.

### 3.08 GROUT PLACEMENT

General:

1. Place grout as shown and in accordance with manufacturer's instruction. If manufacturer's instructions conflict with the Specifications do not proceed until the Engineer provides clarification.
2. Drypacking shall not be used.
3. Manufacturers of proprietary products shall make available upon 72 hours notification the services of a qualified, full-time employee to aid in assuring proper use of the product under job conditions.
4. Placing grout shall conform to the temperature and weather limitations described in Paragraph 3.04 above.

**END OF SECTION**



## SECTION 09800 - PROTECTIVE COATINGS

### PART 1 - GENERAL

#### 1.01 SCOPE OF WORK

This specification covers preparation of surfaces, performance and completion of painting and coating of all surfaces unless specified otherwise elsewhere in the specifications and the drawings.

#### 1.02 DELIVERY AND STORAGE

All materials delivered to job site shall be in original sealed and labeled containers of the paint manufactured.

#### 1.03 SUBMITTALS

A. The Contractor shall submit manufacturer's literature for each product to be used giving the name, generic type, descriptive information and evidence of satisfactory past performance. Submittals shall include the following performance data as certified by a qualified testing laboratory:

1. Abrasion - Fed. Test Method Std. No. 141, Method 6192, CS-17 Wheel, 1,000 grams load.
2. Adhesion - Elcometer Adhesion Tester.
3. Exterior Exposure - Exposed at 45 degrees facing ocean (South Florida Marine Exposure).
4. Hardness - ASTM D3363-74
5. Humidity - ASTM D2247-68
6. Salt Spray (Fog) - ASTM B117-73

B. Upon completion of installation, the Contractor shall submit written certification from the manufacturer that all work has been performed within the limits prescribed by the manufacturer.

### PART 2 - PRODUCTS

#### 2.01 COLORS

A. Colors, where not specified, shall be as selected by the Engineer. The Contractor shall furnish color chips for each protective coating system for review and selection.

B. Safety Color Code for Marking Physical Hazards. The safety color selected for the marking of physical hazards and safety, firefighting and protection equipment

shall be in accordance with OSHA 1910.144.

1. Safety Color Selection

Colors shall meet the tests specified in ANSI Z53.1. The colors used shall conform to the color chips identified by numbers specified in Federal Standard 595.

<u>Color</u>	<u>Standard</u>	<u>Color</u>	<u>Standard</u>
Red	11105	Blue	15120
Yellow	13655	Purple	17142
Orange	12246	White	17875
Green	14260	Black	17038

C. Color selection for the items not covered by OSHA Color Standards shall either be in accordance with the Painting Schedule, or to be determined after submittal of color chips by Contractor.

D. Piping Color Code. In order to facilitate identification of piping, the different above ground pipelines and equipment shall be color-coded. The following color scheme shall be used for the purposes of standardization. The use of paints containing lead or mercury is strictly prohibited. The contents and direction of flow shall be stenciled on the piping in a contrasting color. All piping shall be identified with labels and flow direction every 10 feet and with at least two labels in each room, closet, or pipe chase. The paint system shall be TNEMEC (specified in parenthesis below), or Engineer approved equal.

a. Water Lines

- i. Raw or Recycle: Olive Green (110GN Clover)
- ii. Settled or Clarified: Aqua (10GN Aqua Sky)
- iii. Finished or Potable: Dark Blue (11sf Safety Blue)
- iv. Pumping Unit: Dark Blue (11sf Safety Blue)

b. Chemical Lines

- i. Alum or Primary Coagulant: Orange (04SF – Safety Orange)
- ii. Ammonia: White (00WH White)
- iii. Carbon Slurry: Black (35GR Black)
- iv. Caustic: Yellow with Green Band (02SF Safety Yellow, 09SF Safety Green)
- v. Chlorine (Gas and Solution): Yellow (02SF Safety Yellow)
- vi. Chlorine Dioxide: Yellow with Violet Band
- vii. Flouride: Light Blue with Red Band (25BL Fountain, 06SF Safety Red)
- viii. Lime Slurry: Light Green (37GN Irish Spring)
- ix. Polymers or Coagulant Aids: Orange with Green Band (04SF – Safety Orange, 09SF Safety Green)

c. Others

- i. Compressed Air: Dark Green (91GN Balsam)
- ii. Gas: Red (28Rd Monterrey Tile)
- iii. Other Lines: Light Gray (32GR Light Gray)

2.02 COATING SCHEDULE

A. Ferrous Metal Surfaces - Exterior Environment (UV exposure)

1. Surface Preparation for Carbon Steel: SSPC-SP6/NACE 3 Commercial Blast Cleaning.
2. Surface Preparation for Cast Iron & Ductile Iron (Shop): Clean as required to remove all soluble surface contaminants. Abrasive blast all surfaces to be coated in accordance with NAPF 500-03-04 to remove all insoluble surface contaminants and to achieve a minimum surface profile of 1.5 mils.
3. Coating System

		<u>Dry Film Thickness (mils)</u>
1 <sup>st</sup> Coat	Polyamidoamine Epoxy (Shop Applied) Tnemec Series N69	4.0-6.0
2 <sup>nd</sup> Coat	Polyamidoamine Epoxy Tnemec Series N69	4.0-6.0
3 <sup>rd</sup> Coat	Aliphatic Acrylic Polyurethane Tnemec Series 1074U	2.5-3.0
		Total System 10.5-15

4. Description: Ferrous metal surfaces not installed within an enclosed structure including piping, fittings, couplings, adaptors, valves, etc.

B. Metal Frames and Doors

1. Surface Preparation for metal frames and doors (Shop): Clean as required to remove all soluble surface contaminants. Abrasive blast all surfaces to be coated in accordance with NAPF 500-03-04 to remove all insoluble surface contaminants and to achieve a minimum surface profile of 1.5 mils.

2. Coating System

		<u>Dry Film Thickness (mils)</u>
1 <sup>st</sup> Coat	Zinc-Rich Primer (Shop Applied) Tnemec Series N69	2.0-3.0
2 <sup>nd</sup> Coat	HDP Acrylic Polymer Tnemec Series 1028	2.0-3.0
3 <sup>rd</sup> Coat	HDP Acrylic Polymer Tnemec Series 1028	2.0-3.0
		Total System 6.0 – 9.0

C. PVC Pipe, Exposed, Interior/Exterior

1. Surface Preparation for PVC: Clean as required to remove all soluble surface contaminants. Sand lightly to remove gloss, pipe shall be clean and dry.

2. Coating System

		<u>Dry Film Thickness (mils)</u>
1 <sup>st</sup> Coat	HDP Acrylic Polymer Tnemec Series 1028	2.0-3.0
2 <sup>nd</sup> Coat	HDP Acrylic Polymer Tnemec Series 1028	2.0-3.0
		Total System 4.0 – 6.0

D. Wood and Masonry: See drawing finish schedule.

Description: Ferrous metal surfaces not installed within an enclosed structure including piping, fittings, couplings, adaptors, valves, etc..

## 2.03 PERFORMANCE REQUIREMENTS

A. Polyamidoamine Epoxy: Polyamidoamine epoxy shall contain no lead or soluble chromates. Polyamidoamine epoxy shall be able to weather sixty (60) days prior to top coating with itself or aliphatic urethanes. Scarify surface before top coating if exposed to sunlight for 60 days or longer.

- 1) Minimum Solids per Gallon: 67.0 +/- 2.0%
- 2) Abrasion: No more than 115 mg loss after 1000 cycles (ASTM D 4060, CS-17 Wheel, 1,000 grams load)
- 3) Adhesion: Not less than 1600 psi pull average of three trials (ASTM D 4541 Elcometer Adhesion Tester)

- 4) Exterior Exposure: No blistering, cracking or delamination of the film. No more rust creepage at scribe or after seventy-two months exposure.
- 5) Fresh Water Immersion: No blistering, cracking, softening or delamination of the film after 4 years immersion in 77 F. tap water (ASTM D 870).
- 6) Hardness: Must pass 3H (ASTM D 3363)
- 7) Salt Fog: No blistering, rusting, cracking, softening or delamination of the film. No more than 1/8 inch rust creepage at scribe after 8,000 hours exposure (ASTM B117).
- 8) Manufacturer: Tnemec N69 Hi-Build Epoxoline II, or equal.

B. Cycloaliphatic Amine Epoxy:

- 1) Minimum Solids per Gallon: 82.0 +/- 2.0%
- 2) Abrasion: No more than 120 mg loss after 1000 cycles (ASTM D 4060, CS-17 Wheel, 1,000 grams load)
- 3) Chemical Resistance: No blistering, cracking, softening or delamination of the film after seven days exposure at 75°F to 10% sulfuric acid, 50% sodium hydroxide, 10% hydrochloric acid, 10% phosphoric acid and 5% sodium chloride.
- 4) Salt Spray Resistance: No blistering, rusting, cracking, softening or delamination of the film. No more than 1/32 inch rust creepage at scribe after 1,500 hours exposure (ASTM B 117-73).
- 5) Manufacturer: Tnemec 104 H.S. Epoxy, or equal.

C. Aliphatic Acrylic Polyurethane:

- 1) Minimum Solids per Gallon: 100.0 +/- 2.0%
- 2) Abrasion: No more than 116 mg loss after 1000 cycles (ASTM D 4060, CS-17 Wheel, 1,000 grams load)
- 3) UV Resistance: No blistering, cracking, or chalking of the film, and no less than 64% gloss retention (33 units gloss change), after 7000 hours exposure (ASTM D 4587, UVA-340 bulbs, Cycle 4: 8 hours UV/4 hours condensation).
- 4) Humidity Resistance: No blistering, rusting, cracking, or delamination of the film after 2,500 hours exposure (ASTM D 4585).
- 5) Manufacturer: Tnemec 1074U Endurashield II, or equal.

## **PART 3 - EXECUTION**

### **3.01 GENERAL**

- A. All surface preparation, coating and painting shall conform to applicable standards of the Steel Structures Painting Council (SSPC), and the manufacturer's printed instructions. Material applied prior to approval of the surface by the

Engineer shall be removed and reapplied to the satisfaction of the Engineer at the expense of the Contractor.

- B. All work shall be performed by skilled craftsmen qualified to perform the required work in a manner comparable with the best standards of practice. Continuity of personnel shall be maintained and transfers of key personnel shall be coordinated with the Engineer.
- C. The Contractor shall provide a supervisor at the work site during cleaning and application operation. The supervisor shall have the authority to sign change orders, coordinate work and make decisions pertaining to the fulfillment of the contract.
- D. Dust, dirt, oil, grease or any foreign matter that will affect the adhesion or durability of the finish must be removed by washing with clean rags dipped in an approved cleaning solvent and wiped dry with clean rags as per SSPC SP1.
- E. Coating and painting systems include surface preparations, prime coating and finish coatings. Any off-site work that does not conform to this specification is subject to rejection by the Engineer.
- F. Shop applied prime coatings, which are damaged during transportation, construction or installation shall be thoroughly cleaned and touched up in the field as directed by the Engineer. The Contractor shall use repair procedures that insure the complete protection of all adjacent primer. The specified repair method and equipment may include wire brushing, hand, or power tool cleaning or dry air blast cleaning. In order to prevent injury to surrounding painted areas, blast cleaning may require use of lower air pressure, small nozzle and abrasive particle sizes, short blast nozzle, distance from surface, shielding and masking. If damage is too extensive or uneconomical to touch-up, then the item shall be re-cleaned and coated or painted as directed by the Engineer.
- G. The Contractor's coating and painting equipment shall be designed for application of materials specified and shall be maintained in first class working condition. Compressors shall have suitable traps and filters to remove water and oils from the air. Contractor's equipment shall be subject to approval of the Engineer.
- H. Application of the first coat shall follow immediately after surface preparation and cleaning and within an eight-hour working day. Any cleaned areas not receiving first coat within eight-hour period shall be re-cleaned prior to application of first coat.
- I. Prior to assembly, all surfaces made inaccessible after assembly shall be prepared as specified herein and shall receive the coating or paint system specified.
- J. Coatings shall be applied during good painting and coating weather. Air and

surface temperatures as well as dew point shall be within limits prescribed by the manufacturer for the coating being applied and work areas shall be reasonably free of airborne dust at the time of application and while coating is drying.

- K. Field touch up painting shall be required on scratched or damaged surfaces.

### 3.02 SURFACE PREPARATION

- A. The latest revision of the following surface preparation specifications of the Steel Structures Painting Council (SSPC) shall form a part of this specification.
  - 1. Solvent Cleaning (SSPC SP): Removal of oil, grease soil and other contaminants by use of solvents, emulsions, cleaning compounds, steam cleaning or similar materials and methods which involve a solvent or cleaning action.
  - 2. Hand Tool Cleaning (SSPC SP2): Removal of loose rust, loose mill scale and other detrimental foreign matter to degree specified by hand chipping, scraping, sanding and wire brushing.
  - 3. Power Tool Cleaning (SSPC-SP3): Removal of loose rust, loose mill scale and other detrimental foreign matter to degree specified by power wire brushing, power impact tools or power sanders.
  - 4. White Metal Blast Cleaning (SSPC-SP5): Blast cleaning to a gray-white uniform metallic color until each element of surface area is free of all visible residues.
  - 5. Commercial Blast Cleaning (SSPC-SP6): Blast cleaning until at least two thirds of each element of surface area is free of all visible residues.
  - 6. Brush-Off Blast Cleaning (SSPC-SP7): Blast cleaning to remove loose rust, loose mill scale and other detrimental foreign matter to degree specified.
  - 7. Near White Blast Cleaning (SSPC-SP10): Blast cleaning to nearly white metal cleanliness, until at least 95 percent of each element of surface area is free of all visible residues.
- B. Slag and weld metal accumulation and spatters not removed by the fabricator, erector or installer shall be removed by chipping and grinding. All sharp edges shall be peened, ground or otherwise blunted as required by the Engineer.
- C. Field blast cleaning for all surfaces shall be by dry method unless otherwise directed.

- D. Particle size of abrasives used in blast cleaning shall be that which will produce a 1 1/2 - 2 mil (37.5 microns - 50.0 microns) surface profile or in accordance with recommendations of the manufacturer of the specified coating or paint system to be applied.
- E. Abrasive used in blast cleaning operations shall be new, washed, graded, and free of contaminants that would interfere with adhesion of coating or paint and shall not be reused unless specifically approved by the Engineer.
- F. Surface preparation will be based upon comparison with: "Pictorial Surface preparation Standards for Painting Steel Surfaces", SSPC-Vis 1 ASTM Designation D220; "Standards Methods of Evaluation Degree of Rusting on Painted Steel Surfaces", SSPC-Vis-2 ASTM Designation D610; "Visual Standard for Surfaces of New Steel Air blast Cleaned with Sand Abrasive".
- G. During blast cleaning operations, caution shall be exercised to insure that existing coatings or paint are not exposed to abrasion from blast cleaning.
- H. The Contractor shall keep the area of his work in a clean condition and shall not permit blasting materials to accumulate as to constitute a nuisance or hazard to the prosecution of the work or the operation of the existing facilities.
- I. Blast cleaned surfaces shall be cleaned prior to application of specified coatings or paint. No coatings or paint shall be applied over damp or moist surfaces.

### 3.03 APPLICATION

- A. Coating and paint application shall conform to the requirements of the Steel Structures Painting Council Paint Application Specification SSPC-PA latest revision for "Shop Field and Maintenance Painting", and the manufacturer of the coating and paint materials.
- B. Thinning shall be permitted only as recommended by the manufacturer and approved by the Engineer.
- C. Each application of coating or paint shall be applied evenly, free of brush marks, sags, runs, with no evidence of poor workmanship. Care shall be exercised to avoid lapping on glass or hardware. Coatings and paints shall be sharply cut to lines. Finished surfaces shall be free from defects or blemishes.
- D. Protective coverings or drop cloths shall be used to protect floors, fixtures, and equipment. Care shall be exercised to prevent coatings or paints from being splattered onto surfaces that are not to be coated or painted. Surfaces from which materials cannot be removed satisfactorily shall be recoated or repainted as required to produce a finish satisfactory to the Engineer.



- E. When two coats of paint are specified, where possible, the first coat shall contain sufficient approved color additive to act as an indicator of coverage or the two coats must be of contracting color.
- F. Film thicknesses per coat specified are the minimum required. Contractor shall apply additional coats as necessary to achieve the specified thickness.
- G. No coating or paint shall be applied: When the surrounding air temperature or the temperature of the surface to be coated or painted is below 40 degrees F., too wet or damp surfaces or in rain, snow, fog or mist; when the temperature is less than 5 degrees F. above the dew point; when it is expected the air temperature will drop below 40 degrees F. six hours after application of coating and paint. Dew point shall be measured by use of an instrument such as a Sling Psychrometer in conjunction with U.S. Department of Commerce Weather Bureau Psychrometric Tables.
- H. If above conditions are prevalent, coating or painting shall be delayed or postponed until conditions are favorable. The day's coating or painting shall be completed in time to permit the film sufficient drying time prior to damage by atmospheric conditions.
- I. All material shall be applied as per manufacturer's recommendations.
- J. All welds and irregular surfaces shall receive a brush coat of the specified product prior to application of the first complete coat.
- K. All parts that can be disassembled such as vents and manhole covers shall be removed and coated inside and out as per applicable coating systems. Upon completion of coating, those parts disassembled shall be reassembled prior to placing in service.

#### 3.04 ACCEPTANCE OF WORK

- A. All surface preparation and repairs shall be approved by the Engineer/Owner before primer is applied.
- B. The Contractor shall request and receive acceptance of each coat before applying next coat.
- C. The Contractor shall correct work that is not acceptable and request reinspection.
- D. Thickness of coatings and or the paint shall be checked with a non-destructive, magnetic type thickness gauge. (Use an instrument such as a Tooke Gauge if a destructive tester is deemed necessary.) Coating integrity of interior coated surfaces shall be tested with approved inspection devices. Holiday detection shall be performed prior to application of aluminum or metallic finish coats. Non-

destructive holiday detector shall not exceed 67.5 volts nor shall destructive holiday detector exceed the voltage recommended by the manufacturer of the coating system. For thicknesses between 10 and 20 mils (250 microns and 500 microns) a non-sudsing type setting agent, such as Kodak Photo-Flo, shall be added to the water and detector sponge prior to detector use. All pinholes shall be marked and repaired in accordance with the manufacturer's printed recommendations and retested. No pinholes or other irregularities shall be permitted in the final coating.

- E. The Contractor shall furnish, until final acceptance of coating and painting, inspection devices in good working condition for detection of holidays and measurement of dry-film thickness of coating and paint. The Contractor shall also furnish U.S. Department of Commerce, National Bureau of Standards certified thickness calibration plates to test accuracy of dry-film thickness gauge and certified instrumentation to test accuracy of holiday detectors.
- F. The Contractor shall require regular checks with these devices to insure dry-film thicknesses meet specifications. The Engineer shall at his discretion use the Contractors or his own equipment to perform similar inspections.
- G. Dry-film thickness gauges and holiday detectors shall be made available for the Engineer's use at all times until final acceptance of application. Holiday detection device shall be operated in the presence of the Engineer.
- H. Concrete surfaces in immersion service must have void - and pinhole-free coating application. Inspection of coating system with 5X magnification will provide these assurances.
- I. Warranty inspection shall be conducted during the eleventh month following completion of all coating and painting work. All defective work shall be repaired in accordance with this specification and to the satisfaction of the Engineer/Owner.
- J. In accordance with requirements set forth by regulatory agencies applicable to the construction industry and manufacturer's printed instructions and appropriate technical bulletins and manuals, the Contractor shall provide and require use of personnel protective lifesaving equipment for persons working in, or about the project site.
- K. Equipment shall include protective helmets that shall be worn by all persons while in the vicinity of the work. In addition, workers engaged in or near the work during sandblasting shall wear eye and face protection devices and air purifying, half-mask or mouthpiece respirator with appropriate filter. Barrier creams shall be used on any exposed areas of skin.
- L. Where ventilation is used to control hazardous exposure, all equipment shall be

explosion proof. Ventilation shall reduce the concentration of air contaminant to the degree a hazard does not exist. Air circulation and exhausting of solvent vapors shall be continued until coatings have fully cured.

- M. Whenever the occupational noise exposure exceeds maximum allowable sound levels, the Contractor shall provide and require the use of approved ear protective devices.
- N. Adequate illumination shall be provided while work is in progress, including explosion-proof lights and electrical equipment. Whenever required by the Engineer, the Contractor shall provide additional illumination and necessary supports to cover all areas to be inspected. The level of illumination for inspection purposes shall be determined by the Engineer.
- O. All temporary ladders and scaffolding shall conform to applicable safety requirements. They shall be erected where requested by the Engineer to facilitate inspection and be moved by the Contractor to locations requested by the Engineer.
- P. All coatings and paints shall be stored in enclosed structures to protect them from weather and excessive heat or cold. Flammable coatings or paint must be stored to conform to City, Parish, State, and Federal safety codes for flammable coating or paint materials. At all times, coatings and paints shall be protected from freezing.

### 3.05 CLEAN UP

Upon completion of the work, all staging, scaffolding and containers shall be removed from the site or destroyed in a manner approved by the Engineer. Coating or paint spots and oil or stains upon adjacent surfaces shall be removed and the job site cleaned. All damage to surfaces resulting from the work of painting contractor or subcontractor shall be cleaned, repaired, or refinished to the satisfaction of the Engineer at no cost to the Owner.

**END OF SECTION**

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## SECTION 15009 - PIPE SUPPORTS

### PART 1 - GENERAL

#### 1.01 SCOPE OF WORK

- A. The Contractor shall furnish labor, materials, equipment and incidentals and install pipe hangers, supports, beam clamps, hanger rods, friction clamps, concrete inserts, and anchor bolts including all hanging and supporting devices for supporting non-buried piping as shown on the Drawings and as specified herein. The Contractor shall note not all pipe supports, hangers, anchorages, or expansion joints may be shown on the drawings. The Contractor shall provide final responsibility for proper permanent support and anchorage of all piping systems.
- B. Unless otherwise noted, whenever the word “support” is used herein, it shall mean any overhead hangers, wall bracket, supports from the floor, friction clamps and attendant beam clamps, concrete inserts, pipe guides, rods, supports pipes and other necessary equipment for supporting and/or anchoring any pipes, tubing, or appurtenances. Where the word “pipe” is used it shall mean pipe, appurtenances and/or tubing.

#### 1.02 RELATED WORK

- A. Concrete is included in Division 3.
- B. Miscellaneous metal fabrication is included in Section 05500.
- C. Field painting is included in Section 09800.
- D. Piping and valves are included in Division 15.

#### 1.03 SUBMITTALS

- A. The Contractor shall submit to the Engineer as provided in Section 01300, complete sets of shop drawings of all items to be furnished under this Section. Submittals shall include complete layouts, schedules, location plans and complete total bill of materials for all pipe support systems.
- B. Submittals shall include a representative catalog cut for each different type of pipe hanger or support indicating the materials of construction, important dimensions and range of pipe sizes for which that hanger is suitable. Where standard hangers and/or supports are not suitable, submit detailed drawings showing materials and details of construction for each type of special hanger and/or support.

- C. Submittals shall include complete piping drawings indicating type of hanger and/or support, location, magnitude of load transmitted to the structure and type of anchor, guide and other pipe supporting appurtenances. Submittals shall use detail numbers as shown on the Drawings to indicate type of support proposed wherever possible.
- D. Type and locations of pipe hangers and/or supports shall also be shown on the piping layouts for each piping submittal as specified in the respective Division 13 and 15 pipe specifications.
- E. Submit complete design data for support systems to show conformance with this Specification.

#### 1.04 QUALIFICATIONS

- A. Hangers, supports and appurtenances shall conform to the latest applicable requirements of ASME B31.1, except as supplemented or modified by the requirements herein.
- B. Hangers, supports and appurtenances shall be of approved standard design where possible and shall be adequate to maintain the supported load in proper position under all operating conditions. The minimum working factor of safety for supporting equipment, with the exception of springs, shall be five times the ultimate tensile strength of the material, assuming 10 feet of water filled pipe being supported.
- C. Pipe and appurtenances connected to equipment shall be supported in such a manner as to prevent any strain being imposed on the equipment. When manufacturers have indicated requirements that piping loads shall not be transmitted to their equipment, submit certification stating that such requirements have been complied with.
- D. The supports specified under this section shall be furnished by a manufacturer who is fully experienced, reputable, qualified and is regularly engaged in the design of complete pipe support systems and the manufacture (or fabrication) of the items to be furnished.
- E. The piping supports and anchorages (including location of guides and expansion joints) shall be designed and supplied, as an integral system, by a single manufacturer. The pipe support manufacturer shall certify through the Contractor to the Engineer that the supports and/or anchorage have been designed as a system.
- F. Design calculations for pipe supports and anchorage systems (including guides and expansion joints) shall be submitted, along with the pipe system drawings. Calculations shall be stamped by a licensed Professional Engineer who is regularly engaged in pipe support system design.

## 1.05 DESCRIPTION OF SYSTEM

- A. All pipe and tubing shall be supported and anchored as required to prevent significant stresses in the pipe or tubing material, valves, fittings and other pipe appurtenances and to support and secure the pipe in the intended position and alignment. All supports and anchorage shall be designed to adequately secure the pipe against excessive dislocation due to thermal expansion and contraction, internal flow forces, and all probable external forces such as equipment, pipe, and personnel contact.
- B. All pipe and appurtenances connected to equipment shall be supported in such a manner as to prevent any strain being imposed on the equipment. When manufacturers have indicated requirements that piping loads shall not be transmitted to their equipment, submit certification stating that such requirements have been complied with.
- C. All pipe supports shall be designed with liberal strength and stiffness to support the respective pipes under the maximum combination of peak loading conditions to include pipe weight, liquid weight, liquid movement, and pressure forces, thermal expansion and contraction, vibrations, and all probable externally applied forces. Prior to installation, all pipe supports shall be approved by the Engineer.
- D. The minimum working factor of safety for all supporting equipment, with the exception of springs and anchorage, shall be five (5) times the ultimate tensile strength of the material, assuming a supported weight of a length of water filled pipe and equal to half the distance to the next supports. Valves and other concentrated loads shall be accounted for.
- E. The minimum factor of safety for thrust anchorage design shall be 1.5. Thrust design shall utilize: working pressure plus water hammer; or 1.5 times working pressure; or test pressure whichever is highest or as noted on the Drawings and as acceptable to the Engineer.
- F. All supports of the same type shall be identical, varying only with size, and the product of a single manufacturer or fabricator. Supports shall be provided where indicated on the Drawings, where required, and where acceptable to the Engineer to form a complete workable system. If types of pipe supports other than those shown on the Drawings or specified are required, they shall be as acceptable to the Engineer.

## 1.06 REFERENCE STANDARDS

- A. Manufacturer's Standardization Society (MSS):
  - 1. MSS SP-58 - Pipe Hangers and Supports - Materials and Design.
  - 2. MSS SP-69 - Pipe Hangers and Supports - Selection and Application.

B. American Society for Testing and Materials (ASTM):

1. ASTM A36 - Standard Specification for Carbon Structural Steel.
2. ASTM A307 - Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60000 PSI Tensile Strength.

C. American Society of Mechanical Engineers (ASME):

1. ASME B31.1 - Power Piping Code.

## **PART 2: PRODUCTS**

### 2.01 GENERAL

- A. The equipment specified herein is intended to support the various types of pipe and piping systems. The details shown on the Drawings are intended to indicate the generally desired methods of support under normal conditions. It shall be the responsibility of the Contractor to develop final details and any details associated with special conditions not already covered to meet the system conditions specified in the respective Division 15 pipe specifications.
- B. Pipe and tubing shall be supported as required to prevent significant stresses in the pipe or tubing material, valves, fittings and other pipe appurtenances and to support and secure the pipe in the intended position and alignment. Supports shall be designed to adequately secure the pipe against excessive dislocation due to thermal expansion and contraction, internal flow forces, and all probable external forces such as equipment, pipe, and personnel contact. Any structural steel members required to brace any piping from excessive dislocation shall conform to the applicable requirements of Section 05500 and shall be furnished and installed under this Section.
- C. Hangers and supports shall be spaced in accordance with ASME B31.1, except that the maximum unsupported spans shall not exceed 10 feet unless otherwise specified herein.
- D. Where flexible couplings are required at equipment, tanks, etc., the end opposite to the piece of equipment, tank, etc., shall be rigidly supported. All sleeve couplings and expansion joints shall be supported on both sides.
- E. Pipe and appurtenances connected to the equipment shall be supported in a manner to prevent any strain from being imposed on the equipment or piping system.
- F. Rods, clamps, hangers, inserts, anchor bolts, brackets, and components for interior pipe supports shall be furnished with galvanized finish, hot dipped or electrogalvanized coated, except where field welding is required. Interior clamps on plastic pipe shall be plastic coated. Supports for copper pipe shall be copper plated or shall



- have a 1/16-in. plastic coating. Rods, clamps, hangers, inserts, anchor bolts, brackets, and components for exterior pipe, submerged piping, pipe subject to splashing and pipe within outdoor structures shall be of Type 316 stainless steel.
- G. Supports shall be sufficiently close together such that the sag of the pipe is within limits that will permit drainage and avoid excessive bending stresses from concentrated loads between supports. There shall be no visible sagging.
  - H. Uninsulated non-metallic piping such as PVC, CPVC, etc., shall be protected from local stress concentrations at each support point. Protection shall be provided by galvanized steel protection shields or other method as approved by the Engineer. Where pipes are bottom supported 180 degrees, arc shields shall be furnished. Where 360 degree arc support is required, such as U bolts, protection shields shall be provided for the entire pipe circumference. Protection shields shall have an 18 gauge minimum thickness, not be less than 12 inches in length, and be securely fastened to pipe with stainless steel or galvanized metal straps not less than 3 inches wide.
  - I. Insulated pipe shall be furnished with a rigid foam insulating saddle at each pipe support location as specified under respective pipe insulation. Provide galvanized protection shields as specified in Paragraph 2.01H above at each location.
  - J. Where pipe hangers and supports come in contact with copper piping, provide protection from galvanic corrosion by wrapping pipe with 1/16-in. thick neoprene sheet material and galvanized protection shield isolators, or by using copper plated or PVC coated hangers and supports.
  - K. Pipe supports shall be provided as follows:
    - 1. Cast iron and ductile iron piping shall be supported at a maximum support spacing of 10 feet with a minimum of one support per pipe section at the joints.
    - 2. Support spacing for steel and stainless steel piping two inch and smaller diameter and copper tubing shall not exceed five feet.
    - 3. Vertical pipes shall be supported at each floor or at intervals of not more than twelve feet by approved pipe collars, clamps, brackets, or wall rests, and at points necessary to insure rigid construction.
    - 4. Pipe supports shall not induce point loadings but shall distribute pipe loads evenly along the pipe circumference.
    - 5. Supports shall be provided at changes in direction or specified herein. No piping shall be supported from other piping or from metal stairs, ladders, and walkways, unless specifically directed or authorized by the Engineer.

6. Pipe supports shall be provided to minimize lateral forces through valves, both sides of split type couplings, and sleeve type couplings and to minimize all pipe forces on pump housings. Pump housings shall not be utilized to support connecting pipes.
  7. Effects of thermal expansion and contraction of the pipe shall be accounted for in the pipe support selection and installation.
- L. Unless otherwise specified herein, pipe hangers and supports shall be as manufactured by Carpenter and Paterson, Inc., Woburn, MA; Anvil International, Portsmouth, NH; and Unistrut, Harvey, IL; or equal. Any reference to a specific figure number of a specific manufacturer is for the purpose of establishing a type and quality of product and shall not be considered as proprietary.
- M. Any required pipe supports for which the supports specified in this Section are not applicable shall be fabricated or constructed from standard structural steel shapes, concrete and anchor hardware similar to items previously specified herein and shall be subject to the approval of the Engineer.
- N. Wedge anchor bolts shall be equal to Kwik-Bolt as manufactured by the Hilti Corporation, or equal. The length of expansion bolts shall be sufficient to place the wedge portion of the bolt a minimum of 1 inch behind the steel reinforcement, but in no case less than 3 inches. Expansion type anchors shall not be used in locations where the normal loading will be direct tension.
- P. Cast-in-place anchor bolts for interior supports shall meet the requirements of ASTM A307. All anchor bolts, nuts and washers shall be hot dip galvanized or cadmium plated; except where pipe supports will be submerged or within one foot above liquid levels, in which case all bolts, nuts, washers and hardware shall be Type 316 stainless steel.

## 2.02 SINGLE PIPE HANGERS

- A. Single pipes shall be supported by hangers suspended by steel rods from structural steel members, concrete ceilings and beams, bottom of trapeze hangers and wall mounted steel angle brackets.
- B. Hanger rods shall be hot rolled steel, machine threaded. The strength of the rod shall be based on its root diameter.
- C. Except as otherwise specified herein, pipe hangers shall be adjustable clevis type similar to Carpenter and Paterson Figure 100, material as required.
- D. Hanger rods shall be attached to concrete structures using concrete inserts similar to Carpenter and Paterson Figure 650. Beam clamps, C clamps, or welded beam attachments shall be used for attaching hanger rods to structural steel members.

Where necessary and approved by the Engineer, double expansion shields shall be used for attaching to concrete structures.

- E. Where pipes are near walls, beams, columns etc. and located an excessive distance from ceilings or underside of beams, welded steel wall brackets similar to Carpenter and Paterson Figures 69, 84, or 139, shall be used for hanging pipe. Where single pipes rest on top of bracket pipe supports, attachments shall meet requirements as specified under multiple pipe hangers.

### 2.03 MULTIPLE PIPE HANGERS

- A. Suspended multiple pipes, running parallel in the same horizontal plane, which are adjacent to each other shall be suspended by trapeze type hangers or wall brackets. Trapeze hangers shall consist of structural steel channel supported from threaded rod or attached to concrete walls, columns or structural steel support members as required to meet the intent of this specification. Channel shall be similar to Carpenter and Paterson Figure 371. Rods, concrete inserts, "C" Clamps, beam clamps, welded beam attachments, and expansion shields shall be as specified in Paragraph 2.02 Single Pipe Hangers above.
- B. Except as otherwise specified herein, pipe anchors used for attaching pipe to trapeze or multiple pipe wall brackets shall be anchors or pipe chairs as required. Chair "U" bolts shall be tightened to allow freedom of movement for normal expansion and contraction, except where pipe must be anchored to control direction of movement or to act as a thrust anchor.

### 2.04 SINGLE AND MULTIPLE PIPE SUPPORTS

- A. Single pipes located in a horizontal plane close to the floor shall be supported by one of the methods specified herein or as shown on the Drawings.
- B. Pipes 3 inches in diameter and larger shall be supported by adjustable stanchions similar to Carpenter and Paterson Figures 101 and 138. Stanchions shall provide at least a 4 inch adjustment and be flange mounted to the floor.
- C. Pipes less than 3 inches in diameter shall be held in position by fabricated "C" channel, welded post base similar to Unistrut Series P2072A and pipe clamps similar to Unistrut Series P1109 thru P1126. Where required to assure adequate support, fabricate supports using two vertical members and post bases connected together by horizontal member of sufficient load capacity to support pipe. Wherever possible, supports shall be fastened to nearby walls or other structural members to provide horizontal rigidity. More than one pipe may be supported from a common fabricated support.

- D. Where shown on the Drawings, pipe shall be supported using concrete anchor posts. The pipe shall be securely fastened to concrete anchor posts using suitable metal straps as required and approved by the Engineer.

## 2.05 WALL SUPPORTED PIPES

- A. Single or multiple pipes located adjacent to walls, columns or other structural members, whenever deemed necessary, shall be supported using welded steel wall brackets similar to Carpenter and Paterson Figures 69, 84, or 139; or "C" Channel with steel brackets similar to Unistrut pipe clamps. All members shall be securely fastened to wall, column, etc. using double expansion shields or other method as approved by the Engineer. Additional wall bearing plates shall be provided where required.
- B. Pipe shall be attached to supports using methods hereinbefore specified to meet the intent of this Specification.

## 2.06 BASE ANCHOR SUPPORT

- A. Where pipes change direction from horizontal to vertical via a bend, a weld or cast base anchor support shall be installed at the bend to carry the load. The bend anchor shall be fastened to the floor and double expansion shields or other method as approved by the Engineer.
- B. Where pipe are to bends shall be supported using concrete anchor posts, pipes shall be securely fastened to concrete supports with suitable metal bands as required and approved by the Engineer.

## 2.07 VERTICAL PIPE SUPPORTS

- A. Where vertical pipes are not supported by a Unistrut system as specified in Paragraph 2.08, they shall be supported in one of the following methods.
  - 1. For pipes  $\frac{1}{4}$  inch to 2 inches in diameter, an extension hanger ring may be used with an extension rod and hanger flange. The rod diameter shall be as recommended by the manufacturer for the type of pipe to be supported. The hanger ring shall be galvanized steel, stainless steel, or PVC clad depending on the supported pipe. The hanger ring shall be similar to Carpenter and Paterson Figure 81. The anchor flange shall be similar to Carpenter and Paterson Figure 85.
  - 2. For pipes equal to or greater than  $\frac{1}{2}$  inches in diameter, extended pipe clamps similar to Carpenter and Patterson Figure 267 may be used. The hanger shall be attached to concrete structures using double expansion shields or to steel support members using welding lugs similar to Carpenter and Paterson Figure 220.

3. Pipe riser clamps shall be used to support vertical pipes extending through floor slabs. Riser clamps shall be similar to Carpenter and Patterson Figure 126. Copper clad or PVC coating clamps shall be used on copper pipes. Insulation shall be removed from insulated pipes prior to installing riser clamp.
4. Unless otherwise specified, shown, or specifically approved by the Engineer, vertical runs exceeding twelve feet shall be supported by approved pipe collars, clamps, brackets or wall rests at all points required to insure a rigid installation.

## 2.08 SPECIAL SUPPORTS

- A. Pipe supports shall be provided for closely spaced vertical piping systems as required to provide a rigid installation. The support system shall consist of a framework suitably anchored to floors, ceilings and walls and be as manufactured by Unistrut, or equal.
- B. Vertical and horizontal supporting members shall be U shaped channels similar to Unistrut Series P1000 or P5500. Vertical piping shall be secured to the horizontal members by pipe clamps or pipe straps equal to Unistrut Series P2558.
- C. The assemblies shall be furnished complete with nuts, bolts, and fittings required for a complete assembly including end caps for all members.
- D. The design of each individual framing system shall be the responsibility of the Contractor. Shop drawings, as specified above shall be submitted and shall show all details of the installation, including dimensions and types of supports. In all instances the completed frame shall be adequately braced to provide a complete rigid structure when all the piping has been attached.
- E. Any required pipe supports for which the supports specified in this Section are not applicable shall be fabricated or constructed from standard structural steel shapes in accordance with applicable provisions of Section 05500, shall have anchor hardware similar to items specified herein, shall meet the minimum requirements listed below, and shall be subject to the approval of the Engineer.
  1. Pipe support systems shall meet all requirements of this Section and all related Sections of this Specification.
  2. Complete design details of the entire pipe support system shall be provided for review by the Engineer in the submittals specified in subsection 1.03.
  3. The pipe support system shall not impose loads on the supporting structures in excess of the loads for which the supporting structure is designed.

## 2.09 SURFACE PREPARATION AND SHOP PRIME PAINTING

- A. Non-galvanized ferrous surfaces shall be prepared and shop painted as part of the work of this Section. Surface preparation and shop painting shall be specified in Section 09970.

## **PART 3 - EXECUTION**

### 3.01 COATING

- A. After fabrication and before installation, all ferrous metal surfaces of pipe supports, hangers, anchors, rods, support pipes, brackets, nuts, bolts, washers and other metal used, shall be either galvanized (except cast or ductile iron), or shall receive the coating as specified in Section 09970.

### 3.02 SHIPPING, HANDLING, DELIVERY AND STORAGE

- A. All supports and hangers shall be crated, delivered and uncrated so as to protect against any damage.
- B. All parts shall be properly protected so that no damage or deterioration shall occur during a prolonged delay from the time of shipment until installation is completed.

### 3.03 PREPARATION

- A. Locate hangers, supports and accessories to support piping, valves and at all concentrated loads.
- B. Locate hangers, supports and accessories within maximum span lengths specified to support continuous pipeline runs.
- C. Locate hangers and supports to prevent vibration or swaying and to provide for expansion and contraction.
- D. Install items to be embedded before concrete placement.
- E. Fasten embedded items securely to prevent movement during concrete placement.
- F. Install hanger and support units on piping systems as recommended by manufacturer.
- G. Adjust hangers and supports and place grout for concrete supports to bring pipelines to specified elevations.
- H. Ferrous pipe shall be supported by galvanized steel or stainless steel pipe attachments.

- I. Copper pipe shall be supported by plastic-coated or copper-plated steel pipe attachments.
- J. Plastic pipe shall be supported by plastic-coated steel pipe attachments, or with suitable rubber shields.
- K. Stainless steel pipe shall be supported by plastic-coated steel pipe attachments.

### 3.04 INSTALLATION

#### A. Supports and Hangers for Horizontal Pipes.

- 1. Space supports and hangers for all piping no farther apart than indicated below unless otherwise shown.
  - a. Copper Tube:
    - (1) 2 inches in diameter and smaller: 5 feet
    - (2) Greater than 2 inches in diameter: 8 feet
  - b. Steel Pipe:
    - (1) 1 inch in diameter and smaller: 6 feet
    - (2) Greater than 1 inch in diameter: 10 feet
  - c. Stainless Steel Pipe:
    - (1) 2 inches in diameter and smaller: 5 feet
    - (2) Greater than 2 inches in diameter: 8 feet
  - d. Plastic Pipe:
    - (1) Maximum support spacing for plastic pipe at ambient temperature shall be one-half the above values specified for steel pipe.
  - e. Ductile Iron Pipe:
    - (1) Two supports per length.
- 2. Additional supports shall be placed immediately adjacent to any change in piping direction, and on both sides of valves and couplings.
- 3. Accurately locate inserts for hanger rods in forms before concrete is placed.

4. Use expansion anchors only to support rods, hangers and brackets for piping 2-in. and smaller and only if the expansion anchors are designed to carry 100 percent of the full load, hangers and/or bracket and pipe load.

B. Supports for Vertical Piping.

1. Provide riser clamp placed under hub, fitting or coupling with approved solid bearing on steel sleeve at each floor level.
2. Where riser clamps are used with plastic piping they shall be modified so as not to exert any compressive forces on the pipe.

3.05 ACCEPTANCE AND SERVICE

- A. Pipe systems shall be brought to operating pressures and temperatures. Systems shall be cycled to duplicate operating conditions. If any part of the piping support system proves to be defective or inadequate, it shall be repaired or augmented under this section to the satisfaction of the Engineer and at no additional cost to the Owner. Contractor shall furnish labor and materials to readjust and correct faults with hangers and supports for the piping systems.

**END OF SECTION**



## SECTION 15042 - DUCTILE IRON PIPE

### PART 1 - GENERAL

#### 1.01 SCOPE OF WORK

The Contractor shall furnish all labor, materials, equipment, and incidentals required and install ductile iron pipe, and ductile iron fittings for both buried piping and above grade piping as shown on the drawings and as specified herein.

#### 1.02 RELATED WORK SPECIFIED ELSEWHERE

Section 09800 - Protective Coatings  
Section 15000 - Pipe Supports

#### 1.03 QUALITY ASSURANCE

- A. The Contractor shall obtain ductile iron pipe and fittings from no more than one manufacturer.
- B. Reference Standards: The material furnished and installed under this Section shall comply with the latest editions of the following:
  - 1. AWWA C104, Cement-Mortar Lining for Ductile-Iron Pipe and Fittings for Water.
  - 2. AWWA C110, Gray-Iron and Ductile-Iron Fittings, 3 in. through 48 in., for Water and Other Liquids.
  - 3. AWWA C111, Rubber Gasket Joints for Ductile-Iron and Gray-Iron Pressure Pipe and Fittings.
  - 4. AWWA C115, Flanged Ductile- Iron Pipe with Ductile-Iron or Gray-Iron Threaded Flanges.
  - 5. AWWA C116, Protective Fusion-Bonded Epoxy Coatings for the Interior and Exterior Surfaces of Ductile-Iron and Gray-Iron Fittings.
  - 6. AWWA C151, Ductile-Iron Pipe, Centrifugally Cast.

#### 1.04 SUBMITTALS

- A. The Contractor shall submit complete information on pipe and fittings including definitive demonstration of compliance with all applicable standards.
- B. The Contractor shall submit, and shall comply with, the recommendations of the pipe manufacturer for handling, storing, and installing pipe and fittings.
- C. 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 AWWA C151. Thickness of flanged pipe shall be Special Class 53 for 54" diameter and smaller. Fittings shall meet the requirements of AWWA C110.
- B. Flanged joints shall be provided for exposed locations, including the valve box and wet well. Pipe barrels shall conform to AWWA C151. Flanges shall be ductile iron in accordance with AWWA C115. The bolt holes shall be aligned per AWWA C115. Flanges shall be factory installed. Flanges shall conform to the drilling and facing of ANSI B16.1 Class 125 flanges.
- C. Full face gaskets designed specifically for the unique surface of ductile iron shall be used. Flat rubber gaskets shall not be used. All nuts and bolts shall be 316 stainless steel with anti-seize compound.
- D. Interior Lining
  - 1. Interior surfaces of pipe shall be cleaned and lined in the factory with a NSF 61 certified cement mortar lining in conformance with AWWA C104. Lining shall be double thickness for pipe to be used in waterlines. Pipe to be used in wastewater lines shall have a ceramic epoxy lining as follows:
    - a. Material: Amine cured novalac epoxy containing a minimum of 20 percent by volume ceramic quartz pigment meeting all the performance characteristics of Protecto 401 or equal coating system. Certification of test results for coating system shall be submitted.
    - b. Surface Preparation: The surface shall be prepared in strict accordance with the coating system manufacturer's procedures.
    - c. Application: Coating system shall be factory applied by the ductile iron pipe manufacturer.
    - d. Lining Thickness: Pipe shall receive 40 mils, minimum dry film thickness of coating.
    - e. Inspection: Pipe lining shall be checked in the factory for thickness using a magnetic film thickness gauge using the method outlined SSPCPA-2 Film Thickness Rating. Interior lining of pipe and fittings shall be tested for pinholes with a non-destructive 2,500-volt test. Any defects found shall be repaired prior to shipment.
  - 2. Interior surfaces of fittings shall be lined in the factory with a NSF 61 certified fusion bonded epoxy lining in conformance with AWWA C116.

- E. Exterior Coating
  - 1. Exposed. The exterior surfaces of pipe and fittings which will not be buried shall be coated in conformance with the requirements of Section 09800 - Protective Coating.
  - 2. Buried. The exterior surfaces of pipe and fittings for buried service shall receive factory applied asphaltic coating, 1 mil minimum thickness.
  
- F. Restrained joints shall be Series 1100 MEGALUG mechanical joint thrust restraint as manufactured by EBAA Iron, Inc. or approved equal. Joints shall be furnished with 316 stainless steel T-bolts. All gland bodies, wedges, and wedge activators and bolts shall be fusion bonded epoxy coated. Restrained joints are required at all fittings and at distances indicated on the plans.

## 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 INSTALLATION

- A. All 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, lining or coating. Every precaution shall be taken to prevent damage to the lining. Pipe shall only be handled from the exterior. No interior handling forks, rods, ropes, straps or other handling means shall be used within the pipe. All pipe and fittings shall be examined before installation, and no piece shall be installed which is found to be defective. Any damage to the pipe coating shall be repaired according to the manufacturer's recommendations.
  
- C. Flanged faces shall bear uniformly on the gasket, and the bolts shall be tightened in a progressively crisscrossed pattern, such as by tightening the bottom bolt first; then, the top bolt; next, the bolts at either side; and finally, the remaining bolts. This process shall be repeated until all bolts are adequately tightened.
  
- D. The Contractor shall prevent bending or torsional strains from being applied to flanges or flanged appurtenances.

**END OF SECTION**

## SECTION 15110

### VALVES AND APPURTENANCES

#### PART 1 – GENERAL

##### 1.01 Submittals

###### A. Shop Drawings:

1. Submit for approval detailed drawings, data, and descriptive literature on all valves and appurtenances, including:
  - a. Dimensions.
  - b. Size.
  - c. Materials of construction.
  - d. Weight.
  - e. Protective coating.

###### B. Manufacturer's Certificates:

1. Submit manufacturer's certificates of compliance with ANSI, AWWA and other Standards listed herein.

###### C. Manufacturer's Service Report:

1. Certify that valves are properly installed except as noted.
2. Recommend corrective action for any deficiencies noted.

###### D. Operation and Maintenance Data:

1. Submit a detailed operation and maintenance manual for all valves and appurtenances provided under this Section including the following information:
  - a. Product name and number.
  - b. Name, address and telephone number of manufacturer and local distributor.
  - c. Instruction bulletins for operation, maintenance and recalibration.
  - d. Complete parts and recommended spare parts lists.

##### 1.02 Product Delivery, Storage and Handling

- A. Handle all valves and appurtenances with care.
- B. Valves and appurtenances which are cracked, chipped, distorted or otherwise damaged or dropped will not be acceptable.

- C. Store all valves and appurtenances off the ground in enclosed shelter.

### 1.03 RELATED SECTIONS

13423 – Analysis and Instrumentation

09970 – Coatings

15042 – Ductile Iron Pipe

15064 – Plastic Pressure Pipe

15120 – Electric Actuators for Motorized Valves

## PART 2 – PRODUCTS

### A. BUTTERFLY VALVES

1. The butterfly valve shall fully conform to AWWA C504 (latest revision) and as described below, Pressure Class 150B or 250B as shown on the plans or in the valve schedule. The valve shall be NSF-61 certified for contact with drinking water and NSF-372 certified lead free.
2. The valve body have integral flanged connections (wafer or lugged type are not acceptable) conforming to ANSI/ASME B16.1 Class 125 or mechanical joint connections conforming to ANSI/AWWA A21.11/C111, as shown on the plans or in the valve schedule.
3. The valve body shall be made from ductile iron conforming to ASTM A536 Grade 65-45-12. Sizes 24-inch and smaller shall have a permanent, transfer molded and vulcanized EPDM-P rubber seat. Sizes 30-inch and larger shall have an EPDM-P rubber seat that is that is mechanically retained in the body without epoxy and field adjustable or replaceable using common hand tools
4. The valve disc shall be made from ductile iron conforming to ASTM A536 Grade 65-45-12 with a 316 stainless steel seat edge
5. Size 24-inch and smaller valve shafts shall be one-piece, larger sizes shall have upper and lower stub shafts. Shafts shall be made from Type 304 stainless steel in Class 150B valves and ASTM A564 Type 17-4PH stainless steel in Class 250B valves. The valve disc shall be attached to the shaft by multiple, mechanically secured stainless steel pins
6. The valve shall have upper and lower self-lubricating shaft bearings. Sizes 24” and larger shall be provided with an adjustable thrust bearing. The shaft shall be sealed with self-adjusting Buna-N or EPDM packing. The actuator

shall not be used to retain the packing and shaft packing leakage shall be prevented from entering the actuator.

7. Ferrous surfaces of the valve body and disc shall be factory coated with NSF-61 certified epoxy.
8. When shown on the plans or in the valve schedule, butterfly valves shall be operated by an electric motor or pneumatic actuator sized per AWWA C504, as specified elsewhere.
9. External fasteners shall be Type 316 stainless steel .
10. Warranty: The valve manufacturer shall warrant the valve to be free of defects in material and workmanship for a period of two years from date of shipment
11. Manufacturer: AWWA C504 Butterfly Valves shall be GA Industries Series 800 as manufactured by VAG USA, LLC Mars, PA USA, or equal.

B. GATE VALVES:

The following requirements are for gate valve sizes 3"-12"

1. Valves shall comply with ANSI/AWWA C515
2. approved by Factory Mutual Research Corporation (FM
3. listed by Underwriters Laboratories, Inc. (UL). Valves with actuators are not listed.
4. tested and certified to ANSI/NSF Standard 61 & 372.
5. suitable for potable water applications.
6. iron body, fully encapsulated resilient wedge type.
7. manufactured in the U.S.A. at an ISO9001 Certified factory.
8. Working temperature: 33°F minimum to 170°F maximum working temperature
9. Working Pressure: 350psi for AWWA, UL and FM
10. non-rising stem type
11. O-ring stem seals
12. 2" square wrench nut complying with AWWA C515 (buried). Hand wheel (exposed).

13. Flanged Ends with flange drilling complying to ASME B16.1 Class 125 (ISO PN10/PN16 drilling optional). Per ANSI/AWWA C111, working pressure above 250psi requires the use of a special gasket rated for the higher pressure
14. Mechanical Joint Ends complying with ANSI/AWWA C111/A21.11.
15. Inlet flange machined specifically for mating with Tapping Sleeves and Crosses. Raised ring on flange face complies with MSS SP-60. Drilling complies with ASME B16.1 Class 125 flange
16. Standard Mechanical Joint outlet connection complies with ANSI/AWWA C111/A21.11
17. Materials:
  - a. Cap screw – Stainless Steel Type 316.
  - b. Wrench nut – Ductile Iron, ASTM A-536.
  - c. Handwheel – Cast Iron, ASTM A-126, Class B.
  - d. Stuffing box – Ductile Iron, ASTM A-536.
  - e. Stem O-rings – Nitrile, ASTM D2000.
  - f. Anti-friction washers – Acetal.
  - g. Stem – Manganese Bronze, CDA Alloy C67600.
  - h. Bonnet – Ductile Iron, ASTM A-536.
  - i. Bonnet seal – O-ring, Nitrile, ASTM D2000.
  - j. Stuffing box bolts & nuts – Stainless Steel Type 316.
  - k. Bonnet bolts & nuts – Stainless Steel Type 316.
  - l. Disc nut – Bronze, ASTM B-584 Alloy C89833.
  - m. Guide cap bearings – Acetal.
  - n. Disc – 3” Cast Iron, ASTM A-126, Class B  
Ductile Iron, ASTM A-536.
  - o. Disc encapsulated – SBR ASTM D2000.
  - q. Body – Ductile Iron, ASTM A-536.
  - r. Coating – inside and outside of valve fully coated to comply with ANSI/AWWA C550 and valve is certified to ANSI/NSF Standard 61 & 372

#### C. CHECK VALVES

1. The swing check valve shall conform to the design, materials of construction and testing required by AWWA C508 (latest revision) plus be supplied with an outside lever, adjustable counterweight and adjustable air-cushion chamber to minimize slam and hammer caused by rapid flow reversal.
2. The valve flow area anyplace through the valve shall be no less than the area of the nominal inlet pipe size when the disc has swung no more than 25 degrees away from the seat



3. The swing check valve shall be NSF-61 certified for contact with drinking water and NSF-372 certified lead free
4. The standard valve shall have the same size flanged inlet and outlet connections faced, drilled and of the thickness required by ANSI/ASME B16.1 Class 125 or Class 250, as shown on plans or in the valve schedule
5. Where shown on the plans or in the valve schedule, “increasing size” valves shall be supplied. Single increasing Class 125 flanged valves in sizes 3-inch to 10-inch shall have the outlet expanded one size and double increasing valves in sizes 4-inch to 8-inch size valves shall have the outlet expanded by two sizes
6. The valve body shall be made from cast iron conforming to ASTM A126 Class B with a bolted cover through which all internal parts can be removed for service. The body shall have a mechanically retained and replaceable Type 316 stainless steel seat ring
7. The hinge shaft shall be made from Type 303 stainless steel and be supported at both ends by non-corrosive, lead free bushings. The shaft shall be sealed where it passes through the body by compression packing retained by a packing gland, gland studs and nuts. Non-adjustable or O-ring shaft packing is not acceptable
8. A ductile iron disc arm shall be keyed to and suspended from the hinge shaft. A non-rotational, cast-iron disc with replaceable Buna-N rubber disc seat ring shall be attached to the disc arm by means of a center pin and nut providing 360-degree oscillation. The disc seat ring shall be retained by a Type 316 stainless steel follower ring and stainless-steel screws.
9. Valve closure shall be cushioned by the action of a bronze piston in a bronze cushion cylinder. The cushion chamber assembly shall be non-pivoting and be mounted to the side of the valve body on machined pads without the need for brackets. The amount of cushioning shall be adjustable. Pivoting and/or commercial pneumatic cylinders are not acceptable
10. Cover bolts, nuts and studs shall be zinc plated carbon steel
11. Manufacturer: Cushioned swing check valves shall be VAG/GA Industries Figure 250 (standard), 251 (single increasing), or 252 (double increasing) as manufactured by VAG USA, LLC Cranberry Township, PA USA

#### D. BALL VALVES

1. All thermoplastic ball valves shall be True Union 2000 Industrial type manufactured to ASTM F 1970 and constructed from PVC Type I, ASTM

D1784 Cell Classification 12454 or CPVC Type IV, ASTM D 1784 Cell Classification 23447.

2. All O-rings shall be EPDM or FKM. All valves shall have Safe-T-Shear® stem with double O-ring stem seals.
3. All valve handles shall be polypropylene with built-in lockout mechanism.
4. All valve union nuts shall have Buttress threads.
5. All seal carriers shall be Safe-T-Blocked® .
6. All valve components shall be replaceable.
7. All EPDM valves shall be certified by NSF International for use in potable water service.
8. All 1/2" through 4" valves shall be pressure rated to 235 psi, all 6" and 8" Venturied and all flanged valves shall be pressure rated to 150 psi for water at 73°F.

#### E. WELL SERVICE AIR VALVES

1. Well Service Air Valves suitable for pressures up to 400 psig (2760 kPa) clean or raw water pump discharge service
2. Well Service Air Valves shall be fully automatic float operated valves designed to exhaust air which is present in the pump column on pump startup and allow air to re-enter the column on pump shutdown or should a negative pressure occur.
3. Well Service Air Valves shall be fully automatic float operated valves designed to exhaust air which is present in the pump column on pump startup and allow air to re-enter the column on pump shutdown or should a negative pressure occur
4. The Dual Port Throttling Device (3 in. and smaller valves) shall provide adjustable control of the exhaust rate and allow free flow into the valve through a separate inlet port. The Regulated Exhaust Device (4 in. and larger valves) shall allow free air flow in and out of the valve, close upon rapid air exchange, and control the air exhaust rate to reduce pressure surges
5. Valves shall be manufactured and tested in accordance with American Water Works Association (AWWA) Standard C512
6. Valves used in potable water service shall be certified to NSF/ANSI 61 Drinking Water System Components – Health Effects

7. Manufacturer shall have a quality management system that is certified to ISO 9001 by an accredited, certifying body
8. Valve sizes 3 in. (76 mm) and smaller shall have full size NPT inlets and outlets equal to the nominal valve size. The body inlet connection shall be hexagonal for a wrench connection
9. Valve sizes 4 in. (100 mm) and larger shall have bolted flange inlets equal to the valve size. Flanges shall be in accordance with ANSI B16.1 for Class 125 or Class 250 iron flanges and ANSI B16.42 for Class 300 ductile iron flanges
10. Valve sizes 6 in. (150 mm) and smaller shall have NPT outlets; larger valves shall have ANSI B16.1 Class 125 outlet flanges
11. The valve shall have two additional NPT connections for the addition of Air Release Valves, gauges, testing, and draining
12. The valve body shall provide a through flow area equal to the nominal valve size. A bolted cover with alloy screws and flat gasket shall be provided to allow for maintenance and repair
13. Floats shall be unconditionally guaranteed against failure including pressure surges. The float shall have a hexagonal guide shaft supported in the body by circular bushings to prevent binding from debris. The float shall be protected against direct water impact by an internal baffle
14. The resilient seat shall provide drop tight shut off to the full valve pressure rating. The seat shall be a minimum of .5 in. (12 mm) thick on 2 in. (50 mm) and larger valves and secured in such a manner as to prevent distortion. Valves with working pressures above 400 psig (2760 kPa) shall have metal seats with synthetic seals
15. On valve sizes 4 in. (100 mm) and larger, the cover shall be fitted to the valve body by means of a machined register to maintain concentricity between the top and bottom guide bushings at all times. The float shall be double guided with a guide shaft extending through the float to prevent any contact with the body. A resilient bumper shall be provided to cushion the float during sudden opening conditions
16. Valves 3 in. (75 mm) and smaller will be equipped with a dual port throttling device to control the discharge of air from the valve and allow full vacuum flow through a separate port. The device shall have an externally adjustable screw and locknut for adjusting the discharge control disc. The disc shall be sized to allow a 5% flow area when fully throttled. The vacuum port shall be equipped with a spring-loaded disc to allow flow into the valve during negative pressure conditions.

17. Throttling devices with a common exhaust and vacuum port are not acceptable. The material of the body shall be consistent with the Well Service Air Valve. The spring shall be ASTM A313 Type 316 Stainless Steel
18. Valves 4 in. (100 mm) and larger will be equipped with a Regulated Exhaust Device to prevent valve pressure surges due to rapid changes in velocity and pressure
19. The Device shall be mounted on the inlet of the Well Service Air Valve, allow free air flow in and restricted flow out of the valve to reduce valve pressure surges
20. The Device shall be a flanged, globe pattern, with a center guided disc and seat assembly. The disc shall have threaded holes to provide adjustment of the flow rate through the valve
21. The material of the body shall be consistent with the Well Service Air Valve. The seat and disc shall be Bronze ASTM B584, alloy C83600
22. The Well Service Air Valve body, cover, and baffle shall be constructed of ASTM A126 Class B cast iron for Class 125 and Class 250 valves. Class 300 ductile iron valves shall be constructed of ASTM A536 Grade 65-45-12 cast ductile iron
23. The float, guide shafts, and bushings shall be constructed of Type 316 stainless steel. Non-metallic guides and bushings are not acceptable. Resilient seats shall be Buna-N.
24. Valve interiors and exteriors shall be coated with an NSF/ANSI 61 certified fusion bonded epoxy in accordance with AWWA C550 when specified
25. Low Durometer seat shall be furnished for low pressure applications
26. All Air (Release, Vacuum, etc) Valves installed in vaults or flood prone locations shall include an inflow preventer to prevent the introduction of contaminated water through the air valve outlet. The inflow preventer shall allow the admittance and exhausting of air while preventing contaminated water from entering during normal operating conditions. The inflow preventer shall be flow tested by an independent third party to certify performance. The third party shall be an approved testing lab of the American Society of Sanitary Engineers
27. The manufacturer shall demonstrate a minimum of five (5) years' experience in the manufacture of air valves. When requested, the manufacturer shall provide test certificates, dimensional drawings, parts list drawings, and operation and maintenance manuals
28. The exterior of the valve shall be coated with a universal alkyd primer

29. Well Service Air Valves shall be Series 100ST and 104SS as manufactured by Val-Matic Valve and Manufacturing Corporation, Elmhurst, IL, USA or approved equal

F. AIR / VACUUM VALVES

1. Air/Vacuum valves shall be fully automatic float operated valves designed to exhaust large quantities of air during the filling of a piping system and close upon liquid entry. The valve shall re-open during draining or if a negative pressure occurs. [NOTE: See Air Release Valves for releasing air during system operation and Combination Air Valves for both air release and air/vacuum functions.]
2. Valves shall be manufactured and tested in accordance with American Water Works Association (AWWA) Standard C512.
3. Valves used in potable water service shall be certified to NSF/ANSI 61 Drinking Water System Components - Health Effects.
4. Manufacturer shall have a quality management system that is certified to ISO 9001 by an accredited, certifying body.
5. Valve sizes 3 in. (76 mm) and smaller shall have full size NPT inlets and outlets equal to the nominal valve size. The body inlet connection shall be hexagonal for a wrench connection.
6. Valve sizes 4 in. (100 mm) and larger shall have bolted flange inlets with threaded or plain outlets and protective hoods to prevent debris from entering the valve. Flanges shall be in accordance with ANSI B16.1 for Class 125 or Class 250 iron flanges and ANSI B16.5 for Class 150 or Class 300 steel flanges
7. The valve shall have two additional NPT connections for the addition of Air Release Valves, gauges, testing, and draining
8. The valve body shall provide a through flow area equal to the nominal valve size. A bolted cover with alloy screws and flat gasket shall be provided to allow for maintenance and repair.
9. Floats shall be unconditionally guaranteed against failure including pressure surges. The float shall have a hexagonal guide shaft supported in the body by circular bushings to prevent binding from debris. The float shall be protected against direct water impact by an internal baffle.
10. The resilient seat shall provide drop tight shut off to the full valve pressure rating. The seat shall be a minimum of .5 in. (12 mm) thick on 2 in. (50 mm) and larger valves and secured in such a manner as to prevent distortion.

Valves with working pressures above 400 psig (2760 kPa) shall have metal seats with synthetic seals.

11. On valve sizes 4 in. (100 mm) and larger, the cover shall be fitted to the valve body by means of a machined register to maintain concentricity between the top and bottom guide bushings at all times. The float shall be double guided with a guide shaft extending through the float to prevent any contact with the body. A resilient bumper shall be provided to cushion the float during sudden opening conditions.
12. The valve body, cover, and baffle shall be constructed of ASTM A126 Class B cast iron for Class 125 and Class 250 valves. Class 300 ductile iron valves shall be constructed of ASTM A536 Grade 65-45-12 ductile iron. Class 300 steel valves shall be constructed of ASTM A216 Grade WCB cast steel.
13. The float, guide shafts, and bushings shall be constructed of Type 316 stainless steel. Non-metallic guides and bushings are not acceptable. Resilient seats shall be Buna-N. Class 300 steel valves shall have a 316 stainless steel Seat with Buna-N seal to provide an initial contact to Buna-N with final metal to metal contact to prevent over compression of the resilient seal.
14. An optional Regulated Exhaust Device shall be provided when specified to reduce pressure surges due to column separation or rapid changes in velocity and pressure in the pipeline
15. The Regulated Exhaust Device shall be mounted on the inlet of the Air/Vacuum Valve, allow free air flow in and out of the valve, close upon rapid air exhaust, and control the air exhaust rate to reduce pressure surges
16. The device shall have a flanged globe-style body with a center guided disc and seat assembly. The disc shall have threaded holes to provide adjustment of the air exhaust rate through the valve. The holes shall provide for a flow area of 5% of the nominal valve size.
17. The material of the body shall be consistent with the Air/Vacuum Valve. The seat and disc shall be bronze.
18. A flanged or screwed outlet connection shall be provided when specified for vault piping.
19. A stainless-steel screened outlet shall be provided when specified for outdoor Installations.
20. Optional body materials include ASTM A536 Grade 65-45-12 ductile iron, ASTM A351 Grade CF8M stainless steel, and ASTM B584 Alloy 836 cast bronze.

21. An optional threaded hood with screen on 1/2 - 4 in (13-100mm) valves when specified.
22. An optional isolation valve shall be furnished under the Air/Vacuum valve when specified. For sizes with threaded inlets, the isolation valve shall be a fully ported brass ball valve. For sizes with flanged inlets, the isolation valve shall be an AWWA class 150B or 250B Butterfly Valve with quarter-turn gear actuator and handwheel.
23. Valve interiors and exteriors shall be coated with an NSF/ANSI 61 certified fusion bonded epoxy in accordance with AWWA C550 when specified.
24. Low Durometer seat shall be furnished for low pressure application.
25. All Air (Release, Vacuum, etc) Valves installed in vaults or flood prone locations shall include an inflow preventer to prevent the introduction of contaminated water through the air valve outlet. The inflow preventer shall allow the admittance and exhausting of air while preventing contaminated water from entering during normal operating conditions. The inflow preventer shall be flow tested by an independent third party to certify performance. The third party shall be an approved testing lab of the American Society of Sanitary Engineers.
26. The manufacturer shall demonstrate a minimum of five (5) years' experience in the manufacture of air valves. When requested, the manufacturer shall provide test certificates, dimensional drawings, parts list drawings, and operation and maintenance manuals.
27. The exterior of the valve shall be coated with a universal alkyd primer.
28. Air/Vacuum Valves shall be Series 100 as manufactured by Val-Matic Valve and Manufacturing Corporation, Elmhurst, IL, USA or approved equal.

## 2.02 APPURTENANCES

### **PART 3 - EXECUTION**

#### 3.01 Installation

- A. Install all valves and appurtenances in accordance with manufacturer's instructions.
- B. Install suitable corporation stops at all points shown and required where air binding of pipelines might occur.
- C. Unless otherwise approved install all valves plumb and level. Valves shall be installed free from distortion and strain caused by misaligned piping, equipment, or other causes.

- D. Valve boxes shall be set plumb and centered with the bodies directly over the valves. Earth fill shall be carefully tamped around each valve box to a distance of four feet on all sides of the box, or to the undisturbed trench face, if less than four feet

### 3.02 Field Test and Adjustments

- A. Adjust all parts and components as required correct operation.
- B. A factory trained representative shall be made available for start-up service, inspection and necessary adjustments. Representative shall provide operator training class.

**END OF SECTION**



## SECTION 15183

### GAUGES

#### PART 1 – GENERAL

##### 1.1 - DESCRIPTION

- A. The Contractor shall furnish all labor, materials, equipment, and incidentals required to provide all gauges and appurtenances as shown on the Drawings and as specified herein.

##### 1.2 - QUALITY ASSURANCE

- A. Manufacturer's Qualifications:
- B. Gauges and appurtenances shall be the standard product in regular production by manufacturers whose products have proven reliable in similar service.
- C. All gauges and appurtenances shall be provided by a single supplier.
- D. All gauges and appurtenances shall be new and unused.

#### PART 2 - PRODUCTS

##### 2.1 - GAUGES

- A. Bosses, connections, or nipples for gauges shall be provided as acceptable to the Engineer. Unbossed tappings shall not be used.
- B. Gauges shall be furnished as part of a complete factory assembly, including gauge, liquid fill, diaphragm seal, isolation valve, and threaded 316 stainless steel connecting piping.
- C. The Contractor shall furnish supports, or attach gauge assemblies to the water piping supports, where applicable.
- D. Gauges shall be as shown in the instrument schedule on the Drawings.
- E. Liquid service pressure gauges shall have a Type 304 stainless steel case that shall be 4½ inch nominal diameter. Pressure gauges shall have a full-sized Type 316 stainless steel Bourdon tube, and a 400 series stainless steel movement. The gauges shall be liquid filled with glycerin, unless otherwise noted, and shall be provided with a filler/breather cap. The socket shall be ½ inch NPT Type 316 stainless steel with a bottom connection, and the dial shall be a white background with black markings. The dial shall have units as shown in the instrument schedule on the Drawings. Gauges shall have a clear crystal window. Gauges

shall be ANSI Grade A plus or minus 1 percent of scale and shall have a blow-out back design.

- F. Gas service gauges shall be as required for liquid service, except that materials and liquid fill shall be as required for the particular gas service. Chlorine gas service shall have Monel tube and socket, with Halocarbon fill.

## **2.2 - DIAPHRAGM SEALS FOR GAUGES**

- A. Diaphragm seals shall be installed for all gauges, for protection from contact with the fluid in the pipeline. Glycerin, unless otherwise noted, shall fill between the diaphragm seal and the gauge.
- B. Diaphragm seals shall be minimum 3½ inch diameter. The diaphragm seal shall have threaded connections for both piping and gauges. A ¼ inch back-flushing threaded connection with plug shall be included. Plug material shall match that of the housing.
- C. Diaphragm seals shall have an upper and lower housing of Type 316 stainless steel. Clamps, bolts, and nuts shall be Type 304 stainless steel. Diaphragms shall be Teflon, unless otherwise noted.
- D. Interconnecting piping size and diaphragm tap size shall match the size of the gauge tap on the equipment or pipe and shall not be less than ½ inch. A Type 316 stainless steel isolation ball valve and union fitting between the pipeline or equipment and the diaphragm seal shall be included.
- E. For chlorine service, diaphragm seals shall be tantalum. Chlorine service housing shall be Monel Type 400 for both lower and upper sections. Chlorine service filling fluids shall be of the inert type that will not oxidize in the presence of chlorine, such as Halocarbon or Fluorolube. Chlorine service assembly shall be furnished with Monel 400 bar stock needle valve isolation.
- F. Diaphragm seals shall be as shown in the instrument schedule on the Drawings.

## **2.3 - PRESSURE TRANSMITTERS**

- A. Pressure transmitters shall have the following characteristics and functionality:
  - 1. 4-20 mA HART communication outputs
  - 2. ½ - 14 NPT power conduit entry
  - 3. Pressure range of 0-150 psi
  - 4. Ambient temperature limit -40 to 185 °F
  - 5. 0-100 percent relative humidity
  - 6. 316L Stainless Steel NPT female connection to process piping
  - 7. 316L Stainless Steel isolating diaphragm

8. LCD display with local operator interface
9. Stainless steel mount bracket and bolts
10. Reference accuracy of  $\pm 0.075$  percent of calibrated span
11. Vibration effect of less than  $\pm 0.1$  percent
12. Power supply effect of less than  $\pm 0.005$  percent
13. Enclosure meeting NEMA 4X requirements
14. Buna-N O-rings
15. Silicone fill fluid

B. Pressure transmitters shall be NSF certified (drinking water)

## **PART 3 – EXECUTION**

### **3.1 - INSTALLATION**

The Contractor shall install all gauges and appurtenances in accordance with the manufacturer's instructions.

**END OF SECTION**

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