SPECIFICATIONS AND CONTRACT DOCUMENTS

For

RESERVE AREA
DRAINAGE IMPROVEMENTS
PHASE II

PROJECT NO. 1786-095

Prepared For

ST. JOHN THE BAPTIST PARISH, LOUISIANA

By

STATE OF LOUISIANA
STEVEN J. CREEDING
REG. No. 23247
REGISTERED
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

5/21/19

Shread-Kuyrkendall and Associates, Incorporated

May 2019

TABLE OF CONTENTS

DIVISION 00	**BIDDING & CONTRACT DOCUMENTS**
Section 00010	Advertisement for Bids
Section 00100	Instructions to Bidders
	Bid Signature Form
Section 00300	Bid Form
Section 00410	Bid Bond
Section 00480	Non-Collusion & Non-Solicitation Affidavit
Section 00485	Authority to Execute Contract
Section 00500	Agreement
Section 00510	Contractor's Affidavit
	Past Criminal Convictions of Bidders Attestation Form
	E-Verify Affidavit
	Certification Regarding Debarment, Suspension, and Other Responsibility Matters Primary Covered Transactions
Section 00610	Payment Bond & Performance Bond
Section 00700	General Conditions
Section 00800	Notice of Award
Section 00802	Notice to Proceed
Section 00804	Change Order
Section 00806	Certificate of Completion
Section 00810	Duties, Responsibilities and Limitations of Authority of Resident Project Representative
DIVISION 01	**GENERAL REQUIREMENTS**
Section 01010	Summary of Work
Section 01150	Measurement and Payment
Section 01152	Application for Payment
Section 01340	Shop Drawings, Project Data and Samples
Section 01370	Schedule of Values
Section 01410	Testing Laboratory Services
Section 01580	Project Identification and Signs
Section 01700	Contract Closeout
Section 01710	Cleaning
Section 01720	Work within Railroad Right-of-Way
DIVISION 02	**SITE WORK**
Section 02100	Clearing and Grubbing
Section 02110	Removal of Structures and Obstructions
Section 02150	Temporary Construction Signs and Barricades
Section 02220	Structural Excavation Backfill and Compaction
Section 02222	Sand Fill Material
Section 02401	Storm Drain Pipes and Culverts
Section 02430	Boring, Jacking, and Tunneling
Section 02444	Chain Link Fence and Gates
Section 02487	Seeding
Section 02490	Riprap
Section 02513	Asphaltic Concrete Paving

Section 02575 Patching Existing Pavement, Drives, and Walks
Section 02576 Concrete Walks, Drives, Incidental Paving
Section 02900 Inlets, Catch Basins and Junction Boxes

DIVISION 03 CONCRETE

Section 03200 Concrete Reinforcement
Section 03300 Concrete

DIVISION 04 MASONRY (NOT USED)

DIVISION 05 METALS

Section 05500 Miscellaneous Metals

DIVISION 06 WOOD & PLASTIC (NOT USED)

DIVISION 07 THERMAL & MOISTURE PROTECTION (NOT USED)

DIVISION 08 DOORS & WINDOWS (NOT USED)

DIVISION 09 FINISHES (NOT USED)

DIVISION 10 SPECIALTIES

Section 10100 Relocation of Infrastructure Item

DIVISION 11 EQUIPMENT (NOT USED)

DIVISION 12 FURNISHINGS (NOT USED)

DIVISION 13 SPECIAL CONSTRUCTION (NOT USED)

DIVISION 14 CONVEYING SYSTEMS (NOT USED)

DIVISION 15 MECHANICAL (NOT USED)

DIVISION 16 ELECTRICAL (NOT USED)

APPENDIX - PERMITS

ADVERTISEMENT FOR BIDS

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

Sealed bids shall be received by the Owner for the construction of the project described as follows:

RESERVE AREA DRAINAGE IMPROVEMENTS PHASE II
PROJECT NO. 1786-095

Bids shall be addressed to the St. John the Baptist Parish Purchasing and Procurement Department and delivered to the Government Complex Building receptionist located at 1811 West Airline Hwy., LaPlace, LA not later than 2:45 o'clock P. M. on **July 17, 2019. Bid envelope shall be marked "Sealed Bid –** ***Reserve Area Drainage Improvements Phase II.***" Any bids received after the specified time and date will not be considered. The sealed bids will be publicly opened and read aloud at 3:00 o'clock P. M. that same date.

The Information for Bidders, Form of Bid Proposal, Form of Contract, Plans, Specifications and Forms of Bid Bond, Performance Bond, insurance and other contract documents may be examined at the Office of ***Shread-Kuyrkendall & Associates, Inc.*** located at ***13000 Justice Avenue, Suite 16, Baton Rouge, LA 70816***. Copies may be obtained at that office upon payment of $500.00 which constitutes the cost of reproduction and handling. Details may be viewed and electronic bids are being accepted @ www.centralbidding.com.

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

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

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

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

St. John the Baptist Parish Council, being a government agency, is exempt from all sales tax. The vendor awarded the contract will be provided documentation to support

their tax free purchases for this project. Therefore, ***the amount you bid should contain no sales tax.***

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

A non-mandatory pre-bid meeting will be held on Monday, July 1, at 10:00 a.m. in the St. John the Baptist Parish Government Complex Council Chambers located at, 1811 West Airline Hwy., LaPlace, LA.

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

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

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

ST. JOHN THE BAPTIST PARISH COUNCIL

Publish:
Wednesday, June 12, 2019
Wednesday, June 19, 2019
Wednesday, June 26, 2019

SECTION 00100

INSTRUCTION TO BIDDERS

1. DEFINED TERMS

The term "Bidder" means one who submits a Bid directly to Owner, as distinct from a "Sub-Bidder", who submits a Bid to the Bidder. The term "Successful Bidder" means the lowest, qualified, responsible, and responsive Bidder to whom Owner (on the basis of Owner's evaluation as hereinafter provided) proposes to make an award. The term "Bidding Documents" includes the Advertisement for Bids, Instructions to Bidders, the Bid Form, and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids.)

2. COPIES OF BIDDING DOCUMENTS

2.1 Complete sets of Bidding Documents in the number and for the sum stated in the Advertisement for Bids may be obtained as stated in the Advertisement for Bids.

2.2 Complete sets of Bidding Documents must be used in preparing Bids; neither Owner nor Engineer assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents by Bidders and their Sub-Bidders.

2.3 Owner and Engineer in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids on the Work and do not confer a license or grant for any other use.

2.4 No Bidding Documents will be issued later than twenty-four (24) hours of the date set for receiving bids, as provided by Louisiana Revised Statutes R.S. 37:2162(b).

3. QUALIFICATIONS OF BIDDERS

3.1 Bidders on projects in the amount of fifty thousand dollars ($50,000) or more shall be required to have a Louisiana contractors license for the classification applicable to the work in compliance with Louisiana Revised Statutes R.S. 37:2150 et seq.

3.2 The Owner may make such investigations as he deems necessary to determine the ability of the Bidder to perform the work, and the bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request. The Owner reserves the right to reject any bid if the evidence submitted by or investigation of, such Bidder fails to satisfy the Owner that such Bidder is properly qualified to carry out the obligations of the Agreement and to complete the work contemplated therein.

3.3 Either of the following reasons may be considered as being sufficient for the disqualification of a Bidder and the rejection of his Bid proposal or proposals:

a) More than one Bid received for the same work from an individual, firm or partnership, a corporation, or association under the same or different names will not be considered. Reasonable grounds for believing that any Bidder is interested in more than one Bid for the same work will cause rejection of all such Bids in which the bidder is interested.

b) If there are reasonable grounds for believing that collusion exists among the Bidders, the Bids of participants in such collusion will not be considered. Participants in such collusion will receive no recognition as Bidders for any future work until any such participant shall have been reinstated as a qualified Bidder.

c) Default or delinquency and failure to have completed on time any contact in force with the Owner at the time of Bid opening.

3.4 Should a Bidder be disqualified, a written notice will be given which contains specific language stating the proposed disqualification with all reasons therefor. The Bidder will be given the opportunity to be heard at an informal hearing to refute the reasons for the disqualification. After the hearing and prior to award of the Contract, the Bidder will be given a written note of disqualification stating the reasons therefor if disqualification is found.

4. EXAMINATION OF CONTRACT DOCUMENTS AND SITE

4.1 It is the responsibility of each Bidder, before submitting a Bid, to (a) examine the Contract Documents thoroughly, (b) visit the site to become familiar with local conditions that may in any manner affect cost, progress, performance or furnishing of the work, (c) consider federal, state and local laws, ordinances, rules and regulations that may in any manner affect cost, progress, performance or furnishing of the Work; (d) study and carefully correlate Bidder's observations with the Contract Documents, and (e) notify Engineer of all conflicts, errors or discrepancies in the Contract Documents requiring correction, clarification, or interpretation.

4.2 Information and data reflected in the Contract Documents with respect to underground facilities at or contiguous to the site are based upon information and data furnished to Owner and Engineer by Owners of such underground facilities or others, and Owner does not assume responsibility for the accuracy or completeness thereof unless it is expressly provided otherwise in the Supplementary Conditions.

4.3 Before submitting a Bid, each Bidder will, at Bidder's own expense, make or obtain any additional examinations, investigations, explorations, tests and studies, and obtain any additional information and data which pertain to the physical conditions (surface, subsurface and underground facilities) at or contiguous to the site or otherwise which may affect cost, progress,

performance, or furnishing the Work in accordance with the time, price, and other terms and conditions of the Contract Documents.

4.4 On request in advance, Owner will provide each Bidder access to the site to conduct such explorations and tests as each Bidder deems necessary for submission of a Bid. Bidder shall fill all holes and clean up and restore the site to its former condition upon completion of such explorations.

4.5 The lands upon which the Work is to be performed, right-of-ways and servitudes for access thereto and other lands designated for use by Contractor in performing the Work are identified in the Contract Documents. All additional lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be provided by the Contractor. Easements for permanent structures or permanent changes in existing structures are to be obtained and paid for by the Owner unless otherwise provided in the Contract Documents.

5. INTERPRETATIONS AND ADDENDA

5.1 All questions about the meaning or intent of the Contact Documents are to be directed to the Engineer. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda mailed to all parties recorded by Engineer as having received the Bidding Documents. Questions received less than ten (10) days prior to the date for opening of Bids may not be answered. Only answers to questions by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

5.2 Addenda may also be issued to modify the Bidding Documents as deemed advisable by Owner or Engineer.

5.3 No addenda will be issued within seventy-two (72) hours of the advertised bid time, exclusive of Saturdays, Sundays, and legal holidays without automatically extending the bid period for exactly one week unless designated otherwise for up to thirty (30) days, as provided by Louisiana Revised Statutes R.S. 38:2212(c).

6. BID SECURITY

6.1 Each Bid must be accompanied by Bid security made payable to Owner in an amount of five percent (5%) of the Bidder's maximum Bid price and in the form of a certified or cashiers check or a Bid Bond (on form attached) issued by a surety meeting the requirements of Section 21, Qualification of Surety Companies, of these Instructions to Bidders.

6.2 The Bid Security of the apparent Successful Bidder will be retained until such bidder has executed the Agreement and furnished the required Payment and Performance Bonds, whereupon the Bid Security will be returned. If the apparent Successful Bidder fails to execute and deliver the Agreement and furnish the required Bonds within fifteen (15) days of the Notice of Award, Owner may annul the Notice of Award, and the Bid Security of that Bidder will be forfeited. The Bid Security of any Bidder

whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the thirty-first (31st) day after the Bid opening, whereupon Bid Security of such Bidders will be returned. Bid Security of other Bidders will be returned approximately seven days after the Bid opening. The Owner and the Bidder may mutually agree to extend the ninety (90) calendar day period for holding the Bids and the Bid Security, as provided by Louisiana Revised Statutes R.S. 38:2215.

6.3 The Bid Bond shall be issued by a company having a registered agent in the State of Louisiana.

7. CONTRACT TIME

The number of consecutive calendar days within which the Work is to be completed (the Contract Time) is set forth in the Agreement.

8. LIQUIDATED DAMAGES

Provisions for liquidated damages are set forth in the Agreement.

9. SUBSTITUTE MATERIALS OR PRODUCTS

9.1 Where the Drawings and Specifications identify a product by a specific brand, make, manufacturer, or definite specification it is to establish the required quality standard for the product regarding style, type, character, materials of construction, function, accessories, dimensions, appearance, and durability. Products which are determined to be equivalent by the Engineer will be acceptable. Products which are specified by a specific brand, make, or manufacturer's name may also be specified by its applicable model or catalog number or other product designation.

9.2 Whenever it is indicated in the Drawings or specified in the Specifications that a substitute or "or equal" item of material or product may be furnished or used by Contractor if acceptable to Engineer, application for such acceptance will not be considered by Engineer until after the "effective date of the Agreement". The procedure for submittal of any such application and consideration by Contractor is set forth in Paragraphs 6.7.1, 6.7.2 and 6.7.3 of the General Conditions.

10. SUBCONTRACTORS

10.1 All subcontractors being assigned a portion of the Work in the amount of fifty-thousand dollars ($50,000) or more must possess a current Louisiana contractor's license of the proper classification, as provided by Louisiana Revised Statutes 37:2162(b). If requested by the Owner or Engineer, the apparent Successful Bidder, and any other Bidder so requested, shall, within seven (7) days after the date of the request, submit to Owner an experience statement with pertinent information as to similar projects and other evidence or qualification for each such Subcontractor, person and organization. The total amount of subcontract work shall not exceed forty-nine percent (49%) of the Work. If Owner or Engineer after due investigation has reasonable objection to any proposed Subcontractor,

supplier, other person or organization, either may, request the apparent Successful Bidder to submit an acceptable substitute without an increase in Contract Price or Contract Time.

11. BID FORM

11.1 The Bid Form is included with the Bidding Documents.

11.2 Bid form shall be completed in ink or by typewriter. All blanks on the Bid Form must be completed.

11.3 Bids shall be submitted in the Bidder's name which appears on the official records of the Louisiana State Licensing Board for Contractors.

11.4 Bids by corporations must be executed in the corporate name by the president or a vice-president (or other corporate officer accompanied by evidence of authority to sign), and the corporate seal must be affixed and attested by the secretary or any assistant secretary. The corporate address and state of incorporation must be shown below the signature. If requested, the person signing a Bid for a corporation or partnership must produce evidence satisfactory to the Owner of the person's authority to bind the corporation or partnership.

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

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

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

11.8 The address and telephone number for communications regarding the Bid must be shown.

12. SUBMISSION OF BIDS

Bids shall be submitted at or before the time and at the place indicated in the Advertisement for Bids. The envelope shall be marked on the exterior "BID FOR CONTRACT Reserve Area Drainage Improvements Phase II" and with the name and address of the Bidder and accompanied by the Bid Security and other required documents. All envelopes containing a Bid in the amount of fifty-thousand dollars ($50,000) or more shall bear the BIDDER'S Louisiana contractors license number, as provided by Louisiana Revised Statutes 37:2163A. If the Bid is sent through the mail or other delivery system, the sealed envelope shall be enclosed in a separate envelope with the notation "SEALED BID ENVELOPE ENCLOSED" on the face thereof.

13. MODIFICATION AND WITHDRAWAL OF BIDS

13.1 Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the deadline for submitting Bids. A request for withdrawal or a modification must be in writing and signed by a person duly authorized to do so; and, in case signed by a deputy or subordinate, the principal's proper written authority to such deputy or subordinate must accompany the request for withdrawal or modifications. Withdrawal of a Bid will not prejudice the rights of a Bidder to submit a new Bid prior to the Bid Date and Time. After expiration of the period for receiving Bids, no Bid may be withdrawn or modified.

13.2 If, within forty-eight (48) hours of the Bid opening, exclusive of Saturdays, Sundays, and legal holidays, any Bidder files a duly signed, and sworn written notice with Owner to the satisfaction of Owner that there was a patently obvious mechanical, clerical, or mathematical error in its Bid, that Bidder may withdraw its Bid and the Bid Security will be returned as provided by Louisiana Revised Statutes 38:2214A.(3).

14. OPENING OF BIDS

Bids will be opened publicly and read aloud.

15. BIDS TO REMAIN OPEN

15.1 As provided by Louisiana Revised Statutes 38:2215A., all Bids shall remain open for sixty (60) calendar days after the day of the Bid opening, but Owner may, at its sole discretion, release any Bid and return the Bid Security prior to that date.

15.2 Extensions of time when Bids shall remain open beyond the sixty-day period may be made only by mutual agreement between the Owner, the apparent successful Bidder, and the surety for the apparent successful Bidder.

16. AWARD OF CONTRACT

16.1 For reasons of just cause, as provided by Louisiana Revised Statutes 38:2214A., the Owner reserves the right to reject any and all Bids, to waive any and all informalities not involving price, time or changes in the Work with the Successful Bidder, and the right to disregard all nonconforming, nonresponsive, unbalanced or conditional Bids. Bids which are unsigned or are not accompanied by the required bid security shall be irrevocably rejected. When one or more bids is rejected, the reason therefor shall be given. Bids may be considered irregular and subject to rejection if they show serious omission, unauthorized alteration of form, unauthorized alternate bids, incomplete or unbalanced unit prices, or irregularities of any kind. Also, Owner reserves the right to reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project to make an award to that Bidder, whether because

the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by Owner. Discrepancies between words and figures will be resolved in favor of words. Discrepancies in the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor or the correct sum.

16.2 In evaluating Bids, Owner will consider the qualifications of the Bidders, whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices, and other data as may be requested in the bid Form or prior to the Notice of Award.

16.3 Owner may conduct such investigations as Owner deems necessary to assist in the evaluation of any bid and to establish the responsibility, qualifications, and financial ability of Bidders, proposed subcontractors, suppliers, and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to Owner's satisfaction within the prescribed time.

16.4 If the contract is to be awarded, it will be awarded to the lowest responsible, responsive Bidder for the Base Bid and any alternates as selected by the Owner.

17. QUALIFICATIONS SUBMITTALS

17.1 It is the intention of the Owner to award this contract to a Bidder competent to perform and complete the Work in a satisfactory manner and who proposed to employ subcontractors, if any, competent to perform their portion of the Work in a satisfactory manner.

17.2 The Owner shall consider the Bidder qualifications, subcontractors, and suppliers in evaluating the Bidder's bid and shall have the right to reject any Bidder because of information submitted, not submitted, or fraudulently submitted.

17.3 Should the Owner request information about the Bidder and proposed subcontractors, Bidder shall submit within seven (7) days of Owner's request the specific additional information requested by the Owner.

18. TAXES

The Contractor shall pay all applicable sales, consumer, use and other similar taxes required by law. The Contractor is responsible for reviewing the pertinent State Statutes involving the sales tax and complying with all requirements.

19. RELATED WORK UNDER SEPARATE CONTRACTS

The Bidder's attention may be directed to the fact that the Work to be done under this contract may be only part of a Project consisting of improvements under several different contracts, that contracts may be let for the other portions of the

Project, and that the success of the Project may be dependent upon the completion of the Work under this contract and the work to be done by others.

20. SIGNING OF AGREEMENT

When Owner gives a Notice of Award to the Successful Bidder, it will be accompanied by the required number of unsigned counterparts of the Agreement with all other written Contract Documents attached. Within fifteen (15) days thereafter, Contractor shall sign and deliver the required number of counterparts of the Agreement and attached documents to Owner with the required Bonds and insurance certificates. Within ten (10) days thereafter, Owner shall deliver one fully signed counterpart to Contractor.

21. QUALIFICATIONS OF SURETY COMPANIES

In order to be acceptable to the Owner, a surety company issuing Bid Guaranty Bonds, or one-hundred percent (100%) Performance/Payment bonds, and/or twenty-five percent (25%) Maintenance Bonds, called for in these Specifications, shall meet and comply with the following minimum standards:

a. Surety must be admitted to do business in the State of Louisiana and shall comply with the provisions of Revised Statute 38:2241.

b. Surety shall have been in business and have a record of successful continuous operations for at least five years.

c. Attorneys-in-fact who sign bid bonds or performance/payment bonds must file with such bond a certified copy of their power of attorney to sign such bond.

d. Agents of surety companies must list their name, address and telephone number on all bonds.

e. Bonds shall be countersigned by a person who is contracted with the surety company as an agent, and who is licensed as an insurance agent in Louisiana and who resides in Louisiana, as provided by Louisiana Revised Statutes 38:2216A.(2).

f. All surety companies submitting bonds shall have a rating of "A-" or better in the most current edition of the A.M. Best Insurance Report.

g. The life of the bonds shall extend twelve (12) months beyond the date of final payment and shall contain a waiver of alteration to the terms of the Contract, extension of time and/or forbearance on the part of the Owner.

22. EXECUTION OF WRITTEN CONTRACT

The Successful Bidder will be required to execute a written contract with the Owner which has been made a part of this bid package and identified as the Agreement. Said Agreement will evidence in written form the Agreement between the parties pursuant to the award having been theretofore made by the

Owner to the Successful Bidder; said execution to be accomplished with fifteen (15) days after Notice of Award.

END OF SECTION

REQUIRED SIGNATURE PAGE FOR PROPOSALS

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

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

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

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

Please type or print legibly information below.

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

PROPOSER INFORMATION

Firm Name: _____

Address: _____ City/State/Zip: _____

Phone No.: _____ Fax No.: _____

AUTHORIZATION TO PROPOSE (must be signed):

By: _____ _____

Signature Offer Date Printed Name

EMAIL ADDRESS: _____

Primary Contact Person (If other than above):

Name: _____ Phone No: _____ Fax No: _____

Title: _____ E-mail Address: _____

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

Submitted on behalf of: _____

Phone No: _____ Fax No: _____

E-mail Address: _____

LOUISIANA UNIFORM PUBLIC WORK BID FORM

TO: The St. John the Baptist Parish
Purchasing and Procurement Dept.
Government Complex Building
1811 West Airline Hwy. Laplace, LA
(Owner to provide name and address of owner)

BID FOR: Reserve Area Drainage Improvements
Phase II
Project No. 1786-095
(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: Shread – Kuyrkendall & Associates, Inc. and dated: May 2019
(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:

Drainage Extension for Toni St. Dollars ($_____)

Alternate No. 2 *(Owner to provide description of alternate and state whether add or deduct)* for the lump sum of:

Drainage for Terrance St. Dollars ($_____)

Alternate No. 3 *(Owner to provide description of alternate and state whether add or deduct)* for the lump sum of:

Drainage for W. 2nd St. Dollars ($_____)

NAME OF BIDDER: _____
ADDRESS OF BIDDER: _____
LOUISIANA CONTRACTOR'S LICENSE NUMBER: _____
Name OF AUTHORIZED SIGNATORY OF BIDDER: _____
TITLE OF AUTHORIZED SIGNATORY OF BIDDER: _____
SIGNATURE OF AUTHORIZED SIGNATORY OF BIDDER **: _____
DATE: _____

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

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

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

LOUISIANA UNIFORM PUBLIC WORK BID FORM
UNIT PRICE FORM

TO: ST. JOHN THE BAPTIST PARISH
PURCHASING AND PROCUREMENT
1811 W. AIRLINE HWY., LAPLACE, LA 68

BID FOR: RESERVE AREA DRAINAGE IMPROVEMENTS
PHASE II
PROJECT NO. 1786-095

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:	✓Base Bid or ☐ Alt.#___ **MOBILIZATION**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
1	1	LS		

DESCRIPTION:	✓Base Bid or ☐ Alt.#___ **TEMPORARY CONSTRUCTION SIGNS AND BARRICADES**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
2	1	LS		

DESCRIPTION:	✓Base Bid or ☐ Alt.#___ **EXCAVATE AND RESHAPE DITCH**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
3	1200	LF		

DESCRIPTION:	✓Base Bid or ☐ Alt.#___ **15" RCP REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
4	3035	LF		

DESCRIPTION:	✓Base Bid or ☐ Alt.#___ **18" RCP REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
5	3466	LF		

DESCRIPTION:	✓Base Bid or ☐ Alt.#___ **24" RCP OR RCPA REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
6	1944	LF		

DESCRIPTION:	✓Base Bid or ☐ Alt.#___ **30" RCP REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
7	300	LF		

DESCRIPTION:	✓Base Bid or ☐ Alt.#___ **36" RCP REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
8	167	LF		

DESCRIPTION:	✓Base Bid or ☐ Alt.#___ **42" RCP REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
9	695	LF		

DESCRIPTION:	✓Base Bid or ❑ Alt.#___ 36" CMPA			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
10	100	LF		

DESCRIPTION:	✓Base Bid or ❑ Alt.#___ 48" CMPA			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
11	50	LF		

DESCRIPTION:	✓Base Bid or ❑ Alt.#___ 60" CMP			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
12	10	LF		

DESCRIPTION:	✓Base Bid or ❑ Alt.#___ CB-01			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
13	135	Each		

DESCRIPTION:	✓Base Bid or ❑ Alt.#___ CB-02			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
14	11	Each		

DESCRIPTION:	✓Base Bid or ❑ Alt.#___ DRAINAGE MANHOLE			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
15	3	Each		

DESCRIPTION:	✓Base Bid or ❑ Alt.#___ 8" YARD DRAIN (CB-05) WITH PIPE			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
16	8	Each		

DESCRIPTION:	✓Base Bid or ❑ Alt.#___ TEE INLET			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
16A	25	Each		

DESCRIPTION:	✓Base Bid or ❑ Alt.# ___ CONFLICT BOX			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
17	90	Each		

DESCRIPTION:	✓Base Bid or ❑ Alt.# ___ LIMESTONE (6" THICK) REMOVE AND REPLACE			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
18	1300	Sq. Yd.		

DESCRIPTION:	✓Base Bid or ❑ Alt.# ___ **CONCRETE PAVEMENT REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
19	2000	Sq. Yd.		

DESCRIPTION:	✓Base Bid or ❑ Alt.# ___ **ASPHALT PAVEMENT REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	QUANTITY:	QUANTITY:	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
20	1300	Sq. Yd.		

DESCRIPTION:	✓Base Bid or ❑ Alt.# ___ **RELOCATE WATER HOUSE CONN.**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
21	100	Each		

DESCRIPTION:	✓Base Bid or ❑ Alt.#___ **ADJUST SEWER HOUSE CONN.**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
22	100	Each		

DESCRIPTION:	✓Base Bid or ❑ Alt.#___ **TEMPORARY 6" LIMESTONE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
23	3000	Sq. Yd.		

DESCRIPTION:	✓Base Bid or ❑ Alt.#___ **WATERLINE OFFSET**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
24	6	Each		

DESCRIPTION:	✓Base Bid or ❑ Alt.#___ **REPIPE FIRE HYDRANT**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
25	12	Each		

DESCRIPTION:	✓Base Bid or ❑ Alt.#___ **MAILBOX RELOCATION**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
26	100	Each		

DESCRIPTION:	✓Base Bid or ❑ Alt.# ___ **SEEDING AND FERTILIZING**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
27	1	LS		

DESCRIPTION:	✓Base Bid or ❑ Alt.# ___ **PROJECT SIGN**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
28	2	Each		

DESCRIPTION:	✓Base Bid or ❑ Alt.# ___ **WATERLINE INSERTA VALVES**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
29	2	EA		

DESCRIPTION:	✓Base Bid or ❑ Alt.# ___ **RELOCATION OF INFRASTRUCTURE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
30	1	LS	15,000.00	Fifteen thousand and No/100

DESCRIPTION:	✓Base Bid or ❑ Alt.# ___ **JACK AND BORE RAILROAD CULVERTS**			
REF. NO.	QUANTITY:	REF. NO.	QUANTITY:	UNIT PRICE EXTENSION *(Quantity times Unit Price*
31	240	LF		

DESCRIPTION:	✓Base Bid or ❑ Alt.# ___ **JUNCTION BOX**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
32	1	EA		

DESCRIPTION:	✓Base Bid or ❑ Alt.# ___ **CONCRETE RETAINING WALL**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
33	1	LS		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _1__ **15" RCP REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
34	556	LF		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _1_ **18" RCP REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
35	500	LF		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _1_ **CB-01**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
36	16	Each		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _1_ **TEE INLET**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
37	2	Each		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _1_ **CONFLICT BOX**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
38	7	Each		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _1_ **LIMESTONE (6" THICK) REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
39	150	Sq. Yd.		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _1_ **CONCRETE PAVEMENT REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
40	175	Sq. Yd.		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _1_ **ASPHALT PAVEMENT REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	QUANTITY:	QUANTITY:	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
41	25	Sq. Yd.		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _1_ **RELOCATE WATER HOUSE CONN.**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
42	7	Each		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _1_ **ADJUST SEWER HOUSE CONN.**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
43	7	Each		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _1_ **TEMPORARY 6" LIMESTONE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
44	100	Sq. Yd.		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _1_ **WATERLINE OFFSET**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
45	1	Each		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _1_ **REPIPE FIRE HYDRANT**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
46	1	Each		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _1_ **MAILBOX RELOCATION**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
47	7	Each		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _1_ **SEEDING & FERTILIZING**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
48	1	LS		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _1_ **RELOCATION OF INFRASTRUCTURE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
49	1	LS	1,500.00	Fifteen Hundred and No/100

DESCRIPTION:	❑Base Bid or ✓ Alt.# _1_ **4" CONCRETE SIDEWALK REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
50	10	Sq. Yd.		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _1_ **EXCAVATE AND RESHAPE DITCH**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
51	150	LF		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _2__ **15" RCP REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
52	124	LF		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _2 **18" RCP REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
53	496	LF		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _2 24" **RCP REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
54	460	LF		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _2 **CB-01**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
55	5	Each		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _2 **12" YARD DRAIN BOX**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
56	34	Each		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _2 **CONFLICT BOX**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
57	34	Each		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _2 **LIMESTONE (6" THICK) REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
58	1300	Sq. Yd.		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _2 **CONCRETE PAVEMENT REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
59	100	Sq. Yd.		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _2 **ASPHALT PAVEMENT REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	QUANTITY:	QUANTITY:	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
60	1300	Sq. Yd.		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _2 **RELOCATE WATER HOUSE CONN.**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
61	34	Each		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _2_ **ADJUST SEWER HOUSE CONN.**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
62	34	Each		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _2_ **TEMPORARY 6" LIMESTONE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
63	200	Sq. Yd.		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _2_ **WATERLINE OFFSET**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
64	1	Each		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _2_ **REPIPE FIRE HYDRANT**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
65	1	Each		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _2_ **MAILBOX RELOCATION**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
66	34	Each		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _2_ **SEEDING & FERTILIZING**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
67	1	LS		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _2_ **RELOCATION OF INFRASTRUCTURE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
68	1	LS	1,500.00	Fifteen Hundred and No/100

DESCRIPTION:	❑Base Bid or ✓ Alt.# _2_ 4" **CONCRETE SIDEWALK REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
69	10	Sq. Yd.		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _2_ **EXCAVATE AND RESHAPE DITCH**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
70	50	LF		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _2_ 12" **RCP REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
71	500	LF		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _2_ **12" RCP TEES**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
72	20	Each		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _2_ **DRAINAGE MANHOLES**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
73	10	Each		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _3_ **EXCAVATE AND RESHAPE DITCH**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
74	150	LF		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _3__ **15" RCP REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
75	1161	LF		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _3_ **18" RCP REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
76	963	LF		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _3_ 24" **RCP REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
77	1879	LF		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _3__ **30" RCP REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
78	300	LF		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _3__ 42" **RCP REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
79	32	LF		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _3__ **CB-01**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
80	68	Each		

DESCRIPTION:	❑Base Bid or ✓ Alt.#_3__ **CB-02**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
81	1	Each		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _3__ **CONCRETE PAVEMENT REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
82	950	Sq. Yd.		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _3_ **TEE INLET**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
83	14	Each		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _3_ **CONFLICT BOX**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
84	55	Each		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _3_ **LIMESTONE (6" THICK) REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
85	375	Sq. Yd.		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _3_ **ASPHALT PAVEMENT REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	QUANTITY:	QUANTITY:	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
86	175	Sq. Yd.		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _3_ **RELOCATE WATER HOUSE CONN.**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
87	60	Each		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _3_ **ADJUST SEWER HOUSE CONN.**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
88	60	Each		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _3_ **TEMPORARY 6" LIMESTONE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
89	1000	Sq. Yd.		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _3_ **MAILBOX RELOCATION**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
90	60	Each		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _3_ **SEEDING & FERTILIZING**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
91	1	LS		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _3_ **RELOCATION OF INFRASTRUCTURE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
92	1	LS	3000.00	Three thousand and No/100

DESCRIPTION:	❑Base Bid or ✓ Alt.# _3_ **4" CONCRETE SIDEWALK REMOVE AND REPLACE**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
93	125	Sq. Yd.		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _3_ **WATERLINE OFFSET**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
94	2	Each		

DESCRIPTION:	❑Base Bid or ✓ Alt.# _3_ **REPIPE FIRE HYDRANT**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
95	4	Each		

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

SECTION 00410

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned,_____, as Principal (Bidder), and _____ as Surety, are hereby held and firmly bound unto _____ as Owner, in the penal sum of _____ for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors and assigns.

Signed, this _____ day of _____, 2019. The Condition of the above obligation is such that whereas the Principal has submitted to the Owner a certain Bid, attached hereto and hereby made a part hereof to enter into a contract in writing, for the Work specified in __ Reserve Area Drainage Improvements Phase II _____

_____

_____

NOW THEREFORE,

(a) If said Bid shall be rejected, or in the alternate,

(b) If said Bid shall be accepted and the Principal shall execute and deliver a Contract in the Form of Contract attached hereto (properly completed in accordance with said Bid) and shall furnish bonds for his faithful performance of said Contract and for furnishing materials in connection therewith and shall in all other respects perform the Agreement created by the acceptance of said Bid,

then this obligation shall be void; otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

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

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

Principal (Bidder):_____	Surety:_____
_____	_____
ADDRESS:_____	ADDRESS:_____
_____	_____
BY:_____(SEAL)	BY:_____(SEAL)
TITLE:_____	TITLE:_____
SIGNATURE:_____	SIGNATURE:_____

IMPORTANT - Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in Louisiana, and the bond shall be countersigned by a resident agent domiciled in and who is licensed to do business in the State of Louisiana.

END OF SECTION

SECTION 00480

NON-COLLUSION AND NON-SOLICITATION AFFIDAVIT

CONTRACT NAME: Reserve Area Drainage Improvements Phase II

_____, being first duly sworn,
(Name of Authorized Representative of Bidder)

first duly sworn, deposes and says that:

1. He is the _____ of
(Owner, Partner, Officer, Representative or, Agent)

_____, the Bidder,
(Name of Bidder)
and that the Bidder has submitted the accompanying Bid for the construction of the above Contract;

2. He is fully informed respecting the preparation and contents of the Bid and of all pertinent circumstances respecting the Bid;

3. The Bid is genuine and is not a collusive or sham Bid;

4. Neither the said Bidder nor any of its officers, partners, owners, agents, representatives, employees, or parties in interest, including this affidavit, have in any way colluded, conspired, connived, or agreed, directly or indirectly, with any other Bidder, firm, or person to submit a collusive or sham Bid in connection with the Contract or Work for which the attached Bid has been submitted; or to refrain from bidding in connection with such Work; or have in any manner, directly or indirectly, sought by agreement, collusion, communication, or conference with any Bidder, firm, or person to fix the price or prices in the Bid or the Bid of any other Bidder; or to fix any overhead, profit, or cost elements of the Bid price or the Bid price of any other Bidder; or to secure through any collusion, conspiracy, connivance, or unlawful agreement any advantage against the Owner, or any person interested in the proposed Work;

5. The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance, or unlawful agreement on the part of the Bidder or any other of its agents, representatives, owners, employees, or parties in interest, including this affidavit;

6. That he has employed no one person, corporation, firm, association, or other organization, either directly or indirectly, to secure the public contract under which he is to receive payment, other than persons regularly employed by him whose services in connection with the construction of the public building or project or in securing the public contract were in the regular course of their duties for him; and that no part of the Contract Price to be received by him 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 him whose services in connection with the construction of the public building or project were in the regular course of their duties for him;

7. This affidavit is executed in compliance with the provisions of Louisiana Revised Statutes 38:2219.

Bidder_____

By_____

Title_____

Subscribed and sworn to before me

this _____ day of _____, 2019 at _____, Louisiana

_____

My commission expires _____.

END OF SECTION

SECTION 00485

AUTHORITY TO EXECUTE CONTRACT

If the Bidder is a Corporation, attach to this page a certified copy of corporate resolutions of the Board of Directors of the Corporation authorizing an officer of the Corporation to execute the Agreement contained within this document on behalf of the Corporation.

END OF SECTION

CORPORATE RESOLUTION

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

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

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

_____
(Secretary-treasurer)

_____ 20_____
(Date)

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

SECTION 00500

AGREEMENT

THIS AGREEMENT is dated as of the _____ day of _____ in the year 2019 by and between the St. John the Baptist Parish, hereinafter called the OWNER, and _____, hereinafter called the CONTRACTOR.

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

ARTICLE 1. WORK

CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents for the Reserve Area Drainage Improvements Phase II Contract. The Work is generally described as follows: Removal and replacement of drainage culverts, ditch cleaning, jacking and boring steel pipe.

ARTICLE 2. ENGINEER

The Project has been designed by Shread-Kuyrkendall & Associates, Inc. who is hereinafter called ENGINEER and who will assume all duties and responsibilities and have the rights and authority assigned to ENGINEER in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

ARTICLE 3. CONTRACT TIME

3.1 The CONTRACTOR shall commence work under this Contract on a date to be specified by written order of the Engineer. Time of performance is of the essence of the Contract and the work shall be complete, as certified by the Engineer, within 120 calendar days, from the date of commencement of the work.

3.2 Liquidated Damages - OWNER and CONTRACTOR recognize that the OWNER will suffer direct financial loss if Work is not completed within the Contract times specified in paragraph 3.1 above plus any extensions thereof allowed in accordance with Article 12 of the General Conditions, and therefore, time is of the essence. They also recognize the delays, expense and difficulties involved in proving in a legal proceeding the actual loss suffered by OWNER if the Work is not completed on time. Accordingly, instead of requiring any such proof, CONTRACTOR agrees to forfeit and pay OWNER as liquidated damages for delay (but not as a penalty) the amount of Two Hundred Dollars ($200.00) for each calendar day that expires after the Contract Time specified in paragraph 3.1 for final completion and ready for final acceptance until the Work is completed.

ARTICLE 4. CONTRACT PRICE

4.1 OWNER shall pay CONTRACTOR for performance of the Work in accordance with the Contract Documents in current funds at the lump sum or unit prices presented in the Schedule of Prices. The Contractor agrees to perform all of the work described in these documents for the sum of:

_____ ($_____).

4.2 The parties expressly agree that the Contract Price is a stipulated sum except with regard to the items in the Bid which are subject to unit prices.

ARTICLE 5. PAYMENT PROCEDURES

CONTRACTOR shall submit applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by ENGINEER as provided in the General Conditions.

5.1 Progress Payments. OWNER shall make progress payments on account of the Contract price on the basis of CONTRACTOR's Applications for Payment, as recommended by ENGINEER, on or about the thirtieth (30th) day following receipt by the OWNER.

Progress payments will be based upon estimated quantities of completed Contract unit price items or upon estimated percentages of completion of the schedule of lump sum values of labor and materials incorporated into the Work on the last day of each month or other mutually agreed regular monthly date ending the progress payment period. No allowance will be made for materials received which have not been incorporated into the Work except where the Contract price is based on a lump sum bid and is not computed on the basis of unit price items.

5.2 Retainage. Retainage shall be withheld and payments will be made by the OWNER in the payment amount of ninety percent (90%) of the approved Payment Applications on a Contract amount of less than five hundred thousand dollars ($500,000) and in the payment amount of ninety-five percent (95%) of the approved Payment Applications on a Contract amount of five hundred thousand dollars ($500,000) or more.

5.3 Final Acceptance and Final Payment. Upon the final completion of all Work and upon completion of the lists of items identified in the punch list prepared by the Engineer, the CONTRACTOR may request a final inspection and may make a final Application for Payment as provided by paragraph 14.12 of the General Conditions, upon the OWNER's Certificate of Completion.

The Certificate of Completion is filed by the Contractor with the Recorder of Mortgages of the Parish in which the work was done. This begins the not-less-than-forty-five (45) day lien period as prescribed for public works by Louisiana Revised Statutes 38:2248.

At the expiration of the lien period it is the CONTRACTOR's responsibility to obtain a certificate from the Recorder of Mortgages that the Contract is clear of any liens or privileges, and said certificate shall be presented to the ENGINEER for final payment and release of retainage, less any such sums as may be lawfully withheld under the Contract.

ARTICLE 6. CONTRACTOR'S REPRESENTATIONS

In order to induce OWNER to enter into this Agreement CONTRACTOR makes the following representations:

6.1 CONTRACTOR has familiarized itself with the nature and extent of the Contract Documents, Work, site, locality, and all local conditions and laws and regulations that in any manner may affect cost, progress, performance or finishing of the Work.

6.2 In exercising its responsibility with respect to subsurface conditions and physical conditions at the site, Contractor has or will obtain or perform at no additional cost to the Owner such additional examinations, investigations, explorations, tests, reports, studies, or similar information or data as may be required by Contractor for such purposes.

ARTICLE 7. CONTRACT DOCUMENTS

The Contract Documents which comprise the entire agreement between OWNER and CONTRACTOR are attached to this Agreement, made a part hereof and consist of the following:

7.1 This Agreement.

7.2 Construction Performance and Payment Bonds and Insurance Certificates.

7.3 Notice of Award and Notice to Proceed, Change Order and Certificate of Completion.

7.4 General Conditions.

7.5 Duties, responsibilities and limitations of authority of resident project representative.

7.6 Technical Specifications.

7.7 Drawings.

7.8 Addenda (Numbers _ to _, inclusive).

7.9 Contractor's Bid.

7.10 Documentation submitted by Contractor prior to Notice of Award, if any required.

7.11 Non-collusive and Non-solicitation Affidavit and authority to execute contract.

7.12 All applicable provisions of State and Federal law and any Modification, including all Change Orders, duly delivered after execution of Agreement.

ARTICLE 8. MISCELLANEOUS

8.1 Terms used in this Agreement which are defined in Article 1 of the General Conditions shall have the meanings indicated in the General Conditions, as modified in the Supplementary Conditions.

8.2 No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and, unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents. Notwithstanding the foregoing, the OWNER may assign this contract to the State of Louisiana or any political subdivision, municipality, special district or authority thereof without CONTRACTOR's consent and without recourse.

8.3 OWNER and CONTRACTOR each binds himself, his partners, successors, assigns and legal representatives to the other party hereto, his partners, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in the Contract Documents.

8.4 CONTRACTOR shall pay promptly, before final payment, any and all claims or liens incurred in and about this Work and shall execute a final receipt form.

IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed this Agreement. All portions of the Contract Documents have been signed or identified by OWNER and CONTRACTOR or by ENGINEER on their behalf.

This Agreement will be effective on _____, 2019.

OWNER: St. John the Baptist Parish	CONTRACTOR: _____
By Natalie Robottom	By _____
Title Parish President	Title _____
Signature _____	Signature _____
Attest _____	Attest _____
(SEAL)	(SEAL)

Louisiana State Contractor
License No._____

(If CONTRACTOR is a corporation, attach evidence of authority to sign.)

END OF SECTION

SECTION 00510

CONTRACTOR'S AFFIDAVIT

STATE OF LOUISIANA

PARISH OF ST. JOHN THE BAPTIST

BEFORE ME, the undersigned authority, personally came and appeared:

_____

who, being first duly sworn did depose and say:

That he is a Contractor receiving value for services rendered in connection with the construction of the Reserve Area Drainage Improvements Phase II a public project for the Parish of St. John the Baptist, Louisiana that he has employed no one 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 him whose services in connection with the construction of the public building or project or in securing the public contract were in the regular course of their duties for him; and that no part of the Contract Price received by him was paid or will be paid to any person, corporations, firm, association, or other organization for soliciting the Contract, other than the payment of their normal compensation to persons regularly employed by him whose services in connection with the construction of the public building or project were the regular course of their duties for him:

That the affidavit is executed in compliance with the provisions of L.R.S. 38:2224.

_____

SWORN TO AND SUBSCRIBED before me, on this _____ day of _____ 2019, Louisiana.

_____
Notary Public

END OF SECTION

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

STATE OF LOUISIANA

PARISH OF _____

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

I, _____, (Appearer) the owner/authorized representative of

_____
Company / Individual / Legal Entity Name

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

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

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

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

_____ _____

Name of Bidder | Signature of Authorized Signatory of Bidder

_____ _____

Project Name/Number | Title of Authorized Signatory

SUBSCRIBED AND SWORN BEFORE ME ON THIS _____ DAY OF_____, 20_____.

_____
Notary Signature

Printed Notary Name: _____ Notary/Bar Roll Number: _____

My Commission is for/expires: _____

E-VERIFY AFFIDAVIT

STATE OF LOUISIANA

PARISH OF _____

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

I, _____, the owner/authorized representative of

_____
Company/Individual/Legal Entity Name

who hereby personally and as the authorized representative of the above identified legal person executes this affidavit, as the undersigned Company verification of its current and future compliance with L.S.A. R.S. 38:2212.10, stating affirmatively that it and each individual, firm or corporation associated with it and engaged in the physical performance of services in the State of Louisiana, under a contract with St. John the Baptist Parish has registered with, is participating in, and shall continue to participate in a federal work authorization program designated as such under the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, as amended, which is operated by the United States Department of Homeland Security, known as the "E-Verify" program. The Company hereby verifies the legal status of all existing and new employees in the State of Louisiana by attesting herein that each is a citizen of the United States or legal aliens as defined by now effective immigration laws of the United States of America.

Company shall not assign this Contract or any monies due or to become due hereunder, or subcontract any part of the Work without the prior written consent of St. John the Baptist Parish.

Company verifies that the Company will collect an affidavit in this form from any approved subcontractor and forward a copy to: St. John the Baptist Parish, 1801 West Airline Hwy, LaPlace, Louisiana 70068, no later than five business days of contracting with its subcontractor; however, in no instance shall the affidavit be received after commencement of work by the subcontractor.

_____
Signature of Authorized Signatory

_____
Date E-Verify ID Assigned

_____
Printed Name of Signatory

_____
E-Verify ID

_____
Title of Authorized Signatory

SUBSCRIBED AND SWORN BEFORE ME ON THIS THE DAY OF_____, 20_____

_____
Notary Signature

Printed Notary Name: _____

Notary/Bar Roll Number: _____

My Commission is For/Expires: _____

Certification Regarding

Debarment, Suspension, and Other Responsibility Matters Primary Covered Transactions

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

(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS ON REVERSE)

(1) The prospective primary participant certifies to the best of its knowledge and belief that it and its principals:

(a) Are not presently debarred, suspended, proposed for disbarment, declared ineligible, or Voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three-year period preceding this application been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and

(d) Have not within a three-year period preceding this application had one or more public transactions (Federal, State, or local Terminated for cause of default.

(2) Where the Prospective primary participant is unable to certify to any of the statements in this Certification, such prospective primary participant shall attach an explanation to this proposal

Business Name: _____

Date _____ By _____

Name and Title of Authorized Representative

_____

Signature of Authorized Representative

Federal Recycling Program Printed on Recycled Paper

INSTRUCTIONS FOR CETERFICATION

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

SECTION 00610

PAYMENT BONDS

KNOW ALL MEN BY THESE PRESENTS: that

_____
(Name of Contractor)

_____
(Address of Contractor)

a _____, hereinafter called
(Corporation, Partnership, or Individual)

Principal, and _____
(Name of Surety)

_____
(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

_____
(Name of Owner)

_____
(Address of Owner)

hereinafter called Owner, in the penal sum of _____ ($_____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly, and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that Whereas, the Principal entered into a certain Contract with the Owner, dated the _____ day of _____ 2019, a copy of which is hereto attached and made a part hereof for the construction of:

Reserve Area Drainage Improvements Phase II

_____

_____

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms, subcontractors, and corporations furnishing materials for or performing labor in the prosecution of the work provided for in such contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such work and all insurance premiums on said work and for all labor, performed in such work whether by subcontractor or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

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

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

IN WITNESS WHEREOF, this instrument is executed in Six (6) counterparts each on which shall be deemed an original, this the _____ day of _____, 2019.

ATTEST:

_____
(PRINCIPAL)

(SEAL)_____ By _____
(Principal Secretary)

_____ _____
(Witness as to Principal) (Address)

_____
Address

_____ _____
Surety

ATTEST:

(SEAL)_____ By: _____
(Surety) Secretary

_____ _____
(Witness as to Surety)

_____
Address

_____

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is Partnership, all partners should execute bond.

IMPORTANT: Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the project is located.

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: that

_____
(Name of Contractor)

_____
(Address of Contractor)

a _____ hereinafter called
(Corporation, Partnership, or Individual)

Principal, and _____
(Name of Surety)

_____
(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

_____
(Name of Owner)

_____
(Address of Owner)

hereinafter called Owner, in the penal sum of _____ ($_____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly, and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain Contract with the Owner, dated the _____ day of _____ 2019, a copy of which is hereto attached and made a part hereof for the construction of:

Reserve Area Drainage Improvements Phase II _____

_____

_____

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the Owner, with or without notice to the Surety and during the one year guaranty period, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the Owner from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the Owner all outlay and expense which the Owner may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

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

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

IN WITNESS WHEREOF, this instrument is executed in Six (6) counterparts each on which shall be deemed an original, this the _____ day of _____, 2019.

ATTEST:

_____
(PRINCIPAL)

(SEAL)_____ By _____
(Principal Secretary)

_____ _____
(Witness as to Principal) (Address)

_____
Address

_____ _____
Surety

ATTEST:

(SEAL)_____ By: _____
(Surety) Secretary

_____ _____
(Witness as to Surety)

_____
Address

_____

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is Partnership, all partners should execute bond.

IMPORTANT: Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the project is located.

END OF SECTION

SECTION 00700

GENERAL CONDITIONS

ARTICLE 1 - DEFINITIONS

Wherever used in these General Conditions or in the other Contract Documents the following terms have the meanings indicated which are applicable to both the singular and plural thereof.

Addenda – Written or graphic instruments issued prior to the opening of Bids which clarify, correct or change the bidding documents or the Contract Documents.

Agreement – The written agreement between OWNER and CONTRACTOR covering the Work to be performed; other Contract Documents are attached to the Agreement and made a part thereof as provided therein.

Application for Payment – The form accepted by ENGINEER which is to be used by CONTRACTOR in requesting progress or final payments and which is to include such supporting documentation as is required by the Contract Documents.

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

Bonds – Bid, performance, payment and maintenance bonds and other instruments of security.

Change Order – A document recommended by ENGINEER, which is signed by CONTRACTOR and OWNER and authorizes an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Time, issued on or after the Effective Date of the Agreement.

Contract Documents – The Agreement, Addenda (which pertain to the Contract Documents), CONTRACTOR's Bid (including documentation accompanying the Bid and any post Bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Agreement, the Bonds, these General Conditions, the Supplementary conditions, the Specifications and the Drawings as the same are more specifically identified in the Agreement, together with all amendments, modifications and supplements issued on or after the Effective Date of the Agreement.

Contract Price – The moneys payable by OWNER to CONTRACTOR under the Contract Documents as stated in the Agreement.

Contract Time – The number of days or the date stated in the Agreement for the completion of the Work.

Contractor – The person, firm or corporation with whom OWNER has entered into the Agreement.

Defective – An adjective which when modifying the word Work refers to Work that is unsatisfactory, faulty or deficient, or does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents, or has been damaged prior to the ENGINEER's recommendation of final payment.

Drawings – The drawings which show the character and scope of the Work to be performed and which have been prepared or approved by the ENGINEER and are referred to in the Contract Documents.

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

Engineer – Shread-Kuyrkendall & Associates, Inc.

Notice of Award – The written notice by OWNER to the apparent successful bidder stating that upon compliance by the apparent successful bidder with the conditions precedent enumerated therein, within the time specified, OWNER will sign and deliver the Agreement.

Notice to Proceed – A written notice given by OWNER to CONTRACTOR (with a copy to ENGINEER) fixing the date on which the Contract Time will commence to run and on which CONTRACTOR shall start to perform CONTRACTOR's obligations under the Contract Documents.

Owner – The public body or authority, corporation, association, firm or person with whom CONTRACTOR has entered into the Agreement and for whom the Work is to be provided.

Partial Utilization – Placing a portion of the Work in service for the purpose for which it is intended (or a related purpose) before reaching Substantial Completion for all the Work.

Project – The total construction of which the Work to be provided under the Contract Documents may be the whole, or a part as indicated elsewhere in the Contract Documents.

Resident Project Representative – The authorized representative of ENGINEER who is assigned to the site or any part thereof.

Shop Drawings – All drawings, diagrams, illustrations, schedules and other data which are specifically prepared by or for CONTRACTOR to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a Supplier and submitted by CONTRACTOR to illustrate material or equipment for some portion of the Work.

Specifications – Those portions of the Contract Documents consisting of written technical descriptions of material, equipment, construction systems, standards and workmanship as applied to the work and certain administrative details applicable thereto.

Subcontractor – An individual, firm or corporation having a direct contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the Work at the site.

Substantial Completion – The Work (or a specified part thereof) has progressed to the point where, in the opinion of the ENGINEER as evidenced by ENGINEER's definitive Certificate of Substantial Completion, it is sufficiently complete, in accordance with the Contract Documents, so that the work (or specified part) can be utilized for the purposes for which it is intended; or if there be no such certificate issued, when final payment is due. The terms "substantially complete" and "substantially completed" as applied to any Work refer to Substantial Completion thereof.

Supplementary Conditions – The part of the Contract documents which amends or supplements these General Conditions.

Underground Facilities – All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following materials; electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.

Unit Price Work – Work to be paid for on the basis of unit prices.

Work – The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work is the result of performing services, furnishing labor and furnishing and incorporating materials and equipment into the construction, all as required by the Contract Documents.

ARTICLE 2 – PRELIMINARY MATTERS

Copies of Documents

2.1 OWNER shall furnish to CONTRACTOR up to ten copies (unless otherwise specified in the Supplementary Conditions) of the Contract Documents as are reasonably necessary for the execution of the Work. Additional copies will be furnished, upon request, at the cost of reproduction.

Notice to Proceed

2.2 A notice to proceed may be given at any time within thirty days after the Effective Date of the Agreement. The contract Time will commence at the time specified in such notice, or if no notice is given, thirty days following the Effective Date of Agreement, provided that the Notice to Proceed may not specify a time of commencement later than 60 days after the Effective Date of the Agreement.

Starting of the Project

2.3 CONTRACTOR shall start to perform the Work on the date when the Contract Time commences to run, but no Work shall be done at the site prior to the date on which the Contract Time commences to run.

Before Starting Construction

2.4 Before undertaking each part of the Work, CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. CONTRACTOR shall promptly report in writing to ENGINEER any conflict, error or discrepancy which CONTRACTOR may discover and shall obtain a written interpretation or clarification from ENGINEER before proceeding with any Work affected thereby; however, CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any conflict, error or discrepancy in the Contract Documents, unless CONTRACTOR had actual knowledge thereof or should reasonably have known thereof.

2.5 Within ten days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), CONTRACTOR shall submit to ENGINEER for review:

2.5.1 an estimated progress schedule indicating the starting and completion dates of the various stages of the Work:

2.5.2 a preliminary schedule of Shop Drawing submissions; and

2.5.3 a preliminary schedule of values for all of the work which will include quantities and prices of items aggregating the Contract Price and will subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work which will be confirmed in writing by CONTRACTOR at the time of submission.

Certificate of Insurance

2.6 Before any Work at the site is started, CONTRACTOR shall deliver to OWNER, with a copy to ENGINEER, Certificates of Insurance which CONTRACTOR is requested to purchase and maintain in accordance with the requirements of the General Conditions.

Preconstruction Conference

2.7 Within twenty days after the Effective Date of the Agreement, but before CONTRACTOR starts the work at the site, a conference attended by CONTRACTOR, ENGINEER and others as appropriate will be held to establish a working understanding among the parties as to the Work.

ARTICLE 3 – CONTRACT DOCUMENTS: AMENDING AND REUSE

Intent

3.1 If, during the performance of the Work, CONTRACTOR finds a conflict, error or discrepancy in the Contract Documents, CONTRACTOR shall so report to ENGINEER in writing at once and before proceeding with the Work affected thereby shall obtain a written interpretation of clarification from ENGINEER; however, CONTRACTGOR shall not be liable to OWNER or ENGINEER for failure to report any conflict, error or discrepancy in the Contract Documents unless CONTRACTOR had actual knowledge thereof or should reasonably have known thereof.

Reuse of Documents

3.2 Neither CONTRACTOR nor any Subcontractor or Supplier or other person or organization performing or furnishing any of the Work under a direct or indirect contract with OWNER shall have or acquire any title to or ownership rights in any of the Drawings, Specifications or other documents (or copies of any thereof) prepared by or bearing the seal of ENGINEER; and they shall not reuse any of them on extensions of the Project or any other project without written consent of OWNER and ENGINEER and specific written verification or adaptation by ENGINEER.

ARTICLE 4 – REFERENCE POINTS

Reference Points

4.1 OWNER shall provide engineering surveys to establish reference points for construction which in ENGINEER's judgement are necessary to enable CONTRACTOR to proceed with the Work. CONTRACTOR shall be responsible for laying out the Work (unless otherwise specified in the General Requirements), shall protect and preserve the established reference points and shall make no changes or relocations without the prior written approval of OWNER. CONTRACTOR shall report to ENGINEER whenever any reference point is lost or destroyed or required relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points by professionally qualified personnel.

ARTICLE 5 – INSURANCE

Contractor's Liability Insurance

5.1 CONTRACTOR shall purchase and maintain such comprehensive general liability and other insurance as is appropriate for the Work being performed and furnished and as will provide protection from claims set forth below which may arise out of or result from CONTRACTOR's performance and furnishing of the Work and CONTRACTOR's other obligations under the Contract Documents, whether it is to be performed or furnished by CONTRACTOR, by any Subcontractor, by anyone directly or indirectly employed by any of them to perform or furnish any of the Work, or by anyone else for whose acts any of them may be liable:

5.1.1 Claims under workers' or workmen's compensation, disability benefits and other similar employee benefit acts;

5.1.2 Claims for damages because of bodily injury, occupational sickness or disease, or death of CONTRACTOR's employees;

5.1.3 Claims for damages because of bodily injury, sickness or disease, or death of any person other than CONTRACTOR's employees;

5.1.4 Claims for damages insured by personal injury liability coverage which are sustained (a) by any person as a result of an offense directly or indirectly related to the employment of such person by CONTRACTOR, or (b) by any other person for any other reason;

5.1.5 Claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom;

5.1.6 Claims arising out of operation of Laws or Regulations for damages because of bodily injury or death of any person or for damage to property; and

5.1.7 Claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

The insurance required by this paragraph 5.1 shall include the specific coverages and be written for not less than the limits of liability and coverages provided in this paragraph as listed below, or required by law, whichever is greater. The comprehensive general liability insurance shall include completed operations insurance. All of the policies of insurance so required to be purchased and maintained (or the certificates or other evidence thereof) shall contain a provision or endorsement that the coverage afforded will not be cancelled, materially changed or renewal refused until at least thirty days prior written notice has been given to OWNER and ENGINEER by certified mail. All such insurance shall remain in effect until final payment and at all times thereafter when CONTRACTOR may be correcting, removing or replacing defective work. In addition, CONTRACTOR shall maintain such completed operations insurance for at least two years after final payment and furnish OWNER with evidence of continuation of such insurance at final payment and one year thereafter.

All liability insurance policies shall name the OWNER as additional insured. The limits of liability for the insurance required by paragraph 5.1 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by laws and regulations:

5.1.1 and 5.1.2 Workers' Compensation, etc.

1. State: Coverage A Statutory
2. Employer's Liability: Coverage B - $100,000 each accident

5.1.3, 5.1.4, 5.1.5, and 5.1.6 Comprehensive General Liability against all claims and liability for bodily injury, death or property damage arising out of the performance of Work under this Agreement.

1. Bodily Injury and property damage (combined)
   $1,000,000 single limit
   $1,000,000 annual aggregate
2. Property damage liability insurance will provide explosion, collapse and underground coverages where applicable.

5.1.8 Comprehensive Automobile Liability:

1. Bodily Injury and property damage (combined)
   $1,000,000 single limit
   $1,000,000 each accident

Contractual Liability Insurance

5.2 The comprehensive general liability insurance required by paragraph 5.1 will include contractual liability insurance applicable to CONTRACTOR's obligations under paragraphs 6.30 and 6.31.

Property Insurance

5.3 CONTRACTOR shall purchase and maintain property insurance upon the Work at the site to the full insurable value thereof (subject to such deductible amounts as may be provided in these General conditions or required by law). This insurance shall include the interests of OWNER, CONTRACTOR, Subcontractors, Engineer, and Engineer's Consultants in the Work, all of whom shall be listed as insured or additional insured parties, shall insure against perils of fire and extended coverage, shall include "all risk" insurance for physical loss and damage including theft, vandalism and malicious mischief, collapse and water

damage, and such other perils as may be provided in these General conditions, and shall include damages, losses, and expenses arising out of or resulting from any insured loss or incurred in the repair or replacement of any insured property (including but not limited to, fees and charges of engineers, architects, attorneys, and other professionals). If not covered under the "all risk" insurance or otherwise provided in these General conditions, CONTRACTOR shall purchase and maintain similar property insurance on portions of the Work stored on and off the site or in transit when such portions of the Work are to be included in an Application for Payment. The policies of insurance required to be purchased and maintained by CONTRACTOR in accordance with paragraph 5.3 shall contain a provision that the coverage afforded will not be cancelled or materially changed until at least thirty days' prior written notice has been given to OWNER.

5.4 OWNER shall not be responsible for purchasing and maintaining any property insurance to protect the interests of CONTRACTOR, Subcontractors or others in the Work to the extent of any deductible amounts. The risk of loss within the deductible amount will be borne by CONTRACTOR. Subcontractor or others suffering any such loss and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

Waiver of Rights

5.5.1 OWNER and CONTRACTOR waive all rights against each other for all losses and damages caused by any of the perils covered by the policies of insurance provided and any other property insurance applicable to the Work and also waive all such rights against the Subcontractors, ENGINEER, ENGINEER's consultants and all other parties named as insureds in such policies for losses and damages so caused. Each subcontract between CONTRACTOR and a Subcontractor will contain similar waiver provisions by the Subcontractor in favor of OWNER, CONTRACTOR, ENGINEER, ENGINEER's consultants and all other parties named as insureds. None of the above waivers shall extend to the rights that any of the insured parties may have to the proceeds of insurance held by OWNER as trustee or otherwise payable under any policy so issued.

5.5.2 OWNER and CONTRACTOR intend that any policies provided shall protect all of the parties insured and provide primary coverage for all losses and damages caused by the perils covered thereby. Accordingly, all such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any of the parties names as insureds or additional insureds, and if the insurers require separate waiver forms to the signed by ENGINEER or ENGINEER's consultant OWNER will obtain the same, and is such waiver forms are required of any Subcontractor, CONTRACTOR will obtain the same.

Receipt and Application of Proceeds

5.6 OWNER and made payable to OWNER as trustee for the insureds, as their interests may appear, subject to the requirements of any applicable mortgage clause and of paragraph 5.7. OWNER shall deposit in a separate account any money so received, and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached the damaged Work shall be repaired or replaced, the moneys so received applied on

account thereof and the Work and the cost thereof covered by an appropriate Change Order or Written Agreement.

5.7 OWNER as trustee shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within fifteen days after the occurrence of loss to OWNER's exercise of this power. If such objection be made, OWNER as trustee shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If required in writing by any party in interest, OWNER as trustee shall, upon the occurrence of an insured loss, give bond for the proper performance of such duties.

Acceptance of Insurance

5.8 If OWNER has any objection to the coverage afforded by or other provisions of the insurance required to be purchased and maintained by CONTRACTOR in accordance with paragraphs 5.1 and 5.2 on the basis of its not complying with the Contract Documents, OWNER shall notify CONTRACTOR in writing thereof within ten days of the date of delivery of such certificates to OWNER. If CONTRACTOR has any objection to the coverage afforded by or other provisions of the policies of insurance required to be purchased and maintained by OWNER on the basis of their not complying with the Contract Documents, CONTRACTOR shall notify OWNER in writing thereof within ten days of the date of delivery of such certificates to CONTRACTOR. OWNER and CONTRACTOR shall each provide to the other such additional information in respect of insurance provided by each as the other may reasonably request. Failure by OWNER or CONTRACTOR to give any such notice of objection within the time provided shall constitute acceptance of such insurance purchased by them other as complying with the Contract Documents.

ARTICLE 6 – CONTRACTOR'S RESPONSIBILITIES

Supervision and Superintendence

6.1 CONTRACTOR shall supervise and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences and procedures of construction, but CONTRACTOR shall not be responsible for the negligence of others in the design or selection of a specific means, method, technique, sequence or procedure of construction which is indicated in and required by the Contract Documents. CONTRACTOR shall be responsible to see that the finished Work complies accurately with the Contract Documents.

6.2 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 and ENGINEER except under extraordinary circumstances. The superintendent will be CONTRACTOR's representative at the site and shall have authority to act on behalf of CONTRACTOR. All communications given to the superintendent shall be as binding as if given to CONTRACTOR.

Labor, Materials and Equipment

6.3 CONTRACTOR shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. CONTRACTOR shall at all times maintain good discipline and

order at the site. Except in connection with the safety or protection of persons or the Work or property at the site or adjacent thereto, and except as otherwise indicated in the Contract Documents, all Work at the site shall be performed during regular working hours, and CONTRACTOR will not permit overtime work or the performance of Work on Saturday, Sunday or any legal holiday without OWNER's written consent given after prior written notice to ENGINEER.

6.3.1 Regular working hours are defined as up to 8 hours per day, Monday through Friday, beginning no earlier than 7:00 AM and ending no later than 7:00 PM, excluding holidays. Whenever the CONTRACTOR in performing any part of the Work, with the exception of equipment maintenance and cleanup, OWNER's representation and/or inspection will be required. Requests to work other than regular working hours must be submitted to the OWNER's designated representative at least 48 hours prior to any such proposed work or proposed weekend work to give the OWNER ample time to arrange for representation and/or inspection during those periods. Periodic unscheduled overtime on weekdays will be permitted provided that two hours notice is provided to the OWNER's designated representative. Maintenance and cleanup may be performed during hours other than regular working hours.

6.4 Unless otherwise specified in the General Requirements, CONTRACTOR shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performing, testing, start-up and completion of the Work.

6.5 All materials and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. If required by ENGINEER, CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable Supplier except as otherwise provided in the Contract Documents; but no provision of any such instructions will be effective to assign to ENGINEER, or any of ENGINEER's consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of these General Conditions.

Adjusting Progress Schedule

6.6 CONTRACTOR shall submit to ENGINEER for acceptance adjustments in the progress schedule to reflect the impact thereon of new developments; these will conform generally to the progress schedule then in effect and additionally will comply with any provisions of the General Requirements applicable thereto.

Substitutes or "Or-Equal" Items

6.7.1 Whenever materials or equipment are specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier the naming of the item is intended to establish the type, function and quality required. Unless the name is followed by words indicated that no substitution is permitted, materials or equipment of other Suppliers may be accepted by ENGINEER if sufficient information is submitted by CONTRACTOR to allow ENGINEER to determine that the

material or equipment proposed is equivalent or equal to that named. The procedure for review by ENGINEER will include the following. Requests for review of substitute items of material and equipment will not be accepted by ENGINEER from anyone other than CONTRACTOR. If CONTRACTOR wishes to furnish or use a substitute item of material or equipment, CONTRACTOR shall make written application to ENGINEER for acceptance thereof, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar and of equal substance to that specified and be suited to the same use as that specified. The application will state that the evaluation and acceptance of the proposed substitute will not prejudice CONTRACTOR's achievement of Substantial Completion on time, whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) to adapt the design to the proposed substitute and whether or not incorporation or use of the substitute in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified will be identified in the application and available maintenance, repair and replacement service will be indicated. The application will also contain an itemized estimate of all costs and delays that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which shall be considered by ENGINEER in evaluating the proposed substitute. ENGINEER may require CONTRACTOR to furnish at CONTRACTOR's expense additional data about the proposed substitute.

6.7.2 If a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents, CONTRACTOR may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to ENGINEER, if CONTRACTOR submits sufficient information to allow ENGINEER to determine that the substitute proposed is equivalent to that indicated or required by the Contract Documents.

6.7.3 ENGINEER will be allowed a reasonable time within which to evaluate each proposed substitute. ENGINEER will be the sole judge of acceptability, and no substitute will be ordered, installed or utilized without ENGINEER's prior written acceptance which will be evidenced by either a Change Order or an approved Shop Drawing. OWNER may require CONTRACTOR to furnish at CONTRACTOR's expense a special performance guarantee, or other surety with respect to any substitute. ENGINEER will record time required by ENGINEER and ENGINEER's consultants in evaluating substitutions proposed by CONTRACTOR and in making changes in the Contract Documents occasioned thereby.

Concerning Subcontractor's, Suppliers or Others

6.8.1 CONTRACTOR shall not employ any Subcontractor, Supplier or other person or organization whether initially or as a substitute, against whom OWNER or ENGINEER may have reasonable objection. CONTRACTOR shall not be required to employ any Subcontractor, Supplier or other person or organization to furnish or to perform any of the Work against whom CONTRACTOR has reasonable objection.

6.9 CONTRACTOR shall be fully responsible to OWNER and ENGINEER for all acts and omissions of the Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR just as CONTRACTOR is responsible for CONTRACTOR's own acts and omissions. Nothing in the Contract Documents shall create any contractual relationship between OWNER or ENGINEER and any such Subcontractor, Supplier or other person or organization, nor shall it create any obligation on the part of OWNER or ENGINEER to pay or to see to the payment of any moneys due any such Subcontractor, Supplier or other person or organization except as may otherwise be required by Laws and Regulations.

6.10 The divisions and sections of the Specifications and the identifications of any Drawings shall not control CONTRACTOR in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

6.11 All Work performed for CONTRACTOR by a Subcontractor will be pursuant to an appropriate agreement between CONTRACTOR and the Subcontractor which specifically binds the Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of OWNER and ENGINEER and contains waiver provisions.

Patent Fees and Royalties

6.12 CONTRACTOR shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product or device which is the subject of patent rights of copyrights held by others. If a particular invention, design, process, product or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of OWNER or ENGINEER its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by OWNER in the Contract Documents. CONTRACTOR shall indemnify and hold harmless OWNER and ENGINEER and anyone directly or indirectly employed by either of them from and against all claims, damages, losses and expenses (including attorneys' fees and court and arbitration costs) arising out of any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product or device not specified in the Contract Documents, and shall defend all such claims in connection with any alleged infringement of such rights.

Permits

6.13 Unless otherwise provided in the Supplementary Conditions, CONTRACTOR shall obtain and pay for all construction permits and licenses. CONTRACTOR shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or if there are no bids on the Effective Date of the Agreement. CONTRACTOR shall pay all charges of utility owners for connections to the Work, and OWNER shall pay all charges of such utility owners for capital costs related thereto such as plant investment fees.

Laws and Regulations

6.14.1 CONTRACTOR shall give all notices and comply with all Laws and Regulations applicable to furnishing and performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither OWNER nor ENGINEER shall be responsible for monitoring CONTRACTOR's compliance with any Laws or Regulations.

6.14.2 If CONTRACTOR observes that the Specifications or Drawings are at variance with any Laws or Regulations, CONTRACTOR shall give ENGINEER prompt written notice thereof, and any necessary changes will be authorized. If CONTRACTOR performs any Work knowing or having reason to know that it is contrary to such Laws or Regulations, and without such notice to ENGINEER, CONTRACTOR shall bear all costs arising therefrom; however, it shall not be CONTRACTOR's primary responsibility to make certain that the Specifications and Drawings are in accordance with such Laws and Regulations.

Taxes

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

Use of Premises

6.16 CONTRACTOR shall confine construction equipment, the storage of materials, and equipment and the operations of workers to the Project site and land and areas identified in and permitted by the Contract Documents and other land and areas permitted by Laws and Regulations, rights-of-way, permits and easements, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. CONTRACTOR shall assume full responsibility for any damage to any such land or areas, or to the owner or occupant thereof or of any land or areas contiguous thereto, resulting from the performance of the Work. Should any claim be made against OWNER or ENGINEER by any such OWNER or occupant because of the performance of the work, CONTRACTOR shall promptly attempt to settle with such other party by agreement or otherwise resolve the claim by arbitration or at law. CONTRACTOR shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold OWNER and ENGINEER harmless from and against all claims, damages, losses and expenses (including, but not limited to, fees of engineers, architects, attorneys and other professionals and court and arbitration costs) arising directly, indirectly or consequentially out of any action, legal or equitable, brought by any such other party against OWNER or ENGINEER to the extent based on a claim arising out of CONTRACTOR's performance of the Work.

6.17 During the progress of the Work, CONTRACTOR shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work CONTRACTOR shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery, and surplus materials, and shall leave the site clean and ready for occupancy by OWNER. CONTRACTOR shall restore to original condition all property not designated for alteration by the Contract Documents.

6.18 CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall CONTRACTOR subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

Record Documents

6.19 CONTRACTOR shall maintain in a safe place at the site one record copy of all Drawings, Specifications, Addenda, Written Amendments, Change Orders, Work Directive Changes, Field Orders and written interpretations and clarifications in good order and annotated to show all changes made during construction. These record documents together with all approved samples and a counterpart of all approved samples and a counterpart of all approved Shop Drawings will be available to ENGINEER for reference. Upon completion of the Work, these record documents, samples and Shop Drawings will be delivered to ENGINEER for OWNER.

Safety and Protection

6.20 CONTRACTOR shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

6.20.1 all employees on the Work and other persons and organizations who may be affected thereby;

6.20.2 all the Work and materials and equipment to be incorporated therein, whether in storage on or off the site; and

6.20.3 other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and Underground Facilities not designated for removal, relocation or replacement in the course of construction.

CONTRACTOR shall comply with all applicable Laws and Regulations of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and Underground Facilities and utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property. All damage, injury or loss to any property referred to in paragraph 6.20.2 or 6.20.3 caused, directly or indirectly, in whole or in part, by CONTRACTOR, any Subcontractor, Supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, shall be remedied by CONTRACTOR (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of OWNER or ENGINEER or anyone employed by either of them or anyone for whose acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of CONTRACTOR). CONTRACTOR's duties and responsibilities for the safety and protection of the Work shall continue until such time as all the Work is completed and ENGINEER has issued a notice to OWNER and CONTRACTOR that the Work is acceptable.

6.21 CONTRACTOR shall designate a responsible representative at the site whose duty shall be the prevention of accidents. This person shall be CONTRACTOR's superintendent unless otherwise designated in writing by CONTRACTOR to OWNER.

Emergencies

6.22 In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, CONTRACTOR, without special instruction or authorization from ENGINEER or OWNER, is obligated to act to prevent threatened damage, injury or loss. CONTRACTOR shall give ENGINEER prompt written notice if CONTRACTOR believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If ENGINEER determines that a change in the Contract Documents is required because of the action taken in response to an emergency, a Change Order will be issued to document the consequences of the changes or variations.

Shop Drawings and Samples

6.23 After checking and verifying all field measurements and after complying with applicable procedures specified in the General Requirements, CONTRACTOR shall submit to ENGINEER for review and approval in accordance with the accepted schedule of Shop Drawing submissions or for other appropriate action if so indicated in the Supplementary Conditions, five copies (unless otherwise specified in the General Requirements) of all Shop Drawings, which will bear a stamp or specific written indication that CONTRACTOR has satisfied CONTRACTOR's responsibilities under the Contract Documents with respect to the review of the submission. All submissions will be identified as ENGINEER may require. The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials and similar data to enable ENGINEER to review the information as required.

6.24 CONTRACTOR shall also submit to ENGINEER for review and approval with such promptness as to cause no delay in Work, all samples required by the Contract Documents. All samples will have been checked by and accompanied by a specific written indication that CONTRACTOR has satisfied CONTRACTOR's responsibilities under the Contract Documents with respect to the review of the submission and will be identified clearly as to material, Supplier, pertinent data such as catalog numbers and the use for which intended.

6.25.1 Before submission of each Shop Drawing or sample CONTRACTOR shall have determined and verified all quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers and similar data with respect thereto and reviewed or coordinated each Shop Drawing or sample with other Shop Drawings and samples and with the requirements of the Work and the Contract Documents.

6.25.2 At the time of each submission, CONTRACTOR shall give Engineer specific written notice of each variation that the Shop Drawings or samples may have from the requirements of the Contract Documents, and, in addition, shall cause a specific notation to be made on each Shop Drawing submitted to ENGINEER for review and approval of each such variation.

6.26 ENGINEER will review and approve with reasonable promptness Shop Drawings and samples, but ENGINEER's review and approval will be only for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents and shall not extend to means, methods, techniques, sequences or procedures of construction (except where a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions. CONTRACTOR shall made corrections required by ENGINEER, and shall return the required number of corrected copies of Shop Drawings and submit as required new samples for review and approval. CONTRACTOR shall direct specific attention in writing to revisions other than the corrections called for by ENGINEER on previous submittals.

6.27 ENGINEER's review and approval of Shop Drawings or samples shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the Contract Documents unless CONTRACTOR has in writing call ENGINEER's attention to each such variation at the time of submission as required by paragraph 6.25.2 and ENGINEER has given written approval of each such variation by a specific written notification thereof incorporated in or accompanying the Shop Drawing or sample approval; nor will any approval by ENGINEER relieve CONTRACTOR from responsibility for errors or omissions in the Shop Drawings or from responsibility for having complied with the provisions of paragraph 6.25.1.

6.28 Where a Shop Drawing or sample is required by the Specifications, any related work performed prior to ENGINEER's review and approval of the pertinent submission will be the sole expense and responsibility of CONTRACTOR.

Continuing the Work

6.29 CONTRACTOR shall carry on the Work and adhere to the progress schedule during all disputes or disagreements with OWNER. No work shall be delayed or postponed pending resolution of any disputes or disagreements unless the CONTRACTOR and OWNER agree in writing.

Indemnification

6.30 To the fullest extent permitted by Laws and Regulations CONTRACTOR shall indemnify and hold harmless OWNER and ENGINEER and their consultants, agents and employees from and against all claims, damages, losses, and expenses, direct, indirect or consequential (including but not limited to fees and charges of engineers, architects, attorneys and other professionals and court and arbitration costs) arising out of or resulting from the performance of the Work provided that any such claim, damage, loss or expense (a) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) including the loss of use resulting therefrom and (b) is caused in whole or in part by any negligent act or omission of CONTRACTOR, any Subcontractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder or arises by or is imposed by Law and Regulations regardless of the negligence of any such party.

6.31 If any and all claims against OWNER or ENGINEER or any of their consultants, agents or employees by any employee of CONTRACTOR, any Subcontractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, the indemnification obligation under paragraph 6.30 shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for CONTRACTOR or any such Subcontractor or other person or organization under workmen's compensation acts, disability benefit acts or other employee benefit acts.

6.32 The obligations of CONTRACTOR under paragraph 6.30 shall not extend to the liability of ENGINEER, ENGINEER's consultants, agents or employees arising out of the preparation or approval of maps, drawings, opinions, reports, surveys, Change Orders, designs or specifications.

ARTICLE 7 – OTHER WORK

Related Work at Site

7.1 OWNER may perform other work related to the Project at the site by OWNER's own forces, have other work performed by utility owners or let other direct contracts therefor which shall contain General Conditions similar to these.

7.2 CONTRACTOR shall afford each utility owner and other contractor who is a party to such a direct contract (or OWNER, if OWNER is performing the additional work with OWNER's employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such work, and shall properly connect and coordinate the Work with theirs. CONTRACTOR shall do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work. CONTRACTOR shall not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of ENGINEER and the others whose work will be affected. The duties and responsibilities of CONTRACTOR under this paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of CONTRACTOR in said direct contracts between OWNER and such utility owners and other contractors.

7.3 If any part of CONTRACTOR's Work depends for proper execution or results upon the work of any such other contractor or utility owner (or OWNER), CONTRACTOR shall inspect and promptly report to ENGINEER in writing any delays, defects or deficiencies in such work that render it unavailable or unsuitable for such proper execution and results. CONTRACTOR's failure so to report will constitute an acceptance of the other work as fit and proper for integration with CONTRACTOR's Work except for latent or non-apparent defects and deficiencies in the other work.

7.4 The parties expressly acknowledge that work may be done on the Project by other contractors and that the Work to be done by the CONTRACTOR under this contract may interface with the Work of these other contractors. Thus, in addition to the foregoing paragraphs in this Article 7, the following provisions apply:

7.4.1 The CONTRACTOR shall cooperate with all other contractors who may be performing work in behalf of the OWNER in the vicinity of the Work

to be done under this contract, and he shall conduct his operations as to interfere to the least possible extent with the work of such contractors.

7.4.2 The CONTRACTOR shall promptly make good, at his own expense, any injury or damage that may be caused by him to other contractors or employees or subcontractors or suppliers thereof.

7.4.3 Any difference or conflict which may arise between the CONTRACTOR and other contractors in regard to their respective work shall be adjusted and determined by the ENGINEER. Whenever there is interference with work under other contracts, the Engineer shall decide the manner in which the work under each contract shall proceed. Where connections are required between components of the work the general principal to prevail is that the last contractor to complete its work shall make and bear the expense of the connection.

7.4.4 If the work is delayed because of any acts or omissions of any other contractor, the CONTRACTOR shall have no claim against the OWNER on that account other than an extension of the Contract Time.

ARTICLE 8 – OWNER'S RESPONSIBILITIES

8.1 OWNER shall issue all communications to CONTRACTOR through ENGINEER.

8.2 In case of termination of the employment of ENGINEER, OWNER shall appoint an engineer whose status under the Contract Documents shall be that of the former ENGINEER.

8.3 OWNER shall furnish the data required of OWNER under the Contract Documents promptly and shall make payments to CONTRACTOR promptly after they are due.

ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

Owner's Representative

9.1 ENGINEER will be OWNER's representative during the construction period. The duties and responsibilities and the limitations of authority of ENGINEER as OWNER's representative during construction are set forth in the Contract Documents and shall not be extended without written consent of OWNER and ENGINEER.

Visits to Site

9.2 ENGINEER will make visits to the site at intervals appropriate to the various stages on construction to observe the progress and quality of the executed Work and to determine, in general, if the Work is proceeding in accordance with the Contract Documents. ENGINEER will not be required to made exhaustive or continuous on-site inspections to check the quality or quantity of the Work. ENGINEER's efforts will be directed toward providing for OWNER a greater degree of confidence that the completed Work will conform to the Contract Documents. On the basis of such visits and on-site observations as an experienced and qualified design professional, ENGINEER will keep OWNER informed of the progress of the Work and will endeavor to guard OWNER against defects and deficiencies in the Work.

Project Representation

9.3 The ENGINEER may if requested by the OWNER furnish a Resident Project Representative to assist ENGINEER in observing the performance of the Work. The duties, responsibilities and limitations of authority of this Resident Project Representative and assistants are set forth in other parts of these Contract Documents.

Clarifications and Interpretations

9.4 ENGINEER will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents (in the form of Drawings or otherwise) as ENGINEER may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the Contract Documents. If CONTRACTOR believes that a written clarification or interpretation justifies an increase in the Contract Price or an extension of the Contract Time and the parties are unable to agree to the amount or extent thereof, CONTRACTOR may make a claim.

Authorized Variations in work

9.5 ENGINEER may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Time and are consistent with the overall intent of the Contract Documents. These will be binding on OWNER, and also on CONTRACTOR who shall perform the Work involved promptly. If CONTRACTOR believes that the change justifies an increase in the Contract Price or an extension of the Contract time and the parties are unable to agree as to the amount or extent thereof, CONTRACTOR may make a claim.

Rejecting Defective Work

9.6 ENGINEER will have authority to disapprove or reject Work which ENGINEER believes to be defective, and will also have authority to require special inspection or testing of the Work whether or not the Work is fabricated, installed or completed.

Determinations for Unit Prices

9.7 ENGINEER will determine the actual quantities and classifications of Unit Price Work performed by CONTRACTOR. ENGINEER will review with CONTRACTOR ENGINEER's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). ENGINEER's written decisions thereon will be final and binding upon OWNER and CONTRACTOR, unless, within ten days after the date of any such decision, either OWNER or CONTRACTOR delivers to the other party to the Agreement and to ENGINEER written notice of intention of appeal from such a decision.

Decisions on Disputes

9.8 ENGINEER will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. Claims, disputes and other matters relating to the acceptability of the Work or the interpretation of the requirements of the Contract Documents pertaining to the performance and furnishing of the Work and claims in respect to changes in the Contract Price or Contract Time will be referred initially to ENGINEER in

writing with a request for a formal decision in accordance with this paragraph, which ENGINEER will render in writing within a reasonable time. A Written notice of each such claim, dispute and other matter will be delivered by the claimant to ENGINEER and the other party to the Agreement promptly (but in no event later than thirty days) after the occurrence of the event giving rise thereto, and written supporting data will be submitted to ENGINEER and the other party within sixty days after such occurrence unless ENGINEER allows an additional period of time to ascertain more accurate data in support of the claim.

Limitations of ENGINEER's Responsibilities

9.9 Neither ENGINEER's authority to act under this Article 9 or elsewhere in the Contract Documents nor any decision made by ENGINEER in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of ENGINEER to CONTRACTOR, any Subcontractor, any Supplier, or any other person or organization performing any of the Work, or to any surety for any of them.

9.10 Whenever in the Contract Documents the terms "as ordered", "as directed", "as required", "as allowed", "as approved" or terms of like effect or import are used, or the adjectives "reasonable", "suitable", "acceptable", "proper" or "satisfactory" or adjectives of like effect or import are used to describe a requirement, direction, review or judgement of ENGINEER as to the Work, it is intended that such requirements, direction, review or judgement will be solely to evaluate the Work for compliance with the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective shall not be effective to assign to ENGINEER any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 9.11 or 9.12.

9.11 ENGINEER will not be responsible for CONTRACTOR's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, and ENGINEER will not be responsible for CONTRACTOR's failure to perform or furnish the work in accordance with the Contract Documents

9.12 ENGINEER will not be responsible for the acts or omissions of CONTRACTOR or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.

ARTICLE 10 – CHANGES IN THE WORK

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

10.2 CONTRACTOR shall not be entitled to an increase in the Contract Price or an extension of the Contract Time with respect to any work performed that is not required by the Contract Documents as amended, modified and supplemented.

10.3 OWNER and CONTRACTOR shall execute appropriate Change Orders covering:

10.3.1 changes in the Work which are ordered by OWNER pursuant to paragraph 10.1, are required because of acceptance of defective Work under paragraph 13.13 or correcting defective Work under paragraph 13.14, or are agreed to by the parties:

10.3.2 changes in the Contract Price or Contract Time which are agreed to by the parties; and

10.3.3 changes in the Contract Price or Contract Time which embody the substance of any written decision rendered by ENGINEER pursuant to paragraph 9.8.

provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, CONTRACTOR shall carry on the Work and adhere to the progress schedule.

10.4 If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Time) is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be CONTRACTOR's responsibility, and the amount of each applicable Bond will be adjusted accordingly.

10.5 At any time ENGINEER may request a quotation from CONTRACTOR for a proposed change in the Work. Within thirty (30) calendar days after receipt of a request for a quotation for a proposed change, CONTRACTOR shall submit a written and detailed proposal for an increase or decrease in the Contract Price or Contract Time for the proposed change. ENGINEER shall have thirty (30) calendar days after receipt of the detailed proposal to respond in writing. The proposal shall include an itemized estimate of all costs and time for performance that will result directly or indirectly from the proposed change. Unless otherwise directed, itemized estimates shall be in sufficient detail reasonably to permit an analysis by the Engineer of all material, labor, equipment, subcontracts, overhead costs and fees, and shall cover all Work involved in the change, whether such Work was deleted, added, changed or impacted. Any amount claimed for subcontracts shall be similarly supported. Notwithstanding the request for quotation, Contractor shall carry on the Work and maintain the progress schedule. Delays in the submittal of the written and detailed proposal will be considered non-prejudicial.

10.6 The adjustment in Contract Price and/or Contract Time stated in a Change Order shall comprise the total price and/or time adjustment due or owed the Contractor for the work or changes defined in the Change Order. By executing the Change Order, the Contractor acknowledges and agrees that the stipulated price and/or time adjustments include the costs and delays for all work contained in the Change Order, including costs and delays associated with the interruption of schedules, extended overheads, delay, and cumulative impacts or ripple effect on

all other non-affected work under this contract. Signing of the Change Order constitutes full and mutual accord and satisfaction for the adjustment in contract price and/or time as a result of increases or decreases in costs and time of performance caused directly and indirectly from the change, subject to the current scope of the entire work as set forth in the Contract Documents. Acceptance of this waiver constitutes an agreement between Owner and Contractor that the Change Order represents an equitable adjustment to the Contract and that Contractor waives all rights to file a claim on this Change Order after it is properly executed.

ARTICLE 11 – CHANGE OF CONTRACT PRICE

11.1 The Contract Price constitutes the total compensation (subject to authorized adjustments) payable to CONTRACTOR for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by CONTRACTOR shall be at his expense without change in the Contract Price.

11.2 The Contract Price may only be changed by a Change Order or by a Written Amendment. Any claim for an increase or decrease in the Contract Price shall be based on written notice delivered by the party making the claim to the other party and to ENGINEER promptly (but in no event later than twenty days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the amount of the claim with supporting data shall be delivered within fifty days after such occurrence (unless ENGINEER allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by claimant's written statement that the amount claimed covers all known amounts (direct, indirect and consequential) to which the claimant is entitled as a result of the occurrence of said event. All claims for adjustment in the Contract Price shall be determined by ENGINEER in accordance with paragraph 9.8 if OWNER and CONTRACTOR cannot otherwise agree on the amount involved. No claim for an adjustment in the Contract Price will be valid if not submitted in accordance with this paragraph.

11.2 The value of any Work covered by a Change Order or of any claim for an increase or decrease in the Contract Price shall be determined in one of the following ways:

11.3.1 Where the Work involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities of the items involved.

11.3.2 By mutual acceptance of a lump sum (which may include an allowance for overhead and profit).

ARTICLE 12 – CHANGE OF CONTRACT TIME

12.1 The Contract Time may only be changed by a Change Order or a Written Amendment. Any claim for an extension or shortening of the Contract Time shall be based on written notice delivered by the party making the claim to the other

party and to ENGINEER promptly (but in no event later than thirty days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the extent of the claim with supporting data shall be delivered within sixty days after such occurrence (unless ENGINEER allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by the claimant's written statement that the adjustment claimed is th entire adjustment to which the claimant has reason to believe it is entitled as a result of the occurrence of said event. All claims for adjustment in the Contract Time shall be determined by ENGINEER in accordance with paragraph 9.8 if OWNER and CONTRACTOR cannot otherwise agree. No claim for an adjustment in the Contract Time will be valid if not submitted in accordance with the requirements of this paragraph.

12.2 The Contract Time will be extended in an amount equal to time lost due to delays beyond the control of CONTRACTOR if a claim is made therefor as provided in paragraph 12.1. Such delays shall include, but not be limited to, acts or neglect by OWNER or others performing additional work as contemplated by Article 7, or to fires, floods, labor disputes, epidemics, abnormal weather conditions or acts of God.

12.3 All time limits stated in the Contract Documents are of the essence of the Agreement. The provisions of this Article 12 shall not exclude recovery for damages (including but not limited to fees and charges of engineers, architects, attorneys and other professionals and court and arbitration costs) for delay by either party.

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

Warranty and Guarantee

13.1 CONTRACTOR warrants and guarantees to OWNER and ENGINEER that all Work will be in accordance with the Contract Documents and will not be defective. Prompt notice of all defects shall be given to CONTRACTOR. All defective work, whether or not in place, may be rejected, corrected or accepted as provided in this Article 13.

Access to Work

13.2 ENGINEER and ENGINEER's representatives, other representatives of OWNER, testing agencies and governmental agencies with jurisdictional interests will have access to the Work at reasonable times for their observation, inspecting and testing. CONTRACTOR shall provide proper and safe conditions for such access.

Tests and Inspections

13.3 CONTRACTOR shall give ENGINEER timely notice of readiness of the Work for required inspections, tests or approvals.

13.4 If Laws or Regulations of any public body having jurisdiction requires any Work (or part thereof) to specifically be inspected, tested or approved, CONTRACTOR shall assume full responsibility therefor, pay all costs in connection therewith and furnish ENGINEER the required certificates of inspection, testing or approval. CONTRACTOR shall also be responsible for and shall pay all costs in connection with any inspection or testing required in connection with OWNER's or ENGINEER's acceptance of a Supplier of materials or equipment proposed to be incorporated in the Work, or of materials or equipment submitted for approval prior to CONTRACTOR's purchase thereof for incorporation in the Work. The cost of all inspections, tests and approvals in addition to the above which are required by the Contract Documents shall be paid by OWNER (unless otherwise specified).

13.5 All inspections, tests or approvals other than those required by Laws or Regulations of any public body having jurisdiction shall be performed by organizations acceptable to OWNER and CONTRACTOR (or by ENGINEER if so specified).

13.6 If any Work (including the work of others) that is to be inspected, tested or approved is covered without written concurrence of ENGINEER, it must, if requested by ENGINEER, be uncovered for observation. Such uncovering shall be at CONTRACTOR's expense unless CONTRACTOR has given ENGINEER timely notice of CONTRACTOR's intention to cover the same and ENGINEER has not acted with reasonable promptness in response to such notice.

13.7 Neither observations by ENGINEER nor inspections, tests or approvals by others shall relieve CONTRACTOR from CONTRACTOR's obligations to perform the Work in accordance with the Contract Documents.

Uncovering Work

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

13.9 If ENGINEER considers it necessary or advisable that covered Work be observed by ENGINEER or inspected or tested by others, CONTRACTOR, at ENGINEER's request, shall uncover, expose or otherwise make available for observation, inspection or testing as ENGINEER may require, that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is defective, CONTRACTOR shall bear all direct, indirect and consequential costs of such uncovering, exposure, observation, inspection and

testing and of satisfactory reconstruction, (including but not limited to fees and charges of engineers, architects, attorneys and other professionals), and OWNER shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, may make a claim therefor as provided in Article 11. 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; and, if the parties are unable to agree as to the amount or extent thereof, CONTRACTOR may make a claim therefor as provided in Articles 11 and 12.

Owner May Stop the Work

13.10 If the Work is defective, or CONTRACTOR fails to supply sufficient skilled workers or suitable materials or equipment, or fails to furnish or perform the Work in such a way that the completed Work will conform to the Contract Documents, OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of OWNER to stop the Work shall not give rise to any duty on the part of OWNER to exercise this right for the benefit of CONTRACTOR or any other party.

Correction or Removal of Defective Work

13.11 If required by ENGINEER, CONTRACTOR shall promptly, as directed, either correct all defective Work, whether or not fabricated, installed or completed, or if the Work has been rejected by ENGINEER, remove it from the site and replace it with non-defective Work. CONTRACTOR shall bear all direct, indirect and consequential costs of such correction or removal (including but not limited to fees and charges of engineers, architects, attorneys and other professionals) made necessary thereby.

13.11.1 The Contractor shall not be entitled to an extension of the Contract Time for correcting or removing defective Work.

One Year Correction Period

13.12 If within one year after the date of Substantial Completion or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Work ifs 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 damage, OWNER may have the defective Work corrected or the rejected Work removed and replaced, and all direct, indirect and consequential costs of

such removal and replacement (including but not limited to fees and charges of engineers, architects, attorneys and other professionals) will be paid by CONTRACTOR. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that time may start to run from an earlier date if so provided in the Specifications or by Written Amendment.

Acceptance of Defective Work

13.13 If, instead of requiring correction or removal and replacement of defective Work, OWNER (and, prior to ENGINEER's recommendation of final payment, also ENGINEER) prefers to accept it, OWNER may do so. CONTRACTOR shall bear all direct, indirect and consequential costs attributable to OWNER's evaluation of and determination to accept such defective Work (such costs to be approved by ENGINEER as to reasonableness and to include but not be limited to fees and charges of engineers, architects, attorneys and other professionals). If any such acceptance occurs prior to ENGINEER's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, OWNER may make a claim therefor as provided in Article 11. If the acceptance occurs after such recommendation, an appropriate amount will be paid by CONTRACTOR to OWNER.

Owner May Correct Defective Work

13.14 If CONTRACTOR fails within a reasonable time after written notice of ENGINEER to proceed to correct and to correct defective Work or to remove and replace rejected Work as required by ENGINEER in accordance with paragraph 13.11, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if CONTRACTOR fails to comply with any other provision of the Contract Documents, OWNER may, after seven days' written notice to CONTRACTOR, correct and remedy any such deficiency. In exercising the rights and remedies under this paragraph OWNER shall proceed expeditiously. To the extent necessary to complete corrective and remedial action, OWNER may exclude CONTRACTOR from all or part of the site, take possession of all or part of the Work, and suspend CONTRACTOR's services related thereto, take possession of Contractors tools, appliances, construction equipment and machinery at the site and incorporate in the Work all materials and equipment stored at the site for which OWNER has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow OWNER, OWNER's representatives, agents and employees such access to the site as may be necessary to enable OWNER to exercise the rights and remedies under this paragraph. All direct, indirect and consequential costs of OWNER in exercising such rights and remedies will be charged against CONTRACTOR in an amount approved as to reasonableness by ENGINEER, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and

OWNER shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, OWNER may make a claim therefor as provided in Article 11. Such direct, indirect and consequential costs will include but not be limited to fees and charges of engineers, architects, attorneys and other professionals, all court and arbitration cost sand all costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of CONTRACTOR's defective Work. CONTRACTOR shall not be allowed an extension of the Contract Time because of any delay in performance of the Work attributable to the exercise by OWNER of OWNER's rights and remedies hereunder.

ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

Schedule of Values

14.1 The schedule of values established will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to ENGINEER. Progress payments on account of Unit Price Work will be based on the number of units completed.

Application for Progress Payment

14.2 At least twenty days before each progress payment is scheduled (but not more often than once a month), CONTRACTOR shall submit to ENGINEER for review an Application for Payment filled out and signed by CONTRACTOR covering the Work completed as of the date of the application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the site or at another location agreed to in writing, the application for Payment shall also be accompanied by a bill of sale, invoice or other documentation warranting that OWNER has received the materials and equipment free and clear of all liens, charges, security interests and encumbrances (which are hereinafter in these General Conditions referred to as "Liens") and evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect OWNER's interest therein, all of which will be satisfactory to OWNER. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

Contractor's Warranty of Title

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

Review of Applications for Progress Payment

14.4 ENGINEER will, within ten days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to OWNER, or return the Application to CONTRACTOR indicating in writing ENGINEER's reasons for refusing to recommend payment. In the latter case, CONTRACTOR may make the necessary corrections and resubmit the Application. Thirty days after presentation of the Application for Payment with ENGINEER's recommendation, the amount recommended will (subject to the provisions of the last sentence of paragraph 14.7) become due and when due will be paid by OWNER to CONTRACTOR.

14.5 ENGINEER's recommendation of any payment requested in an Application for Payment will constitute a representation by ENGINEER to OWNER, based on ENGINEER's on-site observations of the Work in progress as an experienced and qualified design professional and on ENGINEER's review of the Application for Payment and the accompanying data and schedules that the Work has progressed to the point indicated; that, to the best of ENGINEER's knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents; and that CONTRACTOR is entitled to payment of the amount recommended. However, by recommending any such payment ENGINEER will not thereby be deemed to have represented that exhaustive or continuous on-site inspections have been made to check the quality or the quantity of the Work beyond the responsibilities specifically assigned to ENGINEER in the Contract Documents or that there may not be other matters or issues between the parties that might entitle CONTRACTOR to be paid additionally by OWNER or OWNER to withhold payment to CONTRACTOR.

14.6 ENGINEER's recommendation of final payment will constitute an additional representation by ENGINEER to OWNER that the conditions precedent to CONTRACTOR's being entitled to final payment as set forth in paragraph 14.12 have been fulfilled.

14.7 ENGINEER may refuse to recommend the whole or any part of any payment if, in ENGINEER's opinion, it would be incorrect to make such representations to OWNER. ENGINEER may also refuse to recommend any such payment, or, because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify any such payment previously recommended, to such extent as may be necessary in ENGINEER's opinion to protect OWNER from loss because:

14.7.1 the Work is defective, or completed Work has been damaged requiring correction or replacement,

14.7.2 the Contract Price has been reduced by Written Amendment or Change Order,

14.7.3 OWNER has been required to correct defective Work or complete Work in accordance with paragraph 13.14, or

14.7.4 of ENGINEER's actual knowledge of the occurrence of any of the events enumerated in paragraphs 15.2.1 through 15.2 9 inclusive.

OWNER may refuse to make payment of the full amount recommended by ENGINEER because claims have been made against OWNER on account of CONTRACTOR's performance or furnishing of the Work or Liens have been filed in connection with the Work or there are other items entitling OWNER to a set-off against the amount recommended, but OWNER must give CONTRACTOR immediate written notice (with a copy to ENGINEER) stating the reasons for such action.

Substantial Completion

14.8 When CONTRACTOR considers the entire Work ready for its intended use CONTRACTOR shall notify OWNER and ENGINEER in writing that the entire Work is substantially complete (except for items specifically listed by CONTRACTOR as incomplete). Within a reasonable time thereafter, OWNER, CONTRACTOR and ENGINEER shall make an inspection of the Work to determine the status of completion. If ENGINEER does not consider the Work substantially complete, ENGINEER will notify CONTRACTOR in writing giving the reasons therefor.

14.9 Use by OWNER of any finished part of the work, which has specifically been identified in the Contract Documents, or which OWNER, ENGINEER and CONTRACTOR agree constitutes a separately functioning and useable part of the Work that can be used by OWNER without significant interference with CONTRACTOR' performance of the remainder of the Work, may be accomplished prior to Substantial Completion of all the Work subject to the following:

14.9.1 OWNER at any time may request CONTRACTOR in writing to permit OWNER to use any such part of the work which OWNER believes to be ready for its intended use and substantially complete. If CONTRACTOR agrees, CONTRACTOR will certify to OWNER and ENGINEER that said part of the Work is substantially complete. OWNER, CONTRACTOR and ENGINEER shall make an inspection of that part of the Work to determine its status of completion. If ENGINEER does not consider that part of the Work to be substantially complete, ENGINEER will notify OWNER and CONTRACTOR in writing giving the reasons therefor.

14.9.2 OWNER may at any time request CONTRACTOR in writing to permit OWNER to take over operation of any such part of the Work although it is not substantially complete. A copy of such request will be sent to ENGINEER and within a reasonable time thereafter OWNER, CONTRACTOR and ENGINEER shall make an inspection of that part of

the Work to determine its status of completion and will prepare a list of the items remaining to be completed or corrected thereon before final payment. If CONTRACTOR does not object in writing to OWNER and ENGINEER that such part of the Work is not ready for separate operation by OWNER, ENGINEER will finalize the list of items to be completed or corrected and will deliver such list to OWNER and CONTRACTOR together with a written recommendation as to the division of responsibilities pending final payment between OWNER and CONTRACTOR with respect to security, operation, safety, maintenance, utilities, insurance, warranties and guarantees for that part of the Work which will become binding upon OWNER and CONTRACTOR at the time when OWNER takes over such operation (unless they shall have otherwise agreed in writing and so informed ENGINEER). During such operation and prior to Substantial Completion of such part of the Work, OWNER shall allow CONTRACTOR reasonable access to complete or correct items on said list and to complete other related Work.

Final Inspection

14.10 Upon written notice from CONTRACTOR that the entire Work or an agreed portion thereof is complete, ENGINEER will make a final inspection with OWNER and CONTRACTOR and will notify CONTRACTOR in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. CONTRACTOR shall immediately take such measures as are necessary to remedy such deficiencies.

Final Application for Payment

14.11 After CONTRACTOR has completed all such corrections to the satisfaction of ENGINEER and delivered all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, marked-up record documents and other documents – all as required by the Contract Documents, and after ENGINEER has indicated that the Work is acceptable (subject to the provisions of paragraph 14.15), CONTRACTOR may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied by all documentation called for in the Contract Documents, together with complete and legally effective releases or waivers (satisfactory to OWNER) of all Liens arising out of or filed in connection with the Work. In lieu thereof and as approved by OWNER, CONTRACTOR may furnish receipts or releases in full; an affidavit of CONTRACTOR that the releases and receipts include all labor, services, material and equipment for which a Lien could be filed, and that all payrolls, material and equipment bills, and other indebtedness connected with the work for which OWNER or OWNER's property might in any way be responsible, have been paid or otherwise satisfied; and consent of the surety, if any, to final payment. If any Subcontractor or Supplier fails to furnish a release or receipt in full, CONTRACTOR may furnish a Bond or other collateral satisfactory to OWNER to indemnify OWNER against any Lien.

Final Payment and Acceptance

14.12 If, on the basis of ENGINEER's observation of the Work during construction and final inspection, and ENGINEER's review of the final Application for Payment and accompanying documentation – all as required by the Contract Documents, ENGINEER is satisfied that the Work has been completed and CONTRACTOR's other obligations under the Contract Documents have been fulfilled, ENGINEER will, within ten days after receipt of the final Application for Payment, indicate in writing ENGINEER's recommendation of payment and present the Application to OWNER for payment. Thereupon ENGINEER will give written notice to OWNER and CONTRACTOR that the Work is acceptable subject to the provisions of paragraph 14.15. Otherwise, ENGINEER will return the Application to CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections and resubmit the Application. Thirty days after presentation to OWNER of the Application and accompanying documentation, in appropriate form and substance, and with ENGINEER's recommendation and notice of acceptability, the amount recommended by ENGINEER will become due and will be paid by OWNER to CONTRACTOR.

14.13 Not less than forty-five (45) days after filing the formal acceptance of the work with the Recorder of Mortgages, provided that all work done under the Contract is at that time found to be in good condition insofar as the Contractor is responsible for it, the Owner will pay the contractor the retained portion of the Contract Price, after deducting therefrom such sums as may be lawfully withheld under any of the provisions of this Contract, the said payment being conditional on the Contractor furnishing to the Owner a certificate from the Recorder of Mortgages that the Contract is clear of any liens or privileges and furnishing acceptable documentation of release from any liens that may have been filed and were subsequently satisfied.

Contractor's Continuing Obligation

14.14 CONTRACTOR's obligation to perform and complete the work in accordance with the Contract Documents shall be absolute. Neither recommendation of any progress or final payment by ENGINEER, nor any payment by OWNER to CONTRACTOR under the Contract Documents, nor any use or occupancy of the work or any part thereof by OWNER, nor any act of acceptance by OWNER nor any failure to do so, nor any review and approval of a Shop Drawing or sample submission, nor the issuance of a notice of acceptability by ENGINEER pursuant to paragraph 14.12, nor any correction of defective work by OWNER will constitute an acceptance of Work not in accordance with the Contract Documents or a release of CONTRACTOR's obligation to perform the Work in accordance with the Contract Documents (except as provided in paragraph 14.15).

Waiver of Claims

14.15 The making and acceptance of final payment will constitute:

14.15.1 a waiver of all claims by OWNER against CONTRACTOR, except claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to paragraph 14.10 or from failure to comply with the Contract Documents or the terms of any special guarantees specified therein; however, it will not constitute a waiver by OWNER of any rights in respect of CONTRACTOR's continuing obligations under the Contract Documents; and

14.15.2 a waiver of all claims by CONTRACTOR against OWNER other than those previously made in writing and still unsettled.

ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

Owner May Suspend Work

15.1 OWNER may, at any time and without cause, suspend the Work or any portion thereof for a period of not more than ninety days by notice in writing to CONTRACTOR and ENGINEER which will fix the date on which work will be resumed. CONTRACTOR shall resume the Work on the date so fixed. CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to any suspension if CONTRACTOR makes an approved claim therefor as provided in Articles 11 and 12.

15.1.1 Notwithstanding Paragraph 15.1, if the OWNER stops Work under Paragraph 13.10 or suspends the CONTRACTOR's services under Paragraph 13.14, or suspends the Work or any portion thereof because of the CONTRACTOR's failure to prosecute the Work without endangering persons and property, the CONTRACTOR shall be entitled to no extension of Contract Time or increase in Contract price.

Owner May Terminate

15.2 Upon the occurrence of any one or more of the following events:

15.2.1 if CONTRACTOR commences a voluntary case under any chapter of the Bankruptcy Code (Title 11, United States Code), as now or hereafter in effect, or if CONTRACTOR takes any equivalent or similar action by filing a petition or otherwise under any other federal or state law in effect at the time relating to the bankruptcy or insolvency;

15.2.2 if a petition is filed against CONTRACTOR under any chapter of the Bankruptcy Code as now or hereafter in effect at the time of filing, or if a petition is filed seeking any such equivalent or similar relief against CONTRACTOR under any other federal or state law in effect at the time relating to the bankruptcy or insolvency;

15.2.3 if CONTRACTOR makes a general assignment for the benefit of creditors;

15.2.4 if a trustee, receiver, custodian or agent of CONTRACTOR is appointed under applicable law or under contract, whose appointment or authority to take charge of property of CONTRACTOR is for the purpose of enforcing a Lien against such property or for the purpose of general administration of such property for the benefit of CONTRACTOR's creditors;

15.2.5 if CONTRACTOR admits in writing an inability to pay its debts generally as they become due;

15.2.6 if CONTRACTOR persistently fails to perform the Work in accordance with the Contract Documents (including but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule.

15.2.7 if CONTRACTOR disregards Laws or Regulations of any public body having jurisdiction;

15.2.8 if CONTRACTOR disregards the authority of ENGINEER, or

15.2.9 if CONTRACTOR otherwise violates in any substantial way any provisions of the Contract Documents'

OWNER may, after giving CONTRACTOR (and the surety, if there be one) seven days' written notice and to the extent permitted by Laws and Regulations, terminate the services of CONTRACTOR, exclude CONTRACTOR from the site and take possession of the Work and of all CONTRACTOR's tools, appliances, construction equipment and machinery at the site and use the same to the full extent they could be used by CONTRACTOR (without liability to CONTRACTOR for trespass or conversion), incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere, and finish the Work as OWNER may deem expedient. In such case CONTRACTOR shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds the direct, indirect and consequential costs of completing the Work (including but not limited to fees and charges of engineers, architects, attorneys and other professionals and court and arbitration costs) such excess will be paid to CONTRACTOR. If such costs exceed such unpaid balance, CONTRACTOR shall pay the difference to OWNER. Such costs incurred by OWNER will be approved as to reasonableness by ENGINEER and incorporated in a Change Order, but when exercising

any rights or remedies under this paragraph OWNER shall not be required to obtain the lowest price for the Work performed.

15.3 Where CONTRACTOR's services have been so terminated by OWNER, the termination will not affect any rights or remedies of OWNER against CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of moneys due CONTRACTOR by OWNER will not release CONTRACTOR from liability.

15.4 Upon seven days' written notice to CONTRACTOR and ENGINEER, OWNER may, without cause and without prejudice to any other right of remedy, elect to abandon the Work and terminate the Agreement. In such case, CONTRACTOR shall be paid for all Work executed and any expense sustained plus reasonable termination expenses, which will include, but not be limited to, fees and charges of engineers, architects, attorneys and other professionals and court and arbitration costs.

Contractor May Stop Work or Terminate

15.5 If, through no act or fault of CONTRACTOR, the Work is suspended for a period of more than ninety days by OWNER or under an order of court or other public authority, or ENGINEER fails to act on any Application for Payment within thirty days after it is submitted, or OWNER fails for thirty days to pay CONTRACTOR any sum finally determined to be due, then CONTRACTOR may, upon seven days' written notice to OWNER and ENGINEER, terminate the Agreement and recover from OWNER payment for all Work executed and any expense sustained plus reasonable termination expenses. In addition and in lieu of terminating the Agreement, if ENGINEER has failed to act on an Application for Payment or OWNER has failed to make any payment as aforesaid, CONTRACTOR may upon seven days' written notice to OWNER and ENGINEER stop the Work until payment of all amounts then due. The provisions of this paragraph shall not relieve CONTRACTOR of the obligations under paragraph 6.29 to carry on the Work in accordance with the progress schedule and without delay during disputes and disagreements with OWNER.

ARTICLE 16 – MISCELLANEOUS

Giving Notice

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

Computation of the Time

16.2.1 When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

16.2.2 A calendar day of twenty-four hours measured from midnight to the next midnight shall constitute a day.

General

16.3 Should OWNER or CONTRACTOR suffer injury or damage to person or property because of any error, omission or act of the other party or of any of the other party's employees or agents or others for whose acts the other party is legally liable, claim will be made in writing to the other party within a reasonable time of the first observance of such injury or damage. The provisions of this paragraph 17.3 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or repose.

16.4 The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto, and, in particular but without limitation, the warranties, guarantees and obligations imposed upon CONTRACTOR and all of the rights and remedies available to OWNER and ENGINEER thereunder, are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee or by other provisions of the Contract Documents, and the provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right and remedy to which they apply. All representations, warranties and guarantees made in the Contract Documents will survive final payment and termination or completion of the Agreement.

END OF SECTION

SECTION 00800

SUPPLEMENTARY CONDITIONS

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

SC-1 The terms used in these Supplementary Conditions which are defined in the Standard General Conditions of the Construction Contract have the meanings assigned to them in the General Conditions.

SC-1.1 Whenever the word "figures" is used herein, it shall be used interchangeably with the word "drawings" and carry the same meaning as defined in Article 1 of the General Conditions.

SC-1.2 Add the words "or Plans" after the word "Drawings" in the General Conditions.

SC-1.3 Add the following definitions at the end of ARTICLE 1 of the General Conditions:

Excusable Delay - Any delay beyond the control and without the fault or negligence of the CONTRACTOR, the OWNER, or any other contractor caused by events or circumstances such as, but not limited to, acts of God or of the public enemy, acts of intervenors, acts of government other than the OWNER, fires, floods, epidemics, quarantine restrictions, freight embargoes, and hurricanes, tornadoes, or new sink holes. Labor disputes and adverse weather conditions shall give rise only to inexcusable delays.

Inexcusable Delay - Any delay caused either (I) by events or circumstances within the control of the CONTRACTOR, such as inadequate crewing, slow submittals, etc., which might have been avoided by the exercise of care, prudence, foresight, or diligence on the part of the CONTRACTOR, or (II) by weather conditions (other than hurricanes and tornadoes).

Nonprejudicial Delay - Any delay impacting a portion of the Work within the available total float or slack time, as that term is used in the general requirements and not necessarily preventing completion of the Work within the Contract Time.

Prejudicial Delay - Any excusable delay impacting the Work and exceeding the total float available in the progress schedule, thus preventing completion of the Work within the Contract Time unless the Work is accelerated.

Owner's Delay - Any delay beyond the control and without the fault or negligence of the

Contractor or any subcontractor which is caused by the fault or negligence of the Owner and which impacts the work and exceeds the total float or slack time so as to prevent completions of the work within the contract time unless the work is accelerated.

Preoperational Testing - All field inspections, installation checks, water tests, performance tests, and necessary corrections required of CONTRACTOR to demonstrate that individual components of the Work have been properly constructed and do operate in accordance with the Contract Documents for their intended purposes.

Start-Up Testing - A predefined trial period required for achieving substantial completion during which CONTRACTOR is to operate the entire Work (or any part thereof agreed to by the OWNER) under actual and simulated operating conditions for the purpose (I) making such minor adjustments and changes to the Work as may be necessary for the work to comply with the Contract Documents and (II) to comply with the final test requirements in the Contract Documents.

Float or Slack Time - The time available in the progress schedule during which an unexpected activity can be completed without delaying substantial completion of the Work.

Amend the following definitions in Article I of the General Conditions as follows:

Substantial Completion - In the third line of the definition add the words, "and as approved by the OWNER" after the word, "ENGINEER".

Work Directive Change - Delete the last sentence of the definition in its entirety and replace with the sentence, "A Work Directive Change may not change the Contract Price or Contract Time."

SC-2.2 Amend the first sentence of Paragraph 2.2 of the General Conditions to read as follows:

OWNER shall furnish to CONTRACTOR three copies of the Contract Documents, exclusive of the Standard Documents and Specifications, for the execution of the Work.

SC-2.3 Delete paragraph 2.3 of the General Conditions in its entirety and insert the following in its place:

A notice to proceed may be given at any time within thirty days after the Effective Date of the Agreement. The Contract Time will commence at the time specified in such notice, or if no notice is given, thirty days following the Effective Date of Agreement, provided that the Notice to Proceed may not specify a time of commencement later than 60 days after the Effective Date of the Agreement.

SC-2.6 Amend the first sentence of paragraph 2.6 of the General Conditions to read as follows:

Within fifteen calendar days after the Effective Date....

SC-2.7 Delete paragraph 2.7 of the General Conditions in its entirety and insert the following in its place:

Within 15 days after CONTRACTOR is notified that the Agreement is ready, for signature, CONTRACTOR shall deliver to OWNER, Certificates of Insurance which CONTRACTOR is requested to purchase and maintain in accordance with the requirements of Article 5 of the General Conditions as supplemented herein.

SC-2.9 Add the following language at the beginning of the second sentence of paragraph 2.9 of the General Conditions.

A detailed schedule shall be prepared in accordance with the General Requirements and the finalized...

SC-4.2.1 Add the following to the end of paragraph 4.2.1 of the General Conditions:

In the preparation of Drawings and Specifications, ENGINEER has relied upon the reports of exploration and tests of subsurface conditions at the site of the Work as listed in Section 00200. The technical data contained in such reports upon which CONTRACTOR may rely are the nature and condition of subsurface soils, boring logs, and level of subsurface water, all as of the places and dates made.

SC-4.2.2 Add the following to the end of paragraph 4.2.2 of the General Conditions:

In the preparation of Drawings and Specifications, ENGINEER has relied upon drawings of physical conditions in or relating to existing surface and subsurface structures (except Underground Utilities) which are at or contiguous to the site of the Work as listed in Section 00200.

All of the information in such drawings constitutes technical data. The above information is available for review at the office of the ENGINEER during regular business hours. These reports and drawings are not part of the Contract Documents, but the technical data contained therein upon which CONTRACTOR is entitled to rely as provided in paragraph 4.2 of the General Conditions and as identified and established above are incorporated therein by reference.

SC-4.2.7 Add a new paragraph immediately after paragraph 4.2.6 of the General Conditions which is to read as follows:

4.2.7 No claim of the CONTRACTOR under this paragraph of the Supplementary Conditions shall be allowed unless 1) CONTRACTOR has given the notice required in paragraph 4.2.3, and 2) within thirty days after CONTRACTOR has given the written notice, CONTRACTOR submits to OWNER a detailed claim

setting forth CONTRACTOR's right to recover any additional costs and lost time as provided in Articles 11 and 12 of the General Conditions. No claim by the CONTRACTOR for an equitable adjustment hereunder shall be allowed if asserted after final payment under this Contract.

SC-4.3.2 Delete Article 4.3.2 in the General Conditions in its entirety and replace with the following:

4.3.2 Not shown or indicated - CONTRACTOR is responsible for excavating test pits for the purpose of locating "shown" and "not shown" Underground Facilities which may interfere with installation of the Work, in advance of the Work. If an Underground Facility is uncovered or revealed at or contiguous to the site which was not shown or indicated in the Contract Documents, CONTRACTOR shall, promptly after becoming aware thereof and before performing any Work affected thereby (except in an emergency as permitted by paragraph 6.22), identify the OWNER of such Underground Facility and give written notice thereof to that OWNER and to OWNER and ENGINEER. ENGINEER will promptly review the Underground Facility to determine the extent to which the Contract Documents should be modified to reflect and document the consequences of the existence of the Underground Facility, and the Contract Documents will be amended as supplemented to the extent necessary. During such time, CONTRACTOR shall be responsible for the safety and protection of such Underground Facility as provided in paragraph 6.20. CONTRACTOR shall have full responsibility for coordination of the Work with the owners of such Underground Facilities during construction, for the safety and protection thereof as provided in paragraph 6.20 and repairing any damage thereto resulting from the Work, the cost of all of which will be considered as having been included in the contract price.

SC-5.1 Delete the last two sentences of Paragraph 5.1 of the General Conditions and insert the following in its place:

All surety bonds shall be in the forms prescribed by Law of Regulation or by the Contract Documents and be executed 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. 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.

SC-5.3 Add the following paragraph and subparagraphs 5.3.1 through 5.3.8 to the General

Conditions:

All liability insurance policies shall name the OWNER as additional insured. The limits of liability for the insurance required by paragraph 5.3 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by laws and regulations:

5.3.1 and 5.3.2 Workers' Compensation, etc., under paragraphs 5.3.1 and 5.3.2 of the General Conditions:

(1) State: Coverage A Statutory
(2) Employer's Liability: Coverage B - $ 100,000 each accident.
(3) Waiver of subrogation in favor of OWNER is required from Worker's Compensation Insurer.

5.3.3, 5.3.4, 5.3.5, and 5.3.6 Comprehensive General Liability (under paragraphs 5.3.3 through 5.3.6 of the General Conditions, including Contractual Liability specifically confirming the indemnification of the OWNER as required in paragraph 6.30 and indicating that no act or default shall affect the OWNER's right to recover under such policies in case of loss, Products and Completed Operations Liability, Explosion, Collapse and Underground Property Damage Coverage, and Personal Injury) against all claims and liability for bodily injury, death or property damage arising out of the performance of Work under this Agreement.

(1) Bodily Injury and property damage (combined)
$5,000,000 single limit
$5,000,000 annual aggregate

(2) Property damage liability insurance will provide explosion, collapse and underground coverages where applicable.

5.3.7 Comprehensive Automobile Liability:

(1) Bodily Injury and property damage (combined)
$1,000,000 single limit
$1,000,000 each accident

5.3.8 If so directed by the ENGINEER, CONTRACTOR shall obtain insurance which complies with the requirements of The Flood Disaster Protection Act of 1973 (Public Law 93-234, December 31, 1973). If CONTRACTOR is required to purchase flood insurance, a Change Order will be issued to compensate CONTRACTOR for the costs of the flood insurance. The cost of the flood insurance will not be included in the Bid.

The insurance policies shall be furnished by a company currently on the U.S. Department

of the Treasury Financial Management Service list, and it also must have a B+, Class VI or better rating in Best's Key Rating Guide.

SC-5.5 Delete paragraph 5.5 of the General Conditions in its entirety.

SC-5.6 Delete paragraph 5.6 of the General Conditions in its entirety and insert the following in its place:

Unless otherwise provided in these Supplementary Conditions, CONTRACTOR shall purchase and maintain property insurance upon the Work at the site to the full insurable value thereof (subject to such deductible amounts as may be provided in these Supplementary Conditions or required by law). This insurance shall include the interests of OWNER, CONTRACTOR, subcontractors, ENGINEER, and ENGINEER's Consultants in the Work, all of whom shall be listed as insured or additional insured parties, shall insure against perils of fire and extended coverage, shall include "all risk" insurance for physical loss and damage including theft, vandalism and malicious mischief, collapse and water damage, and such other perils as may be provided in these Supplementary Conditions, and shall include damages, losses, and expenses arising out of or resulting from any insured loss or incurred in the repair or replacement of any insured property (including, but not limited to, fees and charges of engineers, architects, attorneys, and other professionals). If not covered under the "all risk" insurance or otherwise provided in these Supplementary Conditions, CONTRACTOR shall purchase and maintain similar property insurance on portions of the Work stored on and off the site or in transit when such portions of the Work are to be included in an Application for Payment. The policies of insurance required to be purchased and maintained by CONTRACTOR in accordance with this paragraph shall contain a provision that the coverage afforded will not be cancelled or materially changed until at least thirty days prior written notice has been given to OWNER.

SC-5.7 Delete paragraph 5.7 of the General Conditions in its entirety.

SC-5.8 Delete paragraph 5.8 of the General Conditions in its entirety with no replacement.

SC-5.10 Delete paragraph 5.10 of the General Conditions in its entirety with no replacement.

SC-5.11 Delete paragraphs 5.11.1 and 5.11.2 of the General Conditions in their entirety with no replacement.

SC-5.13 Delete paragraph 5.13 of the General Conditions in its entirety and replace with the following new paragraph 5.13:

OWNER as trustee shall have power to adjust and settle any loss with the insurers.

SC-5.14 Delete the second sentence of paragraph 5.14, and add the following to the first sentence of paragraph 5.14, and, as so amended, the remainder of the paragraph shall remain:

All insurance policies shall be acceptable to the OWNER. Certificate holder shall be

listed as OWNER, Attention: Purchasing Office.

SC-6.2 Add the following new paragraph SC-6.2:

From the first sentence of paragraph 6.4 of the General Conditions, delete the words, "except under extraordinary circumstances" with no replacement and place a period after the word ENGINEER.

SC-6.3.1 Add a new paragraph immediately after paragraph 6.3 of the General Conditions which is to read as follows:

6.3.1 Regular working hours are defined as 7:00 a.m. to 6:00 p.m., Monday through Saturday. Whenever the CONTRACTOR is performing any part of the Work, with the exception of equipment maintenance and cleanup, OWNER's representation and/or inspection will be required.

SC-6.7.1 Amend the second to last sentence of paragraph 6.7.1 of the General Conditions to read as follows:

The application will also contain an itemized estimate to all costs and delays or schedule impacts that will result directly or indirectly from reviews, acceptance and provisions of such substitute, including....

Add the following to the end of paragraph 6.7.1 of the General Conditions:

Any requests for review by ENGINEER from CONTRACTOR and ENGINEER's response to CONTRACTOR shall be forwarded to OWNER. In rendering a decision, OWNER, ENGINEER and CONTRACTOR shall have access to any available float time in the schedule as set forth in Section 01311 Construction Schedules. In the event that substitute materials or equipment are accepted and are less costly than the originally specified materials or equipment then the net difference in cost shall benefit the OWNER, and an appropriate Change Order shall be executed.

SC-6.7.3 Delete the last two sentences of paragraph 6.7.3 of the General Conditions in its entirety with no replacement.

SC-6.8.2 Delete paragraph 6.8.2 of the General Conditions and insert the following in its place:

A Subcontractor or other person or organization identified in the CONTRACTOR'S Bid and not objected to in writing by OWNER or ENGINEER prior to the execution of the Agreement will be deemed acceptable to OWNER and ENGINEER. All other Subcontractors shall be deemed to have been accepted if OWNER or ENGINEER deliver no written objection thereto within 45 days after CONTRACTOR'S written identification of such Subcontractors. However, if OWNER or ENGINEER has reasonable objection to any Subcontractor whether identified in the Bid or subsequently, CONTRACTOR shall submit an acceptable substitute without entitlement to any change in Contract Price. If OWNER or ENGINEER demands the substitution of a Subcontractor at any time

without having reasonable objection to such Subcontractor, the CONTRACTOR shall comply and shall be entitled to change in Contract Price (by appropriate Change Order) for the difference in cost occasioned by such substitution. After acceptance by the OWNER or ENGINEER of any particular Subcontractor, the CONTRACTOR shall make no substitution without written approval of the OWNER, which may be granted or withheld at OWNER'S sole discretion. No acceptance by OWNER or ENGINEER of any such Subcontractor, Supplier or other person or organization shall constitute a waiver of any right of OWNER or ENGINEER to reject defective Work.

SC-6.11 In paragraph 6.11 of the General Conditions delete all the words which follow the word "ENGINEER" in the paragraph with no replacement. Place a period after the word "ENGINEER"

SC-6.16 In paragraph 6.16 of the General Conditions, delete from the third sentence of the paragraph the words, "arbitration or at" with no replacement.

SC-6.16.1 Add a new paragraph immediately after paragraph 6.16 of the General Conditions which is to read as follows:

6.16.1 Use of OWNER'S existing facilities by the CONTRACTOR for storage of materials and equipment will not be permitted.

SC-6.18 In paragraph 6.18 of the General Conditions, add the words, "or damage" after both occurrences of the word, "endanger" in the paragraph.

SC-7.4 Delete paragraph 7.4 of the General Conditions in its entirety and insert the following in its place:

7.4 The parties expressly acknowledge that work will be done on the Project by other contractors and that the Work to be done by the CONTRACTOR under this contract will interface with the Work of these other contractors. Thus, in addition to the foregoing paragraphs in this Article 7, the following provisions apply:

7.4.1 The CONTRACTOR shall cooperate with all other contractors who may be performing work on behalf of the OWNER in the vicinity of the Work to be done under this contract, and he shall conduct his operations as to interfere to the least possible extent with the work of such contractors.

7.4.2 The CONTRACTOR shall promptly make good, at his own expense, any injury or damage that may be caused by him to other contractors or employees or subcontractors or suppliers thereof.

7.4.3 Any difference or conflict which may arise between the CONTRACTOR and other CONTRACTORS in regard to their respective work shall be adjusted and

determined by the ENGINEER. Whenever there is interference with work under other contracts, the ENGINEER shall decide the manner in which the work under each contract shall proceed. Where connections are required between components of the Work the general principal to prevail is that the last CONTRACTOR to complete its work shall make and bear the expense of the connection.

7.4.4 If the Work is delayed because of any acts or omissions of any other CONTRACTOR, THE CONTRACTOR SHALL HAVE NO claim against the OWNER on that account other than an extension of the Contract Time.

SC-8.2 Delete paragraph 8.2 of the General Conditions in its entirety with no replacement.

SC-8.5 Delete paragraph 8.5 of the General Conditions in its entirety.

SC-9.1 In paragraph 9.1 of the General Conditions, after the words, "Contract Documents" insert the words, "and ENGINEER'S Contract with OWNER".

SC-9.2 In paragraph 9.2 of the General Conditions, in the fourth sentence of the paragraph delete the words, "endeavor to " with no replacement.

SC-9.3 Delete paragraph 9.3 of the General Conditions in its entirety and insert the following in its place:

ENGINEER will furnish a Resident Project Representative to assist ENGINEER in observing the performance of the Work. The duties, responsibilities and limitations of authority of this Resident Project Representative and assistants are set forth in the attached pages to these Supplemental Conditions and in ENGINEER'S contract with OWNER.

SC-9.5 Delete paragraph 9.5 of the General Conditions in its entirety and replace with the following:

ENGINEER may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Time and are consistent with the overall intent of the Contract Documents. These may be accomplished by a Field Order and will be binding on OWNER, only if noticed to OWNER in writing, and also on CONTRACTOR who shall perform the Work involved promptly.

SC-9.11 Delete paragraph 9.11 of the General Conditions in its entirety and replace with the following new paragraph 9.11 and subparagraphs 9.11.1 and 9.11.2:

SC-9.11 ENGINEER will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the work thereunder. Claims,

disputes and other matters relating to the acceptability of the Work or the interpretation of the requirements of the Contract Documents pertaining to the performance and furnishing of the Work and claims under Articles 11 and 12 in respect to changes in the Contract Price or Contract Times will be referred initially to ENGINEER in writing with a request for a formal decision in accordance with this paragraph. Written notice of each such claim, dispute or other matter will be delivered by the claimant to Engineer and the other party to the Agreement promptly (but in no event later than ten days) after the start of the occurrence or event giving rise thereto, and written supporting data will be submitted to ENGINEER and the other party promptly, but not later than twenty days after the start of such occurrence or event and monthly thereafter for continuing events unless ENGINEER allows an additional period of time for the submission of additional or more accurate data in support of such claim, dispute or other matter. The opposing party shall submit any response to ENGINEER and the claimant within ten days after receipt of the claimant's last submittal (unless ENGINEER allows additional time). ENGINEER will render a formal decision in writing within ten days after receipt of the opposing party's submittal, if any, or within twenty days of receipt of claimants last submittal, in accordance with this paragraph (unless claimant allows an additional period of time).

9.11.1 ENGINEER'S written decision on such claim, dispute or other matter will be final and binding upon OWNER and CONTRACTOR unless, within ten days after issuance of the ENGINEER'S written decision, either party appeals the decision by giving the other party and ENGINEER written notice of request for executive negotiation. Within ten days of the delivery of said notice, senior representatives of at least the OWNER and CONTRACTOR, having authority to settle the dispute, and the ENGINEER shall meet at a mutually acceptable time and place, and thereafter as often as they reasonably deem necessary, to exchange relevant information and to attempt to resolve the dispute.

9.11.2 In the event a mutually acceptable decision cannot be reached through executive negotiation within twenty days of the appealing party's notice, or mutually agreeable longer period, or if the party receiving such notice will not meet within ten days, OWNER or CONTRACTOR may declare, in writing delivered to the other party and the ENGINEER, the executive negotiation unsuccessful and may initiate further appeal. If further appeal is to be made, such appeal shall be taken within the time limits and in accordance with the method and procedure for resolving such claim, dispute or other matter set forth in the Supplementary Conditions pursuant to Article 16.

SC-9.12 Delete paragraph 9.12 of the General Conditions in its entirety with no replacement.

SC-10.2 Delete paragraph 10.2 of the General Conditions in its entirety with no replacement.

SC-10.3 In paragraph 10.3 of the General Conditions, insert after the last sentence of the paragraph the sentence, "No changes will be allowed where the emergency is caused by the CONTRACTOR or his Subcontractors.

SC-10.4.3 Delete paragraph 10.4.3 of the General Conditions in its entirety with no replacement.

SC-10.6 Add a new paragraph immediately after paragraph 10.5 of the General Conditions which is to read as follows:

At any time ENGINEER may request, with notice to OWNER, a quotation from CONTRACTOR for a proposed change in the Work. Within thirty (30) calendar days after receipt of a request for a quotation for a proposed change, CONTRACTOR shall submit a written and detailed proposal for an increase or decrease in the Contract Price or Contract Time for the proposed change. ENGINEER shall have thirty (30) calendar days after receipt of the detailed proposal to respond in writing. The proposal shall include an itemized estimate of all costs and time for performance that will result directly or indirectly from the proposed change. Unless otherwise directed, itemized estimates shall be in accordance with Articles 11 and 12 of the General Conditions and in sufficient detail reasonably to permit an analysis by the ENGINEER of all material, labor, equipment, subcontracts, overhead costs and fees, and shall cover all Work involved in the change, whether such Work was deleted, added, changed or impacted. Any amount claimed for subcontracts shall be similarly supported. Itemized schedule adjustments shall be in sufficient detail to permit an analysis of impact as required in Section 13.11 of the General Requirements. Notwithstanding the request for quotation, CONTRACTOR shall carry on the Work and maintain the progress schedule. Delays in the submittal of the written and detailed proposal will be considered non-prejudicial as defined in the Supplementary Conditions.

SC-10.7 Add a new paragraph immediately after paragraph SC-10.6 of the Supplementary Conditions which is to read as follows:

The adjustment in Contract Price and/or Contract Time stated in a Change Order shall comprise the total price and/or time adjustment due or owed the CONTRACTOR for the Work or changes defined in the Change Order. By executing the Change Order, the CONTRACTOR acknowledges and agrees that the stipulated price and/or time adjustments include the cost and time adjustments for all work contained in the Change Order, including costs and time adjustments associated with extended overheads, and cumulative impacts or ripple effect on all other non-affected Work under this contract. Signing of the Change Order constitutes full and mutual accord and satisfaction for the adjustment in contract price and/or time as a result of increases or decreases in costs and time of performance caused directly and indirectly from the change, subject to the current

scope of the entire Work as set forth in the Contract Documents. Acceptance of this waiver constitutes an agreement between OWNER and CONTRACTOR that the Change Order represents an equitable adjustment to the Contract and that CONTRACTOR waives all rights to file a claim on this Change Order after it is properly executed.

SC-11.1.1 Add a new paragraph SC-11.1.1 immediately after paragraph 11.1 of the General Conditions to read as follows:

11.1.1 Change orders which increase the Contract Price or Contract Time are not favored by the OWNER and every effort should be made to avoid such changes. All requests for Change Orders should be submitted to OWNER prior to the work being performed unless it is an emergency involving significant damage to life or property or it can be shown that a failure to immediately perform the work would cause an additional increase to the Contract Price over and above the Change Order. This paragraph governs all increases in Contract Price and Contract Time notwithstanding other provisions of this Contract to the contrary.

SC-11.2 Delete the fourth sentence of the paragraph 11.2 of the General Conditions and amend the second and third sentences of paragraph 11.2 of the General Conditions to read as follows:

Any claim for an increase or decrease in the Contract Price shall be based on written notice delivered by the party making the claim to the other party and to ENGINEER promptly (but in no event later than twenty days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the amount of the claim with supporting data shall be delivered within fifty days after such occurrence...

SC-11.2.1 Claims for an increase in contract price for damages for delay shall be limited only to those arising out of OWNER delay as defined by SC 1.3. Claims are limited to provable costs as defined by Articles 11.4 and 11.5 and such claims shall be submitted in accordance therewith. The OWNER shall not be responsible for consequential damages.

SC-11.3 Amend Paragraph 11.3 by changing the ending colon to a semi-colon and adding the following to the end of the sentence:

refer to Section 01153 for details on how change order prices shall be developed.

SC-11.4.3 Delete paragraph 11.4.3 of the General Conditions in its entirety and insert the following in its place:

Payments made by CONTRACTOR to the Subcontractors for work performed by Subcontractors. If required by OWNER, CONTRACTOR shall obtain competitive bids from Subcontractors acceptable to CONTRACTOR and shall deliver such bids to OWNER who will then determine, with the advice of ENGINEER, which bids will be accepted. All subcontracts shall be subject to the other provisions of the Contract

Documents insofar as applicable.

SC-11.4.5.1 Delete paragraph 11.4.5.1 of the General Conditions in its entirety with no replacement.

SC-11.8.1 Delete paragraph 11.8.1 of the General Conditions in its entirety and insert the following in its place:

11.8.1 The allowances include the cost, excluding sales and use taxes, to CONTRACTOR (less any applicable trade discounts) of material, equipment, and services required by the allowance to be delivered at the appropriate site(s) designated by CONTRACTOR in accordance with OWNER's Procurement Agreement with the Procurement Contractor.

SC-11.8.2 Amend the last two lines of paragraph 11.8.2 of the General Conditions to read as follows:

"...allowances. Sales and use taxes have not been included in the cash allowances and CONTRACTOR shall include applicable sales and use taxes in the Contract Price. No demand for additional payment on account of any thereof will be valid."

SC-11.9.3 Paragraph 11.9.3 of the General Conditions is hereby deleted in its entirety and the following is submitted in its place:

The unit price of an item of Unit Price Work shall be subject to reevaluation and adjustment under the following conditions:

1. if the total cost of a particular item of Unit Price Work amounts to 5 percent or more of the Contract Price and the variation in the quantity of that particular item of Unit Price Work performed by CONTRACTOR differs by more than 25 percent from the estimated quantity of such item indicated in the Agreement; and

2. if there is no corresponding adjustment with respect to any other item of Work; and

3. if CONTRACTOR believes that it has incurred additional expense as a result thereof; or

4. if OWNER believes that the quantity variation entitles it to an adjustment in the unit price, either OWNER or CONTRACTOR may make a claim for an adjustment in the Contract Price in accordance with Article 11 if the parties are unable to agree as to the effect of any such variations in the quantity of Unit Price Work performed."

SC-12 Delete Article 12 of the General Conditions in its entirety and insert the following in its place:

12.1 The Contract Time may only be changed by a Change Order or written amendment. Any claim for an extension in the Contract Time shall be based on

written notice delivered to the OWNER and ENGINEER within twenty days from detection or the beginning of any event or circumstance giving rise to an excusable delay and setting forth the general nature of the cause of the delay. Within 50 days of any such detection or beginning of delay, CONTRACTOR shall provide the analysis and documentation required to ascertain the facts, as specified in the General Requirements. No claim by CONTRACTOR under this provision shall be allowed unless CONTRACTOR has given the notice and the analysis and documentation required in this paragraph.

12.2 No extensions of Contract Time shall be granted for nonprejudicial delays of any type, or for inexcusable delays, unless otherwise agreed to by the OWNER in its sole discretion.

12.3 Claims for extensions of Contract Time arising from prejudicial delays and OWNER delays as defined by SC 1.3 shall be granted pursuant to this article and the provisions of the general requirements.

SC-13.9 In paragraph 13.9 of the General Conditions, to the first sentence of the paragraph, add the words, "with notice to OWNER" after the word "request" in the fourth line of the paragraph.

Amend the second sentence of paragraph 13.9 of the General Conditions to read as follows:

... fees and charges of engineers, architects, attorneys and other professionals and any additional expenses experienced by OWNER due to delays to other contractors performing additional Work and an appropriate deductive Change Order shall be issued. CONTRACTOR shall further bear the responsibility for maintaining his schedule and will be excluded from a time extension and recovery of delay damages due to the uncovering. If, however,...

SC-13.11.1 Add a new subparagraph 13.11.1 as follows:

13.11.1 The CONTRACTOR shall not be entitled to an extension of the Contract Time or Contract Price for correcting or removing defective Work.

SC-13.14 In paragraph 13.14 of the General Conditions, delete the words, "and arbitration costs" from the second to last sentence of the paragraph with no replacement.

SC-14.2 Amend the first sentence of paragraph 14.2 of the General Conditions to read as follows:

At least thirty days before each progress payment is scheduled...

SC-14.2.1 Add a new paragraph immediately after paragraph 14.2 of the General Conditions which is to read as follows:

14.2.1 The CONTRACTOR shall furnish evidence that payment received on the basis of materials and equipment, not incorporated and suitably stored, has in fact been paid to the respective supplier(s) within sixty (60) days of the Application for Payment on which the material/equipment first appeared. Failure to procure

said evidence of payment shall result in the withdrawal of previous approval(s) and removal of the related equipment from the Application for Payment.

SC-14.4 Delete paragraph 14.4 of the General Conditions in its entirety and replace with the following paragraph:

SC-14.4 ENGINEER will within seven days after the receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to the OWNER, or return the Application to CONTRACTOR indicating in writing ENGINEER'S reasons for refusing to recommend payment. In the latter case, CONTRACTOR may make the necessary corrections and resubmit the Application. ENGINEER will present the Application for Payment to OWNER with a cover letter stating the recommended amount of payment.

SC-14.5 In paragraph 14.5 of the General Conditions, in the first sentence of the paragraph, insert the words, "and ENGINEER'S Resident Project Representative's" immediately before the word "knowledge" and insert the words, "and ENGINEER'S Contract with OWNER" immediately after the word, "Documents" in the last sentence of the paragraph.

SC-14.8 Amend the first sentence of paragraph 14.8 of the General Conditions to read as follows:

When CONTRACTOR considers a part of the Work described for Substantial Completion in the General Requirements ready for its intended use, CONTRACTOR shall, in writing to OWNER and ENGINEER, certify that such work is...

Insert the words, "for OWNER'S approval" at the end of the fourth sentence of the paragraph.

Delete the word, "seven" from the sixth sentence of the paragraph and replace it with the word, "ten."

Delete the phrase, ", stating the reasons therefore." and replace with, "of the approval or disapproval. ENGINEER shall not deliver definitive Certificate of Substantial Completion without Owner's approval."

Delete the word, "If" from the beginning of the eighth sentence and replace it with, "Where."

SC-14.8.1 Add a new paragraph immediately after paragraph 14.8 of the General Conditions to read as follows:

"There shall be attached to the Certificate of Substantial Completion a tentative list of items (with designated dollar values) to be completed or corrected prior to final payment. This will be called the "Substantial Completion Punch List" and the value of said punch list items <u>times two</u> will be withheld from the CONTRACTOR until all such items have been completed. No payment of the "Punch List Reserve Fund" shall be made until all items on the "Substantial Completion Punch List" have been completed unless

specifically approved by the OWNER, at his sole discretion.

SC-14.13 In paragraph 14.13 of the General Conditions, in the first sentence of the paragraph, insert the words, "and OWNER" after the word "ENGINEER" as it appears in the fifth line of the paragraph.

Insert the following at the end of paragraph SC-14.13:

In paragraph 14.13 of the General Conditions, add the words, "subject to Article 14.4" after the word "CONTRACTOR" at the end of the sentence.

Amend the third sentence of paragraph 14.13 of the General Conditions to read as follows:

Within thirty days after the ENGINEER presents to the OWNER a final acceptance recommendation, together with accompanying documentation, the OWNER may issue a formal final acceptance certificate which the CONTRACTOR may file thereafter with the Recorder of Mortgages in the office of the Clerk of Court of the Parish of St. Charles.

SC-14.14 Delete paragraph 14.14 of the General Conditions in its entirety and insert the following in its place:

Not less than forty-five (45) days after filing the formal acceptance of the Work with the Recorder of Mortgages, provided that all Work done under the Contract is at that time found to be in good condition insofar as the CONTRACTOR is responsible for it, the OWNER will pay the CONTRACTOR the retained portion of the Contract Price, after deducting therefrom such sums as may be lawfully withheld under any of the provisions of this Contract, the said payment being conditional on the CONTRACTOR furnishing to the OWNER a certificate from the Recorder of Mortgages for the Parish that the Contract is clear of any liens or privileges and furnishing acceptable documentation of release from any liens that may have been filed and were subsequently satisfied.

SC-15.2 Amend the last four sentences of paragraph 15.2 of the General Conditions to read as follows:

In such case, CONTRACTOR shall not be entitled to receive any further payment beyond an amount equal to the value of the Work actually completed and the value of materials and equipment not incorporated in the Work but delivered and suitably stored, less the aggregate of payments previously made. If the direct and indirect costs of completing the Work exceed the unpaid balance of the Contract Price, CONTRACTOR shall pay the difference to OWNER. Such costs incurred by OWNER shall be verified by ENGINEER and incorporated in a Change Order, but in finishing the Work OWNER shall not be required to obtain the lowest price for the Work performed. CONTRACTOR'S obligations to pay the difference between such costs and such unpaid balance shall survive termination of the Agreement.

SC-15.5 In paragraph 15.5 of the General Conditions, insert the sentence, "All provisions herein above are subject to Article 14.4." after the last sentence of the paragraph.

SC-16 Delete Article 16 of the General Conditions in its entirety and replace with the following:

16.1 Any and all disputes that may result in litigation shall be litigated in the 29th Judicial District Court for the Parish of St. Charles.

SC-17.5 Add a new paragraph immediately after paragraph 17.4 of the General Conditions which is to read as follows:

17.5 The form of all submittals, notices, change orders and other documents permitted or required to be used or transmitted under the Contract Documents shall be determined by the ENGINEER with the consent of OWNER. The forms for Notice of Award, Notice to Proceed, Certificate of Substantial Completion and Final Receipt which the OWNER or ENGINEER expects to use are contained in the subsequent pages of these Supplementary Conditions.

SECOND SUPPLEMENTARY CONDITIONS

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

SC-5.3 The following sentence is to be added to 5.3 of the General and Supplementary Conditions:

For all purposes under Louisiana law, the principals of this Contract shall be recognized as the statutory employer of all contract employees as provided in LSA – R.S. 23:1061.

SECTION 00801

NOTICE OF AWARD

Date: _____

TO: _____

_____

_____

_____

PROJECT: Reserve Area Drainage Improvements

CONTRACT NAME: Reserve Area Drainage Improvements Phase II

Gentlemen:

You are notified that your Bid dated _____, for the above Contract has been considered. You are the apparent successful Bidder and hereby awarded the above Contract effective on the above date.

The Contract Price of this award is _____ ($_____).

Enclosed are six (6) copies of the Contract Documents for your execution and subsequent return to this office for further processing.

You must comply with the following conditions precedent within fifteen (15) days of the date of this Notice of Award, that is by _____:

1. Execute all copies of the Agreement. Do not date the Agreement or bonds; this will be accomplished upon execution of the Contract by the Owner. Submit a power of attorney authorizing the Owner to date bonds and Agreement.

2. Submit six (6) copies of the Construction Performance and Payment Bonds. Instructions to the Surety and the Contractor for execution of the bonds are as follows:

   Where the Contractor is a corporation, the Agreement and any bonds must be executed by the President or the Chairman of the Board of the

corporation. The Agreement and bonds must be accompanied by a statement certified by the Secretary of the Corporation. The signatures of the persons executing the bond on behalf of the Contractor and of the Surety, respectively, shall each be dated on the signature line. If the bond is executed by an Attorney-in-Fact for the Surety, the accompanying Power of Attorney must be executed by persons whose authority to do so is plainly identified on the face of the Power of Attorney.

Neither signatures nor the Corporate Seal may appear by facsimile unless the authority for them to appear in that form is plainly disclosed on the face of the document. The Secretary or other properly authorized Officer must certify and seal a statement declaring that the authority granted by the Power of Attorney remained in force on the date that the bond was executed by the Attorney-in-Fact.

3. Include six (6) copies of the Certificate of Insurance. The Certificate must name the Owner as an additional insured on all general liability policies and the standard cancellation clause must read as follows:

"Should any of the above described policies be cancelled or changed by restricted amendment before the expiration date thereof, the issuing Company will give thirty (30) days' written notice to the below named certificate holder."

Failure to comply with these conditions within the time specified will entitle Owner to consider the Contractor's Bid abandoned, to annul this Notice of Award and to declare the Contractor's Bid Security forfeited.

Within thirty (30) days after compliance with the above conditions, the Owner will return to the Contractor one fully signed counterpart of the Contract Documents.

If you have any questions, or if we can be of any further assistance, please do not hesitate to contact this office.

You are required to return an acknowledged copy of this Notice of Award to the Owner, by way of the Engineer.

By _____

_____

Title _____

ACCEPTANCE OF NOTICE

Receipt of the Above NOTICE
OF AWARD is hereby acknowledged

by _____

this the _____ day

of _____, 2019

_____

By _____

Title _____

END OF SECTION

SECTION 00802

NOTICE TO PROCEED

DATE:_____

TO: _____

_____

_____

_____

PROJECT: Reserve Area Drainage Improvements

CONTRACT NAME: Reserve Area Drainage Improvements Phase II

Gentlemen:

You are hereby notified to commence work on the subject contract on _____, and are to fully complete the work within ____calendar days. In accordance with the contract documents, the Substantial Completion date is _____, and the Final Completion date being, _____. Any extension in time will be by written change order only.

The contract provides for assessment of liquidated damages in the amount of $ 200.00 for each consecutive calendar day after the above established final completion date that the total work is not substantially complete and in the amount of $ 200.00 for each consecutive calendar day after the total above established final completion date that the total work is not complete.

By _____

Shread-Kuyrkendall & Associates, Inc.

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PROCEED
is hereby acknowledged by

_____

this the _____ day

of _____, 2019

_____

By_____

Title_____

END OF SECTION

SECTION 00804

CHANGE ORDER

Order No._____

Date:_____

Agreement Date:_____

NAME OF PROJECT: Reserve Area Drainage Improvements Phase II _____

OWNER: St. John the Baptist Parish _____

CONTRACTOR:_____

The following changes are hereby made to the CONTRACT DOCUMENTS

Justification:

Change to CONTRACT PRICE

Original CONTRACT PRICE $_____

Current CONTRACT PRICE adjusted by previous CHANGE ORDER $_____

The CONTRACT PRICE due to this CHANGE ORDER will be (increased or decreased) by $_____

The new CONTRACT PRICE including this CHANGE ORDER will be $_____

Change to CONTRACT TIME:

The CONTRACT TIME will be (increased or decreased) by __ calendar days.

The date for completion of all work will be _____
(date)

Requested By:_____
Contractor

Approvals By:_____
Engineer

_____
Owner

SECTION 00806

CERTIFICATE OF COMPLETION

PROJECT: Reserve Area Drainage Improvements Phase II

DATE OF COMPLETION: _____

The work performed under this contract has been inspected by an authorized representative of the Owner, Contractor, and Engineer, and the Project is hereby declared complete.

Construction is in substantial conformance with the approved plans and specifications and no known material or construction deficiencies exist with the exception of the items on the attached punchlist.

All required tests and measurements have been made in accordance with the specifications, to establish the quality and quantity of material and construction.

Punch List : 1)
2)
3)

_____
Engineer

The Contractor accepts the above CERTIFICATE OF COMPLETION

_____
Contractor

APPROVED:

_____
Owner

END OF SECTION

SECTION 00810

DUTIES, RESPONSIBILITIES AND LIMITATIONS OF AUTHORITY OF RESIDENT PROJECT REPRESENTATIVE

A. GENERAL

Resident Project Representative is Engineer's Agent, will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding his actions. Resident Project Representative's dealings in matters pertaining to the on-site Work shall in general be only with Engineer and Contractor, and dealings with Subcontractors shall only be through or with the full knowledge of Contractor. Written communication with Owner will be only through or as directed by Engineer.

B. DUTIES AND RESPONSIBILITIES

1. Liaison:

   a. Serve as Engineer's liaison with Contractor, working principally through contractor's superintendent and assisting him in understanding the intent of the Contract Documents. Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-site operations.

   b. As requested by Engineer, assist in obtaining from Owner additional details or information, when required at the job site for proper execution of the Work.

2. Review of the Work, Rejection of Defective Work, Inspections and Tests:

   a. Conduct on-site observations of the Work in progress to assist Engineer in determining if the Work is proceeding in accordance with the Contract Documents and that completed Work will conform to the Contract Documents.

   b. Report to Engineer whenever he believes that any Work is unsatisfactory, faulty or defective, does not conform to the Contract Documents, does not meet the requirements of any inspections, tests or approval required to be made, or has been damaged prior to final payment; and advise Engineer when he believes Work should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection, or approval.

   c. Verify that tests, equipment and systems startups and operating and maintenance instructions are conducted as required by the Contract Documents and in presence of the required personnel and that Contractor maintains adequate records thereof; observe, record and report to Engineer appropriate details relative to the test procedures and startups.

d. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the outcome of these inspections, and report to Engineer.

3. Modifications: Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and report them with recommendations to Engineer.

4. Records:

Keep a diary or log book, recording hours on the job site, weather conditions, data relative to questions of extras or deductions, list of visiting officials and representatives of manufacturers, fabricators, suppliers and distributors, daily activities, decisions, observations in general and specific observations in more detail as the case of observing test procedures. Send copies to Engineer.

5. Reports:

a. Consult with Engineer in advance of scheduled major tests, inspections or start of important phases of the Work.

b. Report immediately to Engineer upon the occurrence of any accident.

6. Payment Requisitions: Review applications for payment with contractor for compliance with the established procedure for their submission and forward them with recommendations to Engineer, noting particularly their relation to the schedule of values, Work completed, and materials and equipment delivered at the site but not incorporated in the Work.

7. Certificates, Maintenance and Operation Manuals:

During the course of the Work, verify that certificates, maintenance and operation manuals and other data required to be assembled and furnished by Contractor are applicable to the items actually installed; and deliver this material to Engineer for his review and forwarding to Owner prior to final acceptance of the Work.

8. Completion:

a. Before Engineer issues a Certificate of Substantial Completion, submit to Contractor a list of observed items requiring completion or correction.

b. Conduct final inspection in the company of Engineer, Owner and Contractor and prepare a final list of items to be completed or corrected.

c. Verify that all items on final list have been completed or corrected and make recommendations to Engineer concerning acceptance.

C. LIMITATIONS OF AUTHORITY

Except upon written instructions of Engineer, Resident Project Representative:

1. Shall not authorize any deviation from the Contract Documents or approve any substitute materials or equipment.

2. Shall not exceed limitations on Engineer's authority as set forth in the Contract Documents.

3. Shall not undertake any of the responsibilities of Contractor, Subcontractors, or Contractor's superintendent or expedite the Work.

4. Shall not advise on or issue directions relative to any aspect of the means, methods, techniques, sequences or procedures of construction unless such is specifically called for in the Contract Documents.

5. Shall not advise on or issue directions as to safety precautions and programs in connection with the Work.

6. Shall not authorize Owner to occupy the Project in whole or in part.

7. Shall not participate in specialized field or laboratory tests.

END OF SECTION

SECTION 01010

SUMMARY OF WORK

PART 1 - GENERAL

1.01 LOCATION OF WORK

All of the work of this Contract is located in rights-of-way owned by the Parish of St. John the Baptist.

1.02 WORK TO BE DONE

A. 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.

B. The Contractor shall perform the work complete, in place, and ready for continuous service, and shall include repairs, testing, permits, cleanup, replacements and restoration required as a result of damages caused during this construction.

C. All materials, equipment, skills, tools and labor which are reasonably and properly inferable and necessary for the proper completion of the work in a substantial manner and in compliance with the requirements stated or implied by these Specifications or Drawings shall be furnished and installed by the Contractor without additional compensation, whether specifically indicated in the Contract Documents or not.

D. The Contractor shall comply with all Parish, state, federal and other codes which are applicable to the proposed construction work.

1.03 GENERAL DESCRIPTION OF WORK TO BE PERFORMED

A. The Work included in the Contract shall be described in other parts of these Specifications.

B. All work shall be done as described in the Specifications and as shown on the Drawings, complete, tested and ready for operation.

1.04 WORK SEQUENCE

A. All work to be done under the Contract shall be done with minimum inconvenience to the public. The Contractor shall coordinate his work with private property owners such that existing services are maintained to all users at all times.

B. Construct Work in stages to accommodate the Owner's use of the premises during the construction period; coordinate the construction schedule and operations with the Engineer.

C. Construct the Work in stages to provide for public convenience. Do not close off use of facilities until completion of one stage of construction will provide alternative usage.

1.05 CONSTRUCTION AREAS

A. Contractor shall limit his use of the construction areas for Work and for storage, to allow for:

1. Work by other contractors.
2. Owner use.
3. Public use.

B. Coordinate use of work site under direction of Engineer.

C. Assume full responsibility for the protection and safekeeping of products under this Contract, stored on the site.

D. Move any stored products, under Contractor's control which interfere with operations of the Owner or other contractors.

E. Obtain and pay for the use of additional storage or work areas needed for operations.

1.06 OWNER OCCUPANCY

Owner will have full access to and use of all existing facilities during the entire period of construction for the conduct of his normal operations. Cooperate with Engineer in all construction operations to minimize conflict and to facilitate Owner usage.

1.07 PARTIAL OWNER OCCUPANCY

The Contractor shall schedule his operations for completion of portions of the Work, as designated, for the Owner's occupancy prior to Substantial Completion of the entire Work.

1.08 PLANS AND SPECIFICATIONS

A. Specifications

The Technical Specifications consist of three parts: General, Products, and Execution. The General section contains general requirements which govern the work. The Products and Execution actions modify and supplement these by detailed requirements of the work and shall always govern whenever there appears to be a conflict.

B. Intent

All work called for in the Specifications applicable to the Contract but not shown on the Plans in their present form or vice versa shall be of like effect as if shown or mentioned in both. Work not specified in either the Plans or in the Specifications but involved in carrying out their intent or in the complete and proper execution of the work is required and shall be performed by the Contractor as though it were specifically delineated or described.

The apparent silence of the Specifications as to any detail, or the apparent omission from them of a detailed description concerning any work to be done and materials to be furnished, shall be regarded as meaning that only the best general practice is to prevail and that only material and workmanship of the best quality is to be used, and interpretation of these Specifications shall be made upon that basis.

C. Conflict between Drawings and Specifications

Where an obvious conflict exists between the Plans and Specifications, the Engineer shall decide which governs and the Contractor shall comply with the decision. Such decision shall not be grounds for additional payment to the contractor, i.e., the Contractor shall include the price of the most expensive alternative in his bid.

END OF SECTION

SECTION 01150

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 SCOPE OF WORK

A. The scope of this section defines the items included in each bid item. Payment will be made based on the specified items included in the description in this section for each bid item.

B. All contract prices included in the bid form will be full compensation for all labor, materials, tools, equipment and incidentals necessary to complete the construction as shown on the Drawings and/or as described in the Specifications to be performed under this contract. Actual quantities of each item bid on a unit price basis will be determined upon completion of the construction. Payment for all items in the bid form will constitute full compensation for all work to be performed under this Contract.

PART 2 - PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

PART 4 – MEASUREMENT AND PAYMENT

4.01 MOBILIZATION

A. MEASUREMENT

Measurement of work for payment of this item shall be on a lump sum basis as established in the bid, and broken down in accordance with Section 01370.

B. PAYMENT

Payment shall be based on preparatory work and operations to include, but not limited to, those necessary for the movement of personnel, equipment, supplies and incidentals to the project site; the establishment of all construction offices, and other facilities necessary for work on the project and the cost of bonds.

Partial payments for mobilization will be made in accordance with the following schedule up to a maximum of 3% of the original total contract amount, including this item, and payment of any remaining amount will be made upon completion of all work under the contract. No price adjustment will be made for this due to changes and or extensions of time and any increased mobilization cost incurred by the Contractor due to any additional work occasioned by such changes.

Payments will be made as follows:

a. 1st Payment Request – Invoiced cost for Bond, and any other work as required and substantiated in accordance with Section 01370.

b. Remaining Payment Request – Invoiced and verified as per the Schedule of Prices.

c. Final Payment – Remaining amount of lump sum due for this item.

If the Contract is canceled by the Owner, the Contractor will be paid for the actual cost for mobilization at the time of cancellation, which cost shall not exceed the total amount bid under this item.
Nothing herein shall be construed to limit or preclude partial payment otherwise provided by the Contract.

Mobilization - **LUMP**

4.02 TEMPORARY CONSTRUCTION SIGNS AND BARRICADES

A. MEASUREMENT

Temporary construction signs, barricades and related devices will be paid for at the contract lump sum price in accordance with the following schedule:

PERCENT OF TOTAL CONTRACT AMOUNT EARNED	ALLOWABLE PERCENT OF LUMP SUM PRICE FOR TEMPORARY SIGNS AND BARRICADES
25	20
50	40
75	60
100	80
	100

B. PAYMENT

Temporary Construction Signs and Barricades – **LUMP**

4.03 STORM DRAINAGE

A. MEASUREMENT

Measurement of work for payment of this item shall be the actual linear footage of drainage pipe or culverts installed, or footage of ditched cleaned and reshaped, and accepted as specified and shown on the plans.

B. PAYMENT

Payment will be made at the contract unit price which shall include all pipe bedding, backfill material, timber planks, compaction, shoring, connection bands, stub-in's, lateral culvert tie-ins, gaskets, fillers, concrete, grout, steel, excavation and reshaping and cleaning ditches and specified culverts, will be made at the lump sum price bid to the lines and grades shown on the plans. Payment shall constitute full compensation for furnishing all materials, labor, equipment and incidentals to complete this task.

Payment will be made under:

Excavation and Reshape Ditches – **LF**

RCP/RCPA/CMP/CMPA Remove and Replace - **LF**

4.04 INLETS, CATCH BASINS AND JUNCTION BOXES

A. MEASUREMENT

Measurement will be made per each standard drain inlet or conflict box including grate and framing constructed to the lines and grades shown on the plans and accepted by the Engineer.

B. PAYMENT

Payment will be made at the contract unit price which shall include all materials, labor, equipment and incidentals to complete this task per the Plans and Specifications. Details in plans or Standard LADOTD details. !2" yard drain similar to CB-05.

Payment will be made under:

CB-01/CB-02 Catch Basin – **EA**

8" Yard Drain (CB-05) with Pipe - **EA**

12" Yard Drain/Tee Inlet – **EA**

Conflict Box/Drainage MH/Junction Box - **EA**

Concrete Retaining Wall - **LS**

4.05 PATCHING EXISTING PAVEMENT, DRIVES, AND WALKS

A. Measurement

Measurement of work for payment of this item shall be the actual number of square yards of Portland cement concrete pavement, drives, and walks, asphalt pavement and drives, or limestone drives, removed and replaced in accordance with these specifications. There will be no pay for temporary patches. Pay quantities installed will be based on the theoretical amount specified and as shown on the Drawings.

B. Payment

Payment shall be the full compensation for furnishing all labor, materials (including concrete, dowel bars, drilling, epoxy, asphalt, tack coat, or limestone, as well as others indicated in the Plans and Drawings), equipment, and incidentals necessary for the complete installation of this item. Installation includes all mentioned items and the necessary joints indicated on the Drawings and Specifications. Payment shall be at the contract price under the following:

Limestone (6" thick) Remove and Replace - **SQ. YD.**

Concrete Pavement Remove and Replace - **SQ. YD.**

Asphalt Pavement Remove and Replace - **SQ. YD.**

Temporary 6" Limestone - **SQ. YD.**

4" Concrete Sidewalk Remove and Replace - **SQ. YD.**

4.06 RELOCATE WATER HOUSE CONNECTION

A. MEASUREMENT

Measurement of work for this item shall be for the complete installation of ASTM D2737 and ASTM D1248 P.E. tubing to match the existing size. All fittings and coupling shall be made of brass. This work will only be performed if the existing water service connection is in conflict with the proposed drain or culvert pipe.

B. PAYMENT

Payment for this item shall be made at the contract unit price bid for each ½" or ¾" house water service connection relocated and shall include all work including labor, material, tools, equipment and all necessary incidentals to complete this work item

Payment shall be made under:

Relocate House Water Service Connection – **EA.**

4.07 ADJUST SEWER HOUSE CONNECTION

A. MEASUREMENT

Measurement of work for this item shall be per sewer house connection that is adjusted which is in conflict with the proposed drain or culvert pipe. This work shall consist of lowering the sewer house connection using pipes and fittings to avoid all conflicts. Sewer pipe shall be 6" PVC SDR 26 manufactured in accordance with ASTM D-3034. The connection to dissimilar materials shall be accomplished by the installation of "No-Hub" coupling, consisting of a neoprene sleeve and bushing adaptor and two stainless steel bands with stainless steel screws. The coupling shall be manufactured by Fernco or approved equal. A minimum of 6"clearance is required between the conflicting utilities

B. PAYMENT

Payment for this item shall be full compensation for all required work including material, labor, equipment, tools and all other incidentals necessary to complete this item.

Payment shall be made under:

Adjust Sewer House Connection – **EA.**

4.08 WATERLINE OFFSET

A. MEASUREMENT

Measurement of work for this item shall be per offset complete in place as shown on the plans. The work shall also include installation of "split restrainers" on joints located within 20 feet on both sides of the offset. All hardware shall be stainless steel and the fittings shall be wrapped in polyethylene and taped as per AWWA Standards.

B. PAYMENT

Payment for this item shall include all work including labor, material, tools, equipment and all necessary incidentals to complete the work shown on these Plans and Specifications. The same price will be applicable for 8" as well as 6" waterline offsets.

Payment shall be made under:

Waterline Offset – **EA.**

4.09 REPIPE FIRE HYDRANT

A. MEASUREMENT

Measurement of work for this item shall be per each offset required complete in place as shown on the plans. The work shall include removal of piping, supply and installation of new restrained pipe and fittings as

required to complete the installation of the fire hydrant as required by the plans and specifications, and to the satisfaction of the Engineer. All hardware shall be stainless steel and the fittings shall be wrapped in polyethylene and taped as per AWWA Standards.

B. PAYMENT

Payment for this item shall include all work including labor, material, tools, equipment and all necessary incidentals to complete the work shown on these Plans and Specifications. The same price will be applicable for 8" as well as 6" waterline offsets.

Payment shall be made under:

Repipe Fire Hydrant – **EA.**

4.10 SEEDING AND FERTILIZING

A. Measurement

This pay item will be paid for at the contract lump sum price.

B. Payment

Payment shall be the full compensation for furnishing all labor, materials, equipment, and incidentals required for seeding and fertilizing (including watering) all areas of construction until full establishment is achieved.

Payment will be at the contract price under:

Seeding and Fertilizing – **LUMP**

4.11 PROJECT SIGN

A. MEASUREMENT

It shall be measured for each sign furnished and installed complete in-lace to the satisfaction of the Engineer.

B. PAYMENT

Payment for this item will be made at the lump sump bid price under:

Project Sign – **EA.**

4.12 RELOCATION OF INFRASTRUCTURE ITEMS

A. MEASUREMENT

Measurement and Payment: The cost for relocating, repairing, replacing or removing any unforeseen utilities or structures; such as water, sewer, gas, power and subsurface drainage systems, which are in conflict with the items to be installed under this project shall be paid under item "Relocation of Infrastructure Items," and shall include all labor, equipment, and material necessary for proper performance of this work. Such work shall be paid for only when the work is deeded necessary (by Engineer and Owner) for performance of this contract. Relocation, repair, or removal of any items for the Contractor's convenience will be paid for by the Contractor. When the cost for necessary relocation, repairs, or removal are to be paid for by the Owner, the Contractor shall keep accurate records of all time, material, and equipment used and shall submit a copy of said record on a daily basis (same day) to the Resident Project Representative for review. The cost for this work included in the bid forms is a projected budget cost. Upon completion of the work, the total contract price shall be adjusted accordingly.

B. PAYMENT

Relocation of Infrastructure Items – **LUMP**

4.13 WATERLINE INSERTA VALVES

A. MEASUREMENT

Measurement of work for this item shall be per installed valve complete in place as shown on the plans, or as per Parish instructions and coordination. The work shall also include installation of "split restrainers" on joints located within 20 feet on both sides of the valve, if required. All hardware shall be stainless steel and the fittings shall be wrapped in polyethylene and taped as per AWWA Standards.

B. PAYMENT

Payment for this item shall include all work including labor, material, tools, excavation, backfill, equipment and all necessary incidentals to complete the work shown on these Plans and Specifications. The same price will be applicable for 8" as well as 6" waterline offsets.

Payment shall be made under:

Waterline Inserta Valve – **EA.**

4.14 JACK AND BORE RAILROAD CULVERTS

A. MEASUREMENT

Measurement for jack and bore pipe shall be by the actual field measurement on a linear foot basis.

B. PAYMENT

Payment for this item shall include all work including labor, material, tools, equipment, and all necessary incidentals, including all CN Permit and insurance requirements, welding, excavations, sheeting, shoring, bracing and backfilling, R.R. Flagmen, locates, and coordination requirements, to complete the work shown on these Plans and Specifications.

Payment shall be made under:

Jack and Bore Railroad Culverts – **LF.**

END OF SECTION

SECTION 01152

APPLICATIONS FOR PAYMENT

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

Submit Applications for Payment to the Engineer in accord with the General Conditions and in the form required by the Owner.

1.02 FORMAT AND DATE REQUIRED

A. Submit applications typed on forms provided by the Engineer, Application for Payment, with itemized Schedule of Values data typed on 8-1/2 inch x 11 inch white sheets.

B. Provide detailed substantiating data on additional sheets, including paid invoices where applicable.

1.03 PREPARATION OF APPLICATION FOR PROGRESS PAYMENTS

A. Application Form:

1. Fill in required information, including that for Change Orders executed prior to date of submittal of application.
2. Fill in summary of dollar values to agree with respective totals indicated on continuation sheets.
3. Execute certification with signature of a responsible officer of the Contractor.

B. Continuation Sheets:

1. Fill in total list of all scheduled component items of work, with item number and scheduled dollar value for each item.
2. Fill in dollar value in each column for each scheduled line item when work has been performed or products stored.
3. List each Change Order executed prior to date of submission by Change Order Number and description.
4. To receive payment for materials stored on site, submit copies of the original paid invoices with the application for payment.

1.04 SUBSTANTIATING DATA FOR PROGRESS PAYMENTS

A. Provide substantiating data containing suitable information for review of costs requested with the applications for progress reports identifying:

1. The payment item to which the substantiating data applies.
2. Application number and date.

3. Detailed list of enclosures.
4. For stored materials:

   a. Item number and identification as shown on the application.

   b. Description of specific material.

B. Submit one copy of data for each copy of application for payment.

1.05 PREPARATION OF APPLICATION FOR FINAL PAYMENT

Fill in Application form as specified for progress payments.

1.06 SUBMITTAL PROCEDURE

A. Submit applications for payment to the Engineer at the times stipulated in the General Conditions.

B. Initially a pencil draft application shall be informally submitted to the Engineer who shall review the draft with the Contractor and make adjustments as appropriate. The Contractor shall then prepare a formal typed application using the informally approved amounts and submit four (4) complete sets to the Engineer.

C. When the Engineer finds the application properly completed and correct, as informally approved, he will transmit it to the Owner for payment with a copy to the Contractor.

END OF SECTION

SECTION 01340

SHOP DRAWINGS, PROJECT DATA, AND SAMPLES

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

A. The Contractor shall submit to the Engineer for review and exception, if any, such working drawings, shop drawings, test reports and data on materials and equipment (hereinafter in this article called data), and material samples (hereinafter in this article called samples) as are required for the proper control of work, including but not limited to those working drawings, shop drawings, data and samples for materials and equipment specified elsewhere in the Specifications and in the Contract Drawings.

B. Within thirty (30) calendar days after the Effective Date of the Agreement, the Contractor shall submit to the Engineer a complete list of preliminary data on items for which Shop Drawings are to be submitted. Included in this list shall be the names of all proposed manufacturers furnishing specified items. Review of this list by the Engineer shall in no way relieve the Contractor from submitting complete shop drawings, data, and samples in accordance with the Specifications. This procedure is required in order to expedite final review of Shop Drawings.

1.02 CONTRACTOR'S RESPONSIBILITY

A. It is the duty of the Contractor to check all drawings, data and samples prepared by or for him before submitting them to the Engineer for review. Each and every copy of the Drawings and data shall bear Contractor's stamp showing that they have been so checked. Shop drawings submitted to the Engineer without the Contractor's stamp or evidence that the Contractor has not performed the required review will be returned to the Contractor for conformance with this requirement. Shop drawings shall indicate any deviations in the submittal from requirements of the Contract Documents.

B. Determine and verify:

1. Field measurements.

2. Field construction criteria.

3. Catalog numbers and similar data

4. Conformance with Specifications and indicate all variances from the Specifications.

C. The Contractor shall not begin any of the work covered by a drawing, data, or a sample returned for correction until a revision or correction thereof has been reviewed and returned to him by the Engineer with no exceptions taken.

D. The Contractor shall submit to the Engineer all drawings and schedules sufficiently in advance of construction requirements to provide no less than twenty-one (21) calendar days for checking and appropriate action from the time the Engineer receives them.

E. The Contractor shall submit five (5) copies of shop drawings and descriptive or product data submittals to complement shop drawings to the Engineer which will be retained for his use. The Contractor shall submit extra sets as required for his subcontractors, his suppliers, and his own use.

1.03 ENGINEER'S REVIEW OF SHOP DRAWINGS

A. The Engineer's review of drawings, data and samples submitted by the Contractor will cover only general conformity to the Specifications, external connections, and dimensions which affect the installation.

B. The review of drawings and schedules will be general, and shall not be construed:

1. as permitting any departure from the Contract requirements;

2. as relieving the Contractor of responsibility for any errors, including details, dimensions, and materials;

3. as approving departures from details furnished by the Engineer, except as otherwise provided herein.

C. If the drawings or schedules as submitted describe variations per subparagraph (1.04.C), and show a departure from the Contract requirements which Engineer finds to be in the interest of the Owner and to be so minor as not to involve a change in Contract Price or Time, the Engineer may return the reviewed drawings without noting any exception.

D. When reviewed by the Engineer, each of the Shop Drawings will be identified as having received such review being so stamped and dated. Shop Drawings stamped "NOT APPROVED" and with required corrections shown will be returned to the Contractor for correction and resubmittal.

E. Resubmittals will be handled in the same manner as first submittals. The Contractor shall direct specific attention to revisions other than the corrections requested by the Engineer on previous submissions by written details or marking on the resubmitted Shop Drawings. The Contractor shall make any corrections required by the Engineer.

F. If the Contractor considers any correction indicated in the drawings to constitute a change to the Contract Drawings or Specifications, the Contractor shall give written notice thereof to the Engineer.

G. The Engineer will review a submittal/resubmittal a maximum of three (3) times after which cost of review will be borne by the Contractor. The cost of engineering shall be equal to the Engineer's charges to the Owner under the terms of the Engineer's agreement with the Owner.

H. When the Shop Drawings have been completed to the satisfaction of the Engineer, the Contractor shall carry out the construction in accordance therewith and shall make no further changes therein except upon written instructions or approval from the Engineer.

I. No partial submittals will be reviewed. Submittals not complete will be returned to the Contractor, and will be considered "NOT APPROVED" until resubmitted.

1.04 SHOP DRAWINGS

A. Shop drawings shall be complete and detailed.

B. Drawings and schedules shall be checked and coordinated with the work of all trades involved, before they are submitted for review by the Engineer and shall bear the Contractor's stamp of approval as evidence of such checking and coordination. Drawings or schedules submitted without this stamp of approval shall be returned to the Contractor for resubmission.

C. Each Shop Drawing shall have a blank area 3-1/2 inches by 3-1/2 inches, located adjacent to the title block. The title block shall display the following:

1. Number and title of the drawing.

2. Date of drawing or revision.

3. Name of project building or facility.

4. Name of Contractor and subcontractor submitting drawing.

5. Clear identification of contents and location of the work.

D. If drawings show variations from Contract requirements because of standard shop practice or for other reasons, the Contractor shall describe such variations in his letter of transmittal. If acceptable, proper adjustment in the Contract shall be implemented where appropriate. If the Contractor fails to describe such variations, he shall not be relieved of the responsibility for executing the work in accordance with the Contract, even though such drawings have been reviewed.

E. Data on materials and equipment include, without limitation, materials and equipment lists, catalog data sheets, cuts, performance curves, diagrams, materials of construction and similar descriptive material as required. Materials and equipment lists shall give for each item thereon the name and location of the supplier or manufacturer, trade name, catalog reference, size, finish and all other pertinent data.

F. The Contractor shall provide a list including the equipment name, address and telephone number of the manufacturer's representative and service company so that service and/or spare parts can be readily obtained for all mechanical and electrical equipment furnished.

G. All manufacturers or equipment suppliers who proposed to furnish equipment or products shall submit an installation list to the Engineer along with the required shop drawings. The installation list shall include at least five installations where identical equipment has been installed and has been in operation for a period of at least one (1) year.

H. Before final payment is made, the Contractor shall furnish to Engineer five (5) sets of record shop drawings all clearly revised, complete and up to date showing the permanent construction as actually made for all reinforcing and structural steel, miscellaneous metals, process and mechanical equipment, yard piping, electrical system and instrumentation system.

END OF SECTION

SECTION 01370

SCHEDULE OF VALUES

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

A. Submit to the Engineer a Preliminary Schedule of Values in accordance with Article 24 of the General Conditions.

B. Upon request of the Engineer, support the values with data which will substantiate their correctness.

C. Refine the Schedule of Values to provide a detailed schedule and submit to the Engineer at least ten days prior to the first Application for Payment. The final Schedule of Values shall be used only as the basis for the Contractor's Applications for Payment.

1.02 FORM AND CONTENT OF SCHEDULE OF VALUES

A. Type schedule on 8-1/2 inch X 11 inch or 8-1/2 inch X 14 inch white paper. Contractor's standard forms and automated printout will be considered for approval by the Engineer upon Contractor's request. Identify schedule with:

1. Title of Contract and location.

2. Engineer and Contract numbers.

3. Name and Address of Contractor.

4. Contract designation.

5. Date of submission.

B. Schedule shall list the installed value of the component parts of the Work in sufficient detail to serve as basis for computing values for progress payments during construction.

C. Identify each line item with the number and title of the respective major section of the specifications.

D. For each major line item list sub-values of major products or operations under the item.

E. For the various portions of the Work:

1. Each item shall include a directly proportional amount of the Contractor's overhead and profit.

2. For items on which progress payments will be requested for stored materials, break down the value into:

a. The cost of the materials, delivered and unloaded, with taxes paid. Paid invoices are required for materials upon request by the Engineer.

b. The total installed value.

F. Follow the Bid Form Schedule of Prices as the format for listing component items.

G. The sum of all lump sum values listed in the schedule shall equal the total Contract Sum.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01410

TESTING LABORATORY SERVICES

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

Owner will employ and pay for the services of an Independent Testing Laboratory to perform testing specifically indicated on the Contract Documents or specified in the Specifications and may at any other time elect to have materials and equipment tested for conformity with the Contract Documents.

1. Contractor shall cooperate with the laboratory to facilitate the execution of its required services.

2. Employment of the laboratory shall in no way relieve Contractor's obligations to perform the work of the Contract.

1.02 LIMITATIONS OF AUTHORITY OF TESTING LABORATORY

Laboratory is not authorized to:

A. Release, revoke, alter or enlarge on requirements of Contract Documents.

B. Approve or accept any portion of the Work.

C. Perform any duties of the Contractor.

1.03 CONTRACTOR'S RESPONSIBILITIES

A. Cooperate with laboratory personnel, provide access to Work, to Manufacturer's operations.

B. Secure and deliver to the laboratory 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. Materials and equipment used in the performance of work under this Contract are subject to inspection and testing at the point of manufacture or fabrication. Standard specifications for quality and workmanship are indicated in the Contract Documents. The Engineer may require the Contractor to provide statements or certificates from the manufacturers and fabricators that the materials and equipment provided by them are manufactured or fabricated in full accordance with the standard specifications for quality and workmanship indicated in the Contract

Documents. All costs of this testing and providing statements and certificates shall be a subsidiary obligation of the Contractor, and no extra charge to the Owner shall be allowed on account of such testing and certification.

E. Furnish incidental labor and facilities:

1. To provide access to Work to be tested.

2. To obtain and handle samples at the Project site or at the source of the product to be tested.

3. To facilitate inspections and tests.

4. For storage and curing of test samples.

F. Notify laboratory at least 24 hours in advance of operations to allow for laboratory assignment of personnel and scheduling of tests.

G. If the test results indicate the material or equipment complies with the Contract Documents, the Owner shall pay for the cost of the testing laboratory. If the tests and any subsequent retests indicate the materials and equipment fail to meet the requirements of the Contract Documents, the Contractor may pay for the laboratory costs directly to the testing firm or the total of such costs shall be deducted from any payments due the Contractor.

END OF SECTION

SECTION 01580

PROJECT IDENTIFICATION AND SIGNS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

A. Furnish, install and maintain the Owner's project identification sign.

B. Remove sign on completion of construction.

C. Allow no other signs to be displayed.

1.02 OWNER PROJECT IDENTIFICATION SIGN

A. One painted sign with contents to include:

1. Name of Project
2. Name of Owner
3. Name of Local Authorities as directed by the Engineer.

B. The graphic design and style of lettering shall be approved by the Engineer and subject to the approval of the Owner.

C. All lettering shall be in the color red. The plywood shall be painted white.

D. Erect on the site at a lighted location of high public visibility, as approved by the Engineer.

E. A typical project sign is attached as a part of this specification.

1.03 QUALITY ASSURANCE

A. The sign painter shall have professional experience in the type of work required.

B. The finish of the sign shall be adequate to resist weathering and fading for the scheduled construction period.

PART 2 – PRODUCTS

2.01 SIGN MATERIALS

A. Structure and Framing: Shall be new wood in sound condition structurally adequate to work and suitable for specified finish.

B. Sign Surfaces: ¾" exterior softwood plywood with medium density overlay, standard large sizes to minimize joints or as otherwise required.

C. Rough Hardware: Galvanized.

D. Paint: Exterior quality

E. Sign Supports: Treated 4' X 4' timber members.

PART 3 – EXECUTION

3.01 PROJECT IDENTIFICATION SIGNS

A. Paint exposed surface of supports, framing, and surface material with one coat of primer and one coat of exterior paint.

B. Paint graphics in styles, sizes and colors selected.

3.02 MAINTENANCE

Maintain supports and sign in a neat, clean condition. Repair damages to structures, framing and/or sign as needed.

3.03 REMOVAL

Remove signs, framing, supports, and foundations at completion of project.

SECTION 01700

CONTRACT CLOSEOUT

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

The Contractor shall comply with the requirements stated in the General Conditions and in the Specifications for administrative procedures in closing our the Work.

1.02 FINAL INSPECTION

A. When the Contractor considers the Work is substantially complete, he shall submit to the Engineer:

1. A written notice that the Work or designated portion thereof is substantially complete.
2. A list of items to be completed or corrected.

B. Within a reasonable time after receipt of such notice, the Engineer will make an inspection to determine the status of completion. The Engineer's opinion as to the status of completion shall be based on completion of the work as shown on the plans and called for in the specifications.

C. Should the Engineer determine that the Work is not substantially complete:

1. The Engineer will promptly notify the Contractor in writing, giving the reasons therefore.
2. Contractor shall remedy the deficiencies in the Work, and send a second written notice of substantial completion to the Engineer.
3. The Engineer will reinspect the Work.

D. When the Engineer finds that the Work is substantially complete, he will:

1. Prepare and deliver to Owner a Certificate of Completion.

1.03 FINAL ADJUSTMENT OF ACCOUNTS

A. Submit a final statement of accounting to the Engineer.

B. Statement shall reflect all adjustments to the Contract Sum:

1. The original Contract Sum.
2. Additions and deductions resulting from:

a. Previous Change Orders

b. Unit Prices
c. Deductions for uncorrected Work
d. Penalties and Bonuses
e. Deductions for liquidated damages
f. Deductions for reinspection payments
g. Other adjustments

3. Total Contract Sum, as adjusted.
4. Previous Payments.
5. Sum remaining due.

C. Engineer will prepare a final Change Order, reflecting approved adjustments to the Contract Sum which were not previously made by Change Orders.

1.04 APPLICATION FOR PAYMENT

Upon receipt of approval of the final change order Contractor shall submit an Application for Payment in accordance with procedures and requirements stated in the General Conditions.

1.05 CONTRACT CLEAR LIEN CERTIFICATE AND PAYMENT OF RETAINAGE

A. Upon receipt of the Owner's Certificate of Completion, the Contractor shall make filings with the Recorder of Mortgages, as required by Louisiana State Public Contract Statute.

B. In accordance with the Louisiana State Public Contract Statute, the Recorder of Mortgages shall issue a Clear Lien and Privilege Certificate upon expiration of a period of not less than forty-five (45) days, provided no liens are recorded against the project.

C. Upon receipt of the Clear Lien and Privilege Certificate, the Contractor shall submit an application for payment to the Engineer requesting the release of the project retainage with the certificate attached as evidence of authority for the Owner to pay the retainage.

D. The Engineer shall review the application for payment of the project retainage and if in order shall transmit the application to the Owner for payment.

E. In accordance with the General Conditions, the Owner shall release, the project retainage and make payment to the Contractor the legal sum of the retainage for which the Contractor is entitled.

END OF SECTION

SECTION 01710

CLEANING

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

Cleaning shall include daily "policing" of the work and surrounding areas to clear general debris, waste paper, wood scraps, broken concrete, and other objectionable material along with the final cleanup of site(s) required for project acceptance.

1.02 DISPOSAL REQUIREMENTS

Conduct cleaning and disposal operations to comply with codes, ordinances, regulations, and anti-pollution laws.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.01 DURING CONSTRUCTION

A. Execute daily cleaning to keep the Work, the site and adjacent properties free from accumulations of waste materials, rubbish and windblown debris, resulting from construction operations.

B. Provide onsite containers for the collection of waste materials, debris and rubbish. All waste materials including containers, food debris and other miscellaneous materials must be disposed of daily in onsite containers.

C. Remove waste materials, debris and rubbish from the site periodically and dispose of at legal disposal areas away from the site.

3.02 FINAL CLEANING

A. Employ skilled workmen for final cleaning.

B. Remove grease, mastic, adhesives, dust, dirt, stains, fingerprints, labels, and other foreign materials from sight-exposed interior and exterior surfaces.

C. Broom clean exterior paved surfaces; rake clean other surfaces of the grounds.

D. Prior to final completion or Owner occupancy, Contractor shall conduct an inspection of sight-exposed interior and exterior surfaces and all work areas to verify that the entire Work is clean.

END OF SECTION

SECTION 01720

WORK WITHIN RAILROAD RIGHT-OF-WAY

PART 1 - GENERAL

1.01 SCOPE OF WORK

The Contractor shall meet and strictly adhere to all the requirements of the Railroad Company. It is the responsibility of the Contractor to pay for and obtain all necessary permits, insurance, etc. required for working in the Railroad Right-of-Way. All permits for the installation of the proposed improvements have been obtained by the parish.

Upon completion of the pipeline installation work, all rubbish, excess materials, temporary structures and equipment are to be removed and the railroad's right-of-way cleaned and restored to the satisfaction of the railroad's chief engineer or his authorized representative. Disturbed areas shall be seeded or otherwise protected to control erosion as specified by the chief engineer of the railroad.

1.02 INSURANCE REQUIREMENTS

Railroad Protective Liability Insurance shall be purchased on behalf of the Railway by the Contractor. The standards for Railroad Protective Liability Insurance shall be in accordance with provisions of the Federal-Aid Policy Guide (FAPG) Part 646 as amended.

The limits of liability for the kinds of insurance required above shall be as follows:

A. Kansas City Southern Railroad Insurance Requirements

Combined Single Limit for Bodily Injury Liability, Property Damage

Liability and Physical Damage to: Property - $1,000,000.00 per occurrence
Aggregate Limit - $5,000,000.00 for the term of the policy

B. Canadian National Railroad Company Insurance Requirements

Combined Single Limit for Bodily Injury Liability, Property Damage

Liability and Physical Damage to: Property - $5,000,000.00 per occurrence
Aggregate Limit - $10,000,000.00 for the term of the policy

The Contractor shall furnish to the Railway the Railroad Protective Policy and certificates evidencing the other insurance coverage required above. The Railroad Protective Insurance Policy and all insurance certificates shall be approved by the Railway before any work may be started on the Railway's property by the contractor or subcontractors. In addition, the Contractor shall furnish evidence of commitment by the insurance

company to notify the Railway and the engineer in writing of any material change, expiration or cancellation of the policy not less than 30 calendar days before such change, expiration of cancellation is effective.

The insurance specified shall be kept in force until final acceptance of the contract. The Contractor shall provide the Engineer and the Owner notarized copies of the insurance certificate sent to the Railroads.

- The Contractor shall indemnify the Railway, its officers and employees from all suits, actions or claims brought because of injuries or damages sustained by any person or property due to operations of the Contractor; due to negligence in safeguarding the work; or use of unacceptable materials in constructing the work; or any negligent act, omission or misconduct of the Contractor; or claims or amounts received from infringements of patent, trademark or copyright.

- Upon completion of the work, the Contractor shall, within 10 calendar days, remove from within the limits of the Railway's right-of-way all machinery, equipment, surplus materials, falsework, rubbish or temporary buildings of said Contractor, and restore the Railway's premises substantially to their former condition satisfactory to the Railway's representative.

Should the Contractor fail to make such removal and restoration within 10 calendar days, the Railway shall have the right to make such removal or restoration. The expense incurred shall be chargeable to the project on the Railway's force account statement and the Department will reimburse the Railway for such work. The amount will be deducted from payments due the Contractor.

All costs incurred under this subsection, or for which payment is elsewhere provided, shall be included in the contract prices of other pay items.

Prior to final acceptance of the project, the Contractor shall secure a Certificate of Release from the railroad company and furnish same to the Department stating that the Contractor has satisfactorily restored the Railway's premises and has completed payments for all railway services performed for the Contractor's account, and that the Railway waives all claims for damages due to the Contractor's operations within railway right-of-way under the contract. If the Contractor is unable to secure a Certificate of Release from the Railway, the Contractor shall submit an executed Contractor's Affidavit, to the engineer.

PART 2 - PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 02100

CLEARING AND GRUBBING

PART 1 - GENERAL

1.01 SCOPE OF WORK

This work consists of required clearing, grubbing, removing and disposing of vegetation and debris within the immediate vicinity of the proposed project areas, except such objects that are designated to remain or to be removed in accordance with other Sections of these Specifications.

1.02 GENERAL

A. **Clearing and Grubbing**: This consists of cutting logs, brush, stumps and debris; excavation and removal of all stumps, roots, submerged logs, snags, corduroy and other perishable and objectionable material; and disposing of removed material and cleaning up the area to be cleared. Clearing and grubbing shall be done within the immediate vicinity of the project and not greater than 4' in width, when width of right-of-way permits, or to the limits shown on the plans; also from areas required for outfall ditches and channel changes. If fencing or utility relocation is required, it shall include an area 10 feet wide adjacent to and inside the right-of-way line. No trees over 3" in diameter shall be removed without permission given by the Project Engineer.

B. Stumps, roots and other protruding obstructions in the immediate vicinity of the project shall be cleared and grubbed (including mowing as required); however, undisturbed stumps, roots and nonperishable solid objects which will be a minimum of 2 feet below subgrade or slope of embankments will be permitted to remain provided they do not extend more than 6 inches above the ground line or low water level.

Grubbing with explosives will not be permitted without written permission from the Engineer.

Except in areas to be excavated, stump holes and other holes from which obstructions are removed shall be backfilled and compacted to the satisfaction of the engineer.

Burning of perishable material shall be under constant care of watchmen and in such manner that anything designated to remain on the right-of-way, the surrounding forest cover or other adjacent property will not be jeopardized.

Burning shall be in accordance with all applicable laws and ordinances and in particular Section 11, entitled, "Control of Air Pollution from Outdoor Burning" of the current regulations of the Louisiana Air Control Commission.

Materials and debris which cannot be burned and perishable materials, which are not burned, shall be removed from the right-of-way and

disposed of at locations off the project outside the limits of view of the traveling public. The contractor, at his expense, shall make arrangements with property owners for obtaining suitable disposal locations. Copies of agreements with property owners shall be furnished to the engineer.

Low hanging branches and unsound or unsightly branches on trees or shrubs designated to remain shall be removed as directed. Branches of trees extending over the project area shall be trimmed to a height of 20 feet above the working surface. Trimming shall be done in accordance with accepted tree surgery practices.

END OF SECTION

SECTION 02110

REMOVAL OF STRUCTURES AND OBSTRUCTIONS

PART 1 – GENERAL

1.01 DESCRIPTION AND SCOPE

This work shall consist of the removal and satisfactory disposal of all buildings, fences, structures, old pavements, abandoned pipe lines, culverts, concrete junction boxes, catch basins and any other obstructions which are not designated or permitted to remain, except for the obstructions to be removed and disposed of under other items in the contract as directed. It shall also include the salvaging of designated materials and backfilling the resulting trenches, holes, and pits. When the proposal does not include pay items for removal of structures and obstructions, as set out in this section, cost of such work shall be included in prices bid on other construction items.

PART 2 – MATERIALS (NONE)

PART 3 – EXECUTION

3.01 CONSTRUCTION REQUIREMENTS

The Contractor shall remove and dispose of all buildings and foundations, structures, fences and other obstructions, any portions of which are on the right of way, except utilities and those for which other provisions have been made for removal. All designated salvageable material shall remain the property of the Owner and shall be removed, without unnecessary damage, in sections or pieces by the Contractor within the project limits or hauled to a designated maintenance storage yard and stacked. All materials designated not to be salvaged may be destroyed or disposed of off the project outside the limits of view with written permission of the property owner on whose property material is placed. Copies of all agreements with property owners are to be furnished the Engineer. Basements or cavities left by structure removal shall be filled to the level of the surrounding ground and, if within the prism of construction, shall be compacted to the approximate density of the surrounding ground.

3.02 REMOVAL OF BRIDGES, CULVERTS AND OTHER DRAINAGE STRUCTURES

A. Bridges, culverts and other drainage structures in use by traffic shall not be removed until satisfactory arrangements have been made to accommodate traffic.

B. Unless otherwise directed, the substructures of existing structures shall be removed down to the natural stream bottom and those parts outside of the stream shall be removed down one foot below natural ground surface. Where such portions of existing structures lie wholly or in part within the limits for a new structure, they shall be removed as necessary to accommodate the construction of the proposed structure.

C. Steel bridges and wood bridges as specified, shall be carefully dismantled without unnecessary damage. This dismantling shall include the stripping of all hardware and the removal of all nails. Steel members shall be match marked before dismantling unless otherwise indicated. All salvaged material shall be stored or removed as specified by the Engineer and shall remain the property of the Owner.

D. Blasting or other operations necessary for the removal of an existing structure or obstruction, which may damage new construction, shall be completed prior to placing the new work.

E. Unless waived in writing, all concrete removed which is of suitable size for riprap and not needed for such use on the project shall be stockpiled on the project as directed for use by the Owner. When waived, the removed concrete shall be disposed of by the Contractor off the project.

3.03 REMOVAL OF PAVEMENT, SIDEWALKS, CURBS, ETC.

A. All concrete pavement, base course, sidewalks, curbs, gutters, etc., designated for removal, shall be:

1. Broken into pieces and used for riprap on the project, or

2. Broken into sizes suitable for riprap and stockpiled at designated locations on the project for use by the Owner, or

3. Otherwise disposed of as directed.

B. When specified, ballast, gravel, bituminous material or other surfacing or pavement materials shall be removed and stockpiled as required, otherwise, such materials shall be disposed of as directed.

C. There will be no separate payment for excavating for removal of structures and obstructions or for backfilling and compacting the remaining cavity.

END OF SECTION

SECTION 02150

TEMPORARY CONSTRUCTION SIGNS AND BARRICADES

PART 1 - GENERAL

1.01 SCOPE OF WORK

This item consists of furnishing, installing and maintaining temporary construction barricades, lights, signals, pavement markings and signs; providing flagmen; and complying with all other requirements regarding the protection of the work, workmen, and safety of the public. Signs, barricades, temporary pavement markings, etc., shall conform to the details shown on the plans, the MUTCD and these specifications.

Signs and barricades, and arrangements thereof, as shown on the plans, are minimum requirements. Appropriate signs for special conditions shall be furnished and installed as directed. Requirements as to proper signs, barricades or other safety precautions promulgated by the Contractor's insurers are not negated by these Specifications. These Specifications shall not be construed as relieving the Contractor of any of his responsibilities for the safety of the traveling public, for any liability in connection therewith, or compliance with State and local laws or ordinances.

PART 2 - PRODUCTS

2.01 MATERIALS

Materials and fabrication for temporary signs, barricades and related devices shall conform to Section 729 of the Louisiana Department of Transportation and Development "STD Specifications for Roads and Bridges", 2000 Edition, the plans and the following:

Backing material for construction signs shall conform to Subsection 1015.04(b) of Louisiana Department of Transportation and Development STD Specifications.

Barricade warning lights shall conform to Subsection 1018.12 of Louisiana Department of Transportation and Development STD Specifications.

PART 3 - EXECUTION

3.01 CONSTRUCTION REQUIREMENTS

Signs, barricades and related devices will be required when the Contractor's work is in progress on portions of the work covered by the Notice to Proceed, or when operations are suspended but the traveled portion of the road is not in a safe condition for the traveling public. During such times that barricades are not in place, appropriate regulatory signs shall be erected and maintained by the Contractor.

If a partial Notice to Proceed is issued, the Contractor shall immediately begin erection of signs and barricades over the affected portions of the project to the extent necessary to comply with the requirements herein. When the full Notice to Proceed is issued, barricades shall be erected at the beginning and end of the project, and signing throughout the remainder of the project shall be completed.

If a full Notice to Proceed is issued, the Contractor shall immediately begin erection of appropriate signs and barricades over the entire project.

In no event shall construction work under the contract begin until signs, barricades and other traffic control devices, as provided above, have been erected and approved.

When all signs to be furnished and erected by the Contractor are in place an approved, the Department's forces will remove or cover any standard signs that are in conflict with temporary signs.

The Contractor shall cooperate with the Engineer in placing of signs, as well as the Department's forces responsible for removing Departmental signs, so that appropriate signs are in place at all times.

Signing shall remain in place and be maintained by the Contractor, supplemented by additional signs as required, throughout the life of the contract.

Signs placed by the Contractor shall not be removed until the contract is completed and the Department's forces have re-erected standard highway signs along the project. However, it shall be the responsibility of the Department to see that all Departmental signs are in place upon completion and acceptance of the project.

Signs, barricades and related devices furnished and placed by the Contractor shall, upon removal, remain his property.

On projects where the surface course is constructed with asphaltic concrete or portland cement concrete pavement, the permanent centerline striping shall be completed by the Department's forces prior to removal of barricades.

END OF SECTION

SECTION 02220

STRUCTURAL EXCAVATION, BACKFILL & COMPACTION

PART 1 - GENERAL

1.01 SCOPE OF WORK

This Section includes, except as elsewhere provided, excavation, filling and grading under and around precast and cast in place structures to attain the subgrades and grades indicated on the Drawings.

1.02 JOB CONDITIONS

A. Existing Utilities: Locate existing underground utilities in the areas of work. If utilities are to remain in place, provide adequate means of protection during earthwork operations.

1. Should uncharted, or incorrectly charted, piping or other utilities be encountered during excavation, immediately consult the Engineer and the Owner of such piping or utility for directions.
2. Cooperate with Owner and utility companies in keeping respective services and facilities in operation. Repair damaged utilities to satisfaction of utility owner or make the site available to the utility owner for his work crews to make the necessary repairs.
3. Demolish and completely remove from site existing underground utilities indicated on the Drawings to be removed.

B. Protection of Persons and Property:

1. Barricade open excavations occurring as part of this work and post with warning lights. Operate warning lights as recommended by authorities having jurisdiction.
2. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout and other hazards created by earthwork operations.

PART 2 - PRODUCTS

2.01 SOIL MATERIALS

Definitions:

1. Satisfactory soil materials are defined as those complying with American Association of State Highway and Transportation Officials (AASHTO) M 145, soil classification Groups A-1, A-2-4, A-2-5, and A-3.

2. Unsatisfactory soil materials are those defined in AASHTO M 145 soil classification Groups A-2-6, A-2-7, A-4, A-5, A-6, and A-7; also, peat and other highly organic soils.
3. Base Material: Crushed limestone (grade 67 or coarser, but not larger than material passing a 3-1/2 inch sieve) in accordance with the requirements of ASTM C 33-84-Standard Specification for Concrete Aggregates.
4. Bedding Material: Crushed limestone (Grade 610 or equal) in accordance with the requirements of ASTM C 33-84-Standard Specification for Concrete Aggregrates.
5. Backfill and Fill Materials: Satisfactory soil material free of rock larger than 2 inches in any dimension, organic, deleterious and/or compressible material.
6. Fill material shall be subject to the approval of the Engineer.

PART 3 - EXECUTION

3.01 INSPECTION

Examine the areas and conditions under which excavating, filling, and grading are to be performed. Do not proceed with the work until unsatisfactory conditions have been corrected.

3.02 EXCAVATION

A. 1. Material placed in fill areas under and around structures shall be deposited within the lines and to the grades shown on the Drawings or as directed by the Engineer, making due allowance for settlement of the material. Fill shall be placed only on properly prepared surfaces which have been inspected and approved by the Engineer. If sufficient acceptable fill material is not available from excavation on site, the Contractor shall provide borrow as may be required.
2. Base course material and structural fill shall be provided as borrow.
3. Fill shall be brought up in substantially level lifts throughout the site, starting in the deepest portion of the fill. The entire surface of the work shall be maintained free from ruts, and in such condition that construction equipment can readily travel over any section. Fill shall not be placed against concrete structures until they have attained sufficient strength to withstand the construction loading.
4. Fill shall be dumped and spread in layers by approved methods. During the process of dumping and spreading, all roots, debris, and stones greater in size than specified under Materials, shall be removed from the fill areas, and the Contractor shall assign a sufficient number of men to this work to insure satisfactory compliance with these requirements.
5. If the compacted surface of any layer of material is determined to be too smooth to bond properly with the succeeding layer, it shall be loosened by harrowing or by another approved method before the succeeding layer is placed.

6. All fill materials shall be placed and compacted "in-the-dry". The Contractor shall dewater excavated areas as required to perform the work and in such manner as to preserve the undisturbed state of the natural inorganic soils.

B. Excavation consists of removal and disposal of material encountered when establishing required grade elevations.

C. Dewatering: Prevent surface water and subsurface or groundwater from flowing into excavations and from flooding project site and surrounding area.

D. Material Storage: Stockpile satisfactory excavated materials where directed, until required for backfill or fill. Place, grade, and shape stockpiles for proper drainage.

1. Locate and retain soil materials away from edge of excavations.
2. Dispose of excess soil material and waste materials as herein specified.

E. Excavation for Structures: Conform to elevations and dimensions shown within a tolerance of plus or minus 0.10 feet, and extending a sufficient distance from footings and foundations to permit placing and removal of concrete framework, installation of services, other construction, and for inspection, or as shown on the Drawings.

In excavation for footings and foundations, take care not to disturb bottom of excavation. Excavate by hand to final grade just before concrete reinforcement is placed. Trim bottoms to required lines and grades to leave solid base to receive concrete.

3.03 COMPACTION

A. General: Control soil compaction during construction providing minimum percentage of density specified on the structural drawings for each area classification. It shall be the Contractor's responsibility to notify the Engineer in writing that penetration tests can be performed. Written notice from the Contractor shall precede completion of compaction operations by at least two working days.

B. Percentage of Maximum Density Requirements:

1. Compact soil to not less than the following percentages of maximum dry density in accordance with AASHTO T-180.

a. Structures and 5-feet 0-inches around Perimeter of Building: Compact top 36-inches of subgrade and each layer of backfill or fill material at 98% maximum dry density.

b. Building Slabs: Compact top 12-inches of subgrade and each layer of backfill or fill material at 98% maximum dry density.

c. Lawn or Unpaved Areas: Compact top 6-inches subgrade and each layer of backfill or fill to the extent required to obtain a stable fill.

d. Walkways: Compact top 6-inches of subgrade at 98% maximum dry density.

e. Pavements and Steps: Compact top 6-inches of subgrade at 98% maximum dry density.

C. Moisture Control: Condition subgrade or layer material correcting moisture content:

1. When the material is too dry and before compaction, uniformly apply water to surface of subgrade or layer of soil material to prevent free water appearing on surface during or subsequent to compaction operations.
2. Remove and replace, or scarify and air dry, soil material that is too wet to permit compaction to specified density.
3. Soil material that has been removed because it is too wet to permit compaction but is otherwise satisfactory may be stock-piled or spread and allowed to dry. Assist drying by discing, harrowing or pulverizing until moisture content is reduced to a satisfactory value.

D. Structural fill and base course in open areas, shall be placed in layers not to exceed eight inches in depth as measured before compaction. Each layer shall be compacted to the minimum dry density as stated above. Incidental compaction due to traffic by construction equipment will not be credited toward the required minimum four coverages.

E. Common fill shall be placed and compacted in a manner similar to that described above for structural fill, with the following exceptions:

Layer thickness prior to compaction may be increased to 10-inches in open areas.

F. Compaction equipment in open areas shall consist of medium-heavy vibrator rollers with a minimum static weight of 10 tons or other compaction equipment approved by the Engineer.

G. Areas adjacent to structures and other confined areas in accessible to the vibratory roller shall be compacted with approved hand guided mechanical compaction equipment. The Contractor shall also conform to additional backfilling requirements at structures as specified in Paragraph 3.04. Compaction of the fill by such means shall be to the same degree of compaction as obtained by the rubber-tired equipment and the Engineer may make the necessary tests to determine the amount of compactive

effort necessary to obtain compaction. Unless such tests indicate that modifications may be made, the fill compacted by mechanical compactors shall be placed in 6-inch layers and thoroughly tamped over the entire surface. Compaction equipment is subject to approval by the Engineer.

H. It is the intention that the fill materials with respect to moisture be used in the conditions they are excavated insofar as this is practicable. Material which is too wet shall be spread and permitted to dry, assisted by harrowing if necessary, until the moisture content is reduced to allowable limits.

I. If the Engineer determines that added moisture is required, water shall be applied by sprinkler tanks or other sprinkler systems, which will insure uniform distribution of the water over the area to be treated, and give complete and accurate control of the amount of water to be used. If too much water is added the area shall be permitted to dry before compaction is continued.

J. The Contractor shall supply all hose, piping, valves, sprinklers, pumps, sprinkler tanks, hauling equipment, and all other materials and equipment necessary to place the water in the fill in the manner specified.

3.04 BACKFILL AND FILL

A. General: Place material in layers to required subgrade elevations, for each area of classification listed below.

1. In excavations use satisfactory excavated or borrow material.
2. Under grassed areas use satisfactory excavated or borrow material.
3. Under walks and pavements, use subbase material.

B. Backfill excavations as promptly as work permits, but not until completion of the following:

1. Acceptance by Engineer of construction below finish grade including, where applicable, dampproofing, waterproofing, and perimeter insulation.
2. Removal of concrete form work.
3. Removal of shoring and bracing, and filling of voids with satisfactory materials.
4. Removal of trash and debris.

C. Ground Surface Preparation: Remove vegetation, debris, unsatisfactory soil materials, obstructions, and deleterious materials from ground surface prior to placement of fills. Plow strip, or break-up sloped surfaces steeper than 1 vertical to 4 horizontal so that fill material will bond with existing surface. When existing ground surface has a density less than that specified under "Compaction" for the particular area classification, break up the ground surface, pulverize, moisture-condition to the optimum moisture content, and compact to required depth and percentage of maximum density.

D. Placement and Compaction: Place backfill and fill materials in layers not more than 9-inches loose depth for material compacted by heavy compaction equipment, and not more than 4-inches loose depth for material compacted by hand-operated tampers.

1. Before compaction, moisten or aerate each layer as necessary to provide the optimum moisture content. Compact each layer to required percentage of maximum dry density or relative dry density for each classification. Do not place backfill or fill material on surfaces that are muddy, frozen, or contain frost or ice.
2. Place backfill and fill materials evenly adjacent to structures, to required elevations. Take care to prevent wedging action of backfill against structures by carrying the material uniformly around structure to approximately same elevation in each lift.
3. Large compaction equipment shall not be used within 5 feet of walls.
4. Unless otherwise called out of Drawings, compact each layer of backfill or fill material at the density specified in Article 3.03 of this section.

3.05 GRADING

A. General: Uniformly grade areas within limits of grading under this Section, including adjacent transition areas. Smooth finished surface within specified tolerances, compact with uniform levels or slopes between points where elevations are shown, or between such points and existing grades as are required or shown on the Drawings.

B. Grading Outside Building Lines: Grade areas adjacent to building lines, as shown on the Drawings, to drain away from structures and to prevent ponding. Finish surface free from irregular surface changes, and as follows:

1. Lawn or Unpaved Areas: Finish areas to within not more than 0.10 feet above or below the required elevation.
2. Walks: Shape surface of areas under walks to line, grade and cross-section, with finish surface not more than 0.10 feet above or below the required subgrade.

C. Grading Surface of Fill Under Building Slabs: Grade smooth and even, free of voids, compacted as specified, and to required elevation. Provide final grades within a tolerance of 1/2-inch when tested with a 10-foot straightedge.

D. Compaction: After grading, compact subgrade surfaces to the depth and percentage of maximum density for each area classification.

3.06 FIELD QUALITY CONTROL

A. Quality Control Testing During Construction: Allow testing service to inspect and approve subgrades and fill layers before further construction work is performed.

B. If, in the opinion of the Engineer, based on testing service reports and inspection, subgrade or fills which have been placed are below specified density, provide additional compaction and testing.

3.07 MAINTENANCE

A. Protection of Graded Areas: Protect newly graded areas from traffic and erosion. Keep areas free of trash and debris and repair and re-establish grades in settled, eroded, and rutted areas to specified tolerances.

B. Reconditioning Compacted Areas: Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify surface, reshape, and compact to required density prior to further construction.

3.08 DISPOSAL OF SURPLUS AND WASTE MATERIAL

All surplus and/or unsuitable excavated material shall be disposed of in one of the following ways as directed by the Engineer.

1. Transport to soil storage area on Owner's property and stock-pile or spread as directed by the Engineer.

2. Transport from Owner's property for legal disposal. Any permit required for the hauling and disposing of this material beyond Owner's property shall be obtained prior to commencing hauling operations.

END OF SECTION

SECTION 02222

SANDFILL MATERIAL

PART 1 – GENERAL

1.01 SCOPE OF WORK

Sandfill Material will be used for backfill when unstable subgrade conditions are encountered in the field, which will provide inadequate fill material and at all cross drain locations. When such conditions are encountered, the Project Engineer shall be notified and Sandfill Material shall be utilized only at his direction and approval. That is, Sandfill Material installed without prior approval of the Engineer shall be at the Contractor's expense.

PART 2 – PRODUCTS

2.01 MATERIALS

Sandfill Material shall be river sand in accordance with Section 02220 of these specifications.

END OF SECTION

SECTION 02401

STORM DRAINAGE PIPE AND CULVERTS

PART 1 - GENERAL

1.01 DESCRIPTION AND SCOPE

Storm drainage pipe and culverts shall consist of installing reinforced concrete pipe, corrugated metal pipe, corrugated metal pipe connection bands, saddle riser plates and grates (including concrete pads), or corrugated metal pipe arches of the dimensions and at the locations indicated on the plans or as ordered by the Engineer in conformity with the lines and grades given and in accordance with these specifications or the Special Provisions. It shall include furnishing, transportation excavation, bedding, placing, laying, jointing, backfill and surface cleanup.

PART 2 - MATERIALS

2.01 REINFORCED CONCRETE PIPE

Reinforced concrete pipe and joint material shall conform to the applicable requirements of ASTM C76 and C443. All reinforced concrete pipe shall be Class III unless otherwise shown on the plans. Each joint is to be furnished one rubber gasket.

2.02 CORRUGATED METAL PIPE

A. Corrugated metal pipe and arches, including connecting bands and saddle riser plates, for use in the construction of pipe culverts shall conform to the applicable requirements of AASHTO M36. **All corrugated metal pipe shall have a bituminous coating material.**

B. All cross drain pipe shall be 14 gauge pipe placed on bedding material. Bedding material shall conform to Section 02222.

C. All side drain pipe shall be 14 gauge pipe.

2.03 STEEL PIPE

Steel pipe shall be welded steel construction in accordance with ASTM A-53, Class B. The pipe shall be new unused material with a minimum yield point of 35,000 psi. The pipe shall be furnished straight and true, cleaned and coated on both the inside and outside with two coats of coal tar epoxy. Section of the pipe shall be welded together, by the Contractor, with a full circumference butt weld to form a continuous conduit capable of resisting all stresses, including jacking stresses. All welding shall be done in accordance with AWWA C206 by certified welders. Coal tar epoxy coating shall be repaired inside and outside of pipe after welding. The pipe in its final position shall be straight and true in accordance

with the Drawings. There shall be no space between the earth and the outside of the pipe.

2.04 PVC PIPE

A. Polyvinyl Chloride (PVC) corrugated pipe with a smooth interior shall conform to the requirements of ASTM Designation F949. Pipe and fittings shall be homogenous throughout and free from visible cracks, holes, foreign inclusions or other injurious defects. The requirements of this specification are intended to provide pipe and fittings suitable for underground use in non-pressure applications such as sanitary sewers, storm sewers, drainage and underdrains. Pipe shall be manufactured to 46 psi stiffness when tested in accordance with ASTM Test Method D2412 in accordance with ASTM F949 Section 7.5 and ASTM F794 Section 8.5. The pipe shall be made of PVC compound having a minimum cell classification of 12454 as defined in ASTM Specification D1784.

B. Polyvinyl Chloride (PVC) joints shall be made with integrally-formed bell and spigot gasketed connections. The manufacture shall provide documentation showing no leakage when gasketed pipe joints are tested in accordance with ASTM Test Method D3212. Gaskets shall meet the requirements of ASTM Designation F477.

PART 3 - EXECUTION

3.01 TRENCHING AND FORMING PIPE BED

A. Excavation shall include the removal, handling, rehandling, refill or backfilling, and disposal of any and all materials encountered in the work, and shall include all pumping, bailing, drainage and sheeting and bracing. The work of excavation shall also include the responsibility of added expenses or other liability that may arise from quicksand, obstacles or conditions, foreseen or unforeseen which may be encountered in the work. It includes clearing and the removal of pavements, curbs, sidewalks, shrubbery, and other obstructions not otherwise provided for. All trenching and special bedding work shall be done in a dry excavation. The Contractor shall provide the necessary ditch blocks and pumping required to insure all work is done in a dry excavation.

B. The width of trench (if required) shall be sufficient to permit thorough tamping of the backfill under the haunches and around the pipe. The pipe shall be placed on an earth foundation of uniform density. Where a firm foundation is not encountered at the grade established, due to soft, spongy or other unstable soil conditions, or special construction methods are called for on the plans or in the Special Provisions, all such unstable soil under the pipe shall be removed and replaced with a foundation fill consisting of gravel or other suitable approved material properly compacted to provide adequate support for the pipe line.

C. Whenever necessary for protection of workmen, for security of adjacent utilities or structures, for stability of trench, or for proper installation and operation of pipe or culverts, the Engineer shall have the right to require

that excavation be braced and rendered secure to his satisfaction, to the extent of requiring close sheeting, or sheet piling and suitable bracing, including all nails, spikes and other fastenings.

D. If pipe is not laid in a trench, a uniformly firm bed shall be made in the same manner as above specified for the preparation of the bottom of the trench.

E. When pipe culverts are to be placed in embankment fill, the excavation shall be made after the embankment has been completed to a height one foot above the grade of the top of the pipe for those pipe culverts specified on the plans.

F. Trench widths, special bedding, special backfill, maximum backfill depths and maximum external loads shall be as specified in the Special Provisions or as directed by the Engineer.

3.02 LAYING PIPE

A. All pipe shall be carefully laid to the lines and grades given. Branch openings or service connections provided for future extensions shall be plugged as directed by the Engineer. Any pipe which is not true in alignment or which shows settlement after laying shall be taken up and re-laid at the Contractor's expense.

B. Pipe laying shall begin at the downstream end of the line. Before being set in place each section of pipe shall be thoroughly cleaned and freed of dirt. All bells shall be laid on the upstream end.

C. The lower segment of the barrel of the pipe shall be supported by the earth foundation or bedding for the full length of the barrel. Bell holes where required shall be carefully excavated to provide uniform bearing for the barrel of the pipe.

D. Corrugated Metal Pipe and pipe arches shall be laid with the outside laps on the circumferential joints upgrade with the longitudinal joint on the sides and with the ends of sections butted tightly together and connected with bands bolted firmly in place.

E. Metal End Section shall be installed in accordance with the detail requirements shown on the plans.

3.03 JOINTS

A. Jointing Concrete Pipe (Rubber Gasket). The rubber gasket and the receiving portions of the concrete pipe shall be thoroughly cleaned of any foreign matter and shall be handled carefully to prevent damage to either jointing surface. Immediately after the pipe is lined up in the ditch ready to couple, the gasket and receiving portion of the concrete pipe shall be thoroughly lubricated with flax soap or other non-petroleum lubricant recommended by the manufacturer.

B. With the joint surfaces properly cleaned and lubricated, quickly thrust the pipe home to a seat. For concrete pipe to be jointed with a rubber gasket, a mechanical means shall be used to push or pull the pipe together. A mechanical means shall be any arrangement of come along, winch, jack, lever or power equipment that can exert sufficient pressure to couple the pipe to its tightest position. The gap between the shoulders of the first several-coupled pipe shall be checked to determine the proper normal spacing. This distance shall not be exceeded in any case for the balance of the entire installation.

C. The mechanical force shall be maintained until the pipe has been partially backfilled and tamped to hold the pipe and prevent an excessive gap between the shoulders.

D. Jointing Corrugated Metal Pipe & End Sections. Connection bands shall overlap each pipe section equally, with corrugations of both band and pipe sections matching, and bolts in connection bands shall be firmly tightened.

E. Jointing Steel Pipe. Section of the pipe shall be welded together, by the Contractor, with a full circumference butt weld to form a continuous conduit capable of resisting all stresses, including jacking stresses. All welding shall be done in accordance with AWWA C206 by certified welders.

3.04 BACKFILL

A. No backfilling work shall be done until the pipe to be covered has been inspected.

B. The Engineer shall have the right to forbid the use of compaction tools or machines that he considers dangerous to the pipe or incapable of compacting the backfill properly.

C. All backfill operations shall be under the direct supervision of the Engineer, and these operations shall proceed in such sequence as he may direct. The Contractor shall be responsible for the stability of all backfill made under the contract until final acceptance of the work and shall bear the expense of replacing any portions which have become displaced due to carelessness or negligent work on the part of the Contractor or to damages resulting from natural causes. Backfilling of the pipe shall start as soon as the Engineer considers the joints to be satisfactory. The best of the excavated or select material shall be carefully placed in six inch layers in the trench or around the pipe (for embankment construction) and thoroughly but carefully compacted under and around the pipe to the center line. The utmost care shall be taken not to disturb the pipe by throwing earth upon them from the bank above, or not to shift a pipe from its proper position by careless or unskilled ramming around it or by unequal filling on the side. Equal and similar care shall be exercised in filling up to 8 inches above the top of the pipe. No embankment shall be placed in an area that is too wet to be properly compacted.

D. Where a trench is under any proposed street or sidewalk improvement, the backfill operations for the balance of the trench above a point 8 inches above the top of the pipe shall be done with fill sand and compacted by water tamping or vibrating.

E. The density of the compacted material shall not be less than 95% as determined by Method A of AASHTO T 180. Tests shall be conducted in these areas as deemed necessary by the Engineer.

F. Where a trench is in open ground and not under any proposed improvements the balance of the trench above a point 8 inches above the top of the pipe shall be filled and compacted by approved equipment or mechanical tampers to obtain a maximum density at least equal to the undisturbed soil.

G. In those portions of the backfill which are adjacent to structures as are, for other reasons, inaccessible to the equipment used, the Contractor shall use mechanical tampers approved by the Engineer to obtain the specified density.

END OF SECTION

SECTION 02430

BORING AND JACKING AND TUNNELING

PART 1 - GENERAL

1.01 DESCRIPTION AND SCOPE

A. Boring and jacking shall consist of the furnishing and installation of pipe or casing by boring with special equipment and jacking the pipe or casing into place.

B. Tunneling shall consist of the installation of a pipe or casing by tunnel excavation and the installation of tunnel liner plate.

C. These items include furnishing and transporting material, excavation, installation, bracing, dewatering, sealing or grouting, backfill and surface cleanup. Also included is the construction of pits, paving the invert as required, and the installation of conductor pipe inside the casing, all in accordance with the specifications or Special Provisions and in conformity with the line and grade shown on the plans or established by the Engineer.

PART 2 - MATERIALS

2.01 MATERIALS

Refer to Water Main Casing, Section 02810.

PART 3 - EXECUTION

3.01 BORING

A. Where conduits are permitted to be jacked under roadways without a sleeve pipe the pipe shall be installed by means of a boring machine or auger and hydraulic jacks, or by other means satisfactory to the Engineer. In the event subsurface operations result in injury or damage to the pavement, or the surface is otherwise disturbed or broken due to the Contractor's operations, he shall repair or replace same at his own expense without further compensation.

B. The diameter of the bored hole shall not be greater than 2" more than the overall diameter of the bell or flange of the conductor pipe.

3.02 JACKING PIPE

A. Except as otherwise specified, the methods and equipment used in jacking conduit shall be optional with the Contractor, provided that the proposed method is first approved by the Engineer. Such approval, however, shall in no way relieve the Contractor of the responsibility for making a satisfactory installation meeting the criteria set forth herein.

B. The Contractor shall be fully responsible for the strength of the conduit.

C. The leading section of conduit shall be equipped with a jacking head securely anchored thereto to prevent any wobble or alignment variation during the jacking operation. Excavation shall be carried out entirely within the jacking head and no excavation in advance thereof shall be permitted. Every effort shall be made to avoid any loss of earth outside the jacking head. Excavated material shall be removed from the conduit as excavation progresses, and no accumulation of such material within the conduit will be permitted.

D. Should appreciable loss of ground occur during the jacking operation, the voids shall be backpacked promptly to the extent practicable with soil cement consisting of a slightly moistened mixture of one part cement to five parts granular material. When material selected from the soil is not suitable for this purpose, the Contractor shall import suitable material at his expense. The soil cement shall be thoroughly mixed and rammed into place as soon after the loss of ground as possible.

E. The Contractor shall submit details of the following to the Engineer:

1. Jacking pit bracing
2. Casing or conduit and jacking head

F. Only workmen experienced in the jacking of conduit shall be used in performing the work.

3.03 TUNNELING

A. Tunneling will be permitted at locations indicated on the plans or where specifically authorized in writing by the Engineer. The Contractor shall satisfy himself as to soil conditions and geological formation through which the tunnel is to be installed prior to submitting a Proposal for tunnel work. Shaft locations and details of construction shall be where shown or detailed on the plans or where approved by the Engineer on shop or working drawings submitted by the Contractor. Tunnel lining and bracing of approved design shall be used in making and holding the tunnel excavation, and shall be placed immediately as the excavation work precedes. Timber lagging and steel rings, or steel liner plates reinforced with ribs or rings shall be used as necessary to safely support the loads likely to be imposed. The inside diameter of tunnels for pipe sewers shall be ample to permit proper access for making up the joints. The inside diameter of monolithic sewer tunnel shall be sufficient to provide for the desired inside diameter of the sewer plus twice the specified minimum wall thickness plus any additional diameter necessary to secure minimum wall thickness where forms cannot be placed in the exact center of the tunnel.

B. Monolithic linings may be poured in place by tremie from the surface, by pumping through pipe or other method approved by the Engineer. Consistency of concrete, and puddling and vibration shall be maintained

during the placing of tunnel linings such as to assure a denser wall of full thickness with a smooth interior surface, free from pockets or "honeycomb".

3.04 GROUTING AND SEALING

Voids between the tunnel lining and the surrounding earth shall be filled by grouting. Grouting shall be subject to the direction of the Engineer and shall follow immediately after the completion of excavation and lining operations, as soon as practicable, in order to fill the voids outside of the lining before after-settlement may begin, and to stop the entrance of water into a tunnel through the lining at any point. Grouting shall be done by a suitable machine capable of forcing grout into all the voids which may have been left behind the tunnel lining or in the adjacent earth which may have been disturbed by tunnel operations. A maximum pressure of 50 psi at the grouting nipple may be required. Large void spaces outside the liner plates may be filled by dry packing with selected pea gravel injected by air.

END OF SECTION

SECTION 02444

CHAIN LINK FENCES AND GATES

PART 1 - GENERAL

1.01 SCOPE OF WORK

A. Furnish all labor, materials, equipment and such miscellaneous items as necessary for complete installation of a chain link fence system installed according to manufacturer's specifications unless otherwise indicated and specified herein.

B. Contractor's security fencing is at his option and not specified herein.

1.02 QUALITY ASSURANCE

A. Standards of Manufacture

1. Standards of Manufacture shall comply with the standards of the Chain Link Fence Manufacturer's Institute for "Galvanized Steel Chain Link Fence Fabric" and as herein specified.

B. Provide each type of steel fence and gates as a complete unit produced by a single manufacturer, including necessary erection accessories, fittings and fastenings.

C. Acceptable Manufacturers:

1. Anchor
2. Cyclone
3. Or approved equal

D. Erector Qualifications: Minimum of 2 years experience installing similar fencing.

1.03 SUBMITTALS

A. Product Data: Submit 8 copies of manufacturer's technical data, in details of fabrication, and installation instructions and procedures for steel fences and gates. Transmit a copy of each instruction to the Installer. Submit to Engineer in conformance with all requirements of Section 01340.

B. Samples: Submit 3 samples approximately 6 inches long, or 6 inches square of fabric material, framework members, and typical accessories.

C. Certificates: Manufacturer's certification that materials meet specification requirements.

PART 2 – PRODUCTS

2.01 GENERAL

A. Pipe sizes indicated are commercial pipe sizes.

B. Tube sizes indicated are nominal flange dimensions.

C. H-section sizes are nominal flange dimensions.

D. Roll-formed section sizes are the nominal outside dimensions (O.D.).

E. Finish for Framework and Appurtenances shall be with not less than minimum weight of zinc per square foot, complying with the following:

1. Pipe: ASTM A 120 (1.8 oz. zinc psf)
2. Square Tubing: ASTM A 123 (2.0 oz. zinc psf)
3. H-Sections: ASTM A 123 (2.0 oz. zinc psf)
4. Hardware and Accessories: ASTM A 153 (zinc weight per Table I).

F. All fence components are to be galvanically compatible.

2.02 FABRIC

Fabric shall be 9 gauge steel wires, 2 inch diamond mesh; both top and bottom salvages twisted and barbed for fabric over 60 inches high. Finish, hot dipped galvanized, ASTM A 392, Class II.

2.03 POSTS, RAILS AND BRACES

A. End, Corner, and Pull Posts:

Furnish end, corner, and pull posts of the minimum sizes and weights as follows:

1. Up to 5 foot fabric height

   a. 2.375 inch OD pipe weighing 3.65 pounds per linear foot.
   b. 2.50 inch square tubing weighing 5.79 pounds per linear foot.
   c. 3 ½ inch X 3 ½ inch roll-formed section weighing 5.14 pounds per linear foot.

2. Over 5 foot fabric height

   a. 2.876 inch OD pipe weighing 5.79 pounds per linear foot.
   b. 2.60 inch square tubing weighing 5.79 pounds per linear foot.
   c. 3 ½ inch X 3 ½ inch roll-formed section weighing 5.14 pounds per linear foot.

B. Line Posts:

Furnish line posts of the minimum sizes and weights as follows. Space posts 10 foot o.c. maximum, unless otherwise indicated.

1. Up to 5 foot fabric height

   a. 1.90 inch OD pipe weighing 2.70 pounds per linear foot.
   b. 1.875 inch X 1,625 inch roll-formed section weighing 2.70 pounds per linear foot.

2. Over 5 foot fabric height

   a. 2.375 inch OD pipe weighing 3.65 pounds per linear foot.
   b. 2.25 inch X 1.70 inch roll-formed section weighing 4.10 pounds per linear foot.

C. Gate Posts:

Furnish gate posts for supporting single gate leaf, or one leaf of a double gate installation, for nominal gate widths as follows:

1. Up to 6 feet wide

   a. 2.875 inch OD pipe weighing 5.79 pounds per linear foot.
   b. 2 ½ inch square tubing weighing 5.70 pounds per linear foot.
   c. 3 ½ inch X 3 ½ roll-formed section weighing 5.14 pounds per linear foot.

2. Over 6 feet and up to 13 feet wide

   a. 4 inch OD pipe weighing 9.10 pounds per linear foot

3. Over 13 feet and up to 18 feet wide

   a. 6 5/8 inches OD weighing 18.97 pounds per linear foot.

4. Over 18 feet

   a. 8 5/8 inches OD weighing 24.7 pounds per linear foot.

D. Top Rails:

Top Rails shall be furnished unless otherwise indicated, of the following:

1. 1.660 inch OD pipe weighing 2.27 pounds per linear foot.
2. 1.625 inch X 1.25 inch roll-form sections weighing 1.35 pounds per linear foot.

E. Post Brace Assembly:

1. Furnish bracing assemblies at end and gate posts and at both sides of corner and pull posts, with the horizontal brace located at mid-height of the fabric.

2. Use 1.660 inch OD pipe weighing 2.27 pounds per linear foot for horizontal brace and 3/8 inch diameter rod with turnbuckle for diagonal truss.

F. Tension Wire:

Furnish tension wire consisting of galvanized 7 gauge coiled spring wire. Locate at bottom of fabric only.

G. Barbed Wire Supporting Arms:

Furnish pressed steel, wrought iron, or malleable iron barbed wire supporting arms, complete with provisions for anchorage to posts and attaching 3 rows of barbed wire to each arm. Supporting arms may be either attached to posts or integral with post top weather cap. Provide single 45 degree arm, one for each post where indicated.

H. Barbed Wire:

Barbed wire shall be 2 strand, 12 ½ gauge wire with 14 gauge, 4 point barbs spaced 5 inch o.c., galvanized, complying with ASTM A 121, Class 3.

I. Post Tops:

Post tops shall be pressed steel, wrought iron, or malleable iron of SG70A (or equivalent) of ASTM B-26 or B-108, designed as a weather tight closure cap (for tubular posts). Furnish one cap for each post unless equal protection is afforded by combination post top cap and barbed wire supporting arm, where barbed wire is required. Furnish caps with openings to permit through passage of top rail.

J. Stretcher Bars:

Stretcher bars shall be one piece lengths equal to full height of fabric, with a minimum cross section of 3/16 inch X ¾ inch. Provide one stretcher bar for each gate and end posts, and 2 for each corner and pull post, except where fabric is integrally woven into the post.

Stretcher Bar Bands:

Stretcher bar band shall be steel, wrought iron, or malleable iron, spaced not over 15 inch o.c. to secure stretcher bars to end, corner, pull, and gate posts.

2.04 GATES

A. Fabricate gate perimeter frames of tubular members. Provide additional horizontal and vertical members to ensure proper gate operation and for attachment of fabric, hardware and accessories. Space so that frame members are not more than 8 inches apart. Fabricate as follows:

1. Up to 5 feet high, or leaf width 8 feet or less.

   a. 1.660 inch OD pipe weighing 2.27 pounds per linear foot.
   b. 1 ½ inch OD pipe weighing 2.27 pounds per linear foot.

2. Over 5 feet high, or leaf width exceeding 8 feet.

   a. 1.90 inch OD pipe weighing 2.72 pounds per linear foot.
   b. 2 inch square tubing weighing 2.60 pounds per linear foot.

B. Assemble gate frames by welding or with special malleable or pressed steel fittings and rivets for rigid connections. Use same fabric width as for fence, unless otherwise indicated. Install fabric with stretcher bars at vertical edges. Bars may also be used at top and bottom edges. Attach stretchers to gate frame at not more than 15 inch o.c. Attach hardware with rivets or by other means which will provide security against removal or breakage.

C. Install diagonal cross bracing consisting of 3/8 inch diameter adjustable length truss rods on gates where necessary to ensure frame rigidity without sag or twist.

D. Barbed wire shall be installed above gates; extend the end members of gate frames 12 inches above the top member and prepared to receive 3 strands of wire. Provide necessary clips for securing wire to extensions.

E. Gate Hardware:

Furnish the following hardware and accessories for each gate.

1. Hinges: Pressed or forged steel or malleable iron to suit gate size, non-lift-off type, offset to permit 180 degrees gate opening. Provide 1 ½ pair of hinges for each leaf over 6 feet nominal height.

2. Latch: Forked type of plunger bar type to permit operation from either side of gate, with padlock eye as integral part of latch.

3. Keeper: Provide keeper for all vehicle gates, which automatically engages the gate leaf and holds it in the open position until manually released.

4. Double Gates: Provide gate stops for double gates, consisting of mushroom type of flush plate with anchors. Set in concrete to engage the center drip drop rod or plunger bar. Include locking device and padlock eyes as an integral part of the latch, using one padlock for locking both gate leaves.

5. Padlocks and Keys: One (1) solid brass padlock for each gate, Yale Model 945, or approved equal, with six (6) keys shall be furnished for each gate called for. Locks shall be keyed to the Owner's Master Keying System.

6. Where gates are between masonry piers, provide "J" with 4 inch square anchor plate to masonry contractor for building in.

2.05 MISCELLANEOUS MATERIALS AND ACCESSORIES

A. Wire Ties:

For tying fabric to line posts, use 9 gauge wire ties spaced 12 inches o.c. For tying fabric to rails and braces, use 9 gauge wire ties spaced 24 inches o.c. For tying fabric to tension wire, use 11 gauge hog rings spaces 24 inches o.c. Finish of ties to match fabric finish.

B. Concrete: (if required)

Provide concrete consisting of Portland cement complying with ASTM C 150 and Section 003300, aggregates complying with ASTM C 33, and clean water. Mix materials to obtain concrete with a minimum 28 day compressive strength of 2,500 psi, using at least 4 sacks of cement per cubic yard, 1 inch maximum size aggregate, maximum 3 inch slump, and 2 percent to 4 percent entrained air.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Fence installation shall not be started before the final grading is completed, with finish elevations established, unless otherwise permitted.

B. Excavation:

Drill holes of diameters and spacings shown, for post footings in firm, undisturbed or compacted soil.

1. If not shown on the drawings, excavate holes to the minimum diameters as recommended by fence manufacturer.

2. Post holes shall be in true alignment and of sufficient size to provide a permanent foundation of concrete. Concrete shall be poured against undisturbed earth sides and bottom. All holes shall be 48 inches deep with posts and corner posts placed in the concrete to a depth of 36 inches, and the gate posts shall be set in the concrete to a depth of 42 inches below the surface when in firm, undisturbed soil. Holes shall be well centered on the posts. A minimum diameter of 12 inches shall be required for all post holes.

3. Remove excavated soil from the Owner's property.

4. If solid rock is encountered near the surface, drill into rock at least 12 inches for line posts and at least 18 inches for end, pull, corner, and gate posts. Drill hole at least 1 inch greater diameter than the largest dimension of the post to be placed.

5. If solid rock is below solid overburden, drill to full depth required, except penetration into rock need not exceed the minimum depths specified above.

C. Setting Posts:

Remove loose and foreign materials from sides and bottoms of holes, and moisten soil prior to placing concrete.

1. Center and align posts in holes 3 inches above bottom of excavation.

2. Place concrete around posts in a continuous pour, and vibrate or tamp for consolidation. Check each post for vertical and top alignment, and hold in position during placement and finishing operations. The top of concrete shall extend 2 inches above finish grade.

3. Trowel finish tops of footings, and slope or dome to direct water away from posts. Extend footings for gate posts to the underside of bottom hinge. Set keeps, stops, sleeves and other accessories into concrete as required.

4. Keep exposed concrete surfaces moist for at least 7 days after placement, or cure with membrane curing materials, or other acceptable curing method.

5. Grout-in posts set into sleeved holes, concrete constructions, or rock excavations with non-shrink Portland cement grout, or other acceptable grouting material.

D. Concrete Strength:

Allow concrete to attain at least 75% of its minimum 28 day compressive strength, but in no case sooner than 7 days after placement, before rails, tension wires, barbed wire, or fabric is installed. Do not stretch tension fabric and wires, and do not hang gates until the concrete has attained its full design strength.

E. Top Rails:

Run rail continuously through post caps or extension arms, bending to radius for curved runs. Provide expansion couplings as recommended by fencing manufacturer.

F. Brace Assemblies:

Install braces so posts are plumb when diagonal rod is under proper tension.

G. Tension Wire:

Install tension wires by weaving through the fabric and tying to each post with not less than 6 gauge galvanized wire, or by securing the wire to the fabric

H. Fabric:

Leave approximately 3 inches between finish grade and bottom salvage, except where bottom of fabric extends into concrete. Pull fabric taut and tie to posts, rails, and tension wires. Install fabric on security side of fence, and anchor to framework so that fabric in tension after pulling force is released.

I. Repair damaged coatings in the shop or during field erection by recoating with manufacturer's recommended repair compounds, applied per manufacturer's directions.

J. Stretcher Bars:

Thread through or clamp to fabric 4 inches o.c., and secure to posts with metal bands spaced 15 inches o.c.

K. Barbed Wire:

Install 3 parallel wires on each extension arm; on security side of fence, unless otherwise indicated. Pull wire taut and fasten securely to each extension arm.

L. Gates:

Install gates plumb, level, and secure for full opening without interference. Install ground set items in concrete for anchorage, as recommended by the fence manufacturer. Adjust hardware for smooth operation and lubricate where necessary.

M. Tie Wires:

Use U-shaped wire, conforming to diameter of pipe to which attached, clasping pipe and fabric firmly with ends twisted at least 2 full turns. Bend ends of wire to minimize hazard to persons or clothing.

N. Fasteners:

Install nuts for tension band and hardware bolts on side of fence opposite fabric side. Peen ends of bolts or score threads to prevent removal of nuts.

END OF SECTION

SECTION 02487

SEEDING

PART 1 - GENERAL

1.01 SCOPE OF WORK

This work consists of preparing seed beds and furnishing and sowing grass seed on the areas designated on the plans or on the areas disturbed by the Contractor during construction. The Contractor shall establish turf (grass) prior to completion of the project.

PART 2 - PRODUCTS

2.01 MATERIALS

Seeding used shall be the same type as the adjacent existing turf.

PART 3 - EXECUTION

3.01 PREPARATION OF SEED BED

Seed beds shall be prepared by disking, harrowing or other approved methods. Soil shall be thoroughly pulverized to a minimum depth of 3 inches and leveled as directed. Hardpan areas shall be rototilled if necessary to insure that soil is in condition to receive and sprout seed. If topsoil, fertilizer or agricultural lime are required, they shall be incorporated at this time. Slopes shall be smoothed to grade and rolled prior to seeding.

3.02 SEEDING

Seed shall be planted within the dates shown in Table 1, unless otherwise permitted in writing.

The Contractor will be allowed to apply seed by use of a hydroseeder. Under this method, the seed, fertilizer and agricultural lime shall be distributed over the area in one operation. The same rates for seed, fertilizer and agricultural lime will apply as in the conventional method.

3.03 WATERING

After seed has been planted, area shall be watered immediately with approved watering tanks. Other waterings shall follow as directed.

TABLE 1

MIXTURE	SEED MIXTURE	POUNDS PER ACRE	SOIL AREA	PLANTING DATES
A	Hulled Bermuda Pensacola Bahia	15 15	1,2,3,5	March thru Sept
B	Hulled Bermuda Carpet	10 20	2,3,4,5	March thru Sept
C	Hulled Bermuda Crimson Clover (1)	10 20	1,2,3,5	Feb. thru March
D	Kentucky 31 Fescue Pensacola Bahia	30 10	1,2,3,5	Sept. thru Feb.
E	Kentucky 31 Fescue Crimson Clover (1)	30 10	1,2,3,4,5	Sept. thru Feb.
F	Kentucky 31 Fescue Crimson Clover (1) Pensacola Bahia	20 10 10	1,2,3,,5	Sept. thru Feb.
G	Hulled Bermuda	30	1,2,3,4,5	Sept. thru Feb.
H	Kentucky 31 Fescue	40	1,2,3,4,5	Sept. thru Feb.
I	Crimson Clover (1)	40	1,2,3,4,5	Sept. thru Feb.
J	Hulled Bermuda Centipede	15	1,2,3,5	Feb. thru Sept

Note: (1) Included prior to planting with proper bacterial culture.

Brackish or oily water shall not be used.

Prior to planting, the Contractor will contact the Engineer to select the varieties of seed to be used.

END OF SECTION

SECTION 02490

RIPRAP

PART 1 - GENERAL

1.01 SCOPE OF WORK

This work consists of furnishing and placing riprap in accordance with these specifications and in conformity to lines, grades and thickness shown on the plans or as directed by the Engineer.

PART 2 - PRODUCTS

2.01 MATERIALS

Riprap shall be from an approved source listed in LADOTD'S Qualified Product List. Stone riprap shall not disintegrate upon exposure to the elements or be easily broken from handling, and shall be reasonably free from earth and other foreign materials. When tested in accordance with AASHTO T85, the solid weight of stone shall be at least 150 pounds per cubic foot (based on bulk specific gravity). Samples of stone from a source not previously approved shall be taken under supervision of the Engineer and submitted for approval prior to delivery to the project. The least dimension of any individual stone shall be at least 1/3 its maximum dimension. Each shipment of stone shall be reasonably well graded within the specified limits.

Recycles concrete may be used a riprap, provided its solid weight is a least 150 pounds per cubic foot (based on bulk specific gravity) and it is free or protruding reinforcement.

Stockpiles of recycled concrete shall be source approved prior to use and kept separate from other materials. Stockpiles shall be uniform and free of soil, debris, excessive amounts of asphaltic materials, and foreign matter. Once a stockpile has been approved as an acceptable source of material, no material shall be added without prior approval.

Control of gradation will be by visual inspection at the source, project site or both.

Any difference of opinion between the Engineer and Contractor will be resolved by checking the gradation of two random truckloads (or equivalent size samples). Equipment, labor and sorting site shall be furnished by the Contractor at no direct pay.

Riprap shall be reasonably well grade and shall conform to the following:

RIPRAP CLASS *	STONE SIZE, LB.	SPHERICAL DIAMETER, SF **	% OF STONE SMALLER THAN
30 lb	140	1.17	100
	60	0.90	42-100
	30	0.72	15-50
	10	0.50	0-15

* The stone size used to define the Riprap Class is the minimum median stone size for the stone class.

** Sperical Diameter based on a solid weightof 155 lb/cu. Ft.

PART 3 - EXECUTION

3.01 RIPRAP

Areas on which riprap is to be placed shall be graded to the required section. Riprap shall be placed on the prepared slope or area in a manner which will produce a reasonably well-graded mass of stone with a minimum practicable percentage of voids. The entire mass of stone will be placed to be in conformance with the lines, grades, and thickness in one operation and to avoid displacing underlying material. Placing of riprap in layers, or dumping into chutes, or by similar methods likely to cause segregation, will not be permitted.

When placement in water currents is required, the Contractor shall make drift checks and place riprap in such manner as to compensate for drift. The Contractor shall furnish necessary facilities and personnel for checking riprap depth and distribution.

3.02 GEOTEXTILE FABRIC

Class D Geotextile fabric listed in LADOTD'S QPL62 shall be used and installed as per manufacturer's recommendation.

END OF SECTION

SECTION 02513

ASPHALTIC CONCRETE PAVING

PART 1 - GENERAL

1.01 SCOPE OF WORK

A. Furnish hot mix asphaltic concrete in accordance with these specifications for repair, replacement, and repaving of streets and driveways as shown on the Drawings and/or as required by these specifications.

B. The hot mix asphaltic concrete shall be Type 3 asphaltic concrete consisting of a mixture of crushed gravel, crushed stone, crushed slag as specified in Section 501 of the Louisiana Standard Specifications for Roads and Bridges, 2000 Edition.

1.02 GENERAL

A. This section covers the design of the job-mix formula and proportioning of materials.

B. At the Contractor's option reclaimed asphaltic concrete may be used in the paving mixture, provided mixtures conforming to these specifications can be obtained.

1.03 QUALITY ASSURANCE

A. Asphaltic concrete mixtures shall be tested at the frequency established in Section 501.12 of the 2000 Edition LA DOTD Specifications and shall conform to the requirements set forth herein.

B. There shall be no allowance or adjustment of payment for deficient materials. Any deficient asphaltic concrete material delivered to the job site and incorporated into the work shall be removed and replaced.

PART 2 - PRODUCTS

2.01 ASPHALTIC CEMENT AND ADDITIVES

A. Asphaltic Cement

Asphaltic cement shall be viscosity graded asphaltic cements of either Grade AC-10 or Grade AC-30 and shall conform to the requirements of Section 1002.01 of the LADOTD Specifications.

B. Additives

1. Anti-Stripping Additive

An anti-stripping additive conforming to the requirements of Section 1002.02. a of the LADOTD Specifications and listed on the LADOTD Qualified Products List shall be mixed with the asphaltic cement prior to mixing with the aggregates at the minimum rate of 0.5 percent by weight of asphalt.

2. Silicone Additive

A silicone additive, if required, shall be listed on the LADOTD Qualified Products List and shall be disbursed into the asphaltic cement prior to mixing with the aggregates by methods and in the concentration given in the LADOTD Qualified Products List.

C. Aggregates

1. Crushed Gravel

Crushed gravel shall consist of clean, hard, tough, durable stone fragments and shall be screened and crushed to sizes as necessary to meet the grading requirements specified herein. Gravel shall not show an abrasion loss of more than 40 percent by the Los Angeles abrasion test, and shall show a soundness loss of not more than 15 percent by weight, when subjected to 5 cycles of magnesium sulfate soundness test.

2. Crushed Stone

Crushed stone shall consist of clean, hard, tough, durable fragments, reasonably free from flat, elongated, soft or disintegrated pieces, dirt, or other objectionable matter. Crushed stone shall not show an abrasion loss of more than 40 percent by the Los Angeles abrasion test, and shall show a soundness loss of not more than 15 percent by weight when subjected to 5 cycles of magnesium sulfate soundness test.

3. Crushed Slag

Crushed slag shall be air-cooled, blast furnace slag, and shall consist of angular fragments reasonably free from flat or elongated pieces, dirt or other objectionable matter. Crushed slag shall not show an abrasion loss of more than 40 percent by the Los Angeles abrasion test. The slag shall not contain more than 10 percent by weight of glassy particles and the crushed slag shall have a minimum dry weight of 70 pounds per cubic foot.

4. Sand

Sand shall consist of clean, hard, durable grains, graded from coarse to fine, and shall be reasonably free from vegetative matter or other deleterious substances. The fraction passing the No. 40 sieve shall be non-plastic.

5. Mineral Filler

Mineral filler shall be a commercial filler which may consist of limestone dust, shell dust, silica dust, or Portland cement, shall be non-plastic and shall meet the following gradation requirements.

U.S. Sieve	Percent Passing (By Weight)
No. 30	100
No. 80	95 to 100
No.200	70 to 100
No.270	60 to 100

6. Reclaimed Asphaltic Concrete

Reclaimed asphaltic concrete shall be broken or milled asphaltic concrete pavement free of soil, debris, foreign matter, and other contaminants. The reclaimed material shall be processed prior to the mixing operation so that those particles that cannot be readily broken down during the mixing process will be crushed and screened to pass a two inch (2") sieve.

PART 3 - EXECUTION

3.01 FORMULA FOR JOB-MIX

A. General Requirements

The Contractor shall employ the services of an independent materials laboratory to develop a job-mix formula meeting the requirements of this specification, if no such formula exists. The job-mix formula shall be submitted to the Engineer for his written approval prior to delivering any asphaltic concrete mixture to the project site. The job-mix formula submitted shall indicate a single, definite percentage of asphaltic cement; the wet and dry mixing times when pugmill mixing is used; and the amount and types of mineral aggregates, filler, and additives to be used.

B. Composition and Proportioning

1. General Requirements

The asphaltic cement, additives, and mineral aggregates shall be combined in such proportions that the mixture will meet the requirements shown in Table 02513-1. However, if the job-mix formula control limits exceed the upper or lower specification limits, the job-mix formula limits shall be fixed at the same values as the specification limits. In general, the job-mix formula shall be designed for the mid-points of the design criteria shown in Table 02513-1. Mixtures based on virgin aggregates (no reclaimed material) shall require Grade AC-30 asphaltic cement.

2. Use of Reclaimed Asphaltic Concrete

At the Contractor's option, up to thirty percent (30%) reclaimed asphaltic concrete may be used in the mixture with the following limits:

a. The quantity of reclaimed asphaltic concrete in the mixture shall be less than twenty percent (20%) when Grade AC-30 is used as the virgin asphaltic cement.

b. The quantity of reclaimed asphaltic concrete in the mixture shall be between twenty percent (20%) and thirty percent (30%), inclusive, when grade AC-10 is used as the virgin asphaltic cement.

TABLE 02513-1

GENERAL REQUIREMENTS FOR TYPE - 3
ASPHALTIC CONCRETE MIXTURE

GRADING REQUIREMENTS

U.S. SIEVE SIZES	TOTAL PERCENT PASSING (BY WEIGHT)	JOB-MIX TOLERANCES (AVERAGE OF 2 TESTS)
1½"	----------	----------
1¼"	----------	----------
1"	100	±6
3/4"	95-100	±6
1/2"	85-100	±6
3/8"	70-100	±6
No. 4	50-75	±6
No.10	28-55	±6
No.40	14-30	±5
No.80	8-20	±4
No.200	3.0-8.0	±2
Percent Asphalt	----------	±0.4
Percent Crushed Retained on No.4	85 Min.	
Percent Mineral Filler	As Needed (Max. 5% Passing	

	No. 275 Sieve)
Anti-Stripping Additive	0.5% By Weight of A.C.

ADDITIONAL REQUIREMENTS

Type Asphalt Cement:	AC-30
Design Marshall Stability (50 Blows): (Average for One Day's Run)	1,700 Lbs. Minimum
Marshall Flow ($^1/_{100}$ inches):	15 Maximum
Percent Air Voids:	3% - 5%
Percent VFA:	70% - 80%
Temperature of Mixture (°F):	290°F (Min.) - 350°F (Max) (JOB-MIX ±25°F)
Roadway Density:	95% Min. of Briquette Density

Also, the job-mix formula shall have an attachment showing all pertinent data on the stockpiled reclaimed asphaltic concrete when the reclaimed material is included in the job-mix formula. This data shall consist of at least the extracted asphaltic cement contents, gradation of the mineral aggregates, and the results of viscosity tests on the recovered asphaltic cement.

C. Application of the Job-Mix Formula

After the job-mix formula has been approved by the Engineer, mixtures produced shall meet the job-mix control tolerances shown in Table 02513-1. When individual test results indicate a tendency for the mix to fall outside of the control limits, the Contractor shall make all necessary adjustments to bring the mix within the control limits. Should these adjustments fail to bring the mixture within the required limits or should a change in materials be made, the Contractor shall have a new job-mix formula prepared and submitted to the Engineer for his written approval prior to proceeding with the work.

When reclaimed asphaltic concrete is used to produce the mixture and if the mixture fails or shows a tendency to fail meeting the job-mix requirements, the Engineer reserves the right to reduce the percentage of reclaimed asphaltic concrete used.

3.02 STORAGE OF MATERIALS

A. Storage of Virgin Aggregates

Virgin aggregates used in producing the mixture shall be stored in accordance with the requirements of Section 503.08 of the LADOTD Specifications.

B. Storage of Reclaimed Asphaltic Concrete

All reclaimed material shall be stockpiled separate from other materials at the plant and will be subject to approval prior to use. Such stockpiles shall be uniform, free of soil, debris, foreign matter, and other contaminants.

3.03 PRODUCTION OF THE MIXTURE

A. General

Mixing shall be performed in either a batch plant or dryer-drum plant; however, the plant shall be modified as required to permit recycling operations in conformance with air pollution standards. Materials handling and conveying, heating, mixing, and other equipment required for producing the mixture shall conform to the applicable requirements of Section 503 of the LADOTD Specifications except as modified below.

B. Special Requirements for Use of Reclaimed Asphaltic Concrete

When dryer-drum type plants are used for producing the mixture, a separate cold feed system, including weight indicating apparatus, shall be provided for the recycled material.

C. Use of a Bag House

In batch plants where a bag house is used for dust collection, it will be the Contractor's responsibility to install a primary collection system or other means to protect the bag house from excessive heat.

D. Maintenance of Mixture Temperature

The virgin aggregates shall be dried and heated to a sufficiently high temperature to produce a mixture with a discharge temperature of at least 290°F.

3.04 TESTING

Testing of the mixture shall be at the frequency established in Section 501.12 of the LADOTD Specifications to assure that the mixture is in conformance with the minimum values for the compliance parameters set forth in Table 02513-1 of this specification.

END OF SECTION

SECTION 02575

PATCHING EXISTING PAVEMENT, DRIVES, & WALKS

PART 1 - GENERAL

1.01 SCOPE OF WORK

A. Furnish all labor, materials, equipment, and incidentals required and remove and replace pavements as shown on the Drawings and/or specified herein.

B. This Section does not include the construction of new roadway surfaces or the complete restoration of existing pavements.

1.02 GENERAL

A. The Contractor shall keep the surface of the backfilled area of excavation in a safe condition and level with the remaining pavement until the pavement is restored in the manner specified herein. All surface irregularities that are dangerous or obstructive to traffic shall be removed. The repair shall conform to applicable Owner or State requirements for pavement repair and as described herein.

B. All materials and workmanship shall be first class and nothing herein shall be construed as to relieve the Contractor from this responsibility. The Owner reserves the right to require soil bearing or loading tests or materials tests, should the adequacy of the foundation or the quality of materials used be questionable.

C. All street and road repair shall be made in accordance with the details indicated on the Drawings and in accordance with the applicable requirements of these Specifications.

1.03 QUALITY ASSURANCE

A. Applicable provisions of the Louisiana Standard Specifications for Road and Bridge Construction, 2000 Edition and Supplemental Specifications hereunder govern the work under this Section.

B. There shall be no allowances or adjustment of payment for deficient materials or thicknesses. The Contractor shall remove and replace all deficient materials, remove and replace Portland cement concrete pavement that is deficient in thickness, and either remove and replace or provide an additional overlay of a minimum one and one-half inch thickness, including adjustment of any manhole or other utility access covers, for asphaltic concrete pavement courses deficient in thickness.

PART 2 - PRODUCTS

2.01 MATERIALS

A. All materials utilized in pavement and base course shall be as specified in the Louisiana Standard Specifications for Road and Bridge Construction, 2000 Edition except as modified below.

B. Asphaltic concrete used for repair, replacement, and repaving streets and driveways shall be Type 3 Asphaltic Concrete as specified in Section 02513.

C. Material used for temporary granular surfaces shall be the same as the base course material specified above.

D. All concrete used shall be in accordance with Section 03300, Cast In Place Concrete, of these specifications.

PART 3 - EXECUTION

3.01 CUTTING PAVEMENT, DRIVES AND WALKS

A. Before removing pavement, the pavement shall be marked for cuts nearly paralleling pipe lines and existing street lines. Asphalt pavement and where allowed on concrete driveways and sidewalks shall be cut along the markings with a rotary saw. Concrete street and roadway pavement shall be removed and replaced from joint to joint, as indicated on the Drawings and in these Specifications.

B. No pavement shall be machine pulled until trenches completely broken and separated along the marked cuts.

C. The pavement adjacent to pipe line trenches shall neither be disturbed or damaged. If the adjacent pavement is disturbed or damaged, irrespective of cause, the Contractor shall remove the damaged pavement. The damaged area shall be replaced concurrently with the trench paving and the extra pavement replacement shall not be measured for payment.

3.02 TEMPORARY LIMESTONE SURFACE

To provide for the comfort and safety of the traveling public, it is the Contractor's responsibility to provide and maintain temporary limestone surface material, or as specified in the plans, up to the top of the adjacent pavement and maintain it at the elevation until the roadway is closed to traffic during the street restoration work. Minimum allowable thickness of the temporary limestone surface material shall be the thickness of the adjacent existing pavement.

Maintenance shall consist of regrading the temporary limestone surface material and of restoring said surface to proper grade and cross section daily or more frequent as directed by the Engineer together with wetting as required for dust abatement.

3.03 GENERAL RESTORATION

A. The restoration of street paving and extra pavement replacement shall use the same type of construction as existed prior to the beginning of the Work, unless otherwise allowed in writing by the Engineer. The Contractor shall be responsible for restoring all such work, including subgrade and base courses where present. The Contractor shall obtain and pay for at his own expense such local or other governmental permits as may be necessary for the opening of streets and shall satisfy himself as to any requirements other than those herein set forth which may effect the type, quality and manner of carrying on the restoration of surfaces by reason of jurisdiction of such governmental bodies.

B. The Contractor will be required to maintain without additional compensation all permanent replacement of street paving performed by him under this Contract, until accepted by the Owner, including the removal and replacement of such work wherever surface depressions or underlying cavities result from settlement of trench backfill.

C. The Contractor shall perform all final resurfacing and repaving of streets or roads over the excavations required as a part of the Work. He shall be responsible for relaying paving surfaces of roadway that have failed or been damaged at any time prior to acceptance by the Owner and within the required one (1) year warranty period on account of the work. He shall resurface or repave over any tunnel, jacking, or boring excavation that shall settle, crack or break the roadway surface to the satisfaction of the Owner. Backfilling of trenches and the preparation of subgrades shall conform to the requirements of Section 02401.

3.04 SUBGRADE COMPACTION

Subgrade compaction will for all areas to be paved not designated to receive subgrade stabilization. Compaction shall be in accordance with Section 203 of the LA DOTD Specifications. The compacted subgrade shall be shaped to conform with the finished lines, grades and cross sections indicated on the contract drawings.

3.05 BASE COURSE

The base course for all asphalt patching shall consist of a minimum of six (6) inches of compacted limestone. The base course for all concrete panels shall be a minimum of six (6) inches of compacted limestone. The use of base course under asphalt patching or concrete panels is to be approved by Project Engineer or his representative.

3.06 PRIME AND TACK COATS

The work shall consist of the application of bituminous prime and tack coats on the previously prepared base or asphaltic concrete course in accordance with either Section 504 or 505 of the LA DOTD Specifications, as applicable.

3.07 PORTLAND CEMENT CONCRETE PAVEMENT

The work shall consist of construction of Portland cement concrete pavement to the thickness indicated in the Drawings conforming to the requirements of Section 601 of the LA DOTD Specifications except that the Portland cement concrete shall be in accordance with Section 03300 of these specifications.

3.08 ASPHALTIC CONCRETE COURSES

The work shall consist of the construction of plant-mixed hot bituminous pavement courses to the thickness indicated in the Drawings, conforming to Type 3 asphaltic concrete in accordance with Section 02513 of these Specifications. The requirements for the plant, equipment, and general construction requirements shall be in accordance with LA DOTD requirements for other asphaltic concrete pavements as specified in Section 501 of the LA DOTD Specifications.

3.09 TESTING

All field testing shall be performed by an independent laboratory employed by the Owner. All materials shall be tested and certified by the producer. Tests repeated because sub-grade or base does not meet specified compaction shall be at the Contractor's expense. Testing frequency shall be as specified for the material being placed in accordance with the applicable requirements of LA DOTD and Section 02513 of these specifications.

3.10 ADJUSTING EXISTING STRUCTURES

Existing manholes, inlets, valve boxes, etc., within the limits of the proposed work, which do not conform to the finished grade of the proposed pavement or the finished grade designated on the Drawings for such structure shall be cut down or extended and made to conform to the new grade. The materials and construction methods for this work shall be approved by the Engineer.

3.11 MISCELLANEOUS RESTORATION

Sidewalks cut or damaged by construction shall be restored in full sections or blocks to a minimum thickness of four inches. Concrete curb or curb gutter shall be restored to the existing height and cross section in full sections or lengths between joints. Concrete shall be as specified on the Drawings. Grassed yards, shoulders and parkways shall be restored to match the existing sections with grass seed or sod of a type matching the existing grass. All driveways are to be transitioned to the new asphalt overlay on each street as directed by Project Engineer or his representative.

3.12 CLEANUP

After all repair and restoration or paving has been completed, all excess asphalt, dirt, and other debris shall be removed from the roadways. All existing storm sewers and inlets shall be checked and cleaned of any construction debris.

END OF SECTION

SECTION 02576

CONCRETE WALKS, DRIVES, AND INCIDENTAL PAVING

PART 1 - GENERAL

1.01 SCOPE OF WORK

This work consists of removal of existing walks and drives as shown on plans, furnishing and constructing portland cement concrete walks, drives and incidental paving slabs in accordance with these Specifications and in conformity with lines and grades shown on the plans or established by the Engineer.

PART 2 – PRODUCTS

2.01 MATERIALS

Materials shall conform to the following Section or Subsections.

CONCRETE
JOINT FILLER
CONCRETE REINFORCING
CURING MATERIALS

PART 3 - EXECUTION

3.01 CONSTRUCTION REQUIREMENTS

A. Excavation

Excavation shall include the removal of existing walks and drives and disposal outside of the existing right-of-way limits. Excavation shall be made to required depth and width. The subgrade shall be shaped and compacted to a firm, even surface conforming to the section shown on the plans. Unstable material shall be removed and replaced with approved material at the Contractor's expense.

B. Forms

Forms shall be of wood or metal and shall extend for the full depth of concrete. Forms shall be straight, clean and of sufficient strength to resist the pressure of concrete. Bracing of forms shall be such that forms remain in horizontal and vertical alignment until their removal.

At the Contractor's option, concrete may be placed by slip-form methods. Slip-formed concrete shall be placed with an approved machine designed to spread, vibrate, consolidate and finish concrete in 1 pass of the machine in such manner that minimum hand finishing is necessary. Sliding forms

shall be rigidly held together to prevent spreading of forms, and after passing there shall be no noticeable slumping of concrete.

C. Subgrade

The subgrade shall be thoroughly moistened immediately prior to placing concrete.

D. Depositing and Finishing

Concrete shall be deposited on the subgrade, struck off to required thickness and tamped sufficiently to bring the mortar to the surface. The surface shall be finished with a wood float or steel trowel followed by brushing to a slightly rough finish. Joints and edges shall be rounded with an edging tool having a ¼ inch radius.

E. Joints

Expansion joints shall be filled with ½ inch thick preformed expansion joint filler. Expansion joints shall be installed at maximum 100 foot intervals, between intersecting paving and any fixed structure such as a building, bridge or curbing. Expansion joint material shall extend for the full depth of paving.

Dummy joints shall be formed by a jointing tool or other acceptable means. Dummy joints shall extend into concrete for at least ¼ of the depth and shall be approximately 1/8 inch wide.

Construction joints shall be formed around manholes, utility poles, etc., extending into paving and ¼ inch thick preformed expansion joint filler shall be installed in these joints.

1. Walks: Spacing of dummy joints for walks shall be equal to the width of walk.

2. Drives: A longitudinal dummy joint shall be formed along the centerline of drives more than 16 feet wide, and transverse dummy joints shall be formed at not more than 16 foot intervals.

3. Incidental Paving: Dummy joints for incidental paving shall be formed at intervals not exceeding 20 feet in length or width, and incidental paving poured adjacent to jointed concrete shall be jointed to match existing joints, with intermediate joints formed as necessary not to exceed the 20 foot maximum joint spacing.

END OF SECTION

SECTION 02900

INLETS, CATCH BASINS AND JUNCTION BOXES

PART 1 - GENERAL

1.01 SCOPE OF WORK

This item shall consist of the construction of catch basins, inlets, and junction boxes in accordance with these specifications, at the specified locations and conforming to the lines, grades, and dimensions shown on the plans or as required by the Engineer.

PART 2 – MATERIALS

2.01 BRICK

The brick shall conform to the requirements of ASTM C 62, Grade MW.

2.02 MORTAR

The mortar for brick masonry and similar work shall be composed of 1 part of portland cement and 2 parts of mortar sand, by volume. The portland cement shall conform to the requirements of ASTM C 91. The sand shall conform to the requirements of AASHO M 45. Hydrated lime may be added to the mixture of sand and cement in an amount not to exceed 15% of ASTM C 6. The water shall be clean and free of deleterious amounts of acids, alkalines, or organic material. If the water is of questionable quality, it shall be tested in accordance with AASHO T 26.

2.03 CONCRETE

Plain and reinforced concrete used in structures, connections of pipes with structures, and the support of structures or frames shall conform to the requirements of Cast In Place Concrete, Section 03300. All prefabricated catch basins, manholes, or junction boxes shall conform to LADOTD requirements and specifications.

2.04 FRAMES, COVER & GRATES

The castings shall be of the size and type as shown on the plans.

PART 3 – EXECUTION

3.01 CHANGES IN LOCATION OF CATCH BASINS

Approximate centerline stations are given for all drainage structures. Structures may be relocated to avoid utilities or to conform to existing pipe lengths only with the prior approval of the Engineers. Such approvals will be on a case by case basis. Top of concrete elevations shown on the plans for grate inlets and catch basins may be changed only with the prior approval of the Engineers. In some cases, it may be necessary to raise or lower top of concrete elevations in order to

allow for proper drainage into the structure. The Contractor shall construct the structures to these revised elevations at no additional cost to the client.

3.02 UNCLASSIFIED EXCAVATION

A. The Contractor shall do all excavation for structures to the lines and grades or elevations shown on the plans. The excavation shall be of sufficient size to permit the placing of the full width and length of the structure or structure footing shown. The elevations of the bottoms of footings, as shown on the plans, shall be considered as approximate only; and the Engineer may order, in writing, changes in dimensions or elevations of footings necessary to secure a satisfactory foundation.

B. Boulder, logs or any other objectionable material encountered in excavation shall be removed. All rock or other hard foundation material shall be cleaned of all loose material and cut to a firm surface either level, stepped, or serrated, as directed by the Engineer. All seams or crevices shall be cleaned out and grouted. All loose and disintegrated rock and thin strata shall be removed. When concrete is to rest on a surface other than rock, special care shall be taken not to disturb the bottom of the excavation, and excavation to final grade shall not be made until just before the concrete or reinforcing is to be placed.

C. The Contractor shall do all bracing, sheeting, or shoring necessary to implement and protect the excavation and the structure as required for safety or conformance to governing law. The cost bracing, sheeting, or shoring shall be included in the unit price bid for the structure.

D. Unless otherwise provided, bracing, sheeting, or shoring involved in the construction of this item shall be removed by the Contractor after the completion of the structure. Removal shall be effected in a manner which will note disturb or mar finished masonry. The cost of removal shall be included in the unit price bid for the structure.

E. After each excavation is completed, the Contractor shall notify the Engineer to that effect; and concrete or reinforcing steel shall be placed after the Engineer has approved the depth of the excavation and the character of the foundation material.

3.03 BRICK STRUCTURES

A. FOUNDATIONS

A prepared foundation shall be placed for all brick structures after the foundation excavation is completed and accepted. Unless otherwise specified, the base shall consist of reinforced concrete mixed, prepared, and placed in accordance with the requirements of Section 03300, Cast In Place Concrete. The foundation shall be built to the correct elevation and shall be finished to cause the least possible resistance to flowing water.

B. LAYING BRICK

All brick shall be clean and thoroughly wet before laying so that they will not absorb any appreciable amount of additional water at the time they are laid. All brick shall be laid in freshly made mortar. Mortar that is not used within 45 minutes after water has been added shall be discarded. Retempering of mortar shall not be permitted. An ample layer of mortar shall be spread on the beds and a shallow furrow shall be made in it which can be readily closed by the laying of the brick. All bed and head joints shall be filled solid with mortar. End joints of stretchers and side or cross joints of headers shall be fully buttered with mortar and a shoved joint made to squeeze out mortar at the top of the joint. Any bricks that may be loosed after the mortar has taken its set, shall be removed, cleaned, and relaid with fresh mortar. No broken or chipped brick shall be used in the face, and no spalls or bats shall be used except where necessary to shape around irregular openings or edges; in which case, full bricks shall be placed at ends or corners where possible, and the bats shall be used in the interior of the course. In making closures, no piece of brick shorter than the width of a whole brick shall be used; and wherever practicable, whole brick shall be used and laid as headers.

The inside and outside faces of brick structures shall be neatly plastered with mortar ½ inch thick.

C. JOINTS

All joints shall be slushed with mortar at every course, but slushing alone will not be considered adequate for making an acceptable joint. Exterior faces shall be laid up in advance of backing. Exterior faces shall be back plastered or pargeted with a coat of mortar not less than 3/8 inch thick before the backing is laid up. Prior to pargeting, all joints on the back of face courses shall be cut flush. Unless otherwise noted, joints shall not be less than ¼ inch nor more than ½ inch wide and whatever width is adopted shall be maintained uniform throughout the work.

D. POINTING

Face joints shall be neatly struck, using the weather joint. All joints shall be finished properly as the laying of the brick progresses. When nails or line pins are used the holes shall be immediately plugged with mortar and pointed when the nail or pin is removed.

E. CLEANING

Upon completion of the work, all exterior surfaces shall be thoroughly cleaned by scrubbing and washing down with water and, if necessary to produce satisfactory results, cleaning shall be done with a 5% solution of muriatic acid which shall then be rinsed off with liberal quantities of clean fresh water.

F. CURING AND COLD WEATHER PROTECTION

In hot or dry weather, or when directed by the Engineer, the brick masonry shall be protected and kept moist for at least 48 hours after laying the brick. Brick masonry work or pointing shall not be done when there is a frost in the brick or when the air temperature is below 50 degrees F unless the Contractor has on the project ready to use, suitable covering and artificial heating devices necessary to keep the atmosphere surrounding the masonry at a temperature of not less than 60 degrees F for the duration of the curing period.

3.04 CONCRETE STRUCTURES

Concrete structures shall be built on prepared foundations, conforming to the dimensions and form indicated on the plans. The construction shall conform to the requirements specified in Section 03300, Cast In Place Concrete. Any reinforcement required shall be placed as indicated on the plans and shall be approved by the Engineer before the concrete is poured.

All invert channels shall be constructed and shaped accurately so as to be smooth, uniform, and cause minimum resistance to flowing water. The interior bottom shall be sloped downward toward the outlet.

All concrete structures must cure for 72 hours before formwork may be stripped off the structure.

3.05 INLET AND OUTLET PIPES

Inlet and outlet pipes shall extend through the walls of the structures for a sufficient distance beyond the outside surface to allow for connections but shall be cut off flush with the wall on the inside surface, unless otherwise directed. For concrete or brick structures, the mortar shall be placed around these pipes so as to form a tight, neat connection.

3.06 PLACEMENT AND TREATMENT OF CASTINGS, FRAMES, AND FITTINGS

All casting, frames and fittings shall be placed in the positions indicated on the plans or as directed by the Engineer, and shall be set true to line and to correct elevation. If frames or fittings are to be set in concrete or cement mortar, all anchors or bolts shall be in place and position before the concrete or mortar is placed. The unit shall not be disturbed until the mortar or concrete has set.

When frames or fittings are to be placed upon previously constructed masonry, the bearing surface or masonry shall be brought true to line and grade and shall present an even bearing surface in order that the entire face or back of the unit will come in contact with the masonry. The unit shall be set in mortar beds and anchored to the masonry as indicated on the plans or as directed and approved by the Engineer. All units shall set firm and secure.

After the frames or fittings have been set in final position and the concrete or mortar has been allowed to harden for 7 days, then the grates or covers shall be placed and fastened down.

3.07 INSTALLATION OF STEPS

The steps shall be installed as indicated on the plans or as directed by the Engineer. When the steps are to be set in concrete, they shall be placed and secured in position before the concrete is poured. When the steps are installed in brick masonry, they shall be placed as the masonry is being built. The steps shall not be disturbed or used until the concrete or mortar has hardened for at least 7 days. After this period has elapsed, the steps shall be cleaned and painted, unless they have been galvanized.

When steps are required with precast concrete pipe structures, they shall be cast into the sides of the pipe at the time the pipe sections are manufactured or set in place after the structure is erected by drilling holes in the concrete and cementing the steps in place.

When steps are required with corrugated metal structures, they shall be welded into aligned position at a vertical spacing of 12 inches.

In lieu of steps, prefabricated ladders may be installed. In the case of brick or concrete structures, the ladder shall be held in place by grouting the supports in drilled holes. In the case of metal structures, the ladder shall be secured by welding the top support and grouting the bottom support into drilled holes in the foundation or as directed.

3.08 BACKFILLING

A. After a structure has been completed, the area around it shall be filled with granular material, per Section 02401, Storm Drainage Pipe and Culverts, in horizontal layers not to exceed 8 inches in loose depth, and compacted. Each layer shall be deposited all around the structure to approximately the same elevation. The top of the fill shall meet the elevation shown on the plans or as directed by the Engineer.

B. Backfill shall not be placed against any structure until permission is given by the Engineer. In case of concrete, such permission shall not be given until the concrete has been in place 7 days, or until tests made by the laboratory under supervision of the Engineer establishes that the concrete has attained sufficient strength to provide a factor of safety against damage or strain in withstanding any pressure created by the backfill or the method used in placing it.

C. Backfill shall not be measured for direct payment. Performance of this work shall be considered as a subsidiary obligation of the Contractor covered under the contract unit price for the structure involved.

3.09 CLEANING AND RESTORATION OF SITE

After the backfill is completed, the Contractor shall dispose of all surplus material, dirt, and rubbish from the site. Surplus dirt may be deposited in embankments, shoulders, or as ordered by the Engineer. The Contractor shall restore all disturbed areas to their original condition.

After all work is completed, the Contractor shall remove all tools and equipment, leaving the entire site free, clear, and in good condition.

END OF SECTION

SECTION 03200

CONCRETE REINFORCEMENT

PART 1 - GENERAL

1.01 SCOPE OF WORK

Furnish all labor, materials, equipment and incidentals required and install all concrete reinforcement as shown on the Drawings and specified herein.

1.02 SUBMITTALS

A. Submittals shall be in accordance with Section 01340.

B. The following shall be submitted for review prior to the fabrication of reinforcement.

1. Placing drawings for steel reinforcement.
2. Bar bending details.

1.03 REFERENCE STANDARDS

Steel reinforcement in concrete shall conform to ACI 350 and ACI 318 unless otherwise specified herein.

1.04 PRODUCT DELIVERY AND HANDLING

A. Reinforcing shall be substantially free from mill scale, rust, dirt, grease, or other foreign matter.

B. Reinforcement shall be shipped and stored with bars of the same size and shape fastened in bundles with durable tags, marked in a legible manner with waterproof markings showing the same designations as shown on the submitted placing drawings.

C. Reinforcing steel shall be stored off the ground and shall be protected from moisture and kept free from dirt, oil, or other injurious contaminants.

D. Coated reinforcing steel shall be stored on padded wooden or steel cribbing. Coatings damaged by fabrication, handling or installation shall be repaired to conform to the applicable coating specification.

PART 2 - PRODUCTS

2.01 MATERIALS

Materials shall be new, be of domestic manufacture and shall conform to the following material specifications.

1. Deformed concrete reinforcing bars: ASTM A 615, Grade 60 or ASTM A 615 Grade 60 supplementary requirement S1 deformed bars as required.

2.02 FABRICATION OF REINFORCEMENT

A. Fabrication tolerances shall be in accordance with the CRSI, Code of Standard Practice-Fabrication.

B. Bars shall be cold bent.

C. Bars shall be bent around a revolving collar having a diameter of not less than that recommended by the CRSI, Code of Standard Practice-Detailing. Hooks shall conform to the same Code.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Surface condition, bending, spacing, and tolerances of placement of reinforcement shall conform to the CRSI, Code of Standard Practice-Field Erection.

B. Except as otherwise indicated on the Drawings, the minimum concrete cover of reinforcement shall be as follows:

1. Concrete cast against and permanently exposed to earth; 3-in.

2. Concrete surfaces in contact with soil, water, sewage, sludge or exposed to the weather; 2-in.

3. Concrete surfaces not in contact with soil, water, sewage, sludge or exposed to the weather:

a. Beams, girders, columns: principal reinforcement,a ties, stirrups or spirals - 1-1/2 inch

b. Walls and bottom steel of slabs - 1-inch

c. Shells and top steel of slabs - 3/4-inch

C. Reinforcement which is to be exposed for a considerable length of time after being placed shall be painted with a heavy coat of neat cement slurry, if required by the Engineer.

D. No reinforcing bars shall be welded either during fabrication or erection unless specifically called for on the Drawings, specified herein, or approved in writing by the Engineer. All bars that have been welded, including tack welds, without such approval shall be immediately removed from the work. When welding of reinforcement is approved or called for, it shall conform to the AWS Structural Welding Code-Reinforcing Steel, AWS D1.4.

3.03 SPLICING OF REINFORCEMENT

A. Except as otherwise indicated on the Drawings, compression embedment and lap splices shall be 30 diameters, but not less than 12 inches. The lap splice length for column vertical bars shall be based on the smaller bar size.

B. Splices in welded wire fabric shall be lapped not less than 1-1/2 courses or 12-in. The spliced fabrics shall be tied together with wire ties at least 24-in. on center.

3.04 ACCESSORIES

A. The Contractor is solely responsible for determining, providing and installing accessories such as chairs, chair bars, and the like in sufficient quantities and strength to adequately support the reinforcement and prevent its displacement during the erection of the steel and the placement of concrete and to provide spacings of bars with adequate cover as shown on the Drawings or specified herein.

B. Precast concrete blocks with wires shall be used where the reinforcing steel is to be supported over soil.

3.05 INSPECTION

In no case shall any reinforcing steel be covered with concrete until the amount and position of the reinforcement has been observed by the Engineer and his permission given to proceed with placement of the concrete. The Engineer shall be given ample prior notice of the availability of set reinforcement for his review.

END OF SECTION

SECTION 03300

CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.01 SCOPE OF WORK

Furnish all labor, materials, equipment and incidentals required to place all cast-in-place concrete, reinforcing steel, forms, waterstops and miscellaneous related items, including sleeves, reglets, anchor bolts, inserts and embedded items, as shown on the Drawings and as specified.

1.02 DESCRIPTION

A. Concrete shall be composed of Portland cement, fine aggregate, coarse aggregate, water and admixtures as specified and shall be ready-mixed concrete produced by a plant acceptable to the Engineer. All constituents, including admixtures, shall be batched at the central batch plant.

B. Reinforced concrete shall comply with ACI Specifications 318 and 350.

C. All testing and inspection services required shall be provided by the Owner. The cost of such work, except as specifically stated otherwise, shall be paid for by the Owner. Methods of testing shall comply in detail with the latest applicable ASTM Methods.

D. Samples of constituents and of concrete as-placed will be subjected to laboratory tests. All materials incorporated in the Work shall conform to accepted samples.

1.03 SUBMITTALS

The Contractor shall submit to the Engineer for approval a proposed design mix for <u>each</u> concrete strength and type required by these Specifications. Information to be submitted for each type and strength shall include the following items:

1. Sources of concrete mix design components including course aggregate, fine aggregate, cement, water, admixtures, and pozzolans where included.

2. Concrete mix design

    a. Constituent quantities per cubic yard.
    b. Water content: gallons/100 pounds cementitious materials.
    c. Cement: type, manufacturer, and chemical analysis.
    d. Mix design slump.
    e. Average laboratory cylinder strength test results at 28-days for concrete mix design (include standard deviation). Provide results of seven and 14 day tests if available.

3. Laboratory sieve analysis and mechanical properties for course and fine aggregate.

4. Admixture types and chemical compositions. (Include certification of compliance with ASTM reference standards and confirmation of any supplementary requirements included in these specifications).

1.04 QUALITY ASSURANCE

A. The actual acceptance of aggregates and development of mix proportions to produce concrete complying with the specific requirements of this Section shall be determined by means of prior laboratory tests made with the constituents to be used on the Work.

B. Well in advance of placing concrete, the Contractor shall discuss with the Engineer the proposed source of materials and concrete mixture which he proposes to use. He shall furnish samples of aggregate and cement for testing, deliver them to the laboratory designated by the Engineer, and permit ample time for the laboratory to develop a proposed design mix or to modify the design of the mix within the limits of these Specifications.

C. The following limiting strengths, water contents and cement factors shall apply.

Table 03300-1

Minimum Compressive Strength, f'c (psi at 28 days)	Maximum Water Content* (gals./100 lbs.)	Net Minimum Cement Factor** (100lbs./c.y.)
2500	7.4	4.30
3000	6.2	5.64
4000	5.9	5.64
4000 @ 7 days	4.5	6.58

* Maximum: decrease if possible. This represents total water in mix at time of mixing, including free water on aggregates and water in admixture solutions.

** Minimum: increase as necessary to meet other requirements. These cement factors apply to "controlled" concrete subject to specific inspection.

1. Minimum cement content shall be as shown in Table 03300-1. The Contractor shall increase cement content as required to meet strength requirements.

2. When high early-strength Portland cement is permitted, the same strength requirements shall apply except that the indicated strengths shall be attained at seven days instead of 28 days.

D. If, during the progress of the work, the Contractor desires to use materials other than those originally accepted or if the materials from the sources originally accepted change in characteristics, the Contractor shall make

new acceptance tests of aggregates and establish new design mixes. Such testing and design shall be accomplished with the assistance of a testing laboratory acceptable to the Engineer.

E. Consistency of the concrete as measured by the ASTM C 143, shall be as shown in Table 03300-2.

Table 03300-2

Portion of Structure	Slump (inches) Recommended	Range
Pavement and slabs on ground	2	1-3
Plain Footings, gravity walls, slabs and beams	2-3	1-4
Heavy reinforced foundation walls and footings	3-4	2-5
Thin reinforced walls and columns	4	3-5

Concrete shall be of a consistency which can be readily worked into the corners and angles of the forms and around the reinforcement, inserts, and wall castings without permitting materials to segregate or free water to collect on the surface. Consideration shall be given to the proposed methods of placing and compacting in establishing the consistency of the concrete.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Materials shall comply with these Specifications and any State or local specification requirements.

B. Cement for all cast-in-place concrete shall be domestic Portland cement (ASTM C 150, Type II) or high early strength Portland cement (ASTM C 150, Type III). air entraining cements shall not be used. Cement brands shall be subject to approval by the Engineer.

1. For all hydraulic and below grade structures use Type II cement.

2. High early strength cement shall be used only after obtaining written approval from the Engineer.

3. Use only Portland cement produced at locations approved and listed in the Qualified Products List of LADOTD.

C. Aggregates

1. Fine aggregate shall consist of washed inert natural sand conforming to the requirements of LADOTD Specifications, Section 1003.02, and the following detailed requirements:

a. Gradation:

Sieve (ASTM Specification E11)	Percentage Passing
3/8 in.	100%
No. 4	95 - 100%
No. 16	45 - 90%
No. 50	7 - 30%
No. 100	0 - 7%
No. 200	0 - 3%
Fineness Modulus	2.60 - 3.00
Organic	See Plate 2, ASTM C 33
Silt	2.0% maximum
Mortar Strength	95% minimum as per ASTM C 87 Section 10
Soundness	8% maximum loss, using magnesium sulfate, subjected to 5 cycles

2. Coarse aggregate shall consist of well-graded crushed stone or washed gravel conforming to the requirements of LADOTD Specifications Section 1003.02, and the following detailed requirements.

Organic	See Table 1, per ASTM C 33
Silt	1.0% maximum
Soundness	8% maximum loss, using magnesium sulfate, subjected to 5 cycles

3. Maximum coarse aggregate size shall be:

2-inch for mass concrete
1-inch for reinforced section 10-inch and over in thickness
3/4-inch for reinforced sections less than 10-in thickness

The "Designated Size" and the corresponding gradations shown represent the end or combined gradation of the coarse aggregate to be used in the final concrete.

D. Water

1. Water shall be clean and free from injurious amounts of oil, acid, alkali, organic matter, or other deleterious substances.

2. Mortar specimens made with the water under examination and normal Portland cement shall have at least 100 percent of the strength of similar specimens made with distilled water when tested for 28-day strength in accordance with ASTM C 87.

3. Potable tap water will normally fulfill the requirements noted. Water from all other sources shall be tested and approved before use and shall not contain impurities in excess of the following limits:

   a. Acidity or alkalinity calculated in terms of calcium carbonate: 0.05%

   b. Total organic solids: 0.05%

   c. Total inorganic solids: 0.08%

   d. Total chlorides as sodium chloride: .05%

E. Admixtures

1. A water reducing agent such as Pozzolith, WRDA or approved equal shall be used in all concrete. The admixture shall comply with ASTM Specification C 494, Type A or Type D, shall contain no chlorides, shall be nontoxic after 30 days, and shall be compatible with the air entraining admixtures. Proportioning and mixing shall be as recommended by the manufacturer.

2. Admixtures causing accelerated setting of cement in concrete shall not be used.

PART 3 - EXECUTION

3.01 MEASURING MATERIALS

A. Measure materials be weighing except as otherwise specified or where other methods are specifically authorized by the Engineer. The apparatus provided for weighing the aggregates and cement shall be suitably designed and constructed for this purpose. Scales shall have been certified by the local Sealer of Weights and Measures within one year of use and a copy of the certification shall be delivered to the Engineer prior to beginning of placement of concrete. The accuracy of all weighing devices shall be such that successive quantities can be measured to within one per cent of the desired amount.

B. Cement and each type of aggregate shall be weighed separately. Cement in standard packages (sacks) need not be weighed, but bulk cement and fractional packages shall be weighed.

C. Water shall be measured by volume or by weight. The water-measuring devices shall be capable of control to one-half percent accuracy. All measuring devices shall be subject to approval by the Engineer.

D. Admixtures shall be dispensed either manually with use of calibrated containers or measuring tanks, or by means of an automatic dispenser approved by the manufacturer of the specific admixture.

3.02 MIXING

A. Concrete shall be ready-mixed concrete by equipment acceptable to the Engineer. No hand-mixing will be permitted. Adding water in controlled amounts during the mixing cycle shall be done only with the express approval of the Engineer and under his direction. The amount of water added shall be shown on each delivery invoice.

B. Ready-mix concrete shall be transported to the site in watertight agitator or mixer trucks loaded not in excess of rated capacities for the respective conditions as stated on the name plate. Discharge at the site shall be within 1 1/2 hours after water was first introduced into the mix.

C. All central plant and rolling stock equipment and methods shall comply with the latest Truck Mixer and Agitator Standards of the Truck Mixer Manufacturers' Bureau of the National Ready-Mixed Concrete Association, as well as ACI Standard 318 Section 5.2, and ASTM C 94.

D. Retempering of concrete or mortar which has partially hardened (that is, mixing with or without additional cement, aggregate, or water) will not be permitted.

E. Attention is called to the importance of dispatching trucks from the batching plant so they arrive at the site of the work just before the concrete is required, thus avoiding excessive mixing of concrete while waiting or delays in placing successive layers of concrete in the forms.

3.03 FIELD TESTS

A. Sets of three field control cylinder specimens will be taken at random by the Engineer during the progress of the Work, in compliance with ASTM C 31; the total number of specimens taken on the project shall average one set per 100 cubic yards, and not less than one set of specimens shall be taken on any one day. When average 28-day compressive strength of control cylinders in any set falls below the required compressive strength or below proportional minimum seven-day strengths (where proper relation between seven and 28-day strengths have been established by tests), proportions, water content, or temperature conditions shall be changed to achieve the required strengths.

B. The Contractor shall cooperate in the making of tests by allowing free access to the work for the selection of samples, providing an insulated closed curing box for specimens, affording protection to the specimens against injury or loss through his operations, and furnishing material and labor required for the purpose of taking concrete cylinder samples. All shipping of specimens will be paid for by the Owner. Curing boxes shall be acceptable to the Engineer.

3.04 INSPECTION AND CONTROL

A. The preparation of forms, placing of reinforcing steel, conduits, pipes, and sleeves, batching, mixing, transporting, placing, and curing of concrete shall be at all times under the inspection of the Engineer.

B. The Contractor shall advise the Engineer of his readiness to proceed at least 24 hours prior to each concrete placement. The Engineer will inspect the preparations for concreting including the preparation of previously placed concrete, the reinforcing and the alignment and tightness of formwork. No placement shall be made without the inspection and acceptance of the Engineer.

3.05 CONCRETE APPEARANCE

A. Concrete for the Work shall provide a homogeneous structure which, when hardened, will have the required strength, durability and appearance.

B. Formwork, mixtures and workmanship shall be such that concrete surfaces, when exposed, will require no finishing.

C. When concrete forms are stripped, the concrete surface when viewed in good lighting from 10 feet away shall be pleasing in appearance, and at 20 feet shall show no visible defects.

3.06 FORMS

A. Forms shall be used for all cast-in-place concrete including footings. Forms shall be constructed and placed so the resulting hardened concrete will conform to the shape, lines, dimensions, appearance, and elevations indicated on the Drawings. The Engineer shall have the right to approve or reject material for use in the construction or fabrication of formwork.

B. Forms for all exposed exterior and interior concrete walls shall be Type A-C exterior grade plywood with the "A" veneer turned to the casting side. Rustications shall be as located and detailed on the Drawings. Moldings for chamfers and rustications shall be milled and planed smooth.

C. Forms for all other cast-in-place concrete shall be made of wood, metal, or other acceptable material. Wood forms shall be constructed of sound lumber or plywood of suitable dimensions, free from knotholes and loose knots. Where used for exposed surfaces, boards shall be dressed and matched. Plywood shall be sanded smooth and fitted with tight joints between panels. Metal forms shall be of an acceptable type for the class of work involved and of the thickness and design required for rigid construction.

D. Edges of all form panels in contact with concrete shall be flush within 1/32-inch and forms for plane surfaces shall be such that the concrete will be plane within 1/16-inch in 4 feet. Forms shall be tight to prevent the passage of mortar, water and grout.

E. Forms for walls shall have removable panels at the bottom for cleaning, inspecting, and scrubbing-in of bonding paste. Forms for walls of considerable height shall be arranged with tremies and hoppers for placing concrete in a manner that will prevent segregation and accumulation of hardened concrete on the forms or reinforcing above the fresh concrete.

F. Molding or bevels shall be placed to produce a 3/4-inch chamfer on all exposed projecting corners, unless otherwise noted on the Drawings. Provide similar chamfer strips at horizontal and vertical extremities of all wall placements to produce "clean" separation between successive placements as called for on the Drawings.

G. Forms shall be sufficiently rigid to withstand vibration and to prevent displacement or sagging between supports. Forms shall be constructed so that the concrete will not be damaged by their removal. The Contractor shall be entirely responsible for the adequacy of the forming system.

H. Forms, including new pre-oiled forms, shall be oiled before reinforcement is placed, with an approved nonstaining oil or liquid form coating not having a paraffin base.

I. Before form material is reused, all surfaces in contact with concrete shall be thoroughly cleaned; all damaged in places repaired; all projecting nails withdrawn; and all protrusions smoothed. Wood forms shall be pre-oiled before reuse.

J. Form ties encased in concrete other than those specified in the following paragraph shall be designed so that after removal of the projecting part, no metal shall be within one-inch of the face of the concrete. That part of the tie to be removed shall be at least 1/2-inch diameter or be provided with a wood or metal cone at least 1/2-inch diameter and one inch long. Form ties in concrete exposed to view shall be the cone-washer type equal to the Richmond "Tyscru". Throughbolts or common wire shall not be used for form ties.

K. Form ties for exposed exterior and interior walls shall be as specified in the preceding paragraph except that the cones shall be of approved wood or plastic conforming with the preceding dimensions or as otherwise shown on the Drawings.

3.07 PLACING AND COMPACTING

A. Unless otherwise permitted, concrete placement begun on any day shall be completed, including finishing, in daylight of the same day.

B. Place no concrete until reinforcing steel, pipes, conduits, sleeves, hangers, anchors, and other work required to be built into concrete have been inspected and approved by the Engineer. Remove water and foreign matter from forms and excavation. Place no concrete on frozen soil, and provide adequate protection against frost action during freezing weather. All soil preparation below slabs and footings shall be approved by the Engineer before placing concrete.

C. Transport concrete from mixer to place of final deposit as rapidly as possible by methods which prevent separation of ingredients and displacement of reinforcement, and which avoid rehandling. Deposit no partially hardened concrete.

D. "Cold Joints" are to be avoided unless called for on the Drawings. If they occur they are to be treated as bonded construction joints.

E. At construction joints, the surfaces of the concrete already placed, including vertical and inclined surfaces, shall be thoroughly cleaned of foreign materials, laitance, and weak concrete and roughened with suitable tools to expose a fresh face. At least two hours before and again shortly before the new concrete is deposited, the joints shall be saturated with water. After glistening water disappears, the joints shall be given a thorough coating of neat cement slurry mixed to the consistency of very heavy paste. The surfaces shall receive a coating at least 1/8-inch thick, well scrubbed-in by means of stiff bristle brushed whenever possible. New concrete shall be deposited before the neat cement dries.

F. Deposit concrete to maintain a horizontal plastic surface. Vertical lifts shall not exceed 24-inches. Vertical lifts of 18 inches are preferable.

G. Chutes for conveying concrete shall be of U-shaped design sized to insure a continuous flow of concrete. Do not use flat (coal) chutes. Chutes shall be metal or metal-lined and each section shall have approximately the same slope. The slope shall be not less than 25 nor more than 45 degrees and shall be such as to prevent the segregation of the ingredients. The discharge end of the chute shall be provided with a baffle plate or spout to prevent segregation. If the discharge end of the chute is more than 5 feet above the surface of the concrete in the forms, a spout shall be used, and the lower end maintained as near the surface of deposit as practicable. When the operation is intermittent, the chute shall discharge into a hopper. Chutes shall be thoroughly cleaned before and after each delivery or separate, continuous pour. Debris and any water generated by the cleaning of chutes shall be discharged outside the forms. Concrete shall not be allowed to flow horizontally over distances exceeding 5 feet.

H. Pumping of concrete is an acceptable method of placement. The proposed pumping equipment and concrete mix shall be submitted to the Engineer prior to usage for approval.

I. In a thin sections of considerable height, concrete shall be placed using suitable hoppers, spouts with restricted outlets, or other approved methods.

J. Concrete shall be thoroughly compacted during and immediately after placement using suitable tools. Internal type mechanical vibrators shall be employed to produce the required quality of finish. Vibration shall be done by experienced operators under close supervision and shall be of the duration required to produce homogeneity and optimum consolidation without permitting segregation of the solid constituents or "pumping" or migration of air. All vibrators shall be supplemented by proper wooden spades to prevent puddling adjacent to forms and to remove bubbles and honeycomb, especially for the top lifts of walls. All vibrators shall operate

at minimum 10,000 rpm. At least one vibrator shall be used for every 10 cubic yards of concrete placed per hour. In addition, one spare vibrator in operating condition shall be on the site.

K. Concrete slabs on the ground shall be well-tamped into place. Foundation materials shall be wet, tamped, and rolled until thoroughly compacted prior to placing concrete.

L. Concrete shall be deposited continuously in layers of such thickness that no concrete will be deposited on concrete which has sufficiently hardened to cause the formation of seams and planes of weakness within the section. If a section cannot be placed continuously, construction joints may be located at points as provided for in the Drawings or as acceptable to the Engineer.

3.08 CURING AND PROTECTION

A. Protect all concrete work against injury from the elements and defacements of any nature during construction operations.

B. All concrete shall be treated immediately after concrete placing or finishing is completed to provide continuous moist curing above 50 degrees F for at least 7 days (14 days minimum for water-retaining structures), regardless of the ambient air temperature. Absorptive wood forms remaining in place will not be considered as a satisfactory means of curing. Forms and vertical surfaces shall be covered and kept moist with three layers of continuously saturated burlap, or by other approved means. Horizontal surfaces, slabs, etc. shall be ponded to a depth of 1/2-inch or kept continuously wet by use of sprinklers. Street pavement, driveways, and sidewalks shall be cured by application of a white pigmented liquid-membrane forming compound applied in strict conformance with LADOTD Specifications, Section 601.12. Liquid-membrane forming compounds shall conform to LADOTD Specifications Section 1011.01.

C. Cured surfaces and slabs shall be protected from the direct rays of the sun to prevent cracking and crazing until the concrete is 28 days old.

D. Cold Weather Concreting:

1. Concrete placed at air temperature below 40 degrees F shall have a minimum temperature of 60 degrees F. When the air temperature is below 40 degrees F or near 40 degrees F and falling, the water and aggregates shall be heated before mixing. Concrete shall be protected so the temperature at the surface will not fall below 50 degrees F for at least 7 days after placing. No salt, manure, or other chemicals shall be used for protection. Over heating or non-uniformity of heating shall be prevented. The surface temperature of the concrete shall not exceed 95 degrees F during heating operations.

2. In cold weather continuous warm curing (with supplementary heat when required) shall provide a total of 350 day-degrees (i.e., 5 days at 70 degrees F, etc.) of heat.

3. The Contractor shall submit for acceptance by the Engineer a Work Plan describing the methods and procedures he proposes to use for concrete placement and curing during periods with temperatures below 40 degrees F.

E. Hot Weather Concreting

1. For this Specification, "hot weather" is defined as any combination of high air temperature, low relative humidity, and wind velocity which produces a rate of evaporation approaching or exceeding 0.2 $lb/ft^2/hr$.

2. Concrete placed during hot weather, shall be batched, delivered, placed, cured and protected in compliance with the recommendations of the latest ACI Committee 305 Report and the additional requirements of this Specification.

   a. Temperature of concrete being placed shall not exceed 90 degrees F and every effort shall be made to maintain a uniform concrete mix temperature below this level. The temperature of the concrete shall be such that it will cause no difficulties from loss of slump, flash set or cold joints.

   b. All necessary precautions shall be taken to promptly deliver and place the concrete upon its arrival at the job and to provide vibration immediately after placement.

   c. The Engineer may direct the Contractor to immediately cover plastic concrete with polyethylene.

3. The Contractor shall submit for acceptance by the Engineer a Work Plan describing the methods and procedures he proposes to use for concrete mixing, including cooling or addition of ice to the aggregates, placement, finishing and curing during hot weather conditions.

3.09 REMOVAL OF FORMS

Except as otherwise specifically authorized by the Engineer, forms shall not be removed before the concrete has cured as specified above in subparagraph 3.08C and the concrete has attained a strength of at least 30 percent of the ultimate strength prescribed by the design.

END OF SECTION

SECTION 05500

MISCELLANEOUS METAL

PART 1 - GENERAL

1.01 SCOPE OF WORK

Furnish all labor, materials, equipment, and incidentals required and install covers, grates, frames, catch basin castings, and other miscellaneous metals as shown on the Drawings and specified herein. The miscellaneous metal items include but are not limited to the following:

1. All metal frames, ladders, stair rails, floor opening frames including gratings, supports, and other miscellaneous metal items as shown on the Drawings.

2. Pre-fabricated access hatches and frames.

3. Anchors or anchor bolts except those specified to be furnished with all equipment.

4. Handrails, posts, and supports.

5. Cast iron frames, covers, grates, drain leaders, and drains.

6. Structural steel for hoist and steel beam supports.

7. Drain leaders.

8. Stair nosings, steel plates, angle frames, plates, and miscellaneous angles and channels as shown on the Drawings.

1.02 COORDINATION

The work of this Section shall be completely coordinated with the work of other Sections. Verify at the site both the dimensions and work of other trades adjoining items of work in this Section before fabrication and installation of items herein specified.

1.03 SUBMITTALS

Shop drawings, working drawings and product data, as provided for in Section 01340, showing at least sizes of members, method of assembly, materials, anchorage, and connection to other members shall be submitted to the Engineer for review before fabrication.

1.04 FIELD MEASUREMENTS

Field measurements shall be taken at the site to verify or supplement indicated dimensions and to insure proper fitting of all items.

1.05 REFERENCE SPECIFICATIONS

A. American Society for Testing and Materials (ASTM)

1. ASTM A36 Specification for Structural Steel

2. ASTM A48 Specification for Gray Iron Castings

3. ASTM A53 Specification for Pipe, Steel, Black and Hot Dipped, Zinc-Coated Welded and Seamless

B. American Iron and Steel Institute (AISI)

1. AISI, Type 302 Stainless Steel Bolts, Bars and Shapes

2. AISI, Type 304 and 316 Stainless Steel Plate and Sheet

C. American Welding Society (AWS)

1. AWS Specification for Arc Welding (Type E70XX) Welding Rods for Steel

1.06 MISCELLANEOUS STANDARDS

Unless otherwise specified, materials shall conform to the following:

1. Structural Steel ASTM A36
2. Welded and Seamless Steel Pipe ASTM A53
3. Gray Iron Castings ASTM A48, Class30
4. Stainless Steel Plate and Sheet AISI, Type 304
5. Welding Rods for Steel AWS Specification for Arc Welding

PART 2 - PRODUCTS

2.01 ANCHORS, BOLTS, AND FASTENING DEVICES

A. Anchors, bolts, etc., shall be furnished as necessary for installation of the work of this Section.

B. Compound masonry anchors shall be of the type shown or required and shall be equal to Star Slugin compounded masonry anchors manufactured by Star Expansion Industries, equal by Phillips Drill Co., Rahlplug, or equal. Anchors shall be minimum "two unit" type.

C. The bolts used to attach the various members to the anchors shall be the sizes shown or required. Aluminum and stainless steel shall be attached to concrete or masonry by means of stainless steel machine bolts and iron or steel shall be attached with steel machine bolts unless otherwise specifically noted.

D. For structural purposes, unless otherwise noted, expansion bolts shall be Phillips Drill Co. "Wedge Anchors", Hilti "Kwik-Bolt", or equal. When length of bolt is not called for on the Drawings, the length of bolt provided shall be sufficient to place the wedge portion of the bolt a minimum of 1-in behind the reinforcing steel within the concrete. Material shall be as noted on the Drawings. If not noted, provide in galvanized steel. Bolts shall be supplied with nuts, flat washers, and lock washers as required and shall be of the same material as the bolt.

E. Bolts and nuts shall conform to Federal Specification FF-B-575. Bolts and nuts shall be hexagon type. Stainless steel bolts, nuts, screws, washers, and related appurtenances shall be equal to AISI Type 302. All exposed portions of anchor bolts installed in concrete shall be greased, wrapped in burlap or plastic sleeve and tied.

2.02 STEEL ITEMS

A. Sleeves shall be steel or cast iron pipe in walls and floors with end joints as shown on the Drawings. All pipe sleeves shall have center anchor around circumference as shown.

B. All miscellaneous lintels and closures required but not specifically shown on the Drawings shall be galvanized steel and shall be provided as a part of this Section sized as required for strength and coverage.

C. Miscellaneous steel pipe for sleeves and lifting attachments and other uses as required including concrete filled galvanized steel bollards, shall be Schedule 40 pipe fabricated according to details as shown on the Drawings.

D. Miscellaneous steel shall be fabricated and installed as required and in accordance with the Drawings and shall include: miscellaneous angles, support brackets, anchor bolts (except for equipment furnished in Division 15); lintels coped back 3/4-in where they bear on masonry; checkerplates; bar racks; and any other miscellaneous steel called for on the Drawings and not otherwise specified.

2.03 CAST IRON FRAMES AND COVERS

A. Frames, covers, and grates for manholes, catch basins and inlets and emergency pump out manholes shall be of a good quality, strong, tough even grained cast iron except as otherwise specified below. Castings shall be Model VM-3 MOD, as manufactured by Vulcan Foundry, or equal. Sizes shall be as shown on the Drawings. Covers to have letters "SEWER" or "DRAIN", as applicable, embossed on top.

B. Provide solid manhole and handhole covers and frames for electrical and telephone underground systems. (Covers to have letters "HIGH VOLTAGE", "LOW VOLTAGE", "SIGNAL", "TELEPHONE", as applicable, embossed on top).

PART 3 - EXECUTION

3.01 FABRICATION

A. All miscellaneous metal work shall be formed true to detail, with clean, straight, sharply defined profiles and smooth surfaces of uniform color and texture and free from defects impairing strength or durability.

B. Connections and accessories shall be of sufficient strength to safely withstand stresses and strains to which they will be subjected. Steel accessories and connections to steel or cast iron shall be steel, unless otherwise specified. Threaded connections shall be made so that the threads are concealed by fitting.

C. Welded joints shall be rigid and continuously welded or spot welded as specified or shown. The face of welds shall be dressed flush and smooth. Exposed joints shall be close fitting and jointed where least conspicuous.

D. Welding of parts shall be in accordance with the Standard Code for Arc and Gas Welding in Building Construction of the AWS and shall only be done where shown, specified, or permitted by the Engineer. All welding shall be done only by welders certified as to their ability to perform welding in accordance with the requirements of the AWS Code. Component parts of built-up members to be welded shall be adequately supported and clamped or held by other adequate means to hold the parts in proper relation for welding.

E. All steel finish work shall be thoroughly cleaned, by effective means, of all loose mill scale, rust, and foreign matter before shipment and shall be given one shop coat of primer compatible with finish coats specified in Painting Section after fabrication but before shipping. Paint shall be applied to dry surfaces and shall be thoroughly and evenly spread and well worked into joints and other open spaces. Abrasions in the field shall be touched up with primer immediately after erection. Shop and final painting is specified in Division 9.

F. Galvanizing, where required, shall be the hot-dip zinc process after fabrication. Following all manufacturing operations, all items to be galvanized shall be thoroughly cleaned, pickled, fluxed, and completely immersed in a bath of molten zinc according to ASTM A525. The resulting coating shall be adherent and shall be the normal coating to be obtained by immersing the items in a bath of molten zinc and allowing them to remain in the batch until their temperature becomes the same as the bath. Coating shall be not less than 2 oz. per sq. ft. of surface.

G. Zinc coating which has been burned by welding, abraded, or otherwise damaged shall be cleaned and repaired after installation. The damaged

area shall be thoroughly cleaned by wire brushing and all traces of welding flux and loose or cracked zinc coating removed prior to painting. The cleaned area shall be painted with two coats of zinc oxide-zinc dust paint conforming to the requirements of Military Specifications MIL-P-15145. The paint shall be properly compounded with a suitable vehicle in the ratio of one part zinc oxide to four parts zinc dust by weight.

H. Castings shall be of good quality, strong, tough, even-grained, smooth, free from scale, lumps, blisters, sand holes, and defects of any kind which render them unfit for the service for which they are intended. Castings shall be thoroughly cleaned and will be subjected to a hammer inspection in the field by the Engineer. All finished surfaces shown on the Drawings and/or specified shall be machined to a true plane surface and shall be true and seat at all points without rocking. Allowances shall be made in the patterns so that the thickness specified or shown shall not be reduced in obtaining finished surfaces. Castings will not be acceptable if the actual weight is less than 95 percent of the theoretical weight computed from the dimensions shown. The Contractor shall provide facilities for weighing castings in the presence of the Engineer showing true weights, certified by the supplier.

3.02 INSTALLATION

A. Install all items furnished except items to be embedded in concrete or other masonry which shall be installed under Division 3 and Division 4 respectively. Items to be attached to concrete or masonry after such work is completed shall be installed in accordance with the details shown. Fastening to wood plugs in masonry will not be permitted. All dimensions shall be verified at the site before fabrication is started.

B. All steel surfaces to come in contact with exposed concrete or masonry shall receive a protective coating of an approved heavy bitumastic troweling mastic applied in accordance with the manufacturer's instructions prior to installation.

END OF SECTION

SECTION 10100

RELOCATION OF INFRASTRUCTURE ITEMS

GENERAL

The cost for relocating, repairing, replacing or removing any privately owned or Parish owned utilities or structures; such as water, sewer, gas, power and subsurface drainage system which are in conflict with the items to be installed under this project, shall be paid under item "Relocation of Infrastructure Items" of bid form and shall include all labor, equipment, and material necessary for proper performance of this work. Such work shall be paid for only when the work is deemed necessary (by Engineer and Owner) for performance of this contract. Relocation, repair, or removal of any items for the Contractor's convenience will be paid for by the Contractor. When the costs for necessary relocation, repairs, or removal are to be paid for by the Owner, the Contractor shall keep accurate records of all time, material, and equipment used and shall submit a copy of said record on a daily basis (same day) to the Resident Project Representative for review. The cost for this work included in the bid forms is a projected budget cost. Upon completion of the work the total contract price shall be adjusted accordingly.

The cost of removal, replacement, or relocation of any other utilities, within a street R.O.W., such as LP&L facilities, telephone company cables and gas lines owned by gas company shall be borne by the respective companies provided the work is required for proper performance of this contract. If any of these utilities are outside the street R.O.W. and require removal, repair, replacement and relocation, the Contractor shall inform the respective utility company for performing the work. The cost of such work shall be reimbursed to the utility company (if applicable) by the Contractor, payment for which will be made to the Contractor under item "Relocation of Infrastructure Items". Subject to approval by the Engineer. All utilities owned by the city requiring relocation due to conflicts shall be performed by the Contractor and payment for the work will be made under item "Relocation of Infrastructure Item".

END OF SECTION

APPENDIX

PERMITS

Steve Breeding

From: Jerri Henderson <jhenderson@leveedistrict.org>
Sent: Thursday, April 04, 2019 3:55 PM
To: Steve Breeding
Cc: Brandi Mancuso; Ray Davezac
Subject: RE: St John the Baptist Parish - Reserve Drainage Permit Extension (LONO No. 140909122)

Steve,

PLD has received your request to extend this letter of no objection. I have checked with USACE and CPRA about this request and since the work has not been done yet, PLD will be able to grant your extension. As per stipulations in the letter of no objection, this work cannot begin until the river reaches below +11.0 on the Carrollton gage in New Orleans, Louisiana. Said extension will be released by this office once the Carrollton gage reaches below +11.0 feet. Please allow this email to serve as notice that said extension will be granted, however, will not be released until the river recedes as indicated. Should you have any questions, please do not hesitate to contact our office.

Best regards,

Jerri Henderson
Pontchartrain Levee District
P.O. Box 426
2069 Railroad Avenue
Lutcher, LA 70071
(225) 869-9721
(225) 869-9723 – Fax

From: Steve Breeding <sbreeding@skaengr.com>
Sent: Tuesday, April 02, 2019 10:54 AM
To: Jerri Henderson <jhenderson@leveedistrict.org>
Cc: Brandi Mancuso <bmancuso@skaengr.com>; Ray Davezac <rad@skaengr.com>
Subject: St John the Baptist Parish - Reserve Drainage Permit Extension (LONO No. 140909122)

Ms Henderson

Please find enclosed the original permit for this project for your reference. The Parish is preparing to bid this project in the near future (May/June) and we are requesting and extension at your earliest convenience. Please advise if you need anything further. Thanks.

Steven P. Breeding, P.E.
Shread-Kuyrkendall & Associates, Inc.
104 Campus Dr. East, Suite 102
Destrehan, LA 70047
985-764-4060

The Board of Commissioners
OF THE
Pontchartrain Levee District

PROTECTING YOU AND YOUR FAMILY

2204 ALBERT STREET • P.O. BOX 426 • LUTCHER, LA 70071

TEL: 225-869-9721 FAX: 225-869-9723 LA WATTS: 800-523-3148

STEVEN C. WILSON
PRESIDENT

LEONARD C. IRVIN, SR.
VICE PRESIDENT

COMMISSIONERS
HENRY N. BAPTISTE
PATRICK BELL SR.
RICKY BOSCO
PERCY HEBERT, JR.
MARTY J. POCHE
JERRY SAVOY
ALLEN J. ST. PIERRE, SR.

DWIGHT D. POIRRIER
SPECIAL COUNSEL

SUSAN M. SHEETS
BOARD SECRETARY

MONICA T. SALINS
EXECUTIVE DIRECTOR

Date: September 9, 2014

LONO No.: 140909122

This is to certify that: St. John the Baptist Parish
C/O Shread-Kuyrkendall & Associates, Inc.
13016 Justice Avenue
Baton Rouge, LA 70816

is granted a Letter of No Objection to perform drainage improvements on the protected side of the left descending Mississippi River levee, between second order levee stations 4640+00 and 4670+00, at Reserve, Louisiana, in St. John the Baptist Parish and is being issued, and subject to compliance with the following terms and conditions:

1. All work is to be performed in accordance with the rules and regulations of the Coastal Protection and Restoration Authority (CPRA) and the U.S. Army Corps of Engineers (USACE). In addition, terms and conditions stated within the Letters of No Objection from both CPRA dated August 29, 2014 (13460) and USACE dated September 8, 2014 (14-596) are attached hereto and made a part hereof in their entirety.

2. The work is accomplished in accordance with applicant's letter dated July 31, 2014 and accompanying drawings. **The Pontchartrain Levee District must be contacted prior to commencement AND at the end of all activities by contacting 1-800-523-3148.**

3. Applicant and his surety assume all cost of proper maintenance and upkeep relative to the facility herein permitted.

4. The proposed work must not restrict the Pontchartrain Levee District's maintenance operations, or any potential flood fight activities at the levee, nor shall it obstruct or impede drainage, or create areas of standing water on the levee batture.

5. All excavation work is performed and backfilled while the stage of the Mississippi River is below elevation +11.0 feet on the Carrollton gage, at New Orleans, Louisiana. The applicant is advised to monitor the river stages as reported by the local media or calling the U.S. Army Corps of Engineers at (504) 862-2461 for a recorded message of the daily river stage or verify same at www.rivergages.com.

6. All open excavations need to be backfilled to natural ground prior to the river stage reaching +11.0 feet on the Carrollton gage, at New Orleans, Louisiana.

7. That adequate sized drainage structures are installed at all drainage channels, swales, or other drainage conduits impacted by the proposed work.

8. That the applicant is responsible for maintaining the existing level of flood protection at all times to the satisfaction of the Pontchartrain Levee District.

9. All materials associated with the proposed work must be removed from the area upon completion of the project and the area must be returned to its original state of existence or better.

10. That should changes in the location or section of the existing levee and/or river, or in the generally prevailing conditions in the vicinity, be required in the future in the public interest, the applicant shall make such changes in the project concerned, or in the arrangements thereof, as may be necessary to satisfactorily meet the situation and shall bear the cost thereof.

11. The applicant agrees to indemnify and save grantor harmless from any and all liability, including liability of grantor to applicant, its heirs, successors, and/or assigns, arising out of and/or incident to the rights herein granted. Applicant further agrees to appear and defend any and all suits instituted against this Board arising out of and/or incident to this letter of no objection, and to pay in full any judgment rendered against this Board arising out of and/or incident to the granting of the letter of no objection.

12. That there is no penetration, excavation, disturbance or placement of structures within the theoretical levee design section.

13. Further, this letter of no objection does not purport to authorize applicant's entry upon any land, public or private, including lands owned by this Board, without first securing from the owner's permission to conduct such operations. This letter of no objection does not purport to waive the requirements of other governmental or sub governmental bodies, and no work should commence until all necessary permits are required.

14. This letter of no objection is valid for a period of one year. A request for renewal should be submitted to this office prior to **September 9, 2015.**

15. In addition, it is required that a copy of the letter of no objection is to be maintained on site, at all times.

Monica Salins, Executive Director

cc: U.S. Army Corps of Engineers
Coastal Protection and Restoration Authority

Coastal Protection and
Restoration Authority of Louisiana

State of Louisiana

August 29, 2014

BOBBY JINDAL
GOVERNOR

Pontchartrain Levee District
P. O. Box 426
Lutcher, LA 70071
Attention: Ms. Jerri Henderson

PERMIT REQUEST
FORM OF NO OBJECTION

This Letter of No Objection is not a regulatory permit and does not authorize the implementation of any project without documented approval from all appropriate regulatory authorities.

Permit Applicant: St. John the Baptist Parish Council

Date of Request 07-31-2014

Applicant's Request: Approval to complete a drainage improvement project, consisting of the removal and replacement of the existing roadside drainage and culverts, where:

1) the distance from the project to the MRL Centerline ranges from approximately 600 to 1,500 feet and beyond;

2) the maximum excavation depth is 13 feet below finished grade, as it applies to the depth of catch basins;

3) all existing drainage structures located within the improvement area will be removed and properly disposed of;

4) the removal and replacement of driveways and fences is limited to those necessary for proper installation of subsurface drainage;

5) residential gas and water service line connections will be lowered to clear the proposed drainage pipe by one foot (minimum), where necessary;

Request received 8-22-2014 via email.

Agent: Shread - Kuyrkendall & Associates, Inc.
SKA PROJECT NO.: 89091.13

Project Location: All work will take place on the protected side of the left-descending Mississippi River Levee, near River Mile 138 AHP, in Reserve, St. John the Baptist Parish, Louisiana.

CPRA Google Earth Coordinates_General Area:..... 30° 03' 29.910" , -90° 33' 28.820"

The above referenced request has been examined by Ms. Rhonda F. Braud (Flood Protection Supervisor), and no objection is proffered for this request, provided:

1. This Letter of No Objection is only for stated work within or in the vicinity of the Levee District right-of-way, and must be accomplished in accordance with the details set forth in the applicant's request and the conditions contained herein. Any changes to the limits or scope of the proposed work must be submitted for additional review. The Levee District must be contacted in writing prior to commencement and at the end of activities. The applicant is responsible for obtaining and providing copies of any permits or lease agreements necessary from the U.S. Army Corps of Engineers, the U.S. Coast Guard, the Louisiana State Land Office, the Louisiana Department of Transportation and Development, the Louisiana Department of Natural

Resources - Office of Coastal Management, the Louisiana Department of Wildlife and Fisheries, the Parish Government and/or any other applicable agencies, as well as documented approval from the area landowner(s) prior to the initiation of the work. The applicant is responsible for adhering to the provisions of any existing permits. The proposed work must not restrict the Levee District's maintenance operations, or any potential flood fight activities at the levee, nor shall it obstruct or impede drainage, or create areas of standing water on the levee batture. The applicant must employ and maintain suitable erosion protection measures at the project site to the satisfaction of the Levee District. The applicant or owner must immediately notify the Levee District of any seepage or sand boils that occur during high water conditions. All materials associated with the proposed work must be removed from the area upon completion of the project and the area must be returned to its original state of existence or better. Any damage done to the levee, floodwall or other flood control structure, revetment, or surrounding project area, resulting from the proposed work must be repaired or replaced by the applicant. Should any change in the location of the existing levee, river, floodwall, drainage canal, waterway, or generally prevailing conditions in the vicinity, or should any changes in the area be required in the future, in the public interest, the applicant shall make such changes in the project as necessary. Any required changes or repairs shall be at the applicant's expense.

2. That all subsurface work is performed and backfilled prior to the Mississippi River attaining or exceeding + 11.0 feet NGVD, on the Carrollton Gage at New Orleans, unless the applicant receives documented approval to the contrary from the U.S. Army Corps of Engineers-New Orleans District.

3. This letter of no objection is offered with no opinion or approval of the design or engineering feasibility of the work.

4. That adequate sized drainage structures are installed at all drainage channels, swales, or other drainage conduits impacted by the proposed work.

5. That the applicant is responsible for maintaining the existing level of flood protection at all times to the satisfaction of the Levee District.

Yours very truly,

Rhonda F. Braud

for Ignacio Harrouch, Operations Division Chief
Coastal Protection and Restoration Authority of Louisiana

13460/rfb/rd/gc

cc:

Sbreeding@Skaengr.Com
U.S. Army Corps Of Engineers-Levees
Office Of Coastal Management
Ms. Rhonda F. Braud

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P. O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

September 8, 2014

REPLY TO
ATTENTION OF

Operations Division
Operations Manager,
Completed Works

Mr. Steven C. Wilson - President
Board of Commissioners
Pontchartrain Levee District
Post Office Box 426
Lutcher, Louisiana 70071

Dear Mr. Wilson:

We have received a copy of a letter request, addressed to your Board, dated July 31, 2014, from Shread-Kuyrkendall & Associates, Inc., on behalf of St. John the Baptist Parish, concerning permission to perform drainage improvements on the protected side of the left descending Mississippi River levee, between second order levee stations 4640+00 and 4670+00, at Reserve, Louisiana, in St. John the Baptist Parish.

We have no objection to your Board's issuance of a permit for the proposed work provided:

a. The work is accomplished in accordance with the above referenced letter, drawings and accompanying maps.

b. All excavation work is performed and backfilled while the stage of the Mississippi River is below elevation +11.0 feet on the Carrollton gage, at New Orleans, Louisiana. Information concerning current river stages may be obtained on our website at www.mvn.usace.army.mil.

c. All open excavations need to be backfilled to natural ground prior to the river stage reaching +11.0 feet on the Carrolton gage, at New Orleans, Louisiana.

This letter of no objection is based upon engineering criteria, and no interpretation or comments regarding local laws, zoning, or ordinances concerning property rights, etc., have been made. Additionally, this letter of no objection does not obviate the applicant's requirement to obtain federal, state, or local permits required by law.

If you have any questions, please contact me or Albert Terry of my office at 504-862-2241 or 504-862-2311, respectively. Additionally, future correspondence concerning this project should reference our Letter of No Objection number 14-596. This will allow us to more easily locate records of previous correspondence, and thus provide a quicker response.

Please furnish this office a copy of your permit if the applicant's proposal is approved by your Board.

Sincerely,

Amy E. Powell
Operations Manager, Completed Works

Copies Furnished:

CPRA, Baton Rouge, Attn: Glen Couvillion
CPRA, Baton Rouge, Attn: Rhonda Braud
Shread-Kuyrkendall & Associates, Inc.
Attn: Mr. Richard Shread, P.E., P.L.S.

DEPARTMENT OF NATURAL RESOURCES
OFFICE OF COASTAL MANAGEMENT
P.O. BOX 44487
BATON ROUGE, LOUISIANA 70804-4487

(225) 342-7591
1-800-267-4019

COASTAL USE AUTHORIZATION/CONSISTENCY DETERMINATION

C.U.P No.: **P20181123**

NAME : **ST. JOHN THE BAPTIST PARISH**
SHREAD-KUYRKENDALL & ASSOCIATES, INC.
104 CAMPUS DR. 102
DESTREHAN, LA 70047
Attn: Steven P. Breeding

LOCATION: **Saint John The Baptist Parish, LA**
POB - Lat 30-03-39N, Long -90-33-42.00W, POE - Lat 30-03-40N, Long - 90-33-12W; Section 40, T11S-R06E; along W. 8th St., Terrance St., W. 4th St., Toni Dr., and W. 2nd St. in Reserve.

DESCRIPTION: Proposed drainage improvement project includes removing and replacing the existing roadside drainage. Approx. 5,000 cy may be dispaced by operations.

Pursuant to the State and Local Coastal Resources Management Act of 1978, as amended (La. R.S. 49:214.34.A), the proposed activity is exempt and a Coastal Use Permit is not required.

This determination is valid for two (2) years from the date of the signature of the Secretary or his designee on the original determination which was October 26, 2018. If the proposed activity is not initiated within this two year period, this determination will expire and the applicant will be required to submit a new application. The applicant will notify the Office of Coastal Management of the date on which initiation of the proposed activity began by entering a commencement date through the online system, or by mailing said information to OCM.

This determination has been made on the basis of information provided by your application. If it is later established that you furnished erroneous data, you may be directed to alter or modify your plans, to remove structures you have installed, and/or to restore the work area to pre-project conditions at your own expense. If it is established that you knowingly furnished erroneous data, you could also be subject to legal action.

Permittee shall, prior to commencement of the herein permitted activities, contact Billy Wall (phone: 225-342-9423, email: billy.wall@la.gov) to determine if a construction permit will be required from the local levee district. This determination does not eliminate the need to obtain a permit from the United States Army, Corps of Engineers or any other Federal, state or local approval that may be required by law. The drawings submitted with your referenced application are attached hereto and made a part of the record. If you have any questions regarding this authorization, please contact our office (225) 342-7591 or (800) 267-4019.

******* End of Determination *******

By accepting this determination the applicant agrees to its terms and conditions.

I affix my signature and issue this determination this 26th day of October, 2018.

DEPARTMENT OF NATURAL RESOURCES

Karl L Mor

Karl L. Morgan, Administrator
Office of Coastal Management

This agreement becomes binding when signed by the Administrator of
the Office of Coastal Management Permits/Mitigation Division, Department of Natural Resources.

Attachments

Final Plats:

1) P20181123 Final Plats 10/22/2018

cc: Martin Mayer, COE w/attachments
Dave Butler, LDWF w/attachments
Johan Forsman, DHH w/attachments
Coastal Protection and Restoration Authority, CPRA w/attachments
Jessica Diez, OCM w/attachments
Craig Leblanc, OCM/FI w/attachments
Saint John The Baptist Parish w/attachments

ST. JOHN THE BAPTIST PARISH w/attachments

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, NEW ORLEANS DISTRICT
P.O. BOX 60267
NEW ORLEANS LA 70160-0267

FEB 2 3 2015

REPLY TO
ATTENTION OF

Operations Division
Surveillance and Enforcement Section

Mr. Stephen P. Breeding
Shread-Kuyrkendal & Associates, Inc.
13658 River Road
Destrehan, Louisiana 70047

Dear Mr. Breeding:

Reference is made to your application, on behalf of St. John the Baptist Parish Government, for a Department of the Army (DA) permit to conduct drainage improvements along Railroad Avenue in Reserve, Louisiana on property located in Sections 39, 40, 43, and 44, Township 11 South, Range 6 East, St. John the Baptist Parish, Louisiana.

Based on review of recent maps, aerial photography, soils data, and the information provided with your application, we have determined that the specific site of your project is not in a wetland subject to U.S. Army Corps of Engineers' jurisdiction. A DA permit under Section 404 of the Clean Water Act will not be required for the deposition or redistribution of dredged or fill material on this site. Therefore, we are returning your application. Any changes or modifications to the proposed project will require a revised determination.

You and your client are advised that this approved jurisdictional determination is valid for a period of 5 years from the date of this letter unless new information warrants revision prior to the expiration date or the District Commander has identified, after public notice and comment, that specific geographic areas with rapidly changing environmental conditions merit re-verification on a more frequent basis.

Should there be any questions concerning these matters, please contact Mr. Brandon Gaspard at (504) 862-1280 and reference our Account No. MVN 2014-02354-SE.

Sincerely,

for Martin S. Mayer
Chief, Regulatory Branch

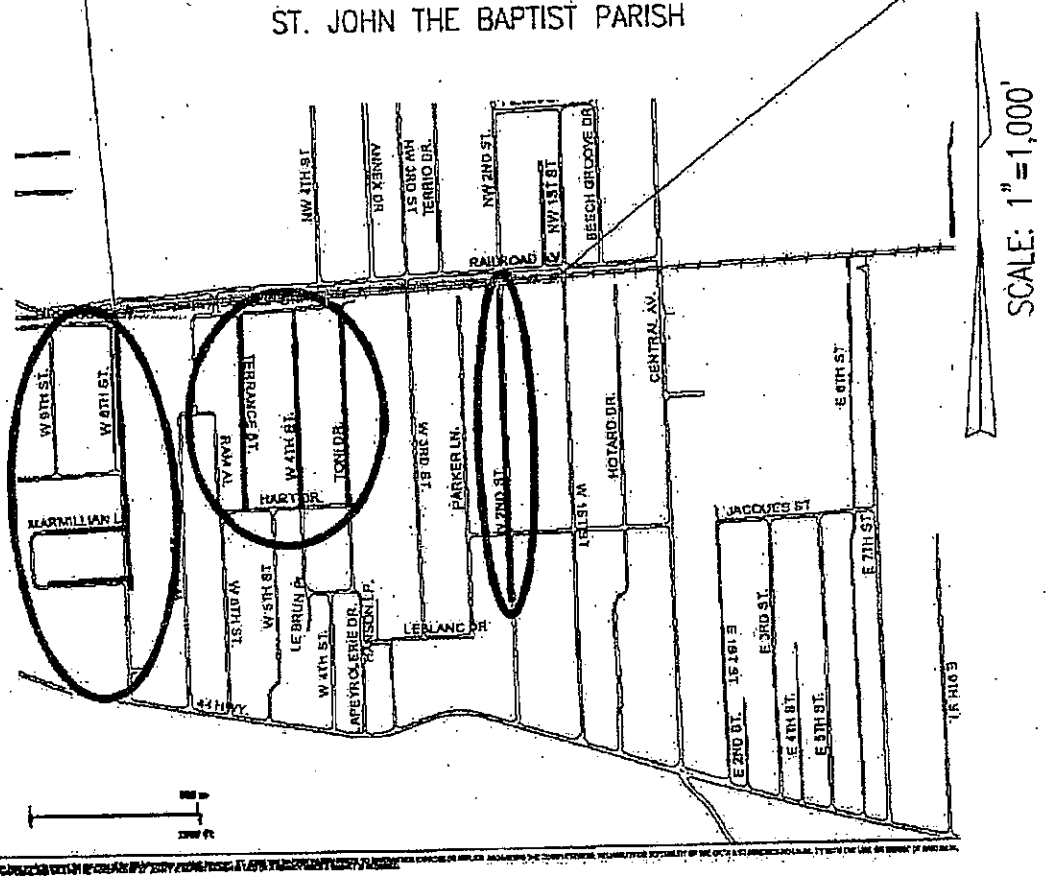
Enclosures

BEGIN PROJECT
LAT. 30 DEG. 03' 39"
LONG. 90 DEG. 33' 42"

RESERVE AREA
DRAINAGE IMPROVEMENTS

ST. JOHN THE BAPTIST PARISH

END PROJECT
LAT. 30 DEG. 03' 40"
LONG. 90 DEG. 33' 12"



As-built drawings will be submitted within 30

USACE
FSV / (JH) Date: 4 Feb 2015
Botanist: Gaspard
Requestor: Breaux
MVN- 2014-02354-SE
☐ - NON-WETLAND

DRAINAGE IMPROVEMENTS

W. 8TH STREET – 4785' OF PIPE
TERRANCE STREET – 1320' OF PIPE
W. 4TH STREET – 2200' OF PIPE
TONI STREET – 2200' OF PIPE
W. 2ND STREET – 3970' OF PIPE

Structures must also be marked/lighted in
or ... ions.
In ..., the
p... Call
S... 48
h...
e... or
demolition activity.

required.

U.S. ARMY CORPS OF ENGINEERS
APPROVED
JURISDICTIONAL DETERMINATION

SHEET NO. 2	PROJECT NO. 08-0509-03	DATE 7/31/14	PROJECT NAME: RESERVE AREA DRAINAGE IMPROVEMENTS ST. JOHN THE BAPTIST PARISH
SHEET TITLE: PROJECT SITE			SHREAD-KUYRKENDALL & ASSOCIATES ENGINEERS – SURVEYORS – PLANNERS BATON ROUGE, LOUISIANA
DESIGNED BY: SPB	FILE NAME: DNR PERMIT	APPROVED BY: SPB	
DRAWN BY: SPB	CHECKED BY: DN		

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers
To view the unedited version of the form go to: http://www.mvn.usace.army.mil/regulatory/finalform.htm.

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): **4 February 2015**

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:**New Orleans, Breeding, MVN 2014-02354-SE**

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State: **Louisiana** County/parish/borough: St. John the Baptist City: Reserve
Center coordinates of site (lat/long in degree decimal format): Lat. 30.060990° N, Long. 90.557160° W.
Universal Transverse Mercator:
Name of nearest waterbody: Un-named roadside conveyance
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows:
Name of watershed or Hydrologic Unit Code (HUC): 08070204 - Lake Maurepas. LA
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☒ Office (Desk) Determination. Date: 3 February 2015
☐ Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **are no** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

SECTION III: CWA ANALYSIS. Not Applicable

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. **Data reviewed for JD (check all that apply** - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:Application provided by consultant.
☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps:
☐ Corps navigable waters' study:
☒ U.S. Geological Survey Hydrologic Atlas:08070204 .
☐ USGS NHD data.
☒ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name: 1:24000 - Reserve.
☒ USDA Natural Resources Conservation Service Soil Survey. Citation:WSS [UL, CmA, GrA].
☐ National wetlands inventory map(s). Cite name:
☐ State/Local wetland inventory map(s):
☐ FEMA/FIRM maps:
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date):1998, 2004, 2010, 2013 .
or ☐ Other (Name & Date):
☐ Previous determination(s). File no. and date of response letter:
☐ Applicable/supporting case law:
☐ Applicable/supporting scientific literature:
☒ Other information (please specify): LIDAR, Abutting wetland deterimations.

B. ADDITIONAL COMMENTS TO SUPPORT JD: **The entire project site consist of uplands.**

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: St. John the Baptist Parish	**File No.:** MVN 2014-02354-SE	**Date:**	FEB 2 3 2015
Attached is:			See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)		A
	PROFFERED PERMIT (Standard Permit or Letter of permission)		B
	PERMIT DENIAL		C
✓	APPROVED JURISDICTIONAL DETERMINATION		D
	PRELIMINARY JURISDICTIONAL DETERMINATION		E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://usace.army.mil/inet/functions/cw/cecwo/reg or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION

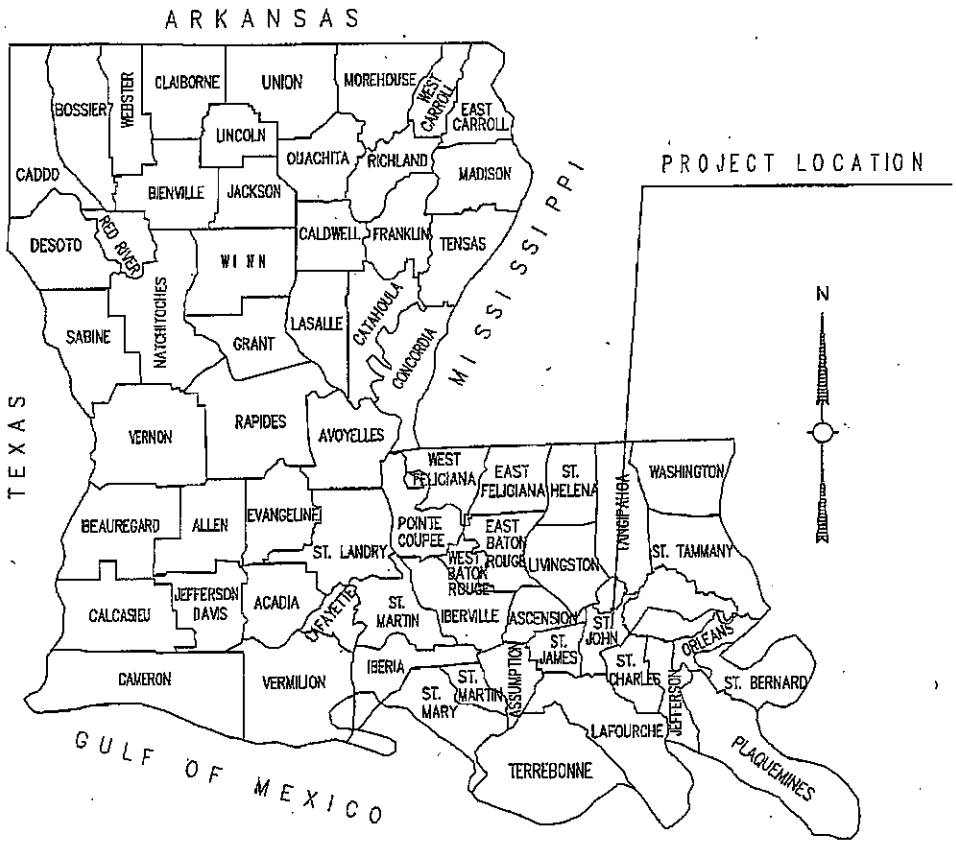
If you have questions regarding this decision and/or the appeal process you may contact: Mr. Rob Heffner Chief, Surveillance and Enforcement Section U.S. Army Corps of Engineers, New Orleans District P.O. Box 60267 New Orleans, LA 70160-0267 504-862-1288	If you only have questions regarding the appeal process you may also contact the Division Engineer through: Mr. Thomas McCabe Administrative Appeals Review Officer Mississippi Valley Division P.O. Box 80 (1400 Walnut Street) Vicksburg, MS 39181-0080 601-634-5820 FAX: 601-634-5816

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

_____ Signature of appellant or agent.	Date:	Telephone number:

RESERVE AREA
DRAINAGE IMPROVEMENTS

ST. JOHN THE BAPTIST PARISH



VICINITY MAP

SCALE: N.T.S.

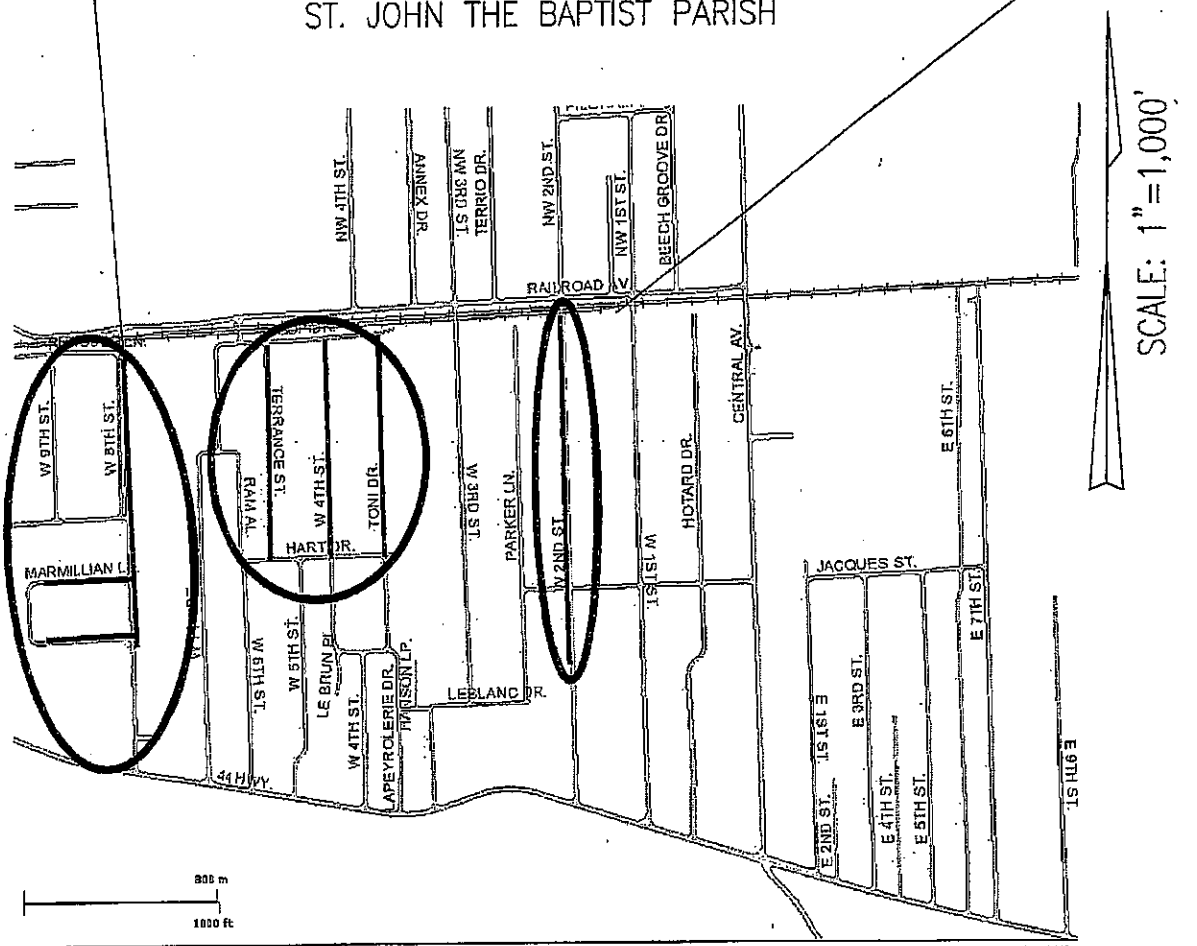
DATE 7/31/14	PROJECT NAME RESERVE AREA DRAINAGE IMPROVEMENTS ST. JOHN THE BAPTIST PARISH	SHREAD-KUYRKENDALL & ASSOCIATES ENGINEERS – SURVEYORS – PLANNERS BATON ROUGE, LOUISIANA	BY:
PROJECT NO. 89091.13P	SHEET TITLE VICINITY MAP	DESIGNED BY: SPB / FILE NAME: DNR PERMIT / APPROVED BY: SPB	
SHEET NO. 1		DRAWN BY: SPB / CHECKED BY: GM	

BEGIN PROJECT
LAT. 30 DEG. 03' 39"
LONG. 90 DEG. 33' 42"

RESERVE AREA
DRAINAGE IMPROVEMENTS

ST. JOHN THE BAPTIST PARISH

END PROJECT
LAT. 30 DEG. 03' 40"
LONG. 90 DEG. 33' 12"



Every reasonable effort has been made to ensure the accuracy of the GIS information provided herein. ST. JOHN THE BAPTIST PARISH MAKES NO WARRANTIES, EXPRESS OR IMPLIED, REGARDING THE COMPLETENESS, RELIABILITY OR AVAILABILITY OF THE DATA AND ASSUMES NO LIABILITY WITH THE USE OR MISUSE OF SAID DATA. IT IS FOR OTHER LEGAL PURPOSES, AND WILL NOT BE ACCEPTED BY ST. JOHN THE BAPTIST PARISH IN LIEU OF A SURVEY WHEN A SURVEY IS REQUIRED.

As–built drawings will be submitted within 30 days of completion of this project to the Louisiana Department of Natural Resources, Office of Coastal Management, P. O. Box 44487, Baton Rouge, LA 70804–4487.

All structures, facilities, well and pipelines/flowlines occurring in open water areas or in oilfield canals or slips shall be removed within 120 days of abandonment or the facilities for the herein permitted use unless prior written approval to leave such structures in place is received from the Office of Coastal Management. This condition does not preclude the necessity for revising the current permit or obtaining a separate Coastal Use Permit, should one be required.

DRAINAGE IMPROVEMENTS

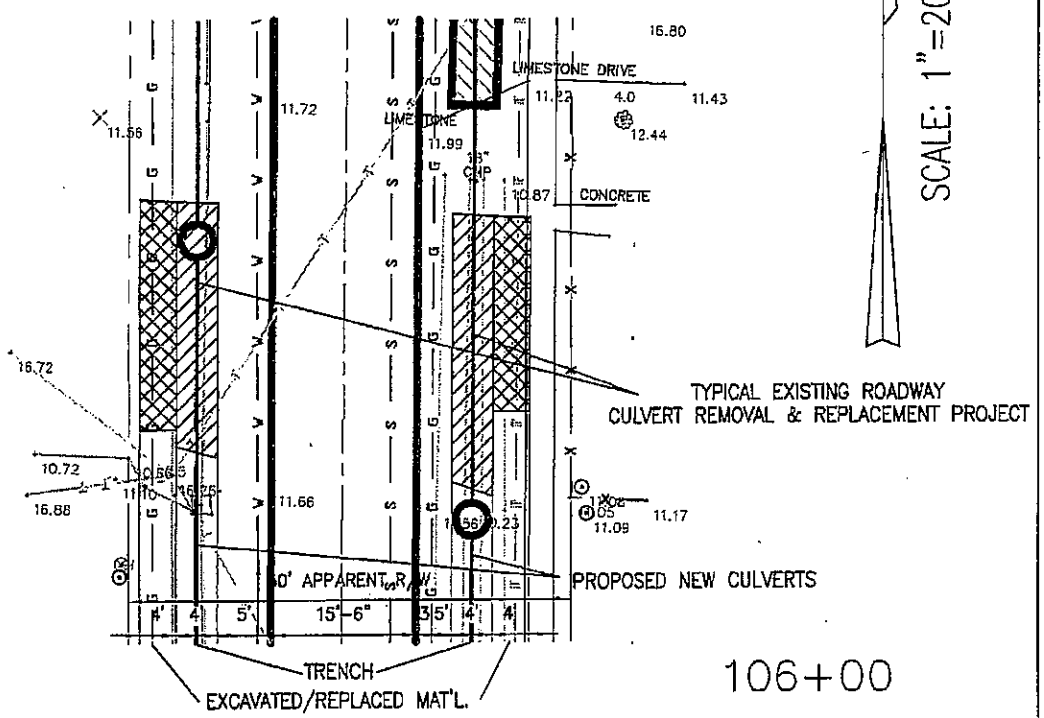
W. 8TH STREET – 4785' OF PIPE
TERRANCE STREET – 1320' OF PIPE
W. 4TH STREET – 2200' OF PIPE
TONI STREET – 2200' OF PIPE
W. 2ND STREET – 3970' OF PIPE

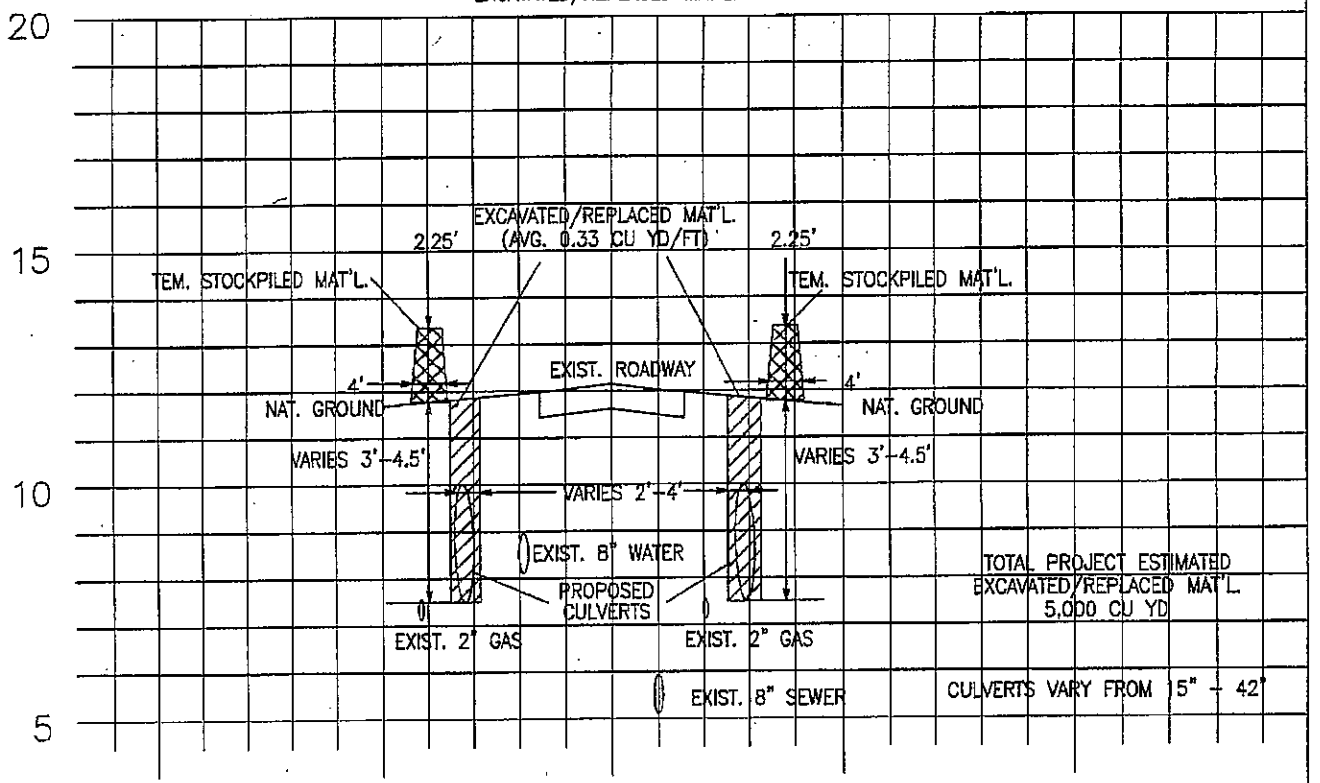
Structures must also be marked/lighted in accordance with U. S. Coast Guard regulations.

In order to ensure the safety of all parties, the permittee shall contact the Louisiana One Call System (1–800–272–3020) a minimum of 48 hours prior to the commencement of any excavation (digging, dredging, jetting, etc.) or demolition activity.

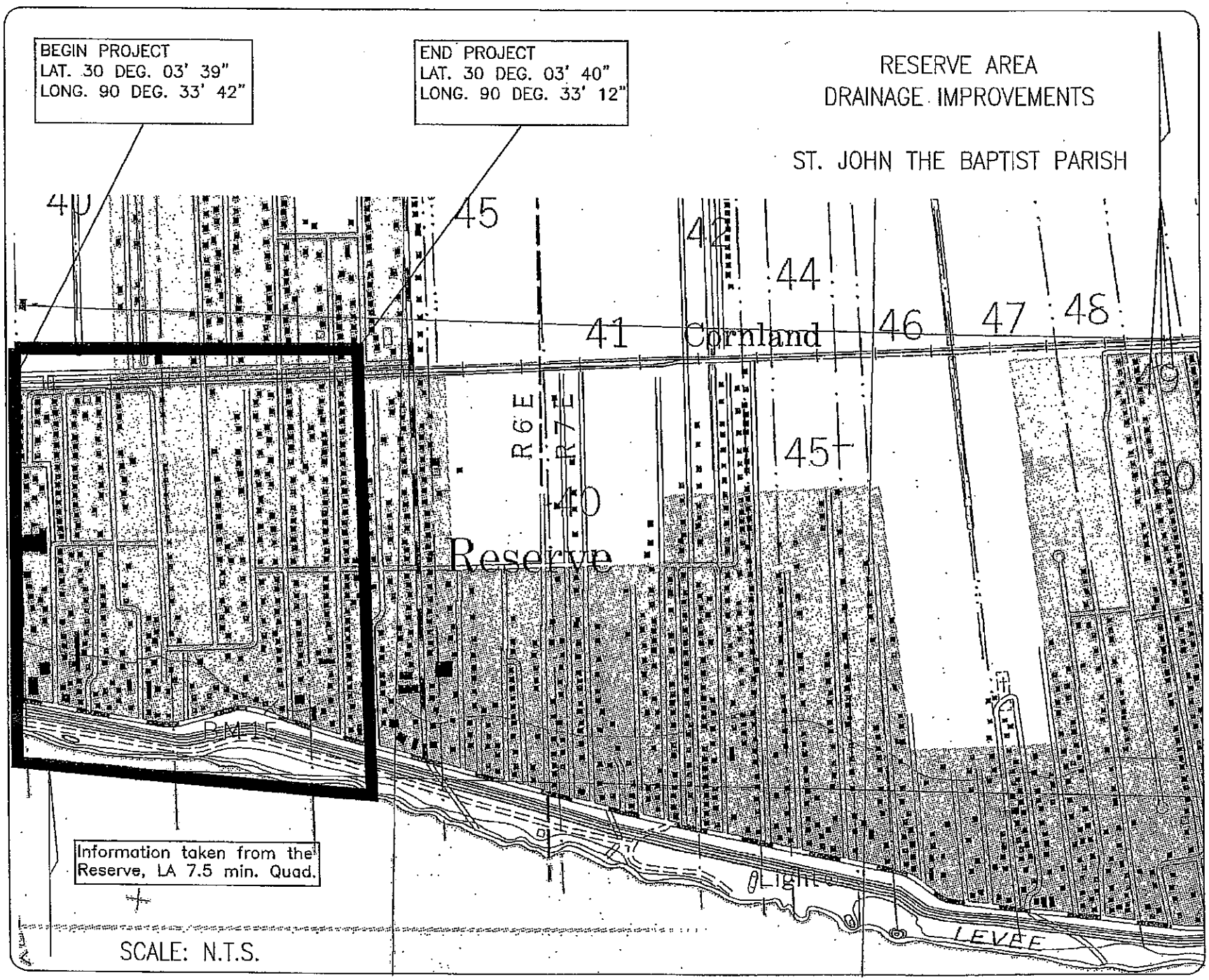
DATE 7/31/14	PROJECT NAME: RESERVE AREA DRAINAGE IMPROVEMENTS ST. JOHN THE BAPTIST PARISH	SHREAD–KUYRKENDALL & ASSOCIATES ENGINEERS – SURVEYORS – PLANNERS BATON ROUGE, LOUISIANA		BY:
PROJECT NO. 8909.1.13P	SHEET TITLE: PROJECT SITE	DESIGNED BY: SPB	FILE NAME: DNR PERMIT	APPROVED BY: SPB
SHEET NO. 2		DRAWN BY: SPB	CHECKED BY: GM	

RESERVE AREA
DRAINAGE IMPROVEMENTS
ST. JOHN THE BAPTIST PARISH





SHEET NO. 3	DATE 7/31/14	PROJECT NAME: RESERVE AREA DRAINAGE IMPROVEMENTS ST. JOHN THE BAPTIST PARISH	SHREAD-KUYRKENDALL & ASSOCIATES ENGINEERS – SURVEYORS – PLANNERS BATON ROUGE, LOUISIANA
PROJECT NO. 8809.1.13P		SHEET TITLE: TYPICAL EXCAVATION SECTION	DESIGNED BY: SPB / FILE NAME: DNR PERMIT / APPROVED BY: SPB / DRAWN BY: SPB / CHECKED BY: GM / BY:



BY:

SHREAD-KUYRKENDALL & ASSOCIATES
ENGINEERS – SURVEYORS – PLANNERS
BATON ROUGE, LOUISIANA

DESIGNED BY: SPB
DRAWN BY: SPB
FILE NAME: DNR PERMIT
CHECKED BY: GM
APPROVED BY: SPB

PROJECT NAME
RESERVE AREA
DRAINAGE IMPROVEMENTS
ST. JOHN THE BAPTIST PARISH

SHEET TITLE
PROJECT SITE

DATE
7/31/14

PROJECT NO.
89091.13P

SHEET NO.
2A

BOBBY JINDAL
GOVERNOR

STEPHEN CHUSTZ
SECRETARY

State of Louisiana

DEPARTMENT OF NATURAL RESOURCES

OFFICE OF COASTAL MANAGEMENT

08/22/2014

SHREAD-KUYRKENDALL & ASSOCIATES, INC.
13658 RIVER RD.
DESTREHAN, LA 70047
Attn: Steven P. Breeding

RE: P20141185, Coastal Use Permit Application
ST. JOHN THE BAPTIST PARISH
Description: This a Parish capital improvement project. It will simply remove and replace the existing roadside drainage.
Location: Lat 30° 03' 39"N / Long -90° 33' 42"W; Section 40 T11S R6E; Lot# N/A; Parcel# N/A; W. 8th St., Terrance St., W. 4th St., Toni Dr., W. 2nd St. Reserve, 70084
Saint John The Baptist Parish, LA

Dear Steven P. Breeding:

You are hereby advised that your application for a Coastal Use Permit (CUP) has been determined to be administratively complete and review by the State for compliance with the Louisiana Coastal Resource Program (LCRP) and consistency with the federal Coastal Zone Management Act (CZMA) has begun. Additionally, it has been determined that your proposed activity is a use of state concern in accordance with Louisiana Revised Statute 49:214.25. This letter also acknowledges receipt of your payment of the application fee.

The Office of Coastal Management (OCM) has sent a copy of this permit application to the New Orleans District Corps of Engineers (NOD/COE). The NOD/COE and OCM will each process this application separately. Please be advised that if your project is located outside of the New Orleans District, it is your responsibility to apply to the appropriate COE District.

All correspondence and calls regarding this application should reference the Coastal Use Permit Number (P#) indicated above. Please note that all information concerning your application is in our database and is updated throughout the day as changes to the status of the application occur.
Your application can be found on our Webpage.

Should you have any questions, please check the online database or contact the assigned permit analyst: Brandt Becnel at (225) 342-7003 or brandt.becnel@LA.GOV. Be sure to reference the above Coastal Use Permit Number.

Permit Coordinator

CM

cc: Martin Mayer, COE

ST. JOHN THE BAPTIST PARISH

DEPARTMENT OF NATURAL RESOURCES
OFFICE OF COASTAL MANAGEMENT
P.O. BOX 44487
BATON ROUGE, LOUISIANA 70804-4487

(225) 342-7591
1-800-267-4019

COASTAL USE AUTHORIZATION/CONSISTENCY DETERMINATION

C.U.P No.: **P20141185**

NAME : **ST. JOHN THE BAPTIST PARISH**
SHREAD-KUYRKENDALL & ASSOCIATES, INC.
13658 RIVER RD.
DESTREHAN, LA 70047
Attn: Steven P. Breeding

LOCATION: **Saint John The Baptist Parish, LA**
Begin project @ Lat. 30° 03' 40"N / Long. 90° 33' 12"W, End project @ Lat. 30° 03' 39"N / Long. 90° 33' 42"W, Section 40, T11S-R6E, W. 8th St., Terrance St., W. 4th St., Toni Dr., W. 2nd St. Reserve, 70084.

DESCRIPTION: Proposed improvements to existing roadside drainage ditches to include replacement of culverts. Approximately 5,000 cubic yards of material will be excavated and placed on site.

Pursuant to the State and Local Coastal Resources Management Act of 1978, as amended (La. R.S. 49:214.34.A), the proposed activity (Drainage Improvements) is exempt and a Coastal Use Permit is not required.

This determination is valid for two (2) years from the date of this letter. If the proposed activity is not initiated within this two year period, this determination will expire. The applicant will notify the Office of Coastal Management of the date on which initiation of the proposed activity began by entering a commencement date through the online system, or by mailing said information to OCM. Initiation does not include preparatory activities, such as movement of equipment onto the Coastal Use site, expenditure of funds, contracting out of work, or performing activities which by themselves do not require a permit. In addition, Permittee must, in good faith and with due diligence, reasonably progress toward completion of the project once the Coastal Use has been initiated.

This determination has been made on the basis of information provided by your application. If it is later established that you furnished erroneous data, you may be directed to alter or modify your plans, to remove structures you have installed, and/or to restore the work area to pre-project conditions at your own expense. If it is established that you knowingly furnished erroneous data, you could also be subject to legal action.

Permittee shall, prior to commencement of the herein permitted activities, contact Rhonda Braud (phone: 225-342-4553, email: rhonda.braud@la.gov) to determine if a construction permit will be required from the local levee district. This determination does not eliminate the need to obtain a permit from the United States Army, Corps of Engineers or any other Federal, state or local approval that may be required by law. The drawings submitted with your referenced application are attached hereto and made a part of the record. If you have any questions regarding this authorization, please contact our office (225) 342-7591 or (800) 267-4019.

******* End of Determination *******

By accepting this determination the applicant agrees to its terms and conditions.

I affix my signature and issue this determination this 27th day of August, 2014.

DEPARTMENT OF NATURAL RESOURCES

Karl L Mor

Karl L. Morgan, Administrator
Office of Coastal Management

This agreement becomes binding when signed by the Administrator of the Office of Coastal Management Permits/Mitigation Division, Department of Natural Resources.

Attachments

Final Plats:

1) P20141185 Final Plats 08/21/2014

cc: Martin Mayer, COE w/attachments
Dave Butler, LDWF w/attachments
Jessica Diez, OCM w/attachments
Craig Leblanc, OCM/FI w/attachments

ST. JOHN THE BAPTIST PARISH w/attachments

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, NEW ORLEANS DISTRICT
P.O. BOX 60267
NEW ORLEANS LA 70160-0267

FEB 2 3 2015

REPLY TO
ATTENTION OF

Operations Division
Surveillance and Enforcement Section

Mr. Stephen P. Breeding
Shread-Kuyrkendal & Associates, Inc.
13658 River Road
Destrehan, Louisiana 70047

Dear Mr. Breeding:

Reference is made to your application, on behalf of St. John the Baptist Parish Government, for a Department of the Army (DA) permit to conduct drainage improvements along Railroad Avenue in Reserve, Louisiana on property located in Sections 39, 40, 43, and 44, Township 11 South, Range 6 East, St. John the Baptist Parish, Louisiana.

Based on review of recent maps, aerial photography, soils data, and the information provided with your application, we have determined that the specific site of your project is not in a wetland subject to U.S. Army Corps of Engineers' jurisdiction. A DA permit under Section 404 of the Clean Water Act will not be required for the deposition or redistribution of dredged or fill material on this site. Therefore, we are returning your application. Any changes or modifications to the proposed project will require a revised determination.

You and your client are advised that this approved jurisdictional determination is valid for a period of 5 years from the date of this letter unless new information warrants revision prior to the expiration date or the District Commander has identified, after public notice and comment, that specific geographic areas with rapidly changing environmental conditions merit re-verification on a more frequent basis.

Should there be any questions concerning these matters, please contact Mr. Brandon Gaspard at (504) 862-1280 and reference our Account No. MVN 2014-02354-SE.

Sincerely,

for Martin S. Mayer
Chief, Regulatory Branch

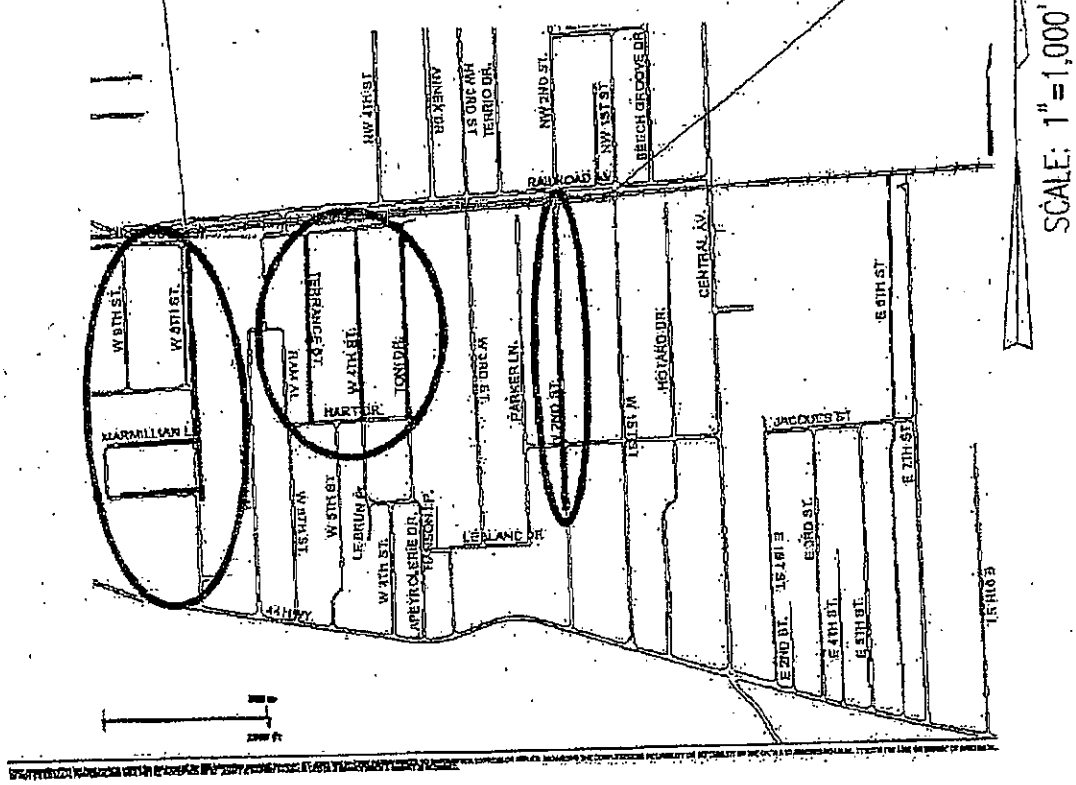
Enclosures

BEGIN PROJECT
LAT. 30 DEG. 03' 39"
LONG. 90 DEG. 33' 42"

RESERVE AREA
DRAINAGE IMPROVEMENTS

END PROJECT
LAT. 30 DEG. 03' 40"
LONG. 90 DEG. 33' 12"

ST. JOHN THE BAPTIST PARISH



As-built drawings will be submitted within 30

USACE
FSV / (JH) Date: 4 Feb 2015
Botanist: Gaspard
Requestor: Breedlove
MVN- 2014-02354-SE
☐ - NON-WETLAND

required.

DRAINAGE IMPROVEMENTS
W. 8TH STREET – 4785' OF PIPE
TERRANCE STREET – 1320' OF PIPE
W. 4TH STREET – 2200' OF PIPE
TONI STREET – 2200' OF PIPE
W. 2ND STREET – 3970' OF PIPE

Structures must also be marked/lighted in
ar ... ions.

In ... , the
pu ... Call
S ... 48
h ...
e ... or
demolition activity.

U.S. ARMY CORPS OF ENGINEERS
APPROVED
JURISDICTIONAL DETERMINATION

SHEET NO. 2	PROJECT NO. 8909.13P	DATE 7/31/14	PROJECT NAME: RESERVE AREA DRAINAGE IMPROVEMENTS ST. JOHN THE BAPTIST PARISH
			SHEET TITLE: PROJECT SITE

SHREAD-KUYRKENDALL & ASSOCIATES
ENGINEERS – SURVEYORS – PLANNERS
BATON ROUGE, LOUISIANA

DESIGNED BY: SPB	FILE NAME: DNR PERMIT	APPROVED BY: SPB
DRAWN BY: SPB	CHECKED BY: DM	

BY:

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

To view the unedited version of the form go to: http://www.mvn.usace.army.mil/regulatory/finalform.htm.

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 4 February 2015

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:New Orleans, Breeding, MVN 2014-02354-SE

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State: Louisiana County/parish/borough: St. John the Baptist City: Reserve
Center coordinates of site (lat/long in degree decimal format): Lat. 30.060990° N, Long. 90.557160° W.
Universal Transverse Mercator:
Name of nearest waterbody: Un-named roadside conveyance
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows:
Name of watershed or Hydrologic Unit Code (HUC): 08070204 - Lake Maurepas. LA
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☒ Office (Desk) Determination. Date: 3 February 2015
☐ Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There are no "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There are no "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

SECTION III: CWA ANALYSIS. Not Applicable

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:Application provided by consultant.
☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps:
☐ Corps navigable waters' study:
☒ U.S. Geological Survey Hydrologic Atlas:08070204 .
☐ USGS NHD data.
☒ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name: 1:24000 - Reserve.
☒ USDA Natural Resources Conservation Service Soil Survey. Citation:WSS [UL, CmA, GrA].
☐ National wetlands inventory map(s). Cite name:
☐ State/Local wetland inventory map(s):
☐ FEMA/FIRM maps:
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date):1998, 2004, 2010, 2013 .
or ☐ Other (Name & Date):
☐ Previous determination(s). File no. and date of response letter:
☐ Applicable/supporting case law:
☐ Applicable/supporting scientific literature:
☒ Other information (please specify): LIDAR, Abutting wetland deterimations.

B. ADDITIONAL COMMENTS TO SUPPORT JD: The entire project site consist of uplands.

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: St. John the Baptist Parish	File No.: MVN 2014-02354-SE	Date: FEB 2 3 2015

Attached is:		See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL	C
✓	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://usace.army.mil/inet/functions/cw/cecwo/reg or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

Mr. Rob Heffner
Chief, Surveillance and Enforcement Section
U.S. Army Corps of Engineers, New Orleans District
P.O. Box 60267
New Orleans, LA 70160-0267
504-862-1288

If you only have questions regarding the appeal process you may also contact the Division Engineer through:

Mr. Thomas McCabe
Administrative Appeals Review Officer
Mississippi Valley Division
P.O. Box 80 (1400 Walnut Street)
Vicksburg, MS 39181-0080
601-634-5820 FAX: 601-634-5816

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent.	Date:	Telephone number:

Coastal Protection and
Restoration Authority of Louisiana

State of Louisiana

August 29, 2014

BOBBY JINDAL
GOVERNOR

Pontchartrain Levee District
P. O. Box 426
Lutcher, LA 70071
Attention: Ms. Jerri Henderson

PERMIT REQUEST
FORM OF NO OBJECTION

This Letter of No Objection is not a regulatory permit and does not authorize the implementation of any project without documented approval from all appropriate regulatory authorities.

Permit Applicant: St. John the Baptist Parish Council

Date of Request 07-31-2014

Applicant's Request: Approval to complete a drainage improvement project, consisting of the removal and replacement of the existing roadside drainage and culverts, where:

1) the distance from the project to the MRL Centerline ranges from approximately 600 to 1,500 feet and beyond;

2) the maximum excavation depth is 13 feet below finished grade, as it applies to the depth of catch basins;

3) all existing drainage structures located within the improvement area will be removed and properly disposed of;

4) the removal and replacement of driveways and fences is limited to those necessary for proper installation of subsurface drainage;

5) residential gas and water service line connections will be lowered to clear the proposed drainage pipe by one foot (minimum), where necessary;

Request received 8-22-2014 via email.

Agent: Shread - Kuyrkendall & Associates, Inc.
SKA PROJECT NO.: 89091.13

Project Location: All work will take place on the protected side of the left-descending Mississippi River Levee, near River Mile 138 AHP, in Reserve, St. John the Baptist Parish, Louisiana.

CPRA Google Earth Coordinates_General Area:..... 30° 03' 29.910" , -90° 33' 28.820"

The above referenced request has been examined by Ms. Rhonda F. Braud (Flood Protection Supervisor), and no objection is proffered for this request, provided:

1. This Letter of No Objection is only for stated work within or in the vicinity of the Levee District right-of-way, and must be accomplished in accordance with the details set forth in the applicant's request and the conditions contained herein. Any changes to the limits or scope of the proposed work must be submitted for additional review. The Levee District must be contacted in writing prior to commencement and at the end of activities. The applicant is responsible for obtaining and providing copies of any permits or lease agreements necessary from the U.S. Army Corps of Engineers, the U.S. Coast Guard, the Louisiana State Land Office, the Louisiana Department of Transportation and Development, the Louisiana Department of Natural

Resources - Office of Coastal Management, the Louisiana Department of Wildlife and Fisheries, the Parish Government and/or any other applicable agencies, as well as documented approval from the area landowner(s) prior to the initiation of the work. The applicant is responsible for adhering to the provisions of any existing permits. The proposed work must not restrict the Levee District's maintenance operations, or any potential flood fight activities at the levee, nor shall it obstruct or impede drainage, or create areas of standing water on the levee batture. The applicant must employ and maintain suitable erosion protection measures at the project site to the satisfaction of the Levee District. The applicant or owner must immediately notify the Levee District of any seepage or sand boils that occur during high water conditions. All materials associated with the proposed work must be removed from the area upon completion of the project and the area must be returned to its original state of existence or better. Any damage done to the levee, floodwall or other flood control structure, revetment, or surrounding project area, resulting from the proposed work must be repaired or replaced by the applicant. Should any change in the location of the existing levee, river, floodwall, drainage canal, waterway, or generally prevailing conditions in the vicinity, or should any changes in the area be required in the future, in the public interest, the applicant shall make such changes in the project as necessary. Any required changes or repairs shall be at the applicant's expense.

2. That all subsurface work is performed and backfilled prior to the Mississippi River attaining or exceeding + 11.0 feet NGVD, on the Carrollton Gage at New Orleans, unless the applicant receives documented approval to the contrary from the U.S. Army Corps of Engineers-New Orleans District.

3. This letter of no objection is offered with no opinion or approval of the design or engineering feasibility of the work.

4. That adequate sized drainage structures are installed at all drainage channels, swales, or other drainage conduits impacted by the proposed work.

5. That the applicant is responsible for maintaining the existing level of flood protection at all times to the satisfaction of the Levee District.

Yours very truly,

Rhonda F. Braud

for Ignacio Harrouch, Operations Division Chief
Coastal Protection and Restoration Authority of Louisiana

13460/rfb/rd/gc

cc:

Sbreeding@Skaengr.Com
U.S. Army Corps Of Engineers-Levees
Office Of Coastal Management
Ms. Rhonda F. Braud

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P. O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

September 8, 2014

REPLY TO
ATTENTION OF

Operations Division
Operations Manager,
Completed Works

Mr. Steven C. Wilson - President
Board of Commissioners
Pontchartrain Levee District
Post Office Box 426
Lutcher, Louisiana 70071

Dear Mr. Wilson:

We have received a copy of a letter request, addressed to your Board, dated July 31, 2014, from Shread-Kuyrkendall & Associates, Inc., on behalf of St. John the Baptist Parish, concerning permission to perform drainage improvements on the protected side of the left descending Mississippi River levee, between second order levee stations 4640+00 and 4670+00, at Reserve, Louisiana, in St. John the Baptist Parish.

We have no objection to your Board's issuance of a permit for the proposed work provided:

a. The work is accomplished in accordance with the above referenced letter, drawings and accompanying maps.

b. All excavation work is performed and backfilled while the stage of the Mississippi River is below elevation +11.0 feet on the Carrollton gage, at New Orleans, Louisiana. Information concerning current river stages may be obtained on our website at www.mvn.usace.army.mil.

c. All open excavations need to be backfilled to natural ground prior to the river stage reaching +11.0 feet on the Carrolton gage, at New Orleans, Louisiana.

This letter of no objection is based upon engineering criteria, and no interpretation or comments regarding local laws, zoning, or ordinances concerning property rights, etc., have been made. Additionally, this letter of no objection does not obviate the applicant's requirement to obtain federal, state, or local permits required by law.

If you have any questions, please contact me or Albert Terry of my office at 504-862-2241 or 504-862-2311, respectively. Additionally, future correspondence concerning this project should reference our Letter of No Objection number 14-596. This will allow us to more easily locate records of previous correspondence, and thus provide a quicker response.

Please furnish this office a copy of your permit if the applicant's proposal is approved by your Board.

Sincerely,

Amy E. Powell

Amy E. Powell
Operations Manager, Completed Works

Copies Furnished:

CPRA, Baton Rouge, Attn: Glen Couvillion
CPRA, Baton Rouge, Attn: Rhonda Braud
Shread-Kuyrkendall & Associates, Inc.
Attn: Mr. Richard Shread, P.E., P.L.S.

ICR93418

LICENSE FOR UNDERGROUND PIPELINES, CABLES AND CONDUITS

THIS AGREEMENT made in duplicate this 19th of March, 2019, between ILLINOIS CENTRAL RAILROAD COMPANY, party of the first part, hereinafter called the Railroad, and

File P-11154

St. John The Baptist Parish
13658 River Road
Destrehan, LA. 70047

Party or parties of the second part, hereinafter called the Licensee,

WITNESSETH:

1. In consideration of a one time fee of $1.00 in hand paid by the Licensee to the Railroad, the receipt whereof is hereby acknowledged and the faithful performance by the Licensee of the covenants herein contained, the Railroad, insofar as it lawfully may, hereby grants to the Licensee license and permission to construct and maintain a 49.25" Steel Storm Drainage Gravity Line (see attachment) (whether one or more pipes, cables or conduits hereinafter referred to as the "pipeline") across, along and underneath the property of the Railroad at M.P. 421.58, Baton Rouge subdivision in Reserve, LA, said pipeline being more particularly shown upon the exhibits hereto attached and made a part hereof, subject to the following conditions and specifications:

2. The license and permission herein granted to Licensee are subject and subordinate; however, to the rights in Railroad, its successors and assigns, its grantees, lessees and licensees, to construct, reconstruct, operate, use, maintain, repair and renew on, beneath or above the property covered hereby, any structures, improvements or facilities of similar or different character as are now or in the future may be located on, beneath or above said properties.

3. Licensee shall, except in emergencies, give not less than 72 hours written notice to Railroad of the day, hour and location that it proposes to undertake any construction or maintenance work and in the event of an emergency shall notify Railroad as soon as possible.

Licensee shall require each of its contractors and subcontractors to observe and conform to the conditions and requirements specified herein; and for the purposes of the safety, protective and indemnification provisions hereof, such contractors and subcontractors, their agents, servants and employees, and other persons on the Railroad property at the invitation of the Licensee, its contractors or subcontractors, shall be deemed the agents or employees of the Licensee.

4. Licensee shall, at no expense to Railroad, obtain all permits and approvals required to exercise this license and Licensee shall install, maintain and operate its facilities in accordance with all requirements of lawful public authority. Licensee shall be responsible for any taxes, assessments and charges made against the pipeline or other of Licensee's facilities on Railroad's property or the operation of any of them.

5. The pipeline shall be installed at least 6 feet below the tracks of the Railroad, measured from base of rail to top of pipeline or, if no tracks are located on the property, at least 5 feet below natural ground. Said pipeline shall be constructed of such material and in such a manner as will assure the safety of Railroad. Railroad's authorized representative shall have the right, but not the duty, to require certain materials or procedures to be used or to supervise the construction, maintenance, restoration or other work on Railroad's property. If in the opinion of Railroad's authorized representative casing of the pipeline is required at the time of installation or at any time subsequent thereto, Licensee shall promptly arrange for such casing at its own risk and expense.

6. If, in the opinion of the authorized representative of Railroad the work to be done by the Licensee pursuant to this agreement will make necessary or desirable any change in the Railroad's facilities, or those of the Railroad's tenants or licensees, on the Railroad's property, the Railroad shall have the right, but not the duty, to make such changes, the expense thereof to be borne by the Licensee.

   Railroad shall have the right, but not the duty, to furnish flagging or other protection or to perform work to support its tracks or otherwise protect its property or facilities at any time, at Licensee's sole risk and expense.

7. Licensee agrees at any time, or from time to time, at its own risk and expense, upon request of the authorized representative of the Railroad, to make such change or changes as may be necessary in the opinion of said representative to accommodate any change or improvements which Railroad may desire to make in or upon its property. In case Licensee shall fail within thirty (30) days after notice from Railroad to make such change or changes, Railroad shall have the right, but not the duty, to make such change or changes, or remove Licensee's facilities from said property at the risk and expense of Licensee.

8. Licensee shall at its expense take such measures as may be necessary and adequate in connection with its property or the property of railroad to protect facilities of Railroad and those of others using Railroad's property from interference by induction, conduction, physical contact or otherwise attributable to the exercise by Licensee of the license granted to it.

   In the event Railroad advises Licensee to take any action to protect Railroad, its facilities or facilities on Railroad's property, Licensee shall promptly take the indicated action, including, but not limited to, stopping the operation of the pipeline. If Licensee fails to do so, Railroad shall have the right, but not the duty, to perform on behalf of Licensee at the sole risk and expense of Licensee.

9. In the event Railroad elects to renew, replace, repair or alter any tracks or other facilities or to construct new facilities or to make other use of the property covered by this license, and in connection therewith requires the removal of any facilities placed by Licensee on Railroad's property or should any facilities of Licensee need renewal or repair, Licensee shall, within 30 days of receipt of notice, arrange for such removal, renewal or repair at Licensee's risk and expense. In the event removal is required, the facilities shall be relocated at such location on Railroad's property as is designated by Railroad, provided that Railroad's authorized representative determines that a location is reasonably available. Renewal or repair shall be to such condition as is indicated by Railroad's authorized representative. If Licensee fails to comply with the foregoing, Railroad shall have the right, but not the duty, to remove, renew or repair such facilities at the sole risk and expense of Licensee.

10. Cost and expense for work performed by the Railroad pursuant to this agreement shall consist of the direct cost of labor and material plus Railroad's standard additives in effect at the time the work is performed. All payments required of Licensee under this agreement shall be made promptly upon presentation of a bill.

11. Licensee, as a further consideration and as a condition without which this license would not have been granted, agrees to indemnify and save harmless Railroad, its officers, employees and agents and to assume all risk, responsibility and liability for death of, or injury to, any persons, including, but not limited to, officers, employees, agents, patrons and licensees of the parties hereto, and for loss, damage or injury to any property, including but not limited to, that belonging to the parties hereto (together with all liability for any expense, attorneys' fees and costs incurred or sustained by the Railroad, whether in defense of any such claims, demands, actions and causes of action or in the enforcements of the indemnification rights hereby conferred) arising from, growing out of, or in any manner or degree directly or indirectly caused by, attributable to, or resulting from the grant or exercise of this license or the construction, maintenance, repair,

renewal, alteration, change, relocation, existence, presence, use, operation, or removal of any structure incident thereto, or from any activity conducted on or occurrence originating on the area covered by the license regardless of the negligence of Railroad, its officers, employees and agents. Licensee further agrees to release and indemnify and save harmless Railroad, its officers, employees, agents, patrons or invitees from all liability to Licensee, its officers, employees, agents or patrons, resulting from railroad operations at or near the area in which the license is to be granted whether or not the death, injury or damage resulting therefrom may be due to the negligence of the Railroad, its officers, employees or agents or otherwise. At the election of Railroad, the Licensee, upon receipt of notice to that effect, shall assume or join in the defense of any claim based upon allegations purporting to bring said claim within the coverage of this section.

12. Licensee shall secure, and maintain in place so long as this agreement is in effect, Commercial General Liability Insurance (Occurrence Form) in an amount not less than $5,000,000 per occurrence, with an aggregate of not less than $10,000,000 per annual period. The policy must name Railroad and its parent company, Canadian National Railway Company, as additional insured's in the following form:

    Illinois Central Railroad Company, and its Parent Corporation,
    Canadian National Railway Company
    17641 S Ashland Ave
    Homewood, Il 60430

    The policy must not contain any provisions excluding coverage for injury, loss or damage arising out of or resulting from (a) doing business on, near, or adjacent to railroad track or facilities, or (b) surface or subsurface pollution, contamination or seepage, or from handling, treatment, disposal or dumping of waste materials or substances. Before commencing work, Licensee shall deliver to Railroad a certificate of insurance evidencing the foregoing coverage's and true and complete copies of the policies described above. Each policy shall include a waiver by the insurer of any right of subrogation against any recovery by or on behalf of any insured. Each policy shall provide for not less than thirty days prior written notice to Railroad of cancellation of or any material change in that policy.

13. If a contractor is to be employed by the Licensee for the installation of Facilities pursuant to this License, then, Before commencing work, the contractor shall provide and maintain the following insurance, in form and amount and with companies satisfactory to, and as approved by, the RAILROAD.

    A. Statutory Workers' Compensation and Employer's Liability insurance.

B. Automobile Liability in an amount not less than $1,000,000 dollars combined single limit.

C. An Occurrence Form Railroad Protective Policy with limits of not less than $5,000,000 dollars per occurrence for Bodily Injury Liability, Property Damage Liability and Physical Damage to Property with $10,000,000 dollars aggregate for the term of the policy with respect of Bodily Injury Liability, Property Damage Liability and Physical Damage to Property. The Policy must name the appropriate RAILROAD as the insured, and shall provide for not less than ten (10) days prior written notice to the RAILROAD'S as cancellation of, or any material change in the policy.

14. It is expressly understood Railroad does not warrant title to the premises and Licensee accepts the grant of privileges contained herein subject to all lawful outstanding existing liens and superior rights. Licensee agrees it shall not have to make any claim against Railroad for damages on account of any deficiency in title and agrees that in the event of failure or insufficiency of such title the sole remedy of Licensee shall be the right to return of the consideration paid in advance, provided for herein, or a proportionate part thereof in the event of a partial deficiency or insufficiency of title. Licensee further agrees to indemnify and save harmless the Railroad and to assure all risk, responsibility and liability (including any expenses, attorneys' fees and costs incurred or sustained by Railroad) arising from, growing out of, or in any manner or degree directly or indirectly attributable to or resulting from any deficiency or insufficiency of its title affecting the right of the Railroad to make this grant.

15. This agreement shall continue in force indefinitely from and after the date hereof, subject, however, to the right of either party to terminate this agreement as to the entire pipeline and all of the facilities of Licensee, or any part thereof, at any time or from time to time, as it may require, upon giving the other party ninety (90) days notice in writing of its desire to terminate this agreement, and indicating in said notice the extent of said line and facilities to which such termination shall apply. When this agreement shall be terminated as to the entire line and all of the facilities of Licensee or as to any part thereof, Licensee within thirty (30) days after the expiration of the time stated in said notice, agrees at its own risk and expense to remove said facilities from the property of Railroad, or such portion thereof as Railroad shall require removed, and to restore the railroad premises to a neat and safe condition, and if Licensee shall fail to do so within said time, Railroad shall have the right, but not the duty, to remove and restore the same, at the risk and expense of Licensee. Nothing herein contained shall be construed as conferring any property right on Licensee.

16. In case Railroad shall at any time, or from time to time, require the removal of only a portion of said pipeline, this agreement shall continue in force and be applicable to the portion of portions of said pipeline and other facilities remaining from time to time until said entire pipeline has been removed and the rental shall be adjusted accordingly.

17. Nothing in this agreement shall be construed to place any responsibility on Railroad for the quality of the construction, maintenance or other work performed on behalf of Licensee hereunder or for the condition of any of Licensee's facilities.

    Any approval given or supervision exercised by Railroad hereunder, or failure of Railroad to object to any work done, material used or method of construction, reconstruction or maintenance, shall not be construed to relieve Licensee of its obligations under this Agreement.

18. This Agreement shall not be binding on either party hereto until all parties have executed the space provide below.

19. This agreement shall be binding on the successors and assigns of the parties hereto, but no assignment hereof by the Licensee, its successors, legal representatives or assigns, shall be binding upon the Railroad without its written consent in each instance.

    IN WITNESS WHEREOF, the parties hereto have caused these presents to be executed in duplicate, the day and year first above written.

ILLINOIS CENTRAL RAILROAD COMPANY

By: _____
Arthur L. Spiros - Senior Manager, Real Estate – Southern Region

ST. JOHN THE BAPTIST PARISH

By: Natalie Robottom Parish President
Name and Title

INITIAL NOTIFICATION OF INTENT TO CONSTRUCT UTILITY CROSSING/ENCROACHMENT

Complete this form and return it along with a non-refundable preparation fee of $1350 made out to CN.

Date: 8/31/18

1. Owner/Applicant Information

A. Name: St. John the Baptist Parish

B. Address: 1801 W. Airline Hwy., LaPlace, LA 70068

C. Authorized Representative: Daron Cooper

D. Title: Director of Public Works

E. Phone Number: 985-652-4815 F. Fax Number: n/a

G. Email Address: d.cooper@stjohn-la.gov

2. Engineer/Consultant Information

A. Name: Shread-Kuyrkendall & Associates, Inc.

B. Address: 104 Campus Drive, Suite 102, Destrehan, LA 70047

C. Authorized Representative: Steve Breeding

D. Title: Engineer

E. Phone Number: 985-764-4060 F. Fax Number: n/a

G. Email Address: sbreeding@skaengr.com

3. Location Description (Attach a Copy of a Sketch Showing Location)

A. N/A ¼ N/A ¼ Sec. 38, Township 11 S, Range 6 E

B. Nearest Public Road Crossing Name: River Road

C. Nearest Public Road Crossing DOT Number: L A 3 6 _ _ _

(Number on Blue Sign at Crossing, e.g. 123456L)

D. City / Village /Township: Reserve

(Circle One)

E. County: St. John the Baptist F. State: Louisiana

G. Utility Location – Railroad Mile Post: 421.49 plus 575 ft

(Start Railroad Mile Post of Segment if Longitudinal)

H. Utility Location – Railroad Mile Post: _____ plus _____ ft

(End Railroad Mile Post of Segment if Longitudinal)

I. Latitude: 3 0 . 0 6 0 7 3 1 °, Longitude: 9 0 . 5 6 1 7 4 7 °

Steven P. Breeding	[signature]	985-764-4060	11/17/18
Name of Submitter	Signature	Telephone #	Date

INITIAL NOTIFICATION OF INTENT TO CONSTRUCT UTILITY CROSSING/ENCROACHMENT
WIRE/FIBER/CABLE CONSTRUCTION INFORMATION

4. Indicate Type of Utility/Facility

A. Power Line _____
B. Telephone
- Fiber Optic _____
- Copper Pair _____

C. Cable TV
- Fiber Optic _____
- Coaxial _____

D. Other Drainage

5. Desired Method of Installation/Construction

A. Underground Dry Bore
B. Overhead _____
C. Crossing _____
D. Longitudinal _____
E. Copper Pairs
- # of Wires _____

F. Fiber Optic
- # of Strands _____

G. Other _____

6. Wire/Cable Data

A. Number of Poles/Towers on Property N/A
B. Number of Guys/Anchors on Property _____
C. Cross arm Overhang _____ ft
D. Maximum Voltage _____
E. Number of Wires/Cables/Pairs/Strands (circle one) _____
F. Depth of Top of Wire/Cable/Casing below base of Rail or Top of Ground _____ ft
G. Clearance Over Railroad Company's Wires _____ ft
H. Clearance Over Railroad Company's Tracks _____ ft
I. Casing Length (Property Line to Property Line) _____ ft
J. Size & Kind of Pipe or Duct _____
K. Method: How is Pipe or Duct to be installed under the track _____
(dry bore & jack, directional, tunnel, other – specify)
L. Size and Type of Wire/Cable _____
M. Insulated _____
N. Bare/Open Wire _____
O. Stranded _____
P. Solid _____
Q. Angle of Crossing _____
R. Length of Span Crossing Tracks (unsupported length if above tracks) _____ ft

7. Location References and Clearances of Facility (Encroachment)

A. Width of Public Road (crossing track) N/A
B. Distance From Each Facility (Encroachment) to Center Line of Main Track 35 ft
C. Distance From Each Facility (Encroachment) to Center Line of any Adjacent Track 35 ft
D. Side Clearance from Railroad Company's Wire to Nearest Pole/Tower N/A ft
E. Distance and Direction From Bridge Abutment, Culvert, Switch, Road Crossing, etc. N/A ft

Steven P. Breeding		985-764-4060	11/14/18
Name of Submitter	Signature	Telephone #	Date

INITIAL NOTIFICATION OF INTENT TO CONSTRUCT PIPE CROSSING/ENCROACHMENT
PIPE CONSTRUCTION INFORMATION

8. **Commodity to be transmitted in pipe:** Drainage Water
(Steam, air, water, gasoline or other petroleum products, chemical-specify: natural or artificial gas. If sewer, identify as to force or gravity line, sanitary, storm or chemical waste – specify)

9. **Pipe Data**

	CARRIER PIPE	CASING PIPE
A. Inside Diameter:	48	
B. Outside Diameter:	49.25	
C. Wall Thickness:	0.625	
D. Pipe Material:	Steel	
E. Specification/Grade or class:	A36	
F. Min. Yield Point of Material	36ksi	
G. Process of Manufacture		
H. Name of Manufacturer		
I. Type of Joint	Welded	
J. Working Pressure	Atmosphere	

K. Maximum operating pressure (by gauge) Open Air psi

L. Length of Casing pipe: 75 ft

M. Casing pipe/uncased carrier pipe cathodically protected? Y / N

N. Hydrostatic pressure carrier pipe test pressure N/A psi

O. Will casing pipe be vented? Y / N

P. Pipe Vent Size: N/A in

Q. Will casing pipe/uncased carrier pipe have a protective coating? Y / N

R. Protective Coating Type coal Tar (in/out)

S. Depth of top of casing or uncased carrier pipe below base of rail or top of ground. 6 ft
(Closest point of utility to any base of rail or ground)

T. Method of installing casing pipe /uncased carrier pipe Dry Bore
(Dry bore & jack, directional, tunnel, other – specify)

U. Depth of pipe below the ground. (not beneath tracks) 5 ft

V. Depth of pipe below ditches. N/A ft

W. Distance from centerline of track to face of jacking/receiving pits. 30 ft

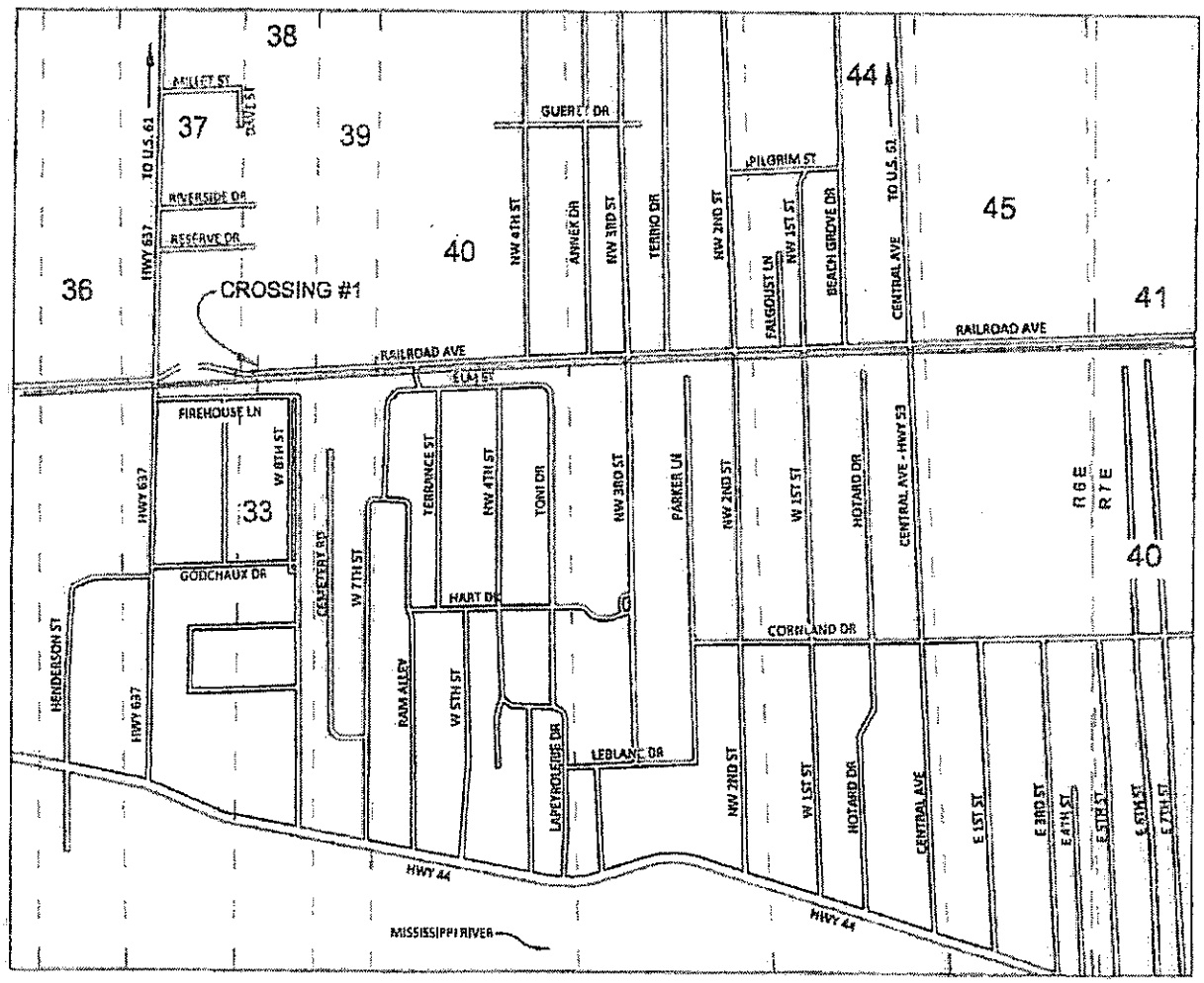
X. Depth from base of rail to bottom of jacking /receiving pits. 9 ft

Steven P. Breading — Name of Submitter
Signature
985-764-4060 — Telephone #
11/19/18 — Date

Revised: 3/29/2018

RAILROAD DRAINAGE CROSSING NUMBER 1

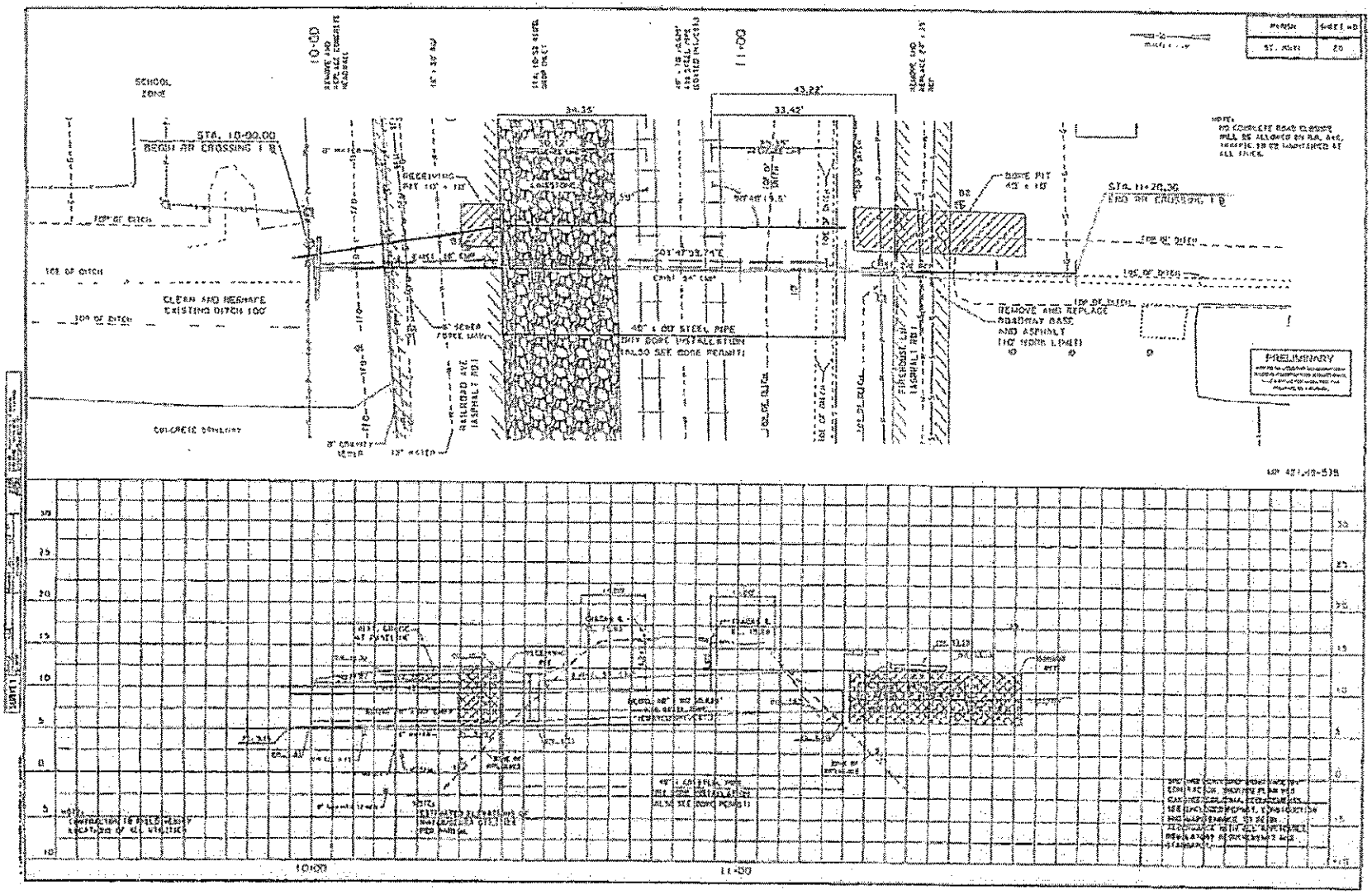
LOCATED IN RESERVE, LOUISIANA
T11S, R6E, SEC. 33
SOUTHEASTERN WEST OF THE MISSISSIPPI
RIVER LAND DISTRICT



SITE LOCATION FOR DRAINAGE CROSSING NUMBER 1

SHREAD – KUYKENDALL & ASSOC.
ENGINEERS – SURVEYORS – PLANNERS
BATON ROUGE, LOUISIANA

DESIGNED	DRAWN	CHECKED	APPROVED
A.D.S.	E.D.C.	R.P.H.	


SCHOOL ZONE
STA. 10+00.00
BEGIN RR CROSSING 1 B
CLEAN AND RESHAPE EXISTING DITCH 100'
CONCRETE DRIVEWAY
RAILROAD AVE (ASPHALT RD)
48" x 60' STEEL PIPE DRY BORE INSTALLATION (ALSO SEE BORE PERMIT)
STA. 11+20.30
END RR CROSSING 1 B
REMOVE AND REPLACE ROADWAY BASE AND ASPHALT (10' WORK LIMIT)
PRELIMINARY
10+00
11+00

CN System Engineering

Josh Gordon
Design and Construction
Field Engineer
2151 North Mill St
Jackson, MS 39202
T 601-914-2655

November 10, 2017

Daron Cooper
Director of Public Works
St. John the Baptist Parish
1801 W. Airline Hwy
LaPlace, LA 70068

Subject: P-11154: Illinois Central Railroad Company, BATON ROUGE Subdivision, MP 421.58 - 421.58
P-11154 is the review number for License see notes below.

CN Engineering Design & Construction has reviewed the request for 48" Steel culvert crossing. There are no engineering objections provided the following occurs:

1.) CN Utility Locate Required.

2.) CN's operations are not to be impaired or effected by any of the described work.

3.) A flagman, railroad representative is to be present during any and all work on, over, under or near railroad property.

4.) All employees of contractors not hired by CN that will work on, over, under or near CN property are required to have, at a minimum, safety certification with www.contractororientation.com and the railroad representative will be responsible for verifying and documenting said certifications.

5.) Installer must monitor top of rail elevations via daily surveying for borings greater than 6 in. in size and that occur under CN tracks. A log of top of rail elevations may be requested at any time throughout the duration work.

6.) Contractor to follow the geotech report. Geotech of record should be on site during the installation of the culvert.

7.) once the bore has begun the contractor to not stop the bore until the culvert has been fully installed.

8.) Monitoring of the track shall be done before and after each train.

CN System Engineering

Josh Gordon
Design and Construction
Field Engineer
2151 North Mill St
Jackson, MS 39202
T 601-914-2655

Sincerely,

Josh Gordon
CN Field Engineer

ICR93419

LICENSE FOR UNDERGROUND PIPELINES, CABLES AND CONDUITS

THIS AGREEMENT made in duplicate this 19th of March, 2019, between ILLINOIS CENTRAL RAILROAD COMPANY, party of the first part, hereinafter called the Railroad, and

File P-11155

St. John The Baptist Parish
13658 River Road
Destrehan, LA. 70047

Party or parties of the second part, hereinafter called the Licensee,

WITNESSETH:

1. In consideration of a one time fee of $1.00 in hand paid by the Licensee to the Railroad, the receipt whereof is hereby acknowledged and the faithful performance by the Licensee of the covenants herein contained, the Railroad, insofar as it lawfully may, hereby grants to the Licensee license and permission to construct and maintain a 37" Steel Storm Drainage Gravity Line (see attachment) (whether one or more pipes, cables or conduits hereinafter referred to as the "pipeline") across, along and underneath the property of the Railroad at M.P. 421.95, Baton Rouge subdivision in Reserve, LA, said pipeline being more particularly shown upon the exhibits hereto attached and made a part hereof, subject to the following conditions and specifications:

2. The license and permission herein granted to Licensee are subject and subordinate; however, to the rights in Railroad, its successors and assigns, its grantees, lessees and licensees, to construct, reconstruct, operate, use, maintain, repair and renew on, beneath or above the property covered hereby, any structures, improvements or facilities of similar or different character as are now or in the future may be located on, beneath or above said properties.

3. Licensee shall, except in emergencies, give not less than 72 hours written notice to Railroad of the day, hour and location that it proposes to undertake any construction or maintenance work and in the event of an emergency shall notify Railroad as soon as possible.

Licensee shall require each of its contractors and subcontractors to observe and conform to the conditions and requirements specified herein; and for the purposes of the safety, protective and indemnification provisions hereof, such contractors and subcontractors, their agents, servants and employees, and other persons on the Railroad property at the invitation of the Licensee, its contractors or subcontractors, shall be deemed the agents or employees of the Licensee.

4. Licensee shall, at no expense to Railroad, obtain all permits and approvals required to exercise this license and Licensee shall install, maintain and operate its facilities in accordance with all requirements of lawful public authority. Licensee shall be responsible for any taxes, assessments and charges made against the pipeline or other of Licensee's facilities on Railroad's property or the operation of any of them.

5. The pipeline shall be installed at least 6 feet below the tracks of the Railroad, measured from base of rail to top of pipeline or, if no tracks are located on the property, at least 5 feet below natural ground. Said pipeline shall be constructed of such material and in such a manner as will assure the safety of Railroad. Railroad's authorized representative shall have the right, but not the duty, to require certain materials or procedures to be used or to supervise the construction, maintenance, restoration or other work on Railroad's property. If in the opinion of Railroad's authorized representative casing of the pipeline is required at the time of installation or at any time subsequent thereto, Licensee shall promptly arrange for such casing at its own risk and expense.

6. If, in the opinion of the authorized representative of Railroad the work to be done by the Licensee pursuant to this agreement will make necessary or desirable any change in the Railroad's facilities, or those of the Railroad's tenants or licensees, on the Railroad's property, the Railroad shall have the right, but not the duty, to make such changes, the expense thereof to be borne by the Licensee.

   Railroad shall have the right, but not the duty, to furnish flagging or other protection or to perform work to support its tracks or otherwise protect its property or facilities at any time, at Licensee's sole risk and expense.

7. Licensee agrees at any time, or from time to time, at its own risk and expense, upon request of the authorized representative of the Railroad, to make such change or changes as may be necessary in the opinion of said representative to accommodate any change or improvements which Railroad may desire to make in or upon its property. In case Licensee shall fail within thirty (30) days after notice from Railroad to make such change or changes, Railroad shall have the right, but not the duty, to make such change or changes, or remove Licensee's facilities from said property at the risk and expense of Licensee.

8. Licensee shall at its expense take such measures as may be necessary and adequate in connection with its property or the property of railroad to protect facilities of Railroad and those of others using Railroad's property from interference by induction, conduction, physical contact or otherwise attributable to the exercise by Licensee of the license granted to it.

   In the event Railroad advises Licensee to take any action to protect Railroad, its facilities or facilities on Railroad's property, Licensee shall promptly take the indicated action, including, but not limited to, stopping the operation of the pipeline. If Licensee fails to do so, Railroad shall have the right, but not the duty, to perform on behalf of Licensee at the sole risk and expense of Licensee.

9. In the event Railroad elects to renew, replace, repair or alter any tracks or other facilities or to construct new facilities or to make other use of the property covered by this license, and in connection therewith requires the removal of any facilities placed by Licensee on Railroad's property or should any facilities of Licensee need renewal or repair, Licensee shall, within 30 days of receipt of notice, arrange for such removal, renewal or repair at Licensee's risk and expense. In the event removal is required, the facilities shall be relocated at such location on Railroad's property as is designated by Railroad, provided that Railroad's authorized representative determines that a location is reasonably available. Renewal or repair shall be to such condition as is indicated by Railroad's authorized representative. If Licensee fails to comply with the foregoing, Railroad shall have the right, but not the duty, to remove, renew or repair such facilities at the sole risk and expense of Licensee.

10. Cost and expense for work performed by the Railroad pursuant to this agreement shall consist of the direct cost of labor and material plus Railroad's standard additives in effect at the time the work is performed. All payments required of Licensee under this agreement shall be made promptly upon presentation of a bill.

11. Licensee, as a further consideration and as a condition without which this license would not have been granted, agrees to indemnify and save harmless Railroad, its officers, employees and agents and to assume all risk, responsibility and liability for death of, or injury to, any persons, including, but not limited to, officers, employees, agents, patrons and licensees of the parties hereto, and for loss, damage or injury to any property, including but not limited to, that belonging to the parties hereto (together with all liability for any expense, attorneys' fees and costs incurred or sustained by the Railroad, whether in defense of any such claims, demands, actions and causes of action or in the enforcements of the indemnification rights hereby conferred) arising from, growing out of, or in any manner or degree directly or indirectly caused by, attributable to, or resulting from the grant or exercise of this license or the construction, maintenance, repair,

renewal, alteration, change, relocation, existence, presence, use, operation, or removal of any structure incident thereto, or from any activity conducted on or occurrence originating on the area covered by the license regardless of the negligence of Railroad, its officers, employees and agents. Licensee further agrees to release and indemnify and save harmless Railroad, its officers, employees, agents, patrons or invitees from all liability to Licensee, its officers, employees, agents or patrons, resulting from railroad operations at or near the area in which the license is to be granted whether or not the death, injury or damage resulting therefrom may be due to the negligence of the Railroad, its officers, employees or agents or otherwise. At the election of Railroad, the Licensee, upon receipt of notice to that effect, shall assume or join in the defense of any claim based upon allegations purporting to bring said claim within the coverage of this section.

12. Licensee shall secure, and maintain in place so long as this agreement is in effect, Commercial General Liability Insurance (Occurrence Form) in an amount not less than $5,000,000 per occurrence, with an aggregate of not less than $10,000,000 per annual period. The policy must name Railroad and its parent company, Canadian National Railway Company, as additional insured's in the following form:

    Illinois Central Railroad Company, and its Parent Corporation,
    Canadian National Railway Company
    17641 S Ashland Ave
    Homewood, Il 60430

    The policy must not contain any provisions excluding coverage for injury, loss or damage arising out of or resulting from (a) doing business on, near, or adjacent to railroad track or facilities, or (b) surface or subsurface pollution, contamination or seepage, or from handling, treatment, disposal or dumping of waste materials or substances. Before commencing work, Licensee shall deliver to Railroad a certificate of insurance evidencing the foregoing coverage's and true and complete copies of the policies described above. Each policy shall include a waiver by the insurer of any right of subrogation against any recovery by or on behalf of any insured. Each policy shall provide for not less than thirty days prior written notice to Railroad of cancellation of or any material change in that policy.

13. If a contractor is to be employed by the Licensee for the installation of Facilities pursuant to this License, then, Before commencing work, the contractor shall provide and maintain the following insurance, in form and amount and with companies satisfactory to, and as approved by, the RAILROAD.

    A. Statutory Workers' Compensation and Employer's Liability insurance.

B. Automobile Liability in an amount not less than $1,000,000 dollars combined single limit.

C. An Occurrence Form Railroad Protective Policy with limits of not less than $5,000,000 dollars per occurrence for Bodily Injury Liability, Property Damage Liability and Physical Damage to Property with $10,000,000 dollars aggregate for the term of the policy with respect of Bodily Injury Liability, Property Damage Liability and Physical Damage to Property. The Policy must name the appropriate RAILROAD as the insured, and shall provide for not less than ten (10) days prior written notice to the RAILROAD'S as cancellation of, or any material change in the policy.

14. It is expressly understood Railroad does not warrant title to the premises and Licensee accepts the grant of privileges contained herein subject to all lawful outstanding existing liens and superior rights. Licensee agrees it shall not have to make any claim against Railroad for damages on account of any deficiency in title and agrees that in the event of failure or insufficiency of such title the sole remedy of Licensee shall be the right to return of the consideration paid in advance, provided for herein, or a proportionate part thereof in the event of a partial deficiency or insufficiency of title. Licensee further agrees to indemnify and save harmless the Railroad and to assure all risk, responsibility and liability (including any expenses, attorneys' fees and costs incurred or sustained by Railroad) arising from, growing out of, or in any manner or degree directly or indirectly attributable to or resulting from any deficiency or insufficiency of its title affecting the right of the Railroad to make this grant.

15. This agreement shall continue in force indefinitely from and after the date hereof, subject, however, to the right of either party to terminate this agreement as to the entire pipeline and all of the facilities of Licensee, or any part thereof, at any time or from time to time, as it may require, upon giving the other party ninety (90) days notice in writing of its desire to terminate this agreement, and indicating in said notice the extent of said line and facilities to which such termination shall apply. When this agreement shall be terminated as to the entire line and all of the facilities of Licensee or as to any part thereof, Licensee within thirty (30) days after the expiration of the time stated in said notice, agrees at its own risk and expense to remove said facilities from the property of Railroad, or such portion thereof as Railroad shall require removed, and to restore the railroad premises to a neat and safe condition, and if Licensee shall fail to do so within said time, Railroad shall have the right, but not the duty, to remove and restore the same, at the risk and expense of Licensee. Nothing herein contained shall be construed as conferring any property right on Licensee.

16. In case Railroad shall at any time, or from time to time, require the removal of only a portion of said pipeline, this agreement shall continue in force and be applicable to the portion of portions of said pipeline and other facilities remaining from time to time until said entire pipeline has been removed and the rental shall be adjusted accordingly.

17. Nothing in this agreement shall be construed to place any responsibility on Railroad for the quality of the construction, maintenance or other work performed on behalf of Licensee hereunder or for the condition of any of Licensee's facilities.

    Any approval given or supervision exercised by Railroad hereunder, or failure of Railroad to object to any work done, material used or method of construction, reconstruction or maintenance, shall not be construed to relieve Licensee of its obligations under this Agreement.

18. This Agreement shall not be binding on either party hereto until all parties have executed the space provide below.

19. This agreement shall be binding on the successors and assigns of the parties hereto, but no assignment hereof by the Licensee, its successors, legal representatives or assigns, shall be binding upon the Railroad without its written consent in each instance.

    IN WITNESS WHEREOF, the parties hereto have caused these presents to be executed in duplicate, the day and year first above written.

ILLINOIS CENTRAL RAILROAD COMPANY

By: _____
Arthur L. Spiros - Senior Manager, Real Estate – Southern Region

ST. JOHN THE BAPTIST PARISH

By: Natalie Robottom Parish President
Name and Title

INITIAL NOTIFICATION OF INTENT TO CONSTRUCT UTILITY CROSSING/ENCROACHMENT

Complete this form and return it along with a non-refundable preparation fee of $1350 made out to CN.

Date: 8/1/18

1. Owner/Applicant Information

A. Name: St. John the Baptist Parish

B. Address: 1801 W. Airline Hwy., LaPlace, LA 70068

C. Authorized Representative: Daron Cooper

D. Title: Director of Public Works

E. Phone Number: 985-652-4815 F. Fax Number: n/a

G. Email Address: d.cooper@stjohn-la.gov

2. Engineer/Consultant Information

A. Name: Shread-Kuyrkendall & Associates, Inc.

B. Address: 104 Campus Drive, Suite 102, Destrehan, LA 70047

C. Authorized Representative: Steve Breeding

D. Title: Engineer

E. Phone Number: 985-764-4060 F. Fax Number: n/a

G. Email Address: sbreeding@skaengr.com

3. Location Description (Attach a Copy of a Sketch Showing Location)

A. N/A ¼ N/A ¼ Sec. 41, Township 11 S, Range 6 E

B. Nearest Public Road Crossing Name: River Road

C. Nearest Public Road Crossing DOT Number: L A 3 6 _ _ _

(Number on Blue Sign at Crossing, e.g. 123456L)

D. City / Village /Township: Reserve

(Circle One)

E. County: St. John the Baptist F. State: Louisiana

G. Utility Location – Railroad Mile Post: 421.49 plus 2467 ft

(Start Railroad Mile Post of Segment if Longitudinal)

H. Utility Location – Railroad Mile Post: _____ plus _____ ft

(End Railroad Mile Post of Segment if Longitudinal)

I. Latitude: 3 0 . 0 6 1 0 4 7 °, Longitude: 9 0 . 5 5 6 4 7 5 °

Steven P. Breeding		985-764-4060	11/19/18
Name of Submitter	Signature	Telephone #	Date

Revised: 3/29/2018

INITIAL NOTIFICATION OF INTENT TO CONSTRUCT UTILITY CROSSING/ENCROACHMENT
WIRE/FIBER/CABLE CONSTRUCTION INFORMATION

4. Indicate Type of Utility/Facility

A. Power Line _____
B. Telephone
- Fiber Optic _____
- Copper Pair _____

C. Cable TV
- Fiber Optic _____
- Coaxial _____

D. Other Drainage

5. Desired Method of Installation/Construction

A. Underground Dry Bore
B. Overhead _____
C. Crossing _____
D. Longitudinal _____
E. Copper Pairs
- # of Wires _____

F. Fiber Optic
- # of Strands _____

G. Other _____

6. Wire/Cable Data

A. Number of Poles/Towers on Property N/A
B. Number of Guys/Anchors on Property _____
C. Cross arm Overhang _____ ft
D. Maximum Voltage _____
E. Number of Wires/Cables/Pairs/Strands (circle one) _____
F. Depth of Top of Wire/Cable/Casing below base of Rail or Top of Ground _____ ft
G. Clearance Over Railroad Company's Wires _____ ft
H. Clearance Over Railroad Company's Tracks _____ ft
I. Casing Length (Property Line to Property Line) _____ ft
J. Size & Kind of Pipe or Duct _____
K. Method: How is Pipe or Duct to be installed under the track _____
(dry bore & jack, directional, tunnel, other – specify)
L. Size and Type of Wire/Cable _____
M. Insulated _____
N. Bare/Open Wire _____
O. Stranded _____
P. Solid _____
Q. Angle of Crossing _____
R. Length of Span Crossing Tracks (unsupported length if above tracks) _____ ft

7. Location References and Clearances of Facility (Encroachment)

A. Width of Public Road (crossing track) N/A
B. Distance From Each Facility (Encroachment) to Center Line of Main Track 35 ft
C. Distance From Each Facility (Encroachment) to Center Line of any Adjacent Track 35 ft
D. Side Clearance from Railroad Company's Wire to Nearest Pole/Tower N/A ft
E. Distance and Direction From Bridge Abutment, Culvert, Switch, Road Crossing, etc. N/A ft

Steven P. Breeding	[signature]	985-704-4060	11/19/18
Name of Submitter	Signature	Telephone #	Date

Revised: 3/29/2018

INITIAL NOTIFICATION OF INTENT TO CONSTRUCT PIPE CROSSING/ENCROACHMENT
PIPE CONSTRUCTION INFORMATION

8. **Commodity to be transmitted in pipe:** Drainage Water
(Steam, air, water, gasoline or other petroleum products, chemical-specify: natural or artificial gas. If sewer, identify as to force or gravity line, sanitary, storm or chemical waste – specify)

9. **Pipe Data**

	CARRIER PIPE	CASING PIPE
A. Inside Diameter:	36	
B. Outside Diameter:	37	
C. Wall Thickness:	0.500	
D. Pipe Material:	Steel	
E. Specification/Grade or class:	A36	
F. Min. Yield Point of Material	36ksi	
G. Process of Manufacture		
H. Name of Manufacturer		
I. Type of Joint	Welded	
J. Working Pressure	Atmosphere	

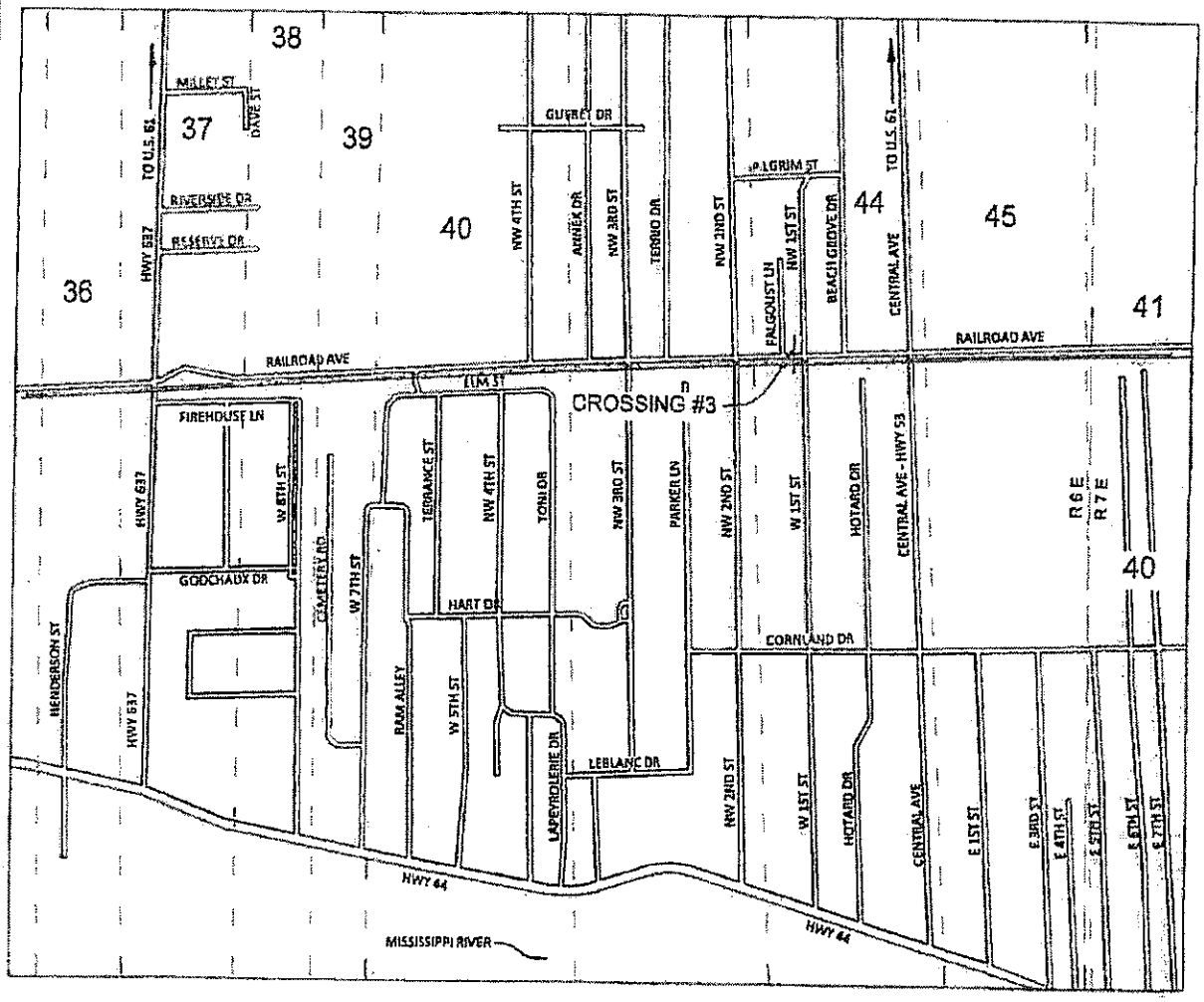
K. Maximum operating pressure (by gauge)	Open Air psi
L. Length of Casing pipe:	80 ft
M. Casing pipe/uncased carrier pipe cathodically protected?	Y / N
N. Hydrostatic pressure carrier pipe test pressure	N/A psi
O. Will casing pipe be vented?	Y / N
P. Pipe Vent Size:	N/A in
Q. Will casing pipe/uncased carrier pipe have a protective coating?	Y / N
R. Protective Coating Type	coal Tar (in/out)
S. Depth of top of casing or uncased carrier pipe below base of rail or top of ground. (Closest point of utility to any base of rail or ground)	6 ft
T. Method of installing casing pipe /uncased carrier pipe *(Dry bore & jack, directional, tunnel, other – specify)*	Dry Bore
U. Depth of pipe below the ground. (not beneath tracks)	5 ft
V. Depth of pipe below ditches.	N/A ft
W. Distance from centerline of track to face of jacking/receiving pits.	34 ft
X. Depth from base of rail to bottom of jacking /receiving pits.	9 ft

Steven P. Breeding — Name of Submitter
[signature] — Signature
935-764-4060 — Telephone #
11/19/18 — Date

Revised: 3/29/2018

RAILROAD DRAINAGE CROSSING NUMBER 3

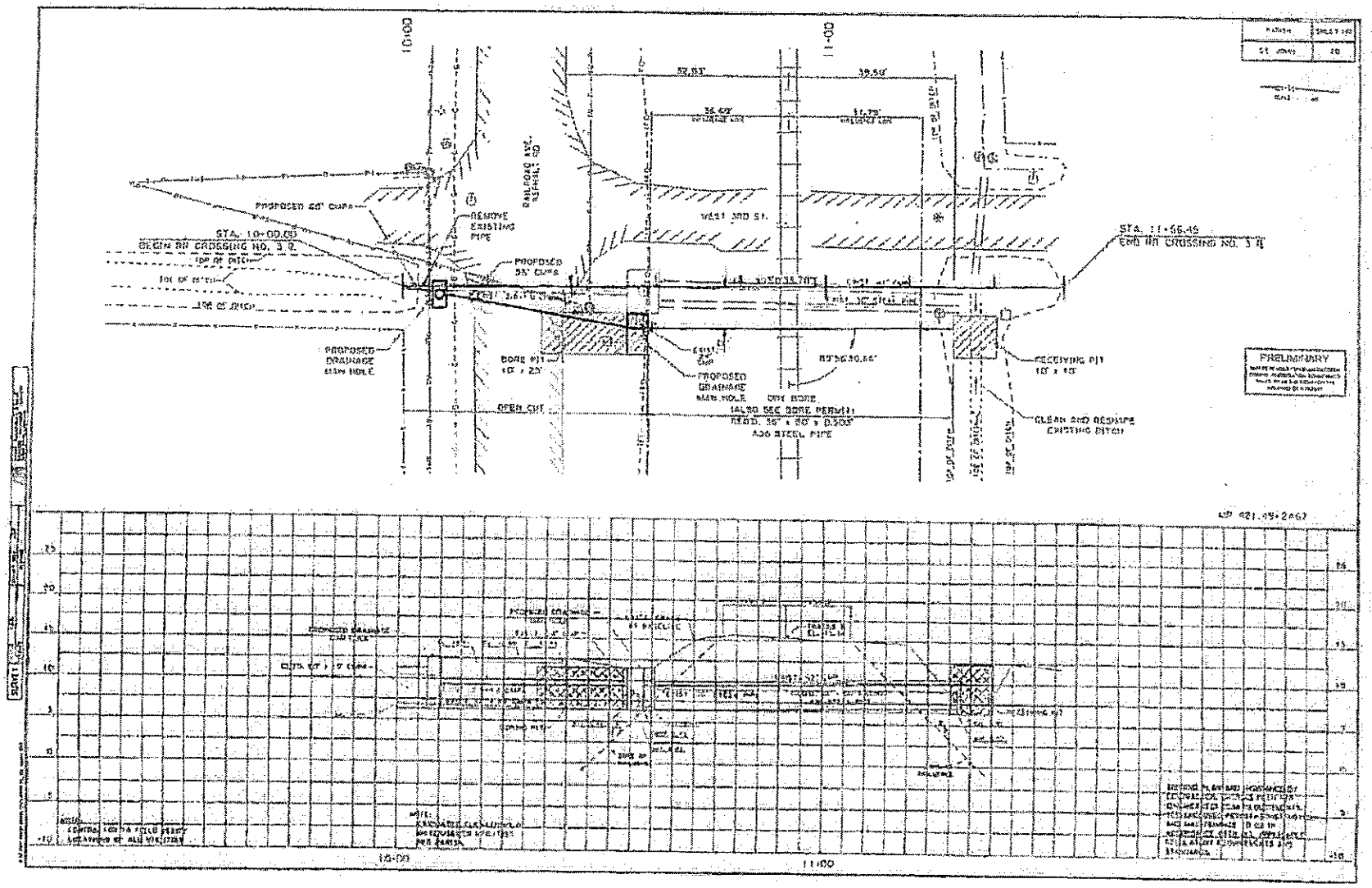
LOCATED RESERVE, LOUISIANA
IN T11S, R6E, SEC. 44
SOUTHEASTERN WEST OF THE MISSISSIPPI
RIVER LAND DISTRICT



SITE LOCATION FOR DRAINAGE CROSSING NUMBER 3

SHREAD – KUYRKENDALL & ASSOC.
ENGINEERS – SURVEYORS – PLANNERS
BATON ROUGE, LOUISIANA

DESIGNED	DRAWN	CHECKED	APPROVED
A.D.S.	E.D.S.	R.W.K.	



10+00
11+00
PROPOSED 60" CMPA
STA. 10+00.00
BEGIN RR CROSSING NO. 3 ℄
REMOVE EXISTING PIPE
PROPOSED 55" CMPA
RAILROAD AVE. ASPHALT RD
WEST 3RD ST.
STA. 11+56.45
END RR CROSSING NO. 3 ℄
PROPOSED DRAINAGE MAN HOLE
BORE PIT 10' x 25'
PROPOSED DRAINAGE MAN HOLE
DRY BORE
(ALSO SEE BORE PERMIT)
A36 STEEL PIPE
OPEN CUT
RECEIVING PIT 10' x 10'
CLEAN AND RESHAPE EXISTING DITCH
PRELIMINARY

CN System Engineering

Josh Gordon
Design and Construction
Field Engineer
2151 North Mill St
Jackson, MS 39202
T 601-914-2655

November 10, 2017

Daron Cooper
Director of Public Works
St. John the Baptist Parish
1801 W. Airline Hwy
LaPlace, LA 70068

Subject: P-11155: Illinois Central Railroad Company, BATON ROUGE Subdivision, MP 421.95 - 421.95
P-11155 is the review number for License

CN Engineering Design & Construction has reviewed the request for 36" Steel Cuvert Crossing. There are no engineering objections provided the following occurs:

1.) CN Utility Locate Required.

2.) CN's operations are not to be impaired or effected by any of the described work.

3.) A flagman, railroad representative is to be present during any and all work on, over, under or near railroad property.

4.) All employees of contractors not hired by CN that will work on, over, under or near CN property are required to have, at a minimum, safety certification with www.contractororientation.com and the railroad representative will be responsible for verifying and documenting said certifications.

5.) Installer must monitor top of rail elevations via daily surveying for borings greater than 6 in. in size and that occur under CN tracks. A log of top of rail elevations may be requested at any time throughout the duration work.

6.) Once the boring has begun, the installation is to not stop until the culvert is fully installed and in place to design. Geotech engineer to be on site during installation. Monitoring for settlement of the tracks to take place before and after each train. Auger to not extend past the casing/culvert to prevent voids being formed underneath the tracks. Flagman not to be release until sign off from CN Field Engineer.

Sincerely,

CN System Engineering

Josh Gordon
Design and Construction
Field Engineer
2151 North Mill St
Jackson, MS 39202
T 601-914-2655

Josh Gordon
CN Field Engineer

ICR93420

LICENSE FOR UNDERGROUND PIPELINES, CABLES AND CONDUITS

THIS AGREEMENT made in duplicate this 19th of March, 2019, between ILLINOIS CENTRAL RAILROAD COMPANY, party of the first part, hereinafter called the Railroad, and

File P-11156

St. John The Baptist Parish
13658 River Road
Destrehan, LA. 70047

Party or parties of the second part, hereinafter called the Licensee,

WITNESSETH:

1. In consideration of a one time fee of $1.00 in hand paid by the Licensee to the Railroad, the receipt whereof is hereby acknowledged and the faithful performance by the Licensee of the covenants herein contained, the Railroad, insofar as it lawfully may, hereby grants to the Licensee license and permission to construct and maintain a 37" Steel Storm Drainage Gravity Line (see attachment) (whether one or more pipes, cables or conduits hereinafter referred to as the "pipeline") across, along and underneath the property of the Railroad at M.P. 421.80, Baton Rouge subdivision in Reserve, LA, said pipeline being more particularly shown upon the exhibits hereto attached and made a part hereof, subject to the following conditions and specifications:

2. The license and permission herein granted to Licensee are subject and subordinate; however, to the rights in Railroad, its successors and assigns, its grantees, lessees and licensees, to construct, reconstruct, operate, use, maintain, repair and renew on, beneath or above the property covered hereby, any structures, improvements or facilities of similar or different character as are now or in the future may be located on, beneath or above said properties.

3. Licensee shall, except in emergencies, give not less than 72 hours written notice to Railroad of the day, hour and location that it proposes to undertake any construction or maintenance work and in the event of an emergency shall notify Railroad as soon as possible.

Licensee shall require each of its contractors and subcontractors to observe and conform to the conditions and requirements specified herein; and for the purposes of the safety, protective and indemnification provisions hereof, such contractors and subcontractors, their agents, servants and employees, and other persons on the Railroad property at the invitation of the Licensee, its contractors or subcontractors, shall be deemed the agents or employees of the Licensee.

4. Licensee shall, at no expense to Railroad, obtain all permits and approvals required to exercise this license and Licensee shall install, maintain and operate its facilities in accordance with all requirements of lawful public authority. Licensee shall be responsible for any taxes, assessments and charges made against the pipeline or other of Licensee's facilities on Railroad's property or the operation of any of them.

5. The pipeline shall be installed at least 6 feet below the tracks of the Railroad, measured from base of rail to top of pipeline or, if no tracks are located on the property, at least 5 feet below natural ground. Said pipeline shall be constructed of such material and in such a manner as will assure the safety of Railroad. Railroad's authorized representative shall have the right, but not the duty, to require certain materials or procedures to be used or to supervise the construction, maintenance, restoration or other work on Railroad's property. If in the opinion of Railroad's authorized representative casing of the pipeline is required at the time of installation or at any time subsequent thereto, Licensee shall promptly arrange for such casing at its own risk and expense.

6. If, in the opinion of the authorized representative of Railroad the work to be done by the Licensee pursuant to this agreement will make necessary or desirable any change in the Railroad's facilities, or those of the Railroad's tenants or licensees, on the Railroad's property, the Railroad shall have the right, but not the duty, to make such changes, the expense thereof to be borne by the Licensee.

   Railroad shall have the right, but not the duty, to furnish flagging or other protection or to perform work to support its tracks or otherwise protect its property or facilities at any time, at Licensee's sole risk and expense.

7. Licensee agrees at any time, or from time to time, at its own risk and expense, upon request of the authorized representative of the Railroad, to make such change or changes as may be necessary in the opinion of said representative to accommodate any change or improvements which Railroad may desire to make in or upon its property. In case Licensee shall fail within thirty (30) days after notice from Railroad to make such change or changes, Railroad shall have the right, but not the duty, to make such change or changes, or remove Licensee's facilities from said property at the risk and expense of Licensee.

8. Licensee shall at its expense take such measures as may be necessary and adequate in connection with its property or the property of railroad to protect facilities of Railroad and those of others using Railroad's property from interference by induction, conduction, physical contact or otherwise attributable to the exercise by Licensee of the license granted to it.

   In the event Railroad advises Licensee to take any action to protect Railroad, its facilities or facilities on Railroad's property, Licensee shall promptly take the indicated action, including, but not limited to, stopping the operation of the pipeline. If Licensee fails to do so, Railroad shall have the right, but not the duty, to perform on behalf of Licensee at the sole risk and expense of Licensee.

9. In the event Railroad elects to renew, replace, repair or alter any tracks or other facilities or to construct new facilities or to make other use of the property covered by this license, and in connection therewith requires the removal of any facilities placed by Licensee on Railroad's property or should any facilities of Licensee need renewal or repair, Licensee shall, within 30 days of receipt of notice, arrange for such removal, renewal or repair at Licensee's risk and expense. In the event removal is required, the facilities shall be relocated at such location on Railroad's property as is designated by Railroad, provided that Railroad's authorized representative determines that a location is reasonably available. Renewal or repair shall be to such condition as is indicated by Railroad's authorized representative. If Licensee fails to comply with the foregoing, Railroad shall have the right, but not the duty, to remove, renew or repair such facilities at the sole risk and expense of Licensee.

10. Cost and expense for work performed by the Railroad pursuant to this agreement shall consist of the direct cost of labor and material plus Railroad's standard additives in effect at the time the work is performed. All payments required of Licensee under this agreement shall be made promptly upon presentation of a bill.

11. Licensee, as a further consideration and as a condition without which this license would not have been granted, agrees to indemnify and save harmless Railroad, its officers, employees and agents and to assume all risk, responsibility and liability for death of, or injury to, any persons, including, but not limited to, officers, employees, agents, patrons and licensees of the parties hereto, and for loss, damage or injury to any property, including but not limited to, that belonging to the parties hereto (together with all liability for any expense, attorneys' fees and costs incurred or sustained by the Railroad, whether in defense of any such claims, demands, actions and causes of action or in the enforcements of the indemnification rights hereby conferred) arising from, growing out of, or in any manner or degree directly or indirectly caused by, attributable to, or resulting from the grant or exercise of this license or the construction, maintenance, repair,

renewal, alteration, change, relocation, existence, presence, use, operation, or removal of any structure incident thereto, or from any activity conducted on or occurrence originating on the area covered by the license regardless of the negligence of Railroad, its officers, employees and agents. Licensee further agrees to release and indemnify and save harmless Railroad, its officers, employees, agents, patrons or invitees from all liability to Licensee, its officers, employees, agents or patrons, resulting from railroad operations at or near the area in which the license is to be granted whether or not the death, injury or damage resulting therefrom may be due to the negligence of the Railroad, its officers, employees or agents or otherwise. At the election of Railroad, the Licensee, upon receipt of notice to that effect, shall assume or join in the defense of any claim based upon allegations purporting to bring said claim within the coverage of this section.

12. Licensee shall secure, and maintain in place so long as this agreement is in effect, Commercial General Liability Insurance (Occurrence Form) in an amount not less than $5,000,000 per occurrence, with an aggregate of not less than $10,000,000 per annual period. The policy must name Railroad and its parent company, Canadian National Railway Company, as additional insured's in the following form:

    Illinois Central Railroad Company, and its Parent Corporation,
    Canadian National Railway Company
    17641 S Ashland Ave
    Homewood, Il 60430

    The policy must not contain any provisions excluding coverage for injury, loss or damage arising out of or resulting from (a) doing business on, near, or adjacent to railroad track or facilities, or (b) surface or subsurface pollution, contamination or seepage, or from handling, treatment, disposal or dumping of waste materials or substances. Before commencing work, Licensee shall deliver to Railroad a certificate of insurance evidencing the foregoing coverage's and true and complete copies of the policies described above. Each policy shall include a waiver by the insurer of any right of subrogation against any recovery by or on behalf of any insured. Each policy shall provide for not less than thirty days prior written notice to Railroad of cancellation of or any material change in that policy.

13. If a contractor is to be employed by the Licensee for the installation of Facilities pursuant to this License, then, Before commencing work, the contractor shall provide and maintain the following insurance, in form and amount and with companies satisfactory to, and as approved by, the RAILROAD.

    A. Statutory Workers' Compensation and Employer's Liability insurance.

B. Automobile Liability in an amount not less than $1,000,000 dollars combined single limit.

C. An Occurrence Form Railroad Protective Policy with limits of not less than $5,000,000 dollars per occurrence for Bodily Injury Liability, Property Damage Liability and Physical Damage to Property with $10,000,000 dollars aggregate for the term of the policy with respect of Bodily Injury Liability, Property Damage Liability and Physical Damage to Property. The Policy must name the appropriate RAILROAD as the insured, and shall provide for not less than ten (10) days prior written notice to the RAILROAD'S as cancellation of, or any material change in the policy.

14. It is expressly understood Railroad does not warrant title to the premises and Licensee accepts the grant of privileges contained herein subject to all lawful outstanding existing liens and superior rights. Licensee agrees it shall not have to make any claim against Railroad for damages on account of any deficiency in title and agrees that in the event of failure or insufficiency of such title the sole remedy of Licensee shall be the right to return of the consideration paid in advance, provided for herein, or a proportionate part thereof in the event of a partial deficiency or insufficiency of title. Licensee further agrees to indemnify and save harmless the Railroad and to assure all risk, responsibility and liability (including any expenses, attorneys' fees and costs incurred or sustained by Railroad) arising from, growing out of, or in any manner or degree directly or indirectly attributable to or resulting from any deficiency or insufficiency of its title affecting the right of the Railroad to make this grant.

15. This agreement shall continue in force indefinitely from and after the date hereof, subject, however, to the right of either party to terminate this agreement as to the entire pipeline and all of the facilities of Licensee, or any part thereof, at any time or from time to time, as it may require, upon giving the other party ninety (90) days notice in writing of its desire to terminate this agreement, and indicating in said notice the extent of said line and facilities to which such termination shall apply. When this agreement shall be terminated as to the entire line and all of the facilities of Licensee or as to any part thereof, Licensee within thirty (30) days after the expiration of the time stated in said notice, agrees at its own risk and expense to remove said facilities from the property of Railroad, or such portion thereof as Railroad shall require removed, and to restore the railroad premises to a neat and safe condition, and if Licensee shall fail to do so within said time, Railroad shall have the right, but not the duty, to remove and restore the same, at the risk and expense of Licensee. Nothing herein contained shall be construed as conferring any property right on Licensee.

16. In case Railroad shall at any time, or from time to time, require the removal of only a portion of said pipeline, this agreement shall continue in force and be applicable to the portion of portions of said pipeline and other facilities remaining from time to time until said entire pipeline has been removed and the rental shall be adjusted accordingly.

17. Nothing in this agreement shall be construed to place any responsibility on Railroad for the quality of the construction, maintenance or other work performed on behalf of Licensee hereunder or for the condition of any of Licensee's facilities.

    Any approval given or supervision exercised by Railroad hereunder, or failure of Railroad to object to any work done, material used or method of construction, reconstruction or maintenance, shall not be construed to relieve Licensee of its obligations under this Agreement.

18. This Agreement shall not be binding on either party hereto until all parties have executed the space provide below.

19. This agreement shall be binding on the successors and assigns of the parties hereto, but no assignment hereof by the Licensee, its successors, legal representatives or assigns, shall be binding upon the Railroad without its written consent in each instance.

    IN WITNESS WHEREOF, the parties hereto have caused these presents to be executed in duplicate, the day and year first above written.

ILLINOIS CENTRAL RAILROAD COMPANY

By: _____
Arthur L. Spiros - Senior Manager, Real Estate – Southern Region

ST. JOHN THE BAPTIST PARISH

By: Natalie Robottom Parish President
Name and Title

INITIAL NOTIFICATION OF INTENT TO CONSTRUCT UTILITY CROSSING/ENCROACHMENT

Complete this form and return it along with a non-refundable preparation fee of $1350 made out to CN.

Date: 8/31/18

1. Owner/Applicant Information

A. Name: St. John the Baptist Parish

B. Address: 1801 W. Airline Hwy., LaPlace, LA 70068

C. Authorized Representative: Daron Cooper

D. Title: Director of Public Works

E. Phone Number: 985-652-4815 F. Fax Number: n/a

G. Email Address: d.cooper@stjohn-la.gov

2. Engineer/Consultant Information

A. Name: Shread-Kuyrkendall & Associates, Inc.

B. Address: 104 Campus Drive, Suite 102, Destrehan, LA 70047

C. Authorized Representative: Steve Breeding

D. Title: Engineer

E. Phone Number: 985-764-4060 F. Fax Number: n/a

G. Email Address: sbreeding@skaengr.com

3. Location Description (Attach a Copy of a Sketch Showing Location)

A. N/A ¼ N/A ¼ Sec. 40, Township 11 S, Range 6 E

B. Nearest Public Road Crossing Name: River Road

C. Nearest Public Road Crossing DOT Number: L A 3 6 _ _ _

(Number on Blue Sign at Crossing, e.g. 123456L)

D. City / Village /Township: Reserve

(Circle One)

E. County: St. John the Baptist F. State: Louisiana

G. Utility Location – Railroad Mile Post: 421.49 plus 1575 ft

(Start Railroad Mile Post of Segment if Longitudinal)

H. Utility Location – Railroad Mile Post: _____ plus _____ ft

(End Railroad Mile Post of Segment if Longitudinal)

I. Latitude: 3 0 . 0 6 0 8 8 3 °, Longitude: 9 0 . 5 5 8 7 8 6 °

Steven P. Breeding	[signature]	985-764-4060	11/19/18
Name of Submitter	Signature	Telephone #	Date

INITIAL NOTIFICATION OF INTENT TO CONSTRUCT UTILITY CROSSING/ENCROACHMENT
WIRE/FIBER/CABLE CONSTRUCTION INFORMATION

4. Indicate Type of Utility/Facility

A. Power Line _____
B. Telephone
- Fiber Optic _____
- Copper Pair _____

C. Cable TV
- Fiber Optic _____
- Coaxial _____

D. Other Drainage

5. Desired Method of Installation/Construction

A. Underground Dry Bore
B. Overhead _____
C. Crossing _____
D. Longitudinal _____
E. Copper Pairs
- # of Wires _____

F. Fiber Optic
- # of Strands _____

G. Other _____

6. Wire/Cable Data

A. Number of Poles/Towers on Property N/A
B. Number of Guys/Anchors on Property _____
C. Cross arm Overhang _____ ft
D. Maximum Voltage _____
E. Number of Wires/Cables/Pairs/Strands (circle one) _____
F. Depth of Top of Wire/Cable/Casing below base of Rail or Top of Ground _____ ft
G. Clearance Over Railroad Company's Wires _____ ft
H. Clearance Over Railroad Company's Tracks _____ ft
I. Casing Length (Property Line to Property Line) _____ ft
J. Size & Kind of Pipe or Duct _____
K. Method: How is Pipe or Duct to be installed under the track _____
(dry bore & jack, directional, tunnel, other – specify)
L. Size and Type of Wire/Cable _____
M. Insulated _____
N. Bare/Open Wire _____
O. Stranded _____
P. Solid _____
Q. Angle of Crossing _____
R. Length of Span Crossing Tracks (unsupported length if above tracks) _____ ft

7. Location References and Clearances of Facility (Encroachment)

A. Width of Public Road (crossing track) N/A
B. Distance From Each Facility (Encroachment) to Center Line of Main Track 35 ft
C. Distance From Each Facility (Encroachment) to Center Line of any Adjacent Track 35 ft
D. Side Clearance from Railroad Company's Wire to Nearest Pole/Tower N/A ft
E. Distance and Direction From Bridge Abutment, Culvert, Switch, Road Crossing, etc. N/A ft

Steven P. Breeding — Name of Submitter
Signature
585-764-4060 — Telephone #
11/17/16 — Date

Revised: 3/29/2018

INITIAL NOTIFICATION OF INTENT TO CONSTRUCT PIPE CROSSING/ENCROACHMENT
PIPE CONSTRUCTION INFORMATION

8. **Commodity to be transmitted in pipe:** Drainage Water
(Steam, air, water, gasoline or other petroleum products, chemical-specify: natural or artificial gas. If sewer, identify as to force or gravity line, sanitary, storm or chemical waste – specify)

9. **Pipe Data**

	CARRIER PIPE	CASING PIPE
A. Inside Diameter:	36	
B. Outside Diameter:	47	
C. Wall Thickness:	0.500	
D. Pipe Material:	Steel	
E. Specification/Grade or class:	A36	
F. Min. Yield Point of Material	36ksi	
G. Process of Manufacture		
H. Name of Manufacturer		
I. Type of Joint	Welded	
J. Working Pressure	Atmosphere	

K. Maximum operating pressure (by gauge)	Open Air	psi
L. Length of Casing pipe:	80	ft
M. Casing pipe/uncased carrier pipe cathodically protected?	Y / N	
N. Hydrostatic pressure carrier pipe test pressure	N/A	psi
O. Will casing pipe be vented?	Y / N	
P. Pipe Vent Size:	N/A	in
Q. Will casing pipe/uncased carrier pipe have a protective coating?	Y / N	
R. Protective Coating Type	coal Tar (in/out)	
S. Depth of top of casing or uncased carrier pipe below base of rail or top of ground. (Closest point of utility to any base of rail or ground)	6.5	ft
T. Method of installing casing pipe /uncased carrier pipe *(Dry bore & jack, directional, tunnel, other – specify)*	Dry Bore	
U. Depth of pipe below the ground. (not beneath tracks)	6	ft
V. Depth of pipe below ditches.	N/A	ft
W. Distance from centerline of track to face of jacking/receiving pits.	42	ft
X. Depth from base of rail to bottom of jacking /receiving pits.	9	ft

Steven P. Breeding — Name of Submitter

[signature] — Signature

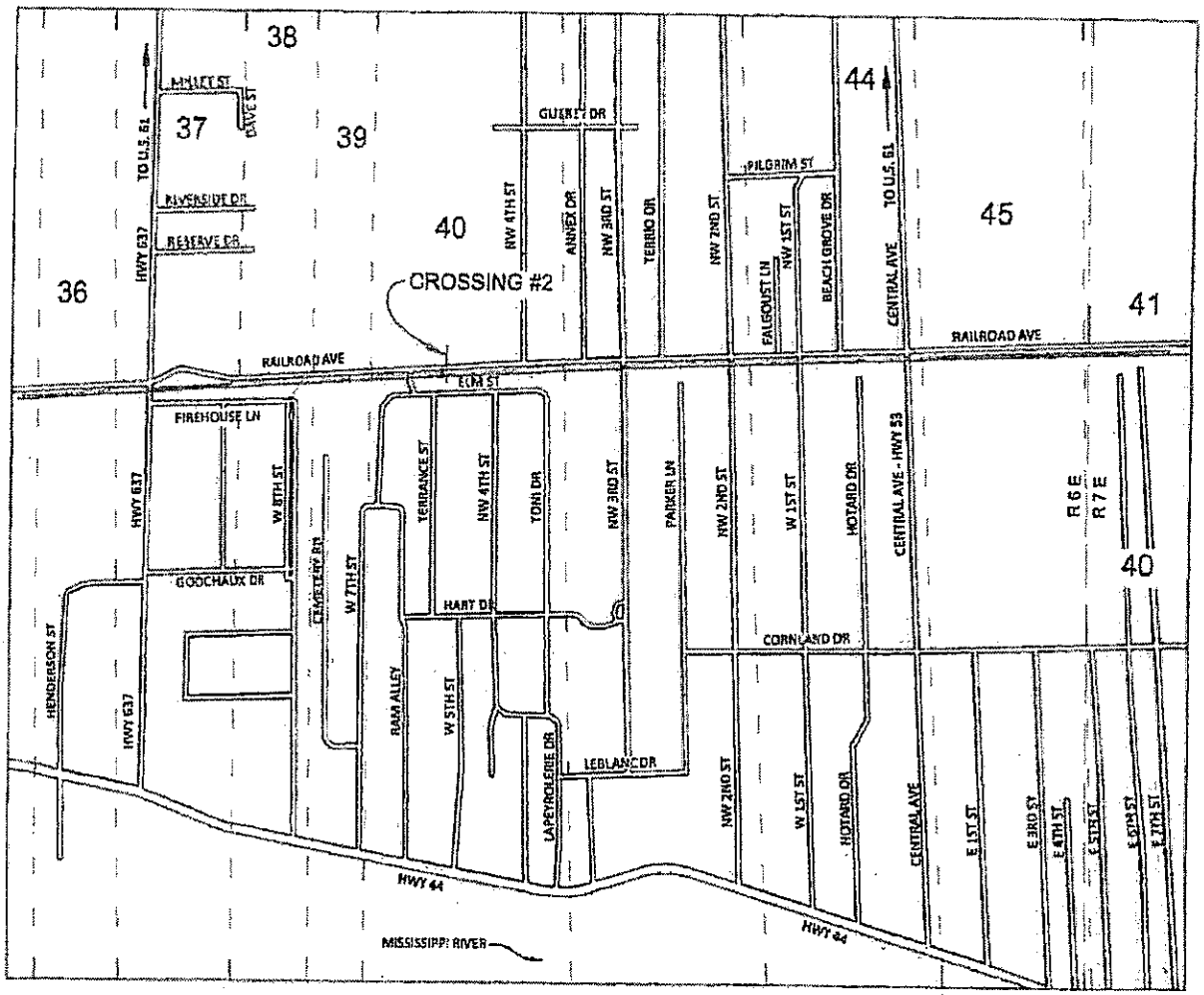
925-764-4060 — Telephone #

11/19/18 — Date

Revised: 3/29/2018

RAILROAD DRAINAGE CROSSING NUMBER 2

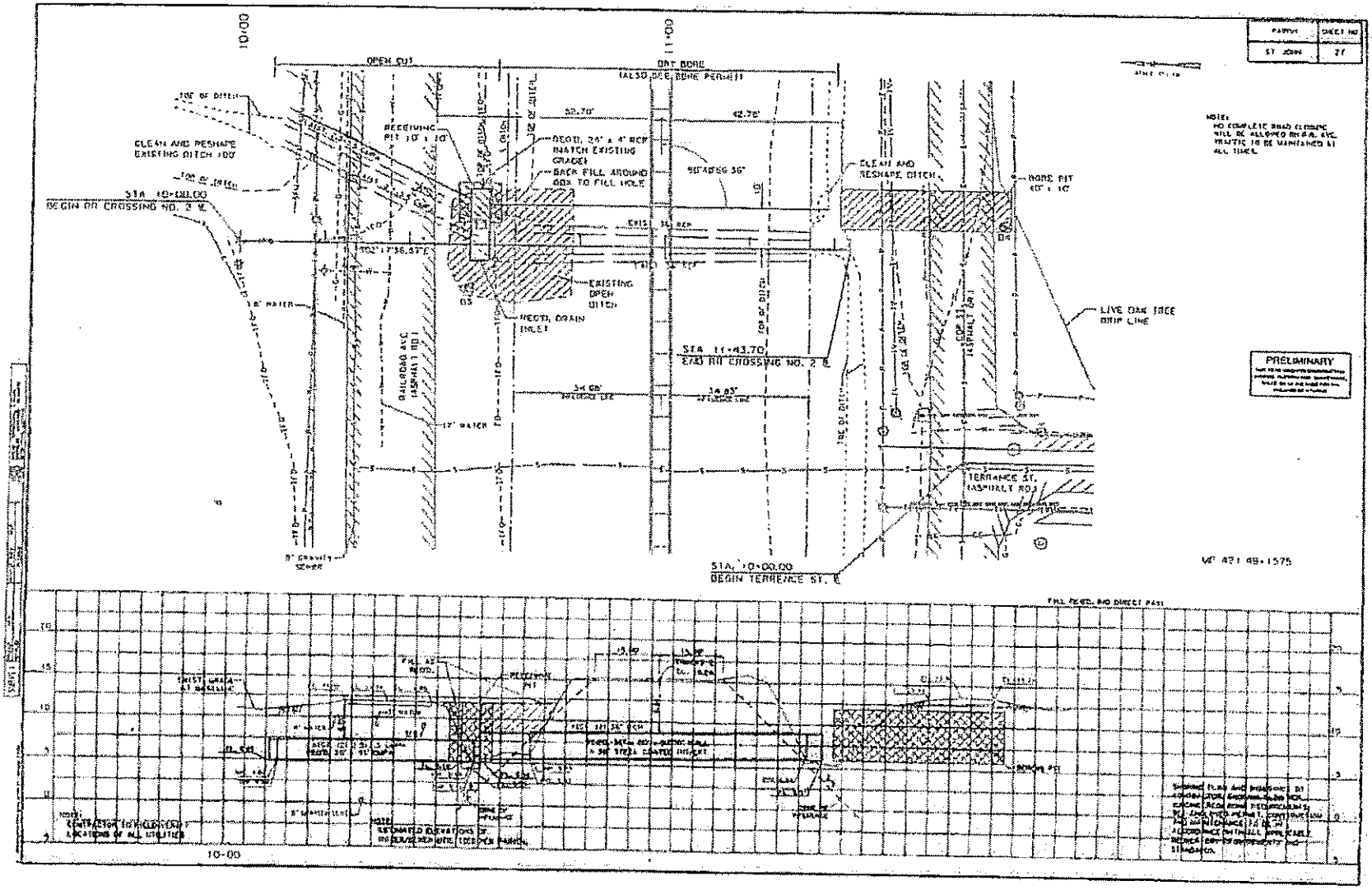
LOCATED IN RESERVE, LOUISIANA
T11S, R6E, SEC. 40
SOUTHEASTERN WEST OF THE MISSISSIPPI
RIVER LAND DISTRICT



SITE LOCATION FOR DRAINAGE CROSSING NUMBER 2

SHREAD – KUYRKENDALL & ASSOC.
ENGINEERS – SURVEYORS – PLANNERS
BATON ROUGE, LOUISIANA

DESIGNED	DRAWN	CHECKED	APPROVED
A.D.S.	E.D.S.	R.W.L.	



PARISH
SHEET NO.
ST JOHN
27
10+00
11+00
OPEN CUT
DRY BORE
(ALSO SEE BORE PERMIT)
TOE OF DITCH
CLEAN AND RESHAPE EXISTING DITCH 100'
STA 10+00.00
BEGIN RR CROSSING NO. 2 ℄
RECEIVING PIT 10' x 10'
REQ'D. 24" x 4' RCP (MATCH EXISTING GRADE)
BACK FILL AROUND BOX TO FILL HOLE
EXISTING OPEN DITCH
REQ'D. DRAIN INLET
RAILROAD AVE (ASPHALT RD.)
12" WATER
8" GRAVITY SEWER
STA 11+43.70
END RR CROSSING NO. 2 ℄
CLEAN AND RESHAPE DITCH
BORE PIT 40' x 10'
LIVE OAK TREE DRIP LINE
TERRANCE ST. (ASPHALT RD.)
STA. 10+00.00
BEGIN TERRANCE ST. ℄
PRELIMINARY
FILL REQ'D. AND DIRECT PAY
10-00

CN System Engineering

Josh Gordon
Design and Construction
Field Engineer
2151 North Mill St
Jackson, MS 39202
T 601-914-2655

November 10, 2017

Daron Cooper
Director of Public Works
St. John the Baptist Parish
1801 W. Airline Hwy
LaPlace, LA 70068

Subject: P-11156: Illinois Central Railroad Company, BATON ROUGE Subdivision, MP 421.8 - 421.8
P-11156 is the review number for License

CN Engineering Design & Construction has reviewed the request for 36" Steel Cuvert Crossing. There are no engineering objections provided the following occurs:

1.) CN Utility Locate Required.

2.) CN's operations are not to be impaired or effected by any of the described work.

3.) A flagman, railroad representative is to be present during any and all work on, over, under or near railroad property.

4.) All employees of contractors not hired by CN that will work on, over, under or near CN property are required to have, at a minimum, safety certification with www.contractororientation.com and the railroad representative will be responsible for verifying and documenting said certifications.

5.) Installer must monitor top of rail elevations via daily surveying for borings greater than 6 in. in size and that occur under CN tracks. A log of top of rail elevations may be requested at any time throughout the duration work.

6.) Once the boring has begun, the installation is to not stop until the culvert is fully installed and in place to design. Geotech engineer to be on site during installation. Monitoring for settlement of the tracks to take place before and after each train. Auger to not extend past the casing/culvert to prevent voids being formed underneath the tracks. Flagman not to be release until sign off from CN Field Engineer.

Sincerely,

CN System Engineering

Josh Gordon
Design and Construction
Field Engineer
2151 North Mill St
Jackson, MS 39202
T 601-914-2655

Josh Gordon
CN Field Engineer

Steve Breeding

From: Joseph Wojcik <Josephs.Wojcik@cn.ca>
Sent: Tuesday, February 05, 2019 9:01 AM
To: Steve Breeding
Cc: Brandi Mancuso; Ray Davezac; d.cooper@sjbparish.com
Subject: RE: St John the Baptist Parish RR Crossings P-

Good catch this is an automatic letter thru our share point I will have our guy look at this.
Yes it should be dated January 2019.
Thanks
joe

From: Steve Breeding [mailto:sbreeding@skaengr.com]
Sent: Monday, February 04, 2019 3:08 PM
To: Joseph Wojcik <Josephs.Wojcik@cn.ca>
Cc: Brandi Mancuso <bmancuso@skaengr.com>; Ray Davezac <rad@skaengr.com>; d.cooper@sjbparish.com
Subject: St John the Baptist Parish RR Crossings P-

Joe

We received copies of the approval letters from the Parish for the three (3) crossings. I appreciate it! That was fast. We have looked over the stipulations and the Parish will provide same. This is typically assigned to the installation contractor as he is responsible for the construction. One question though, the letters are dated November 10, 2017. Please confirm that is the wrong date and they should be dated January 2019.

Also, should the Parish be expecting a new license agreement for underground pipelines, or should they just sign the old agreements? Thanks.

Steven P. Breeding, P.E.
Shread-Kuyrkendall & Associates, Inc.
104 Campus Dr. East, Suite 102
Destrehan, LA 70047
985-764-4060

CN System Engineering

Josh Gordon
Design and Construction
Field Engineer
2151 North Mill St
Jackson, MS 39202
T 601-914-2655

November 10, 2017

Daron Cooper
Director of Public Works
St. John the Baptist Parish
1801 W. Airline Hwy
LaPlace, LA 70068

Subject: P-11154: Illinois Central Railroad Company, BATON ROUGE Subdivision, MP 421.58 - 421.58
P-11154 is the review number for License P-10456 see notes below.

CN Engineering Design & Construction has reviewed the request for 48" Steel culvert crossing. There are no engineering objections provided the following occurs:

1.) CN Utility Locate Required.

2.) CN's operations are not to be impaired or effected by any of the described work.

3.) A flagman, railroad representative is to be present during any and all work on, over, under or near railroad property.

4.) All employees of contractors not hired by CN that will work on, over, under or near CN property are required to have, at a minimum, safety certification with www.contractororientation.com and the railroad representative will be responsible for verifying and documenting said certifications.

5.) Installer must monitor top of rail elevations via daily surveying for borings greater than 6 in. in size and that occur under CN tracks. A log of top of rail elevations may be requested at any time throughout the duration work.

6.) Contractor to follow the geotech report. Geotech of record should be on site during the installation of the culvert.

7.) once the bore has begun the contractor to not stop the bore until the culvert has been fully installed.

8.) Monitoring of the track shall be done before and after each train.

CN System Engineering

Josh Gordon
Design and Construction
Field Engineer
2151 North Mill St
Jackson, MS 39202
T 601-914-2655

Sincerely,

Josh Gordon
CN Field Engineer

CN System Engineering

Josh Gordon
Design and Construction
Field Engineer
2151 North Mill St
Jackson, MS 39202
T 601-914-2655

November 10, 2017

Daron Cooper
Director of Public Works
St. John the Baptist Parish
1801 W. Airline Hwy
LaPlace, LA 70068

Subject: P-11155: Illinois Central Railroad Company, BATON ROUGE Subdivision, MP 421.95 - 421.95
P-11155 is the review number for License P-10458

CN Engineering Design & Construction has reviewed the request for 36" Steel Cuvert Crossing. There are no engineering objections provided the following occurs:

1.) CN Utility Locate Required.

2.) CN's operations are not to be impaired or effected by any of the described work.

3.) A flagman, railroad representative is to be present during any and all work on, over, under or near railroad property.

4.) All employees of contractors not hired by CN that will work on, over, under or near CN property are required to have, at a minimum, safety certification with www.contractororientation.com and the railroad representative will be responsible for verifying and documenting said certifications.

5.) Installer must monitor top of rail elevations via daily surveying for borings greater than 6 in. in size and that occur under CN tracks. A log of top of rail elevations may be requested at any time throughout the duration work.

6.)Once the boring has begun, the installation is to not stop until the culvert is fully installed and in place to design. Geotech engineer to be on site during installation. Monitoring for settlement of the tracks to take place before and after each train. Auger to not extend past the casing/culvert to prevent voids being formed underneath the tracks. Flagman not to be release until sign off from CN Field Engineer.

Sincerely,

CN System Engineering

Josh Gordon
Design and Construction
Field Engineer
2151 North Mill St
Jackson, MS 39202
T 601-914-2655

Josh Gordon
CN Field Engineer

CN System Engineering

Josh Gordon
Design and Construction
Field Engineer
2151 North Mill St
Jackson, MS 39202
T 601-914-2655

November 10, 2017

Daron Cooper
Director of Public Works
St. John the Baptist Parish
1801 W. Airline Hwy
LaPlace, LA 70068

Subject: P-11156: Illinois Central Railroad Company, BATON ROUGE Subdivision, MP 421.8 - 421.8
P-11156 is the review number for License P-10457.

CN Engineering Design & Construction has reviewed the request for 36" Steel Cuvert Crossing. There are no engineering objections provided the following occurs:

1.) CN Utility Locate Required.

2.) CN's operations are not to be impaired or effected by any of the described work.

3.) A flagman, railroad representative is to be present during any and all work on, over, under or near railroad property.

4.) All employees of contractors not hired by CN that will work on, over, under or near CN property are required to have, at a minimum, safety certification with www.contractororientation.com and the railroad representative will be responsible for verifying and documenting said certifications.

5.) Installer must monitor top of rail elevations via daily surveying for borings greater than 6 in. in size and that occur under CN tracks. A log of top of rail elevations may be requested at any time throughout the duration work.

6.) Once the boring has begun, the installation is to not stop until the culvert is fully installed and in place to design. Geotech engineer to be on site during installation. Monitoring for settlement of the tracks to take place before and after each train. Auger to not extend past the casing/culvert to prevent voids being formed underneath the tracks. Flagman not to be release until sign off from CN Field Engineer.

Sincerely,

CN System Engineering

Josh Gordon
Design and Construction
Field Engineer
2151 North Mill St
Jackson, MS 39202
T 601-914-2655

Josh Gordon
CN Field Engineer

REQUIREMENTS TO PROVIDE FLAGGING PROTECTION AND CABLE LOCATION FOR PROJECTS ON OR IN THE VICINITY OF CN PROPERTY

(Hereinafter called "Railroad")
(Revised: Effective December 4th, 2018)

NOTE: Flagging and/or Cable Locate fees may apply

A utility or contractor shall not commence, or carry on, any work for installation, maintenance, repair, changing or renewal of any FACILITY, under, over, on, or near RAILROAD property at any location without giving notice to the RAILROAD authorized representative at the RAILROAD's office located at Homewood, IL. If in the opinion of the RAILROAD the presence of an authorized representative of the RAILROAD is required to supervise the same, the RAILROAD shall render bills to the utility or contractor for all expenses incurred by it for such supervision. This includes all labor costs for flagmen or cable locate supplied by the RAILROAD to protect RAILROAD operation, and for the full cost of furnishing, installation and later removal of any temporary supports for said tracks, as the RAILROAD's Chief Engineer's Office may deem necessary.

A flagman is required any time any work is performed (i) under or across any Railroad track, regardless of whether said work involves a physical presence on the surface of the Railroad property; (ii) on the surface of the Railroad property within twenty-five (25) feet horizontally of the centerline of any railroad track; or (iii) on, near, or over Railroad property if the work may potentially encroach (intentionally or unintentionally) within twenty-five (25) feet from the centerline of any railroad track. Causes of potential encroachment include but are not limited to equipment that has the potential to swing, pivot, extend or mechanically fail. Potential encroachment must also account for a distance of one-half the length of the largest load that any equipment may lift. Additionally, Railroad reserves the right to require a flagman for work on Railroad property not meeting the above criteria when there are other conditions or considerations that would indicate the need for a flagman to safeguard Railroad's operations, property and safety of any person.

Cable Location
A cable location of RAILROAD owned facilities may be required prior to the start of any work based on the RAILROAD's review of the proposed project. The purpose of cable location is to identify and protect Signal & Communication cables that have been installed to provide power, signal control, and wayside communications. These cables are vital to a safe and reliable railway operation. The cable locate will be performed by a qualified RAILROAD employee.

The cost for a cable location is $350.00, and must be prepaid by check before RAILROAD will undertake the cable locate work.

Outside contractors are prohibited from driving on, along, or across any track that does not have a CN installed crossing. They may utilize an existing public crossing. The practice of allowing rubber tired equipment to operate over track with no crossing is strictly prohibited. Exceptions to this rule will require the express approval from CN Engineering.

Prior to any project being started, the RAILROAD requires a "Request for Flagging Services and Cable Location" form to be completed and submitted, including check for prepayment based on the number of days and hours flagging protection will be required and also prepayment for cable location as necessary. Separate checks must be issued for flagging protection and cable location. You must have an agreement with a CN railroad subsidiary, such as a Right of Entry, Permit, License, or Formal Agreement in addition to any necessary flagging before you may enter CN property.

Request for Flagging Services and Cable Location
U.S.

Requests and inquiries must be directed to:
Flagging-US
17641 South Ashland Ave.
Homewood, IL 60430
Flagging_US@CN.CA

Is this a continuation of an existing project? Yes ☐ No ☐

If YES, please provide your Service Order #_____

All blanks below must be completely filled in before any flagman request will be honored.

Work Authorization:
Right of Entry/License/Permit No.: _____ Dated: _____ Railroad: _____

Does your Right of Entry/License/Permit require a Railroad Cable Locate? **Yes ☐ No ☐**
You must have an agreement with a CN railroad subsidiary, such as a Right of Entry, Permit, License or Formal Agreement in addition to any necessary flagging before you may enter CN property.

Project Information: *Please submit a detailed map of the location where protection is being requested.*

Street Location/Intersection_____ City/State_____

Railroad Milepost_____ Railroad Subdivision_____

Description of work being performed: _____

_____

Location for flagman to report: _____

Name of Site Contact: _____ Site Contact Phone: (_____) _____ - _____ Alt: (____) _____ - _____

Requested Dates/Times: *Dates requested are subject to flagman availability. Minimum 5 business days advance notice required.*

Requested Dates for Flagging Protection: _____, _____, _____, _____, _____, _____,

_____, _____, _____, _____, _____, _____, _____, _____

Project Starting time: _____ Anticipated Ending Time: _____ Anticipated # Hours per Day: _____
*Flagmen start and end time may vary based on type of protection required.

Billing Information: *All blanks spaces must be filled out*

Company Name: _____ Requestor Name: _____

Billing Address: _____

City: _____ State: _____ Zip: _____

Company Phone: _____ Company Fax: _____ E-Mail: _____

CN required online training must be completed before Flagman Protection will be scheduled.

Prepayment must be received before Flagging Protection will be scheduled. There is an 8 hour minimum per day. The base rate per day for Flagman Protection is $1,300.00 for 10 hours; this includes 2 overtime hours for flagman to set up/take down protection if needed. Additional overtime hours must be prepaid at the rate of $150.00 per hour. Weekends and Holidays must be prepaid at the overtime rate with a $1,500.00 / 10 hour minimum. Any prepayment for additional days or overtime not used can be refunded.

Railroad Cable Location must be prepaid, the cost is $350.00 per locate.

Separate Checks must be issued for Flagging Protection and Cable Location. Checks should be made payable to the railroad subsidiary listed on your Right of Entry/Permit/License or, Formal Agreement.

If additional days of protection are required they must be prepaid in advance. **Rates Effective January 1st 2017.**

THIS COMPLETED FORM MUST BE SENT WITH A MAP, PREPAYMENT CHECK(S), AND PROOF OF INSURANCE TO:
US-FLAGGING / 17641 SOUTH ASHLAND AVE. HOMEWOOD, IL 60430

I agree to pay for flagging services as requested: _____
(SIGN AND PRINT NAME)

Terracon GeoReport

Geotechnical Engineering Report

Reserve Drainage Improvements
Reserve, Louisiana

November 5, 2018

Terracon Project No. EH175317

Prepared for:

Shread-Kuyrkendall and Associates, Inc.
Baton Rouge, Louisiana

Prepared by:

Terracon Consultants, Inc.
Baton Rouge, Louisiana

November 5, 2018

Terracon GeoReport

Shread-Kuyrkendall and Associates, Inc.
13016 Justice Avenue
Baton Rouge, Louisiana 70816

Attn: Mr. Steve Breeding, P.E.
P: (985) 764-4060
E: sbreeding@skaengr.com

Re: Geotechnical Engineering Report
Reserve Drainage Improvements
Firehouse Lane
Reserve, Louisiana
Terracon Project No. EH175317

Dear Mr. Breeding:

We have completed the Geotechnical Engineering services for the above referenced project. This study was performed in general accordance with Terracon Proposal No. PEH175317 dated October 30, 2017. This report presents the findings of the subsurface exploration and provides geotechnical recommendations concerning earthwork and the installation of culverts via Jack and Bore under a CN railroad track for the proposed project.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning this report, or if we may be of further service, please contact us.

Sincerely,
Terracon Consultants, Inc.

Ayan Mehrotra, P.E.
Senior Geotechnical Engineer

For Stephen Greaber, P.E.
Principal

Terracon GeoReport

REPORT TOPICS

INTRODUCTION 1
SITE CONDITIONS 1
PROJECT DESCRIPTION 3
GEOTECHNICAL CHARACTERIZATION 3
GEOTECHNICAL OVERVIEW 5
EARTHWORK 5
CONCEPTUAL SHORING APPROACH 9
CONCEPTUAL DEWATERING PLAN 10
SETTLEMENT MONITORING PLAN 11
SEISMIC CONSIDERATIONS 12
GENERAL COMMENTS 13

Note: This report was originally delivered in a web-based format. Orange Bold text in the report indicates a referenced section heading. The PDF version also includes hyperlinks which direct the reader to that section and clicking on the Terracon GeoReport logo will bring you back to this page. For more interactive features, please view your project online at client.terracon.com.

ATTACHMENTS

EXPLORATION AND TESTING PROCEDURES
SITE LOCATION AND EXPLORATION PLANS
EXPLORATION RESULTS (Boring Logs and Laboratory Data)
LATERAL EARTH PRESSURE DIAGRAM
SELECT PROJECT PLANS
SUPPORTING INFORMATION (General Notes and USCS Notes)

Geotechnical Engineering Report
Reserve Drainage Improvements
Firehouse Lane
Reserve, Louisiana
Terracon Project No. EH175317
November 5, 2018

INTRODUCTION

This report presents the results of our subsurface exploration and geotechnical engineering services performed for the proposed Jack and Bore installations to be located along Firehouse Lane in Reserve, Louisiana. The Jack and Bore installations will cross under the CN Railroad along the planned alignment. The purpose of these services is to provide information and geotechnical engineering recommendations relative to:

- Subsurface soil conditions
- Groundwater conditions
- Site preparation and earthwork
- Excavation considerations
- Excavation considerations
- Dewatering considerations
- Lateral earth pressures

The geotechnical engineering scope of services for this project included the advancement of 5 test borings to a depth of approximately 40 feet below existing site grades.

Maps showing the site and exploration locations are shown in the Site Location and Exploration Plan sections, respectively. The results of the laboratory testing performed on soil samples obtained from the site during the field exploration are included on the boring logs in the Exploration Results section of this report.

SITE CONDITIONS

The following description of site conditions is derived from our site visit in association with the field exploration and our review of publicly available geologic and topographic maps.

Item	Description
Parcel Information	The project is located at three locations along the existing CN Railroad in Reserve, Louisiana. Location 1: Latitude: 30.060904, Longitude: -90.562402 (approximate) Location 2: Latitude: 30.061027, Longitude: -90.559457 (approximate) Location 3: Latitude: 30.061143, Longitude: -90.556563 (approximate) See Site Location
Existing Improvements	Existing parish roads, drainage features, and CN Railroad easement. High voltage power lines, gas line, and cable TV along Cop Street. Water, gas and sewer lines along north side of Railroad Ave.
Current Ground Cover	Pavements, grass and gravel.
Existing Topography	Relatively flat.
Geology	 The project site is located within the geologically identified Natural levee complex (Hml1) of the Mississippi River. The soils within this geologic unit predominantly consist of silts, very silty clays, clay, and fine sands. The Natural levee soils are nearly normally consolidated, relatively soft, and compressible.

PROJECT DESCRIPTION

Our initial understanding of the project was provided in our proposal and was discussed in the project planning stage. A period of collaboration has transpired since the project was initiated, and our final understanding of the project conditions is as follows:

Item	Description
Information Provided	Initial project information was provided by Shread-Kuyrkendall via plan sheets dated September 12, 2017 with elevation detail for three proposed bore and jack sites in St. John Parish. The updated crossing #3 location was provided via e-mail dated September 10, 2018. Furthermore, updated plan and profile sheets of each crossing location were provided via e-mail dated October 23, 2018.
Project Description	The project includes performing bore and jack installation of storm drain features at three locations under the existing CN Railroad.
Proposed Structure	The project includes installation of coated steel pipe (A36) drainage culverts ranging in diameter from 36 inches to 48 inches using the bore and jack method. The invert of the drainage pipes will be about 10 feet below the top of the tracks.
Construction Method	The plans call for excavation and shoring of bore and jack pits to a depth of around 8 feet below existing grades and jacking the steel pipes under the railroad to receiving outlets. The size of the bore and receiving pits vary but are generally on the order of 40 feet by 10 feet or smaller.

GEOTECHNICAL CHARACTERIZATION

Subsurface Profile

We have developed a general characterization of the subsurface soil and groundwater conditions based upon our review of the data and our understanding of the geologic setting and planned construction. The following table provides our geotechnical characterization.

The geotechnical characterization forms the basis of our geotechnical calculations and evaluation of site preparation, excavation, and shoring considerations. As noted in General Comments, the characterization is based upon widely spaced exploration points across the site, and variations are possible.

Stratum	Approximate Depth to Bottom of Stratum (feet)	Material Description	Consistency/Density
Surface	6 inches	Crushed Stone[1]	N/A
Surface	6 inches	Asphalt Pavement [2]	N/A
1	2[3]	Fill – Silty Sand and Clay	Loose
2	11 to 14	Very Silty Clay/Silty Clay/Silt	Soft to Medium Stiff
3	23 to 33	Fat Clay	Medium Stiff
4	Undetermined: Borings terminated within this stratum at the planned depth of approximately 40 feet	Lean Clay with sand	Soft to Medium Stiff
Notes	1. Encountered at boring locations B-3 and B-1 that were located adjacent to railroad track shoulder area 2. Encountered at boring location B-4 3. Sand fill extended to depth of about 6 feet at boring B-4 location		

Conditions encountered at each boring location are indicated on the individual boring logs shown in the Exploration Results section and are attached to this report. Stratification boundaries on the boring logs represent the approximate location of changes in native soil types; in situ, the transition between materials may be gradual.

Groundwater Conditions

The boreholes were observed while auger drilling for the presence and level of groundwater. For borings that encountered groundwater, prior to converting to rotary wash methods, the drilling operations were suspended for about 15 minutes to observe the change in water level over that time period. Rotary wash drilling masks further detection of groundwater. The water levels observed in the boreholes can be found on the boring logs in Exploration Results, and are summarized below.

Boring Number	Approximate Depth to Groundwater while Drilling (feet)[1]	Approximate Depth to Groundwater after about 15 Minutes (feet)[1]
B-1	4	6
B-2	8	7
B-3	5	3
B-4	11	7
B-5	8	3

1 Below ground surface

The water levels summarized above are not necessarily stable groundwater levels. Due to the low permeability of the soils encountered in the borings, a relatively long period may be necessary for a groundwater level to develop and stabilize in a borehole. Long term observations in piezometers or observation wells sealed from the influence of surface water are often required to define groundwater levels in materials of this type.

Groundwater level fluctuations occur due to seasonal variations in the amount of rainfall, runoff, river levels, site modification, and other factors not evident at the time the borings were performed. Therefore, groundwater levels during construction or at other times in the life of the structure may be higher or lower than the levels indicated on the boring logs. The possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project.

This site is located approximately ½ mile from the landward toe of the Mississippi River levee. The river routinely rises to water level elevations that can be 10 feet or more above the ground surface elevation. This fluctuation is routinely reflected by the groundwater levels of the soils on the landward side of the levee. Any aspects of this construction that include excavations to depths of approximately 5 feet or more should take into consideration the impact that such changes in potentiometric surface may have upon the design or the constructability of the excavation and related design feature.

GEOTECHNICAL OVERVIEW

The near surface soils, within the upper 4 to 6 feet, predominantly consist of fill material and desiccated, relatively stiff, lean clay to fat clay soils. These near surface soils form a thin surficial "crust" of relatively dry/desiccated clay soils and sandy fill material. While these soils were relatively stable at the time of our field exploration, the soils could become unstable with typical earthwork and construction traffic, especially after precipitation events; therefore, effective drainage should be completed early in the construction sequence and maintained after construction. While minimal site grading is anticipated for the project, if possible, the grading should be performed during the warmer and drier time of the year. The upper "crust" should provide a suitable construction platform, therefore, the site contractor should be cautioned to maintain the integrity of the relatively thin "crust" away from the proposed entry/exit pit since the "crust" is underlain by relatively wet, and soft, silty clay soils, which are extremely sensitive to changes in moisture and if disturbed could easily become unstable. Use of timber matting is not uncommon in this region to provide serviceable construction access.

Terracon's soil boring predominantly encountered very soft to soft very silty clay and silty-clay (CL-ML) soils along the planned excavation depth and at the anticipated invert depths for the Jack and Bore locations along the project alignment. Furthermore, groundwater was generally encountered within the upper 5 of the ground surface. It is believed that groundwater will likely

be encountered during the planned excavations of the entry/exit pits. Proper control of groundwater during excavation will be key in achieving a stable excavation. Since the soils encountered within the soil borings are generally relatively low permeability clay soils, it is believed that dewatering could be performed utilizing sumps and pumps. While the soils along the excavation depth are relatively soft, it is believed that excavations could be achieved by utilizing conventional excavation equipment and pre-engineered shoring boxes since the excavation depth is relatively shallow. We evaluated the potential for basal heave based on the planned excavation depth, and our calculations indicate that a satisfactory factor of safety against basal heave is available based on the planned excavation depths. However, considering the anticipated presence of relatively soft silty clay soils at/near the excavation bottom, achieving a stable excavation bottom could be difficult. We have provided additional guidance for ways to help achieve a stable excavation bottom in the Site Preparation section. Additional site preparation recommendations, including subgrade improvement, fill placement, and general excavation comments are provided in the Site Preparation section.

As discussed, we were unable to perform the soil boring on the south side of Crossing #3 (near W. 3rd Street and Railroad Avenue) due to the lack of accessible boring locations for our drill rig. However, based on the remaining soil borings performed; it appears that the soil stratigraphy is relatively consistent across the project alignment. Therefore, we believe that one design soil profile, as presented in the Geotechnical Characterization section of this report, is likely to be applicable to the three crossing locations. Regarding the proposed Jack and Bore crossing, we have provided the following in this report:

- Conceptual approach and pressure diagram for contractor design of shoring at the entry/exit pits
- Conceptual dewatering plan for entry/exit pits
- General recommendations for settlement monitoring during the Jack and Bore crossing construction.

The General Comments section provides an understanding of the report limitations.

EARTHWORK

Earthwork will include clearing and grubbing, excavations and fill placement. The following sections provide recommendations for use in the preparation of specifications for the work. Recommendations include critical quality criteria as necessary to render the site in the state considered in our geotechnical engineering for the proposed construction.

Site Preparation

We anticipate construction will be initiated by stripping vegetation, and loose, soft or otherwise unsuitable material from the planned water line right-of-way. Stripped materials consisting of top

soil, vegetation and organic materials should be wasted off site, or used for dressing the surface of the backfilled areas in non-structural areas upon completion. Top soil measurements were made at the boring location; however, stripping depths at or between our boring locations and across the site could vary considerably.

Upon completion of the excavations, the exposed subgrade at the bottom of excavations should be evaluated for stability. If instability is observed, the following options should be considered to achieve a stable excavation bottom:

- Place timber matting at the excavation bottom
- Cement treatment of the upper 10 inches of the silt soils at the excavation bottom. For budgetary purposes, a cement addition rate of 9% by volume can be used for this purpose.

Fill Material Types

Fill required to achieve design grade should be classified as structural fill and general fill. Structural fill is material used below, or within 10 feet of structural areas. General fill is material used to achieve grade outside of these areas, like landscaped areas. Earthen materials used for structural and general fill should meet the following material property requirements:

Fill Type	USCS Classification	Acceptable Location for Placement
Imported River Sand	SP, SP-SM (Less than 10% Passing #200 sieve)	Backfill above pipes
Aggregate	GP (LADOTD 610 Crushed Limestone or similarly graded crushed recycled concrete)	Base material in pavement areas
On-site soils	CH, CL-ML	The onsite soils within the upper 10 feet predominantly consist of fat clay, silty clay, and historical fill soils. These soils are generally not suitable for reuse as engineered/structural fill.
Bedding Material	Sand-Aggregate Mix (Gradation as prescribed in LSSRB Section 1003.08 (b)	Bedding material for water lines

1. Controlled, compacted fill should consist of approved materials that are free of organic matter and debris. A sample of each material type should be submitted to the geotechnical engineer for evaluation..

Fill Compaction Requirements

Structural and general fill should meet the following compaction requirements:

Item	Description
Maximum Lift Thickness	9 inches or less in loose thickness when heavy, self-propelled compaction equipment is used 4 to 6 inches in loose thickness when hand-guided equipment (i.e. jumping jack or plate compactor) is used
Minimum Compaction Requirements [1]	**Backfill above Pipes in Pavement Areas** Minimum 95% of the standard Proctor maximum dry density (ASTM D 698) **Backfill above Pipes in Non-Structural Areas** Minimum 90% of the standard Proctor maximum dry density (ASTM D 698)
Water Content Range [1]	Low plasticity cohesive: -2% to +2% of optimum Granular: -3% to +3% of optimum

1. The moisture content and compaction should be measured for each lift of engineered fill during placement. Should the results of the in-place density tests indicate the specified moisture or compaction limits have not been met, the area represented by the test should be reworked and retested as required until the specified moisture and compaction requirements are achieved.

Earthwork Construction Considerations

Excavations, for the proposed invert depths along the project alignment, are anticipated to be accomplished with conventional construction equipment. All trench excavations should be made with sufficient working space to permit construction including backfill placement and compaction in general accordance with applicable Standards.

Considering the depth of the excavations and the depth of the water table at the time of the field exploration, seepage is anticipated into the excavations. However, considering the relatively low permeability of the subsoils, the seepage should likely be controllable with standard sump and pump techniques. The area is protected from flooding by a levee along the Mississippi River. It should be noted that groundwater table may likely be affected by the stage of the nearby Mississippi River (e.g., high groundwater table during high River stage).

Any stormwater or groundwater that enters excavations should generally be removed promptly during the excavation duration. It should be noted that prolonged pumping of deeper excavations will result in a relative lowering the ground water elevation in the near vicinity of the excavation. This lowering of the water level will result in an increase in the effective stress on the soils around and below the excavation and could result in some settlement of the ground around the excavation. The amount of settlement would depend on the duration the pumping occurred, but

could be a few inches in some cases. The potential for this settlement to occur should be factored into the design of the drainage feature and excavation shoring design specifications.

As a minimum, excavations should be performed in accordance with OSHA 29 CFR, Part 1926, Subpart P, "Excavations" and its appendices, and in accordance with any applicable local, and/or state regulations. Based on the soils encountered in the soil borings, and the proposed invert depths, it is believed that proposed excavations could be performed utilizing shoring boxes.

Construction site safety is the sole responsibility of the contractor who controls the means, methods, and sequencing of construction operations. Under no circumstances shall the information provided herein be interpreted to mean Terracon is assuming responsibility for construction site safety, or the contractor's activities including design of shoring systems; such responsibility shall neither be implied nor inferred.

Construction Observation and Testing

Each lift of compacted fill above the pipe should be tested, evaluated, and reworked, as necessary, until approved by the geotechnical engineer's representative prior to placement of additional lifts. We recommend that each lift of fill be tested for density and moisture content at a frequency of one test for every 100 linear feet of compacted trench backfill.

In addition to the documentation of the essential parameters necessary for construction, the continuation of the Geotechnical Engineer into the construction phase of the project provides the continuity to maintain the Geotechnical Engineer's evaluation of subsurface conditions, including assessing variations and associated design changes.

CONCEPTUAL SHORING APPROACH

Design Parameters

A shoring system will be needed to retain the soils around the excavation for the entry/exit pits for the proposed Jack and Bore crossings under the CN Railroad. Lateral pressures are a function of both the retaining wall system and the soils encountered at the site. Considering the bottom depth of the entry/exit pits, it is believed that a pre-engineered shoring box type system (e.g., Trench Shield with internal bracing) should be sufficient for the proposed project. One of the attachments to this report presents calculations for a pressure diagram that can be utilized for the design of the shoring system by the Contractor. The pressure diagram is based on the apparent earth pressure by Terzaghi and Peck (1967) for braced and anchored walls in soft to medium clay, assuming the pit will remain dewatered at all times during construction. We have also included an example drawing of a typical shoring box type system by National Trench Safety that

is believed to be a typical applicable shoring solution for this case. The recommended design lateral earth pressures do not include a factor of safety and do not provide for possible hydrostatic pressure on the walls (unless stated).

Construction Considerations

The shoring design should be performed by the Contractor prior to construction. The design should consider the lateral earth pressure diagram presented in the Attachments as well as surcharge loads (if any), hydrostatic pressure and any other anticipated conditions during construction. Furthermore, the construction sequence should consider the possibility of installing the shoring box in stages. Based on the strength of the clay soils, and the anticipated depth of the excavations, it may not be possible to excavate to the bottom depth and then install the trench box because of the inability of the soils to stand up vertically without bracing. Our calculations indicate that theoretically a vertical cut of about 8 feet is possible within the soft clay soils encountered but the anticipated excavation depth is near the theoretical maximum depth for a vertical cut in these soils. Therefore, it may be prudent to partially excavate the entry/exit pits then install the shoring box to partial depth, and subsequently excavate within the shoring box to achieve the required excavation depth. This will allow for use of the shoring box as bracing as the excavation progresses and reduce the chance of excavation cave-in.

Ground settlement could occur adjacent to the excavation due to lateral displacement of the shoring system as well as due to means and methods of installation and removal of the shoring system. Considering the depth of the excavation, and the soft clay profile, it is believed that some lateral deflection of the shoring system should be expected. The lateral deflection can be reduced with adequate installation and bracing of the shoring system. We anticipated ground settlement adjacent to the excavation on the order of maximum ½ inch due to lateral deflection of the shoring walls. However, care should be taken by the Contractor during installation and extraction of the shoring system to minimize lateral movement of the excavation, which could lead to further ground settlement. Settlement should be minimal beyond a distance equal to the maximum depth of the wall (e.g., around 8 feet). The settlement monitoring program proposed for the project is intended to alert the appropriate parties during construction if increased ground settlement occurs, so that corrective action can be taken to minimize any impact to the railroad.

CONCEPTUAL DEWATERING PLAN

It is our opinion that the methods, means and sequence of dewatering should also be the responsibility of the general contractor. However, we have included conceptual guidelines applicable to anticipated dewatering for the proposed entry/exit pits at the CN railroad crossing.

Considering the depth of the excavations and the depth of the water table at the time of the field exploration, seepage is anticipated into the excavations. However, considering the relatively low

permeability of the subsoils, seepage will most likely be at a low rate, controllable with standard sump and pump techniques. Lack of groundwater control could affect the stability of the excavations, so the contractor should maintain the pit in a dewatered state at all times during construction.

Any stormwater or groundwater seepage that enters excavations should be removed promptly during the excavation duration. It should be noted that prolonged pumping of deeper excavations can result in a relative lowering the ground water elevation in the near vicinity of the excavation. This lowering of the water level will result in an increase in the effective stress on the soils around and below the excavation and could result in some settlement of the ground around the excavation. The amount of settlement would depend on the duration the pumping occurred, but could be a few inches in some cases. The relatively shallow depth of the proposed pits, and likely at this project location.

SETTLEMENT MONITORING PLAN

Based on the CN utility crossing permit, a monitoring plan to monitor ground surface deformation and subsurface movement is needed as part of the permit application process. We have prepared a general settlement monitoring program that can be incorporated into the project specifications:

- Minimum number of settlement monitoring probes
  - We recommend that that at least 5 surface probes be installed on either side of the existing railroad track. The probes shall be spaced 10 feet apart with the center probe placed along the centerline of the proposed utility installation.
- General guidance on type of probes and installation methods
  - The ground settlement probes can consist of 2-foot long 1-inch diameter steel rod installed into the ground within a 3-inch diameter hole that is subsequently cement grouted.
    - These probes can subsequently be surveyed utilizing traditional surveying tools to monitor changes in elevation of the top of the probe.
  - If measurement of the settlement of subsoils below the ground surface is desired, a probe extensometer can typically be utilized. However, based on the relatively shallow pits, the surface monitoring method is considered sufficient for this project.
- Estimated ground settlement due to proposed excavation
  - Considering the limited depth of the excavation, the anticipated use of an adequate shoring system, and assumed relatively short time frame the excavation will be open; we estimate that ground settlement immediately adjacent to the excavation will be on the order of ½ maximum provided that the excavation is properly shored. The ground settlement is likely to be most noticeable immediately adjacent to the excavation and will decrease in magnitude as you move away from the excavation.

The magnitude of settlement about 10 feet or more away from the excavation edge is expected to be minimal.

- Frequency of monitoring
  - We recommend that a series (minimum five separate readings) of baseline readings be taken prior to beginning the installation of the waterline. The baseline readings should be used to establish ambient movement conditions and potentially a critical threshold movement. The baseline reading study should be performed for at least a 1 week period prior to beginning construction and readings should be taken every day during the baseline study.
  - During construction, we recommend that readings be taken every day during the following activities:
    - Excavation of the entry/exit pits
    - Installation of the water line via jack and bore
    - Backfill of the entry/exit pits
- Duration of monitoring
  - The monitoring program should be initiated with the baseline study, and should continue till the installation of the casing has been completed and the entry/exit pit excavations have been backfilled.
- Review and Alert Settlement Levels
  - If a settlement reading on any of the probes is recorded that is greater than 3/16 of an inch, CN should be alerted immediately to review the ongoing work and operations.
  - If a settlement reading on any of the probes is recorded that is equal to or greater than 3/8" of an inch, work should be stopped until a resolution is achieved.

SEISMIC CONSIDERATIONS

The seismic design requirements for buildings and other structures are based on Seismic Design Category. Site Classification is required to determine the Seismic Design Category for a structure. The Site Classification is based on the upper 100 feet of the site profile defined by a weighted average value of either shear wave velocity, standard penetration resistance, or undrained shear strength in accordance with Section 20.4 of ASCE 7-10. The Site Class types are listed below:

- A. Hard Rock
- B. Rock
- C. Very dense soil and soft rock
- D. Stiff soil
- E. Soft clay soil
- F. Soils vulnerable to potential failure or collapse under seismic loading

Description	Value
2015 International Building Code Site Classification (IBC) [1]	E [2]

1. Seismic site classification in general accordance with the *2015 International Building Code*, which refers to ASCE 7-10.
2. The 2015 International Building Code (IBC) uses a site profile extending to a depth of 100 feet for seismic site classification. Borings at this site were extended to a maximum depth of 40 feet. The site properties below the boring depth to 100 feet were estimated based on our experience and knowledge of geologic conditions of the general area. Although not considered necessary, additional deeper borings or geophysical testing may be performed to confirm the conditions below the current boring depth.

GENERAL COMMENTS

As the project progresses, we address assumptions by incorporating information provided by the design team, if any. Revised project information that reflects actual conditions important to our services is reflected in the final report. The design team should collaborate with Terracon to confirm these assumptions and to prepare the final design plans and specifications. This facilitates the incorporation of our opinions related to implementation of our geotechnical recommendations. Any information conveyed prior to the final report is for informational purposes only and should not be considered or used for decision-making purposes.

Our analysis and opinions are based upon our understanding of the project, the geotechnical conditions in the area, and the data obtained from our site exploration. Natural variations will occur between exploration point locations or due to the modifying effects of construction or weather. The nature and extent of such variations may not become evident until during or after construction. Terracon should be retained as the Geotechnical Engineer, where noted in the final report, to provide observation and testing services during pertinent construction phases. If variations appear, we can provide further evaluation and supplemental recommendations. If variations are noted in the absence of our observation and testing services on-site, we should be immediately notified so that we can provide evaluation and supplemental recommendations.

Our scope of services does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

Our services and any correspondence or collaboration through this system are intended for the sole benefit and exclusive use of our client for specific application to the project discussed and are accomplished in accordance with generally accepted geotechnical engineering practices with no third party beneficiaries intended. Any third party access to services or correspondence is solely for information purposes to support the services provided by Terracon to our client. Reliance upon the services and any work product is limited to our client, and is not intended for third parties. Any use or reliance of the provided information by third parties is done solely at their own risk. No warranties, either express or implied, are intended or made.

Site characteristics as provided are for design purposes and not to estimate excavation cost. Any use of our report in that regard is done at the sole risk of the excavating cost estimator as there may be variations on the site that are not apparent in the data that could significantly impact excavation cost. Any parties charged with estimating excavation costs should seek their own site characterization for specific purposes to obtain the specific level of detail necessary for costing. Site safety, and cost estimating including, excavation support, and dewatering requirements/design are the responsibility of others. If changes in the nature, design, or location of the project are planned, our conclusions and recommendations shall not be considered valid unless we review the changes and either verify or modify our conclusions in writing.

ATTACHMENTS

EXPLORATION AND TESTING PROCEDURES

Field Exploration

Number of Locations	Type of Exploration	Depth (feet)	Planned Location
5[1,2]	Borings	40	Jack and Bore Installation locations under CN Railroad

1. Initially, we had planned to do a total of 6 soil borings (2 at each crossing locations). However, 1 of the soil boring location at Crossing #3 was inaccessible. The planned boring on the south side of the railroad tracks could not be performed due to lack of accessibility for our drilling rig. The proposed boring location was either in railroad right-of-way, too close to overhead utility lines, or located on private property that we did not have access to.
2. Soil borings at crossing #3, near Railroad Ave and NW 3rd Street, were performed subsequent to the soil borings at the first two crossings because the Client did not finalize the location of Crossing #3 till September 10, 2018.

Boring Layout and Elevations: Unless otherwise noted, Terracon personnel provide the boring layout. Coordinates were obtained with a handheld GPS unit (estimated horizontal accuracy of about ±10 feet) and approximate elevations were obtained by interpolation from the most recent Google Earth™ imagery and the accuracy of the ground surface at each point is probably about 2 feet. If elevations and a more precise boring layout are desired, we recommend borings be surveyed following completion of fieldwork.

Subsurface Exploration Procedures: We advanced soil borings with a track-mounted drill rig using continuous flight augers (solid stem) and wet rotary drilling technique. Samples were continuously obtained in the upper 10 feet of each boring and at maximum intervals of 5 feet thereafter. In the thin-walled tube sampling procedure, a thin-walled, seamless steel tube with a sharp cutting edge is pushed hydraulically into the soil to obtain a relatively undisturbed sample. In the split-barrel sampling procedure, a standard 2-inch outer diameter split-barrel sampling spoon is driven into the ground by a 140-pound automatic or safety hammer falling 30 inches. The number of blows required to advance the sampling spoon the last 12 inches of a normal 18-inch penetration is recorded as the Standard Penetration Test (SPT) resistance value. The SPT resistance values, also referred to as N-values, are indicated on the boring logs at the test depths. We observe and record groundwater levels during drilling and sampling. For safety purposes, all borings are backfilled with auger cuttings or cement-bentonite grout consistent with state regulations after their completion. Pavements are patched with cold-mix asphalt and/or pre-mixed concrete, as appropriate.

The sampling depths, penetration distances, and other sampling information are recorded on the field boring logs. The samples are placed in appropriate containers and taken to our soil laboratory for testing and classification by a geotechnical engineer. Our exploration team prepares field boring logs as part of the drilling operations. These field logs include visual classifications of the materials

encountered during drilling and our interpretation of the subsurface conditions between samples. Final boring logs are prepared from the field logs. The final boring logs represent the geotechnical engineer's interpretation of the field logs and include modifications based on observations and tests of the samples in our laboratory.

Laboratory Testing

The project engineer reviews the field data and assigns various laboratory tests to better understand the engineering properties of the various soil strata as necessary for this project. Procedural standards noted below are for reference to methodology in general. In some cases, variations to methods are applied because of local practice or professional judgment. Standards noted below include reference to other, related standards. Such references are not necessarily applicable to describe the specific test performed.

- ASTM D2216 Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
- ASTM D4318 Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
- ASTM D422 Standard Test Method for Particle-Size Analysis of Soils
- ASTM D2166/D2166M Standard Test Method for Unconfined Compressive Strength of Cohesive Soil
- ASTM D2850 Standard Test Method for Unconsolidated-Undrained Triaxial Compression Test on Cohesive Soils

The laboratory testing program often includes examination of soil samples by an engineer. Based on the material's texture and plasticity, we describe and classify the soil samples in accordance with the Unified Soil Classification System.

SITE LOCATION AND EXPLORATION PLANS

SITE LOCATION

St. John Parish Utility Rail Crossing ■ Reserve, LA

June 21, 2018 ■ Terracon Project No. EH175317

Terracon GeoReport

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY QUADRANGLES INCLUDE: RESERVE, LA (1/1/1999).

EXPLORATION PLAN

St. John Parish Utility Rail Crossing ▪ Reserve, LA

October 29, 2018 ▪ Terracon Project No. EH175317

Terracon GeoReport

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

AERIAL PHOTOGRAPHY PROVIDED BY MICROSOFT BING MAPS

EXPLORATION RESULTS

BORING LOG NO. B-1

PROJECT: Reserve Drainage Improvements

CLIENT: Shread-Kuyrkendall and Associates, Inc.
Baton Rouge, LA

SITE: Firehouse Lane
Reserve, LA

LOCATION See Exploration Plan

Latitude: 30.0604° Longitude: -90.5625°

Approximate Surface Elev: 12 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description
0.5	11.5+/-	**FILL - GRAVEL**, black and dark gray, **6-inch crushed gravel**
2.0	10+/-	**FILL - SILTY SAND**, with gravel, dark gray and black
6.0	6+/-	**FAT CLAY**, with silt, brown and gray
11.0	1+/-	**SILTY CLAY**, brown and gray
14.0	-2+/-	**LEAN CLAY**, with silt and organics, gray
39.5	-27.5+/-	**FAT CLAY**, gray -with shells below 33 feet

Boring Terminated at 39.5 Feet

DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	TEST TYPE	COMPRESSIVE STRENGTH (tsf)	STRAIN (%)	CONFINING PRESSURE (psi)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
								21			
5				UU	0.44	14.5	2.5	31	91	64-18-46	100
				UU	0.57	15	4	30	96	30-24-6	
10								40			
15								49			
				UU	0.62	7.8	8	52	72	92-19-73	
20											
25											
								33			
30											
				UU	0.39	13.8	14	46	81		
35											
			1-2-3 N=5								

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
Auger 0'-6'
Wet rotary 6'-40'

Abandonment Method:
Boring backfilled with cement-bentonite grout upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

While drilling

After 15 minutes

Terracon
2822 Oneal Ln, Bldg B
Baton Rouge, LA

Boring Started: 06-22-2018	Boring Completed: 06-22-2018
Drill Rig: DR003	Driller: R. Warren
Project No.: EH175317	

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL EH175317 ST. JOHN PARISH U.GPJ TERRACON_DATATEMPLATE.GDT 7/10/18

BORING LOG NO. B-2

PROJECT: Reserve Drainage Improvements

CLIENT: Shread-Kuyrkendall and Associates, Inc.
Baton Rouge, LA

SITE: Firehouse Lane
Reserve, LA

LOCATION See Exploration Plan

Latitude: 30.0606° Longitude: -90.5624°

Approximate Surface Elev: 14 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description
2.0	12+/-	**FILL - SILTY SAND**, brown
8.0	6+/-	**LEAN CLAY**, with organics and wood, gray, medium stiff to stiff
11.0	3+/-	**SILTY CLAY**, gray, soft to medium stiff
14.0	0+/-	**LEAN CLAY**, with silt, gray, soft
18.0	-4+/-	**SILT**, with clay, gray, very soft, -Hydrometer (73% Silt, 24% Clay, 3% Sand)
38.0	-24+/-	**FAT CLAY**, gray, medium stiff
40.0	-26+/-	**LEAN CLAY**, with silt and gravel, gray, soft
		Boring Terminated at 40 Feet

DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	STRENGTH TEST: TEST TYPE	COMPRESSIVE STRENGTH (tsf)	STRAIN (%)	CONFINING PRESSURE (psi)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS: LL-PL-PI	PERCENT FINES
								31		38-25-13	98
5											
	▽ ▽			UU	0.35	15	3	36	81	37-22-15	
10											
		X	1-2-3 N=5					34		36-20-16	97
15		X	1-1-1 N=2					38			97
20											
				UU	0.90	11.5	10	34	88		
25											
30											
35								55			
				UU	0.31	14.5	16	25	90		
40											

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
Auger 0'-13'
Wet rotary 13'-40'

Abandonment Method:
Boring backfilled with cement-bentonite grout upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

▽ *While drilling*

▽ *After 15 minutes*

Terracon
2822 Oneal Ln, Bldg B
Baton Rouge, LA

Boring Started: 06-22-2018	Boring Completed: 06-22-2018
Drill Rig: DR003	Driller: R. Warren
Project No.: EH175317	

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL EH175317 ST. JOHN PARISH.GPJ TERRACON_DATATEMPLATE.GDT 7/10/18

BORING LOG NO. B-3

PROJECT: Reserve Drainage Improvements

CLIENT: Shread-Kuyrkendall and Associates, Inc.
Baton Rouge, LA

SITE: Firehouse Lane
Reserve, LA

LOCATION See Exploration Plan

Latitude: 30.061° Longitude: -90.56°

Approximate Surface Elev: 13 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description
		FILL - SILTY SAND, brown, loose
6.0	7+/-	**LEAN CLAY**, very silty, light gray, soft to medium stiff
11.0	2+/-	**FAT CLAY**, very silty, gray, medium stiff
14.0	-1+/-	**FAT CLAY**, dark gray, medium stiff to stiff
33.0	-20+/-	**LEAN CLAY**, with silt and sand, gray, medium stiff to stiff
40.0	-27+/-	***Boring Terminated at 40 Feet***

Depth (Ft.)	Sample Type	Field Test Results	Test Type	Compressive Strength (tsf)	Strain (%)	Confining Pressure (psi)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
		3-3-6 N=9					7			8
		1-2-3 N=5								
5		1-1-2 N=3					20			4
		1-2-3 N=5					34		37-15-22	
		1-2-2 N=4								
10										
			UU	0.39	15	5	44	81	54-22-32	
15										
			UU	0.96	4.3	8	46	75	98-22-76	
20										
25										
							62			
30										
			UU	0.56	15	14	29	100	34-18-16	
35										
							42			
40										

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
Auger 0'-11'
Wet rotary 11'-40'

Abandonment Method:
Boring backfilled with cement-bentonite grout upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

While drilling

After 15 minutes

Terracon
2822 Oneal Ln, Bldg B
Baton Rouge, LA

Boring Started: 06-25-2018	Boring Completed: 06-25-2018
Drill Rig: DR003	Driller: R. Warren
Project No.: EH175317	

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL EH175317 ST. JOHN PARISH U.GPJ TERRACON_DATATEMPLATE.GDT 7/10/18

BORING LOG NO. B-4

PROJECT: Reserve Drainage Improvements

CLIENT: Shread-Kuyrkendall and Associates, Inc.
Baton Rouge, LA

SITE: Firehouse Lane
Reserve, LA

LOCATION See Exploration Plan

Latitude: 30.0607° Longitude: -90.5594°

Approximate Surface Elev: 14 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description
0.5	13.5+/-	ASPHALT, 6-inch asphalt
0.8	13+/-	GRAVEL, 2-inch gravel
2.0	12+/-	LEAN CLAY, with trace sand, brown
		LEAN CLAY, very silty, brown and gray, medium stiff to stiff
14.0	0+/-	FAT CLAY, medium stiff
33.0	-19+/-	LEAN CLAY, with silt and sand, gray
40.0	-26+/-	*Boring Terminated at 40 Feet*

DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	STRENGTH TEST: TEST TYPE	STRENGTH TEST: COMPRESSIVE STRENGTH (tsf)	STRENGTH TEST: STRAIN (%)	STRENGTH TEST: CONFINING PRESSURE (psi)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS: LL-PL-PI	PERCENT FINES
								17		33-15-18	88
5				UC	0.91	15	2.5	31	87	48-17-31	
	▽										
10	▽										
				UU				39	88	40-21-19	
15								55			
				UU	0.87	15	8	41	81	82-20-62	
20											
25											
30								59			
35				UU	0.55	14.8	14	29	95	34-16-18	
40											

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
Auger 0'-18'
Wet rotary 18'-40'

Abandonment Method:
Boring backfilled with cement-bentonite grout upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

▽ *While drilling*

▽ *After 15 minutes*

Terracon
2822 Oneal Ln, Bldg B
Baton Rouge, LA

Boring Started: 06-25-2018	Boring Completed: 06-25-2018
Drill Rig: DR003	Driller: R. Warren
Project No.: EH175317	

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL EH175317 ST. JOHN PARISH U.GPJ TERRACON_DATATEMPLATE.GDT 7/10/18

BORING LOG NO. B-5

PROJECT: St. John Parish Utility Rail Crossing

CLIENT: Shread-Kuyrkendall and Associates, Inc.
Baton Rouge, LA

SITE: Firehouse Lane
Reserve, LA

LOCATION See Exploration Plan

Latitude: 30.0611° Longitude: -90.5567°

Approximate Surface Elev: 13 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description
0.3	13+/-	**TOPSOIL**, 3" thick topsoil
2.0	11+/-	**FILL - FAT CLAY (CH)**, with silt and fill, black and dark gray, stiff, Fill material consited of pieces of brick and asphalt
4.0	9+/-	**FAT CLAY (CH)**, gray to dark gray, stiff
6.0	7+/-	**LEAN CLAY (CL)**, with silt, dark gray, soft
11.0	2+/-	**SILTY CLAY (CL-ML)**, with trace sand, brown and gray, very soft Hydrometer - 75.6% silt, 21.2% clay, and 3.2% sand
18.0	-5+/-	**FAT CLAY (CH)**, trace silt, gray to dark gray, soft
23.0	-10+/-	**FAT CLAY (CH)**, trace silt, gray to bluish gray, medium stiff
28.0	-15+/-	**LEAN CLAY WITH SILT (CL)**, brown and gray, medium stiff
40.0	-27+/-	**LEAN CLAY WITH SAND (CL)**, gray to bluish gray, soft
		Boring Terminated at 40 Feet

Depth (Ft.)	Test Type	Compressive Strength (tsf)	Strain (%)	Confining Pressure (psi)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
					29			
	UU	1.19	11.7	1.5	36	87	65-25-40	
	UU	0.23	15	3	31	97		97
	UU	0.39	14.9	5	47	78	69-20-49	
	UU	0.80	15	8	33	92	63-19-44	
					55			
	UU	0.46	13.8	14	34	88	49-19-30	

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
Auger 0'-16'
Wet rotary 16'-40'

Abandonment Method:
Boring backfilled with cement-bentonite grout upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

While drilling

After 15 minutes

Terracon
2822 Oneal Ln, Bldg B
Baton Rouge, LA

Boring Started: 10-02-2018	Boring Completed: 10-03-2018
Drill Rig: DR003	Driller: R. Warren
Project No.: EH175317	

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL EH175317 ST. JOHN PARISH U.GPJ TERRACON_DATATEMPLATE.GDT 10/29/18

SELECT PROJECT PLANS

PARISH	SHEET NO.
ST. JOHN	28

SCALE: 1" = 10'

10+00

11+00

52.83'

39.50'

36.69' INFLUENCE LINE

31.79' INFLUENCE LINE

RAILROAD AVE. ASPHALT RD.

WEST 3RD ST.

TOP OF DITCH

PROPOSED 60" CMPA

REMOVE EXISTING PIPE

STA. 10+00.00

BEGIN RR CROSSING NO. 3

TOP OF DITCH

TOE OF DITCH

TOP OF DITCH

PROPOSED 36" CMPA

EXIST. 2.8'x4.0' CMPA

S03°03'33.78"E

EXIST. 42" CMP

EXIST. 30" STEEL PIPE

STA. 11+56.45

END RR CROSSING NO. 3

PROPOSED DRAINAGE MAN HOLE

BORE PIT 10' x 25'

EXIST. 24" CMP

10'

PROPOSED DRAINAGE MAN HOLE

89°56'30.66"

DRY BORE (ALSO SEE BORE PERMIT) REQ'D. 36" x 80' x 0.500" A36 STEEL PIPE

OPEN CUT

RECEIVING PIT 10' x 10'

CLEAN AND RESHAPE EXISTING DITCH

TOP OF DITCH

TOE OF DITCH

TOP OF DITCH

PRELIMINARY

NOT TO BE USED FOR CONSTRUCTION, BIDDING, RECORDATION, CONVEYANCE, SALES, OR AS THE BASIS FOR THE ISSUANCE OF A PERMIT.

MP 421.49+2467

25 20 15 10 5 0 -5 -10

PROPOSED DRAINAGE MAN HOLE

EXIST. GRADE AT BASELINE

15.00'

15.00'

TRACKS @ EL. 15.34

PROPOSED DRAINAGE MAN HOLE

EXIST. 24" CMP

EL. 12.61 EL. 12.50 EL. 12.49

REQ'D. 60" x 10' CMPA

EXIST. 42" CMP

EXIST. 2.5'x4.0' CMPA

REQ'D. 36" x 48' CMPA

EXIST. 30" STEEL PIPE

REQ'D. 36" x 80' x 0.500" A36 STEEL PIPE

RECEIVING PIT

INV. 1.94

BORING PIT

EL. 15.41

INV. 5.45

INV. 4.46

ZONE OF INFLUENCE

ZONE OF INFLUENCE

INV. 1.96

INV. 6.62

NOTE:
CONTRACTOR TO FIELD VERIFY LOCATIONS OF ALL UTILITIES

NOTE:
ESTIMATED ELEVATIONS OF WATER/SEWER UTILITIES PER PARISH.

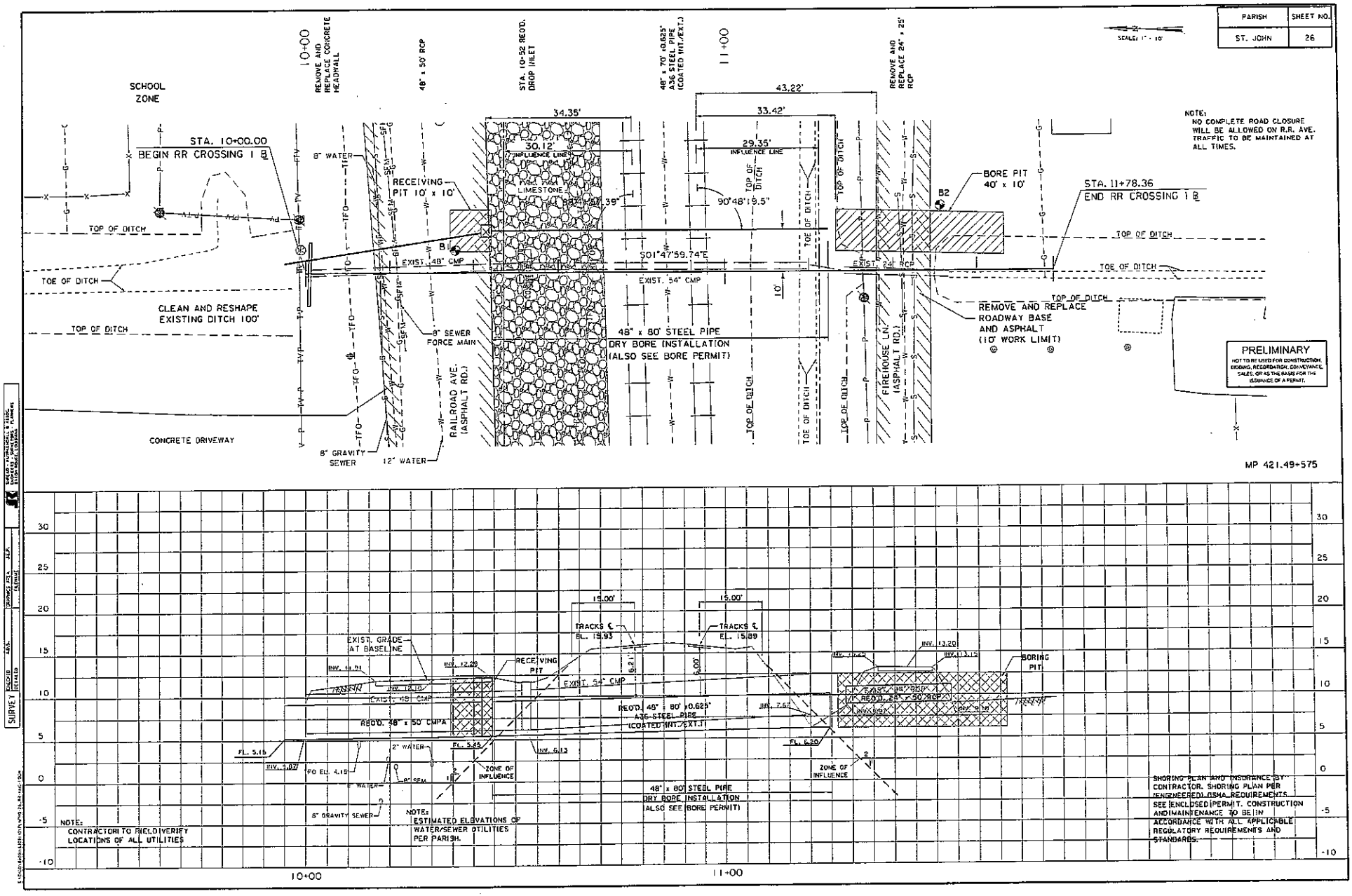
SHORING PLAN AND INSURANCE BY CONTRACTOR. SHORING PLAN PER (ENGINEERED) OSHA REQUIREMENTS. SEE ENCLOSED PERMIT. CONSTRUCTION AND MAINTENANCE TO BE IN ACCORDANCE WITH ALL APPLICABLE REGULATORY REQUIREMENTS AND STANDARDS.

10+00

11+00

SURVEY DATE: 4.8.5. DRAWN DATE: 4.8.5. REVISED: DETAILED: REVISED: ALP. REVISED: RELEASED: SHEET 1 OF 1 SHEETS

SHELLS FUNERAL & RENTAL SERVICES, INC. 8.11th STREET, LAKEFIELD


PARISH
ST. JOHN
SHEET NO.
26
SCALE: 1" = 10'
SCHOOL ZONE
10+00
REMOVE AND REPLACE CONCRETE HEADWALL
48" x 50' RCP
STA. 10+52 REQ'D. DROP INLET
48" x 70' x0.625" A36 STEEL PIPE (COATED INT./EXT.)
11+00
REMOVE AND REPLACE 24" x 25' RCP
43.22'
33.42'
34.35'
30.12'
INFLUENCE LINE
29.35'
INFLUENCE LINE
STA. 10+00.00
BEGIN RR CROSSING 1 B
8" WATER
RECEIVING PIT 10' x 10'
LIMESTONE
90°48'19.5"
TOP OF DITCH
TOE OF DITCH
BORE PIT 40' x 10'
B2
STA. 11+78.36
END RR CROSSING 1 B
B1
EXIST. 48" CMP
S01°47'59.74"E
EXIST. 54" CMP
EXIST. 24" RCP
CLEAN AND RESHAPE EXISTING DITCH 100'
8" SEWER FORCE MAIN
48" x 80' STEEL PIPE
DRY BORE INSTALLATION
(ALSO SEE BORE PERMIT)
REMOVE AND REPLACE ROADWAY BASE AND ASPHALT (10' WORK LIMIT)
RAILROAD AVE. (ASPHALT RD.)
FIREHOUSE LN. (ASPHALT RD.)
CONCRETE DRIVEWAY
8" GRAVITY SEWER
12" WATER
NOTE:
NO COMPLETE ROAD CLOSURE WILL BE ALLOWED ON R.R. AVE. TRAFFIC TO BE MAINTAINED AT ALL TIMES.
PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION, BIDDING, RECORDATION, CONVEYANCE, SALES, OR AS THE BASIS FOR THE ISSUANCE OF A PERMIT.
MP 421.49+575
15.00'
15.00'
TRACKS ℄ EL. 19.93
TRACKS ℄ EL. 15.89
EXIST. GRADE AT BASELINE
RECEIVING PIT
EXIST. 54" CMP
EXIST. 48" CMP
REQ'D. 48" x 50' CMPA
REQ'D. 48" x 80' x0.625" A36 STEEL PIPE (COATED INT./EXT.)
BORING PIT
EXIST. 24" RCP
REQ'D. 24" x 50' RCP
FL. 5.15
INV. 5.07
FO EL. 4.15
2" WATER
8" SEM
8" GRAVITY SEWER
FL. 5.85
INV. 6.13
ZONE OF INFLUENCE
FL. 6.20
48" x 80' STEEL PIPE
DRY BORE INSTALLATION
(ALSO SEE BORE PERMIT)
NOTE:
CONTRACTOR TO FIELD VERIFY LOCATIONS OF ALL UTILITIES
NOTE:
ESTIMATED ELEVATIONS OF WATER/SEWER UTILITIES PER PARISH.
SHORING PLAN AND INSURANCE BY CONTRACTOR. SHORING PLAN PER (ENGINEERED) OSHA REQUIREMENTS. SEE ENCLOSED PERMIT. CONSTRUCTION AND MAINTENANCE TO BE IN ACCORDANCE WITH ALL APPLICABLE REGULATORY REQUIREMENTS AND STANDARDS.
10+00
11+00
SURVEY
DRAWN
CHECKED
DETAILED
DRAWING AREA
FILENAME

PARISH	SHEET NO.
ST. JOHN	27

SCALE: 1" = 10'

NOTE:
NO COMPLETE ROAD CLOSURE WILL BE ALLOWED ON R.R. AVE. TRAFFIC TO BE MAINTAINED AT ALL TIMES.

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION, BIDDING, RECORDATION, CONVEYANCE, SALES, OR AS THE BASIS FOR THE ISSUANCE OF A PERMIT.

10+00

11+00

OPEN CUT

DRY BORE
(ALSO SEE BORE PERMIT)

52.70'

42.78'

TOE OF DITCH

CLEAN AND RESHAPE EXISTING DITCH 100'

TOP OF DITCH

RECEIVING PIT 10' x 10'

EXIST. 2.5x3.5 CMPA

EXIST. 2.5x3.5 CMPA

TOP OF DITCH

℄ DITCH

TOP OF DITCH

REQ'D. 24" x 4' RCP (MATCH EXISTING GRADE)

BACK FILL AROUND BOX TO FILL HOLE

90°40'56.36"

10'

CLEAN AND RESHAPE DITCH

BORE PIT 40' x 10'

B4

STA. 10+00.00
BEGIN RR CROSSING NO. 2 ℄

EXIST. 36" RCP

S02°17'36.57"E

EXIST. 36" RCP

B3

EXISTING OPEN DITCH

REQ'D. DRAIN INLET

8" WATER

RAILROAD AVE. (ASPHALT RD.)

12" WATER

TOP OF DITCH

TOE OF DITCH

COP ST. (ASPHALT DR.)

LIVE OAK TREE DRIP LINE

STA. 11+43.70
END RR CROSSING NO. 2 ℄

34.68'
INFLUENCE LINE

34.83'
INFLUENCE LINE

TOE OF DITCH

TERRANCE ST. (ASPHALT RD.)

8" GRAVITY SEWER

STA. 10+00.00
BEGIN TERRENCE ST. ℄

MP 421.49+1575

FILL REQ'D. (NO DIRECT PAY)

15.00'

15.00'

TRACKS ℄
EL. 15.26

FILL AS REQ'D.

RECEIVING PIT

EXIST. GRADE AT BASELINE

EL. 11.92

EL. 11.91

EL. 11.86

EL. 13.41

EL. 13.31

EL. 13.12

12" WATER

8" WATER

6.61'

EXIST. (2) 36" RCP

REQ'D. 36" I.D. 80' x 0.500" WALL A 36" STEEL COATED INT/EXT

EXIST. (2) 2.5x3.5 CMPA REQ'D. 36" x 45' CMPA

EL. 4.83

INV. 4.84

INV. 4.67

EL. 5.10

INV. 5.09

INV. 5.11

EL. 5.36

EL. 4.90

INV. 5.29

INV. 5.13

INV. 6.02

EL. 5.87

ZONE OF INFLUENCE

ZONE OF INFLUENCE

BORING PIT

8" GRAVITY SEWER

NOTE:
CONTRACTOR TO FIELD VERIFY LOCATIONS OF ALL UTILITIES

NOTE:
ESTIMATED ELEVATIONS OF WATER/SEWER UTILITIES PER PARISH.

SHORING PLAN AND INSURANCE BY CONTRACTOR. SHORING PLAN PER (ENGINEERED) OSHA REQUIREMENTS. SEE ENCLOSED PERMIT. CONSTRUCTION AND MAINTENANCE TO BE IN ACCORDANCE WITH ALL APPLICABLE REGULATORY REQUIREMENTS AND STANDARDS.

20

15

10

5

0

-5

10+00

11+00

SURVEY CHECKED
DRAWN
DESIGNED
GRAPHICS CHECK
REVISED

LATERAL EARTH PRESSURE DIAGRAM

Terracon

PROJECT: St. John Utility Crossing Page ____ of ____

JOB NO. EH175317 Date 10/22/18 Comp. By Axon M CHECKED BY: SEG

Soil Parameters

Classification: Soft to Medium Stiff Clay to Silty Clay

Cohesion: $C = 400$ psf

Total Unit Weight: 115 pcf

Excavation

Depth of Excavation: 8 feet

Stability Number: $N_s = \frac{\gamma_T (H)}{C} = \frac{115(8)}{400} = 2.3 < 4$

↓

Basal Heave not a Concern.

Basal Stability

$$F_s = \frac{N_c \times C}{\gamma_T H} = \frac{5.14(400)}{115 \times 8} = 2.2 > 1.5$$

Pressure Diagram → FHWA For Soft to Medium Clays

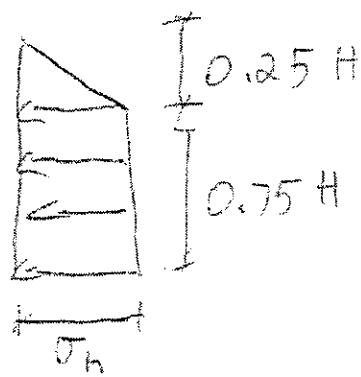
$$K_A = 1 - m\left(\frac{4r}{rH}\right)$$

$$K_A = 0.31$$

$$\sigma_h = K_A \gamma H$$

$$= 0.31(115)(8)$$

$$\boxed{\sigma_h = 285 \text{ psf}}$$



Form 112-5-93

SUPPORTING INFORMATION

UNIFIED SOIL CLASSIFICATION SYSTEM

Reserve Drainage Improvements ▪ Reserve, Louisiana

November 5, 2018 ▪ Terracon Project No. EH175317

Terracon GeoReport

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests [A]					Soil Classification	
					Group Symbol	Group Name [B]
Coarse-Grained Soils: More than 50% retained on No. 4 sieve	**Gravels:** More than 50% of coarse fraction retained on No. 4 sieve	**Clean Gravels:** Less than 5% fines [C]	Cu ≥ 4 and 1 ≤ Cc ≤ 3 [E]		GW	Well-graded gravel [F]
			Cu < 4 and/or 1 > Cc > 3 [E]		GP	Poorly graded gravel [F]
		Gravels with Fines: More than 12% fines [C]	Fines classify as ML or MH		GM	Silty gravel [F, G, H]
			Fines classify as CL or CH		GC	Clayey gravel [F, G, H]
	Sands: 50% or more of coarse fraction passes No. 4 sieve	**Clean Sands:** Less than 5% fines [D]	Cu ≥ 6 and 1 ≤ Cc ≤ 3 [E]		SW	Well-graded sand [I]
			Cu < 6 and/or 1 > Cc > 3 [E]		SP	Poorly graded sand [I]
		Sands with Fines: More than 12% fines [D]	Fines classify as ML or MH		SM	Silty sand [G, H, I]
			Fines classify as CL or CH		SC	Clayey sand [G, H, I]
Fine-Grained Soils: 50% or more passes the No. 200 sieve	**Silts and Clays:** Liquid limit less than 50	**Inorganic:**	PI > 7 and plots on or above "A"		CL	Lean clay [K, L, M]
			PI < 4 or plots below "A" line [J]		ML	Silt [K, L, M]
		Organic:	Liquid limit - oven dried / Liquid limit - not dried	< 0.75	OL	Organic clay [K, L, M, N]
						Organic silt [K, L, M, O]
	Silts and Clays: Liquid limit 50 or more	**Inorganic:**	PI plots on or above "A" line		CH	Fat clay [K, L, M]
			PI plots below "A" line		MH	Elastic Silt [K, L, M]
		Organic:	Liquid limit - oven dried / Liquid limit - not dried	< 0.75	OH	Organic clay [K, L, M, P]
						Organic silt [K, L, M, Q]
Highly organic soils:	Primarily organic matter, dark in color, and organic odor				PT	Peat

[A] Based on the material passing the 3-inch (75-mm) sieve

[B] If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

[C] Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.

[D] Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay

[E] $Cu = D_{60}/D_{10}$ $\quad Cc = \dfrac{(D_{30})^2}{D_{10} \times D_{60}}$

[F] If soil contains ≥ 15% sand, add "with sand" to group name.

[G] If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

[H] If fines are organic, add "with organic fines" to group name.

[I] If soil contains ≥ 15% gravel, add "with gravel" to group name.

[J] If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.

[K] If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.

[L] If soil contains ≥ 30% plus No. 200 predominantly sand, add "sandy" to group name.

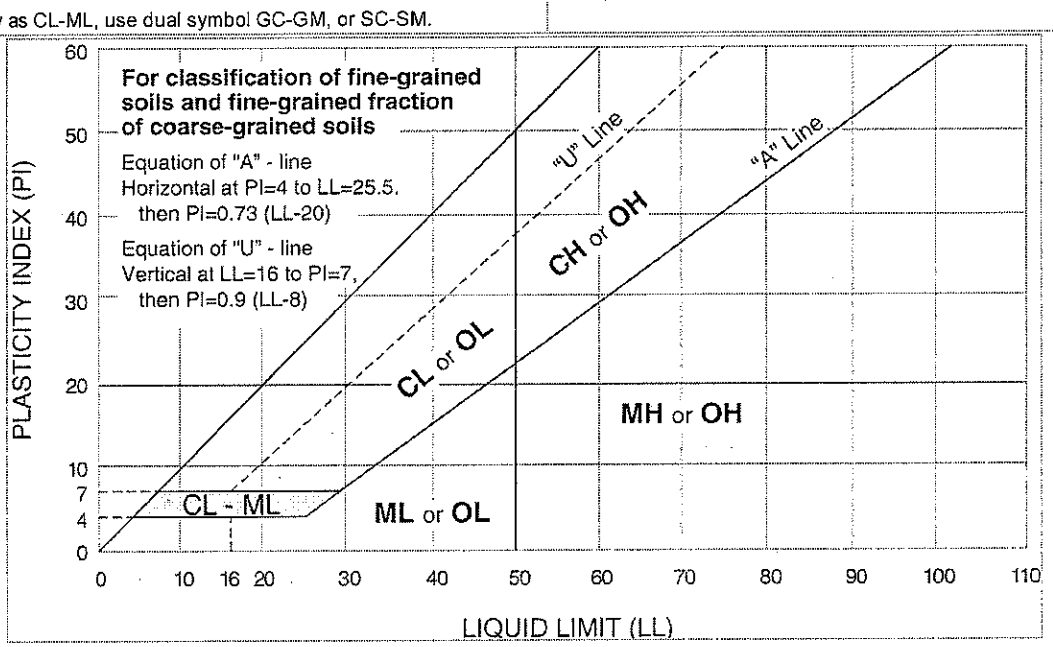
[M] If soil contains ≥ 30% plus No. 200, predominantly gravel, add "gravelly" to group name.

[N] PI ≥ 4 and plots on or above "A" line.

[O] PI < 4 or plots below "A" line.

[P] PI plots on or above "A" line.

[Q] PI plots below "A" line.



GENERAL NOTES

DESCRIPTION OF SYMBOLS AND ABBREVIATIONS

Reserve Drainage Improvements ▪ Reserve, LA

7/10/2018 ▪ Terracon Project No. EH175317

Terracon GeoReport

SAMPLING	WATER LEVEL	FIELD TESTS
Auger Cuttings Shelby Tube Split Spoon	Water Initially Encountered Water Level After a Specified Period of Time Water Level After a Specified Period of Time Water levels indicated on the soil boring logs are the levels measured in the borehole at the times indicated. Groundwater level variations will occur over time. In low permeability soils, accurate determination of groundwater levels is not possible with short term water level observations.	N — Standard Penetration Test Resistance (Blows/Ft.) (HP) — Hand Penetrometer (T) — Torvane (DCP) — Dynamic Cone Penetrometer UC — Unconfined Compressive Strength (PID) — Photo-Ionization Detector (OVA) — Organic Vapor Analyzer

DESCRIPTIVE SOIL CLASSIFICATION

Soil classification is based on the Unified Soil Classification System. Coarse Grained Soils have more than 50% of their dry weight retained on a #200 sieve; their principal descriptors are: boulders, cobbles, gravel or sand. Fine Grained Soils have less than 50% of their dry weight retained on a #200 sieve; they are principally described as clays if they are plastic, and silts if they are slightly plastic or non-plastic. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size. In addition to gradation, coarse-grained soils are defined on the basis of their in-place relative density and fine-grained soils on the basis of their consistency.

LOCATION AND ELEVATION NOTES

Unless otherwise noted, Latitude and Longitude are approximately determined using a hand-held GPS device. The accuracy of such devices is variable. Surface elevation data annotated with +/- indicates that no actual topographical survey was conducted to confirm the surface elevation. Instead, the surface elevation was approximately determined from topographic maps of the area.

STRENGTH TERMS

RELATIVE DENSITY OF COARSE-GRAINED SOILS (More than 50% retained on No. 200 sieve.) Density determined by Standard Penetration Resistance		CONSISTENCY OF FINE-GRAINED SOILS (50% or more passing the No. 200 sieve.) Consistency determined by laboratory shear strength testing, field visual-manual procedures or standard penetration resistance		
Descriptive Term (Density)	Standard Penetration or N-Value Blows/Ft.	Descriptive Term (Consistency)	Unconfined Compressive Strength Qu, (tsf)	Standard Penetration or N-Value Blows/Ft.
Very Loose	0 - 3	Very Soft	less than 0.25	0 - 1
Loose	4 - 9	Soft	0.25 to 0.50	2 - 4
Medium Dense	10 - 29	Medium Stiff	0.50 to 1.00	4 - 8
Dense	30 - 50	Stiff	1.00 to 2.00	8 - 15
Very Dense	> 50	Very Stiff	2.00 to 4.00	15 - 30
		Hard	> 4.00	> 30

RELATIVE PROPORTIONS OF SAND AND GRAVEL		RELATIVE PROPORTIONS OF FINES	
Descriptive Term(s) of other constituents	Percent of Dry Weight	Descriptive Term(s) of other constituents	Percent of Dry Weight
Trace	<15	Trace	<5
With	15-29	With	5-12
Modifier	>30	Modifier	>12

GRAIN SIZE TERMINOLOGY		PLASTICITY DESCRIPTION	
Major Component of Sample	Particle Size	Term	Plasticity Index
Boulders	Over 12 in. (300 mm)	Non-plastic	0
Cobbles	12 in. to 3 in. (300mm to 75mm)	Low	1 - 10
Gravel	3 in. to #4 sieve (75mm to 4.75 mm)	Medium	11 - 30
Sand	#4 to #200 sieve (4.75mm to 0.075mm	High	> 30
Silt or Clay	Passing #200 sieve (0.075mm)		

PARISH	SHEET NO.
ST. JOHN	26

SCALE: 1" = 10'

SCHOOL ZONE

STA. 10+00.00
BEGIN RR CROSSING I B

10+00

REMOVE AND REPLACE CONCRETE HEADWALL

48" x 50' RCP

STA. 10+52 REQ'D. DROP INLET

48" x 70' x0.625" A36 STEEL PIPE (COATED INT./EXT.)

11+00

REMOVE AND REPLACE 24" x 25' RCP

43.22'

33.42'

34.35'

30.12'

29.35'

INFLUENCE LINE

LIMESTONE

8" WATER

RECEIVING PIT 10' x 10'

B1

B2

BORE PIT 40' x 10'

STA. 11+78.36
END RR CROSSING I B

90°48'19.5"

S01°47'59.74"E

TOP OF DITCH

TOE OF DITCH

EXIST. 48" CMP

EXIST. 54" CMP

EXIST. 24" RCP

10'

CLEAN AND RESHAPE EXISTING DITCH 100'

8" SEWER FORCE MAIN

48" x 80' STEEL PIPE
DRY BORE INSTALLATION
(ALSO SEE BORE PERMIT)

RAILROAD AVE. (ASPHALT RD.)

FIREHOUSE LN. (ASPHALT RD.)

REMOVE AND REPLACE ROADWAY BASE AND ASPHALT (10' WORK LIMIT)

CONCRETE DRIVEWAY

8" GRAVITY SEWER

12" WATER

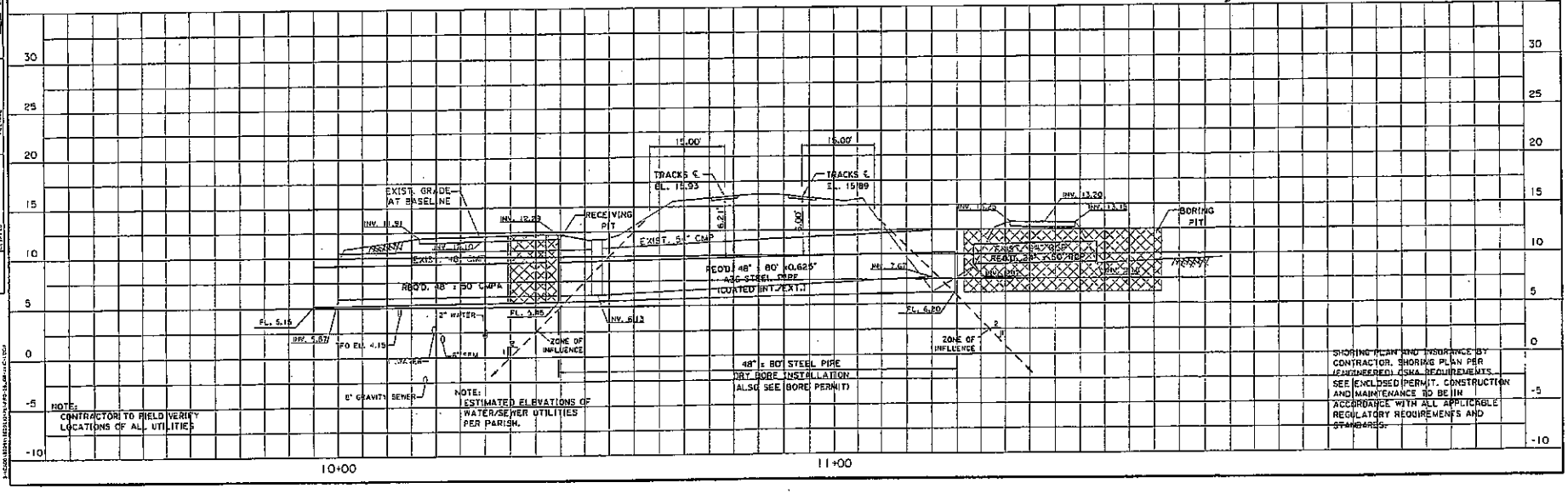
NOTE:
NO COMPLETE ROAD CLOSURE WILL BE ALLOWED ON R.R. AVE. TRAFFIC TO BE MAINTAINED AT ALL TIMES.

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION, BIDDING, RECORDATION, CONVEYANCE, SALES, OR AS THE BASIS FOR THE ISSUANCE OF A PERMIT.

STATE OF LOUISIANA
STEVEN P. HEBERT
REG. NO. 23947
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
11/13/98

MP 421.49+575

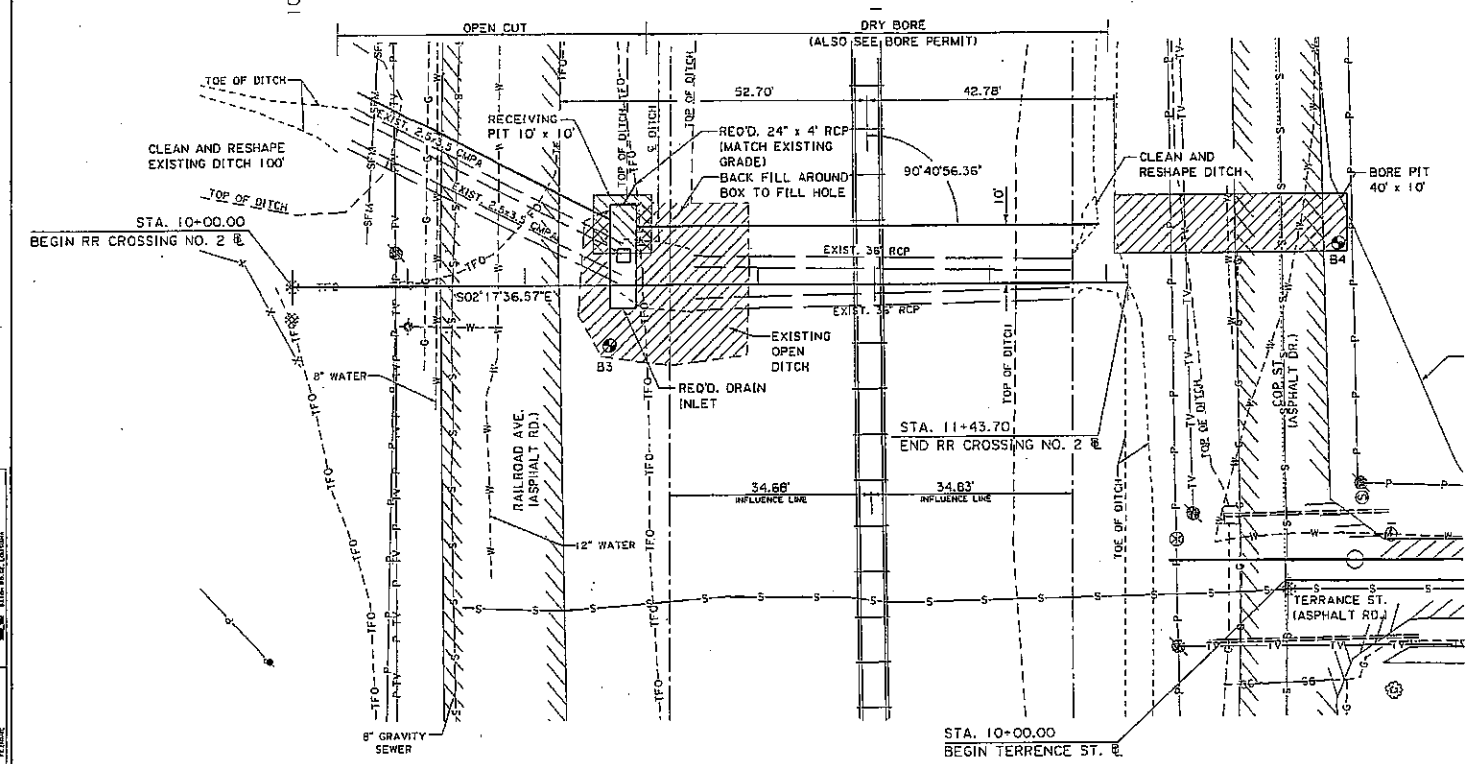
SURVEY PARTY CHIEF: J.E.S.
DRAWN BY: J.E.S.
CHECKED BY: J.E.S.
DATE: 11/13/98



PARISH	SHEET NO.
ST. JOHN	27

SCALE: 1" = 10'

NOTE:
NO COMPLETE ROAD CLOSURE WILL BE ALLOWED ON R.R. AVE. TRAFFIC TO BE MAINTAINED AT ALL TIMES.

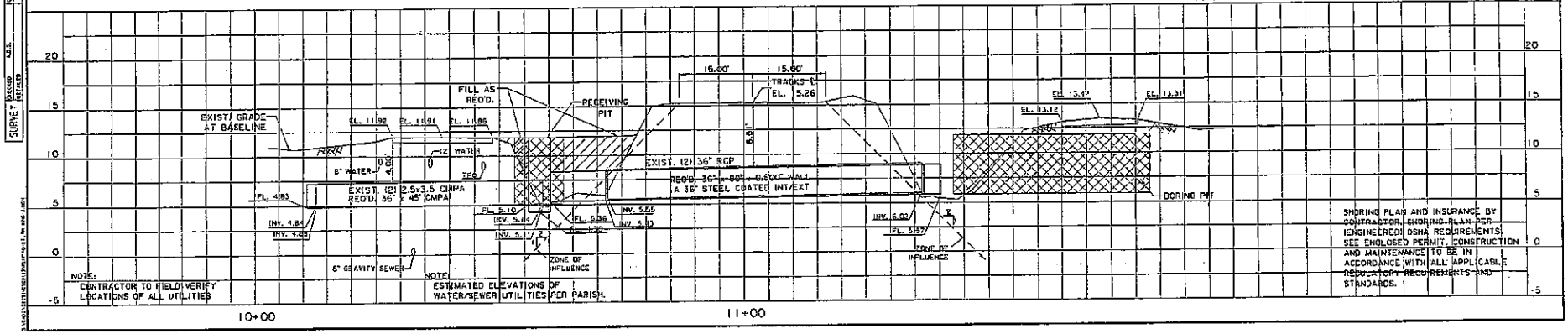


PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION, BIDDING, RECORDATION, CONVEYANCE, SALES, OR AS THE BASIS FOR THE ISSUANCE OF A PERMIT.

STATE OF LOUISIANA
STEVEN P. BIEDING
REG. 24,202
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
11/19/02

MP 421.49+1575

FILL RE'D. (NO DIRECT PAY)



NOTE:
CONTRACTOR TO FIELD VERIFY LOCATIONS OF ALL UTILITIES

NOTE:
ESTIMATED ELEVATIONS OF WATER/SEWER UTILITIES PER PARISH.

SHORING PLAN AND INSURANCE BY CONTRACTOR. SHORING PLAN PER ENGINEER(S) OSHA REQUIREMENTS. SEE ENCLOSED PERMIT. CONSTRUCTION AND MAINTENANCE TO BE IN ACCORDANCE WITH ALL APPLICABLE REGULATORY REQUIREMENTS AND STANDARDS.

SURVEY: DECKED / DETAILED
DRAWN BY: ALFY
CHECKED BY: P.E. DUKE

PARISH	SHEET NO.
ST. JOHN	28

SCALE: 1" = 10'

10+00

11+00

52.83'

39.30'

36.69' INFLUENCE LINE

31.79' INFLUENCE LINE

TOP OF DITCH

RAILROAD AVE. ASPHALT RD.

WEST 3RD ST.

PROPOSED 60" CMPA

REMOVE EXISTING PIPE

STA. 10+00.00

BEGIN RR CROSSING NO. 3 ℄

TOP OF DITCH

TOE OF DITCH

TOP OF DITCH

PROPOSED 36" CMPA

EXIST. 2.8x4.0 CMPA

S05°0'33.78"E

EXIST. 42" CMP

EXIST. 30" STEEL PIPE

STA. 11+56.45

END RR CROSSING NO. 3 ℄

PROPOSED DRAINAGE MAN HOLE

BORE PIT 10' x 25'

EXIST. 24" CMP

10'

PROPOSED DRAINAGE MAN HOLE

89°56'30.66"

DRY BORE (ALSO SEE BORE PERMIT) REQ'D. 36" x 80' x 0.500" A36 STEEL PIPE

OPEN CUT

RECEIVING PIT 10' x 10'

CLEAN AND RESHAPE EXISTING DITCH

TOP OF DITCH

TOE OF DITCH

TOP OF DITCH

PRELIMINARY

NOT TO BE USED FOR CONSTRUCTION, BIDDING, RECORDATION, CONVEYANCE, SALES, OR AS THE BASIS FOR THE ISSUANCE OF A PERMIT.

STATE OF LOUISIANA
STEVEN D. LOWDING
REG. NO. 23147
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

11/19/18

MP 21.49+2467

25 20 15 10 5 0 -5 -10

PROPOSED DRAINAGE MAN HOLE

EXIST. GRADE AT BASELINE

15.00' 15.00'

TRACKS ℄ EL. 15.34'

PROPOSED DRAINAGE MAN HOLE

EXIST. 24" CMP

EL. 12.51 EL. 12.50 EL. 12.49

REQ'D. 60" x 50' CMPA

EXIST. 42" CMP

EXIST. 2.9x4.0 CMPA

REQ'D. 36" x 45' CMPA

EXIST. 30" STEEL PIPE

REQ'D. 36" x 80' x 0.500" A36 STEEL PIPE

RECEIVING PIT

INV. 0.69

BORING PIT

INV. 6.41

INV. 5.44

INV. 6.46

ZONE OF INFLUENCE

INV. 2.96

INV. 1.52

ZONE OF INFLUENCE

NOTE:
CONTRACTOR TO FIELD VERIFY LOCATIONS OF ALL UTILITIES

NOTE:
ESTIMATED ELEVATIONS OF WATER/SEWER UTILITIES PER PARISH.

SHORING PLAN AND INSURANCE BY CONTRACTOR. SHORING PLAN PER ENGINEER REQ'D OSHA REQUIREMENTS. ~~SEE ENCLOSED PERMIT. CONSTRUCTION~~ AND MAINTENANCE TO BE IN ACCORDANCE WITH ALL APPLICABLE REGULATORY REQUIREMENTS AND STANDARDS.

10+00

11+00

SURVEY DRAWN DESIGNED CHECKED

DRAWN BY: J.D.L. DESIGNED BY: J.D.L. CHECKED BY: REVIEWED BY: J.D.L.

DATE: 11/19/18

DRAWING NAME: 28-MP21.49-2467.DGN

DIVISION OF PUBLIC WORKS & PARKS
ST. JOHN THE BAPTIST PARISH
LAFITTE, LOUISIANA