PROJECT MANUAL

A/E PROJECT NO. 20-2183Y
QUOTE NO. 2024.25

RIVER ROAD WASTEWATER TREATMENT PLANT
BELT PRESS BUILDING DEMOLITION

RESERVE, LA 70084

ST. JOHN THE BAPTIST PARISH

MEYER ENGINEERS, LTD.
ENGINEERS AND ARCHITECTS
4937 Hearst Street, Suite 1B
Metairie, Louisiana 70001

JUNE 4, 2024

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BELT PRESS BUILDING DEMOLITION

DATE: **JUNE 4, 2024**

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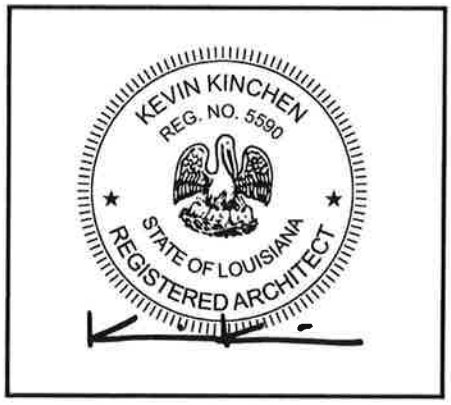

SECTION 00007: PROFESSIONAL SEALS

PROJECT NAME: **RIVER ROAD WASTEWATER TREATMENT PLANT**
BELT PRESS BUILDING DEMOLITION

DATE: **JUNE 4, 2024**

ELECTRICAL

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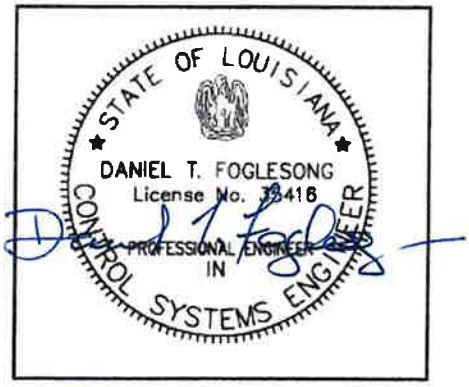

ST. JOHN THE BAPTIST PARISH
PURCHASING & PROCUREMENT DEPARTMENT
1811 W. Airline Highway
LaPlace, LA 70068

REQUEST FOR QUOTES

Quotes will be received until **9:45 AM local time on July 16, 2024**, at p.montz@stjohn-la.gov or at www.centralbidding.com for furnishing all supervision, labor, materials, equipment, etc., and performing all work necessary for:

RIVER ROAD WASTEWATER TREATMENT PLANT BELT PRESS BUILDING DEMOLITION

To be a valid delivery, Electronic Quotes must be delivered via emailed to p.montz@stjohn-la.gov or at www.centralbidding.com before **9:45 AM local time on July 16, 2024**.

Electronic Quotes submitted any other way to St. John the Baptist Parish will not be considered.

This project consists of furnishing all supervision, labor, equipment, materials, and other resources necessary to demolish and haul off existing belt press building and pull through bay. Associated concrete paving to remain. **RIVER ROAD WASTEWATER TREATMENT PLANT BELT PRESS BUILDING DEMOLITION.**

Contractors should hold a Louisiana Contractors License in **BUILDING CONSTRUCTION.**

Equal Opportunity in Employment: All qualified applicants will receive consideration for employment without regard for race, color, religion, sex, or national origin. Quoters on this work will be required to comply with the President's Executive Order No. 11246, as amended. The requirements for quoters and contractors under this order are explained in the specifications.

Publish:
St. John the Baptist Parish Web Page
Central Bidding:

Additional Contract Terms for
FEMA Public Assistance Grant Funded or Assisted Projects for a
Non-Federal Entity (State agency or Agency of a Political Subdivision of a State)
(Updated 6/7/2022)

Termination for Cause
Should the Parish determine that the Contractor has failed to comply with the Agreement's terms, the Parish may terminate the Agreement for cause by giving the Contractor written notice specifying the Contractor's failure. If the Parish determines that the failure is not correctable, then the Agreement shall terminate on the date specified in such notice. If the Parish determines that the failure may be corrected, the Parish shall give a deadline for the Contractor to make the correction. If the Parish determines that the failure is not corrected by the deadline, then the Parish may give additional time for the Contractor to make the corrections or the Parish may notify the Contractor of the Agreement termination date.

Termination for Convenience
Either Party may terminate the Agreement at any time without penalty by giving thirty (30) days written notice to the other Party of such termination or negotiating with the Parties regarding a termination date. Contractor shall be entitled to payment for deliverables in progress, to the extent that the work is acceptable.

Contract Provisions Applicable to Projects Fully or Partially Funded by the FEMA Public Assistance Program (Note: All such terms are also applicable to all appropriate subcontractors):

a. ***Equal Employment Opportunity*** — Except as otherwise provided under 41 CFR Part 60, the Contractor and Subcontractors must comply with 41 CFR 60–1.4(b), in accordance with Executive Order 11246, "Equal Employment Opportunity" (30 CFR 12319, 12935, 3 CFR Part, 1964–1965 Comp., p. 339), as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and implementing regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

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

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

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

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

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

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

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

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

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

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

Provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

b. ***Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708)*** Where applicable, all contracts and subcontracts in excess of $100,000 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 C.F.R. Part 5).

Compliance with the Contract Work Hours and Safety Standards Act:

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

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of $26 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

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

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

c. ***Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act (33 U.S.C. 1251-1387), as amended***

If the Contract and Subcontracts are in excess of $150,000, the Contractor and Subcontractors shall comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act (42U.S.C. 7401-7671) and the Federal Water Pollution Control Act as amended (33U.S.C. 1251-1387). Violations shall be reported to Owner and the Federal awarding agency and the Regional Office of the Environmental Protection Agency ("EPA").

Clean Air Act

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

2. The contractor agrees to report each violation to the Parish and understands and agrees that the Parish will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.

3. The contractor agrees to include these requirements in each subcontract exceeding $150,000 financed in whole or in part with Federal assistance provided by FEMA.

Federal Water Pollution Control Act

1. The Contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.

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

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

d. Debarment and Suspension (Executive Orders 12549 and 12689)

A contract award (see 2 C.F.R. § 180.220) shall not be made to parties listed on the government-wide exclusions in the System for Award Management ("SAM"), in accordance with the OMB guidelines at 2 C.F.R Part 180 that implement Executive Orders 12549 (3 C.F.R. part 1986 Comp., p. 189) and 12689 (3 C.F.R. part 1989 Comp., p. 235), "Debarment and Suspension." SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

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

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

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

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

e. Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)

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

Contractor must complete attached Certification.

f. Procurement of Recovered Materials

i. In the performance of this contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired—
   a) Competitively within a timeframe providing for compliance with the contract performance schedule;
   b) Meeting contract performance requirements; or
   c) At a reasonable price.

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

iii. The Contractor also agrees to comply with all other applicable requirements of Section 6002 of the Solid Waste Disposal Act."

g. Access to Records

The following access to records requirements apply to this contract:

(1) The Contractor agrees to provide the State, Parish, the FEMA Administrator, the Comptroller General of the United States, or any of their authorized representatives access to any books, documents, papers, and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts, and transcriptions.

(2) The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

(3) The Contractor agrees to provide the FEMA Administrator or his authorized representatives access to construction or other work sites pertaining to the work being completed under the contract.

(4) In compliance with the Disaster Recovery Act of 2018, the Parish and the Contractor acknowledge and agree that no language in this contract is intended to prohibit audits or internal reviews by the FEMA Administrator or the Comptroller General of the United States.

h. DHS Seal, Logo, and Flags

The contractor or its subcontractors shall not use the DHS seal(s), logos, crests, or reproductions of flags or likenesses of DHS agency officials without specific FEMA pre-approval.

i. Compliance with Federal Law, Regulations, and Executive Orders

This is an acknowledgement that FEMA financial assistance will be used to fund all or a portion of the contract. The contractor will comply with all applicable Federal law, regulations, executive orders, FEMA policies, procedures, and directives.

j. No Obligation by Federal Government

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

k. Program Fraud and False or Fraudulent Statements or Related Acts

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

l. §200.322 Domestic preferences for procurements.

(a) As appropriate and to the extent consistent with law, the non-Federal entity should, to the greatest extent practicable under a Federal award, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all subawards including all contracts and purchase orders for work or products under this award.

(b) For purposes of this section:

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

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

***m.* Affirmative Socioeconomic Steps.**

If subcontracts are to be let, the prime contractor is required to take all necessary steps identified in 2 C.F.R. § 200.321(b)(1)-(5) to ensure that small and minority businesses, women's business enterprises, and labor surplus area firms are used when possible.

n. **License and Delivery of Works Subject to Copyright and Data Rights.**

The Contractor grants to the Parish, a paid-up, royalty-free, nonexclusive, irrevocable, worldwide license in data first produced in the performance of this contract to reproduce, publish, or otherwise use, including prepare derivative works, distribute copies to the public, and perform publicly and display publicly such data. For data required by the contract but not first produced in the performance of this contract, the Contractor will identify 75 See 17 U.S.C. § 102. Contract Provisions Guide 35 such data and grant to the Parish or acquires on its behalf a license of the same scope as for data first produced in the performance of this contract. Data, as used herein, shall include any work subject to copyright under 17 U.S.C. § 102, for example, any written reports or literary works, software and/or source code, music, choreography, pictures or images, graphics, sculptures, videos, motion pictures or other audiovisual works, sound and/or video recordings, and architectural works. Upon or before the completion of this contract, the Contractor will deliver to the Parish data first produced in the performance of this contract and data required by the contract but not first produced in the performance of this contract in formats acceptable by the Parish.

o. **200.216 Prohibition on certain telecommunications and video surveillance services or equipment.**

(a) Recipients and sub recipients are prohibited from obligating or expending loan or grant funds to:

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

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

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

(d) See also § 200.471.

p. Copyright and Data Rights

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

CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The Contractor, _____, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. Chap. 38, Administrative Remedies for False Claims and Statements, apply to this certification and disclosure, if any.

_____

Signature of Contractor's Authorized Official

_____

Name and Title of Contractor's Authorized Official

_____

Date

INFORMATION FOR QUOTERS

Receipt and Opening of Quotes: The **Parish of St. John the Baptist** (herein called the "Owner"), invites quotes on the form attached hereto. All blanks must be appropriately filled in. Electronic Quotes will be received until **9:45 AM local time on July 16, 2024**, at p.montz@stjohn-la.gov or at www.centralbidding.com and clearly marked **"RIVER ROAD WASTEWATER TREATMENT PLANT BELT PRESS BUILDING DEMOLITION".**

1. Preparation of Quotes: Each quote must be submitted on the prescribed form. All blank spaces for prices must be filled in, in ink or typewritten, in both words and figures.

2. Subcontractors: The quoter is specifically advised that any person for or other party to whom it is proposed to award a subcontract under this contract must be acceptable to the Owner.

3. Prices: In the event of a discrepancy between the prices quoted in words and those quoted in figures in the quote, the words shall control. The prices are to include the furnishing of all materials, plant, equipment, tools, and all other facilities, and the performance of all labor and services necessary for proper completion of the work except as may be otherwise expressly provided in the contract documents.

4. Time of Completion and Liquidated Damages: Quoter must agree to provide the specified services for the project **ONE HUNDRED TWENTY (120)** consecutive calendar days after receipt of the Notice to Proceed. Thereafter Quoter must agree to pay as liquidated damages the sum of **TWO HUNDRED ($200.00)** for each consecutive calendar day thereafter until acceptance is hereinafter provided.

5. Conditions of Work: Each quoter must inform himself fully of the conditions relating to the construction of the project and the employment of labor thereon. Failure to do so will not relieve a successful quoter of his obligation to carry out the provisions of his contract. Insofar as possible the contractor, in carrying out the work, must employ such methods or means as will not cause any interruption of or interference with the work of any other contractor.

6. Laws and Regulations: The quoter's attention is directed to the fact that all applicable State laws, municipal ordinances and rules and regulations of authorities having jurisdiction over construction of the project shall apply to the contract throughout and will be deemed to be included in the contract the same as written herein in full.

7. Method of Award: The contract, if awarded, will be awarded to the lowest responsible quoter.

8. Obligation of Quoter: With the submitting of quotes, each quoter will be presumed is attesting to that they have inspected the site and have read and to be thoroughly familiar with the contract documents (including all addenda). The failure or omission of any quoter to examine any form, instrument or document shall in no way relieve any quoter from any obligation with respect to his quote.

9. Purchase Order: A Purchase Order will not be issued.

10. Agreement: Upon identification of the lowest responsible quoter the Agreement will be executed by all parties.

11. Notice to Proceed: A written notice to proceed will be issued by the Owner to the Contractor with the date on which the contract time will commence and on which Contractor shall start to perform the Contractor's obligation under the Contract Documents. Once mobilized, work shall continue until complete without interruption. Coordination with **Peter Montz, Purchasing Director,** is required before beginning work.

12. Corporate Resolution: All quotes received shall be accompanied by a corporate resolution identifying the signatory as an authorized signatory agent. An example corporate resolution follows the Instructions to Quoter.

13. Insurance

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

A. **Commercial General Liability**, including:
   1. Contractual liability assumed by this agreement
   2. Owner's and Contractor's Protective Liability (if Contractor is a General Contractor) may be required.
   3. Personal and advertising liability
   4. Completed operations
   5. Medical payments

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

1. $2,000,000 each occurrence limit
2. $2,000,000 products/completed operations limit
3. $4,000,000 general aggregate limit
4. $1,000,000 personal and advertising injury limit
5. $50,000 fire damage limit
6. $5,000 medical expense limit (desirable but not mandatory)

St. John the Baptist Parish Council will be NAMED as additional insured and WAIVER OF SUBROGATION in favor of St. John the Baptist Parish Council should be indicated on certificate.

Some contracts may require Protection and Indemnity coverage. This should be verified with Insurance Department/Legal Dept.

14. Security for Faithful Performance: Simultaneously with his delivery of the executed contract, the successful quoter shall furnish a surety bond or bonds as security for faithful performance of this contract and for the payment of all persons performing labor on the project under this contract and furnishing materials in connection with this contract. The surety on such bond or bonds shall be a duly authorized surety company satisfactory to the Owner. Only those surety companies currently on the U. S. Department of Treasury Financial Management Services list (Circular 570) of approved bonding companies will be accepted. The agent selling the bond must be currently licensed to do business in Louisiana. This will be verified by the Owner.

The successful quoter will be required to file a performance bond in the amount equal to 50-percent of the contract price for the full period of the contract and a payment bond in the amount equal to 50-percent of the contract price for the full period of the contract.

15. Obligation of Quoter: At the time of the opening of quotes, each quoter will be presumed to have inspected the site and to have read and to be thoroughly familiar with the plans and contract documents (including all addenda). The failure or omission of any quoter to examine any form, instrument or document shall in no way relieve any quoter from any obligation with respect to his quote.

16. Hold Harmless: To the fullest extent permitted by law, Company/Consultant shall indemnify, hold harmless, and defend the Parish Council and all of its Agents and Employees, from and against all claims, damages, losses and expenses, including but not limited to attorney's fees, arising out of or resulting from performance of the work, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself) including loss of use resulting therefrom, but only to the extent caused in whole or in part by negligent acts or omissions of Company.

17. Non-assignability: No Company/Consultant shall assign any interest in this contract by assignment, transfer, or novation, without prior written consent of the Owner. This provision shall not be construed to prohibit the contractor from assigning his bank, trust company, or other financial institution any money due or to become due from approved contracts without such prior written consent. Notice of any such assignment or transfer shall be furnished promptly to the Parish.

18. Exclusions: Pursuant to Louisiana Revised Statute 38:2227, Company must certify that he has not been convicted of or has not entered into a plea of guilty or nolo contendere to public bribery, corrupt influencing, extortion, money laundering or their equivalent Federal crimes. Consultant must further certify that he has not been convicted of or has not entered into a plea of guilty or nolo contendere to theft, identify theft, theft of a business record, false accounting, issuing worthless checks, bank fraud, forgery, contractors' misapplication of payments, malfeasance in office, or their equivalent Federal crimes within the five (5) years prior to submitting the proposal.

19. Disclosure: Company/Consultant must disclose whether it provides services or pays commissions to any employee or elected official of St. John the Baptist Parish. If so, company must disclose to whom services are provided and/or commissions are paid. Both positive and negative responses must be submitted.

20. E-Verify Program: NOT APPLICABLE

21. Invoices / Applications for Payments:

Applications for Payment will be processed by St. John the Baptist Parish.

Itemized invoices for payment of these services shall be submitted to the Purchasing and Procurement Director for approval prior to routing to Accounts Payable. Construction invoices shall be submitted using the AIA Application and Certification for Payment AIA G702 and G703 forms unless otherwise determined.

St. John the Baptist Parish shall make progress payments on account of the Contract Price on the basis of CONTRACTOR's Applications for Payment as recommended by ENGINEER, as provided below. All such payments will be measured by the schedule of values established.

St. John the Baptist Parish shall retain the following percentages of each progress payment until payment is due under the terms and conditions governing retainage payment:

CONTRACT AMOUNT	RETAINAGE
$0 - $499,999.99	10%
$500,000.00 – Over	5%

22. Substantial Completion

Substantial Completion shall be granted once the Parish, or its designated design consultant, identifies the project to be at the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use. It is the responsibility of the Contractor to notify the Parish, and its designated design consultant, when the Contractor is of the opinion the project is substantially complete. Once determined the Work is identified as substantially complete a Certificate of Substantial Completion AIA G704 will be issued.

23. Changes

No additional changes, enhancements, or modifications to any contract resulting from this BID shall be made without the prior approval of PARISH. Any modifications to the provisions of this contract shall be in writing, signed by all parties and approved by the required authorities.

Changes to the contract include any change in compensation; beginning/ ending date of the contract; scope of work; and/or Contractor change through the Assignment of Contract process. Any such changes, once approved, will result in the issuance of an amendment to the contract.

Change Orders shall be submitted using the Change Order AIA G701 form unless otherwise determined.

CORPORATE
RESOLUTION

EXCERPT FROM MINUTES OF MEETING OF THE BOARD OF DIRECTORS OF

_____, INCORPORATED.

AT THE MEETING OF DIRECTORS OF _____,
INCORPORATED, DULY NOTICED AND HELD ON ____, 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, QUOTES, CONCERNS AND TRANSACTIONS WITH THE PARISH OF ST. JOHN OR ANY OF ITS AGENCIES, DEPARTMENTS, EMPLOYEES OR AGENTS, INCLUDING BUT NOT LIMITED TO THE EXECUTION OF ALL BIDS, QUOTES, PAPERS, DOCUMENTS, AFFIDAVITS, BONDS, SURETIES, CONTRACTS AND ACTS AND TO RECEIVE AND RECEIPT THEREFOR ALL PURCHASE ORDERS AND NOTICES ISSUED PURSUANT TO THE PROVISIONS OF ANY SUCH BID, QUOTE, OR CONTRACT, THIS CORPORATION HEREBY RATIFYING, APPROVING, CONFIRMING AND ACCEPTING EACH AND EVERY SUCH ACT PERFORMED BY SAID AGENT AND ATTORNEY-IN-FACT.

I HEREBY CERTIFY THE FOREGOING TO BE A TRUE AND CORRECT COPY OF AN EXCERPT OF THE MINUTES OF THE ABOVE DATED MEETING OF THE BOARD OF DIRECTORS OF SAID CORPORATION, AND THE SAME HAS NOT BE REVOKED OR RESCINDED.

_____
SECRETARY-
TREASURER

_____
DATE

AGREEMENT

THIS AGREEMENT, made this___day of _____ 2024, by and between **St. John the Baptist Parish, LA** herein called "Owner," acting herein through its Parish President, Jaclyn Hotard, and _____Parish of_____, and State of_____, herein after called "Contractor."

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the OWNER, the CONTRACTOR hereby agrees with the OWNER to commence and complete the construction described as follows:

RIVER ROAD WASTEWATER TREATMENT PLANT BELT PRESS BUILDING DEMOLITION

Hereinafter called the project, for the sum of_____Dollars ($_____) and all extra work in connection therewith, under the terms as stated in the specifications and at his/her (its/their) own proper cost and expense to furnish all the materials, supplies, machinery, equipment, tools, superintendence, labor, insurance, and other accessories and services necessary to complete the said project in accordance with the specifications and contract documents.

Contractor hereby agrees to commence work under this contract on the date on the Purchase Order and to fully complete the project within **ONE HUNDRED TWENTY (120)** consecutive calendar days thereafter. The Contractor further agrees to pay, as Liquidated Damages, the sum of **TWO HUNDRED** dollars **($200.00)** for each consecutive calendar day thereafter as hereinafter provided for herein.

The Contractor hereby agrees to perform work under this contract in accordance with the contract terms for FEMA Public Assistance Grant Funded or Assisted Projects for a non-federal entity (State agency or agency of a political subdivision of the State), which is attached as part of this agreement.

The OWNER agrees to pay the CONTRACTOR in current funds for the performance of the contract, subject to additions and deductions.

St. John the Baptist Parish shall retain the following percentages of each progress payment until payment is due under the terms and conditions governing retainage payment:

CONTRACT AMOUNT	RETAINAGE
$0 - $499,999.99	10%
$500,000.00 - Over	5%

Contractor's performance of its obligations hereunder shall be excused in the event and during the period that such performance is prevented or rendered unsafe by the following: acts of God; acts of war, riot, accident, flood or sabotage; pandemic, unavailability of fuel or power or materials; judicial or governmental laws, regulations, requirements, orders or actions; injunctions or restraining orders which are ultimately determined to have been wrongfully granted; the failure of any governmental body to issue or grant, or the suspension or revocation of, licenses, permits or other approvals or authorizations necessary for the performance of the services contemplated by this agreement; or national defense requirements.

IN WITNESS WHEREOF, the parties to these presents have executed this contract in two (2) counterparts, each of which shall be deemed an original, in the year and day first above mentioned.

_____

(Owner)

By_____

_____

(Title)

_____

(Contractor)

By_____

_____

(Title)

_____

(Address and Zip Code)

NOTE: Secretary of the Owner should attest. If Contractor is a corporation, Secretary should attest.

QUOTE SHEET

RIVER ROAD WASTEWATER TREATMENT PLANT BELT PRESS BUILDING DEMOLITION

FOR: St. John the Baptist Parish
1811 W. Airline Highway
LaPlace, LA 70068

We (I) certify that we (I) understand and agree to provide all labor, materials, tools, appliances, and facilities as required to perform all work and services for the execution and completion of the referenced project, all in strict accordance with the quote documents with the submittal of this QUOTE.

Quoters must acknowledge all addenda. The Quoter acknowledges receipt of the following number of **ADDENDA** #_____.

Item No.	Description	Unit of Measure	Quantity	Unit Price	Extension
1	Building Demolition	LS	1	$	$
TOTAL QUOTE					**$**

NAME OF QUOTER: _____

CONTRACTOR LICENSE NUMBER (IF REQUIRED):_____

FEDERAL TAX IDENTIFICATION NUMBER: _____

ADDRESS OF QUOTER: _____

_____

PHONE NO.: _____ **E-MAIL:** _____

NAME OF AUTHORIZED SIGNATORY OF QUOTER: _____

TITLE OF AUTHORIZED SIGNATORY OF QUOTER: _____

SIGNATURE OF AUTHORIZED SIGNATORY OF QUOTER**_____

TECHNICAL SPECIFICATIONS

FOR

RIVER ROAD WASTEWATER TREATMENT PLANT
BELT PRESS BUILDING DEMOLITION

SECTION 01011: INSURANCE

1.1 Related Documents: The general provisions of the Contract, including the Conditions of the Contract, (General, Special and other Conditions, Division 0) and Division 1 as appropriate, apply to the Work specified in this Section.

1.2 Provisions: A/E shall be named as an additional insured on all policies except as applied to Worker's Compensation Coverage. Contractor shall provide A/E with a Certificate of Insurance. A/E shall be listed as Certificate Holder.

1.3 Submittals: A sample Certificate of Insurance is attached.

ACORD. CERTIFICATE OF INSURANCE

DATE (MM/DD/YY)

PRODUCER

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURED

Sample

COMPANIES AFFORDING COVERAGE

COMPANY A

COMPANY B

COMPANY C

COMPANY D

COVERAGES

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

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
	GENERAL LIABILITY				GENERAL AGGREGATE	$
	☐ COMMERCIAL GENERAL LIABILITY				PRODUCTS-COMP/OP AGG	$
	☐ CLAIMS MADE ☐ OCCUR				PERSONAL & ADV INJURY	$
	☐ OWNER'S & CONT PROT				EACH OCCURRENCE	$
	☐ _____				FIRE DAMAGE (Any one fire)	$
					MED EXP (Any one person)	$
	AUTOMOBILE LIABILITY				COMBINED SINGLE LIMIT	$
	☐ ANY AUTO				BODILY INJURY (Per person)	$
	☐ ALL OWNED AUTOS				BODILY INJURY (Per accident)	$
	☐ SCHEDULED AUTOS				PROPERTY DAMAGE	$
	☐ HIRED AUTOS					
	☐ NON-OWNED AUTOS					
	☐ _____					
	GARAGE LIABILITY				AUTO ONLY - EA ACCIDENT	$
	☐ ANY AUTO				OTHER THAN AUTO ONLY:	
	☐ _____				EACH ACCIDENT	$
					AGGREGATE	$
	EXCESS LIABILITY				EACH OCCURRENCE	$
	☐ UMBRELLA FORM				AGGREGATE	$
	☐ OTHER THAN UMBRELLA FORM					$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY				☐ STATUTORY LIMITS	
	THE PROPRIETOR/ PARTNERS/EXECUTIVE OFFICERS ARE: ☐ INCL ☐ EXCL				EACH ACCIDENT	$
					DISEASE - POLICY LIMIT	$
					DISEASE - EACH EMPLOYEE	$
	OTHER					

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

All required insurance includes Owner and Meyer Engineers, Ltd. as an additional insured except as applied to Worker's Compensation coverage.

CERTIFICATE HOLDER

Meyer Engineers, Ltd.
P.O. Box 763
Metairie, LA 70004

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

ACORD 25-S (3/93)

* * *

SECTION 01100: SUMMARY OF WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY:

A. Section includes:
   1. Project information.
   2. Work covered by Contract Documents.
   3. Access to site.
   4. Work restrictions.
   5. Specification and drawing conventions.

1.3 PROJECT INFORMATION:

A. Project Identification: River Road Wastewater Treatment Plant Belt Press Building Demolition.
   1. Project Location: 144 Water Plant Road, LaPlace, LA 70068

B. Owner: St. John the Baptist Parish
   1. Owner's Representative: Peter Montz, Director of Purchasing, Phone: (985) 652-9569, E-mail: pmontz@stjohn-la.gov

C. A/E: Meyer Engineers, Ltd.
   1. A/E Representative: Marco Perez, Phone: (504) 885-9892, E-mail: mperez@meyer-e-l.com

D. Other Owner Consultants: The Owner has retained the following design professionals who have prepared designated portions of the Contract Documents:
   1. Leaaf Environmental, Phone: (504) 342-2687

1.4 WORK COVERED BY CONTRACT DOCUMENTS:

A. The Work of the Project is defined by the Contract Documents and consists of the following:
   1. Demolish and haul off existing belt press building and pull through bay. Associated concrete paving to remain.

B. Type of Contract
   1. Project will be constructed under a single prime contract.

1.5 WORK BY OWNER:

A. General: Cooperate fully with Owner so work may be carried out smoothly, without interfering with or delaying work under this Contract or work by Owner. Coordinate the Work of this Contract with work performed by Owner.

B. Preceding Work: Owner will perform the following disconnect operations at Project site. Those operations are scheduled to be substantially complete before work under this Contract begins.
   1. Owner will be responsible for disconnecting existing utilities (gas, water, electricity, etc.).

1.6 ACCESS TO SITE:

A. General: Contractor shall have full use of Project site for demolition operations during demolition period. Contractor's use of Project site is limited only by Owner's right to perform work or to retain other contractors on portions of Project.

B. General: Contractor shall have limited use of Project site for demolition operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.

C. Use of Site: Limit use of Project site to areas within the Contract limits indicated. Do not disturb portions of the Project site beyond areas in which the Work is indicated.

1. Limits: Confine demolition operations to within the limits of demolition identified on the site plan.

2. Driveways, Walkways and Entrances: Keep driveways, parking areas, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.

a. Schedule deliveries to minimize use of driveways and entrances by demolition operations.

b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

1.7 COORDINATION WITH OCCUPANTS:

A. Partial Owner Occupancy: Owner will occupy the site during the entire demolition period, with the exception of areas under demolition. Cooperate with Owner during demolition operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's operations. Maintain existing exits unless otherwise indicated.

1. Maintain access to existing buildings, driveways, and other adjacent occupied or used facilities. Do not close or obstruct driveways or other occupied or used facilities without written permission from Owner and authorities having jurisdiction.

2. Provide not less than seventy-two (72) hours' notice to Owner of activities that will affect Owner's operations.

1.8 WORK RESTRICTIONS:

A. Work Restrictions, General: Comply with restrictions on demolition operations.

1. Comply with limitations on use of public streets and other requirements of authorities having jurisdiction.

B. On-Site Work Hours: Limit work in the existing building to normal business working hours of 7 a.m. to 5 p.m., Monday through Friday, except as otherwise indicated.

1. Weekend Hours: Only with request from Owner.

2. Early Morning Hours: Only with request from Owner.

3. Hours for Utility Shutdowns: Only with request from Owner.

C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:

1. Notify A/E not less than two (2) days in advance of proposed utility interruptions.

2. Obtain A/E's written permission before proceeding with utility interruptions.

D. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.
   1. Notify A/E not less than two (2) days in advance of proposed disruptive operations.
   2. Obtain Owner's written permission before proceeding with disruptive operations.

E. Nonsmoking Building: Smoking and vaping is not permitted within the project site.

F. Controlled Substances: Use of tobacco products and other controlled substances on the Project site is not permitted.

G. Employee Identification: Provide identification tags for Contractor personnel working on the Project site. Require personnel to utilize identification tags at all times.

1.9 SPECIFICATION AND DRAWING CONVENTIONS:

A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
   1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
   2. Specification requirements are to be performed by the Contractor unless specifically stated otherwise.

B. Division 1 General Requirements: Requirements of Sections in Division 1 apply to the Work of all Sections in the Specifications.

C. Drawing Coordination: Requirements for materials and products identified on the Drawings are described in detail in the Specifications. One or more of the following are used on the Drawings to identify materials and products:
   1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
   2. Abbreviations: Materials and products are identified by abbreviations scheduled on Drawings.
   3. Keynoting: Materials and products are identified by reference keynotes.

1.10 MISCELLANEOUS PROVISIONS:

A. Onsite parking for Contractor's personnel shall not be limited to the demolition site. Parking on any other of parts of the project site to be coordinated with the Owner.

B. Confine work to the area of the project site. Other portions of the building and project site beyond areas in which the Contractor's operations are indicated are not to be used or disturbed without permission of the Owner.

C. Waste Material: Dispose of regulated waste materials in accordance with Federal and State regulations. All other waste materials shall be disposed of in a trash dumpster that is provided by and paid for by the General Contractor. Locate trash dumpster as directed by Owner.

D. Use of the toilet rooms in the building is strictly prohibited. Contractor shall provide self-contained portable toilet units for use by the work force.

E. Permits: The A/E shall apply for the building permit. The Contractor shall pick up and pay for the building permit and any other required permits.

F. Prior Approvals: Bidders wishing to have their product approved as a substitute shall submit their product to the A/E not less than fourteen (14) working days prior to the bid opening. Any proposed substitutes received within fourteen (14) working days of the bid opening shall not be considered for approval and shall be returned to the bidder without action. The burden of proof is upon the bidder to show that the product he is proposing as a substitute is equal to the product specified. Bidder shall use the form attached at the end of this section when submitting his request for prior approval of his product.

G. CAD Drawings: All bidders are advised that the A/E's CAD drawings will not be available for use during demolition. The A/E's insurance carrier does not allow his office to share electronic media. This includes all drawings and any variation thereof for piling and foundation location, sprinkler heads, etc. In his bid the cost of drafting from scratch of any drawing shall be included in the cost of his bid.

H. Schedule

1. Contractor shall submit a detailed demolition schedule to the A/E fourteen (14) days after receipt of Notice to Proceed.
2. Contractor shall submit a revised demolition schedule at the pre-demolition conference.
3. Contractor shall submit revised demolition schedules to the A/E monthly thereafter.
4. All demolition schedules shall be prepared using the latest version of Oracle Primavera Project Management Software or Microsoft Project. Schedules shall clearly show the critical path of the demolition project. Contractor is advised that the A/E will not approve Applications for Payment that do not include updated project schedules.

I. Successful contractor is advised that the A/E will not make any color selections until samples of all items requiring color selection are submitted. Contractors are encouraged to submit all colors samples as early as possible after contract award so as not to cause a delay in the color selection process and ultimately a delay in the overall project. It is the contractor's responsibility to submit all colors samples in a timely manner. A/E shall consult with the owner regarding color selection to make a final decision. After a final decision has been made the A/E shall notify the contractor of color selections. A/E shall not take more than thirty consecutive calendar days after receipt of last color sample to submit final color selections to contractor.

END OF SECTION 01100

SECTION 01260: CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY:

A. Section includes administrative and procedural requirements for handling and processing Contract modifications.

1.3 MINOR CHANGES IN THE WORK:

A. A/E will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, in writing (i.e. formal letter, email).

1.4 PROPOSAL REQUESTS:

A. Owner-Initiated Proposal Requests: A/E will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
   1. Proposal Requests issued by A/E are not instructions either to stop work in progress or to execute the proposed change.
   2. Within 10 days after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
      a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
      b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
      c. Include costs of labor and supervision directly attributable to the change.
      d. Include an updated Contractor's demolition schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
      e. Quotation Form: Use forms acceptable to A/E.

B. Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to A/E.
   1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.

2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
4. Include costs of labor and supervision directly attributable to the change.
5. Include an updated Contractor's demolition schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
6. Comply with requirements in Division 01 Section "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.
7. Proposal Request Form: Use form acceptable to A/E.

1.5 ADMINISTRATIVE CHANGE ORDERS:

A. Allowance Adjustment: Refer to Division 1 Section "Allowances" for administrative procedures for preparation of Change Order Proposal for adjusting the Contract Sum to reflect actual costs of allowances.

1.6 CHANGE ORDER PROCEDURES:

A. On Owner's approval of a Proposal Request, A/E will issue a Change Order for signatures of Owner and Contractor on form included in Project Manual.
   1. Contractor shall be cognizant of all the project funding sources and procedures associated with such funding sources.

B. Reasonable negotiation of Change Proposal Requests shall be expected by all parties prior to agreement to proceed.

C. Claims of delay of non-critical path items outlined in proposals and Change Orders due to the funding review process shall not be considered valid.

D. The A/E reserves the right to accumulate several Change Proposals Requests before the preparation and issuance of a Change Order.
   1. If A/E recommended Change Proposal Requests are outstanding for one hundred twenty (120) days or a prorated portion of the contract time, the contractor shall notify the A/E in writing immediately.
   2. Claims for delay of non-critical path items outlined in Change Proposal Request shall not be considered valid without proper documentation approved by A/E for such claims of delay.

1.7 DEMOLITION CHANGE DIRECTIVE:

A. Demolition Change Directive: A/E may issue a Demolition Change Directive on form included in Project Manual. Demolition Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
   1. Demolition Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.

B. Documentation: Maintain detailed records on a time and material basis of work required by the Demolition Change Directive.

1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01260

SECTION 01290: PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY:

A. This Section specifies administrative and procedural requirements necessary to prepare and process Applications for Payment.

1.3 DEFINITIONS:

A. Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

1.4 SCHEDULE OF VALUES:

A. Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's demolition schedule.
   1. Correlate line items in the schedule of values with other required administrative forms and schedules, including the following:
      a. Application for Payment forms with continuation sheets.
      b. Submittal schedule.
      c. Items required to be indicated as separate activities in Contractor's demolition schedule.
   2. Submit the schedule of values to A/E at earliest possible date but no later than 10 days before the date scheduled for submittal of initial Applications for Payment.

B. Format and Content: Use the Project Manual table of contents as a guide to establish line items for the schedule of values. Provide at least one line item for each Specification Section.
   1. Identification: Include the following Project identification on the schedule of values:
      a. Project name and location.
      b. Name of A/E.
      c. A/E's project number.
      d. Contractor's name and address.
      e. Date of submittal.
   2. Arrange schedule of values consistent with format of AIA Document G703.
   3. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
      a. Differentiate between items stored on-site and items stored off-site. If required, include evidence of insurance.

4. Allowances: Provide a separate line item in the schedule of values for each allowance. Show line-item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.
5. Each item in the schedule of values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
    a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the schedule of values or distributed as general overhead expense, at Contractor's option.
6. Schedule Updating: Update and resubmit the schedule of values before the next Applications for Payment when Change Orders or Demolition Change Directives result in a change in the Contract Sum.

1.5 APPLICATIONS FOR PAYMENT:

A. Each Application for Payment shall be consistent with previous applications and payments as certified by A/E and paid for by Owner.
    1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
    2. All Applications for Payment shall include a current and updated project demolition schedule. Contractor is advised that the A/E will not approve Applications for Payment that do not include updated project schedules. All demolition schedules shall be prepared by the contractor using the latest version of Oracle Primavera Project Management Software. Schedules shall clearly show the critical path of the demolition project and shall indicate original task duration, revised task duration and final task duration.

B. Payment Application Times: The date for each progress payment is indicated in the Agreement between Owner and Contractor. The period of demolition work covered by each Application for Payment is the period indicated in the Agreement.

C. Application for Payment Forms: Use AIA Document G702 and AIA Document G703 as form for Applications for Payment.

D. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. A/E will return incomplete applications without action.
    1. Entries shall match data on the schedule of values and Contractor's demolition schedule. Use updated schedules if revisions were made.
    2. Include amounts for work completed following previous Application for Payment, whether or not payment has been received. Include only amounts for work completed at time of Application for Payment.
    3. Include amounts of Change Orders and Demolition Change Directives issued before last day of demolition period covered by application.
    4. Indicate separate amounts for work being carried out under Owner-requested project acceleration.

E. Stored Materials: Include in Application for Payment amounts applied for materials or equipment purchased or fabricated and stored, but not yet installed. Differentiate between items stored on-site and items stored off-site.
   1. Provide certificate of insurance, evidence of transfer of title to Owner, and consent of surety to payment, for stored materials.
   2. Provide supporting documentation that verifies amount requested, such as paid invoices. Match amount requested with amounts indicated on documentation; do not include overhead and profit on stored materials.
   3. Provide summary documentation for stored materials indicating the following:
      a. Materials previously stored and included in previous Applications for Payment.
      b. Work completed for this Application utilizing previously stored materials.
      c. Additional materials stored with this Application.
      d. Total materials remaining stored, including materials with this Application.

F. Transmittal: Submit five (5) signed and notarized original copies of each Application for Payment to A/E by a method ensuring receipt. One copy shall include waivers of lien and similar attachments if required.
   1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.

G. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
   1. List of subcontractors.
   2. Schedule of values.
   3. Contractor's demolition schedule (preliminary if not final).
   4. Products list (preliminary if not final).
   5. Submittal schedule (preliminary if not final).
   6. List of Contractor's staff assignments.
   7. List of Contractor's principal consultants.
   8. Copies of building permits.
   9. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
   10. Initial progress report.
   11. Report of pre-demolition conference.

H. Application for Payment at Substantial Completion: After issuing the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
   1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
   2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.

I. Final Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:

1. Evidence of completion of Project closeout requirements.
2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
3. Updated final statement, accounting for final changes to the Contract Sum.
4. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
5. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
6. AIA Document G707, "Consent of Surety to Final Payment."
7. Evidence that claims have been settled.
8. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
9. Final liquidated damages settlement statement.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01290

SECTION 01310: PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY:

A. Section includes administrative provisions for coordinating demolition operations on Project including, but not limited to, the following:
   1. General project coordination procedures.
   2. Administrative and supervisory personnel.
   3. Coordination drawings.
   4. Requests for Information (RFIs).
   5. Project meetings.

1.3 DEFINITIONS:

A. RFI: Request from Owner, A/E, or Contractor seeking information from each other during demolition.

1.4 COORDINATION:

A. Coordination: Coordinate demolition operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate demolition operations, included in different Sections, that depend on each other for proper installation, connection, and operation.
   1. Schedule demolition operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
   2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
   3. Make adequate provisions to accommodate items scheduled for later installation.

B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
   1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.

C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other demolition activities to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
   1. Preparation of Contractor's demolition schedule.
   2. Preparation of the schedule of values.
   3. Installation and removal of temporary facilities and controls.
   4. Delivery and processing of submittals.
   5. Progress meetings.

6. Preinstallation conferences.
7. Project closeout activities.
8. Startup and adjustment of systems.
9. Project closeout activities.

D. Conservation: Coordinate demolition activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.
   1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. Refer to other Sections for disposition of salvaged materials that are designated as Owner's property.

1.5 KEY PERSONNEL:

A. Key Personnel Names: Within fifteen (15) days of starting demolition operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home, office, and cellular telephone numbers and email addresses. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project.
   1. Post copies of list in project meeting room, in temporary field office, and by each temporary telephone. Keep list current at all times.

1.6 REQUESTS FOR INFORMATION (RFIs):

A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.
   1. A/E will return RFIs submitted to A/E by other entities controlled by Contractor with no response.
   2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.

B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
   1. Project name.
   2. Project number.
   3. Date.
   4. Name of Contractor.
   5. Name of A/E.
   6. RFI number, numbered sequentially.
   7. RFI subject.
   8. Specification Section number and title and related paragraphs, as appropriate.
   9. Drawing number and detail references, as appropriate.
   10. Field dimensions and conditions, as appropriate.
   11. Contractor's suggested resolution. If Contractor's solution(s) impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
   12. Contractor's signature.

13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
    a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.

C. RFI Forms: Form bound in the Project Manual.

D. A/E's Action: A/E will review each RFI, determine action required, and respond. Allow seven (7) working days for A/E's response for each RFI. RFIs received by A/E after 1:00 p.m. will be considered as received the following working day.
    1. The following RFIs will be returned without action:
        a. Requests for approval of submittals.
        b. Requests for approval of substitutions.
        c. Requests for coordination information already indicated in the Contract Documents.
        d. Requests for adjustments in the Contract Time or the Contract Sum.
        e. Requests for interpretation of A/E's actions on submittals.
        f. Incomplete RFIs or inaccurately prepared RFIs.
    2. A/E's action may include a request for additional information, in which case A/E's time for response will date from time of receipt of additional information.
    3. A/E's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Division 1 Section "Contract Modification Procedures."
        a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify A/E in writing within ten (10) days of receipt of the RFI response.

E. On receipt of A/E's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify A/E within seven (7) days if Contractor disagrees with response.

F. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log bi-weekly. Use CSI Log Form 13.2B.
    1. Project name.
    2. Name and address of Contractor.
    3. Name and address of A/E.
    4. RFI number including RFIs that were dropped and not submitted.
    5. RFI description.
    6. Date the RFI was submitted.
    7. Date A/E's response was received.

1.7 PROJECT MEETINGS:

A. General: Contractor shall schedule and conduct meetings and conferences at Project site, unless otherwise indicated.
    1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and A/E of scheduled meeting dates and times.

2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner, and A/E, within three (3) days of the meeting.

B. Pre-demolition Conference: Construction Manager will schedule and conduct a pre-demolition conference before starting demolition, at a time convenient to Owner and A/E, but no later than seven (7) days after execution of the Agreement.
1. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.

C. Preinstallation Conferences: Conduct a preinstallation conference at Project site before each demolition activity that requires coordination with other demolition.
1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise A/E of scheduled meeting dates.
2. Agenda: Review progress of other demolition activities and preparations for the particular activity under consideration, including requirements for the following:
   a. Contract Documents.
   b. Options.
   c. Related RFIs.
   d. Related Change Orders.
   e. Submittals.
   f. Review of mockups.
   g. Possible conflicts.
   h. Compatibility problems.
   i. Time schedules.
   j. Weather limitations.
   k. Manufacturer's written recommendations.
   l. Warranty requirements.
   m. Compatibility of materials.
   n. Acceptability of substrates.
   o. Space and access limitations.
   p. Regulations of authorities having jurisdiction.
   q. Testing and inspecting requirements.
   r. Installation procedures.
   s. Coordination with other work.
   t. Required performance results.
   u. Protection of adjacent work.
   v. Protection of demolition and personnel.
3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
4. Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information.

5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.

D. Project Closeout Conference: Schedule and conduct a Project closeout conference, at a time convenient to Owner and A/E, but no later than fifteen (15) days prior to the scheduled date of Substantial Completion.
   1. Conduct the conference to review requirements and responsibilities related to Project closeout.
   2. Attendees: Authorized representatives of Owner, A/E, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the meeting. Participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
   3. Agenda: Discuss items of significance that could affect or delay Project closeout, including the following:
      a. Preparation of record documents.
      b. Procedures required prior to inspection for Substantial Completion and for final inspection for acceptance.
      c. Submittal of written warranties.
      d. Requirements for preparing operations and maintenance data.
      e. Requirements for demonstration and training.
      f. Preparation of Contractor's punch list.
      g. Procedures for processing Applications for Payment at Substantial Completion and for final payment.
      h. Submittal procedures.
      i. Owner's partial occupancy requirements.
      j. Installation of Owner's furniture, fixtures, and equipment.
      k. Responsibility for removing temporary facilities and controls.
   4. Minutes: Entity conducting meeting will record and distribute meeting minutes.

E. Progress Meetings: Schedule will be determined at the Pre-Demolition meeting.
   1. Coordinate dates of meetings with preparation of payment requests.
   2. Attendees: In addition to representatives of Owner and A/E, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
   3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.

a. Contractor's Demolition Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's demolition schedule. Determine how demolition behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
   1) Review schedule for next period.

b. Review present and future needs of each entity present, including the following:
   1) Interface requirements.
   2) Sequence of operations.
   3) Status of submittals.
   4) Deliveries.
   5) Off-site fabrication.
   6) Access.
   7) Site utilization.
   8) Temporary facilities and controls.
   9) Progress cleaning.
   10) Quality and work standards.
   11) Status of correction of deficient items.
   12) Field observations.
   13) Status of RFIs.
   14) Status of proposal requests.
   15) Pending changes.
   16) Status of Change Orders.
   17) Pending claims and disputes.
   18) Documentation of information for payment requests.

4. Minutes: Entity responsible for conducting the meeting will record and distribute the meeting minutes to each party present and to parties requiring information.
   a. Schedule Updating: Revise Contractor's demolition schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01310

Advancement of Construction Technology

REQUEST FOR INFORMATION

Project: _____ R.F.I. Number: _____

_____ From: _____

To: _____ Date: _____

_____ A/E Project Number: _____

Re: _____ Contract For: _____

Specification Section: Paragraph: Drawing Reference: Detail:

Request: _____

Signed by: Date:

Response:

☐ Attachments

Response From: To: Date Rec'd: Date Ret'd:

Signed by: Date:

Copies: ☐ Owner ☐ Consultants ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ File

SECTION 01320 - DEMOLITION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY:

A. Section includes administrative and procedural requirements for documenting the progress of demolition during performance of the Work, including the following:
   1. Start-up demolition schedule.
   2. Contractor's demolition schedule.
   3. Daily demolition reports.
   4. Material location reports.
   5. Field condition reports.
   6. Special reports.

B. Related Sections:
   1. Division 01 Section "Multiple Contract Summary" for preparing a combined Contractor's Demolition Schedule.
   2. Division 01 Section "Submittal Procedures" for submitting schedules and reports.
   3. Division 01 Section "Quality Requirements" for submitting a schedule of tests and inspections.

1.3 DEFINITIONS:

A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the demolition project. Activities included in a demolition schedule consume time and resources.
   1. Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.
   2. Predecessor Activity: An activity that precedes another activity in the network.
   3. Successor Activity: An activity that follows another activity in the network.

B. Cost Loading: The allocation of the schedule of values for the completion of an activity as scheduled. The sum of costs for all activities must equal the total Contract Sum, unless otherwise approved by A/E.

C. CPM: Critical path method, which is a method of planning and scheduling a demolition project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of the Project.

D. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.

E. Event: The starting or ending point of an activity.

F. Float: The measure of leeway in starting and completing an activity.
   1. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.

2. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.

G. Resource Loading: The allocation of manpower and equipment necessary for the completion of an activity as scheduled.

1.4 INFORMATIONAL SUBMITTALS:

A. Format for Submittals: Submit required submittals in the following format:
   1. PDF electronic file.
   2. One (1) paper copy.

B. Start-up demolition schedule.
   1. Approval of cost-loaded start-up demolition schedule will not constitute approval of schedule of values for cost-loaded activities.

C. Start-up Network Diagram: Of size required to display entire network for entire demolition period. Show logic ties for activities.

D. Contractor's Demolition Schedule: Initial schedule, of size required to display entire schedule for entire demolition period.
   1. Submit a working electronic copy of schedule, using software indicated, and labeled to comply with requirements for submittals. Include type of schedule (initial or updated) and date on label.

E. CPM Reports: Concurrent with CPM schedule, submit each of the following reports. Format for each activity in reports shall contain activity number, activity description, cost and resource loading, original duration, remaining duration, early start date, early finish date, late start date, late finish date, and total float in calendar days.
   1. Activity Report: List of all activities sorted by activity number and then early start date, or actual start date if known.
   2. Logic Report: List of preceding and succeeding activities for all activities, sorted in ascending order by activity number and then early start date, or actual start date if known.
   3. Total Float Report: List of all activities sorted in ascending order of total float.
   4. Earnings Report: Compilation of Contractor's total earnings from the Notice to Proceed until most recent Application for Payment.

F. Daily Demolition Reports: Submit at monthly intervals.

G. Material Location Reports: Submit at monthly intervals.

H. Field Condition Reports: Submit at time of discovery of differing conditions.

I. Special Reports: Submit at time of unusual event.

J. Qualification Data: For scheduling consultant.

1.5 QUALITY ASSURANCE:

A. Scheduling Consultant Qualifications: An experienced specialist in CPM scheduling and reporting, with capability of producing CPM reports and diagrams within 24 hours of A/E's request.

B. Prescheduling Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination." Review methods and procedures related to the preliminary demolition schedule and Contractor's demolition schedule, including, but not limited to, the following:
   1. Review software limitations and content and format for reports.

2. Verify availability of qualified personnel needed to develop and update schedule.
3. Discuss constraints, including work stages and area separations.
4. Review delivery dates for Owner-furnished products.
5. Review schedule for work of Owner's separate contracts.
6. Review time required for review of submittals and resubmittals.
7. Review requirements for tests and inspections by independent testing and inspecting agencies.
8. Review time required for completion and startup procedures.
9. Review and finalize list of demolition activities to be included in schedule.
10. Review submittal requirements and procedures.
11. Review procedures for updating schedule.

1.6 COORDINATION:

A. Coordinate preparation and processing of schedules and reports with performance of demolition activities and with scheduling and reporting of separate contractors.

B. Coordinate Contractor's demolition schedule with the schedule of values, list of subcontracts, submittal schedule, progress reports, payment requests, and other required schedules and reports.
1. Secure time commitments for performing critical elements of the Work from entities involved.
2. Coordinate each demolition activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 CONTRACTOR'S DEMOLITION SCHEDULE, GENERAL:

A. Time Frame: Extend schedule from date established for the Notice to Proceed to date of Substantial Completion and final completion.
1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.

B. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule and show how the sequence of the Work is affected.
1. Work Restrictions: Show the effect of the following items on the schedule:
a. Coordination with existing construction.
b. Limitations of continued occupancies.
c. Uninterruptible services.
d. Partial occupancy before Substantial Completion.
e. Use of premises restrictions.
f. Seasonal variations.
g. Environmental control.
2. Demolition Areas: Identify each major area of demolition for each major portion of the Work. Indicate where each demolition activity within a major area must be sequenced or integrated with other demolition activities to provide for the following:
a. Demolition completion.
b. Completion of equipment removal.

c. Completion of electrical and mechanical demolition.
d. Substantial Completion.

C. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and final completion.

D. Cost Correlation: At the head of schedule, provide a cost correlation line, indicating planned and actual costs. On the line, show dollar volume of the Work performed as of dates used for preparation of payment requests.
1. Refer to Division 01 Section "Payment Procedures" for cost reporting and payment procedures.

E. Upcoming Work Summary: Prepare summary report indicating activities scheduled to occur or commence prior to submittal of next schedule update. Summarize the following issues:
1. Unresolved issues.
2. Unanswered RFIs.
3. Rejected or unreturned submittals.
4. Notations on returned submittals.

F. Recovery Schedule: When periodic update indicates the Work is one (1) or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule. Indicate changes to working hours, working days, crew sizes, and equipment required to achieve compliance, and date by which recovery will be accomplished.

2.2 START-UP DEMOLITION SCHEDULE:

A. Bar-Chart Schedule: Submit start-up horizontal bar-chart-type demolition schedule within seven (7) days of date established for the Notice of Award.

B. All demolition schedules shall be prepared using the latest version of Oracle Primavera Project Management Software or Microsoft Project. Schedules shall clearly show the critical path of the demolition project. Contractor is advised that the A/E will not approve Applications for Payment that do not include updated project schedules.

C. Preparation: Indicate each significant demolition activity separately. Identify first workday of each week with a continuous vertical line. Outline significant demolition activities for first ninety (90) days of demolition. Include skeleton diagram for the remainder of the Work and a cash requirement prediction based on indicated activities.

2.3 CONTRACTOR'S DEMOLITION SCHEDULE (CPM SCHEDULE):

A. General: Prepare network diagrams using AON (activity-on-node) format.

B. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis using a network fragment to demonstrate the effect of the proposed change on the overall project schedule.

2.4 REPORTS:

A. Field Condition Reports: Immediately on discovery of a difference between field conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

2.5 SPECIAL REPORTS:

A. General: Submit special reports directly to Owner within one day(s) of an occurrence. Distribute copies of report to parties affected by the occurrence.

B. Reporting Unusual Events: When an event of an unusual and significant nature occurs at Project site, whether or not related directly to the Work, prepare and submit a special report. List chain of events, persons participating, response by Contractor's personnel, evaluation of results or effects, and similar pertinent information. Advise Owner in advance when these events are known or predictable.

PART 3 - EXECUTION

3.1 CONTRACTOR'S DEMOLITION SCHEDULE:

A. Contractor's Demolition Schedule Updating: At monthly intervals, update schedule to reflect actual demolition progress and activities. Issue schedule one day before each regularly scheduled progress meeting.

1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
3. As the Work progresses, indicate final completion percentage for each activity.

B. Distribution: Distribute copies of approved schedule to A/E, Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.

1. Post copies in Project meeting rooms and temporary field offices.
2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of demolition activities.

END OF SECTION 01320

SECTION 01322 - PHOTOGRAPHIC DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY:

A. Section includes administrative and procedural requirements for the following:
   1. Pre-demolition photographs.
   2. Periodic demolition photographs.
   3. Final demolition photographs.

B. Related Sections:
   1. Division 01 Section "Submittal Procedures" for submitting photographic documentation.
   2. Division 01 Section "Closeout Procedures" for submitting photographic documentation as project record documents at Project closeout.
   3. Division 02 Section "Site Demolition" for photographic documentation before building demolition operations commence.
   4. Division 02 Section "Demolition of Existing Piping" for photographic documentation before selective demolition operations commence.
   5. Division 02 Section "Building Demolition" for photographic documentation before site clearing operations commence.

1.3 UNIT PRICES:

A. Basis for Bids: Base number of demolition photographs on average of twenty (20) photographs per week over the duration of Project.

1.4 INFORMATIONAL SUBMITTALS:

A. Digital Photographs: Submit image files within three (3) days of taking photographs.
   1. Digital Camera: Minimum sensor resolution of sixteen (16) megapixels.
   2. Format: Minimum 1600 by 1200 pixels, 400 dpi minimum, in unaltered original files, with same aspect ratio as the sensor, uncropped, date- and time- stamped, in folder named by date of photograph, accompanied by key plan file.
   3. Identification: Provide the following information with each image description in file metadata tag:
      a. Name of Project.
      b. Name of Contractor.
      c. Date photograph was taken.
      d. Description of vantage point, indicating location, direction (by compass point), and elevation or story of demolition.

1.5 COORDINATION:

A. Auxiliary Services: Cooperate with photographer and provide auxiliary services requested, including access to Project site and use of temporary facilities, including temporary lighting required to produce clear, well-lit photographs.

1.6 USAGE RIGHTS:

A. Obtain and transfer copyright usage rights from photographer to Owner for unlimited reproduction of photographic documentation.

PART 2 - PRODUCTS

2.1 PHOTOGRAPHIC MEDIA:

A. Digital Images: Provide images in JPG format, produced by a digital camera with minimum sensor size of sixteen (16) megapixels, and at an image resolution of not less than 1600 by 1200 pixels and 400 dpi.

PART 3 - EXECUTION

3.1 DEMOLITION PHOTOGRAPHS:

A. General: Take photographs using the maximum range of depth of field, and that are in focus, to clearly show the Work. Photographs with blurry or out-of-focus areas will not be accepted.

B. Digital Images: Submit digital images exactly as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.

1. Date and Time: Include date and time in file name for each image.

C. Pre-demolition Photographs: Before commencement of demolition, take photographs of Project site and surrounding properties, including existing items to remain during demolition, from different vantage points, as directed by A/E.

1. Take twenty (20) photographs to show existing conditions adjacent to property before starting the Work.
2. Take twenty (20) photographs of existing buildings either on or adjoining property to accurately record physical conditions at start of demolition.
3. Take additional photographs as required to record settlement or cracking of adjacent structures, pavements, and improvements.

D. Periodic Demolition Photographs: Take twenty (20) photographs weekly, with timing each month adjusted to coincide with the cutoff date associated with each Application for Payment. Select vantage points to show status of demolition and progress since last photographs were taken.

E. A/E-Directed Demolition Photographs: From time to time, A/E will instruct photographer about number and frequency of photographs and general directions on vantage points. Select actual vantage points and take photographs to show the status of demolition and progress since last photographs were taken.

END OF SECTION 01322

SECTION 01330 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY:

A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.

1.3 DEFINITIONS:

A. Action Submittals: Written and graphic information and physical samples that require A/E's responsive action. Action submittals, as they are implied are those submittals indicated in individual Specification Sections.

B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals, as they are implied are those submittals indicated in individual Specification Sections.

C. Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.

1.4 ACTION SUBMITTALS:

A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by demolition schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or modifications to submittals noted by the A/E and additional time for handling and reviewing submittals required by those corrections.

1. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's demolition schedule.
2. Initial Submittal: Submit concurrently with start-up demolition schedule. Include submittals required during the first 60 days of demolition. List those submittals required to maintain orderly progress of the Work those required early because of long lead time for manufacture or fabrication, and all submittals that require color/material selections.
3. Final Submittal: Submit concurrently with the first complete submittal of Contractor's demolition schedule.
   a. Submit revised submittal schedule to reflect changes in current status and timing for submittals.
4. Format: Arrange the following information in a tabular format:
   a. Scheduled date for first submittal.
   b. Specification Section number and title.
   c. Submittal category: Action, informational.

d. Name of subcontractor.
e. Description of the Work covered.
f. Scheduled date for A/E's final release or approval.

1.5 SUBMITTAL ADMINISTRATIVE REQUIREMENTS:

A. A/E's Digital Data Files: Electronic copies of CAD Drawings of the Contract Drawings will not be provided by A/E for Contractor's use in preparing submittals.

B. Coordination: Coordinate preparation and processing of submittals with performance of demolition activities.
1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
4. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.

C. A/E reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

D. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on A/E receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
1. Initial Review: Allow fifteen (15) days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. A/E will advise Contractor when a submittal being processed must be delayed for coordination.
2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
3. Resubmittal Review: Allow fifteen (15) days for review of each resubmittal.

E. Identification and Information: Place a permanent label or title block on each paper copy submittal item for identification.
1. Indicate name of firm or entity that prepared each submittal on label or title block.
2. Provide a space approximately 6 by 8 inches on label or beside title block to record Contractor's review and approval markings and action taken by A/E.
3. Include the following information for processing and recording action taken:
a. Project name.
b. Date.
c. Name of Construction Manager.
d. Name of Contractor.
e. Name of subcontractor.
f. Name of supplier.

g. Name of manufacturer.
h. Revise first subparagraph below to suit Project and office practice.
i. Number and title of appropriate Specification Section.
j. Drawing number and detail references, as appropriate.
k. Location(s) where product is to be installed, as appropriate.
l. Other necessary identification.

F. Additional Paper Copies: Unless additional copies are required for final submittal, and unless A/E observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.
1. Submit one copy of submittal to concurrent reviewer in addition to specified number of copies to A/E.

G. Transmittal: Assemble each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. A/E will return submittals, without review, received from sources other than Contractor.
1. Transmittal Form: Use Submittal Transmittal form included in Project Manual.
a. Project name.
b. Date.
c. Destination (To:).
d. Source (From:).
e. Names of subcontractor, manufacturer, and supplier.
f. Category and type of submittal.
g. Submittal purpose and description.
h. Specification Section number and title.
i. Indication of full or partial submittal.
j. Drawing number and detail references, as appropriate.
k. Transmittal number.
l. Remarks.
m. Signature of transmitter.
2. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by A/E on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same identification information as related submittal.

H. Resubmittals:
1. Make resubmittals in same form and number of copies as initial submittal.
a. Note date and content of previous submittal.
b. Note date and content of revision in label or title block and clearly indicate extent of revision.
c. Resubmit submittals until they are marked with approval notation from A/E's action stamp.

I. Shop Drawings: Revise initial drawings as required and resubmit as specified for initial submittal. Indicate on drawings any changes which have been made other than those requested by A/E.

J. Project Data and Samples: Submit new datum and samples as required for initial submittal.

K. Contractor shall accept full responsibility for the completeness of each submission, and, in the case of a resubmission, shall verify that all exceptions previously noted by A/E have been taken into account. In the event that more than one (1) resubmission is required because of failure of Contractor to account for exceptions previously noted, Contractor shall reimburse the Owner for the charges of the A/E for review of the additional resubmissions.

L. Any need for more than one (1) resubmission, or any other delay in obtaining A/E's review of submittals, will not entitle Contractor an extension of the Contract Time unless delay of the Work is directly caused by a change in the Work authorized by a Change Order or by failure of A/E to return any submittal within a reasonable time after its receipt in A/E's office.

M. When the drawings and data are returned marked SUBMIT SPECIFIED ITEM the Contractor shall do so. When the drawings and data are returned marked REVISE AND RESUBMIT, the corrections shall be made as noted thereon and as instructed by the A/E and the required number of corrected copies (or one corrected reproducible copy) resubmitted.

N. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of demolition activities. Show distribution on transmittal forms.

O. Use for Demolition: Use only final submittals that are marked with approval notation from A/E's action stamp.

PART 2 - PRODUCTS

2.1 SUBMITTAL PROCEDURES:

A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.

1. Action Submittals: Submit five (5) paper copies of each submittal, unless otherwise indicated. A/E will return two (2) copies.
2. Informational Submittals: Submit two (2) paper copies of each submittal, unless otherwise indicated. A/E will not return copies.
3. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Division 1 Section "Closeout Procedures."
4. Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
    a. Provide a notarized statement on original paper copy certificates and certifications where indicated.
5. Test and Inspection Reports Submittals: Comply with requirements specified in Division 1 Section "Quality Requirements."

B. Product Data: Collect information into a single submittal for each element of demolition and type of product or equipment.

1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
2. Mark each copy of each submittal to show which products and options are applicable.
3. Include the following information, as applicable:
    a. Manufacturer's catalog cuts.
    b. Manufacturer's product specifications.
    c. Standard color charts, unless otherwise specified. (printed copies are not acceptable)
    d. Statement of compliance with specified referenced standards.
    e. Testing by recognized testing agency.
    f. Application of testing agency labels and seals.
    g. Notation of coordination requirements.
    h. Availability and delivery time information.
4. For equipment, include the following in addition to the above, as applicable:
    a. Wiring diagrams showing factory-installed wiring.
    b. Printed performance curves.
    c. Operational range diagrams.
    d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
5. Submit Product Data before or concurrent with Samples.
6. Submit Product Data in the following format:
    a. PDF electronic file.
    b. Five (5) paper copies of Product Data, unless otherwise indicated. A/E will return two (2) copies.

C. Shop Drawings (Action Submittal): Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
    a. Identification of products.
    b. Schedules.
    c. Compliance with specified standards.
    d. Notation of coordination requirements.
    e. Notation of dimensions established by field measurement.
    f. Relationship and attachment to adjoining construction clearly indicated.
    g. Seal and signature of professional engineer if specified.
2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches (215 by 280 mm) but no larger than 30 by 42 inches (750 by 1067 mm).
3. Submit Shop Drawings in the following format:
    a. Five (5) opaque copies of each submittal. A/E will retain two (2) copies; remainder will be returned.

D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.

1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
2. Identification: Attach label on unexposed side of Samples that includes the following:
    a. Generic description of Sample.
    b. Product name and name of manufacturer.
    c. Sample source.
    d. Number and title of applicable Specification Section.
3. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of demolition activity. Sample sets may be used to determine final acceptance of demolition associated with each set.
4. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
    a. Number of Samples: Submit one (1) full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. A/E will return submittal without options selected. Once all submittals requiring color/material selections are submitted, the A/E will make selections per Owners approval. Upon Owners approval A/E will provide a finish selection schedule to Contractor indicating selected finishes.
5. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
    a. Number of Samples: Submit one (1) set of Samples. A/E will retain one (1) Sample set when deemed necessary, until the completion of demolition. Contractor must indicate if sample needs to be returned prior to demolition completion.
        1) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
        2) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three (3) sets of paired units that show approximate limits of variations.

E. Contractor's Demolition Schedule: Comply with requirements specified.
F. Application for Payment: Comply with requirements specified in General Conditions and Division 1 Section "Payment Procedures."

G. Schedule of Values: Comply with requirements specified in General Conditions and Division 1 Section "Payment Procedures."

H. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.

I. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.

J. Product Test Reports: Submit written reports indicating current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.

K. Research Reports: Submit written evidence that product complies with the current version of International Building Code. Include the following information:
   1. Name of evaluation organization.
   2. Date of evaluation.
   3. Time period when report is in effect.
   4. Product and manufacturers' names.
   5. Description of product.
   6. Test procedures and results.
   7. Limitations of use.

L. Schedule of Tests and Inspections: Comply with requirements specified in Division 1 Section "Quality Requirements."

M. Pre-demolition Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.

N. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.

O. Field Test Reports: Submit reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.

P. Maintenance Data: Comply with requirements specified in Division 1 Section "Operation and Maintenance Data."

Q. Design Data: Prepare and submit written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.

2.2 DELEGATED-DESIGN SERVICES:

A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
   1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to A/E.

B. Delegated-Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit three (3) paper copies of certificate, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.
   1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

C. Design professional must be licensed in the State of Louisiana.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW:

A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to A/E.

B. Project Closeout and Maintenance/Material Submittals: Refer to requirements in Division 1 Section "Closeout Procedures."

C. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 A/E'S ACTION:

A. General: A/E will not review submittals that do not bear Contractor's approval stamp and will return them without action. Additionally, if during review the A/E determines that the Contractor has not sufficiently reviewed the submittal the A/E shall return the submittal to the Contractor without any action for a more complete and adequate review by the Contractor.

B. Shop Drawings (Action Submittals): A/E will review each submittal for general compliance, and return it. A/E will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action.
   1. Review submittals with reasonable promptness.
   2. Review for a design concept of project and information given in Contract Documents.
   3. Review of a separate item does not constitute review of an assembly in which the item functions.
   4. Affix stamp and initials or signature certifying to review of submittal.

5. Return reproducible Shop Drawings and other submittals to Contractor for distribution, or for resubmission. Contractor is responsible for obtaining the number of opaque prints from the reproducible shop drawing as necessary for distribution.
6. The Design Professional shall review Contractor submittals, such as shop drawings, product data, samples and other data, as required by the Design Professional, but only for the limited purpose of checking for conformance with the design conception and the information expressed in the contract documents. This review shall not include review of the accuracy or completeness of details, such as quantities, dimensions, weights or gauges, fabrication processes, demolition means or methods, coordination of the work with other trades or demolition safety precautions, all of which are the sole responsibility of the Contractor. The Design Professional's review shall be conducted with reasonable promptness while allowing sufficient time in the Design Professional's judgement to permit an adequate review. Review of a specific item shall not indicate that the Design Professional has reviewed the entire assembly of which the item is a component. The Design Professional shall not be responsible for any deviations of the contract documents not brought to the attention of the Design Professional in writing by the Contractor. The Design Professional shall not be required to review partial submissions or those for which submissions or correlated items have not been received.

C. Informational Submittals: A/E will review each submittal and will not return it, or will return it if it does not comply with requirements. A/E will forward each submittal to appropriate party.

D. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from A/E.

E. Incomplete submittals are not acceptable, will be considered nonresponsive, and will be returned without review.

F. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

* * *

Advancement of Construction Technology

SUBMITTAL TRANSMITTAL

Project: _____ Date: _____

_____ A/E Project Number: _____

TRANSMITTAL A To (Contractor): _____ Date: _____ Submittal No. _____

From (Subcontractor): _____ By: _____ ☐ Resubmission

Qty.	Reference / Number	Title / Description / Manufacturer	Spec. Section Title and Paragraph / Drawing Detail Reference

☐ Submitted for review and approval
☐ Resubmitted for review and approval
☐ Complies with contract requirements
☐ Will be available to meet construction schedule
☐ A/E review time included in construction schedule

☐ Substitution involved - Substitution request attached
☐ If substitution involved, submission includes point-by-point comparative data or preliminary details
☐ Items included in submission will be ordered immediately upon receipt of approval

Other remarks on above submission: ☐ One copy retained by sender

TRANSMITTAL B To (A/E): _____ Attn: _____ Date Rec'd by Contractor: _____

From (Contractor): _____ By: _____ Date Trnsmt'd by Contractor: _____

☐ Approved
☐ Approved as noted
☐ Revise / Resubmit
☐ Rejected / Resubmit

Other remarks on above submission: ☐ One copy retained by sender

TRANSMITTAL C To (Contractor): _____ Attn: _____ Date Rec'd by A/E: _____

From (A/E): _____ ☐ Other By: _____ Date Trnsmt'd by A/E: _____

☐ Approved
☐ Approved as noted
☐ Not subject to review
☐ No action required
☐ Revise / Resubmit
☐ Rejected / Resubmit
☐ Approved as noted / Resubmit

☐ Provide file copy with corrections identified
☐ Sepia copies only returned
☐ Point-by-point comparative data required to complete approval process
☐ Submission Incomplete / Resubmit

Other remarks on above submission: ☐ One copy retained by sender

TRANSMITTAL D To (Subcontractor): _____ Attn: _____ Date Rec'd by Contractor: _____

From (Contractor): _____ By: _____ Date Trnsmt'd by Contractor: _____

Copies: ☐ Owner ☐ Consultants ☐ _____ ☐ _____ ☐ _____ ☐ One copy retained by sender

SECTION 013543.13: ENVIRONMENTAL PROCEDURES FOR HAZARDOUS MATERIALS

HAZARDOUS MATERIALS DISPOSAL BELT-PRESS BUILDING DEMOLITION

TABLE OF CONTENTS

HAZARDOUS MATERIALS DISPOSAL
BELT-PRESS BUILDING DEMOLITION

PART 1 GENERAL

1.1 DESCRIPTION OF WORK

1.1.1 The general intent of this Hazardous Materials Disposal scope of work is to establish the minimum requirements and procedures to be used by a Louisiana licensed Contractor (Subcontractor) for the proper handling, removal, disposal and/or recycling of all identified building related hazardous materials which may be impacted by the upcoming demolition project planned for the Belt-Press Building at the site:

1.1.1.1 River Road Wastewater Plant, 138 Water Plant Road, Laplace, LA 70068

1.1.2 The Subcontractor will provide all personnel, supplies, equipment, permitting, transportation, disposal, other subcontractors, and insurance to complete the handling, removal, transportation, disposal, and/or recycling of hazardous materials and equipment identified in the following table in accordance with all local, state and federal laws, rules, guidelines and regulations.

TABLE 1: SUMMARY FOR REMOVAL OF ENVIRONMENT HAZARDS		
Hazardous Material	Description	Material Location
Electronic Waste (E-Waste)	cable/fuse/circuit breaker box components, miscellaneous cables and wires, safety switch panel components, computer keyboard, radio, handheld remote, wall clock, headphones, coil controllers, and delay timers	Interior, Exterior
Large Batteries	emergency exit signs, emergency lighting	Interior
White Waste & Large Appliances	motorized roll-up warehouse doors, suspended heaters, portable fans, small equipment with motors, pumps & controls, water pump, hot water heater, portable oil-fired heater	Interior
Ozone-Depleting Substances & Refrigerants (ODS)	water fountain, air conditioner (wall unit).	Interior
Hazardous Chemicals	heavy-duty multi-purpose grease / gear oil, aerosol lubricants, PVC cement, hydrocarbon primer, insect repellant wipes, granular calcium hypochlorite, petroleum distillate, lubricating oil, water treatment polymer	Interior
Paints, Sealants,	aerosol spray sealer, 1-gallon paint cans, muti-	Interior

TABLE 1: SUMMARY FOR REMOVAL OF ENVIRONMENT HAZARDS		
Hazardous Material	Description	Material Location
Miscellaneous Commercial Chemicals	purpose bleach cleaner, multipurpose pipe thread sealant	
Pressure Vessels	dry chemical and carbon dioxide fire extinguishers	Interior, Exterior
Commercial & Industrial Equipment	belt press building processing equipment & control panels (polymer tank & pumps, belt press, sludge dryer, sludge holding, inclined conveyors)	Interior, Exterior
Waste Tires	various automobile tires	Interior, Exterior
Scrap Metal	file cabinet, desk, hose holders, misc. metal parts (small tools, hooks, screws, coils, brass balls, valves), hand dollies, misc. building debris (gutters, canopy/siding)	Interior, Exterior
Potential PCB-Containing Devices and Ballasts	wall mounted general purpose transformer, fluorescent lighting ballasts	Interior, Exterior
Universal Waste Bulbs	ceiling-mounted fluorescent light fixtures containing tube-style fluorescent light tubes and bulbs, ceiling and wall mounted high intensity discharge (HID) lamp fixtures containing metal halide lamps, individual metal halide lamps, ceiling mounted fixture containing a compact fluorescent bulb, individual standard bulbs	Interior, Exterior

1.1.3 Refer to the attached initial hazardous material survey report for this building. All quantities are estimates only and should be independently verified by the Subcontractor.

1.1.4 Requirements stipulated by this Hazardous Materials Disposal scope of work developed by: Leaaf Environmental LLC, 2301 Whitney Ave., Gretna, Louisiana 70056

1.2 CODES, REGULATIONS, AND STANDARDS

1.2.1 General Applicability of Codes, Regulations and Standards: Except to the extent that more explicit or more stringent requirements are written directly into the Technical Specifications/Contract Documents, all applicable codes and regulations have the same force and effect (and are made a part of the Technical Specifications/Contract Documents by reference) as if published copies are bound herewith.

1.2.2 Subcontractor Responsibility: The Subcontractor shall assume full responsibility and liability for complying with all applicable safety and health and environmental regulations. The Subcontractor, the Subcontractor's supervisors, and the hazmat

workers under their supervision and control are responsible for the proper removal and clean-up of specified hazardous/regulated environmental hazards; for compliance with project plans and specifications, all applicable federal, state, and local regulations; and for executing all work in a timely and professional manner.

1.2.3 Federal Requirements: which govern the handling, hauling, and disposal of environmental hazards include but are not limited to the following:

1.2.4 OSHA: U.S. Department of Labor, Occupational Safety and Health Administration, (OSHA), including but not limited to:

1.2.4.1 Personal Protective Equipment for General Industry - Title 29, Part 1910, Section 132 of the Code of Federal Regulations; Title 29, Part 1926, Sections 95 - 107 of the Code of Federal Regulations

1.2.4.2 Respiratory Protection - Title 29, Part 1910, Section 134 of the Code of Federal Regulations; Title 29, Part 1926, Section 103 of the Code of Federal Regulations

1.2.4.3 Specifications for Accident Prevention Signs and Tags - Title 29, Part 1910, Section 145 of the Code of Federal Regulations

1.2.4.4 Standards for Ionizing and Non-Ionizing Radiation - Title 29, Part 1910, Subpart Z, Section 1096 - 1097 of the Code of Federal Regulations; Title 29, Part 1926, Subpart D, Section 53 – 54 of the Code of Federal Regulations

1.2.4.5 Hazard Communication - Title 29, Part 1926, Section 59 of the Code of Federal Regulations

1.2.4.6 Construction Industry - General Duty Standards - Title 29, Part 1926, Sections 20 through 35 of the Code of Federal Regulations

1.2.4.7 Standards for Toxic and Hazardous Substances - Title 29, Part 1926, Section 59 of the Code of Federal Regulations

1.2.5 DOT: U. S. Department of Transportation, including but not limited to:

1.2.5.1 Hazardous Substances - Title 49, Part 171 and 172 of the Code of Federal Regulations

1.2.5.2 Hazardous Material Regulations - General Awareness and Training Requirements for Handlers, Loaders and Drivers; Title 49, Parts 171-180 of the Code of Federal Regulations

1.2.5.3 Hazardous Material Regulations - Editorial and Technical Revisions, Title 49, Parts 171-180 of the Code of Federal RegulationsHazardous Material Regulations - Editorial and Technical Revisions

1.2.6 EPA: U. S. Environmental Protection Agency (EPA), including but not limited to:

1.2.6.1 National Emission Standard for Hazardous Air Pollutants (NESHAP) - National Emission Standard for Asbestos; Title 40, Part 61, Sub-part A, and Sub-part M (Revised Sub-part B) of the Code of Federal Regulations

1.2.6.2 Standard for Waste Disposal for Manufacturing, Demolition, Renovation, Spraying and Fabrication Operations; Title 40, Part 61, Section 152 of the Code of Federal Regulations

1.2.6.3 Criteria for Classification of Solid Waste Disposal Facilities and Practices - Title 40, Part 257, Subpart A of the Code of Federal Regulations

1.2.6.4 Criteria for Municipal Solid Waste Landfills - Title 40, Part 258, Subpart A of the Code of Federal Regulations

1.2.6.5 Hazardous Waste - Title 40, Part 260 through 272 of the Code of Federal Regulations

1.2.6.6 Standards for Universal Waste Management - Title 40, Part 273 of Code of Federal Regulations

1.2.6.7 PCBs Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions - Title 40, Part 761 of the Code of Federal Regulations

1.2.7 NRC: U.S. Nuclear Regulatory Commission

1.2.7.1 Exempt Concentration and Items - Title 10, Part 32, Subpart A of Code of Federal Regulations

1.2.8 State Requirements: which govern all environmental hazards include but are not limited to the following:

1.2.8.1 Louisiana Department of Environmental Quality (LDEQ): Title 33 (Environmental Quality), Part V (Hazardous Waste), Subpart 1 of the Louisiana Administrative Code

1.2.8.2 LDEQ Title 33 (Environmental Quality), Part VII (Solid Waste), Subpart 1 (Solid Waste Regulations) and Subpart 2 (Recycling) of the Louisiana Administrative Code

1.2.8.3 LDEQ Title 33 (Environmental Quality), Part XV (Radiation Protection) of the Louisiana Administrative Code

1.2.9 Local Requirements: Abide by all local requirements which govern environmental hazards or hauling and disposal of such waste materials.

1.3 SUBMITTALS

1.3.1 The Subcontractor will submit the following documentation upon request:

1.3.1.1 A copy of state Contractor's license.

1.3.1.2 List of any Subcontractors, their contact information, and copies of the Subcontractor's license with all specialty licenses needed to complete the work. If Contractor will be performing a portion of the environmental work, then they will need to provide the specialty license.

1.3.1.3 All current, valid permits as required by state and local regulations.

1.3.1.4 All pertinent LDEQ certifications for all site personnel performing activities requiring certification.

1.3.1.5 An OSHA 40-hour HAZWOPER training certification and refreshers, as needed, for all personnel handling site environmental hazards. Submit copies of HAZWOPER certification(s) for all personnel that will be working at the site and working with site environmental hazards as required by 29 CFR 1910.120.

1.3.1.6 DOT Training: Submit copies of training records and/or certificates for all personnel that will be working at the site and will be working site Environmental Hazards with regard to purchasing, directing or handling the packaging, labeling and/or transport of hazardous materials as required by 49 CFR Parts 100-185.

1.3.1.7 A copy of state or local license(s) for all site waste hauler(s).

1.3.1.8 A work plan describing the methods to be utilized to accomplish the work. Plan shall include, at a minimum:

- lockout/tagout
- emergency spill procedures
- hazard communication training
- personal protective equipment
- removal, handling, staging, packaging, disposal and/or recycling procedures
- list of disposal/recycling facilities
- location of staging area
- applicable signage and control procedures.

1.3.2 After completion of the work, the Subcontractor will submit a copy of the following documentation upon request:

1.3.2.1 Provide copies upon request of all permits, profile documents, manifests, weight tickets, or any other pertinent documents needed to remove, package and dispose/recycle the identified environmental hazard(s).

1.4 SCHEDULING

1.4.1 Notice to proceed and scheduling details will be coordinated with the Owner.

1.4.2 The scope of work for the project duration shall include all mobilization, abatement, repair, clearance and demobilization time.

1.4.3 Obtain approval from Owner prior to altering work schedule.

1.5 USE OF FACILITIES

1.5.1 Staging Areas: The Subcontractor will need to coordinate with the Owner for utilization of staging areas, street use, etc., including arrangements for dumpsters, vehicle load out and off-loading.

1.5.2 Utilities: It is anticipated that the Subcontractor will not have access to site electrical, water and sewage. The Subcontractor is responsible for all utilities. The Subcontractor will be responsible for providing subcontractors to install temporary site utilities. Restroom facilities if needed will be provided by the Subcontractor. The Subcontractor will provide electricity and water as needed to complete the project.

1.5.3 Building access: The Subcontractor will coordinate with the Owner for access. The Subcontractor will maintain the site in a clean and safe condition.

1.5.4 Parking: There is on-site parking. The Subcontractor is responsible for coordinating with the Owner/Architect for parking access or securing parking off-site.

1.6 TRAINING, PERMITS, LICENSES AND NOTIFICATIONS

1.6.1 The Subcontractor shall be responsible for obtaining all training, permits, certifications and notifications required to profile, manifest, remove, handle, dispose and/or recycle of these materials.

1.6.2 Training: All Subcontractor and Subcontractor personnel must have completed all required federal, state and local training and hazard communication prior to work.

1.6.3 Permits:

1.6.3.1 All Environmental Hazard containing waste is to be transported by an entity maintaining a current "Industrial waste hauler permit", as required, per particular waste type and description to a disposal site.

1.6.3.2 The Subcontractor will obtain all permits needed to transport any hazardous waste that is shipped from the site for off-site disposal/recycling. This includes assisting the owner in obtaining a one-time hazardous waste ID number. The Subcontractor will also be responsible for sending in the appropriate forms needed to close out the permit once the hazardous materials work has been completed.

1.6.4 Licenses: Maintain current licenses as required by applicable state or local jurisdictions for the removal, transporting, disposal or other regulated activity relative to the work of this contract. This includes the specialty contractor's licenses for all pertinent environmental hazards including but not limited to hazardous materials, transportation, and disposal.

1.6.5 The Subcontractor is responsible for the collection and analysis of samples (i.e. TCLP) needed to properly dispose of all materials identified unless previous documentation is provided.

1.7 INSURANCE

1.7.1 Contact the Owner for detailed insurance coverage requirements.

1.7.2 The Subcontractor will name Leaaf Environmental, LLC as "additional insured" as respects liability arising out of: activities performed by or on behalf of the Subcontractor; products and completed operations of the Subcontractor, premises owned, occupied or used by the Subcontractor. The coverage shall contain no special limitations on the scope of protection afforded to the additional insured. It is understood that the business auto policy under "Who is an Insured" automatically provides liability coverage in favor of the additional insured.

1.8 SUBCONTRACTOR HEALTH AND SAFETY

1.8.1 It is the responsibility of the Subcontractor to follow all OSHA worker protection regulations during the course of the project. The Subcontractor will take all necessary precautions to ensure that workers are not exposed to hazardous materials. Workers shall utilize personal protective clothing, eye protection and hand protection when handling hazardous materials. Subcontractor shall provide suitable hand/face and eye wash stations or equivalent.

1.9 RELATED REQUIREMENTS

1.9.1 The Subcontractor will be bound by the Owner's Technical Specifications/Contract Documents in the case of any claims, disputes, or other issues. The Owner's Technical Specifications/Contract Documents should be considered a part of this plan. A copy of the Technical Specifications/Contract Documents can be obtained from the Owner.

1.10 LIMITATIONS

1.10.1 This document is intended to provide guidelines for the work to be completed and to allow for a consistent scope of work for all Subcontractors. This document does not include non- hazardous material work performed as part of the overall project scope of work. This document is not intended to be a fully developed hazardous materials abatement specification; therefore, should the Subcontractor's understanding of the work differ from the information provided in this document, the Subcontractor will bring the issue forward. The Subcontractor is responsible for obtaining all permits and licenses and associated costs. The Subcontractor is responsible for following all local, state of Louisiana, and federal permits, rules, regulations, laws, statutes, and other legal requirements.

1.10.2 The information presented in this document was prepared based on the information available to Leaaf at the time of its development. Should the conditions of the site differ from the information presented in this document or the work being requested by the Owner change, changes to this plan will be required.

PART 2 PRODUCTS

2.1 MATERIALS

2.1.1 Provide all the materials required for the packaging, labeling, marking, placarding and transportation of hazardous wastes and hazardous materials in conformance with DOT standards. Details in this specification must not be construed as establishing the limits of the Subcontractor's responsibility.

2.1.2 Sheet Plastics

2.1.2.1 Polyethylene Sheet: A single polyethylene film in the largest sheet size possible, 4.0 to 6.0 mil thick, to minimize seams, and that conforms to requirements set forth by the National Fire Protection Association Standard 701, Small Scale Fire Test for Flame-resistant Textiles and Films. Label as required by state regulations.

2.1.2.2 Reinforced Polyethylene Sheet: Where plastic sheet constitutes the only barrier between the work area and outside ambient areas, provide nylon reinforced or woven polyethylene laminated, flame resistant; polyethylene film the conforms to requirement set forth by the National Fire Protection Association Standard 701, Small Scale Fire Test for Flame-resistant Textiles and Films. Provide largest size possible to minimize seams, 6.0 mils thick and frosted or black as needed. Label as required by state regulations.

2.1.3 Disposal Bags: Provide 6 mil (0.15 mm) thick leak-tight polyethylene bags. Label as required by state regulations.

2.1.4 Poly Sheeting: Provide 6 mil (0.15 mm) thick poly sheeting to wrap large sections of hazardous materials waste. Seal containers to ensure that materials are not released during transport. Label as required by state regulations.

2.1.5 Reinforced Containers: Provide reinforced containers as necessary to package hazardous materials waste. Seal containers to ensure that materials are not released during transport. Label as required by state regulations.

2.1.6 Spray Adhesive

2.1.6.1 The use of spray adhesive is prohibited unless documentation of a non-flammable (adhesive and propellant) formulation is provided.

2.1.7 Packaging: Provide bulk and non-bulk containers for packaging hazardous materials/wastes referenced in Table 1. Packaging must conform to the general packaging requirements of Subpart B of 49 CFR 173 and be compatible with the material to be packaged as required by 40 CFR 262. Also provide other packaging related materials such as materials used to cushion or fill voids in overpacked containers. The hazardous materials being packaged must not react dangerously with, decompose or ignite the sorbent packaging materials. Additionally, sorbents used to treat free liquids to be disposed of in landfills must be non-biodegradable as specified in 40 CFR 264, Section 314 EQUIPMENT AND TOOLS

2.1.8 Labeling: Provide primary and subsidiary labels for hazardous materials/wastes referenced in Table 1: Summary for Removal of Environment Hazards. Labels must meet requirements of 49 CFR 172, Subpart E to include size, shape, color, printing, and symbol requirements. Labels must be durable, weather resistant, and withstanding a 180-day exposure to conditions reasonably expected to be encountered during container storage and transportation, without deterioration or substantial color change.

2.1.9 Placards: For each offsite shipment of hazardous material/waste, provide primary and subsidiary placards consistent with the requirements of 49 CFR 172, Subpart F. Provide placards for each side and each end of bulk packaging, freight containers, transport vehicles, and rail cars requiring such placarding. Placards may be plastic, metal, or other material capable of withstanding, without deterioration, a 30-day exposure to open weather conditions and must meet design requirements specified in 49 CFR 172, Subpart F.

2.1.10 Spill Response Materials: Provide spill response materials including, but not limited to, containers, adsorbent, shovels, and personal protective equipment. Spill response materials must be available at all times when hazardous materials/wastes are being handled or transported. Spill response materials must be compatible with the type of material being handled.

2.2 EQUIPMENT AND TOOLS

2.2.1 Provide miscellaneous equipment and tools necessary to handle hazardous materials and hazardous wastes in a safe and environmentally sound manner.

2.2.2 Respiratory Protection Equipment

2.2.2.1 Respirator Bodies: Provide half face or full-face type respirators, as applicable.

2.2.2.2 Respirator Filter Cartridges: Provide, at a minimum, HEPA filters labeled with NIOSH and MSHA Certification for "Radionuclides, Radon Daughters, Dust, Fumes, Mists including Asbestos-Containing Dusts and Mists" and color coded in accordance with ANSI Z228.2 (1980). In addition, a chemical cartridge section may be added, if required, for solvents, etc., in use. In this case, provide cartridges that have each section of the combination canister labeled with the appropriate color code and NIOSH/MSHA Certification.

2.2.2.3 Non-permitted Respirators: Do not use single use, disposable or quarter face respirators.

2.2.2.4 HEPA Filters: Provide units whose final filter is the HEPA type with the filter media completely sealed on all edges with a structurally rigid frame.

2.2.2.5 Provide units with a continuous rubber gasket or other seal located between the filter and the filter housing to form a tight seal.

2.2.2.6 Provide HEPA filters that are individually tested and certified by the manufacturer to have an efficiency of not less than 99.97 percent with challenged with 0.3-micron particle.

2.2.2.7 Provide filters that are marked with the name of the manufacturer, serial number, air flow rating, efficiency and resistance, and the direction of test air flow.

2.2.3 Personal Protective Equipment (PPE)

2.2.3.1 Work clothes shall consist of disposable full-body coveralls, head covers, boots, rubber gloves, safety shoes or equivalent. Sleeves at wrists and cuffs at ankles shall be secured. Fire retardant full-body coveralls are required in areas of open flame, or where required by local regulations.

2.2.3.2 Eye protection and hard hats shall be available as appropriated or as required by applicable safety regulations.

2.2.3.3 Provide Authorized Visitors with suitable protective clothing, headgear, eye protection, and footwear whenever they are required to enter the Work Area.

PART 3 EXECUTION

3.1 PREPARATION

3.1.1 Permits and Notifications: Secure necessary permits for hazardous materials removal, hauling and disposition and provide timely notification of such actions, as may be required by Federal, State, Regional, and Local authorities.

3.1.2 Before starting removal of hazardous materials, conduct the following activities:

3.1.2.1 The Subcontractor will take all necessary precautions to ensure that employees are not exposed to hazardous materials. Employees shall utilize personal protective clothing, eye protection and hand protection when handling hazardous materials. The Subcontractor shall provide suitable hand/face and eye wash stations or equivalent.

3.1.2.2 Shut down and lock out electric power to all work areas as necessary. The Subcontractor shall provide temporary power and lighting and ensure safe installation of temporary power services and equipment, as specified in applicable electrical code requirements.

3.1.2.3 Isolate all electrical sources from lighting fixtures, emergency lighting, switches, mechanical equipment, etc. prior to removal of ballast's, light tubes, oils, fluids, etc. Isolation and disconnect of any other equipment/system to accomplish work shall be the responsibility of the Subcontractor.

3.1.2.4 Establish a designated staging area(s) for temporary placement of hazardous materials. Cover the floor with one (1) layer of 6-mil plastic sheeting (as a drop cloth), taped down. Separate materials based on constituent, condition and proposed disposal/recycling point.

3.2 REMOVAL, PACKAGING, TRANSPORTATION, AND DISPOSAL

3.2.1 Electronic Waste (E-Waste)

3.2.1.1 Electronic devices and components may contain heavy metals such as lead, mercury, chromium, cadmium, and brominated flame retardants and are classified by the EPA and LDEQ as Universal Wastes. E-wastes are subject to the universal waste requirements of LAC 33:V Chapter 38. In large enough quantities, E-waste can be considered hazardous waste (40 CFR Parts 260-262) if identified for disposal. LDEQ and EPA

recommend the reuse or recycling of E-Waste to avoid being covered by hazardous waste regulations.

3.2.1.2 Remove, package, transport, recycle and/or and dispose of all remaining E-waste, as universal waste in accordance with local, state, and federal regulations. In addition, special worker protection (PPE) and training may be required.

3.2.2 Large Batteries

3.2.2.1 Batteries may contain heavy metals such as lead, mercury, lithium, cadmium, and other toxic metals and are classified by the EPA and LDEQ as Universal Wastes. Large batteries are subject to the universal waste requirements of LAC 33:V Chapter 38.

3.2.2.2 The Subcontractor shall check all batteries in emergency lighting fixtures, emergency exit signs, generators and battery charging systems, and other electrical equipment and components for batteries that may contain heavy metals.

3.2.2.3 Remove batteries intact, segregate from other construction or demolition debris, package, transport, and recycle or dispose of as universal waste in accordance with local, state, and federal regulations. In addition, special worker protection (PPE) and training may be required.

3.2.3 White Waste and Large Appliances

3.2.3.1 White waste and large appliances contain oils (in motors) that need to be recovered prior to disposal to prevent a release during crushing activities at the landfill and/or scrap metal recycling facility. These materials may be recycled as scrap metal if it is determined that they do not contain any other materials which would require special handling, transportation, or disposal.

3.2.3.2 Drain, properly containerize, transport, recycle and/or dispose of any hydraulic oils/fluids from white goods and large appliances in accordance with local, state and federal regulations.

3.2.3.3 Tag or label all white waste and large appliances from which oils have properly removed and reclaimed to indicate that they no longer contain oils.

3.2.4 Ozone-Depleting Substances (ODS) and Refrigerants

3.2.4.1 ODS include equipment and appliances that contain manmade refrigerants (i.e., chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), and freon) or compressor oils. The Clean Air Act (40 CFR, Part 82, Subpart F) requires that the coolant be recovered prior to disposal to prevent an airborne release during crushing activities at the landfill and/or scrap metal recycling facility. Equipment and appliances manufactured since 1995 contain ozone-friendly hydrofluorocarbon (HFC) refrigerants; however, these refrigerants still need to be carefully handled since they are greenhouse gases.

3.2.4.2 Remove, package, transport, recycle and/or dispose of all ODS and refrigerants in accordance with local, state, and federal regulations. In addition, special worker protection (PPE) and training may be required.

3.2.4.3 The Subcontractor or their designated personnel hired to remove refrigerants shall meet all federal and state requirements for certification as a "Refrigerant Reclaimer" as defined in Section 608 of the Clean Air Act.

3.2.4.4 Tag or label all equipment from which refrigerants have been properly removed and reclaimed to indicate that they no longer contain ODS or refrigerants.

3.2.5 Hazardous Chemicals, Paints, Sealants, and Miscellaneous Commercial Chemicals

3.2.5.1 Hazardous products such as paints, stains, varnishes, solvents, pesticides, cleaners, adhesives, oils, etc. containing volatile chemicals that can catch fire, react, or explode, or that are corrosive or toxic. An EPA designation for any hazardous material requiring a Safety Data Sheet (SDS) under OSHA's Hazard Communication Standard. Such substances can produce fires and explosions or adverse health effects like cancer and dermatitis. Hazardous chemicals are distinct from hazardous waste.

3.2.5.2 Remove, package, transport and dispose of all hazardous chemicals, paints, sealants, and miscellaneous commercial chemicals in accordance with local, state, and federal regulations. In addition, special worker protection (PPE) and training may be required.

3.2.6 Pressure Vessels

3.2.6.1 All pressure vessels and compressed gases are potentially hazardous since they are under great pressure in a container. Gases contained

within compressed gas cylinders can be toxic, flammable, oxidizing, corrosive, inert, or some combination thereof. Examples include but are not limited to acetylene cylinders of any size, shape or age; fire extinguishers; propane tanks and cylinders; refrigerant cylinders; compressed air cylinders; etc.

3.2.6.2 Remove, package, transport, recycled, and/or dispose of all compressed gases in accordance with local, state, and federal regulations. In addition, special worker protection (PPE) and training may be required.

3.2.7 Commercial and Industrial Equipment

3.2.7.1 Large commercial and industrial equipment may contain gasoline, diesel, fuel oils, or other chemicals that may require special disposal. Equipment containing or otherwise contaminated with used oil are subject to regulation as used oil under LAC 33:V.Chapter 40. Mixtures of used oil and hazardous waste that are listed in LAC 33:V.4901 are subject to regulation as hazardous waste under LAC 33:V.Subpart 1, rather than as used oil under LAC 33:V.Chapter 40. Equipment may be recycled as scrap metal if it is determined that they do not contain any other materials which would require special handling, transportation, or disposal.

3.2.7.2 Remove, package, transport, recycle and/or dispose of commercial and industrial equipment in accordance with local, state, and federal regulations.

3.2.7.3 Equipment to be dismantled and disposed of shall be carefully removed in manageable sections and all work shall be performed on top of protective polyethylene sheeting where feasible.

3.2.7.4 Prior to dismantling equipment for disposal, electrical systems must be isolated and locked-out/tagged out at the point of distribution such as the Motor Control Center (MCC) for larger motorized equipment or the circuit breaker in the case of smaller instrumentation and control circuits.

3.2.7.5 Any chemicals remaining in equipment that were utilized for wastewater treatment processes, including but not limited to media, solid waste, filter media, and sludges contained within the piping and process systems, and any oils and fluids contained within equipment shall be drained, removed, properly containerized, transported, and recycled or disposed of in accordance with applicable local, state, and federal regulations.

3.2.7.6 All residual materials will be removed from process equipment and piping after the equipment is taken out of service. This includes draining, removal of media, flushing of pipes and vessels, collection of residual material, characterization of residual materials, and disposing of it in with applicable local, state, and federal regulation.

3.2.7.7 If wastewater, residuals, or media characterization results in exceedance of RCRA MCLs for metals, the resulting materials will be disposed of at a RCRA TSDF facility.

3.2.7.8 Equipment from which oil has been properly removed and reclaimed shall be clearly tagged or labeled by the Subcontractor to indicate that it no longer contains oil.

3.2.7.9 Uncontaminated equipment and debris can be removed, transported, and disposed of as construction and demolition debris.

3.2.8 Removal and disposal of lead-based painted equipment and lead-containing painted surfaces:

3.2.8.1 Any planned demolition work or disposal activities that disturbs lead paint during the course of this project must be conducted in accordance with all applicable requirements of the OSHA lead standard for construction (29 CFR 1926.62) and applicable EPA regulations.

3.2.8.2 Equipment with intact lead-containing painted surfaces can be removed and disposed of as non-hazardous waste.

3.2.8.3 Separate equipment with intact regulated lead-based paint from other accumulated waste and debris. TCLP testing must be conducted prior to transport and disposal of lead-based painted equipment and components, including any painted debris resulting from dismantling, removal, demolition, and disposal activities, to characterize waste for possible disposal as hazardous waste.

3.2.8.4 Workers shall exercise caution to avoid the release of lead contaminated dust into the air during dismantling and/or demolition activities. Do not saw or cut equipment unnecessarily. Dismantling operations shall be conducted in a careful, safe manner, ensuring intact lead-based paint remains so.

3.2.9 Waste Tires

3.2.9.1 Waste tires are regulated by the LDEQ under the solid waste rules (LAC 33:VII.105). State regulations restrict the storage or transportation of more than 20 whole waste tires unless explicit authorization from the LDEQ is granted under specific conditions: Waste tires can be recycled if it is determined that these items do not contain any other materials which would require special handling, transportation, disposal, and if they are not going to be reused. Refer to Louisiana Administrative Code, Title 33, Part VII, Solid Waste - Subpart 2, Chapter 105 for more details.

3.2.9.2 Remove, package, transport, recycle and/or dispose of all remaining waste tires, as solid waste in accordance with local, state, and federal regulations. In addition, special worker protection (PPE) and training may be required.

3.2.10 Scrap Metal

3.2.10.1 Scrap metal includes bits and pieces of metal parts or metal pieces that may be combined together with bolts or soldering. Equipment and building materials can be recycled as scrap metal if it is determined that these items do not contain any other materials which would require special handling, transportation, disposal, and if they are not going to be reused.

3.2.10.2 Remove, package, transport, recycle and/or dispose of all remaining scrap metal, as solid waste in accordance with local, state, and federal regulations. In addition, special worker protection (PPE) and training may be required.

3.2.11 Universal Waste Bulbs

3.2.11.1 Fluorescent light tubes and bulbs, high intensity discharge (H.I.D.), metal halide, sodium, and neon bulbs contain mercury vapor and are classified by the EPA and LDEQ as Universal Wastes. Universal waste bulbs are subject to the universal waste requirements of LAC 33:V Chapter 38.

3.2.11.2 Lay drop cloth on floors of work areas before dismantling the light fixture. Remove lights from fixtures.

3.2.11.3 Package, transport, and recycle or dispose of all lights in accordance with local, state, and federal regulations. In addition, special worker protection (PPE) and training may be required.

3.2.11.4 HEPA vacuum and thoroughly decontaminate any areas where lights are accidentally broken. Remove and discard residues from broken lights and bulbs promptly. Store broken, damaged, or leaking lights or bulbs in a DOT-approved container properly marked and labeled.

3.2.12 PCB-Containing Devices

3.2.12.1 Insulating oils associated with high-voltage equipment, electrical transformers, and capacitors may contain polychlorinated biphenyls (PCBs).

3.2.12.2 The Subcontractor is required to inspect all potential PCB-containing devices and visually verify that each device is labeled "No PCBs" or is unlabeled and presumed to contain PCBs. Devices labeled "No PCB's" shall be disposed of as construction debris.

3.2.12.3 Devices and equipment containing PCB-insulating oils shall be decontaminated prior to demolition. Extraction of PCB-containing oils and decontamination of devices and equipment shall be performed in accordance with OSHA worker protection requirements. Recovered oil containing PCB shall be disposed of as hazardous waste.

3.2.12.4 Remove known or presumed PCB-containing devices and place into a 55- gallon steel drum (17 C or 17H) or other DOT-approved container in accordance with EPA and DOT regulations. Install gasket on lid, apply lock ring, and seal.

3.2.12.5 Any leaking PCB-containing devices or transformers shall be wrapped and sealed in 6-mil plastic disposal bags and placed in a separate steel drum or other approved container. Each disposal drum or container will have a sufficient amount of oil-absorbent material placed in the bottom to absorb any oil from devices that are leaking or may leak during transport. Any materials that come in contact with leaking PCB wastes shall be considered contaminated and disposed of as PCB waste.

3.2.12.6 Apply hazardous waste label to drum side. Enter DOT shipping data as follows: RQ Waste Polychlorinated Biphenyl,9, UN-2315, PG-II, and (M001). Adjacent to each label, enter the date indicating when waste was first placed in each drum.

3.2.12.7 Transport and dispose of all properly containerized PCB-containing devices to an EPA-approved recycling/disposal facility.

3.2.12.8 The Subcontractor is responsible for determining and complying with all current applicable regulations pertaining to hazardous waste handling, transport, and disposal of PCB-containing devices and transformers.

3.2.13 PCB-Containing Ballasts

3.2.13.1 Fluorescent light fixture ballasts may contain PCBs.

3.2.13.2 The Subcontractor is required to inspect all potential PCB-containing light ballasts and visually verify that each light ballast is labeled "No PCBs" or is unlabeled and presumed to contain PCBs. Light ballasts labeled "No PCB's" shall be disposed of as construction debris.

3.2.13.3 Remove known or presumed PCB-containing ballasts and place into a 55- gallon steel drum (17 C or 17H) or other DOT-approved container in accordance with EPA and DOT regulations. Install gasket on lid, apply lock ring, and seal.

3.2.13.4 Any leaking PCB-containing ballasts shall be wrapped and sealed in 6-mil plastic disposal bags and placed in a separate steel drum or other approved container. Each disposal drum or container will have a sufficient amount of oil-absorbent material placed in the bottom to absorb any oil from ballasts that are leaking or may leak during transport. Any materials that come in contact with leaking PCB wastes shall be considered contaminated and disposed of as PCB waste.

3.2.13.5 Apply hazardous waste label to drum side. Enter DOT shipping data as follows: RQ Waste Polychlorinated Biphenyl,9, UN-2315, PG-II, and (M001). Adjacent to each label, enter the date indicating when waste was first placed in each drum.

3.2.13.6 Transport and dispose of all properly containerized PCB-containing devices to an EPA-approved recycling/disposal facility.

3.2.13.7 The Subcontractor is responsible for determining and complying with all current applicable regulations pertaining to hazardous waste handling, transport, and disposal of PCB-containing ballasts.

3.3 ADDITIONAL CLEAN-UP AND DISPOSAL REQUIREMENTS

3.3.1 Protect interior of truck or dumpster with barriers.

3.3.2 Carefully load containerized waste in fully enclosed dumpsters, trucks or other appropriate vehicles for transport. Exercise care before and during transport, to ensure that no unauthorized persons have access to the material.

3.3.3 Warning Signs: During loading and unloading mark dumpsters, receptacles and vehicles with a sign complying with regulatory requirements in a manner and location that a person can read.

3.3.4 Do not store containerized materials outside of the work area. Take containers from the work area directly to a sealed truck or dumpster.

3.3.5 Advise the landfill operator or processor in advance of transport of the quantity of material to be delivered.

3.3.6 At disposal site, unload containerized waste.

3.3.7 Retain receipts from landfill or processor for any materials disposed of.

3.3.8 At completion of hauling and disposal of each load, submit copy of waste manifest, chain of custody form, and landfill receipt to the Owner.

3.3.9 All waste is to be hauled by a waste hauler with all required licenses from all state and local authority with jurisdiction.

3.3.10 All waste is to be disposed of in a disposal facility that is permitted to dispose of the hazardous waste materials.

END OF SECTION

Leaaf
environmental

September 12, 2023
Sent via Email: blyons@deii.net
Sent via Email: rdelaune@deii.net
Leaaf #: DEN-003

Robert J Delaune Jr, P.E.
Digital Engineering
527 West Esplanade Ave., Ste. 200
Kenner, LA 70065

RE: Hazardous Materials Survey Report
Building Asset Id No. PB000026, Belt-Press Building
River Road Wastewater Plant
144 Water Plant Road, Laplace, LA 70068

Dear Mr. Delaune:

The following letter report summarizes the findings of the Hazardous Materials Survey completed by Leaaf Environmental, LLC (Leaaf). The survey included a visual inspection of all accessible interior and exterior spaces throughout the building to identify and inventory potential hazardous materials that require special management prior to disposal or renovation/demolition activities. The survey was conducted for the Belt-Press Building of the River Road Wastewater Plant property located at 144 Water Plant Road, Laplace, LA 70068. Refer to Appendix A for an illustration of the location of the property.

Survey

The hazardous materials survey was conducted on September 7, 2023, by environmental professional Suzanne Sicotte of Leaaf. A visual walkthrough of the building was performed to inspect equipment and materials that may contain hazardous components and have potential for environmental impacts due to improper storage or disposal. During the survey, various equipment and materials were also inventoried for possible salvage and recycling. The survey was conducted in accordance with the procedures detailed in Appendix B – Attachment 1. A spreadsheet detailing the potential hazardous materials observed or identified during the survey and estimated quantities of the materials can be found in Appendix B – Attachment 2.

It should be noted that the term "hazardous materials" used in this report generally describes materials that may be considered non-hazardous or hazardous and may require special handling, recycling, disposal, and shipping. No physical samples were collected, and subsurface areas were not included as part of the survey. Electrical power to the building was connected at the time of the survey; therefore, no attempt was made to disassemble devices or visually inspect suspect materials within the devices, equipment, or appliances.

Findings

Potentially hazardous materials were visually observed on the property. Proper management and/or disposal of identified materials prior to any renovation and or demolition activities can prevent potential exposures and harm to employees, the public, and/or the environment. Many of the materials identified at the site can be recycled or simply included as demolition waste. Some of the materials contain chemicals or products that require special handling, disposal, and shipping if they will no longer be used for their intended purpose. Please note that reported

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quantities are estimates only and should be independently verified prior to disposal or renovation/demolition activities.

The following will summarize the materials found on the property and would require special handling, transportation, disposal, and/or recycling:

- Electronic Waste (E-Waste): E-waste is classified by the EPA as Universal Wastes and requires special disposal. Recycling of E-waste reduces the releases of heavy metals like lead, cadmium, copper, and chromium into the environment which contribute to contaminants in our air, water, and landfills. E-waste refers to any unwanted electronic device, equipment or appliance containing a circuit board, or cathode ray tube (CRT). The following E-wastes were observed on the interior and exterior of the building: cable/fuse/circuit breaker box components, miscellaneous cables and wires, safety switch panel components, computer keyboard, radio, handheld remote, wall clock, headphones, coil controllers, and delay timers.

- Large Batteries: Large batteries are classified by the EPA as Universal Wastes and require special disposal as they can contain acids and/or metals that need to be properly recycled or disposed of as hazardous waste. Universal Waste batteries include but are not limited to battery types containing lead acid, nickel, cadmium, lithium (greater than nine volts [9V]), silver, and/or mercury, and are often found in e-waste and large equipment. The following devices that have or may contain large batteries were observed on the interior of the building: emergency exit signs and emergency lighting.

- White Waste and Large Appliances: White waste and large appliances may contain chemicals or products such as refrigerants, polychlorinated biphenyl (PCB)-containing capacitors or ballasts, and metals that require special handling and disposal if they will no longer be used for their intended purpose. Appliances in good operating order may be reused or recycled. The following white waste and large appliances were observed on the interior of the building: motorized roll-up warehouse doors, suspended heaters, portable fans, small equipment with motors, pumps, & controls, water pump, hot water heater, portable oil-fired heater.

- Ozone-Depleting Substances (ODS) and Refrigerants: Federal laws prohibit releases and also require recovery of these substances in accordance with 40 CFR 82. ODS include equipment and appliances that contain manmade refrigerants (i.e., freon, chlorofluorocarbons (CFCs), and hydrochlorofluorocarbons (HCFCs)) or compressor oils. Equipment that is to be removed or dismantled will need to have a contractor licensed to recover and collect the refrigerants. The following ODS were observed on the interior of the building: water fountain and air conditioner (wall unit).

- Hazardous Chemicals: Hazardous chemicals require special disposal and are regulated by federal, state, and/or local laws. Recovered liquids may be sent to a licensed reclaimer or incineration facility. Contaminated material must be disposed of in a permitted waste management facility. Consult federal, state, and local authorities for approved procedures.

The following hazardous chemicals were observed on the interior of the building: heavy-duty multi-purpose grease / gear oil, aerosol lubricants, PVC cement, hydrocarbon primer, insect repellant wipes, granular calcium hypochlorite, petroleum distillate, lubricating oil, and water treatment polymer. More hazardous chemicals may be present hidden in the debris piles located on the interior of the building. More hazardous chemicals may be present hidden in the debris piles located throughout the interior of the building.

- Paints, Sealants, Miscellaneous Commercial Chemicals: Paints contain chemicals (typically volatiles and/or metals) that require special disposal. The oils, solvents, and heavy metals in paint, if released into the environment, could potentially contaminate the soil, water, and/or air. The following were observed on the interior of the building: aerosol spray sealer, 1-gallon paint cans, muti-purpose bleach cleaner, and multipurpose pipe thread sealant. More paints and miscellaneous commercial chemicals may be present hidden in the debris piles located throughout the interior of the building.

- Pressure Vessels: Pressure vessels such as fire extinguishers and cylinders may contain chemicals that will require special disposal or recycling, unless they are going to be reused. Pressure vessels can often be recycled back to the dealer/distributor, recycled as scrap metal, or disposed of as construction debris after properly discharging and/or recovering the gases within the cylinders and tanks. The following pressure vessel was observed on the interior and exterior of the building: dry chemical and carbon dioxide fire extinguishers.

- Commercial and Industrial Equipment: Large commercial and industrial equipment may contain gasoline, diesel, fuel oils, or other chemicals that may require special disposal. These materials may be recycled as scrap metal if it is determined that they do not contain any other materials which would require special handling, transportation, or disposal. The following commercial and industrial equipment were observed on the interior and exterior of the building: belt press building processing equipment & control panels (polymer tank & pumps, belt press, sludge dryer, sludge holding, inclined conveyors).

- Waste Tires: Waste tires can be recycled if it is determined that these items do not contain any other materials which would require special handling, transportation, disposal, and if they are not going to be reused. State regulations restrict the storage or transportation of more than 20 whole waste tires. Refer to Louisiana Administrative Code, Title 33, Part VII, Solid Waste - Subpart 2, Chapter 105 for more details. The following waste tires were observed on the interior and exterior of the building: various automobile tires.

- Scrap Metal: Equipment and building materials can be recycled as scrap metal if it is determined that these items do not contain any other materials which would require special handling, transportation, disposal, and if they are not going to be reused. The following scrap metal equipment and materials were observed on the interior and exterior of the building: file cabinet, desk, hose holders, misc. metal parts (small tools, hooks, screws, coils, brass balls, valves), hand dollys, misc. building debris (gutters, canopy/siding).

- Potential PCB-Containing Devices and Ballasts: PCBs are strictly regulated because of their toxicity and persistence in the environment. Management of PCBs is based on their concentration in an item. Materials with PCB concentrations of 50 parts per million (PPM) or greater are regulated by the EPA under the Toxic Substances Control Act. PCB-containing devices and ballasts may contain PCB oils which should be removed and properly handled, collected, stored, transported and recycled or disposed of by an approved recycling or disposal facility in accordance with the requirements of Title 22 CCR 67426.1. All potential PCB-containing devices and ballasts should be inspected prior to demolition or disposal to determine if they contain PCBs. Unless devices and ballasts are marked with a label stating, "No PCBs or PCB Free", they must be assumed to contain PCBs and should be disposed of as hazardous waste if removed. Devices and ballasts with labels marked "No PCB's or PCB Free" can be considered as such and should be treated and disposed of as universal electronic waste. The following potential PCB-containing devices and ballasts were observed or are believed to be present on the interior and exterior of the building: wall mounted general purpose transformer (labels not visible and transformers not accessed), fluorescent lighting ballasts (internally mounted and not accessed).

- Universal Waste Bulbs: Light-emitting diode (LED) lamps, fluorescent light tubes, and fluorescent bulbs are classified by the EPA as Universal Wastes and will need to be removed prior to demolition of the building and recycled or disposed of in accordance with applicable laws and regulations. During removal or disposal, all bulbs should be handled in a manner so as not to break the bulbs or damage the ballasts. During demolition, disposal, or construction activities, there is the potential for Universal Waste bulbs to be removed in sufficient quantities that will require special disposal. Under the Universal Waste Rule, a hazardous waste generator license is not required if the hazardous waste is less than 220 lbs., and the waste is generated and properly disposed of within one calendar month. "Green Markings" or green end caps on fluorescent light bulbs indicate that they may be disposed of in dumpsters or as ordinary trash. The following universal waste bulbs were observed or are believed to be present on the interior and exterior of the building: ceiling-mounted fluorescent light fixtures containing tube-style fluorescent light tubes and bulbs (assumed – fixtures not accessed), ceiling and wall mounted high intensity discharge (HID) lamp fixtures containing metal halide lamps, individual metal halide lamps, ceiling mounted fixture containing a compact fluorescent bulb, and individual standard bulbs.

Conclusions

Miscellaneous hazardous materials and universal waste materials are present at the Belt-Press Building. It is recommended that as part of any demolition or renovation, all identified hazardous materials/universal waste materials identified that are not going to be relocated or reused on-site be properly recycled and/or disposed of in accordance with all applicable laws and regulations, to include proper storage, labeling of containers, manifesting, and training of all employees handling regulated and/or hazardous waste materials.

Improper management and/or disposal of hazardous waste can potentially expose employees, the public, and/or the environment to impending harm. Federal regulations pertaining to hazardous waste include 40 CFR Parts 260 through 273 and detail the Resource Conservation

and Recovery Act (RCRA) of 1976 requirements, including "generator" standards for managing hazardous wastes (Part 262) and hazardous waste determinations for solid wastes (Part 262, Section 262.11). All workers who are required to remove or handle chemical hazards or transport or dispose of chemical wastes shall be trained and certified as required by the U.S. Department of Labor (29 CFR 1910.120) along with other specific training, monitoring and utilizing special safety equipment for the specific hazard. (i.e., bloodborne pathogen training for sharps). Transportation of chemical hazards are regulated by U.S. Department of Transportation regulations under 49 CFR Parts 171 to 178 amongst others.

If there are any questions or additional information is needed, please contact me at (504) 342-2687.

Sincerely,
Leaaf Environmental, LLC

Suzanne Sicotte
Environmental Scientist

Attachment (support documents)

Appendices

Appendix A – Property Location Map

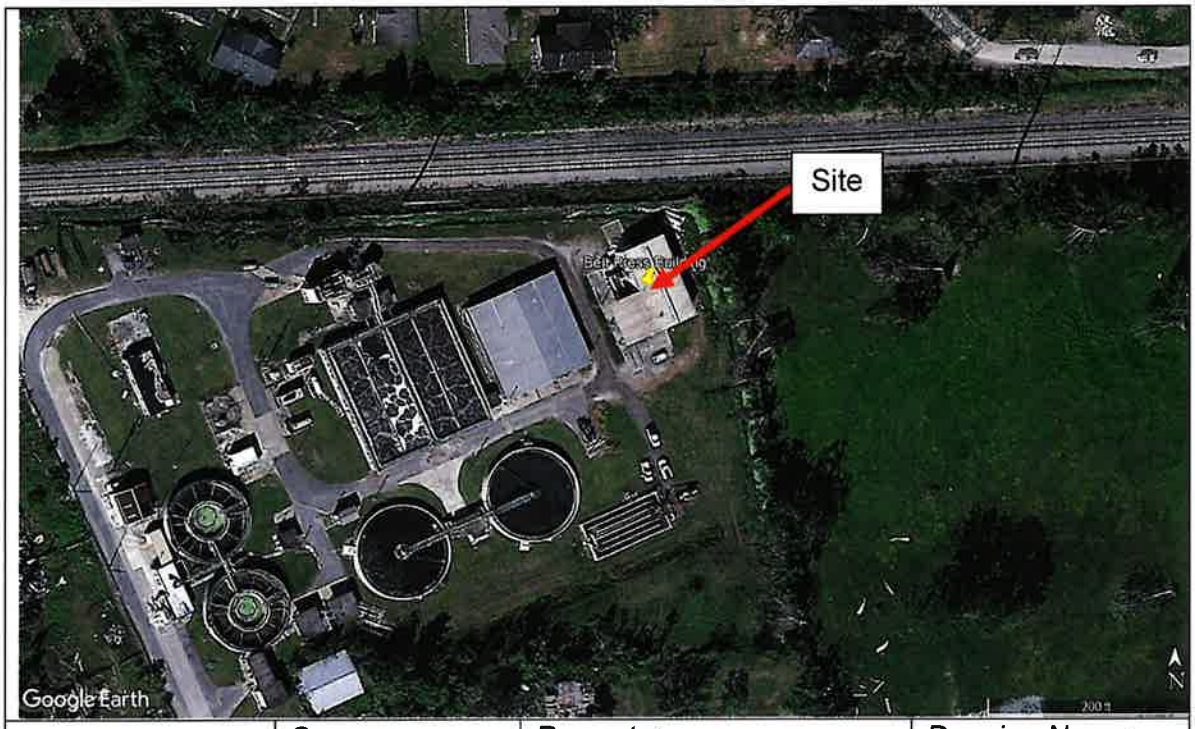
Appendix B – Haz Mat Survey Support Documentation

Attachment 1 – Survey Methodology

Attachment 2 – Field Documentation

Appendix A

Property Location Map



Leaaf environmental Leaaf Environmental, LLC www.leaaf.com	*Source:*	*Property:*	*Drawing Name:*
	Google Earth, 2023	144 Water Plant Road Laplace, LA 70068	**Property Location Map**

Appendix B

Haz Mat Survey Support Documentation

Attachment 1 – Survey Methodology

Attachment 2 – Field Documentation

Attachment 1

Survey Methodology

General Procedures:
Leaaf conducted a room-by-room visual survey of the buildings and inspected the grounds associated with the properties for suspected hazardous materials. Leaaf noted any hazardous or non-hazardous materials that require special handling for disposal/recycling discovered during the inspection and documented their location. Subsequent to the physical inspection of the properties and grounds, Leaaf reviews the data assembled during the inspection and makes statements for the potential hazards associated with each item identified. Handling and or disposal of those hazardous materials or non-hazardous materials found can be disposed/recycled/reused; therefore, final disposition of the material will need to be determined at the time the materials are considered no longer wanted.

Regulatory Authority:

Universal Waste: The Environmental Protection Agency (EPA) regulates the management of hazardous waste through the Resource Conservation and Recovery Act (RCRA) Subtitle C (40 CFR Part 260). The RCRA hazardous waste program regulates commercial businesses and government facilities that generate, transport, treat, store, or dispose of hazardous waste.

The State of Louisiana further regulates the management of hazardous waste through the Louisiana Administrative Code Title 33 Part V Chapter 38. In additional to the above-mentioned universal wastes, the State of Louisiana also regulates:

- Batteries
- Pesticides
- Circuit board-containing electronics
- Antifreeze

Hazardous materials are items which are regulated by the Department of Transportation (DOT) within the Code of Federal Regulations (CFR) 49 parts 100 to 185. If any material meets the definition of a Hazardous Material Class 1 through 9, then specialized handling and disposal requirements must be followed. For example, smoke detectors containing a radioactive source may meet the requirements for Class 7 Radioactive Materials within DOT 49 CFR. In addition, many items that are considered non-hazardous may require specialized handling and disposal as well. Typical household chemicals and e-waste are examples of non-hazardous materials requiring specialized handling and disposal.

Limitations:
The survey performed by Leaaf was limited to areas entered and surveyed. Although Leaaf provided a list of materials and an estimate of the quantity of those materials, this data reflects only accessible areas without moving items to expose other areas at the time of the inspection.

Classification of the material as hazardous may require sampling and analysis to determine its hazardous characteristics. This survey performed no sampling and analysis; therefore, some materials may have been identified as hazardous but may not actually be considered hazardous.

This report was developed and incorporates information that was obtainable within a reasonable time, cost and direction by the Client and/or Client's representative. Leaaf makes no warranties as to the conclusions or opinions made by others based on the information presented in this report. This report is provided to the Client only and is intended to assist the Client in making an informed decision about the property. Leaaf's opinions are based on the site conditions at the time of the survey. As hazardous materials are affected by environmental and site conditions at the time of the survey, there is the possibility that changing conditions could drastically affect the levels detected.

This report should not be altered or copied without Leaaf's written permission.

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Attachment 2

Field Documentation

Location	Electronic Wastes (E-Waste)	Large Batteries	White Waste & Large Applicances	Ozone-Depleting Substances (ODS) & Refrigerants	Hazardous Chemicals	Paints, Sealants, & Misc. Commercial Chemicals	Pressure Vessels (fire extinguishers, tanks, cylinders)	Waste Tires	Commercial & Industrial Equipment	Scrap Metal	Potential PCB-Containing Devices	Potential PCB-Containing Ballasts (2 x 4')	Potential PCB-Containing Ballasts (4 x 4')	Potential PCB-Containing Ballasts - High Intensity Discharge (HID)	Universal Waste Bulbs: Fluorescent Lights (4')	Universal Waste Bulbs: High Intensity Discharge (HID) Lamps - Metal Halide	Universal Waste Bulbs: Individual Standard Bulbs	Universal Waste Bulbs: Compact Fluorescent Bulbs
Building Interior	30	3	15	2	29	6	6	1	7	35	1	1	2	11	10	13	2	1
Building Exterior	3						2	2		16				3		3		
Total	**33**	**3**	**15**	**2**	**29**	**6**	**8**	**3**	**7**	**51**	**1**	**1**	**2**	**14**	**10**	**16**	**2**	**1**

Note: Quantities are estimates only and should be independently verified.

E-waste: misc. cables and wires (phone/device chargers, spool of wire), cable/fuse/breaker box components, safety switch panel components, computer keyboard, radio, handheld remote, wall clock, headphones, coil controllers, delay timers

Large Batteries: emergency exit signs, emergency lighting

White Wastes & Large Applicances: motorized roll-up warehouse doors, suspended heaters, portable fans, small equipment with motors, pumps, & controls, water pump, hot water heater, portable oil-fired heater

ODS & Refrigerants: water fountain, wall a/c unit

Hazardous Chemicals: heavy-duty multi-purpose grease (14oz), aerosol silicone lubricant (11 oz), aerosol lubricant (16 oz), PVC cement (16 oz), gear oil (1 qt), hydrocarbon primer (8oz), insect repellant wipes, granular calcium hypochlorite (100 lbs), petroleum distillate (275 gal tote), lubricating oil (55-gal), TMB 864 water treatment polymer (450 lb)

Paints, Sealants, & Misc. Commercial Chemicals: paint cans (1-gal), aerosol spray clear sealer (12 oz), muti-purpose bleach cleaner (24 oz), multipurpose pipe thread sealant (8oz)

Pressure Vessels: dry chemical fire extinguishers, carbon dioxide fire extinguisher

Commercial & Industrial Equipment: belt press building processing equipment & control panels (polymer tank & pumps, belt press, sludge dryer, sludge holding, inclined conveyors)

Scrap Metal: file cabinet, desk, hose holders, misc. metal parts (small tools, hooks, screws, coils, brass balls, valves), hand dollys, misc. building debris (gutters, canopy/siding)

Potential PCB-Containing Devices and Ballasts: fluorescent light ballasts, wall mounted general purpose transformer

Universal Waste Bulbs: fluorescent lights, metal halide HID lamps, individual standard bulbs, compact fluorescent bulb

Waste Tires: automobile tires

E-Waste

E-Waste

E-Waste

E-Waste

Large Batteries

Large Batteries

White Waste

White Waste

White Waste

White Waste

White Waste

White Waste

ODS & Refrigerants

ODS & Refrigerants

Hazardous Chemicals

Hazardous Chemicals

Hazardous Chemicals

Hazardous Chemicals

Paints / Sealants / Commercial Chemicals

Paints / Sealants / Commercial Chemicals

Pressure Vessels

Pressure Vessels

Waste Tires

Waste Tires

Commercial & Industrial Equipment

Commercial & Industrial Equipment

Commercial & Industrial Equipment

Commercial & Industrial Equipment

Scrap Metal

Scrap Metal

Potential PCB-Containing Devices

Potential PCB-Containing Ballasts

Universal Waste Bulbs

Universal Waste Bulbs

Universal Waste Bulbs

Universal Waste Bulbs

Appendix D

Sources of Information

Sources of Information

1. American Petroleum Institute (API)
    - APR Rp 2003, Protection Against Ignitions Arising out of Static, Lightning and Stray Currents.

2. Louisiana Department of Environmental Quality (LDEQ)
    - Title 33, Part V Hazardous Wastes and Hazardous Materials Subpart 1 Department of Environmental Quality – Hazardous Waste.
    - Title 33, Part VII Solid Waste. Subpart 1 Solid Waste Regulations.

3. National Fire Protection Association (NFPA)
    - NFPA 30 (1990) Flammable and Combustible Liquids Code.
    - NFPA 70 B (1990) Recommended Practice for Electrical Equipment Maintenance.
    - NFPA 325M (1991) Fire Hazard Properties of Flammable Liquids, Gases, and Volatile Solids.
    - NFPA 327 (1987) Standard Procedures for Cleaning or Safeguarding Small Tanks and Containers.

4. Resource Conservation and Recovery Act (RCRA)
    - CFR 40 CFR 260 General Regulations for Hazardous Waste Management.
    - CFR 40 CFR Part 261 Identification and Listing of Hazardous Waste.
    - CFR 40 CFR Part 262 Standards Applicable to Generators of Hazardous Waste.
    - CFR 40 CFR Part 263 Standards Applicable to Transporters of Hazardous Waste.
    - CFR 40 CFR Part 265 Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.

5. Toxic Substances Control Act (TSCA)
    - CFR 40 CFR Part 761 Polychlorinated Biphenyls (PCB) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions.

6. U.S. Department of Transportation & Development (DOT)
    - CFR 49 Part 171 Regulations to Stipulate Requirements for Containers and Procedure for Shipment of Hazardous Waste.
    - CFR 49 Part 172 Hazardous Materials Communications.

7. U.S. Environmental Protection Agency (EPA)
    - CFR 40 CFR Part 264 Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.
    - EPA Report SW-846, Test Methods for Evaluating Solid Waste.

8. U.S Occupation Safety and Health Administration (OSHA)
    - CFR 29 CFR 1926/1910 Construction Industry Occupational Safety and Health Standards.

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SECTION 01400: QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY:

A. Section includes administrative and procedural requirements for quality assurance and quality control.

B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.

1. Specific quality-assurance and -control requirements for individual demolition activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
2. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and -control procedures that facilitate compliance with the Contract Document requirements.
3. Requirements for Contractor to provide quality-assurance and -control services required by A/E, Owner, or authorities having jurisdiction are not limited by provisions of this Section.

1.3 DEFINITIONS:

A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed demolition will comply with requirements.

B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed demolition comply with requirements. Services do not include contract enforcement activities performed by A/E.

1.4 CONFLICTING REQUIREMENTS:

A. Referenced Standards: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer conflicting requirements that are different, but apparently equal, to A/E for a decision before proceeding.

B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to A/E for a decision before proceeding.

1.5 INFORMATIONAL SUBMITTALS:

A. Contractor's Quality-Control Plan: For quality-assurance and quality-control activities and responsibilities.

B. Contractor's Quality-Control Manager Qualifications: For supervisory personnel.

C. Testing Agency Qualifications: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.

D. Schedule of Tests and Inspections: Prepare in tabular form and include the following:

1. Specification Section number and title.
2. Entity responsible for performing tests and inspections.
3. Description of test and inspection.
4. Identification of applicable standards.
5. Identification of test and inspection methods.
6. Number of tests and inspections required.
7. Time schedule or time span for tests and inspections.
8. Requirements for obtaining samples.
9. Unique characteristics of each quality-control service.

1.6 REPORTS AND DOCUMENTS:

A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:

1. Date of issue.
2. Project title and number.
3. Name, address, and telephone number of testing agency.
4. Dates and locations of samples and tests or inspections.
5. Names of individuals making tests and inspections.
6. Description of the Work and test and inspection method.
7. Identification of product and Specification Section.
8. Complete test or inspection data.
9. Test and inspection results and an interpretation of test results.
10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
12. Name and signature of laboratory inspector.
13. Recommendations on retesting and reinspecting.

1.7 QUALITY ASSURANCE:

A. General: Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.

B. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

C. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

D. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in demolition with a record of successful in-service performance.

E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar to those indicated for this Project in material, design, and extent.

F. Specialists: Certain Specification Sections require that specific demolition activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
   1. Requirements of authorities having jurisdiction shall supersede requirements for specialists.

G. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 329 and with additional qualifications specified in individual Sections; and where required by authorities having jurisdiction, that is acceptable to authorities.
   1. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
   2. NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.

H. Manufacturer's Technical Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.

I. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.

J. Pre-demolition Testing: Where testing agency is indicated to perform pre-demolition testing for compliance with specified requirements for performance and test methods, comply with the following:
   1. Contractor responsibilities include the following:
      a. Provide test specimens representative of proposed products and demolition.
      b. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
      c. Provide sizes and configurations of test assemblies, mockups, and laboratory mockups to adequately demonstrate capability of products to comply with performance requirements.
      d. Build site-assembled test assemblies and mockups using installers who will perform same tasks for Project.

e. Build laboratory mockups at testing facility using personnel, products, and methods of demolition indicated for the completed Work.

1.8 QUALITY CONTROL:

A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.

1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
2. Payment for these services will be made from testing and inspecting allowances, as authorized by Change Orders.
3. Costs for retesting and reinspecting demolition that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor.

B. Contractor Responsibilities: Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional quality-control activities required to verify that the Work complies with requirements, whether specified or not.

1. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.
2. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
   a. Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.
3. Notify testing agencies at least twenty-four (24) hours in advance of time when Work that requires testing or inspecting will be performed.
4. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
5. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
6. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.

C. On-Site Project Representative (OSPR) Responsibilities: When these services are contracted for the demolition phase of the project by the A/E, Owner or other third party, the following duties shall be performed by the On-Site Project Representative.

1. Obtain all project Contract Documents required for the demolition and inspection available from the A/E and Contractor. Thoroughly review this information, make a list of all documents required for the project, and obtain the latest edition of each at the time of the Pre-Demolition Meeting. Become completely familiar with all the documents necessary for observation of the demolition of the project prior to the commencement of demolition. Generate a list of all testing that is required for the project per the Contract Documents.

2. Keep a contact list containing the name, company name, address, telephone number, and e-mail address of all contact people involved in the project provided by the Contractor.
3. After the Contract Documents have been reviewed, and in advance of demolition, visit the project site and become familiar with the existing site conditions. Perform an on-site field check of the project with the project Construction Documents and note locations of key elements including designated site access and staging areas for the contractor's use.
4. During demolition, the OSPR shall be on site at times as designated in their contract to review the work in progress.
5. Attend all scheduled demolition meetings with the A/E, Owner, Contractor, etc. and any additional meetings at the project site as necessary to perform the on-site representation services as described herein.
6. Periodically review the Contractor's demolition schedule, in particular, the milestone dates and critical path, and alert the A/E to conditions and on-site events that may affect the Contractor's ability to complete the work in accordance with the schedule.
7. Obtain a list of all submittals and shop drawings required for the project. This list should be all-inclusive and note the approving authority for each submittal. During demolition, refer to this list to make certain proper submittals have been made and approved prior to installation. Receive copies (digital access is acceptable) of all approved submittals and shop drawings and confirm that the materials and equipment on-site match the approved submittals.
8. At the Owner's request, observe materials and equipment located off site, but only for the limited purpose of checking for conformance with the design concept and approved submittals and/or evaluating such materials and equipment for a Certificate of Payment.
9. Observe all tests and inspections (as required in the Contract Documents) and report observations to the A/E and Owner.
10. Periodically review documents (i.e. as-builts) and samples the Contractor is required to maintain at the site and report observations to the A/E and Owner.
11. Keep a written log of activities that occur at the project site for each day that the OSPR is present at the site. The daily logs will capture the information necessary to create monthly reports (i.e. weather conditions, tests or inspections performed, personnel and visitors on site, photographs, etc.). On a monthly basis, or as otherwise agreed to by the A/E and/or Owner, submit a written progress report to the A/E and/or Owner.
12. The OSPR shall not:
    a. Authorize any deviation from the Contract Documents or substitution of materials or equipment.
    b. Exceed limitations of OSPR authority as set forth in their agreement with the Owner or A/E as outlined in the Construction Documents.
    c. Undertake any of the responsibilities of the Contractor, sub-contractors, suppliers, etc.

d. Advise on, issue direction relative to, or assume control over any aspect of the means, methods, techniques, sequences, or procedures of the project.
e. Advise on, issue directions regarding, or assume control over safety practices, precautions, and programs in connection with the activities or operations of the Owner or Contractor.
f. Participate in specialized field or laboratory tests or inspections conducted off-site by others unless as specifically authorized by the A/E or Owner.
g. Accept shop drawings or sample submittals for review or approval.
h. Authorize the Owner to occupy the project in whole or in part.

D. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Division 01 Section "Submittal Procedures."

E. Manufacturer's Technical Services: Where indicated, engage a manufacturer's technical representative to observe and inspect the Work. Manufacturer's technical representative's services include participation in preinstallation conferences, examination of substrates and conditions, verification of materials, observation of Installer activities, inspection of completed portions of the Work, and submittal of written reports.

F. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for demolition that replaced Work that failed to comply with the Contract Documents.

G. Testing Agency Responsibilities: Cooperate with A/E, and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
1. Notify A/E and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
6. Do not perform any duties of Contractor.

H. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
1. Access to the Work.
2. Incidental labor and facilities necessary to facilitate tests and inspections.

3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
4. Facilities for storage and field curing of test samples.
5. Delivery of samples to testing agencies.
6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
7. Security and protection for samples and for testing and inspecting equipment at Project site.

I. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing demolition to accommodate testing and inspecting.
1. Schedule times for tests, inspections, obtaining samples, and similar activities.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 REPAIR AND PROTECTION:

A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged demolition and restore substrates and finishes.
1. Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible. Comply with the Contract Document requirements for cutting and patching in Division 1 Section "Execution."

B. Protect demolition exposed by or for quality-control service activities.

C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 01400

SECTION 01500: TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY:

A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.

1.3 USE CHARGES:

A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to testing agencies, and authorities having jurisdiction.

B. Water and Sewer Service from Existing System: Water from Owner's existing water system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for demolition operations.

C. Electric Power Service from Existing System: Electric power from Owner's existing system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for demolition operations.

1.4 INFORMATIONAL SUBMITTALS:

A. Site Plan: Show temporary facilities, utility hookups, staging areas, and parking areas for demolition personnel.

1.5 QUALITY ASSURANCE:

A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.

B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

1.6 PROJECT CONDITIONS:

A. Temporary Use of Permanent Facilities: Engage installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a demolition facility before Owner's acceptance, regardless of previously assigned responsibilities.

PART 2 - PRODUCTS

2.1 MATERIALS:

A. Portable Chain-Link Fencing: Minimum 2-inch (50-mm), 0.148-inch- (3.8-mm-) thick, galvanized steel, chain-link fabric fencing; minimum 6 feet (1.8 m) high with galvanized steel pipe posts; minimum 2-3/8-inch- (60-mm-) OD line posts and 2-7/8-inch- (73-mm-) OD corner and pull posts, with 1-5/8-inch- (42-mm-) OD top and bottom rails. Provide concrete or galvanized steel bases for supporting posts.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL:

A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.

B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION:

A. General: Install temporary service or connect to existing service.
   1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.

B. Sewers and Drainage: Provide temporary utilities to remove effluent lawfully.

C. Electric Power Service: Connect to Owner's existing electric power service. Maintain equipment in a condition acceptable to Owner.

D. Electric Power Service: Provide electric power service and distribution system of sufficient size, capacity, and power characteristics required for demolition operations.
   1. Connect temporary service to Owner's existing power source, as directed by Owner.

E. Lighting: Provide temporary lighting with local switching that provides adequate illumination for demolition operations, observations, inspections, and traffic conditions as needed.
   1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.

3.3 SUPPORT FACILITIES INSTALLATION:

A. Temporary Use of Permanent Roads and Paved Areas: Locate temporary roads and paved areas in same location as permanent roads and paved areas. Construct and maintain temporary roads and paved areas adequate for demolition operations. Extend temporary roads and paved areas, within demolition limits indicated, as necessary for demolition operations.
   1. Coordinate elevations of temporary roads and paved areas with permanent roads and paved areas.
   2. Prepare subgrade and install subbase and base for temporary roads and paved areas according to Division 31 Section "Earth Moving."

3. Recondition base after temporary use, including removing contaminated material, regrading, proofrolling, compacting, and testing.

B. Traffic Controls: Comply with requirements of authorities having jurisdiction.
   1. Protect existing site improvements to remain including curbs, pavement, and utilities.
   2. Maintain access for fire-fighting equipment and access to fire hydrants.

C. Parking: Use designated areas of Owner's existing parking areas for demolition personnel.

D. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and demolition free of water.
   1. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties nor endanger permanent Work or temporary facilities.
   2. Remove snow and ice as required to minimize accumulations.

E. Waste Disposal Facilities: Comply with requirements of authorities having jurisdiction.

F. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from demolition operations. Comply with requirements of authorities having jurisdiction. Comply with Division 1 Section "Execution" for progress cleaning requirements.

G. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.
   1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION:

A. Site Enclosure Fence: Before demolition operations begin, furnish, and install site enclosure fence in a manner that will prevent people and animals from easily entering site except by entrance gates.
   1. Extent of Fence: As required to enclose entire Project site or portion determined sufficient to accommodate demolition operations.

3.5 OPERATION, TERMINATION, AND REMOVAL:

A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.

B. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.

C. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent demolition that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace demolition that cannot be satisfactorily repaired.

1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
2. Remove temporary roads and paved areas not intended for or acceptable for integration into permanent demolition. Where area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs, and sidewalks at temporary entrances, as required by authorities having jurisdiction.
3. At Substantial Completion, repair, renovate, and clean permanent facilities used during demolition period. Comply with final cleaning requirements specified in Division 1 Section "Closeout Procedures."

END OF SECTION 01500

SECTION 01600: PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY:

A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.

1.3 DEFINITIONS:

A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.

1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
3. Comparable Product: Product that is demonstrated and approved through submittal process to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.

B. Basis-of-Design Product Specification: A specification in which a specific manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of additional manufacturers named in the specification.

1.4 ACTION SUBMITTALS:

A. Comparable Product Requests: Shall be submitted in accordance with the General and Supplementary Conditions and Division 1.

1. Include data to indicate compliance with the requirements specified in "Comparable Products" Article.
2. A/E's Action: If necessary, A/E will request additional information or documentation for evaluation within one week of receipt of a comparable product request. A/E will notify Contractor of approval or rejection of proposed comparable product request within fifteen (15) days of receipt of request, or seven (7) days of receipt of additional information or documentation, whichever is later.

a. Form of Approval: As specified in Division 1 Section "Submittal Procedures."
b. Use product specified if A/E does not issue a decision on use of a comparable product request within time allocated.

B. Basis-of-Design Product Specification Submittal: Comply with requirements in Division 1 Section "Submittal Procedures." Show compliance with requirements.

1.5 QUALITY ASSURANCE:

A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING:

A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.

B. Delivery and Handling:
1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of demolition spaces.
2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
4. Inspect products on delivery to determine compliance with the Contract Documents and to determine that products are undamaged and properly protected.

C. Storage:
1. Store materials in a manner that will not endanger Project structure.
2. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
3. Store foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
4. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
5. Protect stored products from damage and liquids from freezing.
6. Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's demolition forces. Coordinate location with Owner.

1.7 PRODUCT WARRANTIES:

A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.

1. **In accordance with Louisiana State Law (LSA-R.S. 9:2774) the commencement date for ALL warranties or guarantees of every nature or kind shall be the date of Substantial Completion as certified by the A/E. It shall be the Contractor's sole responsibility to ensure that all written warranties include this commencement time. Also, in accordance with LSA-R.S. 9:2774 the provision of this Section shall not be subject to waiver by contract.**
2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner.

B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.

1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
2. Specified Form: When specified forms are included with the Specifications, prepare a written document using indicated form properly executed.
3. Refer to Divisions 2 through 49. Sections for specific content requirements and particular requirements for submitting special warranties.

C. Submittal Time: Comply with requirements in Division 1 Section "Closeout Procedures."

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES:

A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.

1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
4. Where products are accompanied by the term "as selected," A/E will make selection.
5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.

6. Or Equal: For products specified by name and accompanied by the term "or equal," or "or approved equal," or "or approved," comply with requirements in "Comparable Products" Article to obtain approval for use of an unnamed product.

B. Product Selection Procedures:
   1. Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements.
   2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements.
   3. Products:
      a. Restricted List: Where Specifications include a list of names of both manufacturers and products, provide one of the products listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will be considered in accordance with General and Supplementary Conditions and Division 1.
      b. Nonrestricted List: Where Specifications include a list of names of both available manufacturers and products, provide one of the products listed, or an unnamed product, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product.
   4. Manufacturers:
      a. Restricted List: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will be considered in accordance with General and Supplementary Conditions and Division 1.
      b. Nonrestricted List: Where Specifications include a list of available manufacturers, provide a product by one of the manufacturers listed, or a product by an unnamed manufacturer, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed manufacturer's product.
   5. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one of the other named manufacturers.

C. Visual Matching Specification: Where Specifications require "match A/E's sample", provide a product that complies with requirements and matches A/E's sample. A/E's decision will be final on whether a proposed product matches.

1. If no product available within specified category matches and complies with other specified requirements, comply with requirements in Division 1 Section "Substitution Procedures" for proposal of product.

D. Visual Selection Specification: Where Specifications include the phrase "as selected by A/E from manufacturer's full range" or similar phrase, select a product that complies with requirements. A/E will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

2.2 COMPARABLE PRODUCTS:

A. Conditions for Consideration: A/E will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, A/E may return requests without action, except to record noncompliance with these requirements:

1. Evidence that the proposed product does not require revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
3. Evidence that proposed product provides specified warranty.
4. List of similar installations for completed projects with project names and addresses and names and addresses of A/E's and owners, if requested.
5. Samples, if requested.

PART 3 - EXECUTION (Not Used)

END OF SECTION 01600

SECTION 01730: EXECUTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY:

A. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:
   1. Field engineering and surveying.
   2. Progress cleaning.
   3. Correction of the Work.

1.3 DEFINITIONS:

A. Cutting: Removal of in-place construction necessary to permit installation or performance of other work.

B. Patching: Fitting and repair work required to restore construction to original condition after installation of other work.

1.4 QUALITY ASSURANCE:

A. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of demolition elements.
   1. Structural Elements: When cutting and patching structural elements, notify A/E of locations and details of cutting and await directions from the A/E before proceeding. Shore, brace, and support structural element during cutting and patching. Do not cut and patch structural elements in a manner that could change their load-carrying capacity or increase deflection.
   2. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
   3. Other Demolition Elements: Do not cut and patch other demolition elements or components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.
   4. Visual Elements: Do not cut and patch demolition in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed demolition in a manner that would, in A/E's opinion, reduce the building's aesthetic qualities. Remove and replace demolition that has been cut and patched in a visually unsatisfactory manner.

PART 2 - PRODUCTS

2.1 MATERIALS:

A. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.

1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to the A/E for the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION:

A. Existing Conditions: The existence and location of underground and other utilities and demolition indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities and other demolition affecting the Work.

1. Before demolition, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping, underground electrical services, and other utilities.
2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.

B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.

1. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
   a. Description of the Work.
   b. List of detrimental conditions, including substrates.
   c. Recommended corrections.
2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
3. Proceed with demolition only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION:

A. Existing Utility Information: Furnish information to local utility that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by demolition. Coordinate with authorities having jurisdiction.

B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other demolition, verify dimensions of other demolition by field measurements before fabrication. Coordinate fabrication schedule with demolition progress to avoid delaying the Work.

C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.

D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents caused by differing field conditions outside the control of the Contractor, submit a request for information to A/E according to requirements in Division 01 Section "Project Management and Coordination."

E. Surface and Substrate Preparation: Comply with manufacturer's recommendations for preparation of substrate to receive subsequent work.

3.3 CUTTING AND PATCHING:

A. Cutting and Patching, General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.

1. Cut in-place demolition to provide for installation of other components or performance of other demolition, and subsequently patch as required to restore surfaces to their original condition.

B. Temporary Support: Provide temporary support of work to be cut.

C. Protection: Protect in-place demolition during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.

D. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to minimize interruption to occupied areas.

E. Cutting: Cut in-place demolition by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining demolition. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.

1. In general, use hand or small power tools designed for sawing and grinding, not hammering, and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
3. Concrete: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
4. Excavating and Backfilling: Comply with requirements in applicable Division 31 Sections where required by cutting and patching operations.
5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.

3.4 PROGRESS CLEANING:

A. General: Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.

1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
2. Do not hold waste materials for more than seven days during normal weather or three days if the temperature is expected to rise above 80 deg F (27 deg C).
3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
    a. Utilize containers intended for holding waste materials of type to be stored.

B. Site: Maintain Project site free of waste materials and debris.

C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
1. Remove liquid spills promptly.
2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.

D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.

E. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways. Comply with waste disposal requirements in accordance with the law and authorities having jurisdiction.

F. Clean and provide maintenance on completed demolition as frequently as necessary through the remainder of the demolition period. Adjust and lubricate operable components to ensure operability without damaging effects.

G. Limiting Exposures: Supervise demolition operations to assure that no part of the demolition, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the demolition period.

3.5 PROTECTION OF EXISTING DEMOLITION:

A. Provide final protection and maintain conditions that ensure existing work is without damage or deterioration at time of Substantial Completion.

3.6 CORRECTION OF THE WORK:

A. Restore permanent facilities used during demolition to their specified condition.

B. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.

C. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.

D. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION 01730

SECTION 01741: CONSTRUCTION WASTE MANAGEMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY:

A. Section includes administrative and procedural requirements for the following:
   1. Salvaging nonhazardous demolition waste.

1.3 DEFINITIONS:

A. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.
B. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.
C. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SALVAGING DEMOLITION WASTE:

A. Salvaged Items for Reuse in the Work: Salvage items for reuse and handle as follows:
   1. Clean salvaged items.
   2. Pack or crate items after cleaning. Identify contents of containers.
   3. Store items in a secure area until installation.
   4. Protect items from damage during transport and storage.
   5. Install salvaged items to comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make items functional for use indicated.
B. Salvaged Items for Sale and Donation: Not permitted on Project site.
C. Salvaged Items for Owner's Use: Salvage items for Owner's use and handle as follows:
   1. Clean salvaged items.
   2. Pack or crate items after cleaning. Identify contents of containers.
   3. Store items in a secure area until delivery to Owner.
   4. Transport items to Owner's storage area designated by Owner.
   5. Protect items from damage during transport and storage.

END OF SECTION 01741

SECTION 01770: CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS: Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY:

A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
   1. Substantial Completion procedures.
   2. Final Completion procedures.
   3. Warranties.
   4. Final cleaning.

1.3 DEFINITIONS:

A. Substantial Completion: When the valuated punch list equals less than one percent (1%) of the contract value, including all additive change orders.

1.4 SUBSTANTIAL COMPLETION:

A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete with request.
   1. Contractor and Architect / Engineer shall prepare a list of items to be completed and corrected (punch list). The A/E punch list shall include the value of items on the list, and reasons why the Work is not complete.
      a. All public works contracts shall contain a clause stating that any punch list generated during a demolition project shall include the cost estimates for the particular items of work the design professional has developed based on the mobilization labor material and equipment costs of correcting each punch list item. The design professional shall retain his working papers used to determine the punch list items cost estimates should the matter be disputed later. The contracting agency shall not withhold from payment more than the value of the punch list. Punch list items completed shall be paid upon the expiration of the forty-five-day (45) lien period. The provisions of this section shall not be subject to waiver, nor shall these provisions apply to the Department of Transportation and Development.
   2. Advise Owner of pending insurance changeover requirements.
   3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
   4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.

5. Prepare and submit Project Record Documents, operation and maintenance manuals, final completion demolition photographic documentation, damage or settlement surveys, property surveys, and similar final record information.
6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
7. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
8. Complete startup testing of systems.
9. Submit test/adjust/balance records.
10. Terminate and remove temporary facilities from Project site, along with mockups, demolition tools, and similar elements.
11. Advise Owner of changeover in heat and other utilities.
12. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
13. Complete final cleaning requirements, including touchup painting.
14. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.

B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, A/E will either proceed with inspection or notify Contractor of unfulfilled requirements. A/E will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by A/E on the valued punch list, that must be completed or corrected before final payment will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
2. Results of completed inspection will form the basis of requirements for final completion.

1.5 FINAL COMPLETION:

A. Preliminary Procedures: Before requesting final inspection for determining final completion, complete the following:
1. Submit a final Application for Payment according to Division 1 Section "Payment Procedures."
2. Submit certified copy of A/E's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by A/E. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
4. Submit pest-control final inspection report and warranty.
5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.

B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, A/E will either proceed with inspection or notify Contractor of unfulfilled requirements. A/E will prepare a final Certificate for Payment after inspection or will notify Contractor of demolition that must be completed or corrected before certificate will be issued.

1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.6 LIST OF INCOMPLETE ITEMS (PUNCH LIST):

A. Organization of List: Include name and identification of each area and area affected by demolition operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of demolition.

1. Include the following information at the top of each page:
   a. Project name.
   b. Date.
   c. Name of A/E.
   d. Name of Contractor.
   e. Page number.
2. Submit list of incomplete items in the following format:
   a. PDF electronic file.

1.7 WARRANTIES:

A. Submittal Time: Submit written warranties on request of A/E for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.

1. In accordance with Louisiana State Law (LSA-R.S. 9:2774) the commencement date for ALL warranties or guarantees of every nature or kind shall be the date of Substantial Completion as certified by the A/E. It shall be the Contractor's sole responsibility to ensure that all written warranties include this commencement time. Also, in accordance with LSA-R.S. 9:2774 the provision of this Section shall not be subject to waiver by contract.

B. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.

1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch (215-by-280-mm) paper.
2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
4. Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide table of contents at beginning of document.

C. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS:

A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 FINAL CLEANING:

A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.

B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.

1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:

a. Clean Project site, yard, and grounds, in areas disturbed by demolition activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.

b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.

c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.

d. Remove tools, demolition equipment, machinery, and surplus material from Project site.

e. Clean exposed exterior and interior hard-surface finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.

f. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.

g. Sweep concrete floors broom clean in unoccupied spaces.

h. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.

i. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.

j. Remove labels that are not permanent.

k. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
   1) Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates.

l. Wipe surfaces of mechanical and electrical equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.

m. Replace parts subject to operating conditions during demolition that may impede operation or reduce longevity.

n. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.

o. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.

p. Clean ducts, blowers, and coils if units were operated without filters during demolition or that display contamination with particulate matter upon inspection.

q. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.

r. Leave Project clean and ready for occupancy.

END OF SECTION 01770

SECTION 01782: OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
   1. Operation and maintenance documentation directory.
   2. Emergency manuals.
   3. Operation manuals for systems, subsystems, and equipment.
   4. Product maintenance manuals.
   5. Systems and equipment maintenance manuals.

1.3 DEFINITIONS

A. System: An organized collection of parts, equipment, or subsystems united by regular interaction.

B. Subsystem: A portion of a system with characteristics similar to a system.

1.4 CLOSEOUT SUBMITTALS

A. Manual Content: Operations and maintenance manual content is specified in individual specification sections to be reviewed at the time of Section submittals. Submit reviewed manual content formatted and organized as required by this Section.
   1. Where applicable, clarify and update reviewed manual content to correspond to modifications and field conditions.

B. Format: Submit operations and maintenance manuals in the following format:
   1. PDF electronic file. Assemble each manual into a composite electronically-indexed file. Submit on digital media acceptable to A/E.
      a. Name each indexed document file in composite electronic index with applicable item name. Include a complete electronically linked operation and maintenance directory.
      b. Enable inserted reviewer comments on draft submittals.
   2. Binders:
      a. Size: 8 1/2 inches x 11 inches.
      b. Paper: White, for typed pages.
      c. Text: Manufacturer's printed data, or neatly typewritten.
      d. Drawings: Provide reinforced punched binder tab, bind in with text. Fold larger drawings to the size of the text pages.
      e. Provide fly-leaf for each separate product, or each piece of operating equipment. Provide typed description of product; and major component parts of equipment. Provide indexed tabs.

f. Cover: Identify each volume with typed or printed title "OPERATING AND MAINTENANCE INSTRUCTIONS". List title of Project, identity of separate structure as applicable, identity of general subject matter covered in the manual.

C. Initial Manual Submittal: Submit draft copy of each manual at least thirty (30) days before commencing demonstration and training. A/E will comment on whether general scope and content of manual are acceptable.

D. Final Manual Submittal: Submit each manual in final form prior to requesting inspection for Substantial Completion and at least fifteen (15) days before commencing demonstration and training. A/E will return copy with comments.

1. Correct or modify each manual to comply with A/E's comments. Submit copies of each corrected manual within fifteen (15) days of receipt of A/E's comments and prior to commencing demonstration and training.

PART 2 - PRODUCTS

2.1 OPERATION AND MAINTENANCE DOCUMENTATION DIRECTORY

A. Organization: Include a section in the directory for each of the following:
1. List of documents.
2. List of systems.
3. List of equipment.
4. Table of contents.

B. List of Systems and Subsystems: List systems alphabetically. Include references to operation and maintenance manuals that contain information about each system.

C. List of Equipment: List equipment for each system, organized alphabetically by system. For pieces of equipment not part of system, list alphabetically in separate list.

D. Tables of Contents: Include a table of contents for each emergency, operation, and maintenance manual.

E. Identification: In the documentation directory and in each operation and maintenance manual, identify each system, subsystem, and piece of equipment with same designation used in the Contract Documents. If no designation exists, assign a designation according to ASHRAE Guideline 4, "Preparation of Operating and Maintenance Documentation for Building Systems."

2.2 REQUIREMENTS FOR EMERGENCY, OPERATION, AND MAINTENANCE MANUALS

A. Organization: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:
1. Title page.
2. Table of contents.
3. Manual contents.

B. Title Page: Include the following information:
1. Subject matter included in manual.

2. Name and address of Project.
3. Name and address of Owner.
4. Date of submittal.
5. Name and contact information for Contractor.
6. Name and contact information for Construction Manager.
7. Name and contact information for A/E.
8. Names and contact information for major consultants to the A/E that designed the systems contained in the manuals.
9. Cross-reference to related systems in other operation and maintenance manuals.

C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
   1. If operation or maintenance documentation requires more than one volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.

D. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.

E. Manuals, Electronic Files: Submit manuals in the form of a multiple file composite electronic PDF file for each manual type required.
   1. Electronic Files: Use electronic files prepared by manufacturer where available. Where scanning of paper documents is required, configure scanned file for minimum readable file size.
   2. File Names and Bookmarks: Enable bookmarking of individual documents based upon file names. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group documents for each system and subsystem into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily navigated file tree. Configure electronic manual to display bookmark panel upon opening file.

F. Manuals, Paper Copy: Submit manuals in the form of hard copy, bound and labeled volumes.
   1. Binders: Heavy-duty, three-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to hold 8-1/2-by-11-inch (215-by-280-mm) paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.
      a. If two or more binders are necessary to accommodate data of a system, organize data in each binder into groupings by subsystem and related components. Cross-reference other binders if necessary to provide essential information for proper operation or maintenance of equipment or system.
   2. Dividers: Heavy-paper dividers with plastic-covered tabs for each section of the manual. Mark each tab to indicate contents. Include typed list of products and major components of equipment included in the section on each divider, cross-referenced to Specification Section number and title of Project Manual.

3. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software storage media for computerized electronic equipment.
4. Supplementary Text: Prepared on 8-1/2-by-11-inch (215-by-280-mm) white bond paper.
5. Drawings: Attach reinforced, punched binder tabs on drawings and bind with text.
   a. If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.
   b. If drawings are too large to be used as foldouts, fold, and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents, and drawing locations.

2.3 EMERGENCY MANUALS

A. Content: Organize manual into a separate section for each of the following:
   1. Type of emergency.
   2. Emergency instructions.
   3. Emergency procedures.

B. Type of Emergency: Where applicable for each type of emergency indicated below, include instructions and procedures for each system, subsystem, piece of equipment, and component:
   1. Fire.
   2. Flood.
   3. Gas leak.
   4. Water leak.
   5. Power failure.
   6. Water outage.
   7. System, subsystem, or equipment failure.
   8. Chemical release or spill.

C. Emergency Instructions: Describe and explain warnings, trouble indications, error messages, and similar codes and signals. Include responsibilities of Owner's operating personnel for notification of Installer, supplier, and manufacturer to maintain warranties.

D. Emergency Procedures: Include the following, as applicable:
   1. Instructions on stopping.
   2. Shutdown instructions for each type of emergency.
   3. Operating instructions for conditions outside normal operating limits.
   4. Required sequences for electric or electronic systems.
   5. Special operating instructions and procedures.

2.4 OPERATION MANUALS

A. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and the following information:
   1. System, subsystem, and equipment descriptions. Use designations for systems and equipment indicated on Contract Documents.

2. Performance and design criteria if Contractor is delegated design responsibility.
3. Operating standards.
4. Operating procedures.
5. Operating logs.
6. Wiring diagrams.
7. Control diagrams.
8. Piped system diagrams.
9. Precautions against improper use.
10. License requirements including inspection and renewal dates.

B. Descriptions: Include the following:
1. Product name and model number. Use designations for products indicated on Contract Documents.
2. Manufacturer's name.
3. Equipment identification with serial number of each component.
4. Equipment function.
5. Operating characteristics.
6. Limiting conditions.
7. Performance curves.
8. Engineering data and tests.
9. Complete nomenclature and number of replacement parts.

C. Operating Procedures: Include the following, as applicable:
1. Startup procedures.
2. Equipment or system break-in procedures.
3. Routine and normal operating instructions.
4. Regulation and control procedures.
5. Instructions on stopping.
6. Normal shutdown instructions.
7. Seasonal and weekend operating instructions.
8. Required sequences for electric or electronic systems.
9. Special operating instructions and procedures.

D. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.

E. Piped Systems: Diagram piping as installed and identify color-coding where required for identification.

2.5 PRODUCT MAINTENANCE MANUALS

A. Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.

B. Source Information: List each product included in manual, identified by product name, and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.

C. Product Information: Include the following, as applicable:
1. Product name and model number.
2. Manufacturer's name.
3. Color, pattern, and texture.
4. Material and chemical composition.

5. Reordering information for specially manufactured products.

D. Maintenance Procedures: Include manufacturer's written recommendations and the following:
   1. Inspection procedures.
   2. Types of cleaning agents to be used and methods of cleaning.
   3. List of cleaning agents and methods of cleaning detrimental to product.
   4. Schedule for routine cleaning and maintenance.
   5. Repair instructions.

E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.

F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
   1. Include procedures to follow and required notifications for warranty claims.
   2. In accordance with Louisiana State Law (LSA-R.S. 9:2774) the commencement date for ALL warranties or guarantees of every nature or kind shall be the date of Substantial Completion as certified by the A/E. It shall be the Contractor's sole responsibility to ensure that all written warranties include this commencement time. Also, in accordance with LSA-R.S. 9:2774 the provision of this Section shall not be subject to waiver by contract.

2.6 SYSTEMS AND EQUIPMENT MAINTENANCE MANUALS

A. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information, as described below.

B. Source Information: List each system, subsystem, and piece of equipment included in manual, identified by product name, and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.

C. Manufacturers' Maintenance Documentation: Manufacturers' maintenance documentation including the following information for each component part or piece of equipment:
   1. Standard maintenance instructions and bulletins.
   2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
   3. Identification and nomenclature of parts and components.
   4. List of items recommended to be stocked as spare parts.

D. Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:
   1. Test and inspection instructions.
   2. Troubleshooting guide.
   3. Precautions against improper maintenance.

4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
5. Aligning, adjusting, and checking instructions.
6. Demonstration and training video recording, if available.

E. Maintenance and Service Schedules: Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.
1. Scheduled Maintenance and Service: Tabulate actions for daily, weekly, monthly, quarterly, semiannual, and annual frequencies.
2. Maintenance and Service Record: Include manufacturers' forms for recording maintenance.

F. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.

G. Maintenance Service Contracts: Include copies of maintenance agreements with name and telephone number of service agent.

H. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
1. Include procedures to follow and required notifications for warranty claims.
2. In accordance with Louisiana State Law (LSA-R.S. 9:2774) the commencement date for ALL warranties or guarantees of every nature or kind shall be the date of Substantial Completion as certified by the A/E. It shall be the Contractor's sole responsibility to ensure that all written warranties include this commencement time. Also, in accordance with LSA-R.S. 9:2774 the provision of this Section shall not be subject to waiver by contract.

PART 3 - EXECUTION

3.1 MANUAL PREPARATION

A. Operation and Maintenance Documentation Directory: Prepare a separate manual that provides an organized reference to emergency, operation, and maintenance manuals with A/E prior directory preparations.

B. Emergency Manual: Assemble a complete set of emergency information indicating procedures for use by emergency personnel and by Owner's operating personnel for types of emergencies indicated.

C. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.

D. Operation and Maintenance Manuals: Assemble a complete set of operation and maintenance data indicating operation and maintenance of each system, subsystem, and piece of equipment not part of a system.
1. Engage a factory-authorized service representative to assemble and prepare information for each system, subsystem, and piece of equipment not part of a system.

2. Prepare a separate manual for each system and subsystem, in the form of an instructional manual for use by Owner's operating personnel.

E. Manufacturers' Data: Where manuals contain manufacturers' standard printed data, include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.
   1. Prepare supplementary text if manufacturers' standard printed data are not available and where the information is necessary for proper operation and maintenance of equipment or systems.

F. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in record Drawings to ensure correct illustration of completed installation.
   1. Do not use original project record documents as part of operation and maintenance manuals.
   2. Comply with requirements of newly prepared record Drawings in Division 1 Section "Project Record Documents."

G. Comply with Division 1 Section "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

END OF SECTION 01782

SECTION 01783: PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for project record documents, including the following:
   1. Record Drawings.
   2. Record Specifications.
   3. Record Product Data.
   4. Miscellaneous record submittals.

1.3 CLOSEOUT SUBMITTALS

A. Record Drawings: Comply with the following:
   1. Number of Copies: Submit one (1) set of marked-up record prints.
   2. Number of Copies: Submit copies of record Drawings as follows:
      a. Final Submittal: Submit PDF electronic files of marked-up record prints. Print each Drawing, whether or not changes and additional information were recorded.

B. Record Specifications: Submit 2 copies and 1 annotated PDF electronic files of Project's Specifications, including addenda and contract modifications.

C. Record Product Data: Submit one (1) annotated PDF electronic files and directories of each submittal.
   1. Where record Product Data are required as part of operation and maintenance manuals, submit duplicate marked-up Product Data as a component of manual.

D. Miscellaneous Record Submittals: Refer to other Specification Sections for miscellaneous record-keeping requirements and submittals in connection with various demolition activities. Submit one (1) PDF electronic files and directories of each submittal.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

A. Record Prints: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings.
   1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.
      a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.

b. Accurately record information in an acceptable drawing technique.
c. Record data as soon as possible after obtaining it.
d. Record and check the markup before enclosing concealed installations.

2. Content: Types of items requiring marking include, but are not limited to, the following:
a. Dimensional changes to Drawings.
b. Revisions to details shown on Drawings.
c. Depths of foundations below first floor.
d. Locations and depths of underground utilities.
e. Revisions to routing of piping and conduits.
f. Revisions to electrical circuitry.
g. Actual equipment locations.
h. Duct size and routing.
i. Locations of concealed internal utilities.
j. Changes made by Change Order or Demolition Change Directive.
k. Changes made following A/E's written orders.
l. Details not on the original Contract Drawings.
m. Field records for variable and concealed conditions.
n. Record information on the Work that is shown only schematically.

3. Mark the Contract Drawings and Shop Drawings completely and accurately. Utilize personnel proficient at recording graphic information in production of marked-up record prints.

4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.

5. Mark important additional information that was either shown schematically or omitted from original Drawings.

6. Note Demolition Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.

B. Format: Identify and date each record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
1. Record Prints: Organize record prints and newly prepared record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
2. Format: Annotated PDF electronic file.
3. Identification: As follows:
a. Project name.
b. Date.
c. Designation "PROJECT RECORD DRAWINGS."
d. Name of A/E.
e. Name of Contractor.

2.2 RECORD SPECIFICATIONS

A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.

1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
4. For each principal product, indicate whether record Product Data has been submitted in operation and maintenance manuals instead of submitted as record Product Data.
5. Note related Change Orders, record Product Data, and record Drawings where applicable.

B. Format: Submit record Specifications as annotated PDF electronic file.

2.3 RECORD PRODUCT DATA

A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
3. Note related Change Orders, record Specifications, and record Drawings where applicable.

B. Format: Submit record Product Data as annotated PDF electronic file.
1. Include record Product Data directory organized by specification section number and title, electronically linked to each item of record Product Data.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

A. Recording: Maintain one copy of each submittal during the demolition period for project record document purposes. Post changes and modifications to project record documents as they occur; do not wait until the end of Project.

B. Maintenance of Record Documents and Samples: Store record documents and Samples in the field office apart from the Contract Documents used for demolition. Do not use project record documents for demolition purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to project record documents for A/E's reference during normal working hours.

END OF SECTION 01783

SECTION 02051: SITE DEMOLITION

PART 1: GENERAL

1.1 Related Documents: The general provisions of the Contract, including the Conditions of the Contract (General, Supplementary, and other Conditions, Division 0) and Division 1 as appropriate, apply to the Work specified in this Section.

1.2 Scope of Work: Furnish all labor, materials, equipment, and incidentals required for demolition and disposal of existing obstructions to the installation of new pipelines and to other work. Obstructions may include but are not limited to existing structures, foundations, slabs, mechanical, electrical, and miscellaneous appurtenances encountered during demolition operations.

1.3 General: These specifications call attention to certain activities necessary to maintain and facilitate operation during and immediately following demolition and do not purport to cover all of the activities necessary.

1.4 Rules and Regulations:

A. The Building Code of the appropriate governing body shall control the demolition or alteration of the existing buildings, or appurtenances.

B. No building, structure, or appurtenance, or any part thereof, shall be demolished until an application has been filed by the Contractor with the Building Inspector, and a permit issued. The fee for this permit shall be the Contractor's responsibility.

1.5 Traffic and Access:

A. Conduct demolition and removal operations to ensure minimum interference with roads, streets, walks, both on site and off site, and to ensure minimum interference with occupied or used facilities.

B. Do not close or obstruct streets, walks, or other coupled or used facilities without permission from the A/E. Provide alternate routes around closed or obstructed traffic access ways.

1.6 Protection: Conduct operations to minimize damage by falling debris or other causes to adjacent buildings, structures, roadways, and other facilities, including persons. Provide interior and exterior shoring, bracing, or support to prevent movement, settlement, or collapse of structures to be demolished and adjacent facilities to remain.

1.7 Damage: Promptly repair damage caused to adjacent facilities by demolition operations as directed by the A/E at no cost to the Owner.

1.8 Utilities:

A. Maintain existing utilities as directed by the A/E to remain in service and protect against damage during demolition operations.

B. Do not interrupt existing utilities serving occupied or used facilities, except when authorized by the A/E. Provide temporary services during interruptions to existing utilities as acceptable to the A/E.

C. The Contractor shall cooperate with the Owner to shut off utilities serving structures of the existing facilities as required by demolition operations.

D. The Contractor shall be solely responsible for making all necessary arrangements and for performing any necessary work involved in connection with the discontinuance, re-routing, and/or interruption of all public and private utilities or services under the jurisdiction of the utility companies.

E. All utilities being abandoned shall be disconnected and terminated at the service mains in conformance with the requirement of the utility companies or the governing body owning or controlling them.

1.9 Extermination: If required, before starting demolition, employ a certified rodent and vermin exterminator and treat the facilities in accordance with governing health laws and regulations.

1.10 Pollution Control:

A. For pollution control, use water sprinkling, temporary enclosures, and other suitable methods as necessary to limit the amount of dust and dirt rising and scattering in the air to the lowest level of air pollution practical for the condition of work. Comply with the governing regulations.

B. Clean adjacent structures and improvements of all dust, dirt, and debris caused by demolition operations as directed by the A/E. Return areas to conditions existing prior to the start of work.

PART 2: PRODUCTS (Not Used)

PART 3: EXECUTION

3.1 Items to be Demolished: Remove and dispose of all items shown on the Drawings or where necessary for the demolition of new work.

3.2 Backfill: Cavities or trenches left by demolition, removal, and disposal work shall be backfilled to the level of the surrounding ground and compacted to a minimum of 95% density or as approved by A/E.

3.3 Disposal of Material:

A. Demolished material shall become the Contractors property and must be removed from the site.

B. The storage or sale of removed items on the site will not be allowed.

C. Any equipment and material specified to remain the property of the Owner shall be removed and delivered to a location as designated by the Owner. Equipment and material not retained by the Owner shall become the property of the Contractor and shall be removed from the site by him.

3.4 Salvage Schedule: None.

* * *

SECTION 02053: DEMOLITION OF EXISTING PIPING

PART 1: GENERAL

1.1 Related Documents: The general provisions of the Contract, including the Conditions of the Contract (General, Supplementary, and other Conditions, Division 0) and Division 1 as appropriate, apply to the Work specified in this Section.

1.2 Scope of Work: Furnish all labor, materials, equipment, and incidents required for demolition and disposal of existing piping and miscellaneous appurtenances encountered during demolition operations.

1.3 General: These specifications call attention to certain activities necessary to maintain and facilitate operation during and immediately following demolition and do not purport to cover all of the activities necessary. The Contractor shall exercise due concern for existing piping operation and shall diligently direct all his activities toward maintaining continuous operation of the existing piping and minimizing operation inconvenience.

1.4 Rules and Regulations

A. The Building Code of the appropriate governing body shall control the demolition, or alteration of the existing structures or appurtenances.

B. No structure, building, or appurtenance, or any part thereof, shall be demolished until an application has been filed by the Contractor with the Building Inspector, and a permit issued. The fee for this permit shall be the Contractor's responsibility.

1.5 Traffic and Access:

A. Conduct demolition and removal operations to ensure minimum interference with roads, streets, walks, both on site and off site, and to ensure minimum interference with occupied or used facilities.

B. Do not close or obstruct streets, walks, or other coupled or used facilities without permission from the A/E. Provide alternate routes around closed or obstructed traffic access ways.

1.6 Protection: Conduct operations to minimize damage by falling debris or other causes to adjacent buildings, structures, roadways, and other facilities, including persons. Provide interior and exterior shoring, bracing, or support to prevent movement, settlement, or collapse of structures to be demolished and adjacent facilities to remain.

1.7 Damage: Promptly repair damage caused to adjacent facilities by demolition operations as directed by the A/E at no cost to the Owner.

1.8 Utilities:

A. Maintain existing utilities as directed by the A/E to remain in service and protect against damage during demolition operations.

B. Do not interrupt existing utilities serving occupied or used facilities, except when authorized by the A/E. Provided temporary services during interruptions to existing utilities as acceptable to the A/E.

C. The Contractor shall cooperate with the Owner to shut off utilities serving structures of the existing facilities as required by demolition operations.

D. The Contractor shall be solely responsible for making all necessary arrangements and for performing any necessary work involved in connection with the discontinuance, re-routing, and/or interruption of all public and private utilities or services under the jurisdiction of the utility companies.

E. All utilities being abandoned shall be disconnected and terminated at the service mains in conformance with the requirement of the utility companies or the governing body owning or controlling them.

1.9 Extermination: If required, before starting demolition, employ a certified rodent and vermin exterminator and treat the facilities in accordance with governing health laws and regulations.

1.10 Pollution Control:

A. For pollution control, use water sprinkling, temporary enclosures, and other suitable methods as necessary to limit the amount of dust and dirt rising and scattering in the air to the lowest level of air pollution practical for the condition of work. Comply with the governing regulations.

B. Clean adjacent structures and improvements of all dust, dirt, and debris caused by demolition operations as directed by the A/E. Return areas to conditions existing prior to the start of work.

PART 2: PRODUCTS (Not Used)

PART 3: EXECUTION

3.1 Piping:

A. Remove all piping as indicated on the Drawings. Pipes not removed shall have open ends plugged with concrete. The A/E will review the location of where pipes are to be plugged.

B. The Drawings show the limits of existing and temporary piping to be abandoned. These pipelines shall be abandoned in place and the ends of the pipelines plugged with concrete.

3.2 Backfill: Cavities or trenches left by demolition, removal, and disposal work shall be backfilled to the level of the surrounding ground and compacted to a minimum of 95% density or as approved by A/E.

3.3 Disposal of Material:

A. Demolished material shall become the Contractor's property and must be removed from the site.

B. The storage or sale of removed items on the site will not be allowed.

3.4 Salvage Schedule: As noted elsewhere in these Specifications.

* * *

SECTION 02060: BUILDING DEMOLITION

PART 1: GENERAL

1.1 Summary: Demolish buildings as required.

A. Demolish above-grade building structures.
B. Demolish grade-level building-related site improvements.
C. Demolish below-grade foundations to depth to avoid conflict with new demolition or site work.
D. Remove and legally dispose of demolished materials off-site.
E. Protect site work and adjacent structures requiring protection.

1.2 Submittals: Submit for approval demolition schedule.

1.3 Quality Assurance: Comply with governing codes and regulations. Use experienced workmen.

PART 2: PRODUCTS (Not Used)

PART 3: EXECUTION

3.1 Demolition:

A. Do not damage building elements and improvements indicated to remain. Items of salvage value and not included on schedule of salvage items to be returned to Owner may be removed from structure. Storage or sale of items at project site is prohibited.
B. Do not close or obstruct streets, walks, drives or other occupied or used spaces of facilities without the written permission of the owner and the authorities having jurisdiction. Do not interrupt utilities serving occupied or used facilities without the written permission of the owner and authorities having jurisdiction. If necessary, provide temporary utilities.
C. Cease operations if public safety or remaining structures are endangered. Perform temporary corrective measures until operations can be continued properly.

3.2 Schedule:

A. Items to be removed:
    1. Items to be removed from site by Contractor per demolition drawings.
B. Items to remain:
    1. Existing concrete paving.
C. Utilities requiring capping, or removal
    1. Disconnecting existing sludge lines and cap.

* * *

SECTION 02210: GRADING

PART 1: GENERAL

1.1 Related Documents: The general provisions of the Contract, including the Conditions of the Contract (General, Supplementary, and other Conditions, Division 0) and Division 1 as appropriate, apply to the Work specified in this Section.

1.2 Scope of Work: Furnish all materials, labor and equipment for the installation of fill, grading, excavation, compacting, disposal of surplus materials and restoration of existing surfaces as indicated on the Drawings or specified elsewhere herein. Provide all necessary supplementary items for a complete installation intended by documents.

1.3 Protection:

A. Maintain carefully all benchmarks, monuments, and other reference points. If disturbed or destroyed, replace as directed. If found at variance with the Drawings, notify the A/E before proceeding to lie out Work.

B. Protect as may be necessary any existing vegetation, trees, or the like immediately adjacent to the limits of Work which are not stated or directed to be removed. Any such damaged plant shall be replaced at no cost to Owner with like species and size.

C. In the event any excavation must be made immediately adjacent to the existing portion of buildings, covered walks or other Work, which is to remain, thoroughly crib and shore. Any settling or damage to that portion of the existing Work which is to remain, as a direct result of excavation Work, will be the responsibility of Contractor who shall repair the damage at no cost to Owner.

D. Restore all existing curbs and paving damaged in performance of this Work without extra cost to Owner in the manner prescribed by authorities having jurisdiction.

E. Protect all existing fencing and other work to remain, from damage. If damaged, restore or replace at no additional cost to Owner.

F. Where trees are to be left in place in areas to be graded, adequately protect from damage. Natural surface of ground shall be left undisturbed to the drip line of the existing trees.

1.4 Existing Utilities:

A. Follow rules and regulations of the authority having jurisdiction in executing all Work under this article. Adequately protect active utilities shown on the Drawings from damage and remove or relocate only as indicated or specified. Where active utilities are encountered, but are not shown on the Drawings, advise the A/E.

B. Locate existing underground utilities in areas of work. If utilities are to remain in place, provide adequate means of support and protection during earthwork operations.

C. Should uncharted, or incorrectly charted, piping or other utilities be encountered during excavation, consult utility owner immediately for directions. Cooperate with Owner and utility companies in keeping respective services and facilities operation. Repair damaged utilities to satisfaction of utility owner.

D. Do not interrupt existing utilities serving facilities occupied and used by Owner or others, except when permitted in writing by A/E and then only after acceptable temporary utility services have been provided.

E. Provide minimum of 48-hour notice to A/E and receive written notice to proceed before interrupting any utility. Contractor shall be responsible for notifying applicable agency.

F. Demolish and completely remove from site existing underground utilities indicated to be removed. Coordinate with utility companies for shut-off of services if lines are active.

G. Remove, plug or cap inactive and abandoned utilities encountered in excavating and grading operations as directed.

1.5 Compaction Standards:

A. Densities: Required densities of compaction are expressed hereinafter in terms of percentages. Such terms shall mean percentages of maximum density at optimum moisture content, as determined and controlled in accordance with the American Society of Testing and Materials, "Standard Test Methods for Moisture - Density Relationships of Soils and Soil - Aggregate Mixtures" using 5.5 lb. (2.49 kg) Rammer and 12 inch (305mm) Drop.

B. Field density determinations shall be made at locations as directed by the A/E.

C. If tests indicate insufficient density, compact as required and have additional testing performed until required densities are met. The Contractor shall pay for all such additional testing.

1.6 Quality Assurance:

A. Testing Agency: In-place soil compaction tests to be performed by the designated testing laboratory.

B. Reference Standards:

1. Granular Material Reference Standards:
   a. American Society for Testing and Materials (ASTM) D698-78, Moisture-Density Relations of "Soils Using 5.5-lb. (2.49-kg) Hammer and 12-in. (305-mm) Drop.
   b. ASTM D 2487, Classification of Soils for Engineering Purpose.
2. Bedding Material Reference Standards:
   a. American Society for Testing and Materials (ASTM) D4253 for Moisture-Density Relations.
   b. ASTM D4254 for calculation of relative density.

C. Contractor is responsible for the payment of all retests.

1.7 Job Conditions: Existing conditions are generally shown on the Drawings. Contractor shall visit the site, familiarize himself with actual conditions and verify existing conditions in the field. The Contractor is required to accept actual conditions at the site and do the Work specified without additional compensation for possible variation from grades and conditions shown, whether surface or sub-surface.

PART 2: PRODUCTS

2.1 Granular Material: Fill shall be AASHTO A-2-4 or better or clean sand well graded from fine to coarse, free of debris, organic or other deleterious matter and approved by A/E. A/E shall approve all fill materials. Legally remove from site, stockpile on site, or waste over lawn areas as directed any material found unsuitable by A/E.

2.2 Topsoil: For final grading of areas adjacent to structure, use existing. Provide topsoil from off-site borrows when on-site topsoil:

A. Is not sufficient to complete the work.
B. Does not meet the requirements set forth below, or
C. Is deemed unsuitable by A/E.

Topsoil shall be free from slag, cinders, stones, lumps of soil, sticks, trash or other material over 1-1/2 inches diameter. Topsoil shall be free from viable plants and plant parts. Topsoil shall also be free from debris, noxious weeds, toxic substances, or other materials harmful to plant growth. Topsoil shall have a minimum PI of 4, a maximum PI of 12, a pH of 5.5-8.0, a minimum organic content of 2%, and shall be capable of supporting adequate vegetation. Pump sand may not be used for topsoil under any circumstances.

PART 3: EXECUTION

3.1 Preparation:

A. Lay out and maintain grade stakes as required. Reference layout work to base lines, property lines, easements, and/or rights-of-way as indicated.
B. Where new grades tie into existing grades, verify existing grades. If existing conditions are at variance with the Drawings, notify A/E before proceeding with the Work and make adjustments only as directed by the A/E.
C. The Contractor shall verify that preceding work affecting work of this section has been satisfactorily completed.
D. Correct conditions adversely affecting work of this section.

3.2 Stripping and Stockpiling of Topsoil: Carry out this Work when dry weather exists and the topsoil is reasonably loose and dry. Remove topsoil a minimum of four (4") inches to remove all vegetation, roots, and foreign matter, from areas to receive fill. Pile topsoil in designated or approved locations where it will not interfere with demolition operations. Stockpiles shall be of such size and shape as will keep loss of topsoil by erosion and wind to a minimum.

3.3 Disposal of Materials:

A. Excavated material shall be stacked without excessive surcharge on the excavation or obstructing free access to street, drives, walks, utility appurtenances, and private property. Excessive inconvenience to traffic and adjacent property owners shall not be allowed. Excavated material shall be segregated for use in topsoil as specified below.
B. All excavated material which is either unsuitable for topsoil or which will not be used for topsoil in the same location shall be legally removed from the site by the Contractor.

3.4 Excavation:

A. Excavated areas shall be cleared of all debris, water, slush, muck, and soft or loose earth and shall be conditioned to the entire satisfaction of the A/E.

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

C. Stumps, roots, and logs, which are encountered within the excavated area, shall be cut to a depth of one (1') foot below the required excavation. The Contractor shall fill this excavated space with granular material.

D. The Contractor shall probe one (1') foot below the established bottom on the excavation. If this probing discovers any stump, roots, logs, etc., the Contractor shall cut them out just as if they had been visible in the trench.

E. Blasting will not be allowed for the removal of stumps.

3.5 Site Grading:

A. Execute all Work in an orderly and careful manner with due consideration for any and all surroundings areas and planting which are to remain. Periodically water as required to allay dust and dirt. Protect any adjacent property and improvements from damage and replace any portions damaged through this operation.

B. Finish grade all areas affected by Work of this project. Accomplish proper and positive surface drainage with no areas that pond water. Provide a sloping earth berm around all demolition of this project and swales as required for positive drainage.

C. Do all cutting, filling, compaction of fills, and rough grading to bring the entire project area outside of demolition to grades indicated on the Drawings and as required to provide proper and positive drainage away from demolition.

D. Where fill is required to rise the existing grades outside of demolition to the new elevation required or indicated, place and compact such fill as specified.

E. Remove all debris subject to termite attack, rot, or corrosion, and all other deleterious materials from areas to be filled. The moisture content of the loosened material shall be such that it will readily bond with the first layer of fill material.

F. Place the material in successive horizontal layers in loose depth for the full width of the cross section. Deposit fill in layers not more than nine (9") inches thick under lawn and planted areas. If necessary, moisten soil, or allow to dry to the correct moisture content, before compaction. Do not deposit any fill on a subgrade that is muddy, frozen, or that contains frost.

G. Compact fills under lawns and planting areas to 95% density unless otherwise specified.

3.6 Distribution of Topsoil: Spread stockpiled topsoil that is acceptable to A/E to a depth of four (4") inches over open graded areas to be planted with grass, seeded, or where required elsewhere. After topsoil is spread, remove all hard lumps of clay, stones over one (1") inch in diameter, roots, limbs, and other deleterious matter, which would be harmful, or prevent proper establishment or maintenance of lawn and planting areas.

3.7 Field Quality Control:

A. Rough grading of all areas within the project, including excavated and filled sections and adjacent transition areas, shall be reasonably smooth, compacted, and free from irregular surface changes.

B. Finish all swales and gutters to drain readily, unless otherwise indicated; evenly slope the grade to provide drainage toward public drainage system or as indicated elsewhere at a grade not less than 1/2" to 3/4" per foot or more than two (2") inches per foot.

C. Tolerances of topsoil shall be within 1/2" of grades required.

3.8 Repair: Where any existing lawn areas are damaged, rutted, or otherwise disturbed, repair to original condition.

3.9 Disposal: Burning of materials on the site will not be permitted. Legally remove rubbish and debris from the site as it accumulates.

* * *

SECTION 02638: REMOVAL AND REPLACEMENT OR RELOCATION OF EXISTING UTILITIES

PART 1: GENERAL

1.1 Related Documents: The general provisions of the Contract, including the Conditions of the Contract (General, Supplementary, and other Conditions, Division 0) and Division 1 as appropriate, apply to the Work specified in this Section.

1.2 Scope of Work: Furnish all labor materials, equipment, and incidentals required to remove and cap all utilities, both known and unknown. All work shall be in accordance with requirements of the respective relocated utilities company.

1.3 General: The Contractor shall be responsible for removal and replacement or relocation of all utilities, which are in conflict with his operations. The local gas, electric, telephone, and television cable companies shall remove and replace or relocate, if necessary, all their own utilities in conflict with the operations of the Contractor. Those utilities located within publicly owned right-of-ways shall be removed and replaced or relocated at the expense of the concerned utility. Utilities located within privately owned right-of-ways shall be removed and replaced or relocated at the expense of the Contractor. Other utilities belonging to the Owner and other public agencies shall be removed and replaced or relocated by and at the expense of the Contractor.

1.4 Governing Standard: Removal and replacement or relocation of utilities shall be done according to the latest standards and standard details of the company or agency owning or having jurisdiction over the utility, as indicated on the Drawings and as specified herein. In the event of a conflict between these specifications and the latest standards of the concerned company or agency owning or having jurisdiction over the utility, the latest standards of the company or agency owning or having jurisdiction over the utility shall govern.

1.5 Unknown Utilities: The Drawings attempt to indicate the location of all known utilities within the limits of the work. However, the Contractor shall be responsible to inspect the entire project to verify all existing utilities and determine the existence of any additional utilities conflicting with his work. In the event the Contractor encounters an unknown utility in his operations and such an item will interfere with his work and will require removal and replacement or relocation, the Contractor shall expeditiously notify the A/E and arrange to relocate the utility in conformance with the applicable section of the Specifications.

1.6 Coordination of Utilities Relocation: The Contractor shall be completely responsible to contact and schedule such relocation of utilities in a manner to prevent any delay in his operations.

PART 2: PRODUCTS

2.1 All materials shall be new and shall conform to the latest ASTM and industry standards. Materials for the removal and replacement or relocation of utilities shall conform to the standards of the company or agency owning or having jurisdiction, or as indicated on the Drawings and as specified.

PART 3: EXECUTION

3.1 Electric: As required by the local power company, the contractor shall conduct his operations and maintain his equipment away from all electric lines at all times. Verify minimum distances and clearances with local electric company representative. The local electric company shall be notified as soon as these clearances have to be violated.

3.2 Publicly Owned Utilities:

A. General

1. The Contractor shall furnish all labor, equipment and material and perform all work required for removal and replacement or relocation of publicly owned utilities. Utility relocation shall be as indicated on the Drawings and specified herein. Damage to any utilities by the Contractor, subcontractors, material and equipment suppliers and other persons, until the job has been accepted, shall be repaired by the Contractor to the satisfaction of the A/E and Owner.
2. Removal and replacement of utilities shall be done in close coordination with the Owner. Removal and replacement or relocation work shall be planned in advance so the inconvenience to the Owner and utility users caused by the disruption of service is minimized. The Contractor shall perform work on utilities in off-peak hours of usage as required by the A/E and Owner.

B. Service Connections: The Contractor is responsible for locating water and sewer house service connections and other building connections. The operations of the Contractor shall be conducted with due care and regard for service connections. Any damage to a service connection due to the operations of the Contractor shall be repaired to its original or better condition by the Contractor. Materials used and work on service connections shall be in accordance with the governing standard unless required otherwise by the A/E.

3.3 Payment: The removal and replacement or relocation of utilities will be paid for as specified herein.

A. Privately Owned Utilities: The Contractor shall be responsible for removal and replacement or relocation of all utilities, which are in conflict with his operations. The local gas, electric, telephone, and television cable companies shall remove and replace or relocate, if necessary, all their own utilities in conflict with the operations of the Contractor. Those utilities located within publicly owned right-of-ways shall be removed and replaced or relocated at the expense of the concerned utility. Utilities located within privately owned right-of-ways shall be removed and replaced or relocated at the expense of the Contractor.

B. Publicly Owned Utilities: The removal, replacement, or relocation of any Parish owned utilities which are shown on the Drawings or which can reasonably be anticipated by the Contractor will be paid for as specified below:

1. Sewers: No separate payment shall be made in connection with any work required on existing sewer gravity lines or force mains. All such work shall be considered a subsidiary obligation of the Contractor and all costs in connection therewith shall be included in the unit price or lump sum price bid items.
2. Water Mains: No separate payment will be made in connection with the removal and replacement or relocation of water lines shown on the Drawings. The removal or replacement of all waterlines shall be considered a subsidiary obligation of the Contractor and all costs in connection therewith shall be included in the unit price bid per linear foot for pipe in place.
3. Drain Pipe: No separate payment will be made in connection with the removal and replacement or relocation of drainpipe. The removal or replacement of all drain pipe shall be considered a subsidiary obligation of the Contractor and all costs in connection herewith shall be included in the unit price bid per linear foot for pipe in place.
4. Drainage Catch Basins: No separate payment will be made in connection with the removal and replacement of drainage catch basins or drop inlets. The removal or replacement of all drainage catch basins and drop inlets shall be considered a subsidiary obligation of the Contractor and all costs in connection therewith shall be included in the unit price bid per linear foot for pipe in place.
5. Service Connections: No separate payment will be made on any work required by the operations of the Contractor in connection with house or other service connections. Any work required by the operations of the Contractor in connection with water, sewer, gas, and other house service connections shall be considered a subsidiary obligation of the Contractor and all costs in connection therewith shall be included in the unit prices bid for pipe in place.
6. Public Owned Utilities: Relocate, construct, or remove infrastructure items, which are not shown or differ substantially from what is shown on the plans or could not be reasonably anticipated and are found during demolition, when authorized by the Engineer. 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 report on a daily basis (same day) to the Resident Project Representative for review. The actual costs of any work as described herein shall be determined as set forth in the General Conditions and Supplementary Conditions as appropriate.

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SECTION 16010

ELECTRICAL GENERAL PROVISIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Sections included in the DIVISION 16 Specifications are as follows:
SECTION 16010 - ELECTRICAL GENERAL PROVISIONS
SECTION 16120 - WIRES AND CABLES
SECTION 16181 - OVERCURRENT PROTECTIVE DEVICES
SECTION 16195 - ELECTRICAL IDENTIFICATION
SECTION 16441 - ENCLOSED SWITCHES
SECTION 16450 - GROUNDING

1.2 SCOPE OF WORK:

A. This section provides for the removal of existing cable and installation of new conduit and cable as indicated on drawings and in specifications. Provide all necessary supplementary items for a complete installation intended by documents.

B. The work shall include, but not necessarily be limited to, labor, material, and equipment required to install the following:
1. Lock out, tag out H/W MCC Circuit Breaker providing power to PP1
2. Remove power cable from MH-1 to electrical distribution panel PP1
3. Remove existing power cable from Process Water Pump Station Pump Control Panel
4. Disconnect conduit coming from PP1 to Process Water Pump Station Pump Control Panel, cut conduit and cable off below ground, tape cable wires with electrical tape
5. Bore hole in MH-1 for 1-1/2" conduit
6. Trench from MH-1 to Process Water Pump Station
7. Install 1-1/2" Sch. 80 PVC conduit in trench
8. Pull 3 – 1 AWG 1C cable and 1 – 8 AWG 1C cable through conduit
9. Install 100A, 480V, 3-Phase, fusible, NEMA 3R Safety Switch on east side of Process Water Pump Station basin
10. Terminate power cable in safety switch
11. Run conduit and cable from safety switch to existing Pump Control Panel
12. Remove existing 400A breaker in H/W MCC and replace with 100A breaker

1.3 COORDINATION OF ELECTRICAL WORK:

A. Arrange electrical work in a neat, well-organized manner with exposed conduit and similar services running parallel with primary lines of the building construction.

B. Where mounting heights are not detailed or dimensioned, install electrical services and overhead equipment services and overhead equipment to provide the maximum headroom possible, in compliance with applicable OSHA requirements.

C. Install electrical equipment to facilitate maintenance and repair or replacement of equipment for ease of disconnecting, with minimum of interference with other installations.

1.4 QUALITY ASSURANCE, STANDARDS:

A. General: In addition to standards specified in individual work sections, the following standards are imposed, as applicable to the work in each instance:

NFPA 70, National Electrical Code (NEC)
The electrical installation shall conform to the requirements of the 2017 edition of the National Electrical Code (NEC-NFPA 70).

NEMA/ANSI/ASTM
Electrical material shall be built and tested in accordance with the applicable standards of the National Electrical Manufacturer's Association (NEMA); the American National Standards Institute (ANSI); and the American Society of Testing and Materials (ASTM).

Underwriters' Laboratories (UL)
Electrical materials shall be new and unused and shall be listed, inspected, approved and labeled by Underwriters' Laboratories, Inc., where such labeling service is available.

1.5 ELECTRICAL SUBMITTALS

A. Electrical Submittals: Submit to the Engineer for review and general compliance, complete descriptive, and dimensional data

B. Corrections or comments made on shop drawings during review do not relieve the Contractor from compliance with requirements of Contract Documents, Plans, and Specifications. Shop drawings must be accompanied by signed statement from Contractor stating that he has reviewed the submittal and that the shop drawings are in compliance with Plans and Specifications.

1.6 PRODUCT OPTIONS AND SUBSTITUTIONS:

A. Any item not specified herein but submitted for approval as a substitute for the specified item shall be accompanied by manufacturer's documentation stating/illustrating that it meets the requirements of this specification.

1.7 DELIVERY, STORAGE AND HANDLING:

A. Deliver products to project properly identified with names, model numbers, types, grades, compliance labels, and similar information needed for distinct identifications, adequately packaged and protected to prevent during shipment, storage, and handling.

B. Store equipment and materials at the site, unless offsite storage is authorized in writing. Protect stored equipment and materials from damage according to manufacturer's instructions.

1.8 GUARANTEE:

A. The work installed shall be kept in working order for one year from date of final written acceptance of the project, said guarantee to be based upon defective materials

and/or workmanship. Furnish free of cost to the Owner materials and labor necessary to comply with this guarantee.

1.9 WORKMANSHIP:

A. Install all materials and electrical components of the work in accordance with instructions of manufacturer following the best modern construction practices and conforming with the Contract Documents.

1.10 SAFETY:

A. It shall be the Contractor's responsibility to do all things necessary in the pursuit of the installation or testing to provide safe conditions in which to work.

B. Each Subcontractor shall have a lockout, tag-out procedure that complies with OSHA standards.

C. Scaffolding shall comply with OSHA standards. Barrels, boxes, cans, spools or other unstable objects shall not be used as work platforms or for the support of planking intended for use as scaffolding.

D. Subcontractors shall maintain a clean and clear work area at all times.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION 16010

SECTION 16120

WIRES AND CABLES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS:

A. This section is a Division 16 Basic Materials and Methods section, and is part of each Division 16 section making reference to wires and cables specified herein.

B. Refer to Sub-Section 16195, "ELECTRICAL IDENTIFICATION," for wire and cable color-coding instructions.

1.02 DESCRIPTION OF WORK:

A. Types of wire, cable and connectors in this section include the following:

1. Ground wire.
2. Power cable.

B. Applications for wire, cable and connectors required for project is as follows:

1. Power distribution circuitry.
2. Control power circuitry.

1.03 QUALITY ASSURANCE:

A. Manufacturers: Firms regularly engaged in manufacturer of electrical wire and cable products of types, sizes, and ratings required, whose products have been in satisfactory use in similar service.

B. Installer's Qualifications: Firm with successful installation experience with projects utilizing electrical wiring and cabling work similar to that required for this project.

C. UL Compliance: Comply with applicable requirements of UL Std. 83, "Thermoplastic-Insulated Wires and Cables," and Std. 486A, "Wire Connectors and Soldering Lugs for Use with Copper Conductors."

D. UL Compliance: Provide wiring/cabling and connector products which are UL-listed and labeled.

E. ETL Compliance: Provide wiring/cabling and connector product, which are ETL-listed and labeled.

F. NEMA/ICEA Compliance: Comply with NEMA/ICEA Std. Pub. /No.'s WC 5, "Thermoplastic-Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy," and WC-30, "Color Coding of Wires and Cables," pertaining to electrical power type wires and cables.

G. IEEE Compliance: Comply with applicable requirements of IEEE Stds. 82, "Test Procedures for Impulse Voltage Tests on Insulated Conductors," and Std. 241, "IEEE Recommended Practice for Electrical Power Systems in Commercial Buildings" pertaining to wiring systems.

H. ASTM Compliance: Comply with applicable requirements of ASTM B1, 2, 3, 8 and D-753. Provide copper conductors with conductivity of not less than 98% at 20° C (68°F).

1.04 DELIVERY, STORAGE, AND HANDLING:

A. Deliver wire and cable properly packaged in factory-fabricated type containers, or wound on NEMA-specified type wire and cable reels.

B. Store wire and cable in clean and dry space in original container according to manufacturer's recommendations. Protect products from weather, damaging fumes, construction debris and traffic.

C. Handle wires and cables carefully to avoid abrading, puncturing, and tearing wire and cable insulation and sheathing. Ensure dielectric resistance integrity of wires/cables is maintained.

D. Unloading equipment should not come in contact with the cable or its protective covering,

E. If crane type equipment is used to unload the cable, Contractor shall use a shaft through the arbor hole of the reel or a cradle evenly supporting both reel flanges,

F. If forklift type equipment is used for unloading, the Contractor shall have the equipment forks to evenly contact both flanges. Forklift supporting the reel from only one flange in any way shall not be acceptable,

G. Reel shall be rolled evenly on the ends of both reel flanges,

H. Reels shall not be rolled off any elevated platform on to the ground,

I. Multiple cable reels shall not be stacked on top of one another nor shall the reel be allowed to rest on the flat side of one flange, both flanges shall always be used to support the cable reel,

J. Cable reels shall be stored out of harm's way to prevent both physical and environmental hazards,

K. In storage, cable ends shall always be effectively sealed to prevent the entrance of moisture.

PART 2 - PRODUCTS

2.01 WIRE AND CABLE:

A. General: Except as otherwise indicated, provide UL-listed wire, cable and connectors of manufacturer's standard materials, as indicated by published product information, designed and constructed as recommended by manufacturer, and as required for the installation.

B. CLX Type MC-HL (XHHW-2) may be used instead of wire and conduit with prior approval.

2.02 CONDUCTORS UNDER 600V:

A. Provide factory-fabricated wire of sizes, ratings, materials and types indicated for each service. Where not indicated, provide proper selection as determined by Installer to comply with project's installation requirements and NEC standards. Select from the following types, materials, conductor configuration, insulation and coverings:

1. UL Type: THHN/THWN-2.
2. Material: Copper.
3. Conductors: Concentric-lay-stranded (standard flexibility).

B. Conductor Color coding:

Grounding Conductor:	Green
Tech or Isolated Ground	Green with Yellow Stripe
Neutral (Grounded) Conductor:	White
120/240V, 3 phase/4 W	Black/Orange/Blue with Orange for the High (Stinger) Leg
120/208V, 3 phase/4 W	Black/Red/Blue
480/277 V, 3 phase/4 W	Brown/Purple/Yellow

2.03 CONNECTORS:

A. General: Provide UL-type, solderless, factory-fabricated, metal connectors of sizes, ampacity ratings, materials, type and classes for applications and services indicated. Where not indicated, provide proper selection as determined by Installer to comply with project's installation requirements, NEC and NEMA standards.

B. For #6 and smaller conductors, use pre-insulated 3M "Scotchlock" thread-on connectors. For larger conductors, use Kearney or Burndy two-bolt connectors insulated with rubber tape and covered with vinyl plastic electrical tape. Do not use split-bolt type connectors.

C. For control wiring terminations, use terminal blocks with 20-ampere, screw-pressure box terminals with insulating barriers and numbered terminals. Provide ten percent spare terminals with a minimum of two spare terminals.

PART 3 - EXECUTION

3.01 INSPECTION:

A. General: Install electrical cables and wires as indicated, in compliance with manufacturer's written instructions, applicable requirements of NEC and NECA's "Standard of Installation," and in accordance with recognized industry practices.

B. Coordinate cable and wire installation work with electrical raceway and equipment installation work, as necessary for proper interface.

C. Do not pull conductors into raceways until raceway system (including all outlets, cabinets, bushings and fittings) is completed. Verify that all work of other trades, which may cause conductor damage, is completed. Use only approved cable lubricants when necessary.

D. Pull conductors together where more than one is being installed in a raceway.

E. Use pulling compound or lubricant, where necessary; compound must not deteriorate conductor or insulation.

F. Use UL-listed pulling means, including fish tape, cable or rope, which cannot damage raceway.

G. Install exposed cable, parallel and perpendicular to surfaces or exposed structural members and follow surface contours, where possible.

H. Use splice and tap connectors which are compatible with conductor material.

I. The system shall be properly grounded and continuously polarized (phase) throughout.

J. In general, conductors shall be of the same size from the last protective device to the load.

K. On termination at branch circuit outlets leave a minimum of eight inches (8") free conductor for installation of devices and fixtures.

L. Cover uninsulated splices, joints and free ends of conductor with rubber tape and PVC electrical tape. Plastic insulating caps may serve as insulation for wire sizes through #6, in combinations listed by the insulating cap manufacturer.

M. Do not use mechanical means to pull wire No. 8 or smaller.

N. Branch circuit conductors shall not be smaller than #12 AWG and shall be sized as required by the load served and for specific N.E.C. requirements.

O. Branch circuit wires, which come within 3" of a ballast within a light fixture, e.g., wires running through end-to-end connected fluorescent fixtures, must be rated for 90°C.

P. Control circuit conductors, unless indicated otherwise, shall be #14 AWG, minimum.

Q. All single conductor cables shall be installed in conduit.

R. Grounding conductors shall have green insulation.

S. Use anti-short insulating bushings to protect wires at the ends of the armor on Type AC cable.

3.02 FIELD QUALITY CONTROL:

A. Below 600 Volts:

1. General Branch Circuit Wiring.
2. Prior to energization, test cables and wire for continuity of circuitry, and also for short circuits.
3. Subsequent to wire and cable hook-ups, energize circuitry and demonstrate functioning in accordance with requirements.
4. Feeder Circuit Wiring:
   a. Megger test and record results on form, which will be furnished by the Engineer, all feeder conductors illustrated on the one line diagram. Submit results to Engineer for record purposes.
   b. All cable tested above shall read 50 (fifty) megohms or better, at 1000 volts DC, after 60 seconds. Use 120 volt motorized megger.

END OF SECTION 16120

SECTION 16181

OVERCURRENT PROTECTIVE DEVICES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS:

A. This section is a Division 16 Basic Materials and Methods section, and is part of each Division 16 section making reference to overcurrent protective devices specified.

1.02 DESCRIPTION OF WORK:

A. Types of overcurrent protective devices in this section include the following:

1. Circuit breakers (600 volts and below).
2. Fuses (600 volts and below).

B. Refer to other Division 16 sections for cable/wire and connector work required in conjunction with overcurrent protective devices; not work of this section.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS:

A. Manufacturer: Subject to compliance with requirements, provide products of one of the following (for each type and rating of overcurrent protective device):

1. Circuit Breakers:
   a. General Electric Co. - Circuit breakers suited for exact panels specified in Sub-Section 16470
   b. Siemens - Circuit breakers suited for exact panels specified in Sub-Section 16470
   c. Square D Co. - Circuit breakers suited for exact panels specified in Sub-Section 16470
   d. Cutler-Hammer - Circuit breakers suited for exact panels specified in Sub-Section 16470

2. Fuses:
   a. Cooper Bussmann, Inc. - Fusetron
   b. Ferraz Shawmut - Amptrap 2000
   c. Littlefuse

B. Circuit Breakers:

C. General: Except as otherwise indicated, provide circuit breakers and ancillary components, of types, sizes, ratings and electrical characteristics indicated, which comply with manufacturer's standard design, materials, components, and construction in accordance with published product information and as required for a complete installation.

D. Molded-Case Circuit Breakers:

1. Provide bolt-on factory-assembled, molded-case circuit breakers of frame size, trip and interrupting rating as shown on the Panel Schedule and Drawings.

2. Provide breakers (100 & 150 ampere frame) with non-interchangeable permanent trip units. Provide thermal and instantaneous magnetic trips in each pole. Breakers above 150-ampere frame size shall have interchangeable trip units with non-adjustable bi-metallic thermal trip and adjustable magnetic trips. Construct with over center trip-free, toggle type-operating mechanisms with quick-make, quick-break action and positive handle indication. Construct breakers for mounting and operating, within specified ratings, in any physical position and in an ambient temperature of 40 degrees C. Provide with mechanical screw type removable connector lugs, AL/CU rated, and appropriate number of terminal lugs to provide one terminal for each circuit conductor for full frame amperes.

3. All molded case circuit breakers shall be listed per U.L. 489 to continuously carry 80% of its nameplate rating (unless noted otherwise) and shall meet the requirements of NEMA AB1, and the NEC-NFPA 70-99.

4. Accessories for molded case breakers shall include (when indicated on drawings and schedules) auxiliary switch, shunt trip, under voltage release, bell alarm, motor operator, and mechanical interlocks.

2.02 FUSES:

A. General: Except as otherwise indicated, provide fuses of types, sizes and ratings and electrical characteristics indicated, which comply with manufacturer's standard design, materials, and construction in accordance with published product information and with industry standards and configurations.

B. Class L Time-Delay Fuses: Provide UL Class L time-delay fuses, 600V, 60 HZ., with ampere rating as shown on drawings, with 200,000 RMS symmetrical interrupting current rating for protecting transformers, motors, above 600 amperes.

C. Class L Fast-Acting Fuses: Provide UL Class L fast-acting fuses, 600V, 60 Hz., with ampere rating as shown on drawings, with 200,000 RMS symmetrical interrupting current rating for protecting main feeders above 600 amperes.

D. Class RK5 Time-Delay Fuses: Provide UL Class RK5 dual element time-delay fuses rated as shown on drawings, 60 Hz., with 200,000 RMS symmetrical interrupting current rating for protecting motors, transformers, feeders, etc. below 600 amperes.

PART 3 - EXECUTION

3.01 INSTALLATION OF OVERCURRENT PROTECTIVE DEVICES:

A. Install overcurrent protective devices as indicated in accordance with the manufacturer's written instructions and with recognized industry practices to ensure that protective devices, especially the rejection feature, comply with requirements. Comply with NEC and NEMA standards for installation of overcurrent protective devices.

B. Coordinate with other work, including electrical wiring work, necessary to interface installation of overcurrent protective devices with other work.

C. Fasten circuit breakers without mechanical stresses, twisting or misalignment being exerted by clamps, supports, or cables.

D. Set field-adjustable circuit breakers for trip settings as indicated subsequent to installation of devices.

E. Install fuses, if any, in fuse holder with the labeling on the fuse right side up and positioned as that fuse label is readable with the enclosure door open.

F. Provide spare fuses (3 of each ampere rating used).

G. For Class R type fuses as specified, the fuse holder shall include the appropriate fuse rejection clip which accepts only Class R fuses.

3.02 ADJUST AND CLEAN:

A. Inspect circuit-breaker operating mechanisms for malfunctioning and, where necessary, adjust units for free mechanical movement.

3.03 FIELD QUALITY CONTROL:

A. Prior to energization of overcurrent protective devices; test devices for continuity of circuitry and for short-circuits. Correct malfunctioning units, and then demonstrate compliance with requirements.

END OF SECTION 16181

SECTION 16195

ELECTRICAL IDENTIFICATION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS:

A. This section is a Division 16 Basic Materials and Methods section, and is part of each Division 16 section making reference to electrical identification specified herein.

1.02 DESCRIPTION OF WORK:

A. Types of electrical identification specified in this section include the following:

1. Cable/Conductor identification.

2. Operational instructions and warnings.

3. Danger signs.

4. Equipment/system identification signs.

PART 2 - PRODUCTS

2.01 ELECTRICAL IDENTIFICATION MATERIALS:

A. General:

1. Except as otherwise indicated, provide manufacturer's standard products of categories and types required for each application. Where more than single type is specified for an application, selection is Installer's option, but provide a unified manufacturer selection for each application.

B. Color-Coded Plastic Tape:

1. Provide manufacturer's standard self-adhesive vinyl tape not less than 3 mils thick by 1-1/2" wide. Provide color as required to identify conductor/conduit.

C. Cable/Conductor Identification Bands:

1. Wire Markers: Provide computer-generated vinyl or plastic sleeve, slipover type, white background with black imprinting as required for specific application.

2. Color-Coded Plastic Tape: Provide manufacturer's standard self-adhesive vinyl tape. Unless otherwise indicated, provide colors according to applicable codes or standards.

D. Operational Instructions and Warnings:

1. Provide manufacturer's standard pre-printed, accident-prevention and operational tags, of plasticize card stock with matte finish suitable for writing, approximately 3-1/4" x 5-5/8", with brass grommets and wire fasteners, and with appropriate pre-printed wording including large-size primary wording (as examples: "DANGER", CAUTION, DO NOT OPERATE").

2. Provide manufacturer's standard, self-adhesive or pressure-sensitive, pre-printed, flexible vinyl signs for operational instructions or warnings, of sizes suitable for application areas and adequate for visibility, with proper wording for each application (as examples: "208V", EXHAUST FAN", "RECTIFIER"). Unless otherwise indicated or required by governing regulations, provide orange signs with black lettering.

E. Danger and Caution Signs:

1. Provide manufacturer's standard "DANGER" signs of baked enamel finish on 20-gage steel, of standard red, black and white graphics, 14" x 10" size except where 10" x 7" is the largest size which can be applied where needed and except where larger size is needed for adequate vision, and with/wording: "DANGER HIGH VOLTAGE UNAUTHORIZED PERSONNEL KEEP OUT."

2. Provide manufacturer's standard "CAUTION" signs of pressure sensitive polyester, with stainless steel mounting screws, 2-1/4" x 9". Wording shall be as scheduled. (Example: Caution-480 Volts; Caution-Buried Cable).

F. Equipment/System Identification Signs:

1. Provide engraved stock melamine plastic-laminate, complying with FS L-P-387, in sizes and thicknesses indicated, engraved with engraver's standard letter style of sizes and wording indicated black and white core (letter color) except as otherwise indicated, punched for mechanical fastening except where adhesive mounting is necessary because of substrate.

   All panels, disconnect switches, contactors, starters, timers, control panels, dry type transformers and each individual load in motor control centers and switchboards (when MCC's or SWBDS. are in the job), shall be identified with engraved, plastic laminate labels. Embossed tape labels are not acceptable. All labels shall be sized to accommodate the lettering. Labels shall have white lettering on a black field, unless shown otherwise. Labels for emergency circuit devices shall have white letters on red field. Names of switchboards and MCC's shall be 1/2" high, panel names shall be 1/4" high, and shall be on the first line of the label. Use 1/8" lettering for volts, amps, source of feed, and mo./yr. installed, on the 2nd, 3rd, 4th and 5th lines, respectively.

   EXAMPLE: PANEL "A"
   120/240 VOLTS, 1ϕ, 3W
   100 AMPS - M.L.O.
   FED FROM "MFDS"
   INSTALLED 3/2005

   The labels shall be secured to the front cover of the device using stainless steel mounting screws. Glue or double-sided tape is not acceptable.

   The Contractor shall submit to the Architect/Engineer a schedule of proposed equipment labels for review, amending and approval, **before making the labels**.

2. Thickness: 1/16", for units up to 20 sq. in. or 8" length, 1/8" for larger units.

G. Fasteners: Self-tapping stainless steel screws, except contact-type permanent adhesive where screws cannot or should not penetrate substrate.

2.02 LETTERING AND GRAPHICS

A. Coordinate names, abbreviations and other designations used in electrical identification work, with corresponding designations show, specified or scheduled. Provide numbers, lettering and wording as indicated or, if not otherwise indicated, as recommended by manufacturers or as required for proper identification and operation/maintenance of electrical systems and equipment.

PART 3 - EXECUTION

3.01 APPLICATION AND INSTALLATION:

A. General Installation Requirements:

1. Coordination: Where identification is to be applied to surfaces, which require finish, install identification after completion of painting.

2. Regulations: Comply with governing regulations and requests of governing authorities for identification of electrical work.

B. Cable/Conductor Identification:

1. Apply cable/conductor identification on each cable and conductor (line and load) in each box/enclosure/cabinet where wires are present, except where another form of identification (such as color-coded conductors) is provided. Match identification with marking system used in panelboards, shop drawings, contract documents, and similar previously established identification for project electrical work.

2. Conductors shall be clearly and permanently identified.

3. All control circuit and instrument circuit terminations shall be identified on both ends of each conductor according to control drawing.

4. For conductors #6 and smaller, conductor color-coding shall be color insulation. For conductor color-coding of wire larger than #6, use self-adhesive wraparound tape markers. Use markers at all panelboards, transformers, boxes, outlets, switches, circuit breakers and control centers.

5. All grounding conductors and these only: Green.

C. Equipment/System Identification Signs:

1. Provide engraved plastic-laminate, in sizes and thicknesses indicated, engraved with engraver's standard letter style of sizes and wording indicated black and white core (letter color; except as otherwise indicated, punched for mechanical fastening except where adhesive mounting is necessary because of substrate.

2. Thickness: 1/16" for units up to 20 sq. in. or 8" in length, 1/8" for larger units.

D. Fasteners: Self-tapping stainless steel screws, except use contact-type permanent adhesive where screws cannot or should not penetrate substrate.

3.02 LETTERING AND GRAPHICS:

A. Coordinate names, abbreviation and other designations used in electrical identification work, with corresponding designations shown, specified or scheduled. Provide numbers, lettering and wording as indicated or, if not otherwise indicated, as recommended by manufacturers or as required for proper identification and operation/maintenance of electrical systems and equipment.

B. Junction Box Identification:

1. Apply panel and circuit identification numbers on the cover of all boxes located above ceilings or exposed. Utilize black lettering for normal power circuits and red lettering for emergency power circuits (use indelible ink marker pens).

C. Outlet Box Identification:

1. Each fire alarm system outlet box shall be marked "F.A." on the interior rear wall of the box with a "red" indelible ink marker pen.

D. Equipment/System Identification:

1. Install engraved plastic-laminate sign on each major unit of electrical equipment in building unless unit is specified with its own self-explanatory identification. Except as otherwise indicated, provide single line of text, ½" high lettering on 1-1/2" high sign (2" high where 2 lines are required), white lettering in black field or white letters in red field for emergency circuits. Provide text matching terminology and numbering of the contract documents and shop drawings. Provide signs for the following pieces of electrical equipment:

   a. Panelboards, electrical cabinets and enclosures.

   b. Recess panel/doors to electrical facilities.

   c. Major electrical switchgear and motor control center.

   d. Disconnect switches.

   e. Starters and associated motors.

   f. Large junction boxes.

   g. Special application control switches.

E. Install signs at locations indicated, or, where not otherwise indicated, at location for best convenience of viewing without interference with operation and maintenance of equipment. Secure to substrate with fasteners, except use adhesive where fasteners should not or cannot penetrate the substrate.

END OF SECTION 16195

SECTION 16441

ENCLOSED SWITCHES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS:

A. This section is a Division 16 Basic Materials and Methods section, and is part of each Division 16 section-making reference to motor and circuit disconnect switches specified herein.

1.02 QUALITY ASSURANCE:

A. UL Compliance: Comply with requirements of UL 98, "Enclosed and Dead-Front Switches". Provide circuit and motor disconnect switches which have been UL-listed and labeled.

B. NEMA Compliance: Comply with applicable requirements of NEMA Stds. Pub. No. KS 1, "Enclosed Switches" and 250, "Enclosures for Electrical Equipment (1000 Volts Maximum).

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS:

A. Manufacturer: Subject to compliance with requirements, provide products of one of the following (for each type of switch):

1. General Electric Co. - Type THF Spec setter
2. Siemens - Type MCS
3. Square D Company - Class 3110
4. Cutler-Hammer - DH Series

B. Heavy-Duty Safety Switches: Provide surface-mounted, heavy-duty type sheet-steel enclosed safety switches, of types, sizes and electrical characteristics indicated, horsepower rated, solid neutral, incorporating quick-make, quick-break type switches; so constructed that blades are visible in OFF position with door open. Equipment with operating handle which is integral part of enclosure base and whose position is easily recognizable, and is padlockable in OFF position; construct current carrying parts of high-conductivity copper, with silver-tungsten type switch contacts, and positive pressure type reinforced fuse clips. Provide NEMA type N4X enclosure outdoors, NEMA type 1 indoors, unless indicated otherwise.

C. All fusible switches shall accept only Class R fuses, and shall have U.L. listed Class R fuse rejection clips.

D. The U.L. short circuit rating shall be 200,000 RMS symmetrical amperes when Class R fuses are used.

E. All switches shall be U.L. listed for use with copper or aluminum wire whose ampacity and temperature rating are in compliance with NEC 110-14(C).

PART 3 - EXECUTION

3.01 INSTALLATION OF CIRCUIT DISCONNECT SWITCHES:

A. Install disconnect switches where indicated, complying with manufacturer's written instructions, applicable requirements of NEC, NEMA, and NECA's "Standard of Installation", and in accordance with recognized industry practices to ensure that products fulfill requirements.

B. Coordinate circuit disconnect switch installation work with electrical raceway and cable work, as necessary for proper interface.

C. Install disconnect switches used for motor-driven appliances, and motors and controllers within sight of controller position unless otherwise indicated.

D. Label per SECTION 16195.

E. Circuit breakers for disconnecting air conditioning condensing units and other HVAC equipment containing more than one motor shall be HACR type.

F. Provide and install fuses where applicable. Fuse shall be mounted right side up, so its label can be read left to right or bottom to top when the enclosure door is open.

G. Vacuum clean debris from all enclosures.

3.02 GROUNDING:

A. Provide equipment grounding connections, sufficiently tight to assure a permanent and effective ground, for electrical disconnect switches where indicated.

3.03 FIELD QUALITY CONTROL:

A. Subsequent to completion of installation of electrical disconnect switches, energize circuitry and demonstrate capability and compliance with requirements. Where possible, correct malfunctioning units at project site, then retest to demonstrate compliance; otherwise remove and replace with new units and retest.

END OF SECTION 16441

SECTION 16450

GROUNDING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS:

A. Division 16 Basic Materials and Methods sections apply to work of this section.

1.02 QUALITY ASSURANCE:

A. Electric Code Compliance: Comply with applicable local electrical code requirements of the authority having jurisdiction, and NEC as applicable to electrical grounding and bonding, pertaining to systems, circuits and equipment.

B. UL Compliance: Comply with applicable requirements of UL Standards No.'s 467, "Electrical Grounding and Bonding Equipment", and 869, "Electrical Service Equipment", pertaining to grounding and bonding of systems, circuits and equipment In addition, comply with UL Std. 486A, "Wire Connectors and Soldering Lugs for Use with Copper Conductors." Provide grounding and bonding products, which are UL-listed and labeled for their intended usage.

C. IEEE Compliance: Comply with applicable requirements and recommended installation practices of IEEE Standards 80, 81, 151 and 152 pertaining to grounding and bonding of systems, circuits and equipment.

1.03 NEMA COMPLIANCE:

A. Stds. Pub/No. LA1 Surge Arresters Stds. Pub/No. FB1 Fittings, Cast metal boxes and conduit bodies for conduit assembly.

1.04 DESCRIPTION OF WORK:

A. Main electric service equipment, conduit work, motors, panelboards and other electrical equipment shall be effectively and permanently grounded. Grounding connections and conductor sizes shall be in accordance with requirements of the National Electrical Code, Article 250, and local ordinances.

B. A separate grounding conductor, sized in accordance with NEC Table 250-122, unless indicated otherwise, shall be provided in the conduit with the circuit conductors for all branch circuits and feeder circuits. The grounding conductor covering shall be a green color. Conduit runs shall be increased in size where necessary to accommodate the grounding conductor in addition to circuit

conductors. The electrical continuity of all conduit runs shall be verified and corrected where necessary.

C. All electrical equipment enclosures and conductor enclosures shall be grounded. This includes but is not limited to metal raceways, outlet boxes, cabinets, switch boxes, motor frames, transformer cases, metal back panel of fiberglass enclosure and metallic enclosure for all electrical equipment.

D. Under no circumstances shall neutral conductors again be grounded after they have been grounded once at the transformer secondary (or main distribution panel, as indicated).

E. Types of grounding in this Section include the following:

1. Grounding:
   a. Metal water, sprinkler and gas piping.
   b. Metal building and structure frames.
   c. Grounding electrodes.
   d. Grounding rods.
   e. Grounding loops.
   f. Separately derived systems.
   g. Service equipment.
   h. Enclosures.
   i. Systems.
   j. Equipment.
   k. Metallic conduits of control and specialty systems.

F. Requirements of this section apply to electrical grounding work specified elsewhere in these specifications.

1.05 ELECTRONIC GROUNDING

A. Where required by work scope or drawing, an isolated (isolated from normal grounding) electronic grounding system shall be installed. The electronic grounding system shall be supplied complete with its own service ground rods. The electronic service ground shall be connected to the regular ground rod at a single point.

1.06 LIGHTNING GROUNDING

A. Where required by work scope or drawing, an isolated (isolated from normal grounding) lightning grounding system shall be installed. The lightning grounding system shall be supplied complete with its own service ground rods. The lightning service ground shall be connected to the regular ground rod at a single point.

PART 2 - PRODUCTS

2.01 GROUNDING:

A. Materials and Components:

General: Except as otherwise indicated, provide each electrical grounding system indicated, with assembly of materials including, but not necessarily limited to, cables/wires, connectors, terminals (solderless lugs), grounding rods/electrodes and plate electrodes, bonding jumper, flexible braid, and other items and accessories needed for complete installation. Where more than one type meets indicated requirements, selection is Installer's option. Where materials or components are not otherwise indicated, comply with NEC, NEMA and established industry standards for applications indicated.

B. General: Provide conduit, tube, duct and fittings complying with other Division 16 sections.

C. Electrical Bonding Jumpers

D. Bonding Jumper Braid: UL-listed copper braided tape, constructed of 30-gage bare copper wires and properly sized for indicated applications.

E. Flexible Jumper Strap: UL-listed flexible flat conductor, 480 strands of 30-gage bare copper wire, 3/4" wide, 9-1/2" long, 48,250 CM. Protect braid with copper bolt hole ends with holes sized for 3/8" dia. bolts.

F. Electrical Grounding Conductors:
Unless otherwise indicated, provide electrical grounding conductors for grounding connections matching power supply wiring materials and sized according to NEC.

G. Bonding Connectors, Terminals and Clamps:
Provide electrical UL-listed bonding plates, connectors terminals and clamps as recommended by bonding plate, connector, terminal and clamp manufacturers for indicated applications. Materials shall be bronze.

H. Ground Rods and Plates:
1. Ground Rods: UL-listed steel with copper welded exterior, 3/4" dia. x 10'.

I. Electrical Grounding Connection Accessories: Provide electrical UL-listed insulating tape, heat-shrinkable insulating tubing, solder, soldering flux, bonding straps, as recommended by accessories manufacturers for type services indicated.

PART 3 - EXECUTION

3.01 INSTALLATION OF GROUNDING SYSTEMS:

A. Install electrical grounding systems as indicated, in accordance with manufacturer's written instructions and with recognized industry practices to ensure grounding and ground-fault protection devices comply with requirements. Comply with requirements of NEC, NESC, and NEMA standards for installation of grounding and ground-fault protection systems and devices.

B. Coordinate with other electrical work as necessary to interface installation of grounding system and ground-fault protection devices with other work.

C. Weld or bolt cable connections to ground rods.

D. Install braided type-bonding jumpers with ground clamps on water meter piping to electrically bypass water meter.

E. Install clamp-on connectors only on thoroughly cleaned metal contact surfaces, to ensure electrical conductivity and circuit integrity.

F. Bond electrical service entrance system neutral, grounding and grounding electrode conductors at one point in the service entrance equipment enclosure. Use bonding bushing with lay-in lug on all metallic conduits entering service entrance enclosure and at the other end of said conduits.

G. Ground each separately derived system neutral to:

1. Transformer housing.
2. Effectively grounded structural steel member (if building is steel-framed).
3. Grounding Grid.
4. Building main metal cold water, sprinkler and gas piping per NEC.
5. Driven ground rod.
6. Concrete foundation re-steel.

H. Terminate feeder and branch circuit insulated equipment-grounding conductors with grounding lug, bus, or bushing.

I. Tighten grounding and bonding connectors and terminals, including screws and bolts, in accordance with manufacturer's published torque-tightening values for connectors and bolts. Where manufacturer's torquing requirements are not indicated, tighten connections to comply with tightening torque values specified in UL 486A to assure permanent and effective grounding.

J. Route grounding connections and conductors to ground and protective devices in shortest and straightest paths as possible to minimize transient voltage rises.

K. Where a common connection point requires multiple grounding conductors, provide a grounding bar with at least the same number of terminal connection barrels as there are conductors. Multiple conductors under one barrel lug will not be acceptable.

L. Apply oxide inhibiting compound (i.e. T & B's Contax or equal by ILSCO, or Penn-Union to field-connections, buried metallic grounding and bonding products, and places where factory applied protective coatings have been destroyed, which are subjected to corrosive action.

M. Apply oxide-inhibitor compound to all connections made outdoors or in damp locations according to manufacturer's instructions.

END OF SECTION 16450