SEWERAGE AND WATER BOARD
OF NEW ORLEANS
2026-SWB-13 (8174)

REPAIRS TO THE ENGINEERING BUILDING

PROPOSALS DUE ON

March 3, 2026, AT 11:00 A.M., CENTRAL TIME

TABLE OF CONTENTS

Pages

VOLUME I

PART 1—PROCUREMENT REQUIREMENTS

00 11 13	Advertisement for Bids	1- 2
00 21 13	Instructions to Bidders	1- 11
00 41 13	Louisiana Uniform Public Work Bid Form	1- 4
00 42 13	Voluntary Extensions of the Award of Contract	1- 1
00 43 13	Bid Bond	1- 2
00 45 54	Affidavit of Noncollusion	1- 4
00 47 17	Disadvantaged Business Enterprise Program	1- 10
00 47 17.10	Economically Disadvantaged Business Participation Summary Sheet	1- 1

PART 2—CONTRACTING REQUIREMENTS

CONTRACTING FORMS

00 52 13	Agreement	1- 7

PROJECT FORMS

00 61 13.13	Performance Bond Form	1- 3
00 61 13.16	Payment Bond Form	1- 3

CONDITIONS OF THE CONTRACT

00 72 00	General Conditions	i-iii; 1- 40
00 73 00	Supplementary Conditions	1- 27

CONTRACT MODIFICATION PROCEEDURES

01 26 00	Contract Modification Procedures	1- 12

ATTACHMENTS TO SUPPLEMENTARY CONDITIONS

No. 1 S&WB Drug-Free Work Place Policy – Contractor Requirements
No. 2 S&WB Safety Orientation Notice
No. 3 S&WB Electrical Safety Clearance Procedure
No. 4 S&WB Storm Water Pollution Prevention Plan
No. 5 Wage Rate Decision
No. 6 FEMA Clauses

Pages

VOLUME II

PART 3—SPECIFICATIONS

Division 1 – General Requirements

01011	Insurance	1-2
01100	Summary	1-5
01200	Mobilization	1-2
01220	Unit Prices	1-3
01230	Alternates	1-2
01252	Weather Delays	1-3
01290	Payment Procedures	1-4
01310	Project Management and Coordination	1-6
01310A	Request for Information	1
01320	Construction Progress Documentation	1-9
01322	Photographic Documentation	1-3
01330	Submittal Procedures	1-9
01330A	Submittal Transmittal	1
01400	Quality Requirements	1-9
01500	Temporary Facilities and Controls	1-6
01580	Job Sign	1-2
01600	Product Requirements	1-5
01635	Substitution Procedures	1-5
01635A	Contractor/Supplier Substitution Request Form	1-2
01730	Execution	1-7
01741	Construction Waste Management	1-2
01770	Closeout Procedures	1-5
01782	Operation and Maintenance Data	1-8
01783	Project Record Documents	1-4

Division 2 – Existing Conditions (Not Used)

Division 3 – Concrete (Not Used)

Division 4 – Masonry (Not Used)

Division 5 – Metals (Not Used)

Division 6 – Wood, Plastics, and Composites

06057	Fire-Retardant Wood Treatment	1-4
06 10 12	Wood Framing and Rough Carpentry	1-4

Division 7 – Thermal and Moisture Protection

07 01 50.19	Preparation for Re-Roofing	1-4
07 22 00	Roof Insulation	1-9
07222	Rigid Insulation – Roof	1-3
07411	Standing-Seam Metal Roofing Panels - Pre-Finished	1-9
07 52 16	Styrene-Butadiene-Styrene (SBS) Modified Bituminous Membrane Roofing	1-16
07 56 00	Silicone Roof Coating (At Skylight Roof Only)	1-11
07 60 00	Flashing and Sheet Metal	1-2
07631	Gutters (Replacement)	1-3
07714	Prefabricated Roof Relief Vents	1-2
07920A	Sealants and Caulking	1-4

Division 8 - Openings

08710	Finish Hardware	1-4
08 80 00	Glazing	1-3

Division 9 - Finishes

09201	Furring and Lathing	1-3
09220	Portland Cement Plaster	1-3
09260	Gypsum Wallboard Systems – Steel Studs	1-5
09510	Acoustical Ceilings	1-3
09678	Resilient Base and Accessories	1-2
09910A	Exterior Painting	1-5
09920A	Interior Painting	1-6

Appendices

Appendix A	Midsouth Roofing Inspection	1-10

PART 4—DRAWINGS (BOUND SEPARATELY)

END OF SECTION

Sewerage and Water Board of New Orleans
2026-SWB-13 (8174)
Repairs to the Carrollton Water Plant Engineering Building

The Sewerage and Water Board of New Orleans is soliciting general contractors for repairs to the Carrollton Water Plant Engineering Building. These repairs consist of removal and replacement of all existing standing seam metal roof panels with new construction, including all gutters, trim flashing and accessories at roof and wall junctions over building annex. Remove and replace the modified bitumen roofing assembly and repair skylight. Remove and replace all flat roofing with new modified bitumen roofing construction, including all gutters, trim flashing and accessories at room and wall junctions over engineering building. Interior work includes removing and replacing gypsum, ceiling tiles, window seals and painting.

Bid Documents and proposal forms are available for download on **January 30, 2026,** at the following websites:
SWBNO: https://www2.swbno.org/business_bidspecifications.asp
LAPAC: https://wwwcfprd.doa.louisiana.gov/OSP/LaPAC/dspBid.cfm?search=department&term=181

A **MANDATORY** Pre-Bid conference will be held on **February 16, 2026,** at **11:00 a.m.** Central Time at the Sewerage and Water Board of New Orleans' Carrollton Water Purification Plant Engineering Building, 2nd Floor Auditorium, located at 8800 S. Claiborne Ave., New Orleans, Louisiana, 70118 or if you are unable to attend this in-person meeting, you can also join via teleconference call:

Microsoft Teams
Join the meeting now
Meeting ID: 298 032 298 793 04
Passcode: ob2rr2Sj
Dial in by phone
+1 504-224-8698,,402015609# United States, New Orleans
Find a local number
Phone conference ID: 402 015 609#

At this meeting, staff will discuss the scope of work, proposal requirements and respond to questions from the attendees. Any prospective proposer who fails to attend shall be prohibited from submitting a proposal. A voluntary walkthrough will be conducted following the Pre-Bid meeting.

All inquiries shall be directed to Kimberly Barnes, at kbarnes@swbno.org. The deadline for inquiries is on **February 19, 2026,** at **5:00 p.m.** Central Time**.**

Bids are due on **March 3, 2026, at 11:00 a.m.** Any Bids received after the specified time will be rejected.

Bids will then be publicly opened and read on **March 3, 2026,** at **11:30 a.m**. at Sewerage and Water Board of New Orleans, 625 St. Joseph Street, Purchasing Conference Room 131, New Orleans, Louisiana.

Microsoft Teams meeting
Join: https://teams.microsoft.com/meet/23899573127054?p=qDu52G8WnxVxqviAWA
Meeting ID: 238 995 731 270 54
Passcode: 5FB7B8PG
Dial in by phone
+1 504-224-8698,,235105256# United States, New Orleans
Phone conference ID: 235 105 256#

LATE BIDS WILL NOT BE ACCEPTED.

INSTRUCTIONS TO BIDDERS

1. DEFINED TERMS

1.1. Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:

1.1.1. *Issuing Office*—The office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered: Purchasing Agent, Room 133, 625 St. Joseph Street, New Orleans, Louisiana 70165.

2. COPIES OF BIDDING DOCUMENTS

2.1. Complete sets of the Bidding Documents are available in electronic form on the Sewerage & Water Board of New Orleans website: www.swbno.org (Click on Bids and Business, then Bid Ads and Spec) and may be downloaded for use by interested bidders. Reproduction costs for any of the downloaded electronic Bidding Documents shall be borne by the Contractor.

2.2. Complete sets of Bidding Documents shall be used in preparing Bids. Neither Owner nor Engineer assumes responsibility for errors or misinterpretations resulting from use of incomplete sets of Bidding Documents.

2.3. Drawings included in the Bidding Documents are electronic .pdf files generated from electronic drawing files. Any reduction from actual size is indicated by a note or scale bar on Drawing.

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

3. QUALIFICATIONS OF BIDDERS

3.1. In order to perform public work, Bidder and its Subcontractors, prior to award of Contract or as otherwise required by the jurisdiction, shall hold or obtain such licenses as required by State Statutes, and federal and local Laws and Regulations.

3.2. Bidder is advised to carefully review those portions of the Bid Form requiring representations and certifications.

4. EXAMINATION OF BIDDING DOCUMENTS, OTHER RELATED DATA, AND SITE

4.1. Subsurface and Physical Conditions:

4.1.1. The Supplementary Conditions identify:

4.1.1.1. Those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site.

4.1.1.2. Those drawings known to Owner of physical conditions relating to existing surface and subsurface structures at the Site.

4.1.2. Copies of reports and drawings referenced will be made available by Owner to any Bidder on request. Those reports and drawings are not part of the Contract Documents, but the "technical data" contained therein upon which Bidder is entitled to rely as provided in Paragraph 4.02 of the General Conditions has been identified and established in Paragraph 4.02 of the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any "technical data" or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings. Costs associated with making available copies of reports and drawings shall be borne by Bidder.

4.2. Underground Facilities: Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site is based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, including Owner or others.

4.3. Hazardous Environmental Condition:

4.3.1. The Supplementary Conditions identify reports and drawings known to Owner relating to a Hazardous Environmental Condition identified at the Site.

4.3.2. Copies of reports and drawings referenced will be made available by Owner to any Bidder on request. Those reports and drawings are not part of the Contract Documents, but the "technical data" contained therein upon which Bidder is entitled to rely as provided in Paragraph 4.06 of the General Conditions has been identified and established in Paragraph 4.06 of the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any "technical data" or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings. Costs associated with making available copies of reports and drawings shall be borne by Bidder.

4.4. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions, and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated subsurface or physical conditions appear in Paragraphs 4.02 through 4.04 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental

Condition uncovered or revealed at the Site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work, appear in Paragraph 4.06 of the General Conditions.

4.5. On request, Owner will provide each Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies as Owner deems necessary for submission of a Bid. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies. Bidder shall comply with all applicable Laws and Regulations relative to excavation and utility locates.

4.6. Related Work at Site: Reference is made to the General Requirements for identification of the general nature of other work that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) that relates to the Work contemplated by these Bidding Documents. On request Owner will provide to each Bidder for examination, access to Contract Documents (other than portions thereof related to price) for such other work.

4.7. Safety: Paragraph 6.13.C of the General Conditions indicates that if an Owner safety program exists, it will be noted in the Supplementary Conditions.

4.8. It is responsibility of each Bidder before submitting a Bid to:

4.8.1. Examine and carefully study the Bidding Documents, other related data identified in the Bidding Documents, and any Addenda.

4.8.2. Visit the Site to become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

4.8.3. Become familiar with to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.

4.8.4. Carefully study all information provided and referenced in plans and specifications.

4.8.5. Consider the information known to Bidder; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents.

4.8.6. Agree at the time of submitting its Bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price(s) Bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.

4.8.7. Become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.

4.8.8. Promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in Bidding Documents and confirm that written resolution thereof by Engineer is acceptable to Bidder.

4.8.9. Determine Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance of the Work.

4.9. Submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this article; that without exception the Bid is premised upon performing and furnishing the Work required by Bidding Documents and applying specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by Bidding Documents; that Bidder has given Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in Bidding Documents and the written resolutions thereof by Engineer are acceptable to Bidder; and that Bidding Documents are generally sufficient to indicate and convey understanding of terms and conditions for performing and furnishing the Work.

5. SPECIAL PRODUCT REQUIREMENTS

5.1. Bidder's attention is directed to the Supplementary Conditions, Paragraph 6.03.

6. PREBID CONFERENCE

A **MANDATORY** Pre-Bid conference will be held on **February 16, 2026,** at **11:00 a.m.** Central Time at the Sewerage and Water Board of New Orleans' Carrollton Water Purification Plant Engineering Building, 2nd Floor Auditorium, located at 8800 S. Claiborne Ave., New Orleans, Louisiana, 70118 or if you are unable to attend this in-person meeting, you can also join via teleconference call:

Microsoft Teams
Join the meeting now
Meeting ID: 298 032 298 793 04
Passcode: ob2rr2Sj
Dial in by phone
+1 504-224-8698,,402015609# United States, New Orleans
Phone conference ID: 402 015 609#

6.1. Representatives of Owner and Engineer will be present to discuss the Project. Procurement will transmit to prospective Bidders of record such Addenda as Engineer considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.

7. SITE AND OTHER AREAS

8. INTERPRETATIONS AND ADDENDA

8.1. All questions about the meaning or intent of the Bidding Documents are to be submitted to the Sewerage & Water Board Purchasing Department. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by the office issuing documents as having received the Bidding Documents. Questions received less than 7 business days prior to the date for opening of Bids may not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

8.2. Addenda may also be issued to clarify, correct, or change the Bidding Documents as deemed advisable by Owner or Engineer.

8.3. Addenda issued in response to questions will be issued no later than 72 hours prior to bid opening.

9. BID SECURITY

9.1. Bid shall be accompanied by Bid security made payable to Owner in an amount of 5 percent of Bidder's maximum Bid price and in the form of a certified check, bank money order, or a Bid bond (on the attached form), issued by a surety meeting the requirements of Paragraph 5.01 and Paragraph 5.02 of the General Conditions.

9.2. Upon Notice of Award of the Contract, the Bid security of all bidders, other than the lowest two (2) formal bidders will be returned. The return of the Bid security to whom the Contract is awarded is conditioned upon the successful bidder furnishing the insurance required in the specifications and appearance before the Notary for the Sewerage and Water Board of New Orleans within ten (10) consecutive calendar days after notice by the Executive Director or designee of the award of the contract and executing the contract and furnishing bond for the faithful fulfillment thereof according to the attached specifications. The Bid security of the next lowest bidder will be returned as soon as the successful bidder has executed the Contract and furnished bond. If all bid proposals are rejected, all Bid security will be returned immediately.

9.3. Bid security of other Bidders whom Owner believes do not have a reasonable chance of receiving the award will be returned within 7 days after Bid opening.

10. CONTRACT TIMES

10.1. The number of days within which, or the dates by which, Milestones are to be achieved and the Work is to be substantially completed and ready for final payment are set forth in the Agreement.

11. LIQUIDATED DAMAGES

11.1. Provisions for liquidated damages, if any, are set forth in the Agreement.

12. SUBSTITUTE AND "OR-EQUAL" ITEMS

12.1. The Contract, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration of possible substitute or "or-equal" items. Whenever it is specified or described in the Bidding Documents that a substitute or "or-equal" item of material or equipment may be furnished or used by Contractor if acceptable to Engineer, application for such acceptance will not be considered by Engineer until after the Effective Date of the Agreement.

13. WAGE RATES

13.1. The Work under these Bidding Documents is to be paid for by public funds; therefore, minimum prevailing wage rates published by the Secretary of the U.S. Department of Labor (see appended rate tables). Refer to Attachment #5 of the Supplementary Conditions for more information.

13.2. The successful bidder is to make available to the Board, complete records in connection with payment of employees during the term of the job in order to permit the Internal Audit Division to check as to adherence to the wage scale presently in effect in accordance with U.S. Government standards.

14. PREPARATION OF BID

14.1. With each electronic copy of the Bidding Documents, Bidder will be furnished one separate Bid Form, and, if applicable, the Bid Bond Form. Contractor is to print and complete all pertinent documents included as the Original Form of Proposal.

14.2. All blanks on the Bid Form shall be completed by typing or printing with ink and the Bid Form signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each Bid item, unit price item, and alternate listed therein.

14.3. A Bid by a corporation shall be executed in the corporate name by the president or a vice president or other corporate officer accompanied by evidence of authority to sign. The corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown.

14.4. A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership shall be shown.

14.5. A Bid by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm shall be shown.

14.6. A Bid by a joint venture shall be executed by each joint venturer in the manner indicated on the Bid Form. The official address of the joint venture shall be shown.

14.7. All names shall be typed or printed in ink below the signatures.

14.8. The Bid shall contain an acknowledgement of receipt of all Addenda; the numbers of which shall be filled in on the Bid Form.

14.9. Postal and e-mail addresses and telephone number for communications regarding the Bid shall be shown.

14.10. The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located, or Bidder shall covenant in writing to obtain such authority and qualification prior to award of the Contract and attach such covenant to the Bid. Bidder's state contractor license number and class, if applicable, shall also be shown on the Bid Form.

15. BASIS OF BID; COMPARISON OF BIDS

15.1. Lump Sum:

15.1.1. Bidders shall submit a Bid on a lump sum basis as set forth in the Bid Form.

15.1.2. Bidders shall submit a Bid on a lump sum basis for the base Bid and include a separate price for each alternate described in the Bidding Documents as provided for in the Bid Form. The price for each alternate will be the amount added to or deleted from the base Bid if Owner selects the alternate. In the comparison of Bids, alternates will be applied in the same order as listed in the Bid Form.

15.2. Unit Price:

15.2.1. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the Unit Price Bid Table.

15.2.2. The total of all prices will be the sum of the products of the estimated quantity of each item and the corresponding unit price. The final quantities and Contract Price will be determined in accordance with Paragraph 11.03 of the General Conditions.

15.2.3. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

15.3. Alternates:

15.3.1. If applicable, Alternates requiring pricing in the Bid Form are described in the Summary of Work Section, and in the Bid Form.

15.3.2. Indicate in Bid Form the amount to be added or subtracted from the base Bid for alternates described.

15.3.3. Include cost of all related work, including modifying surrounding work to integrate the Work of each alternate.

15.3.4. Alternates listed on Bid Form will be reviewed and accepted or rejected at Owner's option. Accepted alternates will be identified in the Agreement.

16. SUBMISSION OF BID

16.1. The Bid Form, Section 00 41 13 Louisiana Uniform Public Work Bid Form is to be completed and submitted with the Bid Security. The two (2) lowest bidders will have three (3) days following the bid opening to submit the following:

16.1.1. Louisiana uniform Public Work Bid Form, Additional Requirements, Bidder Declaration, Guarantees, and Emergency Procedures.

16.1.2. Louisiana Uniform Public Work Bid Form, Affidavit

16.1.3. Voluntary Extensions of the Award of Contract

16.1.4. Affidavit of Noncollusion

16.1.5. Conflict of Interest Disclosure Affidavit

16.1.6. Convicted Felon Affidavit

16.1.7. Non-Solicitation Affidavit

16.1.8. Economically Disadvantaged Business Participation Summary Sheet

16.2. A Bid shall be submitted no later than the date and time prescribed, and at the place indicated in the Invitation to Bid. Enclose Bid in a plainly marked package with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), name and address of Bidder, and accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate package plainly marked on the outside with the notation "BID ENCLOSED.

16.3. In accordance with LRS 37:2163, Bidders are required to certify they hold an active Contractor's license and indicate license number on Bid envelope. Bid envelopes received with no Contractor license number will not be opened and will automatically be rejected and considered nonresponsive.

16.4. Bidders are required to submit, in addition to the original Form of Proposal contained herein, three additional copies of the complete proposal including any and all inserts,

drawings, brochures, or qualification data of any kind. Failure to submit the copies shall be considered as an informality and should not invalidate the bid, provided that within 24 hours after the bid opening or after the request has been made in writing by the Purchasing Agent for the Sewerage and Water Board of New Orleans, the bidder has furnished same to the Purchasing Department.

17. OPENING OF BIDS

Bids will be opened at the time and place indicated in the Invitation to Bid and unless obviously nonresponsive, read aloud publicly. The amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

18. BIDS TO REMAIN SUBJECT TO ACCEPTANCE

18.1. All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

19. EVALUATION OF BIDS AND AWARD OF CONTRACT

19.1. Pursuant to Louisiana Statute 38:2225, a resident Bidder shall be allowed a preference over a nonresident Bidder from a state which gives or requires a preference to Bidders from that state. The preference shall be equal to the preference given or required by the state of the nonresident Bidder.

19.2. Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced or conditional Bids. Owner further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to not be responsible. Owner may also reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project to make an award to that Bidder. Owner also reserves the right to waive all informalities not involving price, time, or changes in the Work and to negotiate contract terms with the Successful Bidder.

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

19.4. Staff recommended awards based on bid results will be posted on a bulletin board located outside the office of the Sewerage and Water Board Purchasing Department within 72 hours (excluding Saturdays, Sundays, and Holidays) after the Bid opening. Bidders may also telephone the Purchasing Department to determine the bid results. Objection by a bidder to any recommended award must be made in writing to the Purchasing Agent or Assistant Purchasing Agent within 72 hours (excluding Saturdays, Sundays, and Holidays) after the recommended bid award has been posted.

20. NOTARIAL FEE.

20.1. The Contract and Bond shall be signed in the City of New Orleans, before the Notary for the Sewerage and Water Board of New Orleans, by the Contractor in person or by a duly authorized representative. The notarial fee for the execution of the contract shall be paid by the Contractor in accordance with the Notarial Fee Schedule below. The Fee Schedule is subject to change, and Contractor is responsible for any deviations from this Fee Schedule. Contractor shall also be responsible for payment of all recordation costs and photocopying at the rate of $0.50 per page. All affidavits of acceptance or substantial completion are $70.00 plus actual recordation costs.

NOTARIAL FEE SCHEDULE

Notarial work for all Sewerage and Water Board of New Orleans construction contracts, requiring to be notarized:

Contract Value	**Fee**
Under $1,000.00	$186.00
$1,000.00 to $49,999.99	$347.00
$50,000.00 to $499,999.99	$881.00
$500,000.00 to $999,999.99	$1,888.00
$1,000,000.00 or over	$3,778.00

21. CONTRACT SECURITY AND INSURANCE

21.1. Article 5 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner's requirements as to bonds and insurance. When Successful Bidder delivers executed Agreement to Owner, it shall be accompanied by such bonds.

22. SIGNING OF AGREEMENT

23.1 The proposal submitted by the staff-recommended bidder will be tentatively selected by the appropriate Sewerage and Water Board Committee meeting The final award of the contract will be made at the subsequent Board meeting. All prices bid must be held firm for 120 days or until final award of contract by the Board.

23.2 After submittal of required Insurance and Bonds, in form acceptable to the Sewerage and Water Board, the selected Bidder will be authorized by the Executive Director of the Board to appear before the City Notary to sign the contract within ten (10) consecutive calendar days from the date of the notice.

23. SALES AND USE TAXES

24.1 Applicable state and local sales and use taxes for purchase of materials and supplies furnished under this contract shall be paid by the Contractor. Such taxes shall be included in the lump sum bid for the work of this contract. The board shall be relieved of any obligation to pay these taxes.

24.2 ACT 318 OF 1958

24.2.1 Under the terms of Act 318 of 1958, of the Regular Session of the Legislature of the State of Louisiana, all things being equal, preference must be given to either (1) firms doing business in the State of Louisiana or (2) to products produced (or) grown (or) manufactured in the state.

24.2.2 Before any bill for supplies used shall be paid to any non-resident firm, a statement in writing shall be submitted by the seller to the effect that his firm has paid all taxes duly assessed by the State of Louisiana and its political subdivisions, including franchise taxes, to the state and its political subdivisions.

24. RETAINAGE

24.1. Provisions concerning retainage and Contractor's rights to deposit securities in lieu of retainage, if applicable, are set forth in the Agreement.

25. BID PROTESTS

25.1. Any formal protest which is to be made by an aggrieved Proposer must be submitted in writing to the Procurement Director, Cashanna K. Moses at cmoses@swbno.org according to Sewerage and Water Board of New Orleans Policy 83(R): Procedural Rules for Bid Appeals.

END OF SECTION

LOUISIANA UNIFORM PUBLIC WORK BID FORM

TO: Sewerage and Water Board of New Orleans
Purchasing Department, Room 133
625 St. Joseph St., New Orleans, LA 70165
(Owner to provide name and address of owner)

BID FOR: Contract 8174
Repairs to The Engineering Building
(*Owner to provide name of project and other identifying information)*

The undersigned bidder hereby declares and represents that she/he: a) has carefully examined and understands the Bidding Documents, b) has not received, relied on, or based his bid on any verbal instructions contrary to the Bidding Documents or any addenda, c) has personally inspected and is familiar with the project site, and hereby proposes to provide all labor, materials, tools, appliances and facilities as required to perform, in a workmanlike manner, all work and services for the construction and completion of the referenced project, all in strict accordance with the Bidding Documents prepared by: Meyer Engineers, Ltd. and dated: December 18, 2025
(Owner to provide name of entity preparing bidding documents.)

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

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

_____ Dollars ($ _____)

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

Alternate No. 1 - **Pressure-treated 1x4 Wood Battens**. Add for the lump sum of:*)* for the lump sum of:

_____ Dollars ($ _____)

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

N/A Dollars ($ N/A)

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

_____ Dollars ($_____)

NAME OF BIDDER: _____

ADDRESS OF BIDDER: _____

_____

LOUISIANA CONTRACTOR'S LICENSE NUMBER: _____

NAME OF AUTHORIZED SIGNATORY OF BIDDER: _____

TITLE OF AUTHORIZED SIGNATORY OF BIDDER: _____

SIGNATURE OF AUTHORIZED SIGNATORY OF BIDDER **: _____

DATE: _____

THE FOLLOWING ITEMS ARE TO BE INCLUDED WITH THE SUBMISSION OF THIS LOUISIANA UNIFORM PUBLIC WORK BID FORM:

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

**** A CORPORATE RESOLUTION OR WRITTEN EVIDENCE** of the authority of the person signing the bid for the public work as prescribed by LA R.S. 38:2212(B)(5).

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

LOUISIANA UNIFORM PUBLIC WORK BID FORM
UNIT PRICE FORM

TO: Sewerage and Water Board of New Orleans
Purchasing Department, Room 133
625 St. Joseph St., New Orleans, LA 70165
(Owner to provide name and address of owner)

BID FOR: Contract 8174
Repairs to The Engineering Building
(*Owner to provide name of project and other identifying information)*

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

DESCRIPTION:	☒ Base Bid or ❑ Alt.# **ALL WORK SHOWNN WITHIN CONSTRUCTION DOCUMENTS (INTERIOR AND EXTERIOR) EXCLUDING WORK WITHIN UNIT PRICES 2-9**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
1	1	**Lump Sum (LS)**		

DESCRIPTION:	☒ Base Bid or ❑ Alt.# **REMOVAL GRAVEL / BUILT-UP ROOF ASSEMBLY / REPLACEMENT MODIFIED BITUMEN ROOF ASSEMBLY**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
2	1	**Lump Sum (LS)**		

DESCRIPTION:	☒ Base Bid or ❑ Alt.# **REMOVAL / REPLACEMENT OF MODIFIED BITUMEN ROOF ASSEMBLY**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
3	1	**Lump Sum (LS)**		

DESCRIPTION:	☒ Base Bid or ❑ Alt.# **_ PATCH MODIFIED BITUMEN ROOF ASSEMBLY/ NEW COLD APPLIED LIQUID MEMBRANE COATING SYSTEM __**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
4	1	**Lump Sum (LS)**		

DESCRIPTION:	☒ Base Bid or ❑ Alt.# ___**REMOVAL / REPLACEMENT OF STANDING SEAM METAL ROOF ASSEMBLY**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
5	1	**Lump Sum (LS)**		

DESCRIPTION:	☒ Base Bid or ❑ Alt.# __ **REMOVAL OF ADDITIONAL DAMAGE ROOFTOP AND FUME HOOD EQUIPMENT _**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
6	1	**Lump Sum (LS)**		

DESCRIPTION:	☒ Base Bid or ❑ Alt.# ___ **COPPER GUTTER**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
7	253	Linear Foot (LF)		

DESCRIPTION:	☒ Base Bid or ❑ Alt.# **GYPSUM BOARD REPLACEMENT**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
8	274	**Square Foot (SF)**		

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

LOUISIANA UNIFORM PUBLIC WORK BID FORM
UNIT PRICE FORM

TO: Sewerage and Water Board of New Orleans
Purchasing Department, Room 133
625 St. Joseph St., New Orleans, LA 70165
(Owner to provide name and address of owner)

BID FOR: **Contract 8174**
Repairs to The Engineering Building
(*Owner to provide name of project and other identifying information)*

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

DESCRIPTION:	☒ Base Bid or ❑ Alt.# **ACOUSTICAL CEILING TILES**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
9	31	**Each (EA)**		

DESCRIPTION:	❑ Base Bid or ☒ Alt.# 1 **PRESSURE-TREATED 1X4 WOOD BATTENS**			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
10	30	**Each (EA)**		

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

1-2 ADDITIONAL REQUIREMENTS

All blank spaces in this Proposal section shall be filled. A bid price shall be indicated for each bid item. Bids received without all such items completed will be considered non-responsive. The bid shall contain an acknowledgement of receipt of all Addenda in space provided. The Louisiana Uniform Public Work Bid Form & Unit Price Form (if applicable) and the amount of Deposit or Bid Bond five percent (5%) of the total amount of the proposal is REQUIRED to be submitted in a sealed envelope on bid opening date. The two (2) lowest numerical bidders have three (3) days after the bid opening (exclusive of Saturdays, Sundays and Holidays) to submit any additional information such as (Voluntary Extension Sheet, Affidavit, Economically Disadvantage Business Summary Sheet if applicable) as well as requirements of Sections 1-3 through 1-6 below. Failure to do so will render the bid non-responsive.

1-3 BIDDER DECLARATION

____ do hereby declare that _____ the only person _____ interested in this proposal and that no other person than the one _____ herein named have any interest herein or in the contract proposed to be taken; that it is made without any connection with any other person or persons making proposal for the same work and that it is in all respects fair and without collusion or fraud; also that no member of the Sewerage and Water Board or of the City Council of the City of New Orleans or any officer or employee of the City of New Orleans or of the several boards thereof, who are by law excluded from participation herein, and directly or indirectly interested herein or in furnishing bond or in any portion of the profits hereof.

_____ do hereby also declare that _____ have LOUISIANA CONTRACTOR'S LICENSE in the field of _____ with NUMBER _____.

And _____ do further declare that _____ have carefully examined the annexed specifications and the drawings furnished, and personally inspected the ground and that _____ will contract to provide the necessary tools, machinery and apparatus and other means of construction, and to furnish all labor and material specified in this contract or called for by the plans, necessary to complete the work in the manner specified and within the time mentioned in the specifications and according to the requirements of the Engineer, as herein set forth.

1-4 In accordance with Louisiana Revised Statute 38:2227 the following affidavit shown on the next page must be submitted with the bid, or no later than 3 days after the bid opening (excluding Saturdays, Sundays, and Holidays). Failure to do so will render the bid non-responsive. **Please note, THE AFFIDAVIT MUST BE NOTARIZED.**

1-5 GUARANTEES

_____ guarantee that the whole of the work under this contract will be substantially completed within **[_____]** calendar days after the date of the "Commencement of Contract Times."

In case of delay in the completion of the contract beyond the contract time of completion as determined by the Board hereby agree to pay, as liquidated damages, the sum of **Two Thousand Dollars ($2,000.00)** for each calendar day of such delay, which liquidated damages shall become due by the mere elapsing of the delay without the necessity of putting _____ in default.

1-6 EMERGENCY PROCEDURES

Contractor must furnish telephone numbers for routine or emergency telephone calls.

NAME TITLE

_____

TELEPHONE NO.:
NORMAL CALLS _____

EMERGENCY _____

STATE OF LOUISIANA
PARISH OF ORLEANS

AFFIDAVIT

BEFORE ME, the undersigned authority, duly commissioned and qualified and sworn in and for the State and Parish aforesaid, personally came and appeared _____ who after being duly sworn, did depose and say as follows:

1) He/she is the _____ (title) of _____ (company);

2) He/she has not been convicted of, or has entered a plea of guilty or nolo contendere to any of the crimes, or equivalent federal crimes, listed in Louisiana Revised Statute 38:2227, specifically: public bribery, corrupt influencing, extortion, money laundering, theft, identity theft, theft of a business record, false accounting, issuing worthless checks, bank fraud, forgery, contractors misapplication of payments, malfeasance in office.

3) The contracting entity, person or corporation whose principal(s), member(s), and /or Officer(s) have, within the preceding 5 years, not been convicted or plead guilty to, a felony under state or federal statutes, for embezzlement, theft of public funds, bribery, falsification or destruction of public records; (City Code Section 2-8)

4) The following is a list of individual partners, incorporators, directors, managers, officers, organizers, or members who have a minimum ten percent interest ownership interest in the bidding entity:

_____(name) _____(name)

_____(name) _____(name)

_____(name) _____(name)

5) No other persons hold an ownership interest in the bidding entity via a counter letter.

6) None of the above named individual partners, incorporators, directors, managers, officers, organizers, or members, who has a minimum ten percent interest ownership in the bidding entity, been convicted of, or has entered a plea of guilty or nolo contendere to any of the crimes, or equivalent federal crimes, listed in Louisiana Revised Statute 38:2227, specifically: public bribery, corrupt influencing, extortion, money laundering, theft, identity theft, theft of a business record, false accounting, issuing worthless checks, bank fraud, forgery, contractors misapplication of payments, malfeasance in office.

7) He/she is not delinquent on any taxes owed the City of New Orleans or fees/charges to the Sewerage and Water Board. (City Code Section 2-8)

The following sections apply only to Public Works Contracts:

8) In accord with LA Revised Statute 38:2212.10 the entity represented herein is registered and participates in the "Status verification system" of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, 8 U.S.C. 1324(a), known as the "E-Verify" program to verify that all employees in the State of Louisiana are legal citizens of the United States or are legal aliens.

9) The entity represented herein shall continue, during the term of the contract, to utilize a status verification system to verify the legal status of all new employees in the state of Louisiana.

10) The entity represented herein shall require all subcontractors to submit to the contractor a sworn affidavit verifying compliance with the Status verification system.

WITNESSES:

_____ _____
AFFIANT

_____

SWORN TO AND SUBSCRIBED BEFORE ME ON THIS

_____ DAY OF _____, 20_____.

_____ _____
NOTARY PUBLIC **Notary Id. No. or Bar Roll No.**

_____
PLEASE PRINT NAME OF NOTARY

VOLUNTARY EXTENSIONS OF THE AWARD

If this bid is determined to be the lowest responsive and responsible bid, Bidder agrees to bid extension of the award date by up to two (2) thirty (30) day periods in accordance with the provisions of Louisiana Revised Statue. Title 38, Section 2215 (A).

AGREED:

_____

NAME OF BIDDER (TYPE OR PRINT)

_____

SIGNATURE OF BIDDER

_____

COMPANY NAME

*** * * END OF SECTION * * ***

BID BOND

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

BIDDER (Name and Address):

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

OWNER (Name and Address):

BID

Bid Due Date:
Project (Brief Description Including Location):

BOND

Bond Number:
Date (Not later than Bid due date):

Penal sum _____ _____
(Words) (Figures)

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

BIDDER	SURETY
_____(Seal)	_____(Seal)
Bidder's Name and Corporate Seal	Surety's Name and Corporate Seal
By: _____	By: _____
Signature and Title	Signature and Title (Attach Power of Attorney)
Attest: _____	Attest: _____
Signature and Title	Signature and Title

Note: Above addresses are to be used for giving required notice.

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Surety's liability.

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

3. This obligation shall be null and void if:

3.1. Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or

3.2. All Bids are rejected by Owner, or

3.3. Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).

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

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

6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after Bid due date.

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

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

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

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

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

END OF SECTION

AFFIDAVIT OF NONCOLLUSION

Each Bidder shall complete the following statement

STATE OF_____}
} ss
COUNTY OF_____}

Affiant is the agent authorized by the Bidder to submit the attached Bid. Affiant further states that the Bidder has not been a party to any collusion among Bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding; or with any State, Parish, or City official or employee as to quantity, quality, or price in the prospective Contract, or any other terms of said prospective contract; or in any discussions between Bidders and any State, Parish, or City official concerning exchange of money or other thing of value for special consideration in the letting of a contract.

Affiant further warrants that no person or selling agency has been employed or retained to solicit or secure such contract upon an agreement or understanding for a commission, percentage, brokerage or contingent fee, except bona fide employees or bona fide established commercial or selling agencies maintained by Contractor for purpose of securing business.

_____
Name of Contractor

_____
Bidder (Affiant)

Subscribed and sworn to before me this _____ day of _____ , 20 _____

My commission expires: _____

_____ Notary Public

END OF SECTION

ATTACHMENT
CONFLICT OF INTEREST DISCLOSURE AFFIDAVIT

STATE OF _____

PARISH/COUNTY OF _____

Before me, the undersigned authority, came and appeared_____who, being first duly sworn, deposed and said that:

He/She is the _____ and authorized representative of _____ _____, hereafter called "Proposer."

The Respondent hereby confirms that a conflict(s) of interest **exists /does not exist/may exist** (**circle one**) in connection with this solicitation which might impair Respondent's ability to perform if awarded the contract, including any familial or business relationships that the Respondent, the proposed subcontractors, and their principals have with the Board officials or employees. *(If a conflict(s) of interest exists and/or may exist, describe in a letter the nature of the conflict, the parties involved and why there is a conflict. Attach said letter to this form*).

_____
Respondent Representative (Signature)

_____
(Print or type name)

_____
(Address)

SWORN TO AND SUBSCRIBED BEFORE ME
THIS _____DAY OF _____ 20_____.

_____ _____
NOTARY PUBLIC (Signature) NOTARY PUBLIC (Print Name)

Notary ID#/Bar Roll #_____

ATTACHMENT
CONVICTED FELON AFFIDAVIT

STATE OF _____

PARISH OF _____

Before me, the undersigned authority, came and appeared_____,

who, being first duly sworn, deposed and said that:

1. He/She is the_____and authorized representative of

_____, hereafter called "Contractor."

2. The Contractor complies with City Code Section 2-8 (c) for the City of New Orleans.

3. No Contractor principal, member, or officer has, within the preceding five years, been convicted of, or pled guilty to, a felony under state or federal statutes for embezzlement, theft of public funds, bribery, or falsification or destruction of public records.

_____
Contractor Representative (Signature)

_____
(Print or type name)

_____
(Address)

Sworn to and subscribed before me, in (CITY/STATE) _____

this ___day of (MONTH) _____, 20 ___.

_____
Notary Public

_____
Notary Identification No./Bar Roll No.

ATTACHMENT
NON-SOLICITATION AFFIDAVIT

STATE OF _____

PARISH OF _____

Before me, the undersigned authority, came and appeared_____,

who, being first duly sworn, deposed and said that:

1. He/She is the _____ and authorized representative of _____hereafter called "Contractor."
2. The Contractor has not employed or retained any company or person, other than a bona fide employee working solely for him, to solicit or secure the subject contract. The Contractor has not paid or agreed to pay any person, other than a bona fide employee working for him, any fee, commission, percentage, gift, or any other consideration contingent upon or resulting from the subject contract.

_____
Contractor Representative (Signature)

_____
(Print or type name)

_____
(Address)

Sworn to and subscribed before me, in _____, Louisiana,

this ___day of _____, 20_____.

_____
Notary Public

_____
Notary Identification No./Bar Roll No.

Disadvantaged Business Enterprise Program Policy for Construction Projects

The Sewerage and Water Board of New Orleans has authorized the Economically Disadvantaged Business Program (EDBP) and Construction Review Committee (CRC) to establish a (7 %) DBE goal for this project. Bidders are required to utilize the race and gender-neutral SLDBE and/or LA-UCP directory of certified Disadvantaged Business Enterprise vendors. The awarded bidder must illustrate a plan to meet the established goal by listing certified DBEs that they have engaged to participate as subcontractors.

1. Policy:

It is the policy of the Board that DBE firms, as defined in the Board's Disadvantaged Business Enterprise Plan, shall have the maximum allowable opportunity to compete for the award of the participation in the performance of the Board's publicly bid contracts. Consequently, the CRC and the Board have set the DBE participation goal applicable to this construction project. The Board and its contractors shall not discriminate based on race, color, national origin, or sex in the award and performance of the Board's publicly bid projects.

2. DBE Obligation:

The Board and its contractors agree to ensure that DBE's, as defined in the Board's Disadvantaged Business Enterprises Plan, shall have the maximum allowable opportunity to compete for the award of the participation in the performance of contracts and subcontracts provided under this agreement. In this regard, contractors shall take all necessary and reasonable steps in accordance with this DBE Plan to ensure that DBE's have the maximum allowable opportunity to compete for such contracts. The Board and its contractors shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of the Board's publicly bid contracts.

3. Utilization of DBE Vendor Listings:

All bidders are required to utilize the most recent Sewerage and Water Board State-Local Disadvantaged Business Enterprise Program Approved Vendor Listings for Construction, Goods & Services/Professional Services, in their selection of DBE entities to meet DBE participation goals. The LA-UCP Certified Listing is considered an acceptable alternative. Bidders are required to utilize DBEs as subcontractors or suppliers only in the areas for which they are certified, and performing commercial useful functions which are consistent with the work required on this contract. A description of the areas of work that DBE's can provide is contained in these vendor listings. In addition, an alphabetical list

of vendors/contractors is provided indicating the name of the company, address, name of owner, telephone number, fax number, the date the company became certified, and a description of the work that these entities are certified to perform. Companies that are already certified as a DBE cannot fulfill the DBE requirements by listing themselves as the subcontractor to meet the DBE goal. The prime contractor shall select another DBE from the Sewerage and Water Board's Approved Vendor Listing.

4. Contacting DBE's and Obtaining a Firm Price

All prime contractors are required to contact DBEs and obtain a firm price before listing the DBEs on the Participation Summary Sheet. As confirmation of established contact, bidder will submit the Acknowledgement of Negotiated Terms Between Prime Contractor and DBE Subcontractor Form that reaffirms agreement of scope of work and monetary compensation. These forms, included in this bid specification, are to be submitted no later than stipulated in bid/proposal specifications to submit other additional information.

5. Setting Minimum Participation Goals:

The stated minimum percentage DBE participation goal established by CRC and approved by the Board applies to the work of this contract. The two lowest numerical bidders must complete and submit a DBE Participation Summary Sheet, and other required documents, as stipulated in bid specifications, no later than three (3) days after the bid opening (excluding Saturdays, Sundays and holidays). The DBE Participation Summary Sheet should be completed properly, showing that at least the percentage goal of the total contract bid price will be subcontracted or otherwise awarded through procurement action to DBE's. The Board's DBE Officer may, if deemed advisable, request further information, explanation or justification from any bidder. Should the bidder fail to comply with these requirements, the bid shall be considered non-responsive, unless:

a. An affidavit is furnished by the bidder with its bid showing that the DBE goals cannot be met for the following reasons:

(1) No DBE firms made offers. Here, it must be shown, documented and demonstrated that good faith efforts (as defined in Part III, D, 2. of the Board's DBE plan) were made by the bidder to obtain the participation of DBE firms and that they did not respond, or

(2) The DBE offers made and accepted for subcontract and/or material supplies do not total the stated goal for participation, but total a lesser percentage, and

(3) The bidder was unable to obtain DBE further participation, despite his or her demonstrated good faith efforts (as defined in Part III, D, 2 of the Board's DBE Plan) to obtain additional participation by DBE firms.

b. Each of the assertions made by the bidder must be supported by documentary evidence.

6. Determination of Efforts to Meet Goals:

Initial determination of bidder efforts to meet the DBE participation goal shall be based on the DBE participation representations submitted by the two lowest numerical bidders no later than three (3) days after the bid opening (excluding Saturdays, Sundays and holidays). Bidders shall submit all the forms required herein no later than three (3) days after the bid opening (excluding Saturdays, Sundays and holidays), and the DBE Office will examine the contents thereof. The Board's DBE Officer may, if deemed advisable, request further information, explanation or justification from any bidder. Bidders shall submit all documents as instructed above, unless stated otherwise within Bid Specification.

7. Good Faith Efforts:

The Board expects bidders to meet the established DBE participation goal or demonstrate a good faith effort to meet the goal. If proposers are unable to meet the goal, Documentation of Good Faith Effort must be submitted along with all required bid documents. The policy and required forms can be found on the SWBNO website at Disadvantaged Businesses - Sewerage & Water Board of New Orleans .

8. Failure to Comply with DBE Bid Specifications:

All bidders for this Board contract are hereby notified that failure to comply with the above DBE specifications may constitute the bid as being non-responsive, and sufficient cause for rejection.

9. Other Clauses Unaffected:

Nothing contained herein shall invalidate, change, annul, release, restrict, or affect the liability on the bonds or insurance given by the contractor, or the time required for completion of the contract.

10. Contract Monitoring:

The Board's DBE Office will monitor contractor during the operation of the contract to ensure that the contractor meets all of its DBE obligations as specified in the contract bid. The Board's DBE office shall establish rules and regulations, to be approved by the Board, for the ongoing monitoring of contractor compliance.

Disadvantaged Business Enterprise Program Office personnel or their designated representative shall be allowed to conduct periodic monitoring of contractors' compliance with the agreed to Disadvantaged Business Enterprise Program participation requirements. Contractors shall be required to complete and return to the Disadvantaged Business Enterprise Program Office in the time required all requests for information and data relative to the contractors' activities in meeting the required Disadvantaged Business Enterprise participation goal.

Additionally, Disadvantaged Business Enterprise Office personnel or their designated representative shall have access to contractor and subcontractor(s) records pertaining to, but not specifically limited to labor, costs and materials supplied and used on the Board contract, as well as inspection and photocopying of any and all contracts, agreements and correspondence relative to the Disadvantaged Business Enterprise contract participation requirements. Such inspection will be performed during normal business hours and will be conducted in such a fashion so as to minimize interference with production of the contract. Visits may be made to job sites, as well as to administrative offices of the contractor and subcontractor(s) participants. Such inspection and on-site visits may be scheduled with or without prior notice to the contractor or Disadvantaged Business Enterprise subcontractor participant. Contractors' failure to comply with these monitoring requirements may result in termination of the contract or such other remedy as deemed appropriate by Board.

11. Maintaining Records:

Subsequent to the completion of a contract, contractors are required to maintain for three (3) years such records as are necessary to determine compliance with their DBE obligations. During construction, or performance of the DBE obligations, contractors shall submit reports as requested to enable the DBE Office to monitor this compliance.

12. Umbrella Bonding:

On contracts where subcontracting exists and where practicable (i.e., when a substantial risk or financial hardship would not be incurred by the prime contractor), the contractor may use an umbrella bond to encompass the DBE firm.

13. Board Action to Seek Compliance:

The contractor consents to such appropriate actions taken to ensure that prime contractors and subcontractors comply with the DBE provisions, to include but not limited to:

a. desk audits to review all material, and information concerning the contractor's compliance;

b. on-site reviews that may include interviews, visits to project locations, and inspection of documents and/or information not available at the desk audit that pertains to the contractor's compliance;

c. any additional investigation that may be called for by a lack of proper record keeping, failure of the prime contractor to cooperate; failure of DBEs to cooperate; visible evidence unsatisfactory performance; other evidence as may warrant further investigation.

14. Non-Compliance Finding:

The Board staff will make compliance determinations regarding its prime contractors. Documentation of noncompliance will include the specific areas in which the contractors failed to comply. In these instances, appropriate legal action consistent with the DBE and other contract provisions will be taken.

15. Contractor's Duties

Record Keeping
Successful bidders shall establish and maintain records and submit regular reports to the DBE office as required, which will identify and assess progress in achieving DBE subcontract goals and other DBE participation efforts.

Failure To Comply With EDBP Participation Requirements

Failure to comply with any of the EDBP requirements of this contract shall constitute a violation of the terms and conditions of this contract and a cause for the termination of the contract at the option of the Board.

Such violations shall include, but not limited to:

- Failing to meet the percentage participation requirements as set out in the contract documents.

- Failing to use certified EDBP contractors/vendors in performing the scope of work as identified in the contract documents (EDBP participation summary sheet).

- Failing to comply with the "monitoring of EDBP requirements" included herein as part of the contract, such as contractors:

- Failure to submit monitoring reports and any other necessary reports timely and adequately as required by the EDBP Office.

- Failure to grant access to contractor/subcontractor records by EDBP Office personnel, and

- Failure to allow on-site investigations and visits, etc.

- Failing to report the removal or termination of a certified EDBP vendor /subcontractor.

- Failing to secure authorization for replacement of certified EDBP subcontractors from the Director of the Economically Disadvantaged Business Program.

In Lieu of termination the Board, through the EDBP Office, may impose the following penalties:

- Withhold from the contractor in violation up to 10% of all future payments due to the contractor, until such time as the violations have been corrected.

- Withhold from the contractor in violation, all future payments until such time as the violations have been corrected.

Subcontract Clause
All bidders and potential contractors must assure the Board that they will include the above clauses in all agreements, which offer further subcontracting opportunities.

Contract Award
Bidders are hereby advised that meeting DBE subcontract goals or making a demonstrated good faith effort to meet such goals are conditions of being awarded and maintaining construction, procurement, or professional services contracts by the Board.

Restrictions on DBE Subcontracting
No **DBE** subcontractor or vendor selected to perform work as a **DBE** on a Sewerage and Water Board contract will be allowed to subcontract any portion of its work to a non-Board

certified **DBE**, unless the work to be performed is necessary for the execution of the contract and there are no Board certified **DBE's** available to perform such work.

This process will require that each **DBE** participant performing work on a Sewerage and Water Board funded contract submit a request to subcontract out any portion of work deemed necessary for execution of the contract to the Board's **EDBP** office. On a form provided by the **EDBP** office, the **DBE** contractor or vendor will indicate the dollar amount of work to be subcontracted, the specific scope or nature of the work, the percentage of the total amount of work to be performed by the **DBE** subcontractor and vendor, and the entity to whom the work will be subcontracted.

Both prime and **DBE** subcontractors are advised that the failure to comply with these requirements may result in the loss of **DBE** certification and non-compliance by the prime contractor in meeting **DBE** contractual obligations.

Changes In DBE Participation

The Prime Contractor will not be allowed to make changes in DBE participation without submittal of a written request explaining reason, a revised Participation Summary Sheet and approval by the Director of the Economically Disadvantaged Business Program. Failure to comply with these requirements may result in non-compliance by the Prime Contractor in meeting DBE contractual obligations.

16. Failure to Carry Out DBE Policy:

All bidders, contractors, or subcontractors for this Board contract are hereby notified that failure to comply with the DBE policy and DBE obligations, set forth above, shall constitute a breach of contract which may result in termination of the contract or such other remedy as deemed appropriate by the Board, to include excluding bidder from bidding on future Board contracts.

DBE LANGUAGE FOR PUBLIC WORKS BIDS

The Sewerage and Water Board of New Orleans established the Economically Disadvantaged Business Program to offer Disadvantaged Business Enterprises (DBEs) the maximum allowable opportunity to compete for the award of and participation in Board contracts and subcontracts.

All solicitations for bids for contracts where DBE percentage goals have been established and recommended by the Contract Review Committee (CRC) and approved by the Board, shall inform all Bidders of the DBE requirements that must be submitted to the Board as part of the bid. The award of the contract will depend on the DBE requirements set below.

DBE Contract Percentage Goal _____

See Attachment Section for DBE Forms
Each Bidder must submit the following forms in completion:

1. EDBP Participation Summary Sheet Form
    - Name, address and phone number of each DBE Firm
    - Scope of Work
    - Dollar Value for each DBE
    - Signature of Prime on Form

2. EDBP Acknowledgement of Negotiated Terms Form
    - Name, address and phone number of DBE Firm
    - Scope of Work
    - Dollar Value
    - Signatures of Prime and DBE subcontractor on Form

An Acknowledgement Form must be completed for each DBE Firm.

The Board expects Bidders to ensure every effort has been made to meet the DBE goals by utilizing the current listings of approved SLDBE and LaUCP vendors. The current listing of approved DBE vendors, DBE compliance, and instructions regarding submission of "good faith effort" are available at the Board's website at https://www.swbno.org/Business/DisadvantagedBusinesses.

Failure to complete and submit the DBE forms according to the above instructions will render your bid non-responsive.

ECONOMICALLY DISADVANTAGED BUSINESS PARTICIPATION SUMMARY SHEET

Minimum Percentage Goal Participation for this Contract is _7%

Contract Name and # __Repairs to The Engineering Building, Contract 8174_____

Name and Address of Disadvantaged Business Enterprise Company	Name of Contact Person	Scope of Work to be Performed	Dollar Amount of work to be performed	Percentage of Dollar Amount to Total Bid Price

THIS FORM MUST BE COMPLETED AND SUBMITTED WITHIN TIMEFRAME STIPULATED IN BID SPECIFICATIONS. FAILURE TO DO SO WILL RENDER THE BID NON-RESPONSIVE.

NOTE: Signature required even if judged **NOT APPLICABLE** by the **BIDDER**

Prime Representative Name: _____ **Prime Signature:** _____

Print Name **Signature**

Prime Company's Name: _____ **Date:** _____

Prime Address: _____ **E-mail:** _____

_____ **Telephone Number:** _____

Revised December 9, 2024

Acknowledgement of Agreement

Between Prime Contractor and DBE Subcontractor

Solicitation: _____

This form acknowledges that the

Prime _____

and

DBE Subcontractor _____ Certification: _____ SLDBE or _____ LAUCP

have agreed to the following terms of service:

Scope of Work:

Please note: Scope of work should describe the agreed upon terms between the Prime and DBE.

DBE Percentage of Total Contract: _____

Dollar Amount of DBE Work: $_____

By signing this acknowledgement, the Prime Contractor and DBE Subcontractor affirm that it will perform the Scope of Work for the estimated total dollar value stated. Both parties hereby certify that the information contained herein is true and correct.

FAILURE TO SUBMIT THIS FORM COMPLETED WITH SIGNATURES WILL RENDER BID/PROPOSAL NON-RESPONSIVE.

PRIME CONTRACTOR:

Printed Name: _____

Signature: _____

Date: _____

DBE SUBCONTRACTOR:

Printed Name: _____

Signature: _____

Date: _____

AGREEMENT

THIS AGREEMENT is by and between the Sewerage and Water Board of New Orleans

(Owner) and

(Contractor).

Owner and Contractor, in consideration of the mutual covenants set forth herein, agree as follows:

1. WORK

1.1. Contractor shall complete the Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

1.1.1. **The Project contemplated consists of repairs to the CWP Engineering Building. These repairs consist of removal and replacement of all existing standing seam metal roof panels with new construction, including all gutters, trim flashing and accessories at roof and wall junctions over building annex. Remove and replace the modified bitumen roofing assembly and repair skylight. Remove and replace all flat roofing with new modified bitumen roofing construction, including all gutters, trim flashing and accessories at room and wall junctions over engineering building. Interior work includes removing and replacing gypsum, ceiling tiles, window seals and painting.**

2. THE PROJECT

2.1. The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows: Repairs to The Engineering Building

3. ENGINEER

3.1. The Project has been designed by **Meyer Engineers, LTD.** (Designer), who is to act as the Engineer-of-Record under the oversight and administration of the Owner's Representative.

4. CONTRACT TIMES

4.1. Time of the Essence: Time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.2. **[A: Days to Achieve Substantial Completion and Final Payment:**

4.2.1. **The Work shall be substantially completed within [180] calendar days from the date when the Contract Times commence to run as provided in Paragraph 2.03 of the General Conditions.**

4.3. Liquidated Damages:

4.3.1. Should the Contractor fail to commence or start the work within the time allotted or fail to complete individual phases of the work within the times allotted for said individual phases, the Contractor shall pay to the Board the sum of $2,000 liquidated damages for each calendar day beyond the times specified. If unforeseen circumstances are encountered at the work site, the Contractor may request in writing an extension in days for the completion of work. If granted, the extension of time must be approved in writing by the Engineer and submitted with the invoice.

4.4. Night, Weekend, or Holiday Work

4.4.1. Night, weekend or holiday work which requires the presence of an engineer or inspector will not be permitted except in cases of emergency or by permission of the Engineer. Except in cases of emergency, all requests for night, weekend or holiday work shall be submitted in writing at least seven calendar days prior to the work being performed. Any approved night, weekend or holiday work requires prior written authorization from the Engineer

5. CONTRACT PRICE

5.1. Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to the prices stated in Contractor's Bid attached hereto as an exhibit.

6. PAYMENT PROCEDURES

6.1. Submittal and Processing of Payments: Contractor shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.2. Progress Payments and Retainage: Owner will make progress payments on account of the Contract Price on the basis of Contractor's Application for Payment on the date of each month as established in the preconstruction conference during performance of the Work as provided herein. All such payments will be measured by the Schedule of Values established as provided in Paragraph 2.07 of the General

Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided in the General Requirements.

6.2.1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Engineer may determine or Owner may withhold, including but not limited to liquidated damages, in accordance with Paragraph 14.02 of the General Conditions:

6.2.1.1. Ninety-five percent of Work completed for contracts in the amount of $500,000.00 or greater (with the balance being retainage). Ninety percent of Work completed for contracts in an amount less than $500,000.00 (with the balance being retainage).

6.2.2. In accordance with Louisiana Statute 38:2249, Contractor may withdraw up to the entire retained amount if they deposit an equal amount in a Certificate of Deposit issued by a commercial bank or savings and loan located in Louisiana.

6.2.3. In accordance with Louisiana Statute 38:2248.A, retainage will be released within 45 days of Final Acceptance by the SWBNO Board of Directors.

6.2.4. Upon Substantial Completion, Owner will pay an amount sufficient to increase total payments to Contractor to 100 percent of the Work completed, less such amounts as Engineer will determine in accordance with Paragraph 14.02.B.5 of the General Conditions and less 200 percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the tentative list of items to be completed or corrected attached to the certificate of Substantial Completion.

6.3. Final Payment:

6.3.1. Upon final completion and acceptance of the Work in accordance with Paragraph 14.07 of the General Conditions, Owner will pay the remainder of the Contract Price as recommended by Engineer as provided in Paragraph 14.07.

7. CONTRACTOR'S REPRESENTATIONS

7.1. Contractor makes the following representations:

7.1.1. Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.

7.1.2. Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

7.1.3. Contractor is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.

7.1.4. Contractor has carefully studied: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) if any, which have been identified in Paragraph 4.02 of the Supplementary Conditions as containing reliable "technical data", and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the Site which have been identified in Paragraph 4.06 of the Supplementary Conditions as containing reliable "technical data."

7.1.5. Contractor has considered the information known to Contractor; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on 1) the cost, progress, and performance of the Work; 2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Contract Documents; and 3) Contractor's safety precautions and programs.

7.1.6. Based on the information and observations referred to above, Contractor does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.

7.1.7. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.

7.1.8. Contractor has given Engineer written notice of conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

7.1.9. The Contract Documents are generally sufficient to indicate and convey understanding of terms and conditions for performance and furnishing of the Work.

8. CONTRACT DOCUMENTS

8.1. Contents:

8.1.1. The Contract Documents that are attached to this Agreement (except as expressly noted otherwise) consist of the following:

8.1.1.1. This Agreement.

8.1.1.2. Performance bond .

8.1.1.3. General Conditions

8.1.1.4. Supplementary Conditions

8.1.1.5. Specifications as listed in the table of contents

8.1.1.6. Drawings consisting of **[17]** sheets with each sheet bearing the following general title: **"Repairs to The Engineering Building".**

8.1.1.7. Addenda

8.1.2. Exhibits to this Agreement (enumerated as follows):

8.1.2.1. Contractor's Bid.

8.1.3. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:

8.1.3.1. Notice to Proceed.

8.1.3.2. Work Change Directives.

8.1.3.3. Change Order(s).

8.2. There are no Contract Documents other than those listed above in this Article.

8.3. The Contract Documents may only be amended, modified, or supplemented as provided in Paragraph 3.04 of the General Conditions.

9. MISCELLANEOUS

9.1. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

9.2. Successors and Assigns: Owner and Contractor each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners,

successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

9.3. Severability: Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

9.4. Assignment of Contract:

9.4.1. No assignment by a party hereto of any rights under or interests in the Contract shall be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, monies that may become due and monies that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment shall release or discharge the assignor from any duty or responsibility under the Contract Documents.

9.5. Contractor's Certifications:

9.5.1. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this paragraph:

9.5.1.1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process or in Contract execution;

9.5.1.2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract Price at artificial noncompetitive levels, or (c) to deprive Owner of the benefits of free and open competition;

9.5.1.3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, noncompetitive levels; and

9.5.1.4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement in triplicate. One counterpart each has been delivered to Owner, Contractor, and Engineer. All portions of the Contract Documents have been signed or identified by Owner and Contractor or on their behalf.

This Agreement will be effective on _____, 20__ (which is the Effective Date of the Agreement).

OWNER: _____

_____

By: _____

Title: _____

[CORPORATE SEAL]

Attest: _____

Title: _____

Address for giving notices:

_____

_____

(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)

CONTRACTOR: _____

_____

By: _____

Title: _____

[CORPORATE SEAL]

Attest: _____

Title: _____

Address for giving notices:

_____

_____

License No. _____
(Where applicable)

Agent for service or process: _____

_____

(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

END OF SECTION

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement in triplicate. One counterpart each has been delivered to Owner, Contractor, and Engineer. All portions of the Contract Documents have been signed or identified by Owner and Contractor or on their behalf.

This Agreement will be effective on _____, 20__ (which is the Effective Date of the Agreement).

OWNER: _____

_____

By: _____

Title: _____

[CORPORATE SEAL]

Attest: _____

Title: _____

Address for giving notices:

_____

_____

(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)

CONTRACTOR: _____

_____

By: _____

Title: _____

[CORPORATE SEAL]

Attest: _____

Title: _____

Address for giving notices:

_____

_____

License No. _____
(Where applicable)

Agent for service or process: _____

_____

(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

END OF SECTION

PAYMENT AND PERFORMANCE BOND

Bond No.:

KNOW ALL PERSONS BY THESE PRESENTS, That we,_____, as principal, (hereinafter called the "Principal"), and _____, as surety, (hereinafter called the "Surety"), are held and firmly bound unto _____ , as Obligee, in the sum of_____Dollars ($) for the payment whereof said Principal and Surety bind themselves, jointly and severally, as provided herein.

WHEREAS, the Principal has entered into a Contract with Obligee dated _____, to perform construction work for _____("Contract").

NOW, THEREFORE, the condition of this obligation is such that if Principal shall promptly and faithfully perform the Construction Work to be performed under the Contract, and shall promptly make payment to Claimants, as hereinafter defined, for all labor and material actually used, consumed or incorporated in the performance of the Construction Work under the Contract, then this obligation shall be null and void; otherwise to remain in full force and effect.

Surety's obligations hereunder to Obligee shall not arise unless Principal is in default under the Contract for failing to perform the Construction Work and has been declared by Obligee to be in default under the Contract for failing to perform the Construction Work; and Obligee has performed its obligations under the Contract. In such event, Surety shall have a reasonable period of time to:

1. Upon entering into an acceptable written takeover agreement with Obligee, undertake to perform and complete the Construction Work to be done under the Contract; or

2. Obtain bids or negotiated proposals from qualified contractors for a contract for completion of the Construction Work to be done under the Contract, arrange for a contract to be prepared for execution by Obligee and contractor, to be secured with performance and payment bonds executed by a qualified surety; or

3. Waive its right to perform or complete the Construction Work pursuant to paragraphs 1 and 2 above, and with reasonable promptness under the circumstances: (a) After investigation, determine the amount for which it may be liable to the Obligee and, as soon as practicable after the amount is determined, tender payment therefor to the Obligee; or (b) Deny liability in whole or in part and notify the Obligee citing reasons therefor.

4. The Contract balance, as defined below, shall be credited against the reasonable construction cost of completing the Construction Work to be performed under the Contract. If completed by Obligee pursuant to paragraphs 2 or 3 above, and the reasonable construction cost of completing the Construction Work exceeds the Contract balance, Surety shall pay to Obligee such excess, but in no event shall the aggregate liability of Surety exceed the amount of this bond. If Surety completes the work pursuant to paragraph 1 above, that portion of the Contract balance as may be required to complete the Construction Work to be done under the Contract and to reimburse Surety for its outlays shall be paid to Surety at the times and in the manner as said sums would have been payable to Principal had there been no default under the Contract. To the extent that Surety's outlays exceed the Contract

balance paid to Surety by Obligee, Surety shall be entitled to a dollar for dollar reduction of its liability under this bond, and Surety's aggregate liability shall not exceed the penal sum of this bond. The term "Contract balance" as used herein shall mean the total amount payable by Obligee under the Contract and any amendments thereto, less the amounts properly paid by Obligee to Principal under the Contract. The term "Construction Work" as used herein shall mean the providing of all labor and/or material necessary to complete Principal's scope of work under the Contract. Notwithstanding any language in the Contract to the contrary, the Contract balance shall not be reduced or set off on account of any obligation, contractual or otherwise, except the reasonable construction cost incurred in completing the Construction Work.

5. Any suit by Obligee under this bond must be instituted before the earlier of: (a) the expiration of one year from the date of substantial completion of the Construction Work, or (b) one year after Principal ceased performing the Construction Work, excluding warranty work. If the public works bond statutes in the location where the Construction Work is being performed contains a statute of limitations for suits on the performance bond, then the limitation period set forth herein shall be read out of this bond and the statute of limitation set forth in the public works bond statutes shall be read into this bond. If the limitation set forth in this bond is void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable, and said period of limitation shall be deemed to have accrued and shall commence to run no later than (y) the date of substantial completion of the Construction Work, or (z) the date Principal ceased performing Construction Work, excluding warranty work, whichever occurs first.

6. A Claimant is defined as one other than Obligee having a contract with Principal or with a direct subcontractor of Principal to supply labor and/or materials and said labor and/or material is actually used, consumed or incorporated in the performance of the Construction Work under the Contract.

7. Principal and Surety hereby jointly and severally agree with Obligee that every Claimant as herein defined who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such Claimant's work or labor was done or performed or materials were furnished by such Claimant, may bring suit on this bond, prosecute the suit to final judgment for the amount due under Claimant's contract for the labor and/or material supplied by Claimant which was actually used, consumed or incorporated in the performance of the Construction Work, and have execution thereon; provided, however, that a Claimant having a direct contractual relationship with a subcontractor of Principal shall have a right of action on this bond only if said Claimant notifies Surety in writing of its claim within ninety (90) days from the date on which said Claimant did or supplied the last labor and/or materials for which the claim is made. Obligee shall not be liable for the payment of any costs or expenses of any such suit.

8. No suit or action shall be commenced hereunder by any Claimant after the expiration of the earlier of: (a) one year after the day on which Claimant last supplied the labor and/or materials for which the claim is made; or (b) the limitation period set forth in the public works bond statutes, if any, in the location where the construction work is being performed. Any limitation contained in this bond which is prohibited by any law controlling in the state where the suit is filed shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by the law of that state, and said period of limitation shall be deemed to have accrued and shall commence to run on the day Claimant last supplied the labor and/or materials for which the claim is made.

9. No suit or action shall be commenced hereunder by Obligee or any Claimant other than in a state court of competent jurisdiction in the county or other political subdivision of the state in which the project,

or any part thereof, is situated, or in the United States District Court for the district in which the project, or any part thereof, is situated, and not elsewhere.

10. The amount of this bond shall be reduced by and to the extent of any payment or payments made by Surety in good faith hereunder whether made directly to Obligee or Claimant(s) or otherwise in discharge of Principal's obligations. Surety's liability hereunder to Obligee and all Claimants is limited, singly, or in the aggregate, to the penal sum of the bond set forth herein. Surety may, at its option, discharge all obligations under this bond by interpleading into the registry of any court of competent jurisdiction of the full unused penal sum of this bond, or such portion thereof that will satisfy the obligations owed to Obligee and/or Claimant(s). No right of action shall accrue on this bond to any person or entity other than Obligee and/or Claimant(s). The bond shall not afford coverage for any liability of Principal for tortious acts, whether or not said liability is direct or is imposed by the Contract and shall not serve as or be a substitute for or supplemental to any liability or other insurance required by the Contract.

11. This bond is provided to comply with all statutory (including but not limited to La. R.S. 38:2216 and La. R.S. 38:2219) or other legal requirement for performing construction contracts for public owners in the location where the construction work is being performed. Except as provided in paragraphs 5 and 8 above, all provisions in the bond which are in addition to or differ from those statutory or legal requirements shall be read out of this bond, and all pertinent statutes and other legal requirements shall be read into the bond. This bond is a statutory bond, not a common law bond.

Signed this _____ day of _____, 20___.

(Principal)

By: _____

(Surety)

By: _____
, Attorney-in-Fact

PAYMENT BOND

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

CONTRACTOR (*Name and Address*):

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

OWNER (*Name and Address*):

CONTRACT

Effective Date of Agreement:
Amount:
Description *(Name and Location)*:

BOND

Bond Number:
Date (*Not earlier than Effective Date of Agreement*):
Amount:
Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

Company:

Signature: _____(Seal)
Name and Title

SURETY

_____(Seal
Surety's Name and Corporate Seal

By: _____
Signature and Title

(Attach Power of Attorney)

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

Attest: _____
Signature and Title

CONTRACTOR AS PRINCIPAL

Company:

Signature: _____(Seal)
Name and Title

SURETY

_____(Seal
Surety's Name and Corporate Seal

By: _____
Signature and Title

(Attach Power of Attorney)

Attest: _____
Signature and Title

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner to pay for labor, materials, and equipment furnished by Claimants for use in the performance of the Contract, which is incorporated herein by reference.

2. With respect to Owner, this obligation shall be null and void if Contractor:

2.1. Promptly makes payment, directly or indirectly, for all sums due Claimants, and

2.2. Defends, indemnifies, and holds harmless Owner from all claims, demands, liens, or suits alleging non-payment by Contractor by any person or entity who furnished labor, materials, or equipment for use in the performance of the Contract, provided Owner has promptly notified Contractor and Surety (at the addresses described in Paragraph 12) of any claims, demands, liens, or suits and tendered defense of such claims, demands, liens, or suits to Contractor and Surety, and provided there is no Owner Default.

3. With respect to Claimants, this obligation shall be null and void if Contractor promptly makes payment, directly or indirectly, for all sums due.

4. Surety shall have no obligation to Claimants under this Bond until:

4.1. Claimants who are employed by or have a direct contract with Contractor have given notice to Surety (at the addresses described in Paragraph 12) and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.

4.2. Claimants who do not have a direct contract with Contractor:

1. Have furnished written notice to Contractor and sent a copy, or notice thereof, to Owner, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials or equipment were furnished or supplied, or for whom the labor was done or performed; and

2. Have either received a rejection in whole or in part from Contractor, or not received within 30 days of furnishing the above notice any communication from Contractor by which Contractor had indicated the claim will be paid directly or indirectly; and

3. Not having been paid within the above 30 days, have sent a written notice to Surety and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to Contractor.

5. If a notice by a Claimant required by Paragraph 4 is provided by Owner to Contractor or to Surety, that is sufficient compliance.

6. Reserved.

7. Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by Surety.

8. Amounts owed by Owner to Contractor under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any performance bond. By Contractor furnishing and Owner accepting this Bond, they agree that all funds earned by Contractor in the performance of the Contract are dedicated to satisfy obligations of Contractor and Surety under this Bond, subject to Owner's priority to use the funds for the completion of the Work.

9. Surety shall not be liable to Owner, Claimants, or others for obligations of Contractor that are unrelated to the Contract. Owner shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.

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

11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the Work or part of the Work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by Paragraph 4.1 or Paragraph 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, Owner, or Contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.

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

14. Upon request of any person or entity appearing to be a potential beneficiary of this Bond, Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.

15. Definitions:

15.1. Claimant: An individual or entity having a direct contract with Contractor, or with a first-tier subcontractor of Contractor, to furnish labor, materials, or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of Contractor and Contractor's Subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

15.2. Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.

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

FOR INFORMATION ONLY – Name, Address and Telephone Surety Agency or Broker: Owner's Representative (engineer or other party):

END OF SECTION

GENERAL CONDITIONS

TABLE OF CONTENTS

Page

ARTICLE 1 – DEFINITIONS AND TERMINOLOGY 1
1.01 *Defined Terms* *1*
1.02 *Terminology* *3*

ARTICLE 2 – PRELIMINARY MATTERS 4
2.01 *Delivery of Bonds and Evidence of Insurance* *4*
2.02 *Copies of Documents* *4*
2.03 *Commencement of Contract Times; Notice to Proceed* *4*
2.04 *Starting the Work* *4*
2.05 *Before Starting Construction* *4*
2.06 *Preconstruction Conference; Designation of Authorized Representatives* *5*
2.07 *Initial Acceptance of Schedules* *5*

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE 5
3.01 *Intent* *5*
3.02 *Reference Standards* *5*
3.03 *Reporting and Resolving Discrepancies* *6*
3.04 *Amending and Supplementing Contract Documents* *6*
3.05 *Reuse of Documents* *6*
3.06 *Electronic Data* *7*

ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS 7
4.01 *Availability of Lands* *7*
4.02 *Subsurface and Physical Conditions* *7*
4.03 *Differing Subsurface or Physical Conditions* *7*
4.04 *Underground Facilities* *8*
4.05 *Reference Points* *9*
4.06 *Hazardous Environmental Condition at Site* *9*

ARTICLE 5 – BONDS AND INSURANCE 10
5.01 *Performance, Payment, and Other Bonds* *10*
5.02 *Licensed Sureties and Insurers* *11*
5.03 *Certificates of Insurance* *11*
5.04 *Contractor's Insurance* *11*
5.05 *Owner's Liability Insurance* *12*
5.06 *Property Insurance* *12*
5.07 *Waiver of Rights* *13*
5.08 *Receipt and Application of Insurance Proceeds* *13*
5.09 *Acceptance of Bonds and Insurance; Option to Replace* *14*
5.10 *Partial Utilization, Acknowledgment of Property Insurer* *14*

ARTICLE 6 – CONTRACTOR'S RESPONSIBILITIES 14
6.01 *Supervision and Superintendence* *14*
6.02 *Labor; Working Hours* *14*
6.03 *Services, Materials, and Equipment* *14*
6.04 *Progress Schedule* *15*
6.05 *Substitutes and "Or-Equals"* *15*

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6.06 *Concerning Subcontractors, Suppliers, and Others* 17
6.07 *Patent Fees and Royalties* 17
6.08 *Permits* 18
6.09 *Laws and Regulations* 18
6.10 *Taxes* 18
6.11 *Use of Site and Other Areas* 18
6.12 *Record Documents* 19
6.13 *Safety and Protection* 19
6.14 *Safety Representative* 20
6.15 *Hazard Communication Programs* 20
6.16 *Emergencies* 20
6.17 *Shop Drawings and Samples* 20
6.18 *Continuing the Work* 21
6.19 *Contractor's General Warranty and Guarantee* 21
6.20 *Indemnification* 22
6.21 *Delegation of Professional Design Services* 22

ARTICLE 7 – OTHER WORK AT THE SITE 23
7.01 *Related Work at Site* 23
7.02 *Coordination* 23
7.03 *Legal Relationships* 23

ARTICLE 8 – OWNER'S RESPONSIBILITIES 23
8.01 *Communications to Contractor* 23
8.02 *Replacement of Engineer* 23
8.03 *Furnish Data* 24
8.04 *Pay When Due* 24
8.05 *Lands and Easements; Reports and Tests* 24
8.06 *Insurance* 24
8.07 *Change Orders* 24
8.08 *Inspections, Tests, and Approvals* 24
8.09 *Limitations on Owner's Responsibilities* 24
8.10 *Undisclosed Hazardous Environmental Condition* 24
8.11 *Evidence of Financial Arrangements* 24
8.12 *Compliance with Safety Program* 24

ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION 24
9.01 *Owner's Representative* 24
9.02 *Visits to Site* 24
9.03 *Project Representative* 25
9.04 *Authorized Variations in Work* 25
9.05 *Rejecting Defective Work* 25
9.06 *Shop Drawings, Change Orders and Payments* 25
9.07 *Determinations for Unit Price Work* 25
9.08 *Decisions on Requirements of Contract Documents and Acceptability of Work* 25
9.09 *Limitations on Engineer's Authority and Responsibilities* 26
9.10 *Compliance with Safety Program* 26

ARTICLE 10 – CHANGES IN THE WORK; CLAIMS 26
10.01 *Authorized Changes in the Work* 26
10.02 *Unauthorized Changes in the Work* 26
10.03 *Execution of Change Orders* 26
10.04 *Notification to Surety* 27
10.05 *Claims* 27

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ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK 27
11.01 *Cost of the Work* *27*
11.02 *Allowances* *29*
11.03 *Unit Price Work* *29*

ARTICLE 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES 30
12.01 *Change of Contract Price* *30*
12.02 *Change of Contract Times* *31*
12.03 *Delays* *31*

ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK. 31
13.01 *Notice of Defects* *31*
13.02 *Access to Work* *31*
13.03 *Tests and Inspections* *31*
13.04 *Uncovering Work* *32*
13.05 *Owner May Stop the Work* *32*
13.06 *Correction or Removal of Defective Work* *32*
13.07 *Correction Period* *33*
13.08 *Acceptance of Defective Work* *33*
13.09 *Owner May Correct Defective Work* *33*

ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION 34
14.01 *Schedule of Values* *34*
14.02 *Progress Payments* *34*
14.03 *Contractor's Warranty of Title* *36*
14.04 *Substantial Completion* *36*
14.05 *Partial Utilization* *36*
14.06 *Final Inspection* *37*
14.07 *Final Payment* *37*
14.08 *Final Completion Delayed* *37*
14.09 *Waiver of Claims* *38*

ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION 38
15.01 *Owner May Suspend Work* *38*
15.02 *Owner May Terminate for Cause* *38*
15.03 *Owner May Terminate For Convenience* *39*
15.04 *Contractor May Stop Work or Terminate* *39*

ARTICLE 16 – DISPUTE RESOLUTION 39
16.01 *Methods and Procedures* *39*

ARTICLE 17 – MISCELLANEOUS 40
17.01 *Giving Notice* *40*
17.02 *Computation of Times* *40*
17.03 *Cumulative Remedies* *40*
17.04 *Survival of Obligations* *40*
17.05 *Controlling Law* *40*
17.06 *Headings* *40*

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GENERAL CONDITIONS

ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

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

2. *Agreement*—The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.

3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

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

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

6. *Bidder*—The individual or entity who submits a Bid directly to Owner.

7. *Bidding Documents*—The Bidding Requirements and the proposed Contract Documents (including all Addenda).

8. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.

9. *Change Order*—A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.

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

11. *Contract*—The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*—Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.

13. *Contract Price*—The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).

14. *Contract Times*—The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.

15. *Contractor*—The individual or entity with whom Owner has entered into the Agreement.

16. *Cost of the Work*—See Paragraph 11.01 for definition.

17. *Drawings*—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.

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

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19. *Engineer*—The individual or entity named as such in the Agreement.

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

21. *General Requirements*—Sections of Division 1 of the Specifications.

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

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

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

25. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.

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

27. *Notice of Award*—The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.

28. *Notice to Proceed*—A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.

29. *Owner*—The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.

30. *PCBs*—Polychlorinated biphenyls.

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

32. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.

33. *Project*—The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.

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

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

36. *Resident Project Representative*—The authorized representative of Engineer who may be assigned to the Site or any part thereof.

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

38. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.

39. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

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

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

42. *Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.

43. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.

44. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

45. *Successful Bidder*—The Bidder submitting a responsive Bid to whom Owner makes an award.

46. *Supplementary Conditions*—That part of the Contract Documents which amends or supplements these General Conditions.

47. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or Subcontractor.

48. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

49. *Unit Price Work*—Work to be paid for on the basis of unit prices.

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

51. *Work Change Directive*—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 *Terminology*

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

B. *Intent of Certain Terms or Adjectives:*

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

C. *Day:*

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

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D. *Defective:*

1. The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it:

a. does not conform to the Contract Documents; or

b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or

c. has been damaged prior to Engineer's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

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

1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words "perform" or "provide," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.

4. When "furnish," "install," "perform," or "provide" is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, "provide" is implied.

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

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

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

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

2.02 *Copies of Documents*

A. Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.

2.03 *Commencement of Contract Times; Notice to Proceed*

A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

2.04 *Starting the Work*

A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

2.05 *Before Starting Construction*

A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer for timely review:

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1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;

2. a preliminary Schedule of Submittals; and

3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.06 *Preconstruction Conference; Designation of Authorized Representatives*

A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.

B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.07 *Initial Acceptance of Schedules*

A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.

1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.

3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 *Intent*

A. The Contract Documents are complementary; what is required by one is as binding as if required by all.

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

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

3.02 *Reference Standards*

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

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard, specification, manual, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees,

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from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies:*

1. *Contractor's Review of Contract Documents Before Starting Work*: Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.

2. *Contractor's Review of Contract Documents During Performance of Work*: If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation , (b) any standard, specification, manual, or code, or (c) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.

3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies:*

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

a. the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); or

b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Amending and Supplementing Contract Documents*

A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.

B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:

1. A Field Order;

2. Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); or

3. Engineer's written interpretation or clarification.

3.05 *Reuse of Documents*

A. Contractor and any Subcontractor or Supplier shall not:

1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions; or

2. reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer.

B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

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3.06 *Electronic Data*

A. Unless otherwise stated in the Supplementary Conditions, the data furnished by Owner or Engineer to Contractor, or by Contractor to Owner or Engineer, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.

B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.

C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

4.01 *Availability of Lands*

A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

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

4.02 *Subsurface and Physical Conditions*

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

1. those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and

2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).

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

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed either:

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1. is of such a nature as to establish that any "technical data" on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or

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

3. differs materially from that shown or indicated in the Contract Documents; or

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

5. then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

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

C. *Possible Price and Times Adjustments:*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and

b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.

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

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

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

c. Contractor failed to give the written notice as required by Paragraph 4.03.A.

3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, neither Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data provided by others; and

2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:

a. reviewing and checking all such information and data;

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b. locating all Underground Facilities shown or indicated in the Contract Documents;

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

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

B. *Not Shown or Indicated:*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

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

4.05 *Reference Points*

A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.06 *Hazardous Environmental Condition at Site*

A. *Reports and Drawings:* The Supplementary Conditions identify those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at the Site.

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

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.

C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.

D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous

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Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 4.06.E.

E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered written notice to Contractor: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.

F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.

G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 – BONDS AND INSURANCE

5.01 *Performance, Payment, and Other Bonds*

A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.

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

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authority shall show that it is effective on the date the agent or attorney-in-fact signed each bond.

C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers*

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

5.03 *Certificates of Insurance*

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

B. Owner shall deliver to Contractor, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.

C. Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.

D. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.

E. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.

5.04 *Contractor's Insurance*

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

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;

2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;

3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;

4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:

   a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or

   b. by any other person for any other reason;

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

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

B. The policies of insurance required by this Paragraph 5.04 shall:

1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, be written on an occurrence basis, include as additional insureds (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of

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whom shall be listed as additional insureds, and include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;

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

3. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;

4. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);

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

6. include completed operations coverage:

a. Such insurance shall remain in effect for two years after final payment.

b. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

5.05 *Owner's Liability Insurance*

A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

5.06 *Property Insurance*

A. Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee;

2. be written on a Builder's Risk "all-risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions.

3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);

4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;

5. allow for partial utilization of the Work by Owner;

6. include testing and startup; and

7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued.

B. Owner shall purchase and maintain such equipment breakdown insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the

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interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee.

C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other loss payee to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.

D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

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

5.07 *Waiver of Rights*

A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or loss payees thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.

B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for:

1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and

2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.

C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 *Receipt and Application of Insurance Proceeds*

A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of

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Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.

B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

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

A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

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

ARTICLE 6 – CONTRACTOR'S RESPONSIBILITIES

6.01 *Supervision and Superintendence*

A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.

B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

6.02 *Labor; Working Hours*

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

B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner's written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

6.03 *Services, Materials, and Equipment*

A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water,

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sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.

B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 *Progress Schedule*

A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.

1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

6.05 *Substitutes and "Or-Equals"*

A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.

1. *"Or-Equal" Items:* If in Engineer's sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:

a. in the exercise of reasonable judgment Engineer determines that:

1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole; and

3) it has a proven record of performance and availability of responsive service.

b. Contractor certifies that, if approved and incorporated into the Work:

1) there will be no increase in cost to the Owner or increase in Contract Times; and

2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

2. *Substitute Items*:

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

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

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c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.

d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:

1) shall certify that the proposed substitute item will:

a) perform adequately the functions and achieve the results called for by the general design,

b) be similar in substance to that specified, and

c) be suited to the same use as that specified;

2) will state:

a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time,

b) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and

c) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;

3) will identify:

a) all variations of the proposed substitute item from that specified, and

b) available engineering, sales, maintenance, repair, and replacement services; and

4) shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.

B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.

C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.

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

E. *Engineer's Cost Reimbursement*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

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

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6.06 *Concerning Subcontractors, Suppliers, and Others*

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

B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.

C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:

1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity; nor

2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

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

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

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

G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as a loss payee on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

6.07 *Patent Fees and Royalties*

A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

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

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

6.08 *Permits*

A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

6.09 *Laws and Regulations*

A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.

B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.

C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

6.10 *Taxes*

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

6.11 *Use of Site and Other Areas*

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

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

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

3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members,

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partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

D. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 *Record Documents*

A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to Engineer for Owner.

6.13 *Safety and Protection*

A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and

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

B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.

C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.

D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.

E. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

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F. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 *Safety Representative*

A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 *Hazard Communication Programs*

A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

6.16 *Emergencies*

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 *Shop Drawings and Samples*

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

1. *Shop Drawings:*

a. Submit number of copies specified in the General Requirements.

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

2. *Samples:*

a. Submit number of Samples specified in the Specifications.

b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.

B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. *Submittal Procedures*:

1. Before submitting each Shop Drawing or Sample, Contractor shall have:

a. reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;

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

c. determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and

d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and

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procedures of construction, and safety precautions and programs incident thereto.

2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.

3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. *Engineer's Review:*

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

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

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

E. *Resubmittal Procedures:*

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

6.18 *Continuing the Work*

A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 *Contractor's General Warranty and Guarantee*

A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of Contractor's warranty and guarantee.

B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or

2. normal wear and tear under normal usage.

C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:

1. observations by Engineer;

2. recommendation by Engineer or payment by Owner of any progress or final payment;

3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;

4. use or occupancy of the Work or any part thereof by Owner;

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5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;

6. any inspection, test, or approval by others; or

7. any correction of defective Work by Owner.

6.20 *Indemnification*

A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable .

B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

C. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:

1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or

2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

6.21 *Delegation of Professional Design Services*

A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.

B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.

D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.

E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

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ARTICLE 7 – OTHER WORK AT THE SITE

7.01 *Related Work at Site*

A. Owner may perform other work related to the Project at the Site with Owner's employees, or through other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:

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

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

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

C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

7.02 *Coordination*

A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:

1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;

2. the specific matters to be covered by such authority and responsibility will be itemized; and

3. the extent of such authority and responsibilities will be provided.

B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

7.03 *Legal Relationships*

A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.

B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's wrongful actions or inactions.

C. Contractor shall be liable to Owner and any other contractor under direct contract to Owner for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's wrongful action or inactions.

ARTICLE 8 – OWNER'S RESPONSIBILITIES

8.01 *Communications to Contractor*

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

8.02 *Replacement of Engineer*

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

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8.03 *Furnish Data*

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

8.04 *Pay When Due*

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

8.05 *Lands and Easements; Reports and Tests*

A. Owner's duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

8.06 *Insurance*

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

8.07 *Change Orders*

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

8.08 *Inspections, Tests, and Approvals*

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

8.09 *Limitations on Owner's Responsibilities*

A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 *Undisclosed Hazardous Environmental Condition*

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

8.11 *Evidence of Financial Arrangements*

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

8.12 *Compliance with Safety Program*

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

ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *Owner's Representative*

A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents.

9.02 *Visits to Site*

A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but

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without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

9.03 *Project Representative*

A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 *Authorized Variations in Work*

A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

9.05 *Rejecting Defective Work*

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

9.06 *Shop Drawings, Change Orders and Payments*

A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.

B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.

C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.

D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 *Determinations for Unit Price Work*

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

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

A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.

B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.

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C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.

D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 *Limitations on Engineer's Authority and Responsibilities*

A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.

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

9.10 *Compliance with Safety Program*

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

ARTICLE 10 – CHANGES IN THE WORK; CLAIMS

10.01 *Authorized Changes in the Work*

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

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

10.02 *Unauthorized Changes in the Work*

A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.D.

10.03 *Execution of Change Orders*

A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:

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

2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and

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

10.04 *Notification to Surety*

A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

10.05 *Claims*

A. *Engineer's Decision Required*: All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.

B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).

C. *Engineer's Action*: Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:

1. deny the Claim in whole or in part;

2. approve the Claim; or

3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.

D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.

E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.

F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

11.01 *Cost of the Work*

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

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include,

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without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.

5. Supplemental costs including the following:

a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.

b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.

e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

g. The cost of utilities, fuel, and sanitary facilities at the Site.

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h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, express and courier services, and similar petty cash items in connection with the Work.

i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.

2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.

3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.

4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A.

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

D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

11.02 *Allowances*

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

B. *Cash Allowances:*

1. Contractor agrees that:

a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. *Contingency Allowance:*

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

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

11.03 *Unit Price Work*

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

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estimated quantity of each item as indicated in the Agreement.

B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.

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

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

1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and

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

3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

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

12.01 *Change of Contract Price*

A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

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

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

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

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

C. *Contractor's Fee:* The Contractor's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or

2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;

b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;

c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 12.01.C.2.a and 12.01.C.2.b is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;

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

e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and

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f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

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

12.03 *Delays*

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

B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.

D. Owner, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

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

13.01 *Notice of Defects*

A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 *Access to Work*

A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

13.03 *Tests and Inspections*

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

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

1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;

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2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in Paragraph 13.04.C; and

3. as otherwise specifically provided in the Contract Documents.

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.

E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation.

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

13.04 *Uncovering Work*

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

B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.

C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.

D. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

13.05 *Owner May Stop the Work*

A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 *Correction or Removal of Defective Work*

A. Promptly after receipt of written notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise

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impair Owner's special warranty and guarantee, if any, on said Work.

13.07 *Correction Period*

A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

1. repair such defective land or areas; or

2. correct such defective Work; or

3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and

4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.

B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.

C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.

D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

13.08 *Acceptance of Defective Work*

A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and for the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

13.09 *Owner May Correct Defective Work*

A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct, or remedy any such deficiency.

B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all

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materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.

C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 *Schedule of Values*

A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 *Progress Payments*

A. *Applications for Payments:*

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.

3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. *Review of Applications:*

1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.

2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

a. the Work has progressed to the point indicated;

b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and any other qualifications stated in the recommendation); and

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c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.

3. By recommending any such payment Engineer will not thereby be deemed to have represented that:

a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or

b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:

a. to supervise, direct, or control the Work, or

b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or

c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or

d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or

e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.

5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:

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

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

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

d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. *Payment Becomes Due:*

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

D. *Reduction in Payment:*

1. Owner may refuse to make payment of the full amount recommended by Engineer because:

a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;

b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;

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

d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.

2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to

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Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor remedies the reasons for such action.

3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1 and subject to interest as provided in the Agreement.

14.03 *Contractor's Warranty of Title*

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

14.04 *Substantial Completion*

A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.

B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.

C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the tentative certificate to Owner, notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will, within said 14 days, execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.

D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.

E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the tentative list.

14.05 *Partial Utilization*

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

1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 14.04.A through D for that part of the Work.

2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify

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Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

14.06 *Final Inspection*

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

14.07 *Final Payment*

A. *Application for Payment:*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:

a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.6;

b. consent of the surety, if any, to final payment;

c. a list of all Claims against Owner that Contractor believes are unsettled; and

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

3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

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

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. *Payment Becomes Due:*

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

14.08 *Final Completion Delayed*

A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of

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Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.09 *Waiver of Claims*

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

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

2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

15.01 *Owner May Suspend Work*

A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

15.02 *Owner May Terminate for Cause*

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

1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);

2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;

3. Contractor's repeated disregard of the authority of Engineer; or

4. Contractor's violation in any substantial way of any provisions of the Contract Documents.

B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:

1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);

2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere; and

3. complete the Work as Owner may deem expedient.

C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

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D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.

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

F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.

15.03 *Owner May Terminate For Convenience*

A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):

1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;

3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and

4. reasonable expenses directly attributable to termination.

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

15.04 *Contractor May Stop Work or Terminate*

A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

ARTICLE 16 – DISPUTE RESOLUTION

16.01 *Methods and Procedures*

A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.

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

C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become

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final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:

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

2. agrees with the other party to submit the Claim to another dispute resolution process; or

3. gives written notice to the other party of the intent to submit the Claim to a court of competent jurisdiction.

ARTICLE 17 – MISCELLANEOUS

17.01 *Giving Notice*

A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:

1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or

2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 *Computation of Times*

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

17.03 *Cumulative Remedies*

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 *Survival of Obligations*

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

17.05 *Controlling Law*

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

17.06 *Headings*

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

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SUPPLEMENTARY CONDITIONS

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

The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof. The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added thereto.

SC-1.01. Add the following language at the end of Paragraph 1.01.A.19:

> Engineer is the General Superintendent for the Sewerage and Water Board of New Orleans or delegate and has the authority provided in this Contract to approve or disapprove all changes to the Contract documents.

SC-1.01. Add the following language at the end of Paragraph 1.01.A.44:

> Substantial Completion is further defined as (i) that degree of completion of the Project's operating facilities or systems sufficient to provide Owner the full time, uninterrupted, and continuous beneficial operation of the Work; and (ii) required functional, performance and acceptance, or startup testing has been successfully demonstrated for components, devices, equipment, and instrumentation and control to the satisfaction of Engineer in accordance with the requirements of the Specifications.

SC-1.01. Add the following new paragraphs immediately after Paragraph 1.01.A.51:

> 1.01.A.52. *Specialist*—The term Specialist refers to a person, partnership, firm, or corporation of established reputation (or if newly organized, whose personnel have previously established a reputation in the same field), which is regularly engaged in, and which maintains a regular force of workers skilled in either (as applicable) manufacturing or fabricating items required by the Contract Documents, or otherwise performing Work required by the Contract Documents. Where the Specifications require the installation by a Specialist, that term shall also be deemed to mean either the manufacturer of the item, a person, partnership, firm, or corporation licensed by the manufacturer, or a person, partnership, firm, or corporation who will perform the Work under the manufacturer's direct supervision.
>
> 1.01.A.53. *Construction Coordinator*—The term Construction Coordinator, where and when used, refers to an authorized representative of Owner or Engineer who may be assigned to the Site or any part thereof to monitor and oversee construction activities by Contractor. Synonymous with Resident Project Representative (RPR) and Owner's Representative.

1.01.A.54 *Owner's Representative*—The term Owner's Representative, where and when used, refers to an authorized representative of Owner who may be assigned to the Site or any part thereof to monitor and oversee construction activities by Contractor. Synonymous with Resident Project Representative (RPR) and Construction Coordinator.

1.01.A.55 *Abnormal Weather Conditions* – Weather that could not have been reasonably anticipated, based on previous weather history over the past 3 years, such as rainfall or lightning at the Site, which, as mutually agreed in writing by the Contractor Representative and Owner Representative, that reasonably prevents a significant majority of the planned Work at the Site from being safely executed, and which therefore requires Contractor to evacuate or stand down fifty percent (50%) (or more) of Contractor's direct craft workforce for a Day.

1.01.A.57 *Liquidated Damages* -The damages the Owner will incur if the Project is not completed within the Contract Time(s) specified.

1.01.A.58 *Material Breach* - Any substantial, unexcused non-performance. The breach is either failing to perform an act that is an important part of the transaction or performing an act inconsistent with the terms and conditions of the contract.

1.01.A.59 36. *Request for Information (RFI)* - A written request, from the Contractor to the Engineer that asks for additional information or to clarify some aspect of the project, such as procedures, equipment, materials, specification details or drawing details.

SC-2.01. Delete the wording "and Owner" and "each" in lines 2 and 7 in Paragraph 2.01.B

SC-2.02. Amend first sentence in Paragraph 2.02.A to read as follows:

2.02.A. Upon award of Contract, Owner will furnish Contractor with complete conformed project documents (Drawings and Project Manual) in electronic format.

SC-2.03. Delete the wording "on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given". Delete the third sentence of Paragraph 2.03.A in its entirety.

SC-2.05. Replace Paragraphs 2.05.A.1 and 2.05.A.2 with the following:

2.05.A.1 an Initial Construction Baseline Schedule and Schedule Narrative Report in accordance with the Contract documents, indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;

2.05.A.2 a preliminary schedule of Shop Drawing and Sample submittals which will list each required submittal and the times for submitting it in keeping with the General Requirements and a tentative procurement

schedule of equipment and materials

SC-2.07. Delete Paragraph 2.07.A.1 and replace with the following:

2.07.A.1 The Preliminary Progress schedule, Detailed Baseline Schedule, and Detailed Progress Schedule(s) will be acceptable to Engineer if: (a) it is prepared by personnel having substantial experience in the use of the latest version of Oracle Primavera software unless approved otherwise by Owner; (b) it provides a reasonable allocation of the Contract to component parts of the Work; and (c) it provides an orderly progression of the Work to completion within any specified Milestones and the Contract Times. Such acceptance will not impose on the Owner or Engineer's responsibility for the progress schedule, for sequencing, scheduling, or progress of the Work nor interfere with or relieve Contractor from Contractor's full responsibility.

SC-3.01. Add the following new paragraph immediately after Paragraph 3.01.C:

3.01.D. Sections of Division 01, General Requirements, govern the execution of the Work of all sections of the Specifications.

SC-4.02. Add the following new paragraph(s) immediately after Paragraph 4.02.B:

4.02.C. The following reports, if any, of explorations and tests of subsurface conditions at or contiguous to the Site are known to Owner:

4.02.C.1. [____]

4.02.D. The following drawings of physical conditions, if any, relating to existing surface and subsurface structures at the Site (except Underground Facilities) are known to Owner:

4.02.D.1. Record drawings of the Main Water Purification Plant.

4.02.E. Copies of reports and drawings itemized in SC-4.02.C and SC-4.02.D that are not included with Bidding Documents may be examined at Owner’s offices during regular business hours. These reports and drawings are not part of the Contract Documents, but the “technical data” contained therein upon which Contractor may rely, as expressly identified and established above, are incorporated in the Contract Documents by reference. Contractor is not entitled to rely upon any other information and data known to or identified by Owner.

SC-4.06. Delete Paragraphs 4.06.A and 4.06.B in their entirety and insert the following in their place:

4.06.A. No reports or drawings related to Hazardous Environmental Conditions are known to Owner.

SC-5.01. Delete in Paragraph 5.01.A first sentence the wording “and payment”

SC-5.02. Add the following new paragraph immediately after Paragraph 5.02.A:

SC-5.02.B. As an alternative to the requirements in paragraph A above, bonds may also be provided by a Louisiana Domiciled Insurance company with at least an A.M. Best's Financial Strength Rating of A minus (A-) rating, or the bond shall be written by an insurance company that is either domiciled in Louisiana or owned by Louisiana residents and is licensed to write surety bonds. In addition, any surety bond written for a public works project shall be written by a surety or insurance company that is currently licensed to do business in the State of Louisiana. Surety and insurance companies from which the bonds and insurance for this Project are purchased under the provisions of paragraph 5.02.A shall have an A.M. Best's Financial Strength Rating of A minus (A-) or better with a Financial Size Category of no less than VII, in addition to other requirements specified herein.

SC-5.04. Add the following language after Paragraph 5.04.B.1:

Policies will endorse the following parties or entities as additional insured:

5.04.B.1.a. Sewerage and Water Board of New Orleans, 625 St. Joseph Street, New Orleans, Louisiana 70165

5.04.B.1.b. The City of New Orleans, 1300 Perdido Street, New Orleans, Louisiana 70112

5.04.B.1.c. **[_____]**

5.04.B.1.d. **[_____]**

5.04.B.1.e. **[_____]**.

SC-5.04. Add the following new paragraph immediately following Paragraph 5.04.B:

5.04.C. Insurance: General Requirements

The Contractor will maintain, at his own cost and expense, and in good standing, such insurance as will protect the Sewerage and Water Board of New Orleans (the Board), the City of New Orleans (the City,) their officers, officials, employees, boards, commissions and volunteers, as well as the Contractor himself and any subcontractors from and against any and all claims for damages to public and private property and personal injury, including death, to employees or to the public, which may arise from any operations under this Contract or any of its subcontracts. The coverage will contain no special limitations on the scope of protection afforded to the Board and the City. Both the Board and the City will appear as "Additional Insured" on all Commercial General Liability and Business Automobile Liability. Any failure to comply with the reporting provisions of a policy will not affect coverage provided to the Board and the City, their officers, officials, employees, boards and commissions and volunteers. The Contractor's insurance will apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

In general, insurance is to be placed with insurers with an A.M. Best's rating of A-:V, although this requirement may be reviewed and modified by the Risk Manager of the Sewerage and Water Board of New Orleans in the best interest of the Board. The Risk Manager may also consider performing such review upon written request from the Contractor. The Contractor shall furnish the Sewerage and Water of New Orleans with certificates of insurance affecting coverage required by this Contract. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificates of insurance are to be received and approved by the Risk Manager of the Sewerage and Water Board of New Orleans, 625 St. Joseph St., Rm. 119, New Orleans, LA 70165, before work commences. The Sewerage and Water Board of New Orleans reserves the right to require complete, certified copies of all insurance policies at any time, as proof that the insurance placed meets the requirements of this Contract.

If the insurance is written subject to a deductible clause, Contractor assumes responsibility for the amount of the deductible. In addition, the Contractor shall be required to furnish to the Risk Manager of the Sewerage and Water Board of New Orleans all copies of investigative reports with regard to any and all claims with the Contractor and his insurance carriers, relative to the contract, with the exception of claims filed with his Workers' Compensation Insurance. Such reports shall include dates, location and description of loss as well as amounts of settlements or judgments in order that annual aggregate limits maybe monitored by the Sewerage and Water Board of New Orleans for the Contactor's compliance with these Specifications.

The furnishing of insurance as provided above shall not relieve the Contractor of his responsibility for losses not covered by insurance. All policies shall be with insurance companies authorized to do business in Louisiana and shall remain in full force and effect until the final completion of the work and acceptance thereof by the authority of the Board.

5.04.C.1 Subrogation

The Contractor, Subcontractor(s), and their insurers shall agree to waive all the rights of subrogation against the Board, the City, and their officers, officials, employees, boards and commissions, and volunteers for losses arising from work performed by the Contractor for the Board and the City.

5.04.C.2. Insurance Cancellations and Stop-Work

Each insurance policy required by this contract shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, or reduced in coverage or in limits except after thirty (30) days prior written notice has been given to the Risk Manager, 625 St. Joseph St., Rm. 119, New Orleans, LA 70165, of the Sewerage & Water Board of New Orleans, via certified mail.

The Contractor and/or his insurer shall notify the Risk Manager of the Sewerage and Water Board of New Orleans at least thirty (30) days in advance of any insurance coverage to be canceled or of any insurance

coverage that will expire. The Contractor shall simultaneously furnish the Board evidence of new coverage to be effective the same day and hour of the expired or canceled coverage.

In the event the Contractor and/or his insurer fails to submit this evidence of new coverage five (5) days prior to the cancellation date or expiration date of any policy or policies, the Sewerage and Water Board will have the right to obtain the required coverage to become effective on the date of cancellation or expiration of said policies. The cost of such new policies shall be at the expense of the Contractor and any expenditure incurred by the Board for this coverage will be deducted from any balance due to the Contractor.

Should the Board be unable to secure new coverage to take the place of the expired or cancelled policy or policies, a "stop work" order will issued and all work on the contract shall cease on the same date and hour as the coverage ceases. Should the Contractor fail or refuse to secure coverage within five (5) days after the date of the "stop work" order, the Contractor shall be declared to be in default, and the contract between the parties shall be considered cancelled and of no force or effect between the parties reserving all the rights of the Board against the Contractor and his surety.

5.04.C.3. Insurance Policies, Endorsements, and Limits Required

The following are the types of insurance policies and the minimum limits of insurance coverage which shall be maintained by the Contractor during the entire term of the Contract:

5.04.C.3.a. WORKERS' COMPENSATION AND EMPLOYERS LIABILITY INSURANCE

WORKERS' COMPENSATION AND EMPLOYERS LIABILITY INSURANCE, as will protect Contractor from claims under Louisiana Workers' Compensation Laws. The Workers' Compensation section of the policy shall afford Statutory Limits and be in accordance with all Louisiana Workers' Compensation Statutes. The Employers Liability limit shall not be less than $3,000,000 each accident for bodily injury by accident and $3,000,000 each employee/policy limit for bodily injury by disease. Whenever any Federal Longshoreman's and Harbor Workers' Act, and shall also include protection for injuries and/or death to Master and Members of the crews of vessels with statutory limits in accordance with the Jones Act.

5.04.C.3.b. COMMERCIAL GENERAL LIABILITY INSURANCE

COMMERCIAL GENERAL LIABILITY INSURANCE, with a limit of not less than $2,000,000 each occurrence and not less than $4,000,000 general annual aggregate, including Explosion, Collapse, and Underground Property Damage Hazards. The Products-Completed Operations aggregate limit shall not be less than $2,000,000 each occurrence. The general aggregate limit shall apply separately to this project.

5.04.C.3.c. BUSINESS AUTOMOBILE LIABILITY INSURANCE

BUSINESS AUTOMOBILE LIABILITY INSURANCE, which shall cover liability arising out of accidents involving any auto (including Owned, Hired, and Non-Owned autos). The limit of liability shall not be less than $1,000,000 each accident for all injuries, property damage, and/or death resulting from any one occurrence.

5.04.C.3.d. OWNER'S AND CONTRACTOR'S PROTECTIVE LIABILITY INSURANCE

OWNER'S AND CONTRACTOR'S PROTECTIVE LIABILITY INSURANCE, as will protect the Contractor, the Sewerage and Water Board of New Orleans, and the City of New Orleans from and against any and all claims and lawsuits involving vicarious liability. The limits of liability shall be the same as specified in Paragraph (b) above, and shall include Explosion, Collapse and Underground Hazards.

5.04.C.3.e. PROFESSIONAL LIABILITY INSURANCE

PROFESSIONAL LIABILITY INSURANCE, as may be applicable to the particular profession or service to be provided, with a limit of not less than $2,000,000 each Claim, with at least a $4,000,000 annual aggregate, **without any restrictive "negligent act, negligent error, or negligent omission"** clause, and sufficient to protect the Contractor, the Board, and the City, for a five (5) year period from completion of this contract, against any and all claims which may arise from the Contractor's negligent performance of work described herein.

5.04.C.3.f. PROPERTY INSURANCE

PROPERTY INSURANCE, required on all work except sewer and water drainage pipelines, reinforced concrete canals, work completely underground, and similar work (however Contractor is not relieved of responsibility therefore) as follows:

5.04.C.3.f(1).

ALL RISKS BUILDERS RISK INSURANCE (covering Fire, Extended Coverage, Vandalism and Malicious Mischief) will be carried on a completed value or reporting form, for not less than 100 percent of the value of the work, including foundations.

Coverage will include all machinery and equipment to be installed, whether furnished by the Sewerage & Water Board or by Contractor, for not less than 100 percent of the installed value of the machinery and equipment. This insurance shall be written in the same Insurance Company carrying the Builder's Risk Insurance, shall include testing and startup, shall for partial utilization of the Work by Owner, and shall terminate only when installation has been accepted by the Sewerage and Water Board.

The All Risks Builder's Risk Policy shall include the names of the Sewerage & Water Board of New Orleans, and City of New Orleans, and will cover the interests of all sub-contractors without specifically naming them.

5.04.C.3.g. WORKERS' COMPENSATION AND UNEMPLOYMENT COVERAGE, ADDITIONAL CONDITIONS

5.04.C.3.g(1)

WORKERS' COMPENSATION: The Contractor expressly agrees and acknowledges that it is an "independent contractor" as defined in LSA-R.S.23:1021(6), and that its employees shall not be considered employees of the Board for workers' compensation benefits or coverage.

5.04.C.3.g(2)

EXCLUSIVE OF UNEMPLOYMENT COMPENSATION COVERAGE: Contractor herein expressly agrees and acknowledges that it is an "independent contractor" as defined in LSA-R.S.23:1472(E0, that neither the contractor nor any one employed by the Contractor shall be considered an employee of the Board for the purpose of employment of compensation coverage.

SC-5.06. Delete Paragraph 5.06.A in its entirety.

SC-5.06. Delete Paragraph 5.06.B in its entirety.

SC-5.06. Delete Paragraph 5.06 E in its entirety.

SC-5.07. Delete third sentence of Paragraph 5.07.A in its entirety and insert the following in its place:

> Contractor and Contractor's insurers waive all rights against Owner and their respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) under such policies for losses and damages so caused.

SC-5.07. Delete the last sentence of Paragraph 5.07.A in its entirety and insert the following in its place:

> None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Contractor as trustee or otherwise payable under any policy so issued.

SC-5.07. Delete Paragraph 5.07.B in its entirety.

SC-5.07. Delete Paragraph 5.07.C in its entirety.

SC-5.08. Delete Paragraph 5.08.A in its entirety.

SC-5.08. Delete Paragraph 5.08.B in its entirety.

SC-6.01. Delete Paragraph 6.01 in its entirety and replace with the following:

> A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.
>
> B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances. The

resident superintendent shall be a full-time employee of the Contractor. The Owner may, at its sole discretion, require replacement of the superintendent, in which case Contractor shall submit an acceptable replacement at no increase in Contract Price nor extension in Contract Times. The superintendent will be Contractor's representative at the Site and shall have authority to act on behalf of Contractor.

C. Contractor shall ensure that all employees performing or furnishing any of the Work will be prohibited from using firearms, engaging in hunting, fishing, trapping, using illegal drugs or using alcohol either on the work site, on Owner property, or on any land adjoining the work site.

D. Contractor shall ensure that all employees performing or furnishing any of the Work will be prohibited from trespassing on any land adjoining the work site

SC-6.02. Delete Paragraph 6.02.A in its entirety and replace with the fo llowing:

6.02.A Contractor shall provide competent, qualified personnel to perform construction as required by the Contract Documents. Contractor shall employ a Professional Land Surveyor with current Louisiana registration to survey and lay out the work (in accordance with any additional provisions included in the General Requirements). Contractor is fully responsible to provide a sufficient number of skilled workers and supervisory personnel to perform the Work and ensure that the Work is completed within the Contract Time. Failure to fully man the Project with supervisory personnel and skilled workers shall be cause for termination of Contractor.

SC-6.02. Add the following new paragraph immediately after Paragraph 6.02.B:

6.02.C. Contractor shall reimburse Owner for Engineer’s additional extraordinary costs for onsite personnel overtime work resulting from Contractor’s overtime operations. Reimbursement shall be on the cost basis defined in Paragraph 14.02.D.4 of these Supplementary Conditions.

SC-6.03. Add the following new paragraphs immediately after Paragraph 6.03.C:

6.03.D. Manufacturers' or Suppliers' warranties for all materials products and equipment to be furnished by Contractor and to be incorporated into the completed Work shall be furnished to the Owner through Contractor. Contractor shall obtain from Suppliers of all materials, products and equipment, complete information as to any special condition or restriction to be applied in the use of these items. Should the manner or method of installation, specified performance or test results as set forth in the Specifications be contrary to the Manufacturer's recommendations for use of the product, Contractor shall notify the Engineer in writing of such conflict as soon as reasonably possible, but no later than the time of Shop Drawing submittal including those products. Failure to provide such written notice before

proceeding with the Work affected thereby shall be certification by Contractor that the specification requirements will be met by the materials, products and equipment, and that the cost and time required to perform the Work affected thereby have been included in the Contract Price and in the schedule for the performance of the Work within the Contract Time.

6.03.E. Domestic Manufacture:

6.03.E.1. All equipment to be furnished and components of all items specified herein, except bearings, shall be of domestic produce, manufacture and assembly, i.e., manufactured and assembled within the limits of the United States. Parts must be available from suppliers that manufacture components in the USA. The Board reserves the right to waive this requirement if, in the opinion of the Engineer, it appears to be in the best interests of the Board.

6.03.E.2. Sewerage and Water Board staff will determine the ability of the lowest bidder to design and build the equipment and machinery specified hereon. Along with other factors to be considered by Sewerage and Water Board staff will be the manufacturer's facilities, listings of similar equipment and installations, equipment reliability and longevity. Should the lowest bidder be found "non-responsive", then an informal hearing will be held to provide the lowest bidder the opportunity to refute the reasons for disqualification.

SC-6.04. Add the following language at the end of Paragraph 6.04.A.1:

Contractor further hereby acknowledges that the Contract Times for performance is reasonable and that all costs for schedule compliance are included in the Contract Price.

SC-6.04. Add the following language at the end of Paragraph 6.04.A.2

The Contractor shall not alter the schedule for proposed substitutions, delays, or claims in anticipation of a Change Order, but rather will provide a proposed schedule revision with the Change Order, if requested by the Engineer, which will become effective with approval of the change.

SC-6.05. Add the following language at the end of Paragraph 6.05.E:

Reimbursement rates for Engineer or their officers, directors, members, partners, employees, agents, and other consultants and subcontractors for evaluation of proposed substitutes shall be on the basis established in Paragraph 14.02.D.4 of these Supplementary Conditions.

SC-6.06. Add the following new paragraph immediately after Paragraph 6.06.G:

6.06.H. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by a particular Subcontractor or Supplier**.**

SC-6.08. Add the following language:

6.08 Permits:

A. Before commencing work, the Contractor shall obtain, at his own expense, any required permits from the City of New Orleans. The Contractor shall also secure, at his own expense, any necessary inspection certificates required after the work is completed.

B. Evidence of compliance shall be furnished to the Board prior to starting work, in the case of permits, or within 10 calendar days after completion of that work requiring inspection certificates.

SC-6.11. Add the following language to the end of Paragraph 6.11.A.1:

Contractor shall not enter upon nor use property not under Owner control until appropriate easements have been executed and a copy is on file at the Site**.**

SC-6.13. Add the following new paragraphs immediately after 6.13.C:

6.13.C.1. The Owner's Safety Orientation Notice is applicable to the Work and is appended to these Supplementary Conditions.

6.13.C.2. The Owner's Drug-Free Workplace Policy is applicable to the Work and is appended to these Supplementary Conditions.

6.13.C.3. Owner's Safety Clearance Procedure

Definitions:

Operator: The Board employee who is onsite and in responsible charge of the operation of the plant, station, or other facility.

Out of Service: The electrical/mechanical disconnection of equipment which is to remain inoperable.

Power Dispatcher: The shift employee on duty at Central Control at the time safety clearance occurs.

Signee: The person who actually tags-out equipment for safety clearance.

Supervisor/Foreman: The Board employee who is the supervisor/foreman in responsible charge of the repair/maintenance of one or more work locations which requires safety clearance. This person may not necessarily be "onsite" at any particular location.

Tag-out: The physical tagging of equipment by an operator for the purpose of disabling equipment.

Lock-out: The physical locking of equipment by an operator for the purpose of disabling equipment.

General Provisions

1) All equipment repair/maintenance work which is scheduled and requires safety clearance should be presented to Central Control at the beginning of each work day by the supervisor/foreman/electrical engineer in charge of the repair/maintenance. Twenty four (24) hour advance notice of scheduled work for major outages is desirable; however, it is understood that due to the nature of the services provided by the Board this preferred notice may not be possible for every safety clearance.

2) In cases where two or more crafts are working on, or require safety clearance on the same equipment, the supervisor/foreman/electrical engineer for each craft must follow the appropriate safety clearance procedure and the equipment must be tagged out for each craft's signee. No equipment can be tested and/or restored to service until all tags have been removed in accordance with the tag removal procedure.

3) When an operator requests service for equipment at an unmanned facility, i.e. an unmanned sewer station or unmanned underpass station, from either Electrical Maintenance or Mechanical Maintenance, the appropriate maintenance department shall request the responsible operator to tag-out the equipment. When the appropriate maintenance department, in the course of servicing this equipment, requires restoration of power, the appropriate maintenance department shall contact the responsible operator directly (if operator is present) or by radio or telephone (if operator is absent) and request that the responsible operator grant his permission. If the power is to be restored for only a short duration, the appropriate maintenance department shall thereafter contact the operator for permission to either remove power or restore power, as often as needed. The operator shall log each request. If the request to restore power is for a short duration only, and the operator does not received contact from the appropriate maintenance personnel to remove power again, the operator shall make every attempt to contact the appropriate maintenance personnel in order to ensure that no accident has occurred.

4) If equipment must remain "Out of Service" upon completion of the onsite work, the signee must request their tag be replaced with an "Out of Service" tag in the name of their department: e.g. "Out of Service - Electrical Maintenance", in addition it must be physically locked-out by that department. However the "Out of Service" tag does not relinquish the responsibility of following the safety clearance procedure each day that piece of equipment is worked on.

5) Any equipment restored to service after being tagged "Out of Service" must be tested through operational test procedures. The signee must remain, when possible, on-site until testing is complete.

6) Any individual involved in these procedures may halt the procedure at any time if it is felt the safety of the personnel and/or equipment warrants said stoppage, or if conditions within the system change that may require postponement of the work.

7) In the event the responsible person, signee, leaves the job site without releasing the cleared equipment and is unreachable to release their tag-out the following procedure must be enacted before the signees name, tag-out, can be removed from the cleared equipment.

a) Cause must be established by the senior power dispatcher giving reason to remove the tag-out.
b) Senior power dispatcher must receive orders from the Chief of Operations or higher, in his absence, to remove said tag-out.
c) Concurrence given by a senior representative of the following:

- Department or company to which the signee works for.
- Senior representative of the plant, station, facility in which the tag-out occurs.
- If jobsite is in the field then, inspection by Electrical Engineering assuring work has halted for the day.

d) Once all areas have been satisfied then the senior power dispatcher may have the signees tag-out removed.

NOTE: The above and following procedures may be deviated from above at the discretion of the power dispatcher in cases of emergency.

SC-6.11. Add the following language to the end of Paragraph 6.11.D:

6.11.D. *Water and Other Utilities.* It is the responsibility of the Contractor to make all necessary arrangements for the provision of water, electricity, drainage, sanitary sewage disposal, gas, compressed air, and any other utility service required to prosecute the work of this contract. Water used by the Contractor at the job site will be furnished by the Board at no cost to the Contract, if conditions permit. Costs of all other services shall be borne by the Contractor.

6.11.E. *Hydrant Connections.* Connections to fire hydrants shall only be made with meters obtained from the Sewerage and Water Board Customer Service Department, 504-585-2097, which shall record water usage for record purposes and which shall be returned to the Board as a condition of acceptance of the Contract. Application for the meter requires a $1,500.00 deposit that is refundable upon return of the meter in undamaged and operable condition. The hydrant meter application and instructions are available on the Sewerage and Water Board website: https://www.swbno.org/custserv_information_docs.asp.

SC-6.17. Add the following new paragraphs immediately after Paragraph 6.17.E.1:

6.17.E.2. Contractor shall furnish required submittals with sufficient information and accuracy in order to obtain required approval of an item with no more than the number of submittals specified in Paragraph 14.02.D.4 of these Supplementary

Conditions. Engineer will record time for reviewing subsequent submittals of Shop Drawings, Samples, or other items requiring approval and Contractor shall reimburse Owner for Engineer's charges for such time in accordance with Paragraph 14.02.D.4 of these Supplementary Conditions.

6.17.E.3. In the event Contractor requests a substitution for a previously approved item, Contractor shall reimburse Owner for Engineer's charges for such time, unless the need for such substitution is beyond the control of Contractor.

SC-7.02. Delete Paragraphs 7.02.A and 7.02.B in their entirety and insert the following in their place:

7.02.A. Owner intends to contract with others for the performance of other work on the Project at the Site. The authority and responsibility of the Construction Coordinator for the various prime contractors, utility owners, and Owner (if present at the Site) shall be as follows:

7.02.A.1 Owner's Representative: Shall have authority and responsibility for coordination of the various contractors at the Site. Owner's Representative shall be named by the Owner if necessary.

7.02.A.2. Specific matters to be covered by such authority and responsibility: Prioritization of work activity should conflicts occur in work areas between contractors or between contractor and Owner's operations; approval of requests to curtail, interrupt, or otherwise disrupt Owner operation to allow Contractor work to be scheduled and/or occur; cancellation of scheduled Contractor activity in the event Owner requirements supersede prior plans; other issues that require approval or prioritization relative to interference with Owner operations or conflicts with other.

7.02.A.3. Extent of such authority and responsibility: Owner's Representative decision and direction to Contractor shall be final. Planning and discussions to coordinate options relative to operational disruptions requested by Contractor will be scheduled by Owner's Representative. Owner's Representative will review and respond to requests by the Contractor for outage, interconnection, operational disruption, contract activity prioritization, or the like, within 10 business days.

7.02.A.4. Limitations of such authority and responsibility: Owner's Representative may not modify the Contract or its terms and conditions.

7.02.B. Unless expressly assigned to the Construction Coordinator, all other authority and responsibility will remain vested with each prime contractor, utility owner, or Owner (if present at the Site).

SC-7.04. Add the following new paragraph immediately after Paragraph 7.03:

SC-7.04. *Claims Between Contractors*

7.04.A. Should Contractor cause damage to the work or property of any other contractor at the Site, or should any claim arising out of Contractor's performance of the Work at the Site be made by any other contractor against Contractor, Owner, Engineer, or the Construction Coordinator, if applicable, Contractor shall (without involving Owner, Engineer, or Construction Coordinator) either i) remedy the damage; ii) agree to compensate the other contractor for remedy of the damages; or iii) remedy the damages and attempt to settle with such other contractor by agreement, or to otherwise resolve the dispute by arbitration or at law.

7.04.B. Contractor shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner, Engineer, the Construction Coordinator (if applicable) and the officers, directors, members, partners, employees, agents, and other consultants and subcontractors of each and any of them from and against all Claims, costs, losses and damages (including, but not limited to, fees and charges of engineers, architects, attorneys, and other professionals and court and arbitration costs) arising directly, indirectly or consequentially out of any action, legal or equitable, brought by any other contractor against Owner, Engineer, their officers, directors, members, partners, employees, agents, and other consultants and subcontractors, or the Construction Coordinator (if applicable) to the extent said Claim is based on or arises out of Contractor's performance of the Work. Should another contractor cause damage to the Work or property of Contractor or should the performance of work by any other contractor at the Site give rise to any other Claim, Contractor shall not institute any action, legal or equitable, against Owner, Engineer, or the Construction Coordinator (if applicable) or permit any action against any of them to be maintained and continued in its name or for its benefit in any court or before any arbiter which seeks to impose liability on or to recover damages from Owner, Engineer, or the Construction Coordinator (if applicable) on account of any such damage or Claim.

7.04.C. If Contractor is delayed at any time in performing or furnishing the Work by any act or neglect of another contractor, and Owner and Contractor are unable to agree as to the extent of any adjustment in Contract Times attributable thereto, Contractor may make a Claim for an extension of times in accordance with Article 12. An extension of the Contract Times shall be Contractor's exclusive remedy with respect to Owner, Engineer, and Construction Coordinator (if applicable) for any delay, disruption, interference, or hindrance caused by any other contractor. This paragraph does not prevent recovery from Owner, Engineer, or Construction Coordinator (if applicable) for activities that are their respective responsibilities.

SC-8.02. Delete Paragraph 8.02.A in its entirety and replace with the following:

8.02.A. In case of termination of the employment of Engineer, Owner shall appoint an Engineer whose status in the Contract Documents shall be that of the former Engineer.

SC-8.06. Delete Paragraph 8.06.A in its entirety.

SC-8.11. Delete Paragraph 8.11.A in its entirety.

SC-9.03. Add the following new paragraphs immediately after Paragraph 9.03.A:

9.03.B. Resident Project Representative (RPR) will be furnished by Owner. The responsibilities, authority, and limitations of the RPR are limited to those of Engineer in accordance with Paragraph 9.09 and as set forth elsewhere in the Contract Documents and are further limited and described below.

9.03.C. Responsibilities and Authority:

9.03.C.1. Schedules: Review and monitor Progress Schedule, Schedule of Submittals, and Schedule of Values prepared by Contractor and consult with Engineer concerning acceptability.

9.03.C.2. Conferences and Meetings: Conduct or attend meetings with Contractor, such as preconstruction conferences, progress meetings, Work conferences and other Project related meetings.

9.03.C.3. Liaison: (i) Serve as Engineer's liaison with Contractor, working principally through Contractor's authorized representative, and assist in understanding the intent of the Contract Documents; (ii) assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's onsite operations; (iii) assist in obtaining from Owner additional details or information when required for proper execution of the Work.

9.03.C.4. Interpretation of Contract Documents: Inform Engineer when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by Engineer.

9.03.C.5. Submittals: Receive submittals that are furnished at the Site by Contractor, and notify Engineer of availability for examination. Advise Engineer and Contractor of the commencement of any Work or arrival of materials and equipment at Site, when recognized, requiring a Shop Drawing or Sample if the submittal has not been approved by Engineer.

9.03.C.6. Modifications: Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and provide recommendations to Engineer; transmit to Contractor, in writing decisions as issued by Engineer.

9.03.C.7. Review of Work and Rejection of Defective Work: (i) Conduct onsite observations of the Work in progress to assist Engineer in determining if the Work is, in general, proceeding in accordance with the Contract Documents; (ii) inform Engineer and Contractor whenever RPR believes that any Work is defective; (iii) advise Engineer whenever RPR believes that any Work will not produce a completed Project that conforms generally to the Contract Documents or will imperil the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents, or has been damaged or does not meet the

requirements of any inspection test, or approval required to be made; and advise Engineer of that part of the Work in progress that RPR believes should be corrected or rejected or uncovered for observation, or requires special testing, inspection, or approval.

9.03.C.8. Inspections, Tests, and System Startups: (i) Verify tests, equipment and systems startups and operating and maintenance training are conducted in the presence of appropriate personnel, and that Contractor maintains adequate records thereof; (ii) observe, record, and report to Engineer appropriate details relative to the test procedures and system startups; and (iii) accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the results of these inspections, and report to Engineer.

9.03.C.9. Records: (i) Maintain records for use in preparing Project documentation; (ii) keep a diary or log book recording pertinent Site conditions, activities, decisions and events; (iii) record names, addresses, fax numbers, e-mail addresses, web site locations, and telephone numbers of Contractors, Subcontractors, and major Suppliers of materials and equipment.

9.03.C.10. Payment Requests: Review Applications for Payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Engineer, noting particularly the relationship of the payment requested to the Schedule of Values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.

9.03.C.12. Certificates, Operation and Maintenance Manuals: During the course of the Work, verify materials and equipment certificates and operation and maintenance manuals and other data required by Specifications to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents been delivered to Engineer for review and forwarding to Owner prior to payment for that part of the Work.

9.03.C.13. Completion: (i) Participate in a Substantial Completion inspection; assist in determination of Substantial Completion and the preparation of lists of items to be completed or corrected; (ii) Participate in a final inspection in the company of Engineer, Owner, and Contractor and prepare a final list of items to be completed and deficiencies to be remedied; and (iii) observe whether items on final list have been completed or corrected, and make recommendations to Engineer concerning acceptance.

9.03.D. Limitations of Authority: Resident Project Representative will not:

9.03.D.1. have authority to authorize a deviation from Contract Documents or substitution of materials or equipment, unless authorized by Engineer; or

9.03.D.2, exceed the limitations of Engineer's authority as set forth in Contract Documents; or

9.03.D.3. undertake any of the responsibilities of Contractor, Subcontractors, Suppliers, or Contractor's authorized representative; or

9.03.D.4. advise on, issue directions relative to, or assume control over an aspect of the means, methods, techniques, sequences, or procedures of Contractor's work unless such advice or directions are specifically required by the Contract Documents; or

9.03.D.5 advise on, issue directions regarding, or assume control over safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor; or

9.03.D.6. participate in specialized field or laboratory tests or inspections conducted offsite by others, except as specifically authorized by Engineer; or

9.03.D.7. accept Shop Drawings or Samples from anyone other than Contractor; or

9.03.D.8. authorize Owner to occupy the Project in whole or in part.

SC-9.09. Add the following new paragraph immediately after Paragraph 9.09.E:

9.09.F. Contractors, Subcontractors, Suppliers, and others on the Project, or their sureties, shall maintain no direct action against Engineer, its officers, employees, affiliated corporations, and subcontractors, for any Claim arising out of, in connection with, or resulting from the engineering services performed. Only the Owner will be the beneficiary of any undertaking by Engineer.

SC-10.03. Add the following new paragraphs immediately after Paragraph 10.03.A.3.

10.03.A.4. An executed Change Order shall be in accord and satisfaction concerning all potential claims related to the Change Order work including inefficiencies or acceleration-based claims.

10.03.A.5. There shall be no Contractor delay claim based upon Contractor's inability to perform Change Order work due to delay caused by Owner's approval process.

SC-10.05. Delete Paragraphs 10.05.C through 10.05.E in their entirety and insert the following in their place and renumber Paragraph 10.05.F to read 10.05.D:

10.05.C. Engineer's Action and Executive Negotiation:

10.05.C.1. Engineer's Action:

10.05.C.1.a. Engineer will render a formal decision in writing within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any. Engineer's written decision

on such Claim, dispute or other matter will be final and binding upon Owner and Contractor, unless within 10 days after issuance of Engineer's written decision, either party appeals the decision by giving the other party and Engineer written notice of request for executive negotiation.

10.05.C.1.b. In the event Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.

10.05.C.2. Executive Negotiation:

10.05.C.2.a. Within 10 days of the delivery of notice of appeal to Engineer's written decision regarding Claim, dispute or other matter, senior representatives of at least Owner and Contractor, having authority to settle the dispute, and Engineer shall meet at a mutually acceptable time and place, and thereafter as often as they reasonably deem necessary, to exchange relevant information and to attempt to resolve the dispute.

10.05.C.2.b. In the event a mutually acceptable decision cannot be reached through executive negotiation within 20 days of the appealing party's notice, or mutually agreeable longer period, or if the party receiving such notice will not meet within 10 days, Owner or Contractor may make a written declaration, delivered to the other party and Engineer, that the executive negotiation is deemed unsuccessful and may initiate further dispute resolution measures in accordance with Article 16.

10.05.C.2.c. If no such dispute resolution procedures have been set forth in Article 16, a written notice of intention to further appeal Engineer's written decision shall be delivered by Owner or Contractor to the other and to Engineer within 30 days after the date upon which the executive negotiation has been declared unsuccessful, or within 60 days after Substantial Completion, whichever is later (unless otherwise agreed in writing by Owner and Contractor), to exercise such rights or remedies as the appealing party may have with respect to such Claim, dispute, or other matter in accordance with applicable Laws and Regulations.

SC-11.01. Delete Paragraph 11.01.A.5.c in its entirety and insert the following in its place:

11.01.A.5.c. Construction Equipment and Machinery:

11.01.A.5.c(1) Rentals of construction equipment and machinery, and the parts thereof in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. Such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery,

or parts shall cease when the use thereof is no longer necessary for the Work.

11.01.A.5.c(2) Costs for equipment and machinery owned by Contractor will be paid at a rate shown for such equipment in the Rental Rate Blue Book published by Equipment Watch. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs. Costs will include the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of such equipment or machinery, or parts thereof, shall cease to accrue when the use thereof is no longer necessary for the changed Work. Equipment or machinery with a value of less than $1,000 will be considered small tools.

SC-11.01. Add the following language to the end of Paragraph 11.01.A.5.h:

Express and courier services must be approved prior to use.

SC-11.01. Add the following language to the end of Paragraph 11.01.A.5.i:

Any and all notarial fees for the execution of the contract shall be paid by the Contractor. Contractor shall also be responsible for payment of all recordation costs and photocopying.

SC-11.01. Delete paragraph 11.01.B.1 and insert the following in its place:

11.01.B.1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, project managers, assistant project managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.

SC-11.01. Delete Paragraph 11.01.C in its entirety.

SC-11.01. Add the following language after Paragraph 11.01.5:

6. At the Pre-construction conference, the Contractor shall certify to the Engineer the following:

a. A listing of on-site clerical staff, supervisory personnel and their pro-rated time assigned to the Contract,

b. Actual cost of fringe benefits specified in Paragraph 11.01.1 of the General Requirements, and,

c. Existence of employee benefit plan for Holiday, Sick and Vacation benefits and a Retirement Plan.

Such certification must be made by an officer or director of the Contractor with authority to bind the Contractor. Timely certification is a condition precedent to any right of the Contractor to recover compensations for such costs, and failure to timely submit the certification will constitute a full, complete, absolute and irrevocable waiver by the Contractor of any right to recover such costs. Any subsequent changes shall be certified to the Engineer as part of the cost proposal or seven calendar days in advance of performing such extra work.

SC-11.02. Delete Paragraph 11.02 in its entirety.

SC-12.01. Add the following language to the end of Paragraph 12.01.C.2.c:

except, the maximum total allowable cost to Owner shall be the Cost of the Work plus a maximum collective aggregate fee for Contractor and tiered Subcontractors of 20 percent;

SC-12.01. Add the following new paragraph immediately after Paragraph 12.01.C:

12.01.D. *Right to Audit:* The Contractor will submit to any SWBNO audit, inspection, and review and, at the SWBNO's request, will make available all documents relating or pertaining to this Contract maintained by or under the control of the Contractor, its employees, agents, assigns, successors and subcontractors, during normal business hours at the Contractor's office or place of business in Louisiana. If no such location is available, the Contractor will make the documents available at a time and location that is convenient for the SWBNO.

Administrative and financial records shall be made and kept by the contractor in accordance with generally accepted accounting principles and practices. Records shall include, but are not limited to, accounting records, daily reports, change order requests, correspondences and subcontract files (hard copies as well as computer readable data, if it can be made available). Records must be retained and made available upon request for a minimum of five (5) years following completion or formal acceptance of the contracted project.

The Contractor will abide by all provisions of City Code § 2-1120, including but not limited to City Code § 2-1120(12), which requires the Contractor to provide

the Office of Inspector General with documents and information as requested. Failure to comply with such requests shall constitute a material breach of the Contract. The Contractor agrees that it is subject to the jurisdiction of the Orleans Parish Civil District Court for purposes of challenging a subpoena.

SC-12.02. Add the following sentences immediately after Paragraph 12.02.B: "

12.02.C In order to be entitled to an increase in time for performance of the Work, Contractor must establish that its critical path of construction performance has been adversely impacted. Upon such a showing, Contractor shall be entitled only to such an extension equivalent to such actual adverse impact in the critical path.

SC-12.03 – Add the following language at the end of Paragraph 12.03.C:

If Abnormal Weather Conditions are the basis for a claim for additional time, such claim shall be documented by data substantiating that (1) weather conditions were abnormal for the period of time, (2) the abnormal weather could not have been reasonably anticipated, and (3) that weather conditions had an adverse effect on the scheduled construction path and could not be reasonably mitigated.

SC-13.03. Add the following language at the end of Paragraph 13.03:

Inspections, tests, or observations by Engineer, Owner, or its agents may be performed at its discretion, to provide information to the Owner on the progress of the Work. However, such information is not intended to fulfill the Contractor's obligations in accordance with the Contract Documents.

SC-13.03. Delete Paragraph 13.03.B in its entirety and insert the following in its place:

13.03.B. Contractor shall employ an independent testing laboratory or testing agency and shall be responsible for arranging and shall pay for specified tests, inspections, and approvals required for Owner's and Engineer's acceptance of the Work at the Site except:

13.03.B.1. costs incurred in connection with tests or inspections pursuant to Paragraph 13.04 shall be paid for as provided in said paragraph; and

13.03.B.2. as otherwise specifically provided in the Contract Documents.

SC-13.03. Add the following language at the end of Paragraph 13.03.D:

Tests required by Contract Documents to be performed by Contractor that require test certificates be submitted to Owner or Engineer for acceptance shall be made by an independent testing laboratory or agency licensed or certified in accordance with Laws and Regulations and applicable state and local statutes. In the event state license or certification is not required, testing laboratories or agencies shall meet the following applicable requirements:

13.03.D.1. Basic requirements of ASTM E329, “Standard Specification for Agencies Engaged in Construction Inspection, Special Inspection, or Testing Materials used in Construction” as applicable.

13.03.D.2. Calibrate testing equipment at reasonable intervals by devices of accuracy, traceable to the National Institute of Standards and Technology or accepted values of natural physical constants.

SC-13.07. Amend the first sentence of 13.07.A to read as follows:

13.07.A If within no less than one year after the date of Final Acceptance by the Sewerage and Water Board of New Orleans (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents), any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor’s use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner’s written instructions…

SC-13.07. Delete Paragraph 13.07.C. in its entirety.

SC-14.02. Delete Paragraph 14.02.C.1 in its entirety and insert the following in its place:

14.02.C.1. Forty-Five days after presentation of the Application for Payment to Owner with Owner’s Representative’s recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due and when due will be paid by Owner to Contractor.

SC-14.02. Add the following new paragraph(s) immediately after Paragraph 14.02.D.3:

14.02.D.4. Items entitling Owner to retain set-offs from the amount recommended, including but not limited to:

14.02.D.4.a. Owner compensation to Engineer at an estimated average rate of $21s0 per each extra personnel hour for labor plus expenses, if applicable, because of the following Contractor-caused events:

14.02.D.4.a.(2). return visits to manufacturing facilities to witness factory testing or retesting;

14.02.D.4.a.(3). Submittal review in excess of two reviews by Engineer for substantially the same submittal, in accordance with Paragraphs 6.17.E.2 and 6.17.E.3 of these Supplementary Conditions;

14.02.D.4.a.(4). evaluation of proposed substitutes and making changes to Contract Documents occasioned thereby, in accordance with Paragraph 6.05.E of these Supplementary Conditions;

14.02.D.4.a.(5). Overtime worked by Contractor necessitating Engineer, and their officers, directors, members, partners, employees, agents, and other consultants and subcontractors of each, Resident Project Representative or Resident Project Representative's Site staff, if any, to work extraordinary overtime in accordance with Paragraph 6.02.C. of these Supplementary Conditions.

14.02.D.4.b. Liability for liquidated damages incurred by Contractor as set forth in the Agreement.

SC-14.06. Add the following new paragraph immediately after Paragraph 14.06.A:

14.06.B. In accordance with Louisiana Statute 38:2248, punch lists will include cost estimate for each item of work identified by Engineer based on mobilization, labor, materials, and equipment costs of correcting each punch list item. Completed punch list items will be paid upon expiration of 45-day lien period.

SC-14.07. Delete Paragraph 14.07.C.1 in its entirety and insert the following in its place:

14.07.C.1. Forty-five days after presentation to Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and, will be paid by Owner to Contractor.

The percentage of the value of the work done, as stated in Paragraph 14.02.A.3 of the General Conditions, will be withheld by the Board for a period of not less than forty-five (45) consecutive calendar days after the contract has been accepted by the Board, and such acceptance has been recorded in the Office of the Recorder of Mortgages for the Parish of Orleans. At the end of the forty-five (45) day period, the percentage withheld by the Board, will be paid to the Contractor, less any sums that may be legally deducted under any provisions of this contract, upon the Contract or furnishing the Board with a certificate from the Recorder of Mortgages for the Parish of Orleans, certifying that the contract is clear of all liens and privileges.

SC-14.10. Add the following new paragraph immediately Paragraph 14.09.2:

SC-14.10 *Maintenance Period*. The maintenance period under this contract, except as otherwise specifically provided for herein, shall be for a period of forty-five (45) consecutive calendar days beginning from the day after the contract has been accepted by the Board, and such acceptance has been recorded in the Office of the Recorder of Mortgages for the Parish of Orleans. During the maintenance period the Contractor will repair, at his own expense, all defects in the work that may arise, to the satisfaction of the Engineer. The Contractor shall restore all surfaces for which he is responsible under the specifications, whether unimproved, partially improved, or paved surfaces (See Section B of the General Specifications), and maintain them in good condition to the satisfaction of the Engineer. If the

Contractor should fail or refuse to repair, at his own expense, any defects in structures or surfaces developing before the expiration of the aforesaid forty-five (45) days or to adjust satisfactorily any claims for damages to public or private property, the Board shall have the right to continue to hold the retainer and to make the necessary repairs and to satisfy the claims for damages, by such means as the Board shall elect, and to reimburse itself for the cost of these repairs and satisfied claims, out of the said retainer. Any surplus of this retainer will then be paid the Contractor, under the conditions above stated, any deficiency shall be made good by the surety.

SC-15.03.A. Delete the first sentence of Paragraph 15.03.A in its entirety and insert the following in its place:

Upon 7 days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract or any portion of the Contract.

SC-15.04. Delete Paragraph 15.04 in its entirety.

SC-16.01. Delete Paragraph 16.01 in its entirety and insert the following in its place:

SC-16.01 *Meet to Confer and Negotiate*

16.01.A. Engineer's action under Paragraph 10.05.C shall become final and binding 30 days after receipt of written notice of Engineer's action or decision unless, within that time period, Owner or Contractor gives to the other party written notice of intent to submit the Claim to a process of bilateral negotiations as set forth below.

16.01.B. Within 30 days of the delivery of such notice, Owner and Contractor shall meet and confer regarding the Claim. A good-faith effort to negotiate resolution shall be made by both parties.

16.01.C. If the negotiations contemplated by Paragraph SC-16.01.B are unsuccessful, management representatives of Owner and Contractor at least one tier above the individuals who met under SC-16.01.B shall meet, confer, and negotiate within 30 days of the closure of the unsuccessful negotiations.

16.01.D. If the Claim is not resolved by negotiation, Engineer's action under Paragraph 10.05.C shall become final and binding 30 days after termination of the negotiations unless, within that time period, Owner or Contractor:

16.01.D.1. gives to the other party written notice of intent to submit the Claim to a court of competent jurisdiction; or

16.01.D.2. agrees with the other party to submit the Claim to another dispute resolution process.

16.01.E. Notwithstanding any applicable statute of limitations, a party giving notice under Paragraph SC-16.01.D.1 shall commence an action on the Claim within 1 year of giving such notice. Failure to do so shall result in the Claim being time-barred and Engineer's action or denial shall become final and binding.

SC-17.05. Delete Paragraph 17.05 and insert the following in its place:

17.05. *Controlling Law and Jurisdiction*

A. This Contract is to be governed by the laws of the State of Louisiana

B. Contractor hereby consents and yields to the jurisdiction of the Civil District Court for the Parish of Orleans and does hereby formally waive any pleas of jurisdiction on account of residence elsewhere.

END OF SECTION

SECTION 01 26 00
CONTRACT MODIFICATION PROCEDURES

PART 1 GENERAL

1.01 DEFINITIONS

A. Owner – The Sewerage and Water Board of New Orleans (SWBNO).

B. Designer – The entity or individual who is to act as the Engineer-of Record under the oversight and administration of the Owner. The term Designer may refer to a third-party Engineering Firm or a (SWBNO) department or individual.

C. Change Order Request (COR) – A formal proposal written by the Contractor that requests changes to the Contract Price and/or Contract Times. Document will include reference number for tracking purposes and detailed description of and reason for proposed change, and such additional information as appropriate and as may be required for Contractor to accurately estimate cost and time impact on Project. Change to Contract Times must prove impact to the critical path of the project.

D. Work Change Directive (WCD) – A written statement to Contractor signed by the Owner, recommended by the Designer, and acknowledged by the Contractor ordering an addition, deletion, or revision in the Work, or responding to emergencies or differing or unforeseen conditions under which the Work is to be performed. A Work Change Directive will not change the Contract Price or Contract Times but is evidence that the parties expect that the change ordered will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Times.

E. Instruction to Contractor (ITC) – A document or written communication issued by the Owner or Designer directing the Contractor to prepare a proposal for a Change Order. An ITC may or may not influence the Contract Price or Times. An ITC may also be issued to clarify the drawings, specifications, or procedures.

F. Field Change Order (FCO) – A document formalizing the approval of a Change Order. This document will include all paperwork submitted by the Contractor and Designer to initiate the change, including the WCD or ITC, the COR, all supporting documentation submitted by the Contractor, and an analysis of the changes requested by the Designer justifying the increase/decrease to the Contract Prices/Times. Multiple FCOs may be combined into a single Change Order as defined below.

G. Change Order – A document authorizing an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times. Approval of a Change Order is determined by SWBNO Policy and may be modified. Table 12-1 is included at the end of this document for reference on the Signature

authority for Change Orders. This Table was approved by Board Resolution R-063-2021. This approval may be either a Board of Directors Resolution or an Executive Director's Change Authority document. A Change Order may consist of multiple changes to Contract Price and/or Times that would be memorialized in multiple Field Change Orders (FCOs) if necessary.

H. Request for Information (RFI) – A written request, from the Contractor to the Designer and/or Owners that asks for additional information or to clarify some aspect of the project, such as procedures, equipment, materials, specification details or drawing details.

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

1.02 INSTRUCTION TO CONTRACTOR (ITC)

A. Owner may, in anticipation of ordering an addition, deletion, or revision to the Work, request Contractor to prepare a detailed proposal of cost and times to perform contemplated change via an ITC.

B. The ITC will include a reference number for tracking purposes and detailed description of and reason for proposed change, and such additional information as appropriate and as may be required for Contractor to accurately estimate cost and time impact on Project.

C. Proposal requests via ITCs are for information only. Contractor is neither authorized to execute a proposed change nor to stop Work in progress as result of such request.

D. Contractor's written proposal shall be transmitted to Designer for their review no later than 10 business days after Contractor's receipt of ITC.

E. Owner's request for proposal or Contractor's failure to submit such proposal within the required time period will not justify a Claim for an adjustment in Contract Price or Times.

1.03 CHANGE ORDER REQUEST (COR)

A. Include, at a minimum as part of the Contractor's Change Order Request (COR),

a. Specific references including Drawing numbers, Specification section and article/paragraph number, and Submittal type, Submittal number, date reviewed, Designer's comment, as applicable, with appropriate attachments.

b. Stipulated facts and pertinent documents, including photographs and statements.
c. Interpretations relied upon
d. Description of nature and extent of Claim, who or what caused the situation, impact to the Work and work of others, and discussion of claimant's justification for requesting a change to Contract Price or Times or both.
e. Estimated adjustment in price claimant believes it is entitled to with full documentation and justification. Estimate is to be detailed in nature, addressing all elements, materials, parts, equipment, labor, components, and the like affected by and/or incorporated into the Work as a result of the claimed adjustment.
f. Requested Change in Contract Times: include at least progress schedule documentation showing logic diagram for request, documentation that float times available for Work have been used, and revised activity logic with durations including sub-network logic revisions, duration changes, and other interrelated schedule impacts, as appropriate.
g. Documentation and/or information as may be necessary as set forth below for Work Change Directive, and as Designer may otherwise require.

B. For Work that will be performed by subcontract, Contractor is to submit three independent quotes that clearly reflect the scope of the respective modification. Additional supporting information as requested by the Designer shall be provided within 5 business days of request.

C. For Work that is to be self-performed, the Contractor is to provide a detailed breakdown of the Work by labor, materials, and equipment, detailing the labor force, equipment requirements, and providing three independent quotes for the required materials. Labor rates are to be consistent with the wage rate schedule included within these Documents, and equipment rates are to be consistent with those terms established in the General and Supplementary Conditions, and expanded on herein below, as applicable. Again, additional supporting information as requested by the Designer shall be provided within 5 business days of request.

1.04 WORK CHANGE DIRECTIVES

A. Designer will:
   a. Initiate, including a description of the Work involved and any attachments
   b. Sign and transmit electronic file to Owner for authorization.
   c. Provide any additional documentation as requested per RFI.

B. Owner will:
   a. Sign, demonstrating approval of the changes involved.
   b. Transmit electronic copies to Designer and Contractor

C. Contractor will:

a. Upon completion of Work covered by the WCD, submit COR documentation for inclusion in a Change Order
b. Provide documentation including, but not limited to:

i. Detailed records of Work performed
ii. Information required to substantiate resulting change in Contract Times and Contract Price for Work
iii. Support Data such as: dates Work was performed and by whom; time records, wage rates paid, equipment rental rates; invoices and receipts for materials, equipment, and subcontracts
1. Subcontracted Work: supply three independent quotes or documentation of cost reasonableness
2. Self-performed Work: supply three independent pricing quotes for materials or documentation of cost reasonableness

1.05 CHANGE ORDERS

A. Designer will prepare one electronic copy of proposed Change Order and transmit such with Designer's written recommendation based on one or multiple Field Change Orders.
B. Upon receipt of recommended Change Order, Owner will either:
a. Execute Change Order, or
b. Return to Designer unsigned copies with written justification for not executing Change Order.
C. Upon receipt of Owner-executed Change Order, Designer will transmit electronic packages to the Contractor, the Resident Project Representative or other field representative, and retain the package as part of the project file, or if Owner fails to execute the Change Order, Designer will promptly so notify Contractor and transmit Owner's justification to Contractor.
D. Upon receipt of documentation of the Owner-executed Change Order, Contractor shall:
a. Perform Work covered by Change Order.
b. Revise Schedule of Values to adjust Contract Price and submit with next Application for Payment.
c. Revise Progress Schedule to reflect changes in Contract Times, if any, and to adjust times for other items of Work affected by change.
d. Enter changes in Project record documents after completion of change related Work.
E. In signing a Change Order, Owner and Contractor acknowledge and agree that:
a. Stipulated compensation (Contract Price or Contract Times, or both) set forth includes payment for (i) the Cost of the Work covered by the Change Order, (ii) Contractor's fee for overhead and profit, (iii) interruption of Progress Schedule, (iv) delay and impact, including

cumulative impact, on other Work under the Contract Documents, and (v) extended overheads.

b. Change Order constitutes full mutual accord and satisfaction for the change to the Work.
c. Unless otherwise stated in the Change Order, all requirements of the original Contract Documents apply to the Work covered by the Change Order.

1.06 CHANGE ORDER PROCESS SUMMARY

This Section is to be used in conjunction with the *Change Order Flowchart* included.

A. Change Condition is identified by the Contractor.
B. Contractor initiates and submits an RFI
C. Designer responds to RFI indicating a Change Order is necessary.
D. If the Change Condition could delay the overall project schedule by waiting for approval at the next SWBNO Board of Directors meeting, then a WCD is issued by the Designer/Owner. Otherwise, skip to step (E).
    a. The Contractor begins Work as indicated in RFI Response/WCD.
    b. Contractor submits costs incurred as COR.
    c. If COR costs are justifiable, Designer/Owner creates FCO for Contractor signature.
    d. Owner submits Change Order to Executive Director (ED Change Authority) or Board of Directors based on Table 12-1 copied at the end of this document.
    e. After Approval of ED Change Authority or Board of Directors Resolution, Designer and/or Owner sign and return fully executed FCO(s) to Contractor.
    f. Contractor may include costs in the next Pay Application.
E. If the Change Condition does not impact the critical path of the project schedule, then the Designer/Owner submits an ITC to Contractor.
    a. The Contractor takes instructions from ITC and creates a proposal to complete the Work and submits as an COR.
    b. If COR costs are justifiable, Designer/Owner creates FCO for Contractor signature.
    c. Owner submits Change Order to Executive Director (ED Change Authority) or Board of Directors based on Table 12-1 copied at the end of this document.
    d. After Approval of ED Change Authority or Board of Directors Resolution, Designer and/or Owner sign and return fully executed FCO(s) to Contractor. Owner may concurrently issue a Notice to Proceed to Contractor for this Work.
    e. Contractor may include costs as incurred in following Pay Application(s)

1.07 REFERENCE DOCUMENTS

A. Contract Change Order Tier Summary per Resolution R-063-2021 (Attachment “A”)
B. Change Order Flowchart (Attachment “B”)
C. Instruction to Contractor Template/Example (Attachment “C”)
D. Work Change Directive Template/Example (Attachment “D”)
E. Field Change Order Template/Example (Attachment “E”)
F. ED Change Authority Template/Example (Attachment “F”)

PART 2 PRODUCTS (NOT USED)

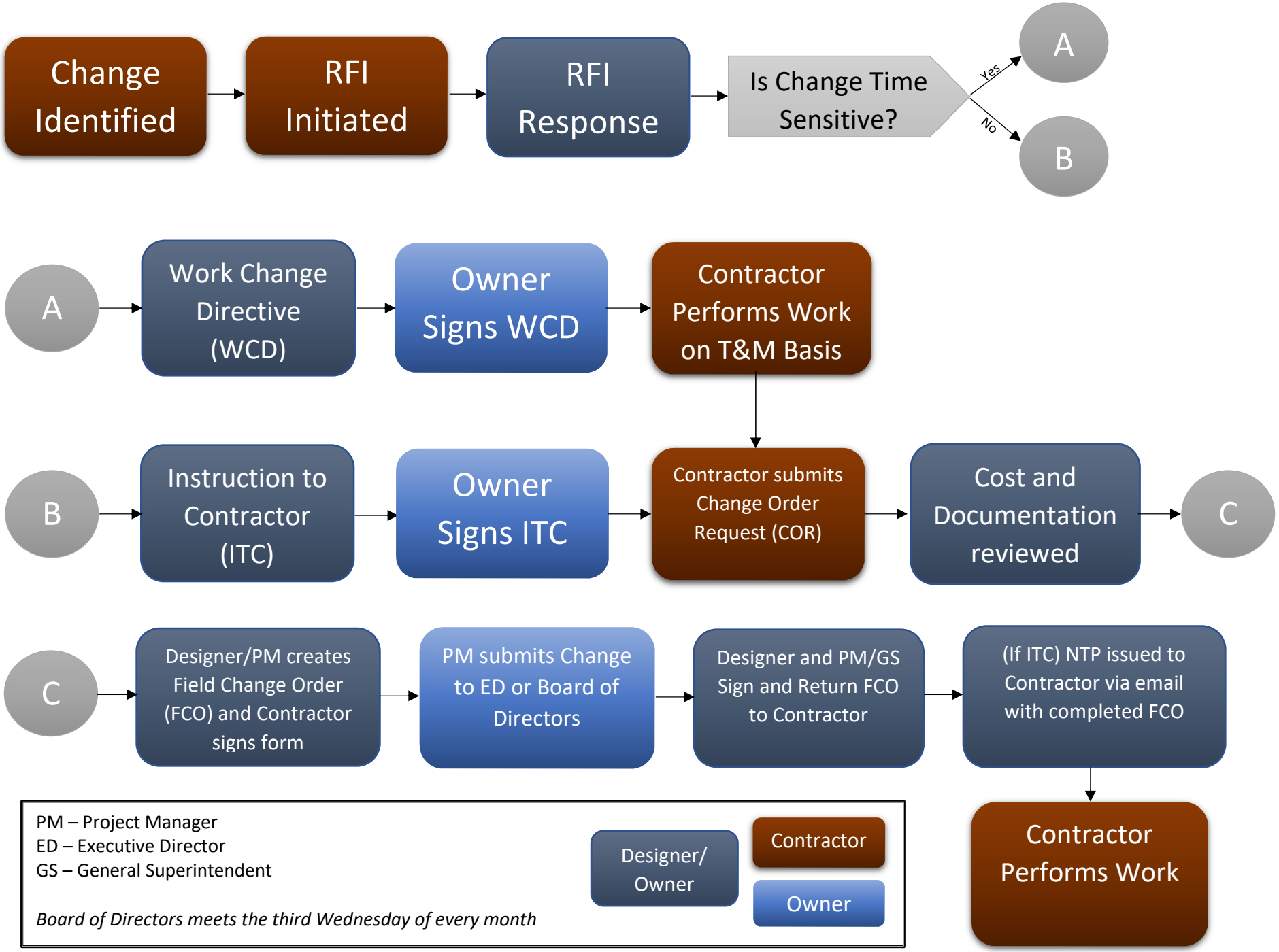
PART 3 EXECUTION (NOT USED)

END OF SECTION

Table 12-1. Contract Change Order Tier Summary

Contract Tier	Change Order Parameter	Signature Requirements
Tier One: Contract Aggregate <$1,000,000		
Change Order Scenario 1	If a change order is below 10% of the original contract value	Executive Director approves change order and SWBNO Board of Directors is notified during monthly meetings
Change Order Scenario 2	If a change order exceeds 10% of the original contract value, and total contract value remains below $1M	Executive Director approves change order and SWBNO Board of Directors is notified during monthly meetings
Tier Two: Contract Aggregate between $1,000,000 and $4,999,999.99		
Change Order Scenario 1	If a change order is less than $250,000 or 20% of the original contract value (whichever is less considering cumulative amount of change orders)	Executive Director approves change order and SWBNO Board of Directors is notified during monthly meetings
Change Order Scenario 2	If a change order or aggregate of change orders exceeds $249,999.99 or 20% of the original contract value (whichever is less considering cumulative amount of change orders)	SWBNO Board of Directors approves via F&A Committee. Executive Director signs resolution.
Tier Three: Contract Aggregate $5,000,000 and above		
Change Order Scenario 1	If a change order is less than $500,000 or 10% of the original contract value (whichever is less considering cumulative amount of change orders)	Executive Director approves change order and SWBNO Board of Directors is notified during monthly meetings
Change Order Scenario 2	If a change order or aggregate of change orders exceeds $499,999.99 or 10% of the original contract value (whichever is less considering cumulative amount of change orders)	SWBNO Board of Directors approves via F&A Committee. Executive Director signs resolution.

CHANGE ORDER FLOWCHART



INSTRUCTION TO CONTRACTOR

Contract Name	SWBNO Contract No.:
	Reference RFI No. (If applicable)
Contractor	Instruction No. 001
Contract Description/Specification Section	Date:

This instruction is issued to:

- ☐ Clarify drawings, specifications, or procedures.
- ☐ Request a proposal.
- ☐ Transmit drawings or documents for incorporation into the work.

The SWBNO is directing the Contractor to:

Recommended by Designer: _____

Authorized by Owner: _____

IF, IN THE CONTRACTOR'S OPINION, A CLARIFICATION INVOLVES WORK WHICH CHANGES THE CONTRACT PRICE OR TIME, YOU MUST SUBMIT A CHANGE ORDER REQUEST OR NOTICE AS REQUIRED IN THE CONTRACT DOCUMENTS.

WORK CHANGE DIRECTIVE NO.: 001

Owner: Sewerage & Water Board of New Orleans
Designer:
Contractor:
Owner's Project No.: Contract No.
Contract Name:

Date Issued: **Effective Date of Work Change Directive:**

Contractor is directed to proceed promptly with the following change(s):

Description:

Attachments:

Purpose for the Work Change Directive:

Directive to proceed promptly with the Work described herein, prior to agreeing to change in Contract Price and Contract Time, is issued due to:

☐Non-agreement on pricing of proposed change. ☐Necessity to proceed for schedule or other reasons.

Estimated Change in Contract Price and Contract Times (non-binding, preliminary):

Contract Price: _____ ☐ increase ☐ decrease ☐ not yet estimated
Contract Time: _____ days ☐ increase ☐ decrease ☐ not yet estimated

Basis of estimated change in Contract Price:

☐ Lump Sum ☐ Unit Price ☐ Cost of the Work ☐ Other

	Recommended by Designer	Authorized by Owner	Received by Contractor
By:			
Title:			
Date:			

SWBNO FIELD CHANGE ORDER

FCO No.	Contract No.
Project Manager	Date
Project Name	**Contractor**
	Dated _____,_____ (Year)

**You are hereby requesting to make the following (In Scope) change(s) in acordance with the terms and conditions of the above contract

((Description of Change))

FOR THE (Additive/Deductive) Sum of	**$**	**-**
Original Contract Amount	$	1,000,000.00
Sum of Previous Changes	$	3,000.00
Present Contract Amount	$	1,003,000.00
This Change Add (Deduct)	$	2,000.00
Proposed Contract Amount	$	1,005,000.00

Commencement of Contract Times	1/1/2022
Contract Time (days)	365
Original Completion Date	1/1/2023
Previous Changes to Contract Times (days)	15
This Change to Times (days)	10
Revised Contract Completion Date	1/26/2023

Your acceptance of this Change Order shall constitue a modification to our Contract and will be performed subject to all the same terms and conditions in our Contract indicated above, as fully as if the same were repeated in this acceptance.

The adjustment, if any, to this Contract shall constitute a full and final settlement of any and all claims arising out of or related to the change set forth herein, including claims for impact and delay costs.

The Director of Procurement will direct the Contractor to increase the penal sum of the existing Performance, Payment Bonds and Insurance or to obtain additional bonds on the basis of a $100,000.00 or greater value change order. The Contractor Shall: Provide written confirmation within one (1) week of request: from their bonding company/agent (attorney-in-fact) that the amounts of the Performance, Payment Bonds and Insurance have been adjusted to 100% of the new contract amount. NOTE: No Invoices for change order work shall be paid without approved supporting documentation.

Contractor _____

Designer _____

Project Manager _____

General Superintedent _____

Executive Director's Approval of Change Order No. X **ED-00X-20XX**

Contract
Number/Name:

Contractor:

This Change Order, in the amount of XXXXXXX, represents additional construction costs (labor, material, and equipment) for_____. This change brings the accumulated contract change order total to $XXXX, or XXX% of the original contract. The cumulative contract total is now $XXXXXXXXX.

Provide Details

Attachments: Board of Directors Contractor Fact Sheet, S&WB Cost Estimate, and Contractor's Proposals

Recommended by: _____
M. Ron Spooner
Interim General Superintendent

Pursuant to the approval authority vested in the Executive Director by Resolution R-063-2021, I hereby approve Change Order X as indicated above.

_____
Ghassan Korban
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

ATTACHMENT TO GENERAL SPECIFICATIONS

STATEMENT OF POLICY

It is the policy of the Sewerage and Water Board of New Orleans that all work places associated with its operation, maintenance, improvements, and expansion be kept drug free. In order to insure this, the Sewerage and Water Board has approved the following drug testing policy to be implemented on this contract.

NOTICE

The contractor shall notify all personnel to be employed on this contract that they must submit to drug testing upon the occurrence of any accident, injury, or unsafe and hazardous incident which involves them. Agreement to submit to such drug testing shall be required for the employment of all personnel under this contract.

PENALTIES

Any employee who refuses to agree to testing under this policy or who refuses to be drug tested after the occurrence of any accident, injury or unsafe and hazardous incident which involves them, or who fails to report any such accident, injury or incident within twenty-four (24) hours of its occurrence, shall be deemed incompetent under Paragraph 47 of the General Specifications. Any employee found to have a positive test result after his conformational testing shall be deemed incompetent under Paragraph 47 of the General Specifications. Any employee deemed incompetent under these provisions shall be removed by the contractor from work under this contract and any other current Board contract.

TESTING PROCEDURE

The contractor shall while performing this contract, require any of its employees who are involved in an accident, injury or unsafe and hazardous incident while in the course and scope of their employment, whether vehicular or non-vehicular in nature, to be tested for blood alcohol or drug levels through a laboratory approved by the National Institute for Drug Abuse. Said employee shall provide a testing sample as soon as possible after such accident, injury or incident, but no longer than twenty-four (24) hours from the time of the occurrence. The contractor shall provide copies of the results of the initial testing on the samples involved to the Risk Manager of the Sewerage and Water Board of New Orleans as soon as such results are known. If the initial testing reveals a positive result, the contractor shall forward the remainder of the original testing sample to a second, conformational testing. The Sewerage and Water Board of New Orleans shall consider any result to be positive if it indicates any level which exceeds the levels set forth as follows:

CUT-OFF LEVELS INDICATING POSITIVE TEST RESULTS

The following initial cut-off levels shall be used when screening specimens to determine whether negative or positive:

	Initial Test Level (ng/ml)
Marijuana metabolites	50
Cocaine metabolites	300
Opiate metabolites	300
Phencyclidine (PCP, etc.)	25
Amphetamines	1000
Alcohol	.05% by weight based on grams of alcohol per 100cc of blood
LSD	150
Barbiturates	300
Benzodiazepines	300

Quantitative GC/MS confirmation procedures at the following cut-off values shall be used for the following drugs:

	Confirmatory Test Level (ng/ml)
Marijuana metabolites*	10
Cocaine metabolites**	150
Opiates (Morphine, Codeine)	150
Phencyclidine (PCP, etc.)	25
Amphetamines (amphetamine, Methamphetamine)	300
LSD	150
Barbiturates	300
Benzodiazepines	300

* Delta-9-Tetrahydrocannabinol - 9-Carboxylic Acid
** Benzoylecgonine

The contractor shall choose the laboratory to be used for drug testing, and shall identify such laboratory to the Risk Manager of the Sewerage and Water Board prior to receiving approval to start work. All laboratories shall be approved by the National Institute for Drug Abuse.

The contractor shall notify the Board's Risk Manager immediately of the results of any conformational testing.

The Contractor's Senior Project Superintendent working in consultation and conjunction with the Board's Risk Manager and the Board's Engineer, shall determine whether an accident, injury or unsafe or hazardous incident occurred. The Safety Department of the Sewerage and Water Board reserves the right to investigate any such matter and make a complete report to the Executive Director of the Sewerage and Water Board whose decision shall be final.

The Sewerage and Water Board shall not be liable for any cause of action of any employee of the contractor brought against the contractor as a result of this policy. The Sewerage and Water Board shall not be liable for the contractor's failure to stipulate adherence to the terms and conditions of this drug testing policy as a condition of employment of any employee on this contract. The Board shall not release the contractor from his responsibilities under the policy unless failure to adhere to the conditions of this policy shall be a direct result of any action taken by the Board.

These requirements shall be acknowledged by signature of the contractor's authorized representative in the space provided in the "Form of Proposal".

Attachment 2 - Safety Orientation Notice

Welcome

We welcome you to the S&WB and request your assistance in maintaining our Safety Standards. For the safety of yourself and everyone working at the S&WB, you are asked to observe the following safety precautions. When this notice has been read thoroughly, a senior representative of your company is required to distribute this information to all employees who will be affected. You may call the Board's Risk Management Department at (504) 585-2382 if you have any questions.

Basic

1. Smoking will be allowed in designated areas only.

2. Horseplay, practical joking and fighting are positively prohibited.

3. The use or possession of illegal drugs or intoxicating beverages is strictly prohibited on all S&WB property.

4. Housekeeping is a must. We will keep our area safe and free from litter and expect you do to the same.

5. Handrails must always be used when going up and down ladders or stairs.

6. When working in confined spaces, the contractor must be in full compliance with Occupational Safety and Health Administration (OSHA) Standard # 29CFR 1910.146 at all times. Atmospheric conditions such as adequate ventilation, the presence of oxygen and the absence of explosive gases must be assured before working in voids, tanks, or other enclosed spaces.

7. Radios must be turned off.

8. S&WB reserves the right to issue a stand down to Contractor's if necessary to address repeated safety issues or concerns or poor housekeeping. Stand downs may range from a few hours up to a full workday.

Emergency

9. The S&WB Emergency Response Plan is a document, which provides specific notification instructions to be followed in case of hazardous material spills. The Board's Environmental Affairs Office phone number is 942-3855 during normal business hours 7:30 a.m. to 4:00 p.m.

10. The Board's 24-hour emergency lines are (504) 529-2837 and 865-0575 (Central Control Dispatcher, Carrollton Plant.)

11. Since Board contracts are performed under various circumstances at various locations, prior to beginning any work, the contractor should consult with the Board employee who is responsible for monitoring the contract in order to establish the most effective procedures for handling emergencies.

Transportation

12. Warning signals and lights shall be used as follows:

13. Rotating beacons shall be used if your vehicle is so equipped.

14. Tail lights / emergency flashers shall be used.

15. Orange reflector type safety cones shall be placed to give other motorists warning.

16. If vehicle is moving, backing, or parking, proper traffic control shall be exercised.

Protective Clothing and Equipment

17. All personnel who are exposed to eye hazards will wear safety glasses. Hard hats will be worn at all times while an employee is in the immediate vicinity of overhead hazards or while operating heavy equipment without a Rollover Protection Device.

18. Protective clothing and equipment such as rubber aprons and gloves, eye and face protection, approved respirators or dust masks will be worn when handling all harmful chemicals.

Reporting

19. Defective equipment, machinery, hazardous conditions, or unsafe work practices or conditions shall be reported immediately to your Supervisor / Foreman who will then contact proper S&WB personnel for corrections.

20. All injuries will be reported to the Risk Manager, (504) 585-2422, or to the Safety Unit, (504) 585-2522, regardless of how minor an injury may seem.

21. S&WB employees may hold safety meetings to discuss and promote safe working conditions and accident prevention. You may be asked to attend.

22. In case of incident, Contractors shall follow S&WB Incident Reporting Protocols provided in Attachment 2A.

Work Smart

23. Stay alert at all times, know what is going on around you. Know the safe operating procedures concerned with your assigned duties. When your duties may influence the safety of Board employees, notify the employees and their supervisors first.

24. Vendor / Contractors shall at all times demonstrate strict compliance with all Federal, State and Local regulations regarding safety, including but not limited to, all relevant Department of Environmental Quality (DEQ), Department of Transportation (DOT), Environmental Protection Agency (EPA), and Occupational Safety and Health Act (OSHA) regulations.

25. The Vendor / Contractor will at the request of the Risk Manager and/ or Safety Manager

remove any of his employees found to be creating or contributing to unsafe conditions.

26. The following items are not allowed on any S&WB Facility or jobsite:

- Firearms and Ammunition
- Alcohol and illegal drugs

Attachment 2A - SWBNO Incident Response and Reporting Protocols

This document constitutes SWBNO Incident Reporting Protocols as referenced in *Attachment 2 - Safety Orientation Notice* of the Supplementary Conditions. In case of an incident, these protocols shall be followed in addition to those that are part of the Contractor's Safety Program and of which SWBNO has been informed.

SWBNO incident response and reporting protocols may be categorized into three phases: **Phase 1 - Stop Work and Make Safe, Phase 2 - Stand Down, and Phase 3 - Investigation and Reporting.** A flowchart of these protocols is provided in Exhibit 1. Contacts shown thereon shall be identified in coordination with SWBNO and the Owner's Construction Manager (CM) for inclusion in the *Contractor's Safety Plan*. A blank contact list, to be prepared and submitted in Contractor's Safety Plan, is provided in Exhibit 2. An Initial Incident Report template is provided as Exhibit 3.

Phase 1 - Stop Work and Make Safe (Immediate Response)

- Ensure personnel are removed from danger, safe, and accounted for.
- **STOP WORK** and take actions to **MAKE SAFE**.
- In case of injury, immediately call Central Control and they will dispatch 911. Proceed with treatment of injuries that do not require emergency services.
- Provide immediate notifications to the Owner's Construction Manager (CM) and affected SWBNO personnel. See contact list.
- Once the situation is made safe and there is not an imminent threat to personnel, property, or environment, **STAND DOWN.**
- Do not continue work until an initial incident investigation has been conducted by the Owner's CM and SWBNO personnel.
- Conduct Drug Testing as required by SWBNO Policy.
- Conduct additional activities as may be documented in Contractor's Safety Program.

Phase 2 Stand Down (As Soon as Practical)

- Contractor and Owner's CM to immediately begin incident investigation and reporting. Log and record incident in Contract Document Management System (DMS).
- Owner's CM to provide verbal notification to the SWBNO PM who makes immediate notifications throughout SWBNO.
- Any damaged plant equipment shall remain at the site until SWBNO has had the opportunity to view and approves transport offsite.
- Owner's CM to prepare an email summarizing the incident with distribution to the SWBNO PM and the SWBNO Leadership Team no later than the end of the day on which the incident occurred. Include details and photos as appropriate.
- ONLY proceed with Work once the Stand Down has been completed and a collective all clear is provided by Contractor / Subcontractors, the Owner's CM, and SWBNO personnel.

Phase 3 – Investigation and Reporting

- **Within 24 Hours** – Contractor shall prepare *Initial Incident Report* including preliminary damage assessment and submit by email with upload to DMS. Contractor shall utilize form provided as Exhibit 3 or alternate form approved by the SWBNO. Contractor and Construction Inspector shall log and record safety incidents daily. Owner's CM to review and distribute to the SWBNO PM and the SWBNO Leadership Team.
- **Within 7 Calendar Days** – Contractor shall prepare *Final Incident, Damage Assessment, and Remedial Actions Report* and submit via email with upload to DMS. Documentation is to be discussed in a roundtable meeting to include Contractor (Subs as appropriate), Owner's CM, and individuals designated by SWBNO. Lessons Learned disseminated shall be disseminated by the Owner's CM to all within one week of incident. Serious incidents may require longer investigation.

Exhibit 1 – Incident Response and Reporting Flowchart

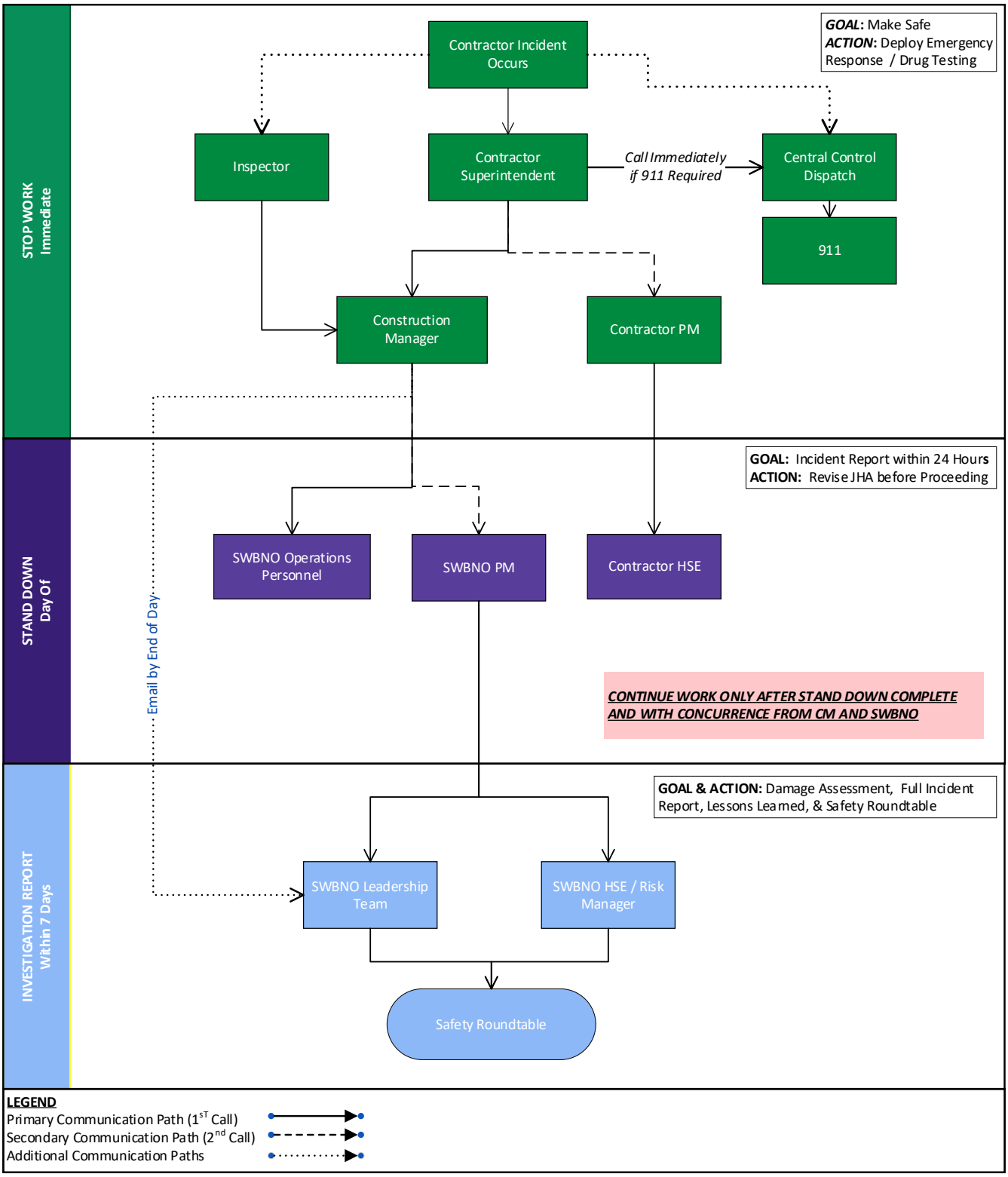


Exhibit 2 – Contact List for Incident Reporting (to be populated and made part of Contractor's Safety Program)

Entity	Primary Contact	Secondary Contact	Individual with Primary Responsibility for Immediate Contact
Contractor Superintendent			**Operator, workers**
Central Control (if required)			**Contractor Superintendent**
Contractor Project Manager			**Contractor Superintendent**
Owner's Construction Manager			**Contractor Superintendent**
Construction Inspector			**Operator, worker and/or Construction Superintendents**
SWBNO Operations			**Owner's Construction Manager and/or Superintendent**
SWBNO Project Manager			**Owner's Construction Manager**
SWBNO Leadership Team			**Owner's Construction Manager**
SWBNO Risk Management			**SWBNO PM**
Other _____			**_____**

Exhibit 3 – Initial Incident Reporting Template

Initial Incident Notification Template

Incident Title			
Incident Date		**Incident Time**	☐ am ☐ pm
Contract Number		**Contract Name**	
Prime Contractor		**Superintendent**	
Subcontractor		**Subcontractor Contact**	

Incident Details *(A comprehensive incident report with additional details should be submitted within 7 days)*

Incident Impacts (*Check all that apply)*

☐ Injury ☐ Near Miss ☐ Property Damage ☐ Equipment Damage ☐ Environmental

Where did the incident occur?

Was anyone injured? YES ☐ NO ☐
(If YES, p*rovide name of employee, description of injury, medical attention provided and by whom, and whether 911 was dispatched)*

Was any Board equipment or infrastructure damaged? YES ☐ NO ☐ *(If YES, provide details below including what was damaged, the extent of damage, assessment of impact to ongoing operations, and estimated repair requirements.)*

Describe any other impacts or damages that occurred as a result of the incident. (e.g., environmental, 3rd party)

List all personnel and associated role involved with incident. *(Attach witness statements from each individual involved)*

Incident Description

What work was being performed at the time of the incident?

Describe what happened in sequence? ***(Attach additional pages as necessary.)***

Based on preliminary assessment, what was the cause of the incident?

Photos / Diagrams of Incident *(Attach additional pages as necessary.)*	

Witness Statements

Stop Work and Standy Down Actions
What immediate actions were taken? (e.g, emergency response or notifications, securing scene, makingthe area safe etc.)
Who was contacted to inform that the incident occurred?
Describe how work proceeded following the incident? Was a "Stand Down" conducted? Were any modifications to the JHA or perm its required?
Describe further investigations that are in progress and timeline for providing (detailed incident reports, damage assessments, etc.)?

Contact Details			
Form Prepared By		**Signature**	
Email		**Phone**	

Additional Information

ATTACHMENT 3

Sewerage and Water Board of New Orleans
Electrical Safety Clearance Procedure

Definitions:

Operator: The Board employee who is on-site and in responsible charge of the operation of the plant, station, or other facility.

Out of Service: The electrical/mechanical disconnection of equipment which is to remain inoperable.

Power Dispatcher: The shift employee on duty at Central Control at the time safety clearance occurs.

Signee: The person who actually tags-out equipment for safety clearance.

Supervisor/Foreman: The Board employee who is the supervisor/foreman in responsible charge of the repair/maintenance of one or more work locations which requires safety clearance. This person may not necessarily be "on-site" at any particular location.

Tag-out: The physical tagging of equipment by an operator for the purpose of disabling equipment.

Lock-out: The physical locking of equipment by an operator for the purpose of disabling equipment.

General Provisions

1) All equipment repair/maintenance work which is scheduled and requires safety clearance should be presented to Central Control at the beginning of each work day by the supervisor/foreman/electrical engineer in charge of the repair/maintenance. Twenty four (24) hour advance notice of scheduled work for major outages is desirable; however, it is understood that due to the nature of the services provided by the Board this preferred notice may not be possible for every safety clearance.

2) In cases where two (2) or more crafts are working on, or require safety clearance on the same equipment, the supervisor/foreman/electrical engineer for each craft must follow the appropriate safety clearance procedure and the equipment must be tagged out for each craft's signee. No equipment can be tested and/or restored to service until all tags have been removed in accordance with the tag removal procedure.

3) When an operator requests service for equipment at an unmanned facility, i.e. an unmanned sewer station or unmanned underpass station, from either Electrical Maintenance or Mechanical Maintenance, the appropriate maintenance department shall request the responsible operator to tag-out the equipment. When the appropriate maintenance department, in the course of servicing this equipment, requires restoration of power, the appropriate maintenance department shall contact the responsible operator directly (if operator is present) or by radio or telephone (if operator is absent) and request that the responsible operator grant his permission. If the power is to be restored for only a short duration, the appropriate maintenance department shall thereafter contact the operator for permission to either remove power or restore power, as often as needed. The operator shall log each request. If the request to restore power is for a short duration only, and the operator does not received contact from the appropriate maintenance personnel to remove power again, the operator shall make every attempt to contact the appropriate maintenance personnel in order to ensure that no accident has occurred.

4) If equipment must remain "Out of Service" upon completion of the on-site work, the signee must request their tag be replaced with an "Out of Service" tag in the name of their department: e.g. "Out of Service - Electrical Maintenance", in addition it must be physically locked-out by that department. However the "Out of Service" tag does not relinquish the responsibility of following the safety clearance procedure each day that piece of equipment is worked on.

5) Any equipment restored to service after being tagged "Out of Service" must be tested through operational test procedures. The signee must remain, when possible, on-site until testing is complete.

6) Any individual involved in these procedures may halt the procedure at any time if it is felt the safety of the personnel and/or equipment warrants said stoppage, or if conditions within the system change that may require postponement of the work.

7) In the event the responsible person, signee, leaves the job site without releasing the cleared equipment and is unreachable to release their tag-out the following procedure must be enacted before the signees name, tag-out, can be removed from the cleared equipment.

    1) Cause must be established by the senior power dispatcher giving reason to remove the tag-out.

2) Senior power dispatcher must receive orders from the Chief of Operations or higher, in his absence, to remove said tag-out.

3) Concurrence given by a senior representative of the following:

a) Department or company to witch the signee works for.

b) Senior representative of the plant, station, facility in which the tag-out occurs.

c) If job site is in the field then, inspection by Electrical Engineering assuring work has halted for the day.

Once all areas have been satisfied then the senior power dispatcher may have the signees tag-out removed.

NOTE: The above and following procedures may be deviated from above at the discretion of the power dispatcher in cases of emergency.

Safety Clearance Procedure
25 Hertz System
"Non-Sewerage and Water Board Personnel"

1) The Company or responsible person representing that company shall first contact Electrical Engineering in regards to their outage request. Electrical Engineering will dispatch personnel to the job site and identify all equipment within close proximity to the work which should be cleared for safety.

NOTE: After normal working hours clearance request will be routed through Central Control who will notify the proper personnel in Electrical Engineering. It will be the responsibility of Electrical Engineering to identify said feeders.

2) Eletrical Engineering will then contact the power dispatcher informing them of; the company, the person supervising the work, the work to be performed, and supplies the power dispatcher with a clearance list.

3) Electrical Engineering will then direct the company's signee to personally appear at any Board facility involved in the clearance prior to the request. Upon arrival at a Board facility the signee will contact the power dispatcher making their clearance request.

4) The power dispatcher reviews their one line schematics for any additional equipment they feel is required for safety.

5) If the request involved equipment within a station or facility the power dispatcher then notifies the operator of the work to be performed and supplies the operator with a list of the clearance request.

6) The operator makes a visual inspection of the work site and adds to the clearance list any additional equipment which they note as being involved in or in close proximity to the work site. A finalized clearance list is then agreed upon by all parties involved.

7) The power dispatcher, with assistance from other operating personnel as required and through normal operating procedures, will disconnect from all power sources all equipment on the finalized list.

8) After the completion of step seven (7), with the company's signee at a Board facility, the company's signee will be notified of the disconnection of the equipment by the power dispatcher. The company's signee will request the operator at each location to place a tag-out with the company name/signee's name on each piece of equipment on the clearance list.

9) After receiving a tag-out report from the operators, the power dispatcher will then verify the tag-out reports against their finalized clearance list. If satisfactory, the power dispatcher will verify with the company's signee what was tagged-out. The company's signee will then be allowed to begin work.

10) At this point prior to the beginning of any actual work it is the responsibility of the person or persons performing the work to check the equipment with a voltage tester. If all voltage testing is satisfactory, "no voltage", work may begin.

NOTE: Due to the nature of some work it may be necessary that voltage be present.

11) Upon completion of the on-site work, the company's signee must report to a Board facility, involved in the clearance. At this point the company's signee will request the operator at each location to remove their tag-out with the company name/signee name off each piece of equipment. The operator and power dispatcher may restore the equipment to its connected position and test same following standard operating procedures.

12) If the equipment is to remain out of service, the company's signee must request their tag be removed and an appropriate "Out of Service" tag in the name of their company be placed on the equipment. The equipment will also be physically locked-out by the operator at each location, which would prevent the reconnection and testing process.

13) When "Out of Service" equipment is to be returned back into service, only an employee of the company which originally placed the "Out of Service" tag may request it be removed, returning said equipment into service.

Safety Clearance Procedure
60 Hertz System
"Non Sewerage and Water Board Personnel"

1) The company or responsible person representing that company shall first contact Electrical Engineering in regards to their outage request. Electrical Engineering will dispatch personnel to the job site and identify all equipment within close proximity to the work which should be cleared for safety.

2) Electrical Engineering will then contact the power dispatcher, if the work to be performed is outside of a station. The operator, if the work to be performed is inside the station. They will inform them of; the company, the person supervising the work, the work to be performed, and supplies the power dispatcher or operator with a clearance list.

3) The Electrical Engineering will then direct the company's signee to personally appear at any Board facility involved in the clearance prior to the request. Upon arrival at a Board facility the signee will conduct their business with the operator or power dispatcher based on the procedures listed below.

4) The power dispatcher reviews their one line schematics or the operator make a visual inspection of the work site and adds to the clearance list any additional equipment which they note as being involved in or in close proximity to the work site. A finalized clearance list is then agreed upon by all parties involved.

5) **If handled through the power dispatcher:**
The power dispatcher, with assistance from other operating personnel as required and through normal operating procedures, will disconnect from all power sources all equipment on the finalized clearance list.

If handled through the operator:

The operator will contact the power dispatcher informing them of the work to be performed along with a clearance list request. The power dispatcher reviews their one line schematics for any additional equipment they feel is required for safety. A finalized clearance list is then agreed upon by all parties involved. The operator will then through normal operating procedures disconnect from all power sources all equipment on the finalized clearance list.

6) After the completion of step five (5), with the company's signee at a Board facility, the company's signee will be notified of the disconnection of equipment by the operator or power dispatcher. The company's signee will then request the operator at each location to place a tag-out with the company's name/signee name on each piece of equipment on the clearance list.

7) **If handled through the operator:**

The operator will then contact the power dispatcher providing then with a tag-out report for logging purposes.

8) At this point prior to the beginning of any actual work it is the responsibility of the person or persons performing the work to check the equipment with a voltage tester. If all voltage testing is satisfactory, "no voltage", work may begin.

NOTE: Due to the nature of some work it may be necessary that voltage be present.

9) Upon completion of the on-site work, the company's signee must report to a Board facility involved in the clearance. At this point the company's signee will request the operator at each location to remove their tag-out with the company's name/signee name off each piece of equipment. The operator and/or power dispatcher may restore the equipment to its connected position and test same following standard operating procedures.

10) If the equipment is to remain out of service the company's signee must request their tag be removed and an appropriate "Out of Service" tag in the name of their company be placed on the equipment. The equipment will also be physically locked-out by the operator at each location, which would prevent the reconnecting and testing process.

11) When "Out of Service" equipment is to be returned back into service, only an employee of the company which originally placed the "Out of Service" tag may request it be removed, returning said equipment into service.

ATTACHMENT 4 - SEWERAGE and WATER BOARD of NEW ORLEANS

Storm Water Pollution Prevention Plan (SWPPP)
And
Storm Water Best Management Practices (BMP) Requirements

GENERAL

1. The contractor shall prepare and maintain a Storm Water Pollution Prevention Plan (SWPPP), which describes in specific details the Contractor's program to prevent contamination of the storm water collection system for this project. A suggested SWPPP Templates and Sample Inspection Report, as well as other valuable information can be found at EPA's website http://cfpub.epa.gov/npdes/stormwater/swppp .cfm.

2. Contractor shall implement, maintain, inspect and remove all erosion and sediment controls identified in the SWPPP. The program shall address both common construction activities and extraordinary events.

3. Contractor shall include Water Pollution Control Drawings (WPCD) in the SWPPP to illustrate the locations, applications and deployment of Best Management Practices (BMPs) identified in the SWPPP. The WPCDs shall be included as an attachment to the SWPCP.

4. Best Management Practices (BMPs): A Best Management Practice is a technique, process, activity, or structure used to reduce the pollutant content of a storm water or non-storm water discharge. BMPs may include simple, non-structural methods such as good housekeeping, staff training, and preventive maintenance. Additionally, BMPs may include structural modifications such as the installation of berms, canopies or treatment control

5. The Contractor shall comply with laws, rules, and regulations of the State of Louisiana and agencies of the United States Government prohibiting the pollution of lakes, wetlands, streams, or river waters from the dumping of contaminates, refuse, rubbish or debris.

6. The contractor shall submit six (6) copies of the SWPPP, a minimum of 10 working days prior to beginning construction, to the Engineer. **Construction shall not begin until the SWPPP is approved.** Contractor shall update the SWPPP as necessary during the work to prevent contamination of the storm water collection system.

7. Before start of work, Contractor shall train all employees and subcontractors on the approved SWPPP and related WPCD and provide the Sewerage and Water Board with written documentation of said training.

8. Suggested BMPs can be obtained from Ella Barbe, LA DEQ Small Business Assistance Program, 201 Evans Rd. Bldg. 4, Suite 420 Harahan LA. Phone 504-736-7739, e-mail: ella.barbe@la.gov

CONSTRUCTION

The contractor shall keep a copy of the SWPPP on the job site. The contractor shall provide continuously at the jobsite all the tools, equipment, and materials necessary to implement the SWPPP at all times from project initiation through completion, including any punchlist or warranty work on the project. At a minimum the following requirements shall be met as applicable, to the maximum extent practicable, at construction sites:

1. **Storm Drain System Protection:** At the first order of work, the Contractor shall protect the existing storm drain system from entrance of construction debris and pollutants. Such protection shall include implementing the BMPs as outlined in the SWPPP. Protection shall prohibit the discharge of untreated runoff from temporary or permanent street maintenance/landscape maintenance material and waste storage areas from entering the storm drain system. Sediment that is generated on the project site shall be retained using structural drainage controls. In addition, the protection system shall have a minimum of three features: 1) a particulate filter of geosynthetic material securely fastened in place such that it cannot be bypassed without significant physical damage; 2) a prefilter for the particulate filter; and 3) on-hand materials to close off the inlet or opening in the case of a significant pollution spill. Contractor shall monitor and maintain all storm drain inlet protection devices during rain events to prevent flooding.

2. **Material Management & Storage:** No construction-related materials, wastes, spills or residues shall be discharged from the project site to streets, drainage facilities or adjacent properties by wind or runoff. All materials and/or equipment storage areas where liquid construction materials are placed shall be protected by a physical barrier capable of containing the entire volume of stored liquid materials. During active construction activities, portions of the barrier may be removed for access. However, the barrier materials must be readily accessible for replacement by onsite construction personnel. The barrier must be in place at all times during the absence of Contractor personnel at the storage site. Building materials shall be placed on pallets and covered in event of rain. Do not store materials in the street or gutter area.

3. **Equipment & Vehicle Maintenance:** Non-storm water runoff from equipment and vehicle washing and any other activity shall be contained at the project site and shall not be allowed to discharge from the project site to streets, drainage facilities or adjacent properties by wind or runoff. The Contractor shall inspect vehicles and equipment on each day of use. Leaks shall be repaired off-site if possible. If necessary to repair on site, the runoff must be contained or the problem vehicle or equipment shall be removed from the project site until repaired. If necessary, drip pans shall be placed under the vehicles or equipment while not in use to catch and/or contain drips and leaks.

4. **BMP Inspection:** The contractor shall inspect all pollution control BMPs regularly. The Contractor shall also repair/replace any damaged or clogged element on a daily basis. During periods of precipitation where any runoff occurs, the system shall be checked twice a day, seven days a week, whether or not any work has been performed. The daily checks shall be between 6 a.m. and 9 a.m., and 4 p.m. to 8 p.m. The contractor shall keep a monitoring inspection log of each inspection.

5. **Spill Prevention & Cleanup Plan:** Contractor shall have a spill prevention plan and spill cleanup materials readily available and addressed in the SWPPP. Spills shall be cleaned

up immediately using dry methods if possible. Spill cleanup material shall be properly disposed off site. Contractor shall keep a record of any spills in the inspection log. In addition, at the end of the project, the Contractor must certify that all contaminated materials have been properly disposed in accordance with the SWPPP.

6. **Asphalt & Concrete Activities:** Asphalt and concrete activities shall be scheduled for dry weather. Contractor shall prohibit saw cutting during a storm event of 0.25 inches or greater. Store bags of cement away from gutters and storm drains, sealed and covered, protected from rainfall runoff and wind. Place tarp under cement mixer before operating to catch spills. Never dispose of cement washout or concrete dust onto driveways, streets, gutters or storm drains.

7. **Sidewalk Washing:** The following methods should be utilized to prevent discharge of sidewalk cleaning wastewater into the storm drain system:

    a. Sweep and pick up all areas to be cleaned before using water.
    b. Manually scrape gum from sidewalks and other surfaces.
    c. Must use high pressure and low volume of water with no additives and at an average usage of 0.006 gallons per square foot of surface area to be rinsed.
    d. Use a wet/dry vacuum to collect wash water for disposal. Large volumes of wash water may require the use of a small sump pump to remove wash water from the job site.
    e. One or more of the following methods are recommended to prevent pollutants from entering the storm drain system:
        - Sandbags can be used to create a barrier around storm drains. *
        - Rubber mats or plugs can be used to seal drain openings. *
        - Temporary berms or containment pads help keep water on site. *
        - Use berms of sandbags to direct wash water to landscaping. *
        - Use large squeegees to accumulate sheet flow for collection.

        * Remember to remove plugs, berms, and sandbags or you may be liable for possible flooding.

    f. Wash water that may contain hazardous waste such as oil-saturated absorbents, water with lead or other heavy metals from oxidized paint, and solvent cleaners requires special treatment and must be disposed of through a hazardous waste facility.

8. **Employee BMP Training:** Contractor shall train employees and subcontractors on BMP implementation, general good housekeeping, and proper spill containment and cleanup. Before start of work, Contractor shall provide the Board with written documentation of training and keep all documentation in the SWPCP.

9. **Inspection:** Contractor shall inspect and repair or replace, as needed, all job site BMPs a minimum of:
    - Biweekly
    - Before, during and after a major rain event.

    Contractor shall document the inspections in the SWPPP.

10. **Dewatering:** Avoid dewatering discharges where possible by using the water for dust control, infiltration, etc..

ATTACHMENT 5
WAGE RATES

Contracts issued by the Sewerage and Water Board of New Orleans which require or involve the employment of mechanics or laborers shall include provisions for minimum wages as determined by the Department of Labor of the United States.

The wage decisions governing this solicitation are Building (LA20250041 dated 07/04/2025, Mod 5).

"General Decision Number: LA20260041 01/30/2026

Superseded General Decision Number: LA20250041

State: Louisiana

Construction Type: Building

County: Orleans County in Louisiana.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Modification Number	Publication Date
0	01/02/2026
1	01/30/2026

ASBE0053-001 09/02/2024

	Rates	Fringes
ASBESTOS WORKER/HEAT & FROST INSULATOR	$ 32.66	9.86

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* ELEC0130-010 12/01/2025

	Rates	Fringes
ELECTRICIAN (Including Communication Technician and Low Voltage Wiring)	$ 36.00	16.66

ELEV0016-001 01/01/2025

	Rates	Fringes
ELEVATOR MECHANIC	$ 51.11	38.435+a+b

a. PAID HOLIDAYS: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, the Friday after Thanksgiving Day and Christmas Day.

b. VACATION: Employer contributes 8% of basic hourly rate for 5 years or more of service; 6% of basic hourly rate for under 5 years of service as vacation pay credit.

ENGI0406-002 07/01/2014

	Rates	Fringes
POWER EQUIPMENT OPERATOR (Crane)	$ 23.46	8.35

CRANE PREMIUMS:

50-150 Tons	$1.75
Over 150 Tons	$2.25

IRON0623-021 07/01/2024

	Rates	Fringes

IRONWORKER (REINFORCING AND
STRUCTURAL).....$ 34.75 13.86

PAIN1244-006 09/01/2024

	Rates	Fringes
GLAZIER.....	$ 25.44	12.20

PAIN1244-013 12/01/2021

	Rates	Fringes
PAINTER: Spray Only (Excludes Drywall Finishing/Taping).....	$ 18.83	9.48

PLAS0567-001 08/01/2022

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	$ 30.47	7.97

PLUM0060-009 06/02/2025

	Rates	Fringes
PIPEFITTER (Including HVAC Pipe and Unit Installation; Excluding Installation of HVAC Temperature Controls).....	$ 34.87	17.79
PLUMBER (Installation of HVAC Temperature Controls; Excluding HVAC Pipe and Unit Installation).....	$ 33.30	14.98

SHEE0214-010 09/01/2013

	Rates	Fringes
SHEET METAL WORKER (Including HVAC Duct Installation).....	$ 26.71	11.93

SULA2012-026 09/22/2014

	Rates	Fringes
BRICKLAYER.....	$ 18.66	0.00
CARPENTER (Form Work Only).....	$ 15.00	0.00
CARPENTER, Excludes Drywall Hanging and Metal Stud Installation, and Form Work.....	$ 19.37	2.46
DRYWALL FINISHER/TAPER.....	$ 16.55	0.00
DRYWALL HANGER AND METAL STUD INSTALLER.....	$ 18.21	4.90
LABORER: Common or General.....	$ 13.09	0.00
LABORER: Mason Tender - Brick...	$ 12.38	0.00
OPERATOR: Backhoe/Excavator/Trackhoe.....	$ 22.92	0.00

PAINTER (BRUSH AND ROLLER),
Excludes Drywall
Finishing/Taping.....$ 17.25 0.00

ROOFER.....$ 16.77 5.66

SPRINKLER FITTER (Fire
Sprinklers).....$ 21.08 5.79

TILE SETTER.....$ 20.00 0.00

TRUCK DRIVER: Dump Truck.....$ 15.00 0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least $13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025. The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the

type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the

interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION"

ATTACHMENT

SPECIAL CONDITIONS FOR FEMA COMPLIANCE (10.7.2021)

The Consultant/Contractor (whether referred to by either term) is advised that this project is to be funded by FEMA. This is an acknowledgement that FEMA financial assistance will be used to fund all or any portion of the contract to which these Special Conditions are appended. The Consultant/Contractor will comply will all applicable Federal law, regulations, executive orders, FEMA policies, procedures, and directives. Notwithstanding any provision of the Agreement to the contrary, the following terms and conditions are applicable to this Agreement.

TERMINATION FOR CAUSE. The Board and the Consultant/Contractor shall each have the right to terminate this Agreement for cause, effective immediately upon the giving of written notice to the other party of its intent to terminate and the reasons therefor. If the termination for cause is subsequently challenged in a court of law and if the challenging party prevails, the termination for cause shall be deemed to be a termination for convenience and shall be effective thirty (30) days from the date that the original written notice of termination for cause was given to the challenging party and no further notice shall be required.

TERMINATION FOR CONVENIENCE. The Board shall have the right to terminate this Agreement without cause by giving the Consultant/Contractor written notice of its intent to terminate at least thirty (30) days prior to the date of termination. In the event that the Board elects to terminate for convenience, the Board shall be obligated to pay the Consultant/Contractor only for those Services performed up to and through the date of termination.

REMEDIES AND SANCTIONS AGAINST CONSULTANT'S DEFAULT. The Sewerage and Water Board of New Orleans retains all rights and recourse under Louisiana law to enforce this Agreement or recover damages in connection with any Consultant/Contractor breach or violation hereof.

EQUAL EMPLOYMENT OPPORTUNITY. During the performance of this contract, the contractor agrees as follows:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

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

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

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

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

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

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

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

Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency,

the contractor may request the United States to enter into such litigation to protect the interests of the United States.

The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: *Provided,* That if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

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

The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

<u>DAVIS BACON ACT</u> (applicable to Emergency Management Preparedness Grant Program, Homeland Security Grant Program, Homeland Security Grant Program, Nonprofit Security Grant Program, Tribal Homeland Security Grant Program, Port Security Grant Program, and Transit Security Grant Program. It does not apply to other FEMA grant and cooperative agreement programs, including the Public Assistance Program.)

a. All transactions regarding this contract shall be done in compliance with the Davis-Bacon Act (40 U.S.C. 3141-3144, and 3146-3148) and the requirements of (29 CFR Part 5, as may be applicable. The Contractor shall comply with 40 U.S.C. 3141-3144, and 3146-3148 and the requirements of 29 C.F.R. pt. 5 as applicable.
b. Contractors are required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor.
c. Additionally, contractors are required to pay wages not less than once a week.

<u>COPELAND ANTI-KICKBACK ACT</u> (not applicable to Public Assistance Grant Program, but otherwise applicable to all construction or repair work above $2,000 where the Davis-Bacon Act also applies)

a. Contractor. The contractor shall comply with 18 U.S.C. Section 874, 40 U.S.C. Section 3145, and the requirements of 29 C.F.R. pt. 3 as may be applicable, which are incorporated by reference into this contract.

b. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clause above and such other clauses as FEMA may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all of these contract clauses.
c. Breach. A breach of the contract clauses above may be grounds for termination of the contract, and for debarment as a contractor and subcontractor as provided in 29 C.F.R. Section. 5.12.

CONTRACT WORK HOURS AND SAFETY STANDARDS ACT.

(1) *Overtime requirements*. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
(2) *Violation; liability for unpaid wages; liquidated damages*. In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of $27 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.
(3) *Withholding for unpaid wages and liquidated damages*. The Board 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.

RIGHTS TO INVENTIONS MADE UNDER A CONTRACT OR AGREEMENT (if applicable – this requirement applies to "funding agreements" but DOES NOT apply to the Public Assistance, Hazard Mitigation Grant Program, Fire Management Assistance Grant Program, or other programs where FEMA awards do not meet the definition of "funding agreements".) For any contract, grant, or cooperative agreement entered into between any Federal agency, other than the Tennessee Valley Authority, and any contractor for the performance of

experimental, developmental, or research work funded in whole or in part by the Federal government, or other "funding agreement" under 37 C.F.R. sec. 401.2(a), where the non-Federal entity wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that "funding agreement", the non-Federal entity must comply must comply with the requirements of 37 C.F.R. Part 401 and any implementing regulations.

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 Sewerage and Water Board of New Orleans and GOHSEP and understands and agrees that the GOHSEP will, in turn, report each violation as required to assure notification to FEMA, 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.

ENERGY POLICY AND CONSERVATION ACT.

The Contractor hereby recognizes the mandatory standards and policies relating to energy efficiency which are contained in the State energy conservation plan issued in compliance with the Energy Policy and Conservation Act (P.L. 94-163).

CLEAN WATER ACT.

The Contractor hereby agrees to adhere to the provisions which require compliance with all applicable standards, orders, or requirements issued under Section 508 of the Clean Water Act which prohibits the use under non-exempt Federal contracts, grants or loans of facilities included on the EPA List of Violating Facilities.

FEDERAL WATER POLLUTION CONTROL ACT.

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

(2) The Contractor agrees to report each violation to the Sewerage and Water Board of New Orleans and GOHSEP and understands and agrees that the GOHSEP will, in turn, report each violation as required to assure notification to the FEMA, 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.

SUSPENSION AND DEBARMENT . The Consultant/Contractor represents and warrants that it and its sub-recipients are not debarred, suspended, or placed in ineligibility status under the provisions of 24 CFR 24 (government debarment and suspension regulations).

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

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

(3) This certification is a material representation of fact relied upon by the Sewerage and Water Board of New Orleans. 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 Sewerage and Water Board of New Orleans, 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.

BYRD ANTI-LOBBYING AMENDMENT.

The Contractor will be expected to comply with Federal statutes required in the Anti-Lobbying Act. Contractors who apply or bid for an award 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 awarding agency.

PROCUREMENT OF RECOVERED MATERIALS.

(a) 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—
1. Competitively within a timeframe providing for compliance with the Contract performance schedule;
2. Meeting Contract performance requirements; or
3. At a reasonable price.

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

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

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

(a) Any party to this contract must take all necessary affirmative steps to assure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible. These steps are required for the hiring of any subcontractors under this contract.
(b) Affirmative steps must include:
(1) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;
(2) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;
(3) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises;
(4) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises; and
(5) Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.

PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT.

Any procurement of telecommunications and video surveillance services or equipment must comply with the provisions of 2. C.F.R. §200.216.

DOMESTIC PREFERENCES FOR PROCUREMENTS.

As appropriate and to the extent consistent with law, the parties should, to the greatest extent practicable, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (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.

ACCESS TO RECORDS AND RETENTION OF RECORDS.

(1) The Consultant/Contractor shall grant and agrees to provide the Board, the City of New Orleans, the State of Louisiana, 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 Consultant/Contractor which are directly pertinent to this Agreement for the purpose 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 Board 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.

(5) The Consultant/Contractor shall retain, and shall require any and all subcontractors to retain, all records pertaining in any respect to this contract, for five (5) years from the date of termination or other completion of this contract, or until such time as the State of Louisiana or the Board makes final payments and all other pending matters related to the Agreement are closed, whichever is later.

DHS SEAL, LOGO, AND FLAGS.

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

COMPLIANCE WITH FEDERAL LAWS, REGULATIONS AND EXECUTIVE ORDERS.
This is an acknowledgment that FEMA financial assistance will be used to fund this Contract. The Consultant/Contractor will comply with all applicable Federal law, regulations, executive orders, FEMA policies, procedures and directives.

NO OBLIGATION BY THE FEDERAL GOVERNMENT.

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

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.

BYRD ANTI-LOBBYING AMENDMENT CERTIFICATION REGARDING LOBBYING
Certification for Contracts, Grants, Loans, and Cooperative Agreements
(To be submitted with each bid or offer exceeding $100,000)

The undersigned Consultant/Contractor certifies, to the best of his/her/its knowledge, 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 31, U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). 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 Consultant/Contractor certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Consultant/Contractor understands and agrees that the provisions of 31 U.S.C. § 3801 *et seq*., apply to this certification and disclosure, if any.

_____ _____
Signature of Consultant/Contractor's Authorized Official Date

_____
Name and Title of Consultant/Contractor's Authorized Official

SEWERAGE and WATER BOARD

of

NEW ORLEANS

SPECIFICATIONS

FOR

CONTRACT 8174

REPAIRS TO THE ENGINEERING BUILDING

Proposals To Be Opened

11:00 O'Clock A.M., Local Time on, **Thursday, January 29th, 2026**

VOLUME II OF II

TABLE OF CONTENTS

Pages

VOLUME I

PART 1—PROCUREMENT REQUIREMENTS

00 11 13	Advertisement for Bids	1- 2
00 21 13	Instructions to Bidders	1- 11
00 41 13	Louisiana Uniform Public Work Bid Form	1- 4
0042 13	Voluntary Extensions of the Award of Contract	1- 1
00 43 13	Bid Bond	1- 2
00 45 54	Affidavit of Noncollusion	1- 4
00 47 17	Disadvantaged Business Enterprise Program	1- 10
00 47 17.10	Economically Disadvantaged Business Participation Summary Sheet	1- 1

PART 2—CONTRACTING REQUIREMENTS

CONTRACTING FORMS

00 52 13	Agreement	1- 7

PROJECT FORMS

00 61 13.13	Performance Bond Form	1- 3
00 61 13.16	Payment Bond Form	1- 3

CONDITIONS OF THE CONTRACT

00 72 00	General Conditions	i-iii; 1- 40
00 73 00	Supplementary Conditions	1- 27

CONTRACT MODIFICATION PROCEEDURES

01 26 00	Contract Modification Procedures	1- 12

ATTACHMENTS TO SUPPLEMENTARY CONDITIONS

No. 1 S&WB Drug-Free Work Place Policy – Contractor Requirements
No. 2 S&WB Safety Orientation Notice
No. 3 S&WB Electrical Safety Clearance Procedure
No. 4 S&WB Storm Water Pollution Prevention Plan
No. 5 Wage Rate Decision

Pages

VOLUME II

PART 3—SPECIFICATIONS

Division 1 – General Requirements

01011	Insurance	1-2
01100	Summary	1-5
01200	Mobilization	1-2
01220	Unit Prices	1-3
01230	Alternates	1-2
01252	Weather Delays	1-3
01290	Payment Procedures	1-4
01310	Project Management and Coordination	1-6
01310A	Request for Information	1
01320	Construction Progress Documentation	1-9
01322	Photographic Documentation	1-3
01330	Submittal Procedures	1-9
01330A	Submittal Transmittal	1
01400	Quality Requirements	1-9
01500	Temporary Facilities and Controls	1-6
01580	Job Sign	1-2
01600	Product Requirements	1-5
01635	Substitution Procedures	1-5
01635A	Contractor/Supplier Substitution Request Form	1-2
01730	Execution	1-7
01741	Construction Waste Management	1-2
01770	Closeout Procedures	1-5
01782	Operation and Maintenance Data	1-8
01783	Project Record Documents	1-4

Division 2 – Existing Conditions (Not Used)

Division 3 – Concrete (Not Used)

Division 4 – Masonry (Not Used)

Division 5 – Metals (Not Used)

Division 6 – Wood, Plastics, and Composites

06057	Fire-Retardant Wood Treatment	1-4
06 10 12	Wood Framing and Rough Carpentry	1-4

Division 7 – Thermal and Moisture Protection

07 01 50.19	Preparation for Re-Roofing	1-4
07 22 00	Roof Insulation	1-9
07222	Rigid Insulation – Roof	1-3
07411	Standing-Seam Metal Roofing Panels - Pre-Finished	1-9
07 52 16	Styrene-Butadiene-Styrene (SBS) Modified Bituminous Membrane Roofing	1-16
07 56 00	Silicone Roof Coating (At Skylight Roof Only)	1-11
07 60 00	Flashing and Sheet Metal	1-2
07631	Gutters (Replacement)	1-3
07714	Prefabricated Roof Relief Vents	1-2
07920A	Sealants and Caulking	1-4

Division 8 - Openings

08710	Finish Hardware	1-4
08 80 00	Glazing	1-3

Division 9 - Finishes

09201	Furring and Lathing	1-3
09220	Portland Cement Plaster	1-3
09260	Gypsum Wallboard Systems – Steel Studs	1-5
09510	Acoustical Ceilings	1-3
09678	Resilient Base and Accessories	1-2
09910A	Exterior Painting	1-5
09920A	Interior Painting	1-6

Appendices

Appendix A	Midsouth Roofing Inspection	1-10

PART 4—DRAWINGS (BOUND SEPARATELY)

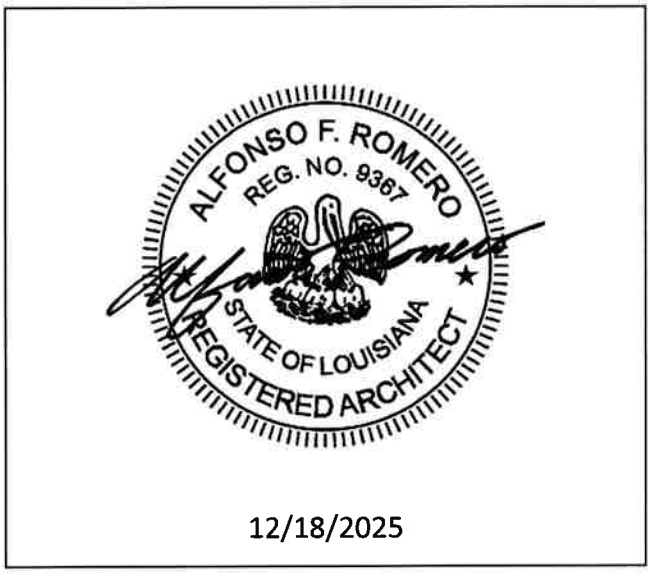
END OF SECTION

SECTION 00007: PROFESSIONAL SEALS

Project Name: **REPAIRS TO ENGINEERING BUILDING FOR SEWERAGE AND WATER BOARD OF NEW ORLEANS**

Date: **DECEMBER 18, 2025**

ARCHITECTURAL SPECIFICATIONS: The following specification sections were prepared by me or under my direct personal supervision:



Division 1 – General Requirements

Division 6 – Wood, Plastics, and Composites

Division 7 – Thermal and Moisture Protection

Division 8 - Openings

Division 9 - Finishes

Meyer Engineers, LTD.
Engineer & Architect
Alfonso Romero, NCARB

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.

COMPANIES AFFORDING COVERAGE

COMPANY A

INSURED

Sample

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)

© ACORD CORPORATION 1993

* * *

SECTION 01100: SUMMARY

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. Wok covered by contract.
   3. Access to site.
   4. Coordination with occupants.
   5. Work restrictions.

1.3 PROJECT INFORMATION:

A. Project Identification: Repairs to Engineering Building for Sewerage and Waterboard of New Orleans (SWBNO)
   1. Project Location: 8800 S. Claiborne Avenue, New Orleans, LA 70118.

B. Owner: SWBNO
   1. Owner's Representative: Ryan Battaglia, P.E., Phone: (504) 529-2837, Email: rbattaglia@swbno.org

C. A/E: Meyer Engineers, Ltd.
   1. A/E's Representative: Connie Billedeau, Phone: (504) 885-9892.

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. Base Bid:
      a. Remove and Replace all existing standing seam metal roof panels with new matching construction, including all gutters, trim flashing, and accessories at roof and wall junctions over building annex.
      b. Remove and replace the modified bitumen roofing assembly and repair skylight over main stain E2.
      c. Remove and replace all flat roofing with new modified bitumen roofing construction, including all gutters, trim flashing and accessories at room and wall junctions over engineering building.
      d. Miscellaneous interior and exterior repairs.
   2. Alternates: Refer to Section 01230 for Description.
   3. Unit Prices – Refer to Section 01220 for Description.

1.5 ACCESS TO SITE:

A. 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 construction operations to scope of work in Construction Documents.
2. Limits: Limit site disturbance, including earthwork and clearing of vegetation, to 40 feet (12.2 m) beyond building perimeter; 10 feet (3 m) beyond surface walkways, patios, surface parking, and utilities less than 12 inches (300 mm) in diameter; 15 feet (4.5 m) beyond primary roadway curbs and main utility branch trenches; and 25 feet (7.6 m) beyond constructed areas with permeable surfaces (such as pervious paving areas, stormwater detention facilities, and playing fields) that require additional staging areas in order to limit compaction in the constructed area.
3. Driveways, Walkways and Entrances: Keep driveways 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 construction operations.
    b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

B. Condition of Existing Building: Maintain portions of existing building affected by construction operations in a weathertight condition throughout construction period. Repair damage caused by construction operations as stated in the General and Supplementary Conditions of this Contract.

1.6 COORDINATION WITH OCCUPANTS:

A. Full Owner Occupancy: Owner will occupy site and existing building(s) during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits unless otherwise indicated.

1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and approval of authorities having jurisdiction.
2. Notify the Owner not less than 72 hours in advance of activities that will affect Owner's operations.

1.7 WORK RESTRICTIONS:

A. Work Restrictions, General: Comply with restrictions on construction 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 **<Insert time>** a.m. to **<Insert time>** p.m., Monday through Friday, except as otherwise indicated.
   1. Weekend Hours: **<Insert restrictions on times permitted for weekend work>**.
   2. Early Morning Hours: **<Insert restrictions or references to regulations by authorities having jurisdiction for restrictions on noisy work>**.
   3. Hours for Utility Shutdowns: **<Insert Owner's restrictions>**.
   4. Hours for **[Core Drilling]** **<Insert noisy activity>**: **<Insert Owner's restrictions>**.

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 Owner not less than two (2) days in advance of proposed utility interruptions.
   2. Obtain Owner'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 Owner 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 building or within 25 feet (8 m) of entrances, operable windows, or outdoor air intakes.

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.

1.8 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.

1.9 MISCELLANEOUS PROVISIONS:

A. Onsite parking for Contractor's personnel shall not be limited to the construction site. Parking on any other of parts of the project site will not be permitted.

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.

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 and shall apply to the State Fire Marshal. 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 construction. 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 construction schedule to the A/E ten (10) days after receipt of Notice of Award.
2. Contractor shall submit a revised construction schedule at the pre-construction conference.
3. Contractor shall submit revised construction schedules to the A/E monthly thereafter.
4. All construction 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 construction project. Contractor is advised that the A/E will not

approve Applications for Payment that do not include updated project schedules.

l. 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 01200: MOBILIZATION

PART 1: GENERAL

1.1 Description:

A. Description of Work: The work to be performed in accordance with this section includes the movement of personnel, equipment, supplies and incidentals to the project site; for the establishment of offices, buildings and other facilities necessary for work on the project; for premiums on bonds and insurance for the project and for all other work and operations which must be performed or costs incurred before beginning work on the various contract items.

PART 2: MATERIALS

2.1 General: Materials shall consist of equipment, buildings, and tools necessary to move to the project site to perform work. Material for bid items shall not be included in mobilization.

2.2 Mobilization must be listed as a line item in the schedule of values which must be approved by A/E and cannot exceed the percentage based on the following table.

Construction	Mobilization
0 – 250,000	10%
250,000 – 500,000	8%
500,000 – 1,000,000	5%
1,000,000 – 2,000,000	3%
Over 2,000,000	2%

PART 3: EXECUTION

3.1 General:

A. Setting up offices and the use of private property for storage or work area shall be executed in a legal manner in accordance with local and state codes and ordinances.

Use of private property will require a signed agreement with the property owner and shall be submitted to A/E for approval prior to use. Sign off from property owner regarding restored property conditions will be required prior to closeout.

PART 4: MEASUREMENT AND PAYMENT

4.1 Measurement: No measurement will be made.

4.2 Payment:

Payment for mobilization will made as follows:

A. When 5 % of the total original contract amount is earned from other Bid Items, 50% of the amount bid for Mobilization, will be paid.

B. When 10% of the total original contract amount is earned from other Bid Items, 100% of the amount bid for Mobilization, will be paid.

Refer to Section 00310 Bid Schedule for Bid Items.

* * *

SECTION 01220 - UNIT PRICES

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 unit prices.

B. Related Sections:

1. Division 01 Section "Contract Modification Procedures" for procedures for submitting and handling Change Orders.
2. Division 01 Section "Quality Requirements" for general testing and inspecting requirements.

1.3 DEFINITIONS:

A. Unit price is an amount incorporated in the Agreement, applicable during the duration of the Work as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are increased or decreased.

1.4 PROCEDURES:

A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.

B. Measurement and Payment: Refer to individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.

C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.

D. List of Unit Prices: A schedule of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES:

A. Unit Price No. 1 – All Work Shown Within Construction Documents (Interior and Exterior) Excluding Work Within Unit Prices 2 – 9:

1. Scope of Work: Base Bid

2. Description: Removal and replacement of exterior and interior work at Engineering and Annex Buildings as shown within construction documents, (excluding work individually itemized within Unit Prices 2 – 9 described herein).
3. Quantity: One (1)
4. Unit of Measurement: Lump Sum (LS)

B. Unit Price No. 2 – Removal Gravel/ Built-Up Roof Assembly/ Replacement Modified Bitumen Roof Assembly:

1. Scope of Work: Base Bid
2. Description: Removal of gravel/ built-up roof assembly down to concrete deck substrate on Engineering Building. Replace with new modified bitumen roof assembly system as indicated within construction documents.
3. Quantity: One (1)
4. Unit of Measurement: Lump Sum (LS)

C. Unit Price No. 3 – Removal/ Replacement of Modified Bitumen Roof Assembly:

1. Scope of Work: Base Bid
2. Description: Removal/ replacement of modified bitumen roof assembly down to steel deck substrate on Engineering Building as indicated within construction documents.
3. Quantity: One (1)
4. Unit of Measurement: Lump Sum (LS)

D. Unit Price No. 4 – Patch Modified Bitumen Roof Assembly/ New Cold Applied Liquid Membrane Coating System:

1. Scope of Work: Base Bid
2. Description: Patch existing modified bitumen roofing assembly on Skylight/ Vestibule roof area. Roof area to receive new cold applied liquid membrane coating system as indicated on construction documents.
3. Quantity: One (1)
4. Unit of Measurement: Lump Sum (LS)

E. Unit Price No. 5 – Removal/ Replacement of Standing Seam Metal Roof Assembly:

1. Scope of Work: Base Bid
2. Description: Removal/ replacement of standing seam metal roof system on Annex Building as indicated on construction documents.
3. Quantity: One (1)
4. Unit of Measurement: Lump Sum (LS)

F. Unit Price No. 6 – Removal of Additional Damaged Rooftop and Fume Hood Equipment:

1. Scope of Work: Base Bid
2. Description: Removal of damaged and abandoned two (2) rooftop units and five (5) fume hood equipment units. Cap and flash equipment curbs in new roofing system. Cut ductwork and support in place. Patch/ replace metal wall panels to match existing. Refer to Roof Plan and associated roof details for scope of work.
3. Quantity: One (1)
4. Unit of Measurement: Lump Sum (LS)

G. **Unit Price No. 7 – Copper Gutter:**
   1. Scope of Work: Base Bid
   2. Description: Removal and replacement of 253 LF of copper gutter on Engineering Building. Gutter shall match existing in all respects to include but not limited to gauge, profile, and anchorage. Refer to roof plan, elevations, and associated roof details for scope of work.
   3. Quantity: Two Hundred Fifty-Three (253)
   4. Unit of Measurement: Linear Foot (LF)

H. **Unit Price No. 8 – Gypsum Board Replacement**::
   1. Scope of Work: Base Bid
   2. Description: Removal and replacement of 274 SF damaged gypsum board, wall insulation, paint to match existing, and wall base. Refer to floor plans for scope of work.
   3. Quantity: One Hundred Seventy-Four (274)
   4. Unit of Measurement: Square Foot (SF)

I. **Unit Price No. 9 – Acoustical Ceiling Tiles**:
   1. Scope of Work: Base Bid
   2. Description: Removal and replacement of 31 each damaged 2'-0" x 4'-0" acoustical ceiling tile. Refer to floor plans for scope of work. Match existing in all respects.
   3. Quantity: Thirty-One (31)
   4. Unit of Measurement: Each (EA)

J. **Unit Price No. 10 – Pressure-Treated 1x4 Wood Battens (Alternate No. 1)**:
   1. Scope of Work: Alternate No. 1
   2. Description: Removal of Thirty (30) damaged wood batten strips secured to existing metal wall panels. Patch/ repair holes in existing metal panels with silicone sealant. Provide pressure-treated 1 inch by 4 inch wood batten (stained and sealed finish) secured with two (2) stainless steel fasteners with neoprene washer at every hat channel, full height wall. See roof plan for scope and locations of work.
   3. Quantity: Thirty (30)
   4. Unit of Measurement: Each (EA)

END OF SECTION 01220

SECTION 01230 - ALTERNATES

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 alternates.

1.3 DEFINITIONS:

A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the base bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
   1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
   2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

1.4 PROCEDURES:

A. Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
   1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.

B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.

C. Execute accepted alternates under the same conditions as other work of the Contract.

D. Schedule: A schedule of alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES:

A. Additive Alternate No.1: Pressure-Treated 1x4 Wood Battens

1. Base Bid: No work to be performed.
2. Alternate: Contractor to remove Thirty (30) damaged wood batten strips secured to existing metal wall panels. Patch / repair holes in metal panels with sealant. Provide pressure-treated 1 inch by 4 inch wood batten (stained and sealed finish) secured with two (2) stainless steel fasteners with neoprene washer at every hat channel, full height wall.

END OF SECTION 01230

SECTION 01252: WEATHER DELAYS

PART 1: GENERAL

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

1.2 Extensions of Contract Time:

A. If the basis exists for an extension of time in accordance with the General Conditions, an extension of time on the basis of weather may be granted only for the number of weather delay days in excess of the number of days listed as the standard baseline for that month.

1.3 Standard Baseline for Average Climatic Range:

A. The Louisiana Department of Transportation Department has reviewed weather data available from the U.S. National Weather Service (NWS) and defined a Standard Baseline average climatic range for the State of Louisiana.

B. The standard baseline is defined as the normal number of anticipated calendar days for each month during which construction activity exposed to weather conditions is expected to be prevented and suspended by cause of adverse weather. Suspension of construction activity for the number days each month as listed in the standard baseline is included in the contract time allotted and is not eligible for extension of Contract Time.

C. Standard baseline is as follows:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
11	10	8	7	5	6	6	5	4	3	5	8

D. The contractor's request shall be considered only for days over the allowable number of days stated above.

1.4 Adverse Weather and Weather Delays Days:

A. Adverse weather is defined as the occurrence of one or more of the following conditions within a twenty-four (24) hour day that prevents construction activity exposed to weather conditions or access to the site:

1. Precipitation (rain, snow, or ice) in excess of 1/2 inch (0.5") liquid measure.
2. Sustained wind in excess of thirty-five (35) m.p.h.

B. Adverse weather may include, if appropriate, "dry-out" or "mud" days:

1. Resulting from precipitation days that occur beyond the standard baseline;

2. Only if there is a hindrance to site access or sitework and Contractor has taken all reasonable accommodations to avoid such hindrance; and,
3. At a rate no greater than 1 make-up day for each day or consecutive days of precipitation beyond the standard baseline that total 1/2 inch or more, liquid measure, unless specifically recommended otherwise by the Designer.

C. A weather delay day may be counted if adverse weather prevents work on the project for fifty percent (50%) or more of the contractor's scheduled work day and critical path construction activities were included in the day's schedule.

D. Contractor shall take into account that certain construction activities are more affected by adverse weather and seasonal conditions than other activities, and that "dry-out" or "mud" days are not eligible to be counted as a weather delay day until the standard baseline is exceeded. Hence, Contractor should allow for an appropriate number of additional days associated with the standard baseline days in which such applicable construction activities are expected to be prevented and suspended.

E. If adverse weather conditions are the basis for a claim for additional time, the Contractor shall document that weather conditions had an adverse effect on the scheduled construction. An increase in the contract time due to weather shall not be cause for an increase in the contract sum. At the end of each month, the Contractor shall make one Claim for any adverse weather days occurring within the month. The Claim must be accompanied by sufficient documentation evidencing the adverse days and the impact on construction. Failure to make such Claim within **twenty-one (21) days** from the last day of the month shall prohibit any future claims for adverse days for that month. No additional adverse weather days shall be granted after the original or extended contract completion date, except those adverse weather days associated with a NWS named storm or federally declared weather related disaster directly affecting the project site.

1.5 Documentation and Submittals:

A. Submit daily jobsite work logs showing which and to what extent critical path construction activities have been affected by weather on a monthly basis.

B. Submit actual weather data to support claim for time extension obtained from nearest NWS station.

C. Use standard baseline data provided in this section when documenting actual delays due to weather in excess of the average climatic range.

D. Organize claim and documentation to facilitate evaluation on a basis of calendar month periods and submit to the A/E.

E. If an extension of the Contract Time is appropriate, such extension shall be made by Change Order.

* * *

SECTION 01 26 00
CONTRACT MODIFICATION PROCEDURES

PART 1 GENERAL

1.01 DEFINITIONS

A. Owner – The Sewerage and Water Board of New Orleans (SWBNO).

B. Designer – The entity or individual who is to act as the Engineer-of Record under the oversight and administration of the Owner. The term Designer may refer to a third-party Engineering Firm or a (SWBNO) department or individual.

C. Change Order Request (COR) – A formal proposal written by the Contractor that requests changes to the Contract Price and/or Contract Times. Document will include reference number for tracking purposes and detailed description of and reason for proposed change, and such additional information as appropriate and as may be required for Contractor to accurately estimate cost and time impact on Project. Change to Contract Times must prove impact to the critical path of the project.

D. Work Change Directive (WCD) – A written statement to Contractor signed by the Owner, recommended by the Designer, and acknowledged by the Contractor ordering an addition, deletion, or revision in the Work, or responding to emergencies or differing or unforeseen conditions under which the Work is to be performed. A Work Change Directive will not change the Contract Price or Contract Times but is evidence that the parties expect that the change ordered will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Times.

E. Instruction to Contractor (ITC) – A document or written communication issued by the Owner or Designer directing the Contractor to prepare a proposal for a Change Order. An ITC may or may not influence the Contract Price or Times. An ITC may also be issued to clarify the drawings, specifications, or procedures.

F. Field Change Order (FCO) – A document formalizing the approval of a Change Order. This document will include all paperwork submitted by the Contractor and Designer to initiate the change, including the WCD or ITC, the COR, all supporting documentation submitted by the Contractor, and an analysis of the changes requested by the Designer justifying the increase/decrease to the Contract Prices/Times. Multiple FCOs may be combined into a single Change Order as defined below.

G. Change Order – A document authorizing an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times. Approval of a Change Order is determined by SWBNO Policy and may be modified. Table 12-1 is included at the end of this document for reference on the Signature

authority for Change Orders. This Table was approved by Board Resolution R-063-2021. This approval may be either a Board of Directors Resolution or an Executive Director's Change Authority document. A Change Order may consist of multiple changes to Contract Price and/or Times that would be memorialized in multiple Field Change Orders (FCOs) if necessary.

H. Request for Information (RFI) – A written request, from the Contractor to the Designer and/or Owners that asks for additional information or to clarify some aspect of the project, such as procedures, equipment, materials, specification details or drawing details.

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

1.02 INSTRUCTION TO CONTRACTOR (ITC)

A. Owner may, in anticipation of ordering an addition, deletion, or revision to the Work, request Contractor to prepare a detailed proposal of cost and times to perform contemplated change via an ITC.

B. The ITC will include a reference number for tracking purposes and detailed description of and reason for proposed change, and such additional information as appropriate and as may be required for Contractor to accurately estimate cost and time impact on Project.

C. Proposal requests via ITCs are for information only. Contractor is neither authorized to execute a proposed change nor to stop Work in progress as result of such request.

D. Contractor's written proposal shall be transmitted to Designer for their review no later than 10 business days after Contractor's receipt of ITC.

E. Owner's request for proposal or Contractor's failure to submit such proposal within the required time period will not justify a Claim for an adjustment in Contract Price or Times.

1.03 CHANGE ORDER REQUEST (COR)

A. Include, at a minimum as part of the Contractor's Change Order Request (COR),

a. Specific references including Drawing numbers, Specification section and article/paragraph number, and Submittal type, Submittal number, date reviewed, Designer's comment, as applicable, with appropriate attachments.

b. Stipulated facts and pertinent documents, including photographs and statements.
c. Interpretations relied upon
d. Description of nature and extent of Claim, who or what caused the situation, impact to the Work and work of others, and discussion of claimant's justification for requesting a change to Contract Price or Times or both.
e. Estimated adjustment in price claimant believes it is entitled to with full documentation and justification. Estimate is to be detailed in nature, addressing all elements, materials, parts, equipment, labor, components, and the like affected by and/or incorporated into the Work as a result of the claimed adjustment.
f. Requested Change in Contract Times: include at least progress schedule documentation showing logic diagram for request, documentation that float times available for Work have been used, and revised activity logic with durations including sub-network logic revisions, duration changes, and other interrelated schedule impacts, as appropriate.
g. Documentation and/or information as may be necessary as set forth below for Work Change Directive, and as Designer may otherwise require.

B. For Work that will be performed by subcontract, Contractor is to submit three independent quotes that clearly reflect the scope of the respective modification. Additional supporting information as requested by the Designer shall be provided within 5 business days of request.

C. For Work that is to be self-performed, the Contractor is to provide a detailed breakdown of the Work by labor, materials, and equipment, detailing the labor force, equipment requirements, and providing three independent quotes for the required materials. Labor rates are to be consistent with the wage rate schedule included within these Documents, and equipment rates are to be consistent with those terms established in the General and Supplementary Conditions, and expanded on herein below, as applicable. Again, additional supporting information as requested by the Designer shall be provided within 5 business days of request.

1.04 WORK CHANGE DIRECTIVES

A. Designer will:
   a. Initiate, including a description of the Work involved and any attachments
   b. Sign and transmit electronic file to Owner for authorization.
   c. Provide any additional documentation as requested per RFI.

B. Owner will:
   a. Sign, demonstrating approval of the changes involved.
   b. Transmit electronic copies to Designer and Contractor

C. Contractor will:

a. Upon completion of Work covered by the WCD, submit COR documentation for inclusion in a Change Order
b. Provide documentation including, but not limited to:

i. Detailed records of Work performed
ii. Information required to substantiate resulting change in Contract Times and Contract Price for Work
iii. Support Data such as: dates Work was performed and by whom; time records, wage rates paid, equipment rental rates; invoices and receipts for materials, equipment, and subcontracts
1. Subcontracted Work: supply three independent quotes or documentation of cost reasonableness
2. Self-performed Work: supply three independent pricing quotes for materials or documentation of cost reasonableness

1.05 CHANGE ORDERS

A. Designer will prepare one electronic copy of proposed Change Order and transmit such with Designer's written recommendation based on one or multiple Field Change Orders.
B. Upon receipt of recommended Change Order, Owner will either:
a. Execute Change Order, or
b. Return to Designer unsigned copies with written justification for not executing Change Order.
C. Upon receipt of Owner-executed Change Order, Designer will transmit electronic packages to the Contractor, the Resident Project Representative or other field representative, and retain the package as part of the project file, or if Owner fails to execute the Change Order, Designer will promptly so notify Contractor and transmit Owner's justification to Contractor.
D. Upon receipt of documentation of the Owner-executed Change Order, Contractor shall:
a. Perform Work covered by Change Order.
b. Revise Schedule of Values to adjust Contract Price and submit with next Application for Payment.
c. Revise Progress Schedule to reflect changes in Contract Times, if any, and to adjust times for other items of Work affected by change.
d. Enter changes in Project record documents after completion of change related Work.
E. In signing a Change Order, Owner and Contractor acknowledge and agree that:
a. Stipulated compensation (Contract Price or Contract Times, or both) set forth includes payment for (i) the Cost of the Work covered by the Change Order, (ii) Contractor's fee for overhead and profit, (iii) interruption of Progress Schedule, (iv) delay and impact, including

cumulative impact, on other Work under the Contract Documents, and (v) extended overheads.

b. Change Order constitutes full mutual accord and satisfaction for the change to the Work.
c. Unless otherwise stated in the Change Order, all requirements of the original Contract Documents apply to the Work covered by the Change Order.

1.06 CHANGE ORDER PROCESS SUMMARY

This Section is to be used in conjunction with the *Change Order Flowchart* included.

A. Change Condition is identified by the Contractor.
B. Contractor initiates and submits an RFI
C. Designer responds to RFI indicating a Change Order is necessary.
D. If the Change Condition could delay the overall project schedule by waiting for approval at the next SWBNO Board of Directors meeting, then a WCD is issued by the Designer/Owner. Otherwise, skip to step (E).
    a. The Contractor begins Work as indicated in RFI Response/WCD.
    b. Contractor submits costs incurred as COR.
    c. If COR costs are justifiable, Designer/Owner creates FCO for Contractor signature.
    d. Owner submits Change Order to Executive Director (ED Change Authority) or Board of Directors based on Table 12-1 copied at the end of this document.
    e. After Approval of ED Change Authority or Board of Directors Resolution, Designer and/or Owner sign and return fully executed FCO(s) to Contractor.
    f. Contractor may include costs in the next Pay Application.
E. If the Change Condition does not impact the critical path of the project schedule, then the Designer/Owner submits an ITC to Contractor.
    a. The Contractor takes instructions from ITC and creates a proposal to complete the Work and submits as an COR.
    b. If COR costs are justifiable, Designer/Owner creates FCO for Contractor signature.
    c. Owner submits Change Order to Executive Director (ED Change Authority) or Board of Directors based on Table 12-1 copied at the end of this document.
    d. After Approval of ED Change Authority or Board of Directors Resolution, Designer and/or Owner sign and return fully executed FCO(s) to Contractor. Owner may concurrently issue a Notice to Proceed to Contractor for this Work.
    e. Contractor may include costs as incurred in following Pay Application(s)

1.07 REFERENCE DOCUMENTS

A. Contract Change Order Tier Summary per Resolution R-063-2021 (Attachment "A")
B. Change Order Flowchart (Attachment "B")
C. Instruction to Contractor Template/Example (Attachment "C")
D. Work Change Directive Template/Example (Attachment "D")
E. Field Change Order Template/Example (Attachment "E")
F. ED Change Authority Template/Example (Attachment "F")

PART 2 PRODUCTS (NOT USED)

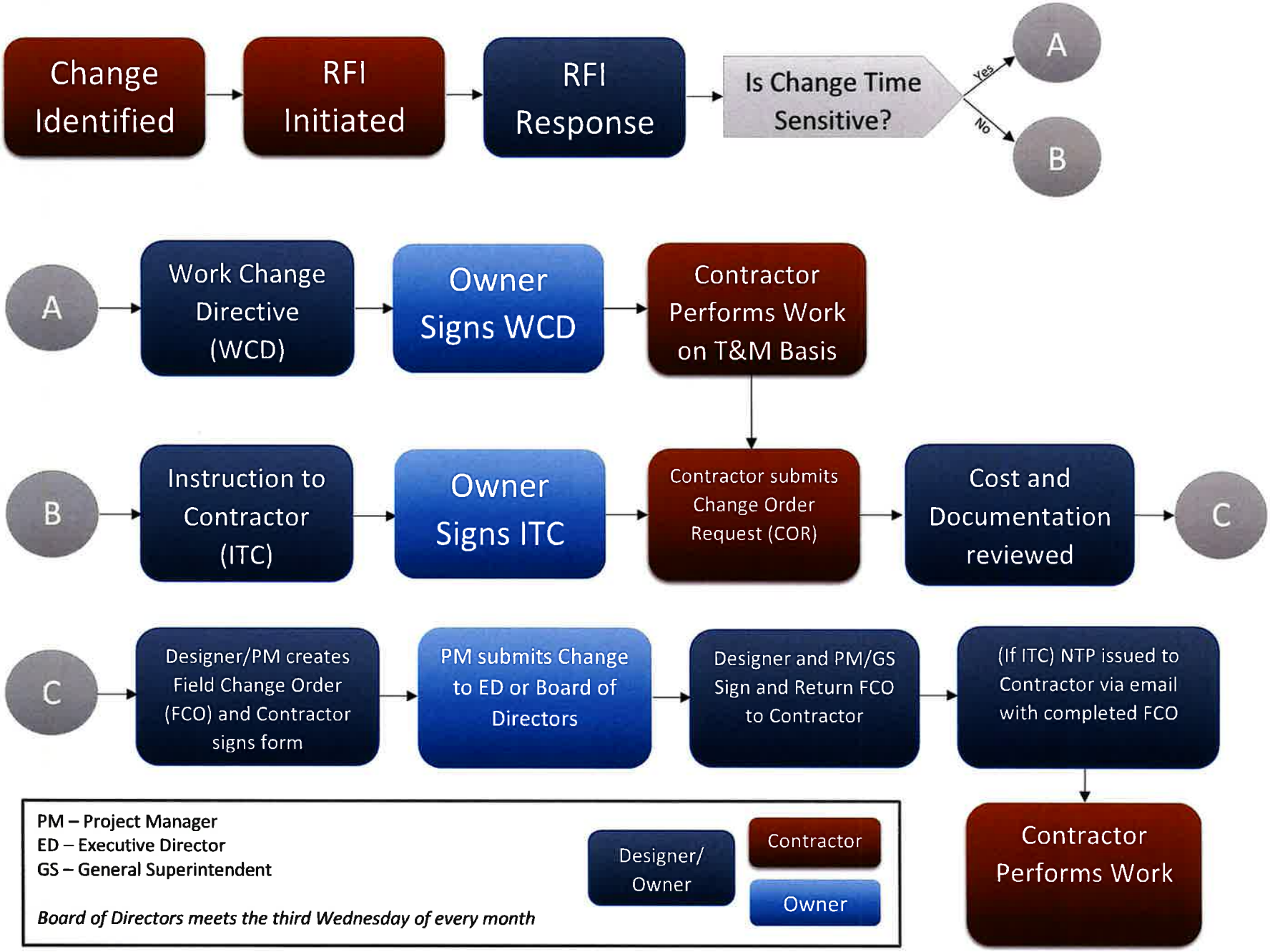
PART 3 EXECUTION (NOT USED)

END OF SECTION

Table 12-1. Contract Change Order Tier Summary

Contract Tier	Change Order Parameter	Signature Requirements
Tier One: Contract Aggregate <$1,000,000		
Change Order Scenario 1	If a change order is below 10% of the original contract value	Executive Director approves change order and SWBNO Board of Directors is notified during monthly meetings
Change Order Scenario 2	If a change order exceeds 10% of the original contract value, and total contract value remains below $1M	Executive Director approves change order and SWBNO Board of Directors is notified during monthly meetings
Tier Two: Contract Aggregate between $1,000,000 and $4,999,999.99		
Change Order Scenario 1	If a change order is less than $250,000 or 20% of the original contract value (whichever is less considering cumulative amount of change orders)	Executive Director approves change order and SWBNO Board of Directors is notified during monthly meetings
Change Order Scenario 2	If a change order or aggregate of change orders exceeds $249,999.99 or 20% of the original contract value (whichever is less considering cumulative amount of change orders)	SWBNO Board of Directors approves via F&A Committee. Executive Director signs resolution.
Tier Three: Contract Aggregate $5,000,000 and above		
Change Order Scenario 1	If a change order is less than $500,000 or 10% of the original contract value (whichever is less considering cumulative amount of change orders)	Executive Director approves change order and SWBNO Board of Directors is notified during monthly meetings
Change Order Scenario 2	If a change order or aggregate of change orders exceeds $499,999.99 or 10% of the original contract value (whichever is less considering cumulative amount of change orders)	SWBNO Board of Directors approves via F&A Committee. Executive Director signs resolution.

CHANGE ORDER FLOWCHART



INSTRUCTION TO CONTRACTOR

Contract Name

SWBNO Contract No.: _____

Reference RFI No.
(If applicable) _____

Contractor

Instruction No. 001

Contract Description/Specification Section

Date: _____

This instruction is issued to:

- ☐ Clarify drawings, specifications, or procedures.
- ☐ Request a proposal.
- ☐ Transmit drawings or documents for incorporation into the work.

The SWBNO is directing the Contractor to:

Recommended by Designer: _____

Authorized by Owner: _____

IF, IN THE CONTRACTOR'S OPINION, A CLARIFICATION INVOLVES WORK WHICH CHANGES THE CONTRACT PRICE OR TIME, YOU MUST SUBMIT A CHANGE ORDER REQUEST OR NOTICE AS REQUIRED IN THE CONTRACT DOCUMENTS.

WORK CHANGE DIRECTIVE NO.: 001

Owner: Sewerage & Water Board of New Orleans
Designer:
Contractor:
Owner's Project No.: Contract No.
Contract Name:

Date Issued: **Effective Date of Work Change Directive:**

Contractor is directed to proceed promptly with the following change(s):

Description:

Attachments:

Purpose for the Work Change Directive:

Directive to proceed promptly with the Work described herein, prior to agreeing to change in Contract Price and Contract Time, is issued due to:

☐Non-agreement on pricing of proposed change. ☐Necessity to proceed for schedule or other reasons.

Estimated Change in Contract Price and Contract Times (non-binding, preliminary):

Contract Price: _____ ☐ increase ☐ decrease ☐ not yet estimated
Contract Time: _____ days ☐ increase ☐ decrease ☐ not yet estimated

Basis of estimated change in Contract Price:

☐ Lump Sum ☐ Unit Price ☐ Cost of the Work ☐ Other

	Recommended by Designer	Authorized by Owner	Received by Contractor
By:	_____	_____	_____
Title:	_____	_____	_____
Date:	_____	_____	_____

SWBNO FIELD CHANGE ORDER

FCO No.	Contract No.
Project Manager	Date
Project Name	**Contractor**
	Dated _____,_____ (Year)

**You are hereby requesting to make the following (In Scope) change(s) in acordance with the terms and conditions of the above contract

((Description of Change))

FOR THE (Additive/Deductive) Sum of	**$**	**-**
Original Contract Amount	$	1,000,000.00
Sum of Previous Changes	$	3,000.00
Present Contract Amount	$	1,003,000.00
This Change Add (Deduct)	$	2,000.00
Proposed Contract Amount	$	1,005,000.00

Commencement of Contract Times	1/1/2022
Contract Time (days)	365
Original Completion Date	1/1/2023
Previous Changes to Contract Times (days)	15
This Change to Times (days)	10
Revised Contract Completion Date	1/26/2023

Your acceptance of this Change Order shall constitue a modification to our Contract and will be performed subject to all the same terms and conditions in our Contract indicated above, as fully as if the same were repeated in this acceptance.

The adjustment, if any, to this Contract shall constitute a full and final settlement of any and all claims arising out of or related to the change set forth herein, including claims for impact and delay costs.

The Director of Procurement will direct the Contractor to increase the penal sum of the existing Performance, Payment Bonds and Insurance or to obtain additional bonds on the basis of a $100,000.00 or greater value change order. The Contractor Shall: Provide written confirmation within one (1) week of request: from their bonding company/agent (attorney-in-fact) that the amounts of the Performance, Payment Bonds and Insurance have been adjusted to 100% of the new contract amount. NOTE: No Invoices for change order work shall be paid without approved supporting documentation.

Contractor _____

Designer _____

Project Manager _____

General Superintedent _____

Executive Director's Approval of Change Order No. X **ED-00X-20XX**

Contract
Number/Name:

Contractor:

This Change Order, in the amount of XXXXXXX, represents additional construction costs (labor, material, and equipment) for_____. This change brings the accumulated contract change order total to $XXXX, or XXX% of the original contract. The cumulative contract total is now $XXXXXXXXX.

Provide Details

Attachments: Board of Directors Contractor Fact Sheet, S&WB Cost Estimate, and Contractor's Proposals

Recommended by: _____

M. Ron Spooner
Interim General Superintendent

Pursuant to the approval authority vested in the Executive Director by Resolution R-063-2021, I hereby approve Change Order X as indicated above.

_____

Ghassan Korban
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

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 construction 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 construction 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 Construction 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 construction schedule. Contractor is advised that the A/E will not approve Applications for Payment that do not include updated project schedules. All construction 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 construction 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 construction 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 construction 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 Construction Change Directives issued before last day of construction 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 construction 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 preconstruction 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 construction 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 construction.

1.4 COORDINATION:

A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections, that depend on each other for proper installation, connection, and operation.
   1. Schedule construction 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 construction 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 construction 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 construction 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.

1.5 KEY PERSONNEL:

A. Key Personnel Names: Within fifteen (15) days of starting construction 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: 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. Preconstruction Conference: Contractor will schedule and conduct a preconstruction conference before starting construction, 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 construction activity that requires coordination with other construction.
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 construction 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 construction 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: Conduct progress meetings at biweekly intervals.
   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 Construction 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 construction schedule. Determine how construction 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 construction 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

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SECTION 01320 - CONSTRUCTION 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 construction during performance of the Work, including the following:
   1. Start-up construction schedule.
   2. Contractor's construction schedule.
   3. Daily construction 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 Construction 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 construction project. Activities included in a construction 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 construction 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. Float time is not for the exclusive use or benefit of either Owner or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date.
2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
3. 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 construction schedule.
1. Approval of cost-loaded start-up construction 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 construction period. Show logic ties for activities.

D. Contractor's Construction Schedule: Initial schedule, of size required to display entire schedule for entire construction 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 Construction 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 construction schedule and Contractor's construction 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 construction 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 construction activities and with scheduling and reporting of separate contractors.
B. Coordinate Contractor's construction 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 construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 CONTRACTOR'S CONSTRUCTION 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. Activities: Treat each story or separate area as a separate numbered activity for each principal element of the Work. Comply with the following:
   1. Activity Duration: Define activities so no activity is longer than twenty (20) days, unless specifically allowed by A/E.
   2. Procurement Activities: Include procurement process activities for the following long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
      a. Major items or pieces of equipment.

b. Building structure and metal siding.
c. Flooring

3. Submittal Review Time: Include review and resubmittal times indicated in Division 01 Section "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's construction schedule with submittal schedule.
4. Startup and Testing Time: Include not less than fifteen (15) days for startup and testing.
5. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for A/E's administrative procedures necessary for certification of Substantial Completion.
6. Punch List and Final Completion: Include not more than thirty (30) days for punch list and final completion.

C. 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. Phasing: Arrange list of activities on schedule by phase.
2. Work under More Than One Contract: Include a separate activity for each contract.
3. Work by Owner: Include a separate activity for each portion of the Work performed by Owner.
4. Products Ordered in Advance: Include a separate activity for each product. Include delivery date indicated in Division 01 Section "Summary." Delivery dates indicated stipulate the earliest possible delivery date.
5. Owner-Furnished Products: Include a separate activity for each product. Include delivery date indicated in Division 01 Section "Summary." Delivery dates indicated stipulate the earliest possible delivery date.
6. 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. Provisions for future construction.
   g. Seasonal variations.
   h. Environmental control.
7. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:
   a. Subcontract awards.
   b. Submittals.
   c. Purchases.
   d. Mockups.
   e. Fabrication.
   f. Sample testing.
   g. Deliveries.
   h. Installation.
   i. Tests and inspections.

j. Adjusting.
k. Curing.
l. Startup and placement into final use and operation.

8. Construction Areas: Identify each major area of construction for each major portion of the Work. Indicate where each construction activity within a major area must be sequenced or integrated with other construction activities to provide for the following:
   a. Structural completion.
   b. Permanent space enclosure.
   c. Completion of mechanical installation.
   d. Completion of electrical installation.
   e. Substantial Completion.
9. Other Constraints: As Needed.

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

E. 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.

F. 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.

G. 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.

H. Computer Scheduling Software: Prepare schedules using current version of a program that has been developed specifically to manage construction schedules.
   1. Utilize Microsoft Project or Oracle Primavera Software as specified in Division 01 Section "Summary of Work, for Windows XP, Windows Vista and Macintosh OS X operating system.

2.2 START-UP CONSTRUCTION SCHEDULE:

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

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

2.3 CONTRACTOR'S CONSTRUCTION SCHEDULE (CPM SCHEDULE):

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

B. Start-up Network Diagram: Submit diagram within fourteen (14) days of date established for the Notice to Proceed. Outline significant construction activities for the first ninety (90) days of construction. Include skeleton diagram for the remainder of the Work and a cash requirement prediction based on indicated activities.

C. CPM Schedule: Prepare Contractor's construction schedule using a cost- and resource-loaded, time-scaled CPM network analysis diagram for the Work.

1. Develop network diagram in sufficient time to submit CPM schedule so it can be accepted for use no later than sixty (60) days after date established for the Notice to Proceed.
    a. Failure to include any work item required for performance of this Contract shall not excuse Contractor from completing all work within applicable completion dates, regardless of A/E's approval of the schedule.
2. Conduct educational workshops to train and inform key Project personnel, including subcontractors' personnel, in proper methods of providing data and using CPM schedule information.
3. Establish procedures for monitoring and updating CPM schedule and for reporting progress. Coordinate procedures with progress meeting and payment request dates.
4. Use "one workday" as the unit of time for individual activities. Indicate nonworking days and holidays incorporated into the schedule in order to correlate with Contract Time.

D. CPM Schedule Preparation: Prepare a list of all activities required to complete the Work. Using the start-up network diagram, prepare a skeleton network to identify probable critical paths.

1. Activities: Indicate the estimated time duration, sequence requirements, and relationship of each activity in relation to other activities. Include estimated time frames for the following activities:
    a. Preparation and processing of submittals.
    b. Mobilization and demobilization.
    c. Purchase of materials.
    d. Delivery.
    e. Fabrication.
    f. Utility interruptions.
    g. Installation.
    h. Work by Owner that may affect or be affected by Contractor's activities.
    i. Testing and commissioning.
    j. Punch list and final completion.
    k. Activities occurring following final completion.

2. Critical Path Activities: Identify critical path activities, including those for interim completion dates. Scheduled start and completion dates shall be consistent with Contract milestone dates.
3. Processing: Process data to produce output data on a computer-drawn, time-scaled network. Revise data, reorganize activity sequences, and reproduce as often as necessary to produce the CPM schedule within the limitations of the Contract Time.
4. Format: Mark the critical path. Locate the critical path near center of network; locate paths with most float near the edges.
   a. Subnetworks on separate sheets are permissible for activities clearly off the critical path.
5. Cost- and Resource-Loading of CPM Schedule: Assign cost to construction activities on the CPM schedule. Do not assign costs to submittal activities. Obtain A/E's approval prior to assigning costs to fabrication and delivery activities. Assign costs under principal subcontracts for testing and commissioning activities, operation and maintenance manuals, punch list activities, Project record documents, and demonstration and training (if applicable), in the amount of five (**5%**) percent of the Contract Sum.
   a. Each activity cost shall reflect an appropriate value subject to approval by A/E.
   b. Total cost assigned to activities shall equal the total Contract Sum.

E. 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.

F. Initial Issue of Schedule: Prepare initial network diagram from a sorted activity list indicating straight "early start-total float." Identify critical activities. Prepare tabulated reports showing the following:
   1. Contractor or subcontractor and the Work or activity.
   2. Description of activity.
   3. Principal events of activity.
   4. Immediate preceding and succeeding activities.
   5. Early and late start dates.
   6. Early and late finish dates.
   7. Activity duration in workdays.
   8. Total float or slack time.
   9. Average size of workforce.
   10. Dollar value of activity (coordinated with the schedule of values).

G. Schedule Updating: Concurrent with making revisions to schedule, prepare tabulated reports showing the following:
   1. Identification of activities that have changed.
   2. Changes in early and late start dates.
   3. Changes in early and late finish dates.
   4. Changes in activity durations in workdays.
   5. Changes in the critical path.
   6. Changes in total float or slack time.
   7. Changes in the Contract Time.

2.4 REPORTS:

A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:
   1. List of subcontractors at Project site.
   2. List of separate contractors at Project site.
   3. Approximate count of personnel at Project site.
   4. Equipment at Project site.
   5. Material deliveries.
   6. High and low temperatures and general weather conditions, including presence of rain or snow.
   7. Accidents.
   8. Meetings and significant decisions.
   9. Unusual events (refer to special reports).
   10. Stoppages, delays, shortages, and losses.
   11. Meter readings and similar recordings.
   12. Emergency procedures.
   13. Orders and requests of authorities having jurisdiction.
   14. Change Orders received and implemented.
   15. Construction Change Directives received and implemented.
   16. Services connected and disconnected.
   17. Equipment or system tests and startups.
   18. Partial completions and occupancies.
   19. Substantial Completions authorized.

B. Material Location Reports: At monthly intervals, prepare and submit a comprehensive list of materials delivered to and stored at Project site. List shall be cumulative, showing materials previously reported plus items recently delivered. Include with list a statement of progress on and delivery dates for materials or items of equipment fabricated or stored away from Project site.

C. 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 CONSTRUCTION SCHEDULE:

A. Scheduling Consultant: Engage a consultant to provide planning, evaluation, and reporting using CPM scheduling.
   1. In-House Option: Owner may waive the requirement to retain a consultant if Contractor employs skilled personnel with experience in CPM scheduling and reporting techniques. Submit qualifications.
   2. Meetings: Scheduling consultant shall attend all meetings related to Project progress, alleged delays, and time impact.

B. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction 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.

C. 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 construction 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. Preconstruction photographs.
   2. Periodic construction photographs.
   3. Final completion construction 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.

1.3 INFORMATIONAL SUBMITTALS:

A. Qualification Data: Digital camera or cell phone photography is acceptable.

B. Digital Photographs: Submit image files within three (3) days of taking photographs.
   1. Digital Camera: Minimum sensor resolution of 8 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 and contact information for photographer.
      c. Name of Architect .
      d. Name of Contractor.
      e. Date photograph was taken.
      f. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.
      g. Unique sequential identifier keyed to accompanying key plan.

1.4 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 8 megapixels, and at an image resolution of not less than 1600 by 1200 pixels and 400 dpi.

PART 3 - EXECUTION

3.1 CONSTRUCTION PHOTOGRAPHS:

A. Photographer: Engage a qualified photographer to take construction photographs.

B. 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.

1. Maintain key plan with each set of construction photographs that identifies each photographic location.

C. 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.
2. Field Office Images: Maintain one set of images accessible in the field office at Project site, available at all times for reference. Identify images in the same manner as those submitted to Architect.

D. Preconstruction Photographs: Before starting construction, take photographs of Project site and surrounding properties, including existing items to remain during construction, from different vantage points, as directed by Architect.

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

E. Periodic Construction 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 construction and progress since last photographs were taken.

F. Architect-Directed Construction Photographs: From time to time, Architect 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 construction and progress since last photographs were taken.

G. Final Completion Construction Photographs: Take twenty (20) color photographs after date of Substantial Completion for submission as project record documents. Architect will inform photographer of desired vantage points.

1. Do not include date stamp.

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 construction 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 construction schedule.
2. Initial Submittal: Submit concurrently with start-up construction schedule. Include submittals required during the first 60 days of construction. 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 construction 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 construction 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 data 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.

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

J. Use for Construction: 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 construction 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 construction activity. Sample sets may be used to determine final acceptance of construction 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 construction. Contractor must indicate if sample needs to be returned prior to construction 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 Construction 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. Preconstruction 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, construction means or methods, coordination of the work with other trades or construction 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

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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 construction 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 construction 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 construction comply with requirements. Services do not include contract enforcement activities performed by A/E.

C. Preconstruction Testing: Tests and inspections performed specifically for the Project before products and materials are incorporated into the Work to verify performance or compliance with specified criteria.

D. Product Testing: Tests and inspections that are performed by an NRTL, an NVLAP, or a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with specified requirements.

E. Source Quality-Control Testing: Tests and inspections that are performed at the source, i.e., plant, mill, factory, or shop.

F. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.

G. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.

H. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.
   1. Use of trade-specific terminology in referring to a trade or entity does not require that certain construction activities be performed by accredited or unionized individuals, or that requirements specified apply exclusively to specific trade or trades.

I. Experienced: When used with an entity or individual, "experienced" means having successfully completed a minimum of five (5) previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

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 ACTION SUBMITTALS:

A. Shop Drawings: For mockups, provide plans, sections, and elevations, indicating materials and size of mockup construction.
   1. Indicate manufacturer and model number of individual components.
   2. Provide axonometric drawings for conditions difficult to illustrate in two dimensions.

1.6 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.

1.7 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.

B. Manufacturer's Technical Representative's Field Reports: Prepare written information documenting manufacturer's technical representative's tests and inspections specified in other Sections. Include the following:
1. Name, address, and telephone number of technical representative making report.
2. Statement on condition of substrates and their acceptability for installation of product.
3. Statement that products at Project site comply with requirements.
4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
6. Statement whether conditions, products, and installation will affect warranty.
7. Other required items indicated in individual Specification Sections.

C. Factory-Authorized Service Representative's Reports: Prepare written information documenting manufacturer's factory-authorized service representative's tests and inspections specified in other Sections. Include the following:
1. Name, address, and telephone number of factory-authorized service representative making report.
2. Statement that equipment complies with requirements.
3. Results of operational and other tests and a statement of whether observed performance complies with requirements.

4. Statement whether conditions, products, and installation will affect warranty.
5. Other required items indicated in individual Specification Sections.

D. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

1.8 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 construction 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 construction 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. Preconstruction Testing: Where testing agency is indicated to perform preconstruction 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 construction.
   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 construction indicated for the completed Work.
   f. When testing is complete, remove test specimens, assemblies, mockups; do not reuse products on Project.
2. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to A/E, with copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.

1.9 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 construction 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 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 construction 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 construction 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-Construction Meeting. Become completely familiar with all the documents necessary for observation of the construction of the project prior to the commencement of construction. 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 persons involved in the project provided by the Contractor.
3. After the Contract Documents have been reviewed, and in advance of construction, 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 construction, the OSPR shall be on site at times as designated in their contract to review the work in progress.
5. Attend all scheduled construction 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 construction 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 construction, 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 construction 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 construction 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 construction 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 construction 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 construction 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 construction operations.

1.4 INFORMATIONAL SUBMITTALS:

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

B. Moisture-Protection Plan: Describe procedures and controls for protecting materials and construction from water absorption and damage, including delivery, handling, and storage provisions for materials subject to water absorption or water damage, discarding water-damaged materials, protocols for mitigating water intrusion into completed Work, and replacing water damaged Work.

1. Indicate sequencing of work that requires water, such as sprayed fire-resistive materials, plastering, and terrazzo grinding, and describe plans for dealing with water from these operations. Show procedures for verifying that wet construction has dried sufficiently to permit installation of finish materials.

C. Dust-Control and HVAC-Control Plan: Submit coordination drawing and narrative that indicates the dust-control and HVAC-control measures proposed for use, proposed locations, and proposed time frame for their operation. Identify further options if proposed measures are later determined to be inadequate. Include the following:

1. Locations of dust-control partitions at each phase of the work.
2. HVAC system isolation schematic drawing.

3. Location of proposed air filtration system discharge.
4. Other dust-control measures.
5. Waste management plan.

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 construction 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 **galvanized steel** bases for supporting posts.

B. Polyethylene Sheet: Reinforced, fire-resistive sheet, 10 mils (0.25 mm) minimum thickness, with flame-spread rating of 15 or less per ASTM E 84.

C. Dust Control Adhesive-Surface Walk-off Mats: Provide mats minimum 36 by 60 inches (914 by 1624 mm).

2.2 TEMPORARY FACILITIES:

A. Field Offices, General: Prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading.

B. Common-Use Field Office: Of sufficient size to accommodate needs of Owner, A/E, and construction personnel office activities and to accommodate project meetings specified in other Division 1 Sections. Keep office clean and orderly. Furnish and equip offices as follows:
   1. Furniture required for Project-site documents including file cabinets, plan tables, plan racks, and bookcases.
   2. Coffee machine and supplies.

C. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations.
   1. Store combustible materials apart from building.

2.3 EQUIPMENT:

A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

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. Isolation of Work Areas in Occupied Facilities: Prevent dust, fumes, and odors from entering occupied areas.

1. Prior to commencing work, isolate the HVAC system in area where work is to be performed in accordance with approved coordination drawings.
   a. Disconnect supply and return ductwork in work area from HVAC systems servicing occupied areas.
   b. Maintain negative air pressure within work area using HEPA-equipped air filtration units, starting with commencement of temporary partition construction, and continuing until removal of temporary partitions is complete.
2. Maintain dust partitions during the Work. Use vacuum collection attachments on dust-producing equipment. Isolate limited work within occupied areas using portable dust containment devices.
3. Perform daily construction cleanup and final cleanup using approved, HEPA-filter-equipped vacuum equipment.

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

3.3 SUPPORT FACILITIES INSTALLATION:

A. General: Comply with the following:

1. Provide construction for temporary offices, shops, and sheds located within construction area or within 30 feet (9 m) of building lines that is noncombustible according to ASTM E 136. Comply with NFPA 241.

2. Maintain support facilities until A/E schedules Substantial Completion inspection. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.

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 construction personnel.

D. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.
   1. Identification Signs: Provide Project identification signs as indicated on Drawings.
   2. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project.
      a. Provide temporary, directional signs for construction personnel and visitors.
   3. Maintain and touchup signs so they are legible at all times.
   4. Provide Job Sign per Section 015800.

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 construction 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.

H. Existing Stair Usage: Use of Owner's existing stairs will be permitted, provided stairs are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore stairs to condition existing before initial use.
   1. Provide protective coverings, barriers, devices, signs, or other procedures to protect stairs and to maintain means of egress. If stairs become damaged, restore damaged areas so no evidence remains of correction work.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION:

A. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.

B. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.

C. Site Enclosure Fence: Before construction 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 construction operations.

D. Temporary Partitions: Provide floor-to-ceiling dustproof partitions to limit dust and dirt migration and to separate areas occupied by Owner from fumes and noise.
   1. Construct dustproof partitions with two layers of 6-mil (0.14-mm) polyethylene sheet on each side. Cover floor with two layers of 6-mil (0.14-mm) polyethylene sheet, extending sheets 18 inches (460 mm) up the sidewalls. Overlap and tape full length of joints. Cover floor with fire-retardant treated plywood.
   2. Protect air-handling equipment.
   3. Provide walk-off mats at each entrance through temporary partition.

3.5 MOISTURE AND MOLD CONTROL:

A. Contractor's Moisture-Protection Plan: Avoid trapping water in finished work. Document visible signs of mold that may appear during construction.

B. Exposed Construction Phase: Before installation of weather barriers, when materials are subject to wetting and exposure and to airborne mold spores, protect as follows:
   1. Protect porous materials from water damage.
   2. Protect stored and installed material from flowing or standing water.
   3. Keep porous and organic materials from coming into prolonged contact with concrete.
   4. Remove standing water from decks.
   5. Keep deck openings covered or dammed.

C. Partially Enclosed Construction Phase: After installation of weather barriers but before full enclosure and conditioning of building, when installed materials are still subject to infiltration of moisture and ambient mold spores, protect as follows:
   1. Do not load or install drywall or other porous materials or components, or items with high organic content, into partially enclosed building.
   2. Keep interior spaces reasonably clean and protected from water damage.
   3. Periodically collect and remove waste containing cellulose or other organic matter.
   4. Discard or replace water-damaged material.
   5. Do not install material that is wet.
   6. Discard, replace or clean stored or installed material that begins to grow mold.

7. Perform work in a sequence that allows any wet materials adequate time to dry before enclosing the material in drywall or other interior finishes.

D. Controlled Construction Phase of Construction: After completing and sealing of the building enclosure but prior to the full operation of permanent HVAC systems, maintain as follows:
   1. Control moisture and humidity inside building by maintaining effective dry-in conditions.
   2. Use permanent HVAC system to control humidity.
   3. Comply with manufacturer's written instructions for temperature, relative humidity, and exposure to water limits.

3.6 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. Maintenance: Maintain facilities in good operating condition until removal.
   1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.

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

D. 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 construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction 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 construction. 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 construction period. Comply with final cleaning requirements specified in Division 1 Section "Closeout Procedures."

END OF SECTION 01500

SECTION 01580: JOB SIGN

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 General:

A. Comply with Federal, State, and Local codes and regulations and with utility company requirements.

B. Materials may be new or used, but must be adequate in capacity for the required usage, must not create unsafe conditions, and must not violate requirements of applicable codes and standards.

1.3 Job Conditions: Install, maintain and protect sign in a manner and at location which will be safe, non-hazardous, and protective of persons and property, and free of deleterious effects.

1.4 Job Sign:

A. Construct and maintain job sign as detailed. All lumber shall be treated pine. Signs shall be 3/4 inch thick exterior grade plywood with "B" or better face.

B. See Project Manual Title Sheet for text of Project Title and Owner's Name(s). Consult A/E for specific requirements within seven (7) days of execution of contract.

C. Locate one (1) job sign where directed by A/E at the site.

D. Lettering and layout on sign shall be done by a professional sign painter. (Helvetica Style).

E. 4 x 4 Treated Pine Posts. Brace as required.

F. Job Sign shall be painted with first coat primer, with second and third coats exterior semi-gloss enamel, as per Painting Specification Section. Colors as selected by A/E.

G. Job Sign shall be erected within two weeks of Notice to Proceed and shall be maintained through duration of project.

H. At his option, Contractor may provide and maintain a separate job sign, approved by the A/E, for listing of subcontractors. If approved, paint by professional sign painter in identical colors as project sign.

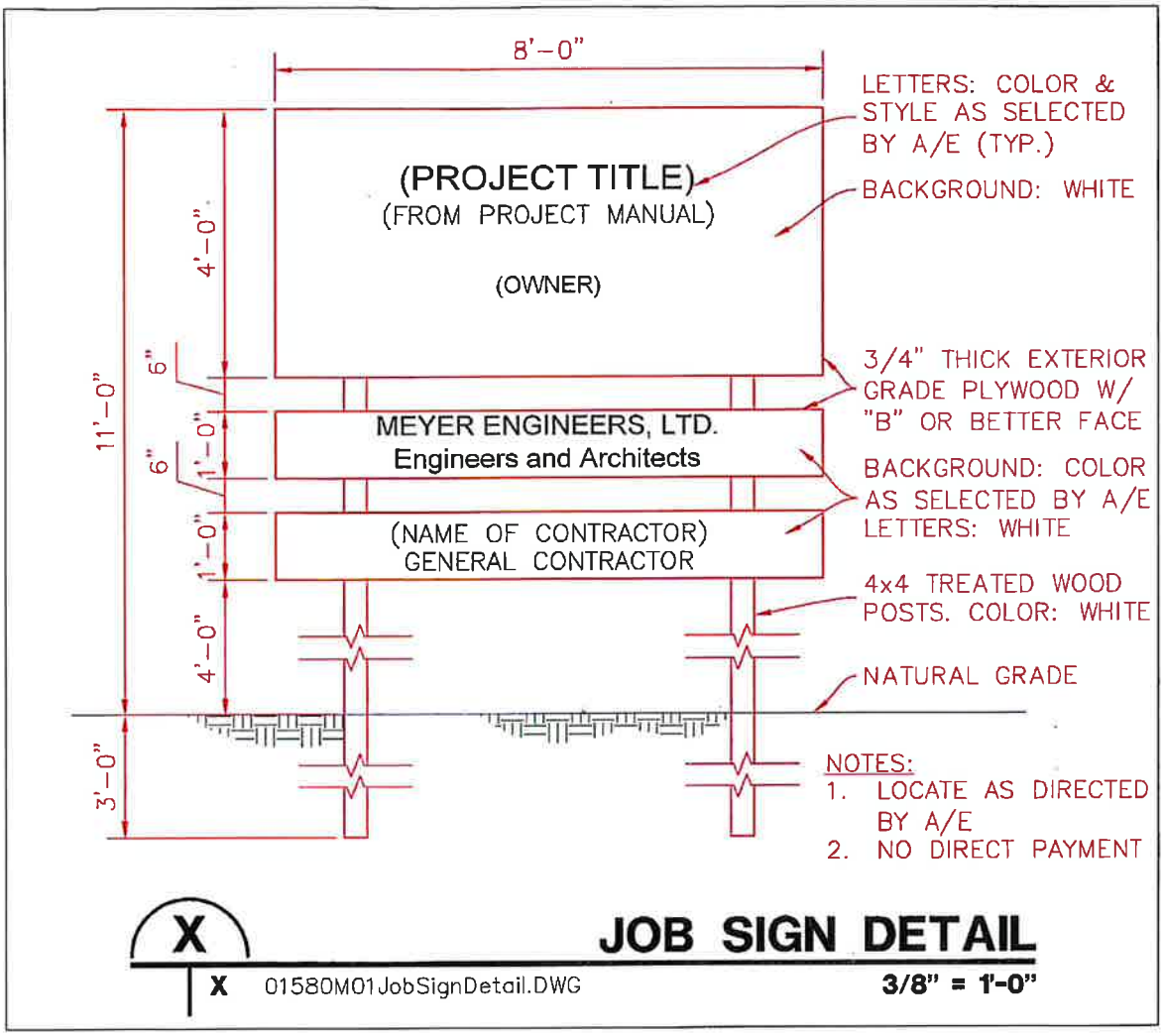
I. Do not allow other signs or advertisements at or near the project site.

1.5 Removal:

A. Completely remove temporary materials and equipment at completion of job or when notified by A/E. Clean and repair damage caused by temporary installations or use of temporary facilities.

B. Restore existing facilities used for temporary services to specified, or to original condition.

C. Restore any permanent facilities used for temporary services to specified condition.


8'-0"
LETTERS: COLOR & STYLE AS SELECTED BY A/E (TYP.)
(PROJECT TITLE)
(FROM PROJECT MANUAL)
BACKGROUND: WHITE
(OWNER)
4'-0"
11'-0"
6"
3/4" THICK EXTERIOR GRADE PLYWOOD W/ "B" OR BETTER FACE
MEYER ENGINEERS, LTD.
Engineers and Architects
6"
1'-0"
BACKGROUND: COLOR AS SELECTED BY A/E
LETTERS: WHITE
(NAME OF CONTRACTOR)
GENERAL CONTRACTOR
1'-0"
4x4 TREATED WOOD POSTS. COLOR: WHITE
4'-0"
NATURAL GRADE
3'-0"
NOTES:
1. LOCATE AS DIRECTED BY A/E
2. NO DIRECT PAYMENT
X
JOB SIGN DETAIL
X 01580M01JobSignDetail.DWG
3/8" = 1'-0"

* * *

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 construction 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 construction 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 01635 - SUBSTITUTION 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 substitutions.

B. Related Sections:

1. Division 1 Section "Product Requirements" for requirements for submitting comparable product submittals for products by listed manufacturers.
2. Division 2 through 16 sections for specific requirements and limitations for substitutions.

1.3 Definitions:

A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.

1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
2. Substitutions for Convenience: Changes proposed by Contractor that are not required in order to meet other Project requirements but may offer advantage to Contractor or Owner.

1.4 Submittals:

A. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.

1. Substitution Request Form: Use copy of form provided in the Project Manual.
2. Documentation: Show compliance with requirements for substitutions and the following, as applicable. The burden of proof of the merit of the proposed substitute is upon the proposers.
   a. Statement indicating why specified product or fabrication or installation cannot be provided, if applicable.
   b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
   c. Detailed comparison (point by point) of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable specification section. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific

features and requirements indicated. Indicate deviations, if any, from the Work specified.

1) Detailed comparison (point by point) must be included in all substitution request documentation submitted for review by the A/E.

d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.

e. Samples, where applicable or requested.

f. Certificates and qualification data, where applicable or requested.

g. List of similar installations for completed projects with project names and addresses and names and addresses of A/Es and owners.

h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.

i. Research reports evidencing compliance with building code in effect and indicated UL or documented testing methods.

j. Construction Schedule (After Contract Execution): Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.

k. Construction Schedule (After Contract Execution): Cost information, including a proposal of change, if any, in the Contract Sum.

l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.

m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.

3. A/E's Action:

a. Prior to the Bid Date: If necessary, A/E will request additional information or documentation for evaluation within ten (10) working days of receipt of a request for substitution. The A/E will notify the contractor/supplier of acceptance or rejection of proposed substitution within ten (10) working days after receipt. All submittal requests that have been submitted properly and accepted will be included in an addendum.

1) Forms of Acceptance: Signed "Contractor/Supplier Substitution Required Form, Addendum, Change Order, Construction Change Directive, or A/E's supplementary instructions for minor changes in the work.

2) The A/E's decision of approval or disapproval will be final.

b. After Contract Execution: A/E will notify Contractor of acceptance or rejection of proposed substitution during construction within fifteen (15) working days of receipt of request, or seven (7) working days of receipt of additional information or documentation, whichever is later.

1) Forms of Acceptance: Signed "Contractor/Supplier Substitution Required Form, Addendum, Change Order, Construction Change Directive, or A/E's supplementary instructions for minor changes in the work.

2) Use product specified if A/E does not issue a decision on use of a proposed substitution within time allocated.

3) The A/E's decision of approval or disapproval will be final.

1.5 Quality Assurance

A. The contractor represents that he has personally investigated the proposed substitution and determined that it is equal or superior in all respects to that specified.

B. The contractor represents that he will provide the same warranty for the substitution that he would for that specified.

C. The contractor certifies that the cost data presented is complete and includes all related costs under this Contract but excludes costs under separate contracts, and any additional A/E redesign costs, as well as waives all claims for additional costs related to the substitution which subsequently become apparent.

D. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage qualified testing agency to perform compatibility tests recommended by manufacturers.

E. Bidders/Contractor is advised that any acceptable substitution that requires a change or modifications to other parts of the project shall be his responsibility including any additional cost required thereof. Any cost associated for other parts of the projects due to a substitution shall be the responsibility of the Contractor.

1.6 Procedures: Coordination: Modify or adjust affected work as necessary to integrate work of the approved substitutions.

PART 2: PRODUCTS

2.1 Substitutions – Pre-Bid

A. Substitutions for Cause: Submit requests for substitution immediately upon discovery of need for change, but not later than fourteen (14) working days prior to the date for receipt of bids.

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

a. Request submitted through a general contractor that has picked up a complete set of bidding documents for the project. Substitutions by a sub-contractor, material supplier, manufacturer's representative, etc. not submitted through a general contractor will be returned without action.
b. Requested substitution is consistent with the Contract Documents and will produce indicated results.
c. Substitution request is fully documented as outlined under submittals and properly submitted on required form.
d. Requested substitution is compatible with other portions of the Work.
e. Requested substitution provides specified warranty.

B. Substitutions for Convenience: A/E will consider requests for substitution if received within fourteen (14) working days prior to the date for receipt of bids. Requests received after that time will be rejected.

1. Conditions: A/E will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, A/E will return requests without action, except to record noncompliance with these requirements:
a. Request submitted through a general contractor that has picked up a complete set of bidding documents for the project. Substitutions by a sub-contractor, material supplier, manufacturer's representative, etc. not submitted through a general contractor will be returned without action.
b. Requested substitution does not require extensive revisions to the Contract Documents.
c. Requested substitution is consistent with the Contract Documents and will produce indicated results.
d. Substitution request is fully documented as outlined under submittals and properly submitted on required form.
e. Requested substitution is compatible with other portions of the Work.
f. Requested substitution provides specified warranty.

2.2 Substitutions – After Contract Execution

A. In the interest of keeping the project on schedule, the A/E will not continuously and exhaustively review proposed substitutes for each specification section. The A/E will review **only one (1)** proposed substitution per product per specification section. If that proposed substitution is rejected for any reason, the contractor shall use the product specified.

B. Substitutions for Cause: Submit requests for substitution immediately upon discovery of need for change, but not later than fifteen (15) days prior to time required for preparation and review of related submittals.

1. A/E will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, A/E will return requests without any action, except to record noncompliance with these requirements.
a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
b. Substitution request is fully documented as outlined under submittals herein and properly submitted on required form.

c. Requested substitution will not adversely affect Contractor's construction schedule.
d. Requested substitution has received necessary approval of authorities having jurisdiction.
e. Requested substitution is compatible with other portions of the Work.
f. Requested substitution has been coordinated with other portions of the Work.
g. Requested substitution provides specified warranty.
h. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

C. Substitutions for Convenience: A/E will consider requests for substitution.
1. Conditions: A/E will consider the Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, A/E will return requests without action, except to record noncompliance with these requirements.
a. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to A/E for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
b. Requested substitution does not require extensive revisions to the Contract documents.
c. Requested substitution is consistent with the Contract Documents and will produce indicated results.
d. Substitution request is fully documented as outlined under submittals and properly submitted on the required form.
e. Requested substitution will not adversely affect Contractor's construction schedule.
f. Requested substitution has received necessary approvals of authorities having jurisdiction.
g. Requested substitution is compatible with other portions of the Work.
h. Requested substitution has been coordinated with other portions of the Work.
i. Requested substitution provides specified warranty.
j. If the requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

* * *

CONTRACTOR / SUPPLIER SUBSTITUTION REQUEST FORM

(Section to be completed by Contractor / Supplier)

Project: _____ Substitution Request Number: _____

_____ From: _____

To: _____ Date: _____

_____ A/E Project Number: _____

Re: _____ Contract For: _____

Specification Title: _____ Description: _____

Section: _____ Page: _____ Article/Paragraph : _____

Proposed Substitution: _____

Manufacturer: _____ Address: _____ Phone: _____

Trade Name: _____ Model No.: _____

Installer: _____ Address: _____ Phone: _____

History: ☐ New product ☐ 2-5 years old ☐ 5-10 yrs old ☐ More than 10 years old

Differences between proposed substitution and specified product: _____

_____

_____

☐ Point-by-point comparative data attached - **REQUIRED BY A/E FOR REVIEW OF THE REQUEST.**

Reason for substitution request: _____

_____

Similar Installation:

Project: _____ Architect: _____

Address: _____ Owner: _____

_____ Date Installed: _____

Proposed substitution affects other parts of Work: ☐ No ☐ Yes; explain _____

_____

Supporting Data Attached: ☐ Drawings ☐ Product Data ☐ Samples ☐ Tests ☐ Reports ☐ _____

CONTRACTOR / SUPPLIER SUBSTITUTION REQUEST FORM
(Continued)

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to the specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.

Submitted by: _____

Signed by: _____

Firm: _____

Address: _____

_____

Telephone: _____

Fax: _____

Email: _____

Attachments: _____

_____

_____

_____

SECTION TO BE COMPLETED BY A/E:

A/E's REVIEW AND ACTION

☐ Substitution approved - Provided all Contract Documents requirements are met.
☐ Substitution approved as noted.
☐ Substitution rejected - Does not meet Contract Documents - Use specified materials.
☐ Substitution Request received too late – Not Approved. Received less than fourteen (14) working days prior to Bid Date. Insufficient time in accordance with R.S. 38:2295.
☐ Substitution rejected – Insufficient information submitted to make determination.
  ☐ Submit model or catalog numbers.
  ☐ Submit information following Specification format in enough detail to make comparison to product specified.

Signed by: Date:

Additional Comments: _____

_____

_____

_____

_____

_____

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. Construction layout.
   2. Installation of the Work.
   3. Cutting and patching.
   4. Coordination of Owner-installed products.
   5. Progress cleaning.
   6. Starting and adjusting.
   7. Protection of installed construction.
   8. 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 conditions after installation of other work.

1.4 INFORMATIONAL SUBMITTALS:

A. Certificates: Submit certificate signed by land surveyor certifying that location and elevation of improvements comply with requirements.

1.5 QUALITY ASSURANCE:

A. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction 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 Construction Elements: Do not cut and patch other construction 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 construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in A/E's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

B. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of products and equipment.

1.6 WARRANTY:

A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.

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.

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 construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities, mechanical and electrical systems, and other construction affecting the Work.

1. Before construction, 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. List of unacceptable installation tolerances.
   d. Recommended corrections.
2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
3. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
4. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
5. Proceed with installation 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 construction. 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 construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction 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 INSTALLATION:

A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
   1. Make vertical work plumb and make horizontal work level.
   2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
   3. Conceal pipes, ducts, and wiring in finished areas, unless otherwise indicated.
   4. Maintain minimum headroom clearance of 96 inches (2440 mm) in occupied spaces.

B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.

C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.

D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.

E. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.

F. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.

G. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions.
   1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by A/E.
   2. Allow for building movement, including thermal expansion and contraction.
   3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.

H. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.

I. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.4 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 construction to provide for installation of other components or performance of other construction, 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 construction 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. Adjacent Occupied Areas: Where interference with use of adjoining areas or interruption of free passage to adjoining areas is unavoidable, coordinate cutting and patching in accordance with requirements of Division 1 Section "Summary."

E. 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.

F. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. 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 and Masonry: 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.
6. Proceed with patching after construction operations requiring cutting are complete.

G. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements specified in other Sections, where applicable.

1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will minimize evidence of patching and refinishing.
    a. Clean piping, conduit, and similar features before applying paint or other finishing materials.

b. Restore damaged pipe covering to its original condition.

3. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
4. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.

H. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

3.5 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 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. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.

F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

G. 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.

H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.

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

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

3.6 PROTECTION OF INSTALLED CONSTRUCTION:

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

B. Comply with manufacturer's written instructions for temperature and relative humidity.

3.7 CORRECTION OF THE WORK:

A. Repair or remove and replace defective construction. Restore damaged substrates and finishes.

1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.

B. Restore permanent facilities used during construction to their specified condition.

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

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

E. 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 and construction waste.

1.3 DEFINITIONS:

A. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.

B. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.

C. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.

D. 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: 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.

D. Doors and Hardware: Brace open end of door frames. Except for removing door closers, leave door hardware attached to doors.
E. Equipment: Drain tanks, piping, and fixtures. Seal openings with caps or plugs. Protect equipment from exposure to weather.
F. Lighting Fixtures: Separate lamps by type and protect from breakage.
G. Electrical Devices: Separate switches, receptacles, switchgear, transformers, meters, panelboards, circuit breakers, and other devices by type.

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 construction project shall include the cost estimates for the particular items of work the design professional has developed based on the mobilization labor material and equipment costs of correcting each punch list item. The design professional shall retain his working papers used to determine the punch list items cost estimates should the matter be disputed later. The 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 construction 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, construction 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 construction 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 space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.

1. Organize list of spaces in sequential order, starting with exterior areas first and proceeding from lowest floor to highest floor.
2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
3. 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.
4. Submit list of incomplete items in the following format:
   a. PDF electronic file.
   b. Three (3) paper copies of product schedule or list, unless otherwise indicated. A/E, will return two (2) copies.

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. Partial Occupancy: Submit properly executed warranties within fifteen (15) days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.

C. 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.

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

PART 2 - PRODUCTS

2.3 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

3.3 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 construction 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, construction equipment, machinery, and surplus material from Project site.
   e. Clean exposed exterior and interior hard-surfaced 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 construction 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 construction 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.

C. Pest Control: Engage an experienced, licensed exterminator to make a final inspection and rid Project of rodents, insects, and other pests. Prepare a report.

3.4 **The A/E shall be responsible for calling for the final Louisiana State Fire Marshal Inspection, NOT THE CONTRACTOR. Additionally, the Louisiana State Fire Marshal Inspection shall not take place until the project has been declared substantially complete. If the contractor calls for the Louisiana State Fire Marshal inspection, the Contractor is advised that the A/E will not attend the inspection and will not prepare or sign the Louisiana State Fire Marshal's Certificate of Completion.**

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 two (2) copies and one (1) annotated PDF electronic files of Project's Specifications, including addenda and contract modifications.

C. Record Product Data: Submit 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 construction activities. Submit annotated PDF electronic files and directories of each submittal.

E. Reports: Submit written report weekly indicating items incorporated in Project record documents concurrent with progress of the Work, including modifications, concealed conditions, field changes, product selections, and other notations incorporated.

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 Construction 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 Construction 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 construction 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 construction. Do not use project record documents for construction 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 06057: FIRE-RETARDANT WOOD TREATMENT

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 necessary materials, labor, and equipment for the complete installation of fire retardant treatment for wood. Provide all necessary supplementary items for a complete installation as intended by the documents.

1.3 Summary:

A. Section includes: Fire retardant treatment for wood, including framing, decking, sheathing and other wood construction, not exposed to weather.

B. Related Sections: Section(s) related to this section include:

1. Section 06112: Wood Framing and Rough Carpentry.

1.4 References:

A. General: Standards listed by reference, including revisions by issuing authority, form a part of this specification section to extent indicated. Standards listed are identified by issuing authority, authority abbreviation, designation number, title, or other designation established by issuing authority. Standards subsequently referenced herein are referred to by issuing authority abbreviation and standard designation. Most recent editions should be used.

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

1. ASTM D 5516 Standard Test Method for Evaluating the Flexural Properties of Fire Retardant Treated Softwood Plywood Exposed to Elevated Temperatures.
2. ASTM D 5664 Standard Test Method for Evaluating the Effects of Fire-Retardant Treatments and Elevated Temperatures on Strength Properties of Fire-Retardant Treated Lumber.
3. ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building

a. Materials.

C. American Wood Protection Association (AWPA):

1. AWPA Standard P25 Standard for Waterborne Preservatives.
2. AWPA Standard P49 Fire Retardant Formulations.
3. AWPA Standard U1, Use Category System.

D. National Fire Protection Association (NFPA):

1. NFPA 255 Standard Test Method for Surface Burning Characteristics of Building Materials.

E. Underwriters Laboratories, Inc. (UL):

1. UL 723 Test for Surface Burning Characteristics of Building Materials.
2. UL Building Materials Directory.

1.5 Performance Requirements: Provide fire retardant treatment which will perform in accordance with manufacturer's stated performance criteria without defects, damage or failure.

1.6 Submittals:

A. General: Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures Section.

B. Product Data: Submit product data, including manufacturer's product sheet, for specified products.

C. Quality Assurance Submittals: Submit the following:

1. Test Report: Certified test report showing compliance with specified performance characteristics and physical properties. Include in test report certification that fire retardant solution does not contain ammonium phosphate.

a. Evaluation Report: National Evaluation Report ESR-1626 indicating flamespread, strength, corrosion and hygroscopic properties.

2. Certificate: Certification from treatment plant certifying wood treatment applied complies with fire retardant treatment as specified.

D. Closeout Submittals: Submit the following:

1. Warranty: Warranty documents specified herein.

1.7 Quality Assurance:

A. Wood Treatment Plant Qualifications: Wood treatment plant experienced in performing work of this section which has specialized in the treatment of wood similar to that required for this project and a plant licensed by the fire retardant manufacturer.

1. Certificate: When requested, submit certificate indicating qualification.

1.8 Delivery, Storage & Handling

A. General: Comply with Division 1 Product Requirements Sections.

B. Storage and Protection: Store materials protected from exposure to harmful weather conditions and at temperature conditions recommended by manufacturer.

1.9 Warranty:

A. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.

B. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to, and not a limitation of, other rights Owner may have under the Contract Documents.

1. Warranty Period: 40 years commencing on Date of Substantial Completion.

PART 2: PRODUCTS

2.1 Acceptable Manufacturer:

A. For purposes of designating type and quality for the work under this section, drawings and specifications are based on products manufactured or furnished by Arch Wood Protection, 5660 New Northside Dr. NW, Suite 1100, Atlanta, GA 30328, Telephone: (678) 627-2000

B. Substitutions: Subject to compliance with the requirements of this section proposed substitutions maybe submitted in accordance with Division 1.

2.2 Fire Retardant Product:

A. Type: Dricon fire retardant treatment for wood is produced by licensed treatment plant.

B. Chemical: Fire retardant chemical shall provide protection against termites and fungal decay, shall be registered for use as a wood preservative by the U.S. Environmental Protection Agency (EPA), shall comply with formulation FR-1 of the current edition of AWPA Standard P49, and shall be free of halogens, sulfates and ammonium phosphate.

C. Flame Spread: Treated wood shall have a flamespread of less than 25 when tested in an extended 30-minute tunnel test in accordance with ASTM E 84, NFPA 255 or UL 723.

D. Corrosion Properties: Fire retardant treated wood in contact with carbon steel, galvanized steel, aluminum, copper and red brass shall exhibit corrosion rates less than 1 mil (0.025 mm) per year when tested in accordance with Fed. Spec. MIL-L-19140, Paragraph 4.6.5.2.

E. Testing: Testing on fire performance, strength and corrosion properties of fire-retardant treated wood shall be recognized by issuance of a National Evaluation Services Report.

F. Fire Retardant Treatment: Manufacturer's solution for fire retardant treatment of wood.

1. Treatment Standard: Comply with AWPA Standard U1.

2.3 Related Wood Materials:

A. General: Refer to Division 6 for related wood materials specified herein.

B. Moisture Content: Provide fire retardant treated wood with moisture content as follows:

1. Lumber: Dried to a maximum moisture content of 19% after treatment.

C. Lumber: Dressed lumber, S4S, unless otherwise indicated.

1. Light Framing:
   a. Studs
   b. Blocking
   c. Hailers

2.4 Source Quality:

A. Source Quality: Obtain fire retardant treatment from a single manufacturer.

B. Tests, Inspections: Specify special plant and jobsite testing where required.

PART 3: EXECUTION

3.1 Manufacturer's Instructions:

A. Compliance: Comply with manufacturer's product data, including product technical bulletins, for fire retardant treatment installation.

3.2 Application:

A. Fire Retardant Treatment: Apply a fire-retardant treatment in accordance with requirements of applicable codes and manufacturer's requirements.

3.3 Protection:

A. Protection: Protect fire retardant treated wood from damage during construction.

END OF SECTION 06057

SECTION 06 10 12: WOOD FRAMING AND ROUGH CARPENTRY

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: This section includes framing lumber, rough carpentry, rough and miscellaneous hardware and accessories indicated on drawings and specifications. Provide all necessary supplementary items for a complete installation intended by documents.

1.3 Quality Assurance:

A. Lumber Grading Rules and Wood Species to be in conformance with Voluntary Product Standard PS 20. Grading rules of the Southern Pine Inspection Bureau (SPIB) apply to materials furnished under this Section.
B. Grade Marks: Identify all lumber by official grade mark.
C. Requirements of Regulatory Agencies, Pressure Treated Material: American Wood Preservers Association (AWPA).
D. Plywood Product Standards: Comply with PS 1 (ANSI A 199.1) or, for products not manufactured under PS 1 provisions, with applicable APA performance standard for type of panel indicated.

1.4 Submittals:

A. Submit shop drawings and manufacturer's literature for all items fabricated for this Project, showing sizes of items, finishes, methods of construction, and mounting details.
B. Pressure Treated Wood: Submit certification by treating plant stating chemicals and process used, net amount of preservative retained, and conformance with AWPA Standards. Submit certification that moisture content was reduced to 19% maximum, after treatment.
C. Submit in accordance with the requirements of Division 1.
D. Submit manufacturer's specifications and installation instructions for materials specified herein.

1.5 Product Delivery, Storage, and Handling: Immediately upon delivery to job site, place materials in area protected from weather. Store materials a minimum of six (6") inches above ground on framework or blocking and cover with protective waterproof covering providing for adequate air circulation or ventilation. Do not store seasoned materials in wet or damp portions of building. Remove damaged items that cannot be restored to like-new condition and replace at no additional cost to the Owner.

PART 2: PRODUCTS

2.1 Lumber, General:

A. Acceptable Manufacturers: For purpose of designating type and quality, Specifications are based on products manufactured by Louisiana Pacific, or approved equal.

B. Dimensions: Specified lumber dimensions are nominal. Actual dimensions conform to industry standards established by the American Lumber Standards Committee and the rules writing agencies.

C. Moisture Content: Unseasoned to 19% maximum at time of permanent closing in of building.

D. Surfacing: Surface four sides (S4S), unless specified otherwise.

2.2 Framing Lumber: Rafters, joists, studs and non-structural light framing: SPIB species, No. 2 Southern Yellow Pine.

2.3 Preservative or Pressure Treated Wood Products: Pressure treated with Micronized Copper Azole (MCA). Submit certificates indicating that all preservative Treated Wood Products have been treated with MCA. NOTE: USE STAINLESS STEEL FASTENERS AND CONNECTORS when using MCA treated lumber. Additionally, any metal that will be in contact with the treated wood shall be stainless steel. Re-dry and clean lumber after treatment, to maximum moisture content of 19%.

2.4 Sheathing, General: Trademark: Identify each plywood panel with appropriate APA trademark. All plywood roof and wall sheathing shall be marine grade. Marine Grade Plywood shall not be "Wolmanized" or simply Pressure Treated (P.T.) plywood. Marine Grade Plywood shall be gap and void-free in all layers and laminated together with water-proof glue to hold the layers together when immersed in water and so that it will not delaminate, bubble, buckle, or warp. Marine Grade Plywood shall be fabricated from hard woods such as Douglas Fir or Western Larch. Plywood identified on the drawings as "treated" shall mean "Marine Grade."

2.5 Plywood Roof Sheathing:

A. DFPA Standard Sheathing grade with exterior glue, CD or better, 1/2-inch-thick plywood (unless otherwise indicated on drawings) with an identification index 24/0.

B. Exposure Durability Classification: Exterior Marine Grade.

C. Span Rating: As required to suit rafter spacing indicated.

D. See paragraph 2.4 above for plywood treatment.

2.6 Rough and Miscellaneous Hardware:

A. Nails: Common wire, galvanized for exterior work, FS FF-N-105.

B. Screws: Standard domestic manufacture, bright steel, except galvanized for exterior use and of brass, bronze, aluminum, or stainless steel when used to attach items made of those materials.

C. Connectors, Anchors, and Accessories: Provide fabricated ASTM A 36 steel shapes, plates, and bars, welded into assemblies of types and sizes indicated.

D. Bolts, Nuts, Washers, Iron and Steel Hardware:

1. Bolts: ASTM A 307 Grade A, hexagon head.
2. Toggle Bolts: FS FF-B-588.
3. Lag Bolts: FS FF-B-561, square head.
4. Washers: Round carbon steel, FS FF-S-325.
5. Anchor Bolts: Hot- dipped galvanized steel, square head machine bolts with square nuts and malleable iron or steel plate washers or carriage bolts with square nuts and cut washers where applicable. "J" hooked anchor bolts shall be used where imbedded in concrete.
7. Expansion Shields, Lag Screws and Bolts: FS FF-B-561
8. Lag Screws, Shear Plates, Split Ring Connectors, Connector Plates: Conform to the requirements of NFPA.
9. Joist Hangers: Simpson, U Series 16 gauge galvanized standard joist hangers. Use where beams are in plane of joists.
10. Hurricane Clips: Simpson Seismic and Hurricane Ties, H Series.
11. Ply-Clips: Simpson Extruded Aluminum Plywood Sheathing Clips.
12. Screw Fasteners: Corrosion resistant, bugle head, self-drilling screws at appropriate length.

E. Wet-Use Finish: Where wet-use work is indicated, provide ASTM A 153 Hot-dip zinc coating, for all rough and miscellaneous steel hardware.

PART 3: EXECUTION

3.1 Inspection: Verify that surfaces to receive rough carpentry materials are prepared to exact grades and dimensions and are free of irregularities and debris.

3.2 Installation: Comply with applicable recommendations contained in "APA Design Construction Guide" for types of plywood products specified.

3.3 Joist Framing:

A. Install joists with crown edge up. Support ends of each member with minimum of 1-1/2 inches of bearing on wood.

B. Notches: Do not notch in middle third of joists. Notches in top or bottom of joists, maximum of 1/6 depth of member. Notched ends, maximum of 1/3 depth of member.

C. Bored Holes: Maximum 1/3 depth of member, two (2") inches minimum distance to top or bottom of joists.

D. Erect wood framing members level and plumb

3.4 Rafters:

A. Notch to fit exterior wall plates and toe nail to plates. Provide hurricane clips at every rafter.

B. Double rafters at openings in roof framing to provide headers and trimmers, and support with metal hangers.

C. At ridge, place rafter directly opposite each other and nail to ridge member or support with metal hangers. At valleys, bevel ends of rafters for bearing against valley rafters. At hips, bevel ends of rafters for bearing against hip rafters.

3.5 Plates: Provide continuous treated plate at top of all concrete masonry unit walls as indicated. Anchor into masonry bond beam with anchor bolts spaced four (4') feet o.c. maximum.

3.6 Pressure Treated Wood Products:

A. Provide pressure-treated wood for all framing, blocking, and nailing strips that are in contact with masonry or concrete; nailers for metal flashing and fascias; any wood exposed to weather conditions; and as indicated.

B. Apply two brush coats of the same preservative used in original treatment to all sawed or cut surfaces of treated lumber.

3.7 Plywood Roof Sheathing:

A. Install Plywood with face grain perpendicular to supports, using panel with continuous end joints over two or more spans staggered between panels and locate over supports.

B. Allow minimum space of 1/8 inch between end joints and 1/4 inch between edge joints for expansion and contraction of panels. Support edge joints by using ply-clips.

C. Nail 6 inches o.c. along panel edges and 12 inches o.c. at intermediate supports.

D. Use 8d Common, corrosion resistant, smooth, ring-shank or spiral-thread nails.

3.8 Cleaning: Remove all excess materials and debris from site.

* * *

SECTION 070150.19: PREPARATION FOR RE-ROOFING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

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

1.2 SUMMARY:

A. Section Includes:
   1. Modified bitumen and built-up roofing with gravel tear-off.
   2. Roof re-cover preparation.
   3. Removal of base flashings and perimeter edge trim flashings.
   4. Metal roof panels, removal, preparation, and replacement.

B. Related Sections:
   1. Division 01 Section "Summary" for use of the premises and phasing requirements.
   2. Division 01 Section "Temporary Facilities and Controls" for temporary construction and environmental-protection measures for reroofing preparation.

1.3 MATERIALS OWNERSHIP:

A. Except for items or materials indicated to be reused, reinstalled, or otherwise indicated to remain Owner's property, demolished materials shall become Contractor's property and shall be removed from Project site.

1.4 DEFINITIONS:

A. Roofing Terminology: Refer to ASTM D 1079 and glossary in NRCA's "The NRCA Roofing and Waterproofing Manual" for definition of terms related to roofing work in this Section.

B. Existing Membrane Roofing System: B.U.R. and Modified bitumen roofing membrane and components and accessories between deck and roofing membrane.

C. Existing Standing Seam Roof: Metal roof panels, underlayment, and plwood above steel purlins.

D. Roof Tear-Off: Removal of both membrane roofing systems and accessories from deck metal roof panels and underlayment, plywood decking if required.

E. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and reinstalled.

F. Existing to Remain: Existing items of construction that are not indicated to be removed.

1.5 SUBMITTALS:

A. Product Data: For each type of product indicated.

B. Fastener pull-out test report.

C. Photographs or Videotape: Show existing conditions of adjoining construction and site improvements, including exterior and interior finish surfaces, that might be misconstrued as having been damaged by reroofing operations. Submit before Work begins.

1.6 QUALITY ASSURANCE:

A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning membrane roofing removal. Comply with hauling and disposal regulations of authorities having jurisdiction.

B. Reroofing Conference: Conduct conference at Project site.

1. Meet with Owner; Architect; Owner's insurer if applicable; roofing system manufacturer's representative; roofing Installer including project manager, superintendent, and foreman; and installers whose work interfaces with or affects reroofing including installers of roof accessories and roof-mounted equipment.
2. Review methods and procedures related to roofing system tear-off and replacement including, but not limited to, the following:
   a. Reroofing preparation, including membrane roofing system and metal roof panels manufacturer's written instructions.
   b. Temporary protection requirements for existing roofing system that is to remain during and after installation.
   c. Existing expansion joint during each stage of reroofing.
   d. Construction schedule and availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
   e. Condition and acceptance of existing roof deck and base flashing substrate for reuse.
   f. Structural loading limitations of deck during reroofing.
   g. Base flashings, special roofing details, drainage, penetrations, equipment curbs, and condition of other construction that will affect reroofing.
   h. HVAC shutdown and sealing of air intakes.
   i. Governing regulations and requirements for insurance and certificates if applicable.
   j. Existing conditions that may require notification of Architect before proceeding.

1.7 PROJECT CONDITIONS:

A. Owner occupies building immediately below reroofing area. Conduct reroofing so Owner's operations will not be disrupted. Provide Owner with not less than 72 hours' notice of activities that may affect Owner's operations.

1. Coordinate work activities daily with Owner so Owner can place protective dust or water leakage covers over sensitive equipment or furnishings, shut down HVAC and fire-alarm or -detection equipment if needed, and evacuate occupants from below the work area.

B. Protect building to be reroofed, adjacent buildings, walkways, site improvements, exterior plantings, and landscaping from damage or soiling from reroofing operations.

C. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities.

D. Conditions existing at time of inspection for bidding will be maintained by Owner as far as practical.
E. Limit construction loads on roof to 100 psf rooftop equipment wheel loads and 20 psf for uniformly distributed loads.
F. Weather Limitations: Proceed with reroofing preparation only when existing and forecasted weather conditions permit Work to proceed without water entering existing roofing system or building.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 PREPARATION:
A. Protect existing membrane roofing system that is indicated not to be reroofed.
B. Coordinate with Owner to shut down air-intake equipment in the vicinity of the Work. Cover air-intake louvers before proceeding with reroofing work that could affect indoor air quality or activate smoke detectors in the ductwork.
C. During removal operations, have sufficient and suitable materials on-site to facilitate rapid installation of temporary protection in the event of unexpected rain.
D. Maintain roof drains in functioning condition to ensure roof drainage at end of each workday. Prevent debris from entering or blocking roof drains and conductors. Use roof-drain plugs specifically designed for this purpose. Remove roof-drain plugs at end of each workday, when no work is taking place, or when rain is forecast.
1. If roof drains are temporarily blocked or unserviceable due to roofing system removal or partial installation of new membrane roofing system, provide alternative drainage method to remove water and eliminate ponding. Do not permit water to enter into or under existing membrane roofing system components that are to remain.
E. Verify that rooftop utilities and service piping have been shut off before beginning the Work.
1. Prior to cutting any pipe or conduit penetrating from roof surface, verify that remainder of pipe or conduit does not pose a threat to the occupants inside the building. Secure such items back to roof framing if they are to remain.
F. Verify that all exposed electrical conduits are grounded properly. Notify Owner if electrical conditions may pose a hazard to workers or operations.

3.2 ROOF TEAR-OFF:
A. Roof Tear-Off: Where indicated, remove existing roofing membrane and other membrane roofing system components down to the existing deck. Inspect existing deck (metal or concrete prior to installing new work.
B. Metal Roof Tear-Off: Where indicated remove existing metal panels, clips, and underlayment down to existing plywood decking. Inspect existing decking prior to installing new work. Remove and replace any damaged plywood with similar material of exact thickness and dimensions.

C. Remove perimeter roof edge trim and nailers to expose structure below as indicated on documents.
D. Roof/wall flashings to be removed. Prepare new flashing assemblies to accept new roofing membrane.

3.3 DECK PREPARATION:
A. Inspect deck after partial tear-off of all roofing systems.
B. If deck surface is not suitable for receiving new retrofit roof assembly or if structural integrity of deck is suspect, immediately notify Architect. Do not proceed with installation until directed by Architect.

3.4 FASTENER PULL-OUT TESTING:
A. Perform fastener pull-out tests according to SPRI FX-1 and submit test report to Architect before installing new roofing system.
1. Obtain Architect's approval to proceed with specified fastening pattern. Architect may furnish revised fastening pattern commensurate with pull-out test results.

3.5 DISPOSAL:
A. Collect demolished materials and place in containers. Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on-site.
1. Storage or sale of demolished items or materials on-site is not permitted.
B. Transport and legally dispose of demolished materials off Owner's property.

END OF SECTION 070150.19

SECTION 07 22 00: ROOF INSULATION

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 necessary materials, labor, and equipment for the complete installation of roof insulation, as shown on the drawings and specified herein. Provide all necessary supplementary items for a complete installation intended by documents.

1.3 SUMMARY

A. Work shall include, but is not limited to, the following:
   1. Preparation of existing steel and concrete roof decks and all flashing substrates.
   2. Insulation
   3. Cover-board
   4. All related materials and labor required to complete specified roofing necessary to receive specified manufacturer's warranty.

1.4 RELATED SECTIONS

A. Division 011000 – Summary of Work
B. Division 075216 – Styrene-Butadiene-Styrene (SBS) Modified Bitumen Membrane Roofing
C. Division 076000 –Flashing and Sheet Metal

1.5 DEFINITIONS

A. ASTM D 1079-Definitions of Term Relating to Roofing and Waterproofing.
B. The National Roofing Contractors Association (NRCA) Roofing and Waterproofing Manual, Fifth Edition Glossary.

1.6 REFERENCES

A. AMERICAN SOCIETY OF CIVIL ENGINEERS - Reference Document ASCE 7, Minimum Design Loads for Buildings and Other Structures.
B. AMERICAN STANDARD OF TESTING METHODS (ASTM):
   1. ASTM C 726 - Standard Specification for Mineral Wool Roof Insulation Board.
   2. ASTM C 728 - Standard Specification for Perlite Thermal Insulation Board.
   3. ASTM C 1177/C 1177M - Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing.
   4. ASTM C 1278 - Standard Specification for Fiber-Reinforced Gypsum Panel.
   5. ASTM C 1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Insulation Board.
   6. ASTM C 1325 – Standard Specification for Non-Asbestos Fiber-Mat Reinforced Cementitious Backer Units.

7. ASTM D 41 - Standard Specification for Asphalt Primer Used in Roofing, Damp proofing, and Waterproofing.

C. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)::
   1. ANSI/SPRI FX-1, Standard Field Test Procedure for Determining the Withdrawal Resistance of Roofing Fasteners.
   2. ANSI/SPRI IA-1, Standard Field Test Procedure for Determining the Mechanical Uplift Resistance of Insulation Adhesives over Various Substrates.
   3. ANSI/FM 4474- American National Standard for Evaluating the Simulated Wind Resistance of Roof Assemblies Using Static Positive and/or Negative Differential Pressures.
   4. Prefabricated, and Reinforced for Roofing.

D. FACTORY MUTUAL (FM):
   1. FM 4450 - Approval Standard - Class I Insulated Steel Roof Decks.
   2. FM 4470 - Approval Standard - Class I Roof Covers.

E. FLORIDA BUILDING CODE (FBC):
   1. 2021 Florida Building Code (FBC).

F. INTERNATIONAL CODES COUNCIL (ICC):
   1. 2021 International Building Code (IBC).

G. NATIONAL ROOFING CONTRACTORS' ASSOCIATION (NRCA).

H. UNDERWRITERS LABORATORY (UL):
   1. UL 790 Standard Test Methods for Fire Tests of Roof Coverings.
   2. UL 1256 – Fire Test of Roof Deck Constructions.

1.7 ACTION SUBMITTALS

A. Product Data Sheets: Submit manufacturer's product data sheets, installation instructions and/or general requirements for each component.

B. Safety Data Sheets: Submit manufacturer's Safety Data Sheets (SDS) for each component.

C. Sample/Specimen Warranty from the manufacturer and contractor.

D. Shop Drawings: Provide roof plan and applicable roof system detail drawings.

1.8 INFORMATIONAL SUBMITTALS

A. Contractor Certification: Submit written certification from roofing system manufacturer certifying that the applicator is authorized by the manufacturer to install the specified materials and system.

1.9 CLOSEOUT SUBMITTALS

A. Warranty: Provide manufacturers and contractor's warranties upon substantial completion of the roofing system.

1.10 QUALITY ASSURANCE

A. MANUFACTURER QUALIFICATIONS:
   1. Manufacture shall have 20 years of experience manufacturing roofing materials.
   2. Trained Technical Field Representatives, employed by the manufacturer, independent of sales.
   3. Provide reports in a timely manner of all site visit reports.
   4. Provide specified warranty upon satisfactory project completion.

B. CONTRACTOR QUALIFICATIONS:

1. Contractor shall be authorized by the manufacturer to install specified materials prior to the bidding period through satisfactory project completion.
2. Applicators shall have completed projects of similar scope using same materials as specified herein.
3. Contractor shall provide full time, on-site superintendent or foreman experienced with the specified roof system through satisfactory project completion.
4. Applicators shall be skilled in the application methods for all materials.
5. Contractor shall maintain a daily record, on-site, documenting material installation and related project conditions.
6. Contractor shall maintain a copy of all submittal documents, on-site, available always for reference.

1.11 DELIVERY, STORAGE AND HANDLING

A. Refer to each product data sheet or other published literature for specific requirements.

B. Deliver materials and store them in their unopened, original packaging, bearing the manufacturer's name, related standards, and any other specification or reference accepted as standard.

C. Protect and store materials in a dry, well-vented, and weatherproof location. Only materials to be used the same day shall be removed from this location.

D. When materials are to be stored outdoors, store away from standing water, stacked on raised pallets or dunnage, at least 4 in or more above ground level. Carefully cover storage with "breathable" tarpaulins to protect materials from precipitation and to prevent exposure to condensation.

E. Properly dispose of all product wrappers, pallets, cardboard tubes, scrap, waste, and debris. All damaged materials shall be removed from job site and replaced with new, suitable materials.

1.12 SITE CONDITIONS

A. SAFETY:

1. The contractor shall be responsible for complying with all project-related safety and environmental requirements.
2. Refer to NRCA CERTA recommendations, local codes and building owner's requirements for hot work operations.
3. The contractor shall review project conditions and determine when and where conditions are appropriate to utilize the specified liquid-applied, or semi-solid roofing materials. When conditions are determined by the contractor to be unsafe or undesirable to proceed, measures shall be taken to prevent or eliminate the unsafe or undesirable exposures and conditions, or equivalent approved materials and methods shall be utilized to accommodate requirements and conditions.

4. The contractor shall review project conditions and determine when and where conditions are appropriate to utilize the specified hot asphalt-applied materials. When conditions are determined by the contractor to be unsafe or undesirable to proceed, measures shall be taken to prevent or eliminate the unsafe or undesirable exposures and conditions, or equivalent approved materials and methods shall be utilized to accommodate requirements and conditions.
5. The contractor shall refer to product Safety Data Sheets (SDS) for health, safety, and environment related hazards, and take all necessary measures and precautions to comply with exposure requirements.

B. ENVIRONMENTAL CONDITIONS:
1. Monitor substrate temperature and material temperature, as well as all environmental conditions such as ambient temperature, moisture, sun, cloud cover, wind, humidity, and shade. Ensure conditions are satisfactory to begin work and ensure conditions remain satisfactory during the installation of specified materials. Materials and methods shall be adjusted as necessary to accommodate varying project conditions. Materials shall not be installed when conditions are unacceptable to achieve the specified results.
2. Precipitation and dew point: Monitor weather to ensure the project environment is dry before, and will remain dry, during the application of roofing materials. Ensure all roofing materials and substrates remain above the dew point temperature as required to prevent condensation and maintain dry conditions.

1.13 PERFORMANCE REQUIREMENTS

A. FIRE CLASSIFICATION:
1. Roof construction performance testing shall be in accordance with UL 1256, FM 4450, or FM 4470 to meet the specified requirements for interior flame spread and fuel contribution.
a. Roof construction meets requirements of UL 1256, or FM Class 1.

B. ROOF SLOPE:
1. Finished roof slope shall be 1/8 or ¼-inch per foot minimum for roof drainage.

PART 2 PRODUCTS

2.1 MANUFACTURER

A. SINGLE SOURCE MANUFACTURER: All roofing materials shall be provided by a single supplier with 20 years or more manufacturing history in the US.
1. Comply with the Manufacturer's requirements as necessary to provide the specified warranty.

B. PRODUCT QUALITY ASSURANCE PROGRAM: Manufacturer shall be an ISO 9001 registered company.

C. ACCEPTABLE MANUFACTURER:
1. Soprema
2. Garland
3. Prior Approved Equal

2.2 THERMAL INSULATION SYSTEM

A. RIGID INSULATION

1. POLYISOCYANURATE INSULATION:

a. Closed cell polyisocyanurate foam core bonded on each side to a glass fiber-reinforced felt facer.

i Thickness: in minimum board thickness. Total thickness to meet specified insulation system thermal resistance 'R' value

ii Dimensions: Concrete = 4 x 4 foot and Steel =4 x 8 foot boards

iii Meets or exceeds ASTM C1289, Type II, Class 1, Grade 2 (20 psi)

b. Tapered: Closed cell polyisocyanurate foam core bonded on each side to a glass fiber-reinforced felt facer, tapered to provide slope.

i Taper: Steel 1/8 in and Concrete ¼ in with 1/2 in Crickets per foot. Insulation, crickets, and saddles provided with taper as required for positive roof slope.

ii Dimensions: 4 x 4 ft boards

iii Meets or exceeds ASTM C1289, Type II, Class 1, Grade 2 (20 psi)

B. COVER-BOARD:

1. ASPHALTIC ROOF BOARD:

a. ¼ IN SOPREMA SOPRABOARD: Mineral fortified, asphaltic roof substrate board with glass fiber facers. For use as roof cover-board and for vertical flashing substrate. ASPHALTIC ROOF BOARD shall be manufactured by the membrane supplier.

i Thickness: 1/4 in

ii Dimensions: 4 x 8 ft acceptable for mechanical attachment, insulation adhesive or asphalt application.

iii Water absorption: Less than 1 percent per ASTM D994.

iv Impact resistance: Included in FM Approvals per 4450/4470 for FM Severe Hail (SH) rating.

v Compressive strength, psi (kPa) measured at 50 percent compression, per ASTM C472:

a) ¼ in board: 1,320 (9,100)

vi Puncture resistance, lbf (N) per ASTM E154:

a) ¼ in board: 100 (445)

2. GYPSUM ROOF BOARD

a. National Gypsum Company, DEXcell FA Glass Mat Roof Board:

i Gypsum core, glass fiber-faced, roof board:

ii Thickness: 1/2 in

iii Dimensions: 4 x 4 ft or 4 x 8 ft boards

iv Facer: Glass fiber.

v Meets or exceeds ASTM C1177/C1177M.

b. Georgia Pacific Gypsum LLC, DensDeck Prime Roof Board:

i Gypsum core, glass fiber-faced, factory primed, roof Cover-board.
ii Thickness: 1/2 in
iii Dimensions: 4 x 4 ft or 4 x 8 ft boards
iv Facer: Factory primed, glass fiber.
v Meets or exceeds ASTM C1177/C1177M.

C. INSULATION CANT AND TAPERED STRIP
1. CANT STRIP, MODIFIED BITUMEN
a. Modified bitumen cant strips for use with heat-welded SBS modified bitumen.
i Length: 39.4 in sections.
ii Cross-section dimensions: Size as required for flashing conditions.
2. CANT STRIP, RIGID MINERAL WOOL
a. High density, mineral wool, bitumen coated cant strips.
i Length: 4 ft sections.
ii Cross-section dimensions: Size as required for flashing conditions.
iii Surface: Bitumen coated, sanded.
iv Meets or exceeds ASTM C726.
3. TAPERED EDGE STRIP AND BOARDS:
a. Polyiso Insulation or Expanded perlite, blended with binders and fibers.
i Dimensions: Size as required.
ii Meets or exceeds ASTM C728.

D. INSULATION ADHESIVE
1. POLYURETHANE FOAM INSULATION ADHESIVE
a. Two-component, polyurethane foam insulation adhesive, applied in ribbons from cartridges or two-component bulk packaging with pump-driven delivery system.
i Ribbon size: 1/2 in to 3/4 in wide.
ii Ribbon spacing: As required to meet specified wind uplift resistance performance.
a) Field of Roof (Zone 1'): 12 in on-centers
b) Field of Roof (Zone 1): 12 in on-centers
c) Perimeter of Roof (Zone 2): 6 in on-centers
d) Corners of Roof (Zone 3): 4 in on-centers
b. Two-component, polyurethane foam insulation adhesive, applied in ribbons from two-component compressed cylinders.
i Ribbon size: 2-1/2 to 3-1/2 in wide.
ii Ribbon spacing: As required to meet specified wind uplift resistance performance.
a) Field of Roof (Zone 1'): 12 in on-centers
b) Field of Roof (Zone 1): 12 in on-centers
c) Perimeter of Roof (Zone 2): 6 in on-centers
d) Corners of Roof (Zone 3): 4 in on-centers

iii Application Rate: Full coverage, applied at EVT for a nominal rate of 23-25 lbs/square.

2.3 ACCESSORIES

A. PRIMERS:

1. Asphalt cut-back primer. Primer for the preparation of substrates for asphalt applications.
   a. Meets or exceeds ASTM D41
   b. VOC content: 350 g/L or less.

B. INSULATION FASTENERS AND PLATES

1. #14 FASTENERS and 3 IN INSULATION PLATE: Insulation system fasteners and metal stress plates.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examination includes visual observations, qualitative analysis, and quantitative testing measures as necessary to ensure conditions remain satisfactory throughout the project.

B. Conduct qualitative insulation adhesive adhesion tests, or quantitative bonded pull tests as necessary to ensure satisfactory adhesion is achieved.

C. The contractor shall examine all roofing substrates including, but not limited to: insulation materials, roof decks, walls, curbs, rooftop equipment, fixtures, and wood blocking.

D. The applicator shall not begin installation until conditions have been properly examined and determined to be clean, dry and, otherwise satisfactory to receive specified roofing materials.

E. During the application of specified materials, the applicator shall continue to examine all project conditions to ensure conditions remain satisfactory to complete the specified roofing system.

3.2 PREPARATION

A. Before commencing work each day, the contractor shall prepare all roofing substrates to ensure conditions are satisfactory to proceed with the installation of specified roofing materials. Preparation of substrates includes, but is not limited to, substrate repairs, securement of substrates, eliminating all incompatible materials, and cleaning.

B. Where conditions are found to be unsatisfactory, work shall not begin until conditions are made satisfactory to begin work. Commencing of work shall indicate contractor's acceptance of conditions.

3.3 PRIMER APPLICATION

A. Apply the appropriate specified primer to dry, compatible substrates as required to enhance adhesion of new specified roofing materials.

B. Apply primer using brush, roller, or sprayer at the rate published on the product data sheet.

C. Asphalt Primer: Apply primer to dry compatible masonry, metal, wood, and other required substrates before applying asphalt.

D. Project conditions vary throughout the day. Monitor changing conditions, monitor the drying time of primers, and monitor the adhesion of the membrane plies. Adjust primer and membrane application methods as necessary to achieve the desired results.

3.4 INSULATION FASTENER APPLICATION

A. Fasten Insulation layers and Cover-board to the deck using specified insulation fasteners and plates.
B. Evenly distribute fasteners as required by the board manufacturer's published requirements.
C. Fasten the insulation to meet the specified wind uplift resistance performance requirements and warranty requirements.
D. Minimum insulation fastening requirement:
    1. Field of Roof (Zone 1'): 16 fasteners per 4x8 ft board.
    2. Field of Roof (Zone 1): 16 fasteners per 4x8 ft board.
    3. Perimeter of Roof (Zone 2): 24 fasteners per 4x8 ft board.
    4. Corners of Roof (Zone 3): 32 fasteners per 4x8 ft board.
E. For insulation and Cover-boards located partially within the defined perimeter and/or corners, install fastening for the entire board as specified herein.

3.5 INSULATION ADHESIVE APPLICATION

A. Apply the specified two-component insulation adhesive to adhere Insulation Layers and Cover-board to the deck and insulation substrate(s).
B. Follow insulation adhesive product data sheets and published general requirements for installation requirements.
C. Apply insulation adhesive in uniform ribbons, 1/2 in to 3/4 in wide.
D. Immediately install insulation components into insulation adhesive and apply weight to ensure the materials maintain full contact with all ribbons for complete adhesion. Do not allow insulation adhesive to skin-over before placing the insulation materials into the adhesive.
E. Adhere the insulation system to meet the specified wind uplift resistance performance and specified warranty requirements.
F. Minimum insulation adhesive ribbon spacing:
    1. Field of Roof (Zone 1'): 12 in on-centers.
    2. Field of Roof (Zone 1): 12 in on-centers.
    3. Perimeter of Roof (Zone 2): 6 in on-centers.
    4. Corners of Roof (Zone 3): 4 in on-centers.

3.6 INSULATION SYSTEM APPLICATION

A. Follow insulation system component product data sheets, published general requirements and, approvals.
B. Install all insulation system components on clean, dry, uniform and, properly prepared substrates.
C. All insulation system boards shall be carefully installed and fitted against adjoining sheets to form tight joints.
D. Insulation system boards that must be cut to fit shall be saw-cut or knife-cut in a straight line, not broken. Chalk lines shall be used to cut insulation components. Uneven or broken edges shall not be accepted. Remove dust and debris that develops during cutting operations.
E. Stagger successive layers of insulation 12 in vertically and laterally to ensure board joints do not coincide with joints from the layers above and below.
F. Crickets, saddles, and tapered edge strips shall be installed before installing Cover-boards.

G. Install tapered insulation, saddles and crickets as required to ensure positive slope for complete roof drainage.

H. Cover-boards shall be installed to fit tight against adjacent boards. When required by the Cover-board manufacturer, a uniform gap shall be provided between Cover-boards using a uniform guide placed between board joints to form a gap between all boards during installation.

I. The finished insulation system surface shall be tight to, and flush with, adjacent substrates to form a satisfactory substrate to install specified roof membrane and flashings.

J. Install specified cants where required for membrane flashing transitions.

3.7 CLEAN-UP

A. Clean-up and properly dispose of waste and debris resulting from these operations each day as required to prevent damages and disruptions to operations.

END OF SECTION

SECTION 07222: RIGID INSULATION BOARD - ROOF

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: This section includes rigid insulation board, tape, mechanical fasteners and accessories indicated on drawings and in specifications. Provide all necessary supplementary items for a complete installation intended by documents.

1.3 Definition: R-Value designation is the thermal resistance of insulation only, not including alleged air spaces or other factor assumed to result in higher R-values.

1.4 Quality Assurance:

A. Provide manufacturer's certification or literature indicating that products intended for use meet specified requirements.

B. Submit literature or certification that flame spread tested by ASTM E-84 is 25 or less, smoke developed factor at 450 or less.

1.5 Requirements of Regulatory Agencies: Install rigid insulation to meet requirements of state and local building codes.

1.6 Submittals:

A. Manufacturer's Literature: Manufacturer's recommended installation instructions.

B. Certificates: Manufacturer's certification or literature indicating that materials meet specification requirements.

C. Submit in accordance with requirements of Division 1.

1.7 Product Delivery, Storage and Handling: Deliver materials to project site in manufacturer's original unopened packaging. Identify contents, manufacturer, brand name, thermal values, and applicable standards. Store materials in area protected from weather, moisture, and open flame or sparks. Protect from cutting and welding operations. Remove damaged material from site.

1.8 Environmental Requirements: Do no install insulation when temperature is 40° F or below, during rain or wet weather, or when surfaces are wet.

PART 2: PRODUCTS

2.1 Acceptable Manufacturers:

A. For purposes of designating type and quality for the work under this section, Drawings and Specifications are based on products manufactured by Owens/Corning Fiberglass Corporation.

B. Subject to compliance with requirements acceptable manufacturers include Manville or approved equal.

2.2 Rigid Insulation: Owens-Corning, Foam Roof Insulation Board, or approved equal. UL listed and Factory Mutual approved meeting Federal Specification HH-I-1972. Manufacturer's standard size X 3/4" thick, board, between top insulation and bottom skin of asphalt-impregnated polyisocyanurate foam roofing felt.

2.3 Tapered Fiberglass Insulation:

A. SIBO tapered fiberglass roof insulation.

B. UL listed and Factory Mutual approved meeting Federal Specifications HH-I-526 and ASTM 6726.

2.4 Tape: Owens-Corning, Fiberglass Roof Tape or as approved in writing by roofing membrane manufacturer.

2.5 Mechanical Fasteners: Owens-Corning, glasfast fastening system or as approved in writing by roofing membrane manufacturer.

PART 3: EXECUTION

3.1 Inspection: Examine areas to receive rigid insulation to insure work of preceding trades is completed. Check surfaces to receive rigid insulation to assure they are in uniform plane; and free of debris, grease, oil, or other items detrimental to installation. Proceed with application insulation only when conditions are satisfactory.

3.2 Installation:

A. Apply wood nailers of same thickness as insulation board at eaves, curbs, penetrations, and drains.

B. The roof insulation shall be installed in 2 layers with the joints staggered in one direction, unless roof tape is specified in which case the joints shall be continuous in both directions. The joints of the type shall be offset a minimum of 6" from those of the bottom layer.

C. Where more than one layer of insulation is specified, the top surface of the first layer shall be coated with hot asphalt using 20 to 25 lb/100 ft2 of surface, and successive layers of insulation shall be applied using offset joints, so that each layer breaks joints to a minimum of 6" both ways with the preceding layer. The roof insulation must be secured, attached to the roof deck and/or vapor retarder and must be securely adhered to the roof deck and/or vapor retarder and must be securely adhered between layers. Application must comply with insurance and code requirements.

D. Spacing of mechanical fasteners shall comply with roofing manufacturers' requirements.

E. Cut panels as required at areas of conduit runs, and to assure uniform and complete coverage of entire roof area.

F. Seal all joints and penetrations in sheathing with 6 inches width of fiberglass tape.

G. Install no more insulation at one time than will be protected from wetting, or other damage by the elements, by the installation of roofing membrane on the same day or prior to rain or dew. Provide temporary water cut-offs at completion of each day's work and remove upon resumption of work.

H. Insulation, which has become wet after installation shall be removed and replaced.

l. Prior to beginning of roofing operations, insulation board shall be dry, swept free of dirt and debris, and kept clean of foreign materials.

3.4 Clean Up: Remove debris from project site: Leave work areas in clean condition.

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SECTION 07411: STANDING-SEAM METAL ROOFING PANELS - PRE-FINISHED

PART 1: GENERAL

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

1.2 Scope of Work: Furnish all necessary materials, labor and equipment for the complete installation of a standing seam metal roof panel assembly including all flashing, trim, closures, fasteners, sealants, roof accessories, hips, valleys, ridges, eaves, corners, rakes, gutters attaching devices and other items, as shown on the drawings and specified herein. Provide all necessary supplementary items for a complete installation intended by documents.

1.3 Quality Assurance:

A. Manufacturer Qualifications: Company specializing in architectural sheet metal products.

B. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by the manufacturer.

1.4 Standards: Meet requirements and recommendations of the applicable portions of the latest editions of all local governing codes including the following standards:

A. American Society for Testing Materials (ASTM)
B. Metal Building Manufacturers Association (MBMA)
C. American Iron and Steel Institute (AISI)
D. ASTM A-525, A-653 & ASTM A-924 Steel Sheet, Zinc Coated (Galvanized)
E. ASTM E-283
F. ASTM E-331
G. ASTM E-330 (Modified)
H. Spec Data Sheet - Galvalume Sheet Metal by Bethlehem Corp.
I. SMACNA - Sheet Metal and Air Condition Contractors National Association, Inc.
J. Building Materials Directory - Underwriters Laboratories, Test Procedure 580.
K. International Building Code (IBC)

1.5 Action Submittals:

A. Product Data: For each type of product.
   1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of panel and accessory.

B. Shop Drawings:
   1. Include fabrication and installation layouts of metal panels; details of edge conditions, joints, panel profiles, corners, anchorages, attachment system, trim flashings, closures, and accessories; and special details.
   2. Accessories: Include details of the flashing, trim, and anchorage systems, at a scale of not less than 3 inches per 12 inches (1:5).

C. Calculations:
   1. Include calculations with registered engineer in the State of Louisiana seal, verifying roof panel and attachment method resist wind pressures imposed on it pursuant to design wind loads and Construction Documents.

D. Samples for Initial Selection: For each type of metal panel indicated with factory-applied color finishes.
   1. Include similar trim samples and accessories involving color selection.

1.6 Informational Submittals:

A. Qualification Data: For manufacturer and installer.

B. Product Test Reports: For each product, for tests performed by a qualified testing agency.

C. Field quality-control reports.

D. Sample Warranties: For special warranties.

1.7 Closeout Submittals: Maintenance Data, for metal panels to include in maintenance manuals.

1.8 Preinstallation Meetings:

A. Preinstallation Conference: Conduct conference at project site.
   1. Meet with Owner, A/E, metal panel installer, metal panel manufacturer's representative, and installers whose work interfaces with or affects metal panels, including installers of roof accessories and roof-mounted equipment.
   2. Review and finalize construction schedule and verify availability of materials, installer's personnel, equipment, and facilities needed to make progress and avoid delays.
   3. Review methods and procedures related to metal panel installation, including manufacturer's written instructions.
   4. Examine support conditions for compliance with requirements, including alignment between and attachment to structural members.
   5. Review structural loading limitation of purlins and rafters during and after roofing.
   6. Review flashings, special details, drainage, penetrations, equipment curbs, and condition of other construction that affect metal panels.
   7. Review governing regulations and requirements for insurance, certificates, and tests and inspections if applicable.
   8. Review temporary protection requirements for metal panel systems during and after installation.
   9. Review procedures for repair of metal panels damaged after installation.
   10. Document proceedings, including corrective measures and actions required, and furnish copy of record to each participant.

1.9 Delivery, Storage and Handling:

A. Deliver components, metal panels, and other manufactured items so as not to be damaged or deformed. Package metal panels for protection during transportation and handling.

B. Unload, store, and erect metal panels in a manner to prevent bending, wrapping, twisting, and surface damage.

C. Stack metal panels horizontally on platforms or pallets, covered with suitable weathertight and ventilated covering. Store metal panels to ensure dryness, with a positive slope for drainage of water. Do not store metal panels in contact with other materials that might cause staining, denting, or other surface damage.

D. Retain strippable protective covering on metal panels until installation. Remove as panels are being installed. Verify film is not left on installed panels.

1.10 Field Conditions:

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit assembly of metal panels to be performed according to manufacturer's written instructions and warranty requirements.

1.11 Coordination:

A. Coordinate sizes and locations of roof curbs, equipment supports, and roof penetrations with actual equipment provided.

B. Coordinate metal panel installation with rain drainage work, flashing, trim, construction of soffits, and other adjoining work to provide a leakproof, secure, and noncorrosive installation.

1.12 Warranty:

A. Special Galvalume Substrate Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of metal panel systems that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:
   a. Structural failures including rupturing, or perforating.
   b. Deterioration of metals and other materials beyond normal weathering.
2. Warranty Period: 20 years and 6 months from date of Substantial Completion.

B. Special Warranty on Panel Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace metal panels that show evidence of deterioration of factory-applied finishes within specified warranty period.

1. Exposed Panel Finish: Deterioration includes, but is not limited to, the following:
   a. Color fading more than 5 Hunter units when tested according to ASTM D 2244.
   b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.
   c. Cracking, chipping, peeling, or failure of paint to adhere to bare metal.
2. Finish Warranty Period: 20 years from date of Substantial Completion.

C. Special Watertightness Warranty: Manufacturer's no dollar limit form in which manufacturer agrees to repair or replace standing-seam metal roof panel assemblies that fail to remain watertight, including leaks, within specified warranty period.
   1. Warranty Period: 20 years from date of Substantial Completion.
   2. Shop drawings must be provided to, reviewed, and approved by the panel manufacturer prior to panel system installation.
   3. Inspections by panel system manufacturer technical representative are required. Perform first inspection when underlayment and flashing are in place and second inspection when the roof is complete.

D. Special Installer Warranty: Furnish a written warranty signed by the Panel Applicator guaranteeing materials and workmanship for watertightness of the roofing system, flashings, penetrations, and against all leaks.
   1. Warranty Period: 2 years from date of Substantial Completion.

PART 2: PRODUCTS

2.1 Acceptable Manufacturers:

A. For purposes of designating type and quality for the Work under this Section, Drawings and Specifications are based on products manufactured or furnished by Berridge Manufacturing Company, Houston, Texas or approved equivalent.

B. All acceptable manufacturers' panels must meet these Specifications and submitted for approval in accordance with Sections 01635 and 01635A.

2.2 Performance Requirements:

A. Structural Performance: Provide metal panel systems capable of withstanding the effects of the following loads, based on testing according to UL 580.
   1. Wind Loads: As indicated on drawings.
   2. Other Design Loads: As indicated on Drawings.
   3. Deflection Limits: For wind loads, no greater than 1/180 of the span.

B Air Infiltration: Air leakage of not more than 0.06 cfm/sq. ft. (0.3 L/s per sq. m) when tested according to ASTM E 1680 and ASTM E 283 at the following test-pressure difference:
   1. Test-Pressure Difference: 6.24 lbf/sq. ft. (300 Pa).

C. Water Penetration under Static Pressure: No water penetration when tested according to ASTM E 1646 and ASTM E 331 at the following test-pressure difference:
   1. Test-Pressure Difference: 15 lbf/sq. ft. (718.2 Pa).

D. Hydrostatic Head Resistance: No water penetration when tested according to ASTM E2140.

E. Wind-Uplift Resistance: Provide metal roof panel assemblies that comply with UL 580 for wind-uplift-resistance class indicated.

F. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes by preventing buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

2.3 Standing-Seam Metal Roof Panels:

A. General: Provide factory-formed metal roof panels designed to be installed by lapping and interconnecting raised side edges of adjacent panels with joint type indicated and mechanically attaching panels to supports using concealed clips in side laps. Include clips, cleats, pressure plates, and accessories required for weathertight installation.

1. Steel Panel Systems: Unless more stringent requirements are indicated, comply with ASTM E1514.

B. Vertical-Rib, Seamed-Joint, Standing-Seam Metal Roof Panels: Formed with vertical ribs at panel edges and panel striations, between ribs; designed for sequential installation by mechanically attaching panels to supports using concealed clips located under one side of panels, engaging opposite edge of adjacent panels, and mechanically seaming panels together.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Berridge Manufacturing Company; **Double-Lock Zee-lock (180° seam)** or approved equal.
2. Metallic-Coated Steel Sheet: Aluminum-zinc alloy-coated steel sheet complying with ASTM A 792/A 792M, Class AZ50 (Class AZM150) coating designation; structural quality. Prepainted by the coil-coating process to comply with ASTM A 755/A 755M.
   a. Nominal Thickness: 0.024 inch (0.61 mm).
   b. Exterior Finish: Two-coat fluoropolymer.
   c. Painted materials shall have a removable plastic film to protect the paint during roll forming, shipping and handling.
   d. Color: Antique Copper-Cote
3. Clips: Continuous Zee-rib to accommodate thermal movements.
   a. Material: 0.024-inch (0.61-mm) nominal thickness, zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet.
   b. Material: 0.064-inch (1.63-mm) nominal thickness, zinc-coated (galvanized) base with 0.033 inch (0.84 mm) stainless-steel top.
4. Joint Type: Double folded.
5. Panel Coverage: 16 inches (406 mm).
6. Panel Height: 2.0 inches (51 mm).

2.4 Miscellaneous Materials:

A. Miscellaneous Metal Sub-framing and Furring: ASTM C645; cold-formed, metallic-coated steel sheet, ASTM A653/A653M, G90 (2275 hot-dip galvanized) coating designation or ASTM A792/A792M, Class AZ50 (Class AZM150) coating designation unless otherwise indicated. Provide manufacturer's standard sections as required for support and alignment of metal panel system.

B. Panel Accessories: Provide components required for complete, weathertight panel system including trim, copings, fasciae, mullions, sills, corner units, clips, flashings, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal panels unless otherwise indicated.

1. Closures: Provide closures at eaves and ridges, fabricated of the same metal as the roof panels.
2. Backing Plates: Provide metal backing plates at panel end splices, fabricated from material recommended by manufacturer.

C. Flashing and Trim: Provide flashing and trim formed from same material as metal panels as required to seal against weather and to provide finished appearance. Locations include, but are not limited to, eaves, rakes, corners, bases, framed openings, ridges, fasciae, and fillers. Finish flashing and trim with same finish system as adjacent to metal panels.

D. Gutters: Formed from the same material as roof panels, complete with end pieces, outlet tubes, and other special pieces as required. Fabricate in minimum 96-inch (2400 mm) long sections, of size and metal thickness according to SMACNA's "Architectural Sheet Metal Manual." Furnish gutter supports spaced a maximum of 36 inches (914 mm) o.c., fabricated from the same metal as gutters. Provide wire ball strainers of compatible metal at outlets. Finish gutters to match roof fascia and rake trim.

E. Downspouts: Formed from the same material as roof panels. Fabricate in 10-foot (3-m) long sections, complete with formed elbows and offsets, of size and metal thickness according to SMACNA's "Architectural Sheet Metal Manual." Finish downspouts to match gutters.

F. Panel Fasteners: Zinc-coated steel, corrosion resisting steel, zinc cast head, or nylon capped steel, type and size as approved for the applicable loading requirements.

G. Panel Sealants: Provide sealant types recommended by the manufacturer that are compatible with panel materials, are nonstaining, and do not damage panel finish.

1. Joint Sealant: Silicone sealant; of type, grade, class, and use classifications required to seal joints in metal panels and remain weathertight; and as recommended in writing by metal panel manufacturer.

2.5 Fabrication:

A. General: Fabricate and finish metal panels and accessories at the factory, but manufacturer's standard procedures and processes, as necessary to fulfill indicated performance requirements demonstrated by laboratory testing. Comply with indicated profiles and with dimensional and structural requirements.

B. On-Site Fabrication: Subject to compliance with requirements of this Section, metal panel may be fabricated on-site using factory set, non-adjustable, portable roll-forming equipment if panels are of same profile and warranted by manufacturer to be equal to factory-formed panels. Fabricate according to equipment manufacturer's written instructions and to comply with details shown.

C. Provide panel profile, including major ribs and intermediate stiffening ribs, if any, for full length of panel.

D. Sheet Metal Flashing and Trim: Fabricate flashing and trim to comply with manufacturer's recommendations and recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of item indicated.

1. Form exposed sheet metal accessories that are without excessive oil canning, buckling, and tool marks and that are true to line and levels indicated, with exposed edges folded back for form hems.

2. Sealed Joints: Form nonexpansion, but movable, joints in metal to accommodate sealant and to comply with SMACNA standards.

3. Fabricate cleats and attachment devices from same material an accessory being anchored or from compatible, noncorrosive metal recommended in writing by metal panel manufacturer.
   a. Size: as recommended by SMACNA's "Architectural Sheet Metal Manual" or metal panel manufacturer for application, but not less than thickness of metal being secured.

2.6 Finishes:

A. Protect mechanical and painted finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

B. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in same piece are unacceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

C. Steel Panels and Accessories:
   1. Two-Coat Fluoropolymer: AAMA 621. Fluoropolymer finish containing not less than 70 percent PVDF resin by weight in color coat applied by panel manufacturer on a continuous coil coating line, with a top side dry film thickness of 0.75± 0.05 mil (0.0013 mm) over 0.2± 0.05 mil (0.0013 mm) primer coat, to provide a total dry film thickness of 0.95± 0.10 mil (0.024 mm). Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturer's written instructions.
   2. Concealed Finish: Apply pretreatment and manufacturer's standard white or light-colored acrylic or polyester backer finish consisting of prime coat and wash coat with a minimum total dry film thickness of 0.35 mil (0.009 mm).

PART 3: EXECUTION

3.1 Examination:

A. Examine substrates, areas, and conditions, with installer present, for compliance with requirements for installation tolerances, metal panel supports, and other conditions affecting performance of the work.
   1. Examine primary and secondary roof framing to verify that rafters, purlins, angles, channels, and other structural panel support members and anchorages have been installed within alignment tolerances required by the metal roof panel manufacturer.

B. Examine roughing-in for components and systems penetrating metal panels to verify actual locations of penetrations relative to seam locations of metal panels before installation.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 Preparation:

A. Miscellaneous Supports: Install sub-framing, furring and other miscellaneous panel support members and anchorages according to ASTM C754 and metal panel manufacturer's written recommendations.

3.3 Metal Panel Installation:

A. General: Install metal panels according to manufacturer's written instructions in orientation, sizes, and locations indicated. Install panels perpendicular to supports unless otherwise indicated. Anchor metal panels and other components of the work surely in place, with provisions for thermal and structural movement.
   1. Shim or otherwise plumb substrates receiving metal panels to be level to 1/4 inch in 20 ft. (6 mm in 6.1 m)
   2. Flash and seal metal panels at perimeter of all openings. Do not begin installation until air-or water-resistive barriers and flashings that will be concealed by metal panels are installed.
   3. Locate and space fastenings in uniform vertical and horizontal alignment.
   4. Install flashing and trim as metal panel work proceeds.
   5. Panels should be continuous without end laps.
   6. Align bottoms of metal panels and fasten.
   7. Provide weathertight escutcheons for pipe-and conduit-penetrating panels.

B. Fasteners:
   1. Steel Panels: use stainless steel fasteners for surfaces exposed to the exterior; use galvanized-steel fasteners for surfaces exposed to the interior.
   2. Aluminum Panels: Use stainless steel fasteners for surfaces exposed to the exterior; use stainless steel fasteners for surfaces exposed to the interior.

C. Anchor Clips: Anchor metal roof panels and other components of the Work securely in place, using manufacturer's approved fasteners according to manufacturers' written instructions.

D. Metal Protection: Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action as recommended in writing by metal panel manufacturer.

E. Standing -Seam Metal Roof Panel Installation: Fasten metal roof panels to supports with concealed clips at each standing-seam joint at location, spacing, and with fasteners recommended in writing by manufacturer.
   1. Install clips to supports with self-tapping fasteners.
   2. Install pressure plates, if required, at locations indicated in manufacturer's written installation instructions.
   3. Seamed Joint: Crimp standing seams with manufacturer-approved, motorized seamer tool so clip, metal roof panel, and factory-applied vinyl weatherseal are completely engaged.

F. Accessory Installation: Install accessories with positive anchorage to building and weathertight mounting and provide for thermal expansion. Coordinate installation with flashings and other components.
   1. Install components required for a complete metal panel system including trim, copings, corners, seam covers, flashings, sealants, gaskets, fillers, and similar items. Provide types indicated by metal roof panel manufacturers; or, if not indicated, types recommended by the metal roof panel manufacturer.

G. Flashing and Trim: Comply with performance requirements, manufacturer's written installation instructions and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible and set units true to line and level as indicated. Install work with laps, joints, and seams that will be permanently watertight and weather resistant.
   1. Install exposed flashing and trim that is without buckling and tool marks, and that is true to line and levels indicated, with exposed edges folded back to form hems. Install sheet metal flashing and trim to fit substrates and achieve waterproof and weather-resistant performance.
   2. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim.

H. Gutters: Join sections with riveted and soldered or lapped and sealed joints. Attach gutters to eave with gutter hangers spaced not more than 36 inches (914 mm) o.c. using manufacturer's standard fasteners. Provide end closures and seal watertight and weather resistant.

I. Downspouts: Existing downspouts to remain in place where identified on Construction Documents. Patch and repair to accept new gutters. Install separation material of connections to avoid galvanic corrosion.

J. Roof Curbs: Install flashing around bases where they meet metal roof panels.

K. Pipe Flashing: Form flashing around pipe penetration and metal roof panels. Fasten and seal to metal roof panels as recommended by the manufacturer.

3.3 Erection Tolerances:

A. Installation Tolerances: Shim and align metal panel units within installed tolerance of 1/4-inch in 20 feet (6 mm in 6 m) on slope and location lines as indicated and within 1/8-inch (3 mm) offset of adjoining faces and of alignment of matching profiles.

3.4 Field Quality Control:

A. Manufacturer's Field Service: Engage a factory-authorized service representative to test and inspect metal roof panel installation, including accessories. Report results in writing.

B. Remove and replace applications of metal roof panels where tests and inspections indicate that they do not comply with specified requirements.

C. Additional tests and inspections, at Contractor's expense, are performed to determine compliance of replaced or additional work with specified requirements.

D. Prepare test and inspection reports.

3.5 Cleaning and Protection:

A. Remove temporary protective coverings and strippable films, if any, as metal panels are installed, unless otherwise indicated in manufacturer's written installation instructions. On completion of metal panel installation, clean finished surfaces as recommended by metal panel manufacturer. Maintain a clean condition during construction.

B. Replace metal panels that have been damaged or have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

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SECTION 07 52 16: STYRENE-BUTADIENE-STYRENE (SBS) MODIFIED BITUMINOUS MEMBRANE ROOFING

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: This section includes roof replacement indicated on drawings and in specifications. Provide all necessary supplementary items for a complete installation intended by documents.

1.3 SUMMARY:

A. Work shall include, but is not limited to, the following:
   1. Preparation of existing concrete and steel roof decks, and all flashing substrates.
   2. SBS-modified bitumen base ply heat-welded.
   3. SBS-modified bitumen cap sheet, heat-welded.
   4. SBS-modified bitumen membrane flashings.
   5. Liquid-applied, reinforced flashings.
   6. Refer to related Sections for Insulation, Coverboard and Roof Edge Systems
   7. All related materials and labor required to complete specified roofing necessary to receive specified manufacturer's warranty.

1.4 RELATED SECTIONS:

A. Division 011000 – Summary of Work
B. Division 076000 – Sheet Metal Flashing and Trim

1.5 DEFINITIONS:

A. ASTM D 1079-Definitions of Term Relating to Roofing and Waterproofing.
B. The National Roofing Contractors Association (NRCA) Roofing and Waterproofing Manual, Fifth Edition Glossary.

1.6 REFERENCES:

A. AMERICAN SOCIETY OF CIVIL ENGINEERS - Reference Document ASCE 7, Minimum Design Loads for Buildings and Other Structures.
B. AMERICAN STANDARD OF TESTING METHODS (ASTM):
   1. ASTM C836 - Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course.
   2. ASTM C920 - Standard Specification for Elastomeric Joint Sealants
   3. ASTM D41 - Standard Specification for Asphalt Primer Used in Roofing, Damp proofing, and Waterproofing.
   4. ASTM D312- Standard Specification for Asphalt Used in Roofing.
   5. ASTM D1863 – Standard Specification for Mineral Aggregate Used on Built-Up Roofs.

6. ASTM D1970 - Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection.
7. ASTM D2178 - Standard Specification for Asphalt Glass Felt Used in Roofing and Waterproofing.
8. ASTM D3019 - Standard Specification for Lap Cement Used with Asphalt Roll Roofing, Non-Fibered, Asbestos-Fibered, and Non-Asbestos-Fibered.
9. ASTM D3746 - Standard Test Method for Impact Resistance of Bituminous Roofing System.
10. ASTM D4586 - Standard Specification for Asphalt Roof Cement, Asbestos-Free.
11. ASTM D4601 - Standard Specification for Asphalt-Coated Glass Fiber Base Sheet Used in Roofing.
12. ASTM D5147 - Standard Test Methods for Sampling and Testing Modified Bituminous Sheet Material.
13. ASTM D5849 - Standard Test Method for Evaluating Resistance of Modified Bituminous Roofing Membrane to Cyclic Fatigue (Joint Displacement)
14. ASTM D 6162 - Standard Specification for Styrene Butadiene Styrene (SBS) Modified Bituminous Sheet Materials Using a Combination of Polyester and Glass Fiber Reinforcements.
15. ASTM D6163 - Standard Specification for Styrene Butadiene Styrene (SBS) Modified Bituminous Sheet Materials Using Glass Fiber Reinforcements.
16. ASTM D6164 - Standard Specification for Styrene Butadiene Styrene (SBS) Modified Bituminous Sheet Materials Using Polyester Reinforcements.
17. ASTM D6298 - Standard Specification for Fiberglass Reinforced Styrene-Butadiene-Styrene (SBS) Modified Bituminous Sheets with a Factory Applied Metal Surface.
18. ASTM D7379 - Standard Test Methods for Strength of Modified Bitumen Sheet Material Laps Using Cold Process Adhesive.
19. ASTM E108 - Standard Test Methods for Fire Tests of Roof Coverings.
20. ASTM E1980 - Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low-Sloped Opaque Surfaces.

C. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI):
1. ANSI/SPRI/FM 4435/ES-1 Wind Design Standard for Edge System Used with Low Slope Roofing System.
2. ANSI/SPRI FX-1, Standard Field Test Procedure for Determining the Withdrawal Resistance of Roofing Fasteners.
3. ANSI/SPRI IA-1, Standard Field Test Procedure for Determining the Mechanical Uplift Resistance of Insulation Adhesives over Various Substrates.
4. ANSI/FM 4474- American National Standard for Evaluating the Simulated Wind Resistance of Roof Assemblies Using Static Positive and/or Negative Differential Pressures.

D. FACTORY MUTUAL (FM):
1. FM 4450 - Approval Standard - Class I Insulated Steel Roof Decks.
2. FM 4470 - Approval Standard - Class I Roof Covers.

E. FLORIDA BUILDING CODE (FBC):
   1. 2021 Florida Building Code (FBC).
F. INTERNATIONAL CODES COUNCIL (ICC):
   1. 2021 International Building Code (IBC).
G. NATIONAL ROOFING CONTRACTORS' ASSOCIATION (NRCA).
   1. UL 790 Standard Test Methods for Fire Tests of Roof Coverings.
   2. UL 1256 – Fire Test of Roof Deck Constructions.

1.7 ACTION SUBMITTALS:
A. Product Data Sheets: Submit manufacturer's product data sheets, installation instructions, and/or general requirements for each component.
B. Safety Data Sheets: Submit manufacturer's Safety Data Sheets (SDS) for each component.
C. Sample warranty from the manufacturer and contractor.
D. Provide roof plan and representative detail drawings.

1.8 INFORMATIONAL SUBMITTALS:
A. Submit a letter from the roofing manufacturer indicating the contractor is an authorized applicator.

1.9 CLOSEOUT SUBMITTALS:
A. Warranty: Provide manufacturers and contractor's warranties upon project completion.

1.10 QUALITY ASSURANCE:
A. MANUFACTURER QUALIFICATIONS:
   1. Manufacturer shall have 20 years of manufacturing experience.
   2. Manufacturer shall have trained technical service representatives employed by the manufacturer, independent of sales.
   3. Manufacturer shall provide site visit reports in a timely manner.
B. CONTRACTOR QUALIFICATIONS:
   1. Contractor shall be authorized by the manufacturer to install specified materials prior to the bidding period through satisfactory project completion.
   2. Applicators shall have completed projects of similar scope using same or similar materials specified.
   3. Contractor shall provide full time, on-site superintendent or foreman experienced with the specified roofing from beginning through satisfactory project completion.
   4. Applicators shall be skilled in the application methods for all materials.
   5. Contractor shall maintain a daily record, on-site, documenting material installation and related project conditions.
   6. Contractor shall maintain a copy of all submittal documents, on-site, available always for reference.

1.11 DELIVERY, STORAGE AND HANDLING:
A. Refer to each product data sheet or other published literature for specific requirements.

B. Deliver materials and store them in their unopened, original packaging, bearing the manufacturer's name, related standards, and any other specification or reference accepted as standard.

C. Protect and store materials in a dry, well-vented, and weatherproof location. Only materials to be used the same day shall be removed from this location. During cold weather, store materials in a heated location, removed only as needed for immediate use.

D. When materials are to be stored outdoors, store away from standing water, stacked on raised pallets or dunnage, at least 4 in or more above ground level. Carefully cover storage with "breathable" tarpaulins to protect materials from precipitation and to prevent exposure to condensation.

E. Carefully store roof membrane materials delivered in rolls on-end with selvage edges up. Store and protect roll storage to prevent damage.

F. Properly dispose of all product wrappers, pallets, cardboard tubes, scrap, waste, and debris. All damaged materials shall be removed from job site and replaced with new, suitable materials.

1.12 SITE CONDITIONS:

A. SAFETY:

1. The contractor shall be responsible for complying with all project-related safety and environmental requirements.
2. Heat-welding shall include heating the specified membrane ply using propane roof torches or electric hot-air welding equipment. The contractor shall determine when and where conditions are appropriate to utilize heat-welding equipment. When conditions are determined by the contractor to be unsafe to proceed, equivalent SBS-modified bitumen materials and methods shall be utilized to accommodate requirements and conditions.
3. Refer to NRCA CERTA recommendations, local codes and building owner's requirements for hot work operations.
4. The contractor shall review project conditions and determine when and where conditions are appropriate to utilize the specified liquid-applied or semi-solid roofing materials. When conditions are determined by the contractor to be unsafe or undesirable to proceed, measures shall be taken to prevent or eliminate the unsafe or undesirable exposures and conditions, or equivalent approved materials and methods shall be utilized to accommodate requirements and conditions.
5. The contractor shall review project conditions and determine when and where conditions are appropriate to utilize the specified hot asphalt-applied materials. When conditions are determined by the contractor to be unsafe or undesirable to proceed, measures shall be taken to prevent or eliminate the unsafe or undesirable exposures and conditions, or equivalent approved materials and methods shall be utilized to accommodate requirements and conditions.
6. The contractor shall refer to product Safety Data Sheets (SDS) for health, safety, and environment related hazards, and take all necessary measures and precautions to comply with exposure requirements.

B. ENVIRONMENTAL CONDITIONS:

1. Monitor substrate temperature and material temperature, as well as all environmental conditions such as ambient temperature, moisture, sun, cloud cover, wind, humidity, and shade. Ensure conditions are satisfactory to begin work and ensure conditions remain satisfactory during the installation of specified materials. Materials and methods shall be adjusted as necessary to accommodate varying project conditions. Materials shall not be installed when conditions are unacceptable to achieve the specified results.
2. Precipitation and dew point: Monitor weather to ensure the project environment is dry before, and will remain dry, during the application of roofing materials. Ensure all roofing materials and substrates remain above the dew point temperature as required to prevent condensation and maintain dry conditions.
3. Heat-Welding Application: Take all necessary precautions and measures to monitor conditions to ensure all environmental conditions are safe to use roof torches and hot-air welding equipment. Combustibles, flammable liquids, and solvent vapors that represent a hazard shall be eliminated. Flammable primers and cleaners shall be fully dry before proceeding with heat-welding operations. Prevent or protect wood, paper, plastics, and other such combustible materials from direct exposure to open flames from roof torches. Refer to NRCA CERTA recommendations.

1.13 PERFORMANCE REQUIREMENTS:

A. WIND UPLIFT RESISTANCE:

1. Performance testing shall be in accordance with ANSI/FM 4474, FM 4450, FM 4470, UL 580, or UL 1897.
   a. Roof System Design Pressures: Calculated in accordance with ASCE 7, or applicable standard, for the specified roof system attachment requirements.
   b. Design Pressures: As indicted on Construction Documents.

B. FIRE CLASSIFICATION:

1. Performance testing shall be in accordance with UL 790, ASTM E108, FM 4450 or FM 4470 to meet the 1/8 and 1/4:12 roof slope requirement.
   a. Meets requirements of UL Class A or FM Class A.
2. Performance testing shall be in accordance with UL 1256, FM 4450, or FM 4470 to meet the specified requirements for interior flame spread and fuel contribution.
   a. Meets requirements of UL 1256, or FM Class 1.

C. ROOF SLOPE:

1. Finished roof slope for SBS modified bitumen surfaces shall be ¼ and 1/8 inch per foot minimum for roof drainage.

D. IMPACT RESISTANCE:

1. Performance testing for impact resistance shall be in accordance with FM 4450, FM 4470, ASTM D3746 or CGSB 37-GP 56M to meet the specified impact resistance requirements.

a. Meets requirements for FM-SH (Severe Hail), ASTM D3746, or CGSB 37-GP 56M.

E. CYCLIC FATIGUE:

1. The roof system shall pass ASTM D5849 Standard Test Method for Evaluating Resistance of Modified Bituminous Roofing Membrane to Cyclic Fatigue (Joint Displacement). Passing results shall show no signs of cracking, splitting, or tearing over the joint.

a. Roof system shall pass Test Condition 4, tested at 14°F (-10°C) in accordance with ASTM D5849. Polyester Membranes.

1.14 WARRANTY:

A. Manufacturer's 20 Year No Dollar Limit (NDL) Total System Warranty. The manufacturer shall provide the owner with the manufacturer's warranty providing labor and materials for 20-years from the date the warranty is issued.

B. The contractor shall guarantee the workmanship and shall provide the owner with the contractor's warranty covering workmanship for a period of 2-years from completion date.

PART 2 PRODUCTS

2.1 MANUFACTURER:

A. SINGLE SOURCE MANUFACTURER: All SBS modified bitumen membrane, flashing and accessories shall be manufactured by a single supplier with 20 years or more manufacturing history in the US.

1. Comply with the Manufacturer's requirements as necessary to provide the specified warranty.

B. PRODUCT QUALITY ASSURANCE PROGRAM: Manufacturer shall be an ISO 9001 registered company. A 'Quality Compliance Certificate (QCC) for reporting/confirming the tested values of the SBS-Modified Bitumen Membrane Materials will be supplied upon request.

C. ACCEPTABLE MANUFACTURER:

1. Soprema
2. Siplast
3. Garland
4. Prior approved equal

2.2 ROOFING SYSTEM:

A. The roof membrane assembly shall consist of a multi-ply, prefabricated, reinforced, homogeneous Styrene-Butadiene-Styrene (SBS) block copolymer modified asphalt membrane, secured to a prepared substrate. Reinforcement mats shall be impregnated (saturated) and coated with a high quality SBS modified bitumen blend. The cross section of the sheet material shall contain no oxidized or non-SBS modified bitumen.

2.3 SBS-MODIFIED BITUMEN MEMBRANES:

A. BASE PLY:

1. BASE PLY, HEAT-WELDED:

a. SOPRALENE FLAM 180: SBS-modified bitumen membrane with plastic burn-off film on top and bottom surfaces. Non-woven polyester reinforcement. Meets or exceeds ASTM D6164, Type I, Grade S, per ASTM D5147 test methods:
   i Thickness: 118 mils (3.0 mm)
   ii Width: 39.4 inches (1 m)
   iii Length: 32.8 feet (10 m)
   iv Roll weight: 81 lb (36.7 kg)
   v Net mass per unit area, lb/100 sq ft (g/sq m): 75 lb (3662 g)
   vi Peak load @ 0°F (-18°C), lbf/in (kN/m): MD 115 lbf/in (20.1 kN/m), XMD 90 lbf/in (15.8 kN/m)
   vii Elongation at peak load @ 0°F (-18°C), lbf/in (kN/m): MD 35%, XMD 40%
   viii Peak load @ 73.4°F (23°C), lbf/in (kN/m): MD 85 lbf/in (14.9 kN/m), XMD 65 lbf/in (11.4 kN/m)
   ix Elongation at peak load @ 73.4°F (23°C), lbf/in (kN/m): MD 55%, XMD 60%
   x Ultimate Elongation @ 73.4°F (23°C), lbf/in (kN/m): MD 65%, XMD 80%
   xi Tear Strength @ 73.4°F (23°C), lbf (N): MD 125 lbf (556 N), XMD 85 lbf (378 N)
   xii Low temperature flexibility, °F (°C): MD/XMD: -15°F (-26°C)
   xiii Dimensional stability, %: MD/XMD: Less than 0.5%
   xiv Compound stability, °F (°C): MD/XMD: 240°F (116°C)

B. FLASHING BASE PLY
   1. FLASHING BASE PLY, HEAT-WELDED:
      a. SOPRALENE FLAM 180: SBS-modified bitumen membrane with plastic burn-off film on top and bottom surfaces. Non-woven polyester reinforcement. Meets or exceeds ASTM D6164, Type I, Grade S, per ASTM D5147 test methods:
         i Thickness: 118 mils (3.0 mm)
         ii Width: 39.4 inches (1 m)
         iii Length: 32.8 feet (10 m)
         iv Roll weight: 81 lb. (36.7 kg)
         v Net mass per unit area, lb/100 sq ft (g/sq m): 75 lb. (3662 g)
         vi Peak load @ 0°F (-18°C), lbf/in (kN/m): MD 115 lbf/in (20.1 kN/m), XMD 90 lbf/in (15.8 kN/m)
         vii Elongation at peak load @ 0°F (-18°C), lbf/in (kN/m): MD 35%, XMD 40%
         viii Peak load @ 73.4°F (23°C), lbf/in (kN/m): MD 85 lbf/in (14.9 kN/m), XMD 65 lbf/in (11.4 kN/m)
         ix Elongation at peak load @ 73.4°F (23°C), lbf/in (kN/m): MD 55%, XMD 60%
         x Ultimate Elongation @ 73.4°F (23°C), lbf/in (kN/m): MD 65%, XMD 80%

xi Tear Strength @ 73.4°F (23°C), lbf (N): MD 125 lbf (556 N), XMD 85 lbf (378 N)
xii Low temperature flexibility, °F (°C): MD/XMD: -15°F (-26°C)
xiii Dimensional stability, %: MD/XMD: Less than 0.5%
xiv Compound stability, °F (°C): MD/XMD: 240°F (116°C)

C. CAP SHEET:
1. CAP SHEET, HEAT-WELDED:
a. SOPRALENE FLAM 180 FR GR: SBS-modified bitumen membrane Cap Sheet with a burn-off film bottom surface and mineral granule top surface. Non-woven polyester reinforced. UL Class A for specified roof slope requirements. Meets or exceeds ASTM D6164, Type I, Grade G, per ASTM D5147 test methods:
i Thickness: 157 mils (4.0 mm)
ii Width: 39.4 inches (1 m)
iii Length: 32.8 feet (10 m)
iv Roll weight: 118 lb. (53.5 kg)
v Net mass per unit area, lb/100 sq ft (g/sq m): 110 lb (5371 g)
vi Peak load @ 0°F (-18°C), lbf/in (kN/m): MD 115 lbf/in (20.1 kN/m), XMD 90 lbf/in (15.8 kN/m)
vii Elongation at peak load @ 0°F (-18°C), lbf/in (kN/m): MD 35%, XMD 40%
viii Peak load @ 73.4°F (23°C), lbf/in (kN/m): MD 85 lbf/in (14.9 kN/m), XMD 65 lbf/in (11.4 kN/m)
ix Elongation at peak load @ 73.4°F (23°C), lbf/in (kN/m): MD 55%, XMD 60%
x Ultimate Elongation @ 73.4°F (23°C), lbf/in (kN/m): MD 65%, XMD 80%
xi Tear Strength @ 73.4°F (23°C), lbf (N): MD 125 lbf (556 N), XMD 85 lbf (378 N)
xii Low temperature flexibility, °F (°C): MD/XMD: -15°F (-26°C)
xiii Dimensional stability, %: MD/XMD: Less than 0.5%
xiv Compound stability, °F (°C): MD/XMD: 240°F (116°C)
xv Granule Surfacing:
a) White mineral granules.

D. FLASHING CAP SHEET
1. FLASHING CAP SHEET, HEAT-WELDED:
a. SOPRALAST 50 TV ALU: SBS-modified bitumen membrane Cap Sheet with a plastic burn-off film bottom surface and aluminum foil-clad top surface. Glass grid reinforced. UL Class A for specified roof slope requirements. All SBS modified bitumen foil-clad membrane and flashing sheets shall be manufactured by the supplier. Meets or exceeds ASTM D6298
i Thickness: 157 mils (4.0 mm)
ii Width: 39.4 inches (1 m)

iii Length: 32.8 feet (10 m)
iv Roll weight: 94 lb (42.7 kg)
v Net mass per unit area, lb/100 sq ft (g/sq m): 87.5 lb (4273 g)
vi Peak load @ 0°F (-18°C), lbf/in (kN/m): MD 200 lbf/in (35.2 kN/m), XMD 175 lbf/in (30.8 kN/m)
vii Elongation at peak load @ 0°F (-18°C), lbf/in (kN/m): MD 10%, XMD 10%
viii Peak load @ 73.4°F (23°C), lbf/in (kN/m): MD 95 lbf/in (16.7 kN/m), XMD 95 lbf/in (16.7 kN/m)
ix Elongation at peak load @ 73.4°F (23°C), lbf/in (kN/m): MD 20%, XMD 20%
x Ultimate Elongation @ 73.4°F (23°C), lbf/in (kN/m): MD 50%, XMD 50%
xi Tear Strength @ 73.4°F (23°C), lbf (N): MD 190 lbf (845 N), XMD 205 lbf (912 N)
xii Low temperature flexibility, °F (°C): MD/XMD: -15°F (-26°C)
xiii Dimensional stability, %: MD/XMD: Less than 0.2%
xiv Compound stability, °F (°C): MD/XMD: 230°F (110°C)

2.4 ACCESSORIES:

A. PRIMERS:

1. Asphalt cut-back primer. Primer for the preparation of membrane substrates for asphalt, heat-welded, applications.
   a. Meets or exceeds ASTM D41
   b. VOC content: 350 g/L or less.
2. ALSAN RS 222 PRIMER: Rapid curing, polymethyl methacrylate (PMMA) liquid resin used to promote adhesion of PMMA/PMA membranes over asphaltic substrates, wood, concrete and approved waterproofing board substrates.
   a. VOC content: 2.5 g/L
   b. Color: Clear
3. ALSAN RS METAL PRIMER: Solvent-based primer used to improve the adhesion of PMMA/PMA membranes to metal substrates.
   a. VOC content: 550 g/L
   b. Color: Off White

B. GENERAL PURPOSE ROOFING CEMENT AND MASTIC:

1. SBS Mastic. Fiber-reinforced, roofing cement, packaged in 5-gallon pails. General purpose roofing cement for low-slope roofing used for sealing membrane T-joints and membrane edges along terminations, transitions and at roof penetrations.
   a. VOC Content: 190 g/L or less.
   b. Meets or exceeds ASTM D4586, Type I, Class II.
2. SBS Mastic. Fiber-reinforced, roofing cement, packaged in 10.4 oz caulk tubes. General purpose roofing cement for low-slope roofing used for sealing membrane T-joints and membrane edges along terminations, transitions and at roof penetrations.

a. VOC Content: 190 g/L or less.
b. Meets or exceeds ASTM D4586, Type I, Class II.

C. GENERAL PURPOSE SEALANT
1. SOPRAMASTIC SP1: General purpose, paintable, gun-grade, elastomeric, polyether moisture curing sealant for sealing SBS membrane terminations, Kynar 500 PVDF, horizontal and vertical construction joints.
a. VOC Content: 20 g/L or less.
b. Meets or exceeds ASTM C920, Type S, Grade NS, Class 50.
c. Standard color
2. SOPRAMASTIC ALU: Modified bitumen mastic, aluminum hued for application to membrane edge and perimeter metal.
a. VOC Content: 270 g/L or less.
b. Standard color.

D. LIQUID-APPLIED REINFORCED FLASHING SYSTEM:
1. ALSAN FLASHING: Single-component, polyurethane-bitumen resin with polyester reinforcing fleece fabric fully embedded into the resin to form roof system flashings.
a. VOC Content: 250 g/L.
b. SOPREMA ALSAN FLASHING: Liquid resin, Meets or exceeds ASTM C836.
c. SOPREMA ALSAN POLYFLEECE: Non-woven polyester reinforcement.
d. Surfacing: SOPREMA ALSAN FLASHING with mineral granules broadcast into wet SOPREMA ALSAN FLASHING to match adjacent SBS-modified bitumen cap sheet.
2. ALSAN RS 230 FLASH: Rapid curing, polymethyl methacrylate (PMMA) liquid resin with an embedded polyester reinforcement fabric used for monolithic waterproofing flashing membranes. Not for use over SBS cap sheets adhered with solvent based SOPREMA COLPLY adhesive or flashing cement.
a. VOC content: 4.2 g/L
b. SOPREMA ALSAN RS CATALYST POWDER: Reactive agent added to the PMMA liquid resin to induce curing.
c. SOPREMA ALSAN RS FLEECE: Polyester reinforcement fabric.
d. Color: White or Grey

E. MINERAL GRANULES:
1. Granules: No. 11, mineral coated colored granules, color to match cap sheet, supplied by membrane cap sheet manufacturer.
a. GRANULES

F. WALKWAY PROTECTION:
1. SOPRAWALK: Polyester reinforced SBS modified bitumen walkway protection with a granule surface and sanded underside.
a. Thickness: 200 mils (5.0 mm)
b. Width: 39.4 inches (1 m)
c. Roll Length: 26 feet (7.9 m)
d. Granule Surfacing:
i Color: Grey

PART 3 EXECUTION

3.1 EXAMINATION:

A. Examination includes visual observations, qualitative analysis, and quantitative testing measures as necessary to ensure conditions remain satisfactory throughout the project.

B. The contractor shall examine all roofing substrates including, but not limited to insulation materials, roof decks, walls, curbs, rooftop equipment, fixtures, and wood blocking.

C. The applicator shall not begin installation until conditions have been properly examined and determined to be clean, dry and, otherwise satisfactory to receive specified roofing materials.

D. During the application of specified materials, the applicator shall continue to examine all project conditions to ensure conditions remain satisfactory to complete the specified roofing system.

3.2 PREPARATION:

A. Before commencing work each day, the contractor shall prepare all roofing substrates to ensure conditions are satisfactory to proceed with the installation of specified roofing materials. Preparation of substrates includes, but is not limited to, substrate repairs, securement of substrates, eliminating all incompatible materials, and cleaning.

B. Where conditions are found to be unsatisfactory, work shall not begin until conditions are made satisfactory to begin work. Commencing of work shall indicate contractor's acceptance of conditions.

3.3 PRIMER APPLICATION:

A. Examine all substrates, and conduct adhesion peel tests as necessary, to ensure satisfactory adhesion is achieved.

B. Apply the appropriate specified primer to dry, compatible substrates as required to enhance adhesion of new specified roofing materials.

C. Apply primer using brush, roller, or sprayer at the rate published on the product data sheet. Lightly prime for uniform coverage, do not apply heavy or thick coats of primer.

D. Asphalt Primer: Apply primer to dry compatible masonry, metal, wood, and other required substrates before applying asphalt and heat-welded membrane plies. Primer is optional for solvent based solvent based SBS adhesives and cements. Refer to product data sheets.

E. Project conditions vary throughout the day. Monitor changing conditions, monitor the drying time of primers, and monitor the adhesion of the membrane plies. Adjust primer and membrane application methods as necessary to achieve the desired results.

3.4 HEAT WELDING:

A. The Contractor is responsible for project safety. Where conditions are deemed unsafe to use open flames, manufacturer's alternate membrane application methods shall be used to install SBS modified bitumen membrane and flashings. Acceptable alternate installation methods include hot asphalt, cold adhesive-applied, self-adhered membranes, and mechanically fastened plies. Hot-air welding equipment may be used in

lieu of roof torches to seal membrane side and end laps where heat welding the laps is necessary. Refer to NRCA CERTA, local codes and building owner's requirements for hot work operations.

B. Single or multi-nozzle, hand-held propane roof torches shall be used to install heat-welded membrane and flashing plies. Multi-nozzle carts (dragon wagons) may also be utilized to install membrane plies. Seven (7) nozzle carts are recommended for more uniform heat application in lieu of five (5) nozzle carts.

3.5 SBS MASTIC AND GENERAL-PURPOSE ROOFING CEMENT APPLICATION

A. Apply general purpose SBS mastic and roofing cement to seal drain leads, metal flanges, seal along membrane edge at terminations, and where specified and required in detail drawings.

B. Do not use general purpose SBS mastics and roofing cement where flashing cement applications are required. Do not use SBS mastics and roofing cement beneath SBS-modified bitumen membrane and flashing plies.

C. Apply general purpose SBS mastic and elastic roofing cement using caulk gun, or notched trowel at 2.0 – 2.5 gallons per square on each surface. Application rates vary based on substrate porosity and roughness. Tool-in as necessary to seal laps.

D. Embed matching granules into wet cement where exposed.

3.6 HEAT-WELDED, FULLY ADHERED MEMBRANE APPLICATION:

A. Follow material product data sheets and published general requirements for installation instructions.

B. Ensure environmental conditions are safe and satisfactory, and will remain safe and satisfactory, during the application of the heat-welded membrane and flashings.

C. Ensure all primers are fully dry before beginning heat-welding operations.

D. Unroll membrane onto the roof surface and allow time to relax prior to heat welding.

E. Starting at the low point of the roof, lay out the membrane to ensure the plies are installed perpendicular to the roof slope, shingled to prevent back-water laps.

F. Ensure all roofing and flashing substrates are prepared and acceptable to receive the heat-welded membrane.

G. Cut membrane to working lengths and widths to conform to rooftop conditions and lay out to always work to a selvage edge.

H. Ensure specified side-laps and end-laps are maintained. End-laps should be staggered 3 ft apart.

I. Direct roof torch on the roll as necessary to prevent overheating and damaging the membrane and substrates.

J. As the membrane is unrolled, apply heat to the underside of the membrane until the plastic burn-off film melts away. Continuously move the torch side-to-side across the underside of the roll to melt the bitumen on the underside of the sheet, while continuously unrolling membrane.

K. While unrolling and heating the sheet, ensure approximately ¼- to ½- inch of hot bitumen flows ahead of the roll as it is unrolled, and there is 1/8 to 1/4 in bleed out at all laps.

L. Adjust the application of heat to the underside of the membrane and to substrate as required for varying substrates and environmental conditions.

M. At the 6 in end-laps, melt the plastic burn-off film from the top surface or embed granules and remove surfacing, where present, using a torch or hot-air welder.

N. At end-laps where T-Joints exist, cut a 45-degree dog-ear away from the selvage edge.

O. Each day, physically inspect all side and end-laps, and ensure the membrane is sealed watertight. Where necessary, use a torch or hot-air welder and a clean trowel to ensure all laps are fully sealed.

P. Inspect the installation each day to ensure the plies are fully adhered. Repair all voids, wrinkles, open laps, and all other deficiencies.

Q. Offset cap sheet side and end-laps away from the base ply laps so that cap sheet laps are not located within 18 inches of base ply laps.

3.7 FLASHING APPLICATION, HEAT WELDED:

A. Refer to SBS manufacturer's membrane application instructions, flashing detail drawings, and follow product data sheets and other published requirements for installation instructions. Refer to manufacturer's membrane flashing detail drawings.

B. The contractor is responsible for project safety. Refer to NRCA CERTA recommendations and building owner requirements for hot work operations.

C. Where required to seal substrates for fire safety, install specified adhered, self-adhered or fastened backer ply to the substrate. Ensure backer-ply covers and seals all substrates requiring protection from exposure to torch operations.

D. Ensure all flashing substrates that require primer are primed, and the primer is fully dry.

E. Unroll the flashing base ply and flashing cap sheet onto the roof surface to their complete length. Once relaxed, cut the membrane to the required working lengths to accommodate the flashing height, cants, and the required over-lap onto the horizontal roof surface.

F. Cut the flashing membrane from the end of the roll to always install flashings to the side-lap line or selvage edge line.

G. Lay out the flashing base ply and flashing Cap Sheet to offset all side-laps a minimum of 12 inches so that side-laps are never aligned on top of the ply beneath. Shingle the flashing ply laps to prevent back-water laps.

H. Install non-combustible cant strips at transitions where required.

I. Ensure correct membrane and flashing sequencing to achieve redundant, multi-ply, watertight flashings.

J. ROOF MEMBRANE BASE PLY:

1. Before installing flashings, install the roof membrane base ply in the horizontal field of the roof, and extend the base ply up to the top of the cant, where present, at roof terminations, transitions, and penetrations.

K. FLASHING BASE PLY:
   1. Install the flashing base ply starting at the top leading edge of the vertical flashing substrate, down over the cant and onto the horizontal surface of the roof a minimum of 3 inches beyond the of base of the cant onto the roof. Cut the base ply at corners to form 3-inch side-laps. Install gussets to seal corner transitions.
   2. Install one or more flashing base ply(s) at all roof terminations, transitions, and penetrations.

L. ROOF MEMBRANE CAP SHEET:
   1. Install the roof membrane Cap Sheet in the horizontal field of the roof over the flashing base ply up to the roof termination, transition, or penetration, and up to the top of cants where present.
   2. Using a chalk line, mark a line on the membrane cap sheet a minimum of 4 inches from the base of the cant onto the roof. Where granules are present, embed the cap sheet granules using a torch and trowel or granule embedder to prepare the surface to receive the flashing cap sheet.

M. FLASHING CAP SHEET:
   1. Install the flashing Cap Sheet starting at the top leading edge on the vertical substrate, over the cant and onto the roof surface 4 inches from the base of the cant onto the roof.
   2. Install the flashing Cap Sheet to ensure a minimum two (2) ply flashing system is present at all roof terminations, transitions, and penetrations.

N. During the membrane and flashing installation, ensure all plies are completely adhered into place, with no bridging, voids, or openings. Ensure bitumen or flashing cement bleed-out is present at all flashing side and end-laps.

O. Use a damp sponge float or damp rag to press-in the heat-welded flashing plies during installation.

P. Where sufficient bitumen bleed-out is not present, and for all self-adhered plies, apply specified gun-grade sealant or mastic to seal the membrane termination along all roof terminations, transitions, and penetrations. These include gravel stop edge metal, pipe penetrations, along the top edge of curb and wall flashing, and all other flashing terminations where necessary to seal flashings watertight.

Q. Fasten the top leading edge of the flashing 8 in on-centers with appropriate 1 in metal cap nails or other specified fasteners and plates. Seal fastener penetrations watertight using specified sealant or mastic.

R. Manufacturer's liquid-applied, reinforced flashing systems shall be installed where conditions are not favorable to install SBS modified bitumen flashings. Such conditions include irregular shapes penetrating roof surfaces (I-beams), confined areas, and low flashing heights. Manufacturer's liquid-applied, reinforced flashing systems are recommended in lieu of pitch pans and lead pipe flashings.

3.8 LIQUID-APPLIED, SINGLE-COMPONENT, BITUMEN-URETHANE FLASHING SYSTEM APPLICATION:

A. Refer to manufacturer's details drawings, product data sheets and published general requirements for application rates and specific installation instructions

B. Pre-cut polyester reinforcing fleece to conform to roof terminations, transitions and penetrations being flashed. Ensure a minimum 2 in overlap of fleece at side and end-laps. Ensure the completed liquid-applied flashing membrane is fully reinforced.

C. Apply the base coat of liquid-applied flashing resin onto the substrate using a brush or roller, working the material into the surface for complete coverage and full adhesion at 2.0 gallons per square.

D. Immediately apply the reinforcing into the wet base coat of resin. Using a brush or roller, work the into the wet resin while applying the second coat of resin to completely encapsulate the fleece at 2.0 gallons per square, and extend the liquid resin 1 inch beyond the fleece.

E. Apply a finish coat of resin at 2.0 gallons per square within 2-3 hours. When applying the finish coat more than 24 hours, the surface may need to be cleaned using acetone or MEK to ensure satisfactory adhesion.

F. Broadcast mineral granules into the wet finish coat as required to match the adjacent cap sheet.

3.9 LIQUID-APPLIED, PMMA MEMBRANE AND FLASHING SYSTEM APPLICATION:

A. Refer to manufacturer's details drawings, product data sheets and published general requirements for application rates and specific installation instructions.

B. Pre-cut polyester reinforcing fleece to conform to roof terminations, transitions and penetrations being flashed. Ensure a minimum 2 in overlap of fleece at side and end-laps. Ensure the completed liquid-applied flashing membrane is fully reinforced.

C. Apply the base coat of catalyzed resin onto the substrate using a brush or roller, working the material into the surface for complete coverage and full adhesion.

D. Immediately apply the reinforcing into the wet base coat of resin. Using a brush or roller, work the reinforcing fabric into the wet resin while applying the second coat of catalyzed resin to completely encapsulate the fleece.

E. Refer to reinforced, polymethyl-methacrylate (PMMA) specification section and application instructions, details drawings, product data sheets and published general requirements for installation instructions.

3.10 WALKWAYS:

A. At areas outlined on the drawings, and around the perimeter of all rooftop equipment and at all door and stair landings, install walkway protection.

B. Cut walkway from end of rolls. No piece shall be less than 24 in and no more than 60 in.

C. Remove foil/film or embed granules where present on cap sheet.

D. Provide a 4 in space between sheets for drainage.

E. Locate walkway membranes a minimum of 2 in from side-laps, end-laps and flashing membranes.

F. Fully adhere walkway protection by heat welding or adhering with cold adhesive.

3.11 CLEAN-UP:

A. Clean-up and properly dispose of waste and debris resulting from these operations each day as required to prevent damages and disruptions to operations.

END OF SECTION 075216

SECTION 07 56 00: SILICONE ROOF COATING (At Skylight Roof Only)

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: This section includes roof coating system and accessories indicated on drawings and specifications. Provide all necessary supplementary items for a complete installation intended by documents.

1.3 SUMMARY:

A. Work shall include, but is not limited to, the following:
   1. Repair existing roofing and flashings using compatible materials to ensure the coating substrates are clean, dry, and watertight prior to coating application.
   2. Clean existing modified bitumen roofing and flashing substrates to be coated.
   3. Primer/Surface treatment:
      a. Modified Bitumen Roofing and flashings:
         i To prevent bitumen bleed-through, apply ALSAN COATING ASPHALT BLEED BLOCKING PRIMER.
   4. Seal all exposed fasteners, roof seams and rooftop penetrations as specified.
   5. MODIFIED BITUMEN ROOFING:
      a. 20 year - Apply one coat of ALSAN COATING SIL 402 at 40 wet mils (approximately 2.5 gals/100 ft^2). Finished roof coating shall consist of 38 mils dry film thickness.
   6. Contractor shall provide all related materials and labor required to complete specified roof coating necessary to receive the specified manufacturer's warranty.

1.4 RELATED SECTIONS:

A. 011000 - Summary of Work
B. 072200 - Roof Insulation
C. 075216 - SBS Modified Bitumen Roofing
D. 076000 - Flashing and Sheet Metal

1.5 DEFINITIONS:

A. ASTM D 1079-Standard Terminology Relating to Roofing and Waterproofing.
B. The National Roofing Contractors Association (NRCA) Roofing and Waterproofing Manual, Fifth Edition Glossary

1.6 REFERENCES:

A. AMERICAN STANDARD OF TESTING METHODS (ASTM):
   1. ASTM C794 - Standard Test Method for Adhesion-in-Peel of Elastomeric Joint Sealants.

2. ASTM C1193 – Standard Guide for Use of Joint Sealants
3. ASTM D412 – Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers – Tension
4. ASTM D471 - Standard Test Method for Rubber Property – Effects of Liquids
5. ASTM D522 - Standard Test Methods for Mandrel Bend of Attached Organic Coatings.
6. ASTM D562 - Standard Test Method for Consistency of Paints Measuring Krebs Unit (KU) Viscosity Using a Stormer-Type Viscometer.
7. ASTM D624 - Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers
8. ASTM D903 - Standard Test Method for Peel or Stripping Strength of Adhesive Bonds
9. ASTM D1644 – Standard Test Methods for Nonvolatile Content.
10. ASTM D1653 - Standard Test Method for Water Vapor Transmission of Organic Coating Films.
11. ASTM D2196 - Standard Test Methods for Rheological Properties of Non-Newtonian Materials by Rotational Viscometer.
12. ASTM D2370 - Standard Test Method for Tensile Properties of Organic Coatings.
13. ASTM D2697 – Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings
14. ASTM D4541 - Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers.
15. ASTM D4799 – Standard Test Method for Accelerated Weathering Test Conditions and Procedures for Bituminous Materials (Fluorescent UV and Condensation Method)
16. ASTM E108 - Standard Test Methods for Fire Tests of Roof Coverings.
17. ASTM G21 - Standard Practice for Determining resistance of Synthetic Polymeric Materials to Fungi.
18. ASTM G155 - Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials.
19. ASTM G4798 - Standard Practice for Accelerated Weathering Test Conditions and Procedures for Bituminous Materials (Xenon-Arc Method).

B. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI):
   1. ANSI/FM 4474 - American National Standard for Evaluating the Simulated Wind Resistance of Roof Assemblies Using Static Positive and/or Negative Differential Pressures.

C. COOL ROOF RATING COUNCIL (CRRC)

D. EPA ENERGYSTAR

E. FLORIDA BUILDING CODE (FBC):

F. INTERNATIONAL CODES COUNCIL (ICC):

G. NATIONAL ROOFING CONTRACTORS ASSOCIATION (NRCA).

H. ROOF COATINGS MANUFACTURERS ASSOCIATION (RCMA).

I. UNDERWRITERS LABORATORIES (UL):
   1. UL 790 Standard Test Methods for Fire Tests of Roof Coverings.

1.7 ACTION SUBMITTALS:

A. Product Data Sheets: Submit manufacturer's product data sheets, installation instructions, and/or general requirements for each component.

B. Safety Data Sheets: Submit manufacturer's Safety Data Sheets (SDS) for each component.

C. Sample/Specimen Warranty from the manufacturer and contractor.

1.8 INFORMATION SUBMITTALS:

A. Contractor Certification: Submit written certification from protective coating and waterproofing system manufacturer certifying that the applicator is authorized by the manufacturer to install the specified materials and system.

1.9 CLOSEOUT SUBMITTALS:

A. Warranty: Provide manufacturers and contractor's warranties upon substantial completion of the waterproofing system.

1.10 QUALITY ASSURANCE:

A. MANUFACTURER QUALIFICATIONS:

1. Manufacture shall have 20 years of experience manufacturing roofing and waterproofing materials.
2. Manufacturer shall have trained technical service representatives employed by the manufacturer, independent of sales.
3. Manufacturer shall provide site visit reports in a timely manner.
4. Manufacturer shall provide specified warranty upon satisfactory project completion.

B. CONTRACTOR QUALIFICATIONS:

1. Contractor shall be authorized by the manufacturer to install specified materials prior to the bidding period through satisfactory project completion.
2. Applicators shall have completed projects of similar scope using the same materials as specified herein.
3. Contractor shall provide full time, on-site superintendent or foreman experienced with the specified waterproofing system through satisfactory project completion.
4. Applicators shall be skilled in the application methods for all materials.
5. Contractor shall maintain a daily record, on-site, documenting material installation and related project conditions.
6. Contractor shall maintain a copy of all submittal documents, on-site, available always for reference.

C. SUBSTRATE EVALUATION:

1. Contractor shall evaluate the acceptability of existing substrates to ensure roof surfaces have positive slope and adequate drainage, clean surfaces free of incompatible materials, dry materials and surfaces free of moisture contamination, and otherwise satisfactory to apply the specified coating and coating accessories.

2. Contractor shall not proceed with the application of the coating and coating accessories until substrate deficiencies have been repaired or replaced as necessary to successfully complete the specified coating.
3. Contractor shall evaluate adhesion of the coating and coating accessories to substrates throughout the work area and record the results using digital photos or other means each day as necessary to demonstrate satisfactory adhesion is achieved and maintained throughout the project.

1.11 DELIVERY, STORAGE AND HANDLING:

A. Refer to each product data sheet or other published literature for specific requirements.
B. Refer to product Safety Data Sheets (SDS) for storage and handling related hazards and take all necessary measures and precautions to comply with storage and handling requirements.
C. Deliver materials and store them in their unopened, original packaging, bearing the manufacturer's name, related standards, and any other specification or reference accepted as standard.
D. Store coating and accessory materials in a dry, well ventilated, weather tight area, with temperatures maintained between 55°F (12.8°C) and 80 °F (26.7°C). Protect materials to prevent damages due to environmental exposures.
E. During cold weather, ensure water-based materials are properly stored in heated areas, and protect materials as necessary to prevent exposure to freezing conditions.
F. Store and dispose of materials in accordance with building owner requirements, site conditions, and the requirements of local jurisdictions.
G. Properly dispose of all product wrappers, pallets, cardboard tubes, scrap, waste, and debris.
H. All damaged materials shall be removed from job site and replaced with new, suitable materials.

1.12 PERFORMANCE REQUIREMENTS:

A. FIRE CLASSIFICATION:
   1. Coating shall meet ASTM E108 and or UL Classified per UL 790.
B. FM Approval:
C. Coating shall be FM Approved.
D. Florida Building Code approved:
   1. Product shall be approved for use in the State of Florida, with an Evaluation Report indicating compliance with the FBC, 6th Edition, 2017.
E. NSF International:
   1. NSF P151 Rainwater catchment certified for rainwater runoff.

1.13 SITE CONDITIONS:

A. SAFETY:
   1. The contractor shall be responsible for complying with all project-related health, safety, and environmental requirements.

2. The contractor shall review project conditions and determine when and where conditions are appropriate to utilize the specified coatings and accessories. When conditions are determined by the contractor to be unsafe or undesirable to proceed, measures shall be taken to prevent or eliminate the unsafe or undesirable exposures and conditions, or equivalent approved materials and methods shall be utilized to accommodate project requirements and conditions.
3. The contractor shall refer to product Safety Data Sheets (SDS) for health, safety, and environment related hazards, and take all necessary measures and precautions to comply with exposure requirements.

B. ENVIRONMENTAL CONDITIONS:
1. Monitor substrate and material temperature, as well as all environmental conditions such as ambient temperature, moisture, sun, cloud cover, wind, humidity, and shade.
2. Ensure conditions are satisfactory to begin work and ensure conditions remain satisfactory during the installation of specified materials. Materials and methods shall be adjusted as necessary to accommodate varying project conditions. Materials shall not be installed when conditions are unacceptable to achieve the specified results.
3. Precipitation and dew point: Monitor weather to ensure the project environment is dry before and will remain dry during the application of the specified coating and accessories. Ensure all materials and substrates remain above the dew point temperature as required to prevent condensation and maintain dry conditions.
4. Ambient temperature should be between 40°F (4.4°C) and 95°F (35°C), and well above the dew point temperature, with no dew, fog, or condensation present.
5. During preparation, cleaning, and application of specified materials, follow all health, safety and environmental requirements related to applicable materials involved with the work and related exposures. Properly handle and dispose of all cleaning materials, waste and debris associated with the specified work.

1.14 WARRANTY:

A. Manufacturer's Warranty. The manufacturer shall provide the owner with the manufacturer's roof coating warranty for 20 years from the date the warranty is issued.

B. The contractor shall guarantee the workmanship and shall provide the owner with the contractor's warranty covering workmanship for a period of 2 years from completion date.

PART 2 PRODUCTS

2.1 MANUFACTURER:

A. SINGLE SOURCE MANUFACTURER: All coating materials shall be manufactured by a single supplier with 20 years or more roofing and waterproofing manufacturing history in the US.

1. Comply with the manufacturer's requirements as necessary to provide the specified warranty.

B. ACCEPTABLE MANUFACTURER:
1. Soprema
2. Siplast
3. Garland
4. Tropical Coatings
5. Prior approved equal

2.2 SILICONE ROOF COATING SYSTEM

A. FIELD COATING:
1. Low VOC compliant, high solids, single component, fabric reinforced silicone roof coating, and protective barrier for a variety of low slope roof surfaces and substrates.
a. SOPREMA ALSAN COATING SIL 402:
i Solids by volume, % (ASTM D2369): 95 +/- 3
ii Solids by weight, % (ASTM D1644): 96 +/- 3
iii Tensile strength, psi (ASTM D412): >240
iv Elongation, % (ASTM D412): >270
v VOC, g/l (ASTM D3950): <50
vi Permeability, perms (ASTM E96): 3.4
vii Shelf life, months: 18
viii Clean-up; Mineral spirits.
ix Containers: 5 gal (18.9 L)
x Tack free: <8 hours.
xi Fully cured; 8-72 hours.

B. FLASHING GRADE:
1. VOC compliant, high solids, single component, low sag, silicone mastic used to prepare seams, penetrations, and fasteners for coating with ALSAN COATING SIL 402.
a. SOPREMA ALSAN COATING SIL 402 FLASHING:
i Solids by volume, % (ASTM D2697-3): 91 +/- 2
ii Solids by weight, % (ASTM D1644): 97 +/- 2
iii Tensile strength, psi (ASTM D412): >305 +/- 10
iv Elongation, % (ASTM D412): >60 +/- 10
v Standard color: White
vi Shelf life: 18
vii VOC, g/l (ASTM D3950): <50
viii Clean-up; Mineral spirits.
ix Containers: 2 gal (7.6 L).
x Tack free: 2 hours.
xi Dry to touch: 6 hours.

C. WALKWAY COATING:
1. VOC compliant, high solids, single component, moisture curing, silicone coating used to enhance impact resistance where required at walkways and around mechanical equipment.
a. SOPREMA Inc. ALSAN COATING SIL 402 WALKWAY GRADE:
i Solids by volume, % (ASTM D2697-3): >95
ii Solids by weight, % (ASTM D1644): >96
iii Tensile strength, psi (ASTM D412): >240

iv Elongation, % (ASTM D412): >270
v VOC, g/l (ASTM D3950): <50
vi Tack free: 8 hours.
vii Standard color: Safety yellow
viii Shelf life, months: 18
ix Walkable, hours: 24
x Fully cured, hours: >72

2.3 ACCESSORIES:

A. PRIMERS:

1. MODIFIED BITUMEN ROOFING

a. Modified bitumen and asphalt roofing pre-treatment/primer to block bitumen bleed-through.

i SOPREMA Inc. ALSAN COATING ASPHALT BLEED BLOCKING PRIMER.

B. REINFORCING FABRIC:

1. Proprietary, non-woven polyester reinforcement used with ALSAN COATING SIL 402 and ALSAN COATING SIL 402 FLASHING:

a. SOPREMA Inc. POLYFLEECE:

i Thickness: 37 mils (0.9 mm)
ii Fabric Weight: 0.18 oz/ft^2 (55 g/m^2)
iii Width: 4 inches (10 cm) minimum
iv Length: 50 feet (15.2 m)

C. ROOF CLEANER:

1. Highly versatile industrial cleaner and degreaser and is a safer alternative to toxic cleaners, bleaches, and solvents.

a. TROPICAL ROOF PRODUCTS Inc. #652 ULTRAGREEN ROOF WASH ALL PURPOSE CLEANER.

i VOC compliant
ii Shelf life, years: 5

PART 3 EXECUTION

3.1 EXAMINATION:

A. GENERAL:

1. Examination includes visual observations, qualitative analysis, and quantitative testing measures necessary to ensure conditions are satisfactory to begin and remain satisfactory throughout the project.
2. Ensure all roof surfaces have positive slope with no less than 1/8 inch per foot.
3. Examine substrates to ensure all roof areas have positive slope, adequate drainage and contain no standing water from HVAC condensation or other sources.
4. The applicator shall not begin installation until conditions have been properly examined and determined to be clean, dry and, otherwise satisfactory to apply the specified coating and accessory materials.

B. MOISTURE SURVEY:
   1. Complete a moisture survey of existing roofing and flashing materials to be coated. This includes using all necessary means such as infrared cameras, capacitance meters, moisture probes, nuclear gages, and test cuts to ensure all wet materials are identified for removal and replacement.
   2. Examine roofing membrane edges/laps, metal laps, foam closures, fastener seals, and other surface conditions. Eliminate trapped and concealed moisture before applying specified coating and accessories.

C. ADHESION TESTS:
   1. Prior to beginning work, the contractor shall examine adhesion between specified coating materials and all prepared substrates using the following qualitative method:
      a. Ensure the new coating materials will properly adhere to all substrates.
      b. Conduct 180-degree peel tests to examine adhesion.
      c. Choose three (3) or more representative substrate areas to test.
      d. Clean and prepare the substrates as specified and indicated herein, allow too fully dry.
      e. Cut minimum 1 inch (2.54 cm) wide by 12 inch (30.48 cm) long strips of POLYFLEECE fabric.
      f. Apply primer where required, allow primer to fully dry.
      g. Embed an 8 to 9 inch (20.32 to 22.86 cm) long section of the strip into ALSAN COATING SIL 402 silicone coating. Leave a 3 to 4 inch (7.62 to 10.16 cm) long portion un-adhered to grip and pull.
      h. ALSAN COATING SIL 402 silicone coating may require 2 days or more.
      i. Grip the un-adhered portion of the sample and pull 180 degrees, parallel with the surface. Use a small scale to measure results in pounds of resistance where quantitative results are desired.
      j. Results should demonstrate strong resistance to peel. A strong bond will result in significant residual coating materials remaining on the substrate.
      k. Samples that peel away easily from the substrate may indicate further preparation is needed, or alternate materials and/or application methods may be necessary.
      l. Where quantitative measurements of peel resistance are desired, peel resistance of 1 in wide samples should exceed 2lb/in (0.35 N/mm) when tested. Wider fabric samples over 1 in wide should measure no less than 2 pounds per lineal inch of fabric width. 180-degree peel test. Basis of test is ASTM C794.

3.2 PREPARATION

A. GENERAL:

1. Before commencing work, the contractor shall prepare all work areas to ensure conditions are satisfactory to proceed with the installation of specified materials.
2. Route all HVAC condensate lines to roof edges or into roof drains to prevent moisture contamination and damage.
3. Eliminate ponding water conditions. All roof surfaces shall have positive roof slope, no less than 1/8 inch per foot. All roof surfaces to be coated shall be free of standing water.
4. Protect all adjacent areas from damage, overspray, and spillage of coating materials.

B. MODIFIED BITUMEN ROOFING PREPARATION:

1. Use low pressure power washer and cleaner as approved by the local jurisdiction, to remove loose granules, dirt, biological growth, and other residue as necessary to produce clean roof surfaces.
2. Remove all residual cleaner using clean water.

3.3 PRIMER APPLICATION:

A. MODIFIED BITUMEN ROOFING PRIMING:

1. Evenly apply ALSAN COATING ASPHALT BLEED BLOCKING PRIMER using a heavy-duty sprayer, paint roller, or brush.
2. Apply at the nominal rate of 1.5 gal/100 ft^2.
3. Do not leave primed substrates exposed during periods of dew, precipitation, or other inclement weather within 72 hours of application.
4. Apply the ALSAN coating to primed substrates during the same day or within 24 hours after priming.

3.4 ROOF FLASHING APPLICATION:

A. GENERAL:

1. Apply specified flashing grade materials and sealants prior to roof coating application. Ensure all flashing grade materials and sealants are cured prior to applying the specified coating.

B. MODIFIED BITUMEN ROOFING:

1. If primed, ensure ALSAN COATING UNIVERSAL PRIMER is dry before applying new coating and flashing materials.
2. Pre-treat all side and end-laps with ALSAN COATING SIL 402 FLASHING using a brush or roller.
3. Apply ALSAN COATING SIL 402 FLASHING at membrane terminations such as roof penetrations and edge metal.

3.5 SILICONE ROOF COATING APPLICATION:

A. ALSAN COATING SIL 402 is applied using rollers, brushes, or single-component sprayers.

1. BRUSH APPLICATION:

a. Disposable brushes are generally needed for small/confined areas, seams, touch-up work, and flashings.

2. ROLLER APPLICATION:
   a. Rollers include heavy-duty hand-held rollers and natural roller-covers with ½ to 1 inch nap.
   b. Apply ALSAN COATING SIL 402 to ensure an even, uniform coating thickness.
   c. Roll side-to-side, up-and-down. Always roll into the seams.
   d. Profile rollers are recommended for metal roofing to conform to metal rib and seam profiles.
3. SQUEEGEE AND ROLLER APPLICATION:
   a. Dispense coating onto the roof, then use a flat blade squeegee to apply the coating to the desired thickness, then back-roll the coating using a roller as indicated herein.
4. SPREADER CART AND ROLLER APPLICATION:
   a. Tank spreader carts are used to dispense coating onto the roof surface, then rollers are used to back-roll the coating as indicated herein.
5. T-BAR AND ROLLER APPLICATION:
   a. Using spray pumps to deliver coating to T-bar at low pressure to dispense coating onto the roof surface.
   b. Rollers are used to back-roll the coating as indicated herein.
6. SPRAY APPLICATION:
   a. Refer to Coating Preparation, Weather and Environmental Conditions, for acceptable weather conditions.
   b. When spraying ALSAN COATING SIL 402, the spray tip should be located approximately 12-inch above the roof substrate to ensure a 12-inch spray fan pattern. Spray perpendicular to the surface, moving steady in one direction.
   c. Spray techniques vary for each substrate. Ensure the minimum coating thickness is achieved at membrane laps, standing seams, metal panel ribs, roof penetrations, at fasteners, etc.
   d. Hose size, length, weather conditions, ALSAN COATING SIL 402 material temperature and other variables will affect spray pattern. Adjust application techniques as necessary to accommodate varying conditions to produce a uniform coating and meet minimum thickness requirements.
   e. To avoid runs and sag on steep slopes and vertical surfaces, multiple coats may be required.
   f. Spray equipment options for ALSAN COATING SIL 402 include the following:
      i Dedicated equipment for silicone roof coatings only.
      ii Recommended sprayers: Graco 933 or Graco King X-70, fed by a 5:1 transfer pump.
      iii Recommended pump output: 3 gpm, 7,000 psi (483 bar).
      iv Hoses: High-pressure, moisture-resistant, ¾ in diameter minimum.
      v Recommended minimum pressure at spray gun: 4,000 psi (276 bar) at spray gun head.
      vi Tip: Heavy Duty 529 to 635

B. MODIFIED BITUMEN ROOFING COVERAGE:
1. 20 year - Apply one coat of ALSAN COATING SIL 402 at 40 wet mils (approximately 2.5 gals/100 ft^2). Finished roof coating shall consist of 38 mils dry film thickness.

3.6 WALKWAYS:
A. After the roof coating has cured, mark areas to receive walkways.
B. LIGHT TRAFFIC AREAS:
1. Brush or roll ALSAN COATING SIL WALKWAY GRADE at designated walkway area at a rate of 2.0 gals/100ft2.
2. If non-skid surfacing is desired, immediately broadcast ALSAN COATING SIL WALKWAY GRANULES in the wet walkway coat until refusal and allow to cure.
3. Remove loose granules.
C. HEAVY TRAFFIC AREAS SURROUNDING SKYLIGHT:
1. Brush or roll a base layer) of ALSAN COATING SIL WALKWAY GRADE at designated walkway area at a rate of 2.0 gals/100ft2.
2. Install POLYFLEECE into wet base layer followed by a top layer of ALSAN COATING SIL WALKWAY GRADE at a rate of 2.0 gals/100ft2 and allow to cure.
3. Brush or roll an additional layer of ALSAN COATING SIL WALKWAY GRADE at designated walkway area at a rate of 2.0 gals/100ft2.
4. If non-skid surfacing is desired, brush or roll an additional layer of ALSAN COATING SIL WALKWAY GRADE at designated walkway area at a rate of 2.0 gals/100ft2 and immediately broadcast ALSAN COATING SIL WALKWAY GRANULES in the wet walkway coat until refusal and allow to cure.
5. Remove loose granules.

3.7 CLEAN UP:
A. Clean up and properly dispose of waste and debris resulting from these operations each day as required to prevent damages and disruptions to operations.

END OF SECTION 075600

SECTION 07 60 00: FLASHING AND SHEET METAL

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 necessary materials, labor, and equipment for the complete installation of flashing and sheet metal, including but not limited to masonry through-wall flashing; metal counter-flashing; metal expansion joints; exposed metal trim units; copings; and other miscellaneous sheet metal accessories, as shown on the drawings and specified herein. Provide all necessary supplementary items for a complete installation intended by documents.

1.3 Contractor shall comply with the flashing and sheet metal requirements specified in the applicable roofing sections and with the flashing and requirements specified in the weather barrier/membrane section of these specifications.

1.4 Submittals:

A. Submit shop drawings and manufacturer's literature for all items fabricated for this Project, showing sizes and gauges of items, finishes, profiles, methods of construction, and mounting details.

B. Submit in accordance with requirements of Division 1.

1.5 Product Handling: Carefully handle and store all items of this Section to prevent damage to surfaces, edges, and finishes. Remove damaged items that cannot be restored to like-new condition and replace at no additional cost to the Owner.

1.6 Quality Assurance: Comply with governing codes, regulations, and pertinent recommendations contained in current edition of "Architectural Sheet Metal Manual" published by the Sheet Metal and Air-conditioning Contractors National Association (SMACNA). Provide products of acceptable manufactures, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

PART 2: PRODUCTS

2.1 Materials: Flashing:

A. Steel: 24-gauge galvanized steel, G90 galvanizing, ASTM A525 Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) By The Hot-Dip Process, General Requirements.

B. Aluminum: .032 thick alloy 3003 clear anodized aluminum, ASTM B209 Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.

C. Laminated copper/fabric flashing for masonry flashing: 5 oz. copper sheet laminated between two (2) sheets of polymer fabric; "Multi-Flash 500" by York Flashings or approved equal. ASTM B370 Standard Specification for Copper Sheet and Strip for Building Construction.

D. PVC: 40 mil sheet; "Flex-Flash Flashing" by Hohman & Barnard, Inc. or approved equal.

E. Stainless Steel: 26-gauge type 304 stainless steel.

2.2 Other Materials:

A. Comply with pertinent provisions of Division I.

B. Provide solder and fasteners recommended by the producer of, and compatible with, the metal sheets.

PART 3: EXECUTION

3.1 Installation Requirements

A. General: Except as otherwise indicated, comply with manufacturer's installation instructions and recommendations, and with SMACNA "Architectural Sheet Metal Manual." Anchor units of work securely in place by methods indicated, providing for thermal expansion of metal units; conceal fasteners where possible, and set units true to line and level as indicated. Install work with laps, joints, and seams, which will be permanently watertight and weatherproof. Coordinate with work of other sections.

B. Underlayments: Where stainless steel or aluminum is to be installed directly on cementitious or wood substrates, install a slip sheet of red rosin paper and a course of polyethylene underlayment.

C. Bed flanges of work in a thick coat of bituminous roofing cement where required for waterproof performance.

D. Install elastic flashing in accordance with manufacturer's recommendations. where required, provide for movement at joints by forming loops or bellows in width of flashing. Locate cover or filler strips at joints to facilitate complete drainage of water from flashing. Seam adjacent flashing sheets with adhesive, seal, and anchor edges in accordance with manufacture's recommendations.

E. Nail flanges of expansion joint units to curb nailers, at maximum spacing of 6". Fabricated seams at joints between units with minimum 3" overlap, to form a continuous waterproof system.

3.2 Cleaning and Protection:

A. Clean exposed metal surfaces, removing substances, which might cause corrosion of metal or deterioration of finishes. Restore damaged components and finishes.

B. Protection: Installer shall advise Contractor of required procedures for surveillance and protection of flashings and sheet metal work during construction, to ensure that work will be without damage or deterioration, other than natural weathering, at time of substantial completion.

* * *

SECTION 07631: GUTTERS (REPLACEMENT)

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 Work specified in this Section.

1.2 Scope of Work: Furnish all necessary materials, labor and equipment for the complete installation of flashing, trim, enclosures, fasteners, and other items necessary for gutters, as shown on the drawings and specified herein. Provide all necessary supplementary items for a complete installation intended by documents.

1.3 Standards: Conform to requirements of Architectural Sheet Metal Manual, Sheet Metal and Air Conditioning Contractors' National Association, Inc. (SMACNA) and National Roofing Contractors Association Roofing Manual (NRCA).

1.4 Submittals:

A. Submit Shop Drawings for all gutters, etc., showing joints, fasteners, metal gauges, roof installation details.
B. Submit manufacturer's recommended installation instructions.
C. Samples: Submit color chips on metal for selection and approval of A/E. Provide additional samples, full size accessories, fasteners if requested by A/E.
D. Coordinate all roof and wall conditions, structural steel, wood blocking, other like items and indicate on shop drawings.
E. Submit in accordance with requirements of Division 1.

1.5 Product Handling: Carefully handle materials to prevent damage and store at the site above ground in a covered, dry location. Remove and replace damaged items that cannot be restored to like-new condition.

1.6 Guarantee:

A. Prior to acceptance of Work, furnish written guarantee, co-executed by Contractor and subcontractor, for two (2) years, which covers repairs required to maintain flashing in watertight condition. Limit to ordinary wear and tear by the elements or defects due to faulty materials and workmanship. Make repairs, within 24 hours of notification, at no expense to Owner.

PART 2: PRODUCTS

2.1 Materials:

A. Sheet Copper: ASTM Specification B370 – Standard Specification for Copper Sheet and Strip for Building Construction, cold rolled temper, weighing not less than 16 ounces per sq. ft.
B. Nails and Fasteners including rivets, screws and bolts shall be of hard copper, brass, or bronze.
   1. Nails for wood and nailing concrete shall be flathead, barbed, wire slating nails, not less than No. 12 gauge, 1" long.
   2. Screws and bolts shall have round heads.
   3. Expansion shields shall be lead sleeves.

C. Solder: ASTM Specification B-32, composition 50% tin and 50% lead. 60/40 for lead coated copper.
D. Flux: Rosin, muriatic acid neutralized with zinc or approved equal.
E. Roofing Felt: Asphalt or coal tar saturated felt weighing not less than 15 pounds per 100 square feet.
F. Sealant: Approved type of butyl, polysulfide, silicone, or urethane.

2.2 Samples:
A. Submit the following samples in accordance with the Contract requirements for the Architect's approval. Obtain approval before delivery or fabrication.

2.3 Shop Drawings:
A. Submit the following shop drawings for sheet metal work in accordance with the Contract requirements for the Architect's approval. Indicate thickness and dimensions of all other parts, fastenings and anchoring methods, expansion joints and other pertinent information.

2.4 General Requirements:
A. Cleats: 2" wide by 3" long copper, spaced not over 12" on center unless otherwise specified. Secure one end with two nails and fold back over nail heads. Lock free end of cleat into seam or into folded edge of copper sheet.
B. Tinning: Tin edges of plain copper sheets to be soldered for a width of 1-1/2" both sides with solder. Tinning of lead-coated copper is not required prior to soldering; however, wire brush lead in contact with solder to produce a bright surface.
C. Soldering: Perform slowly with well heated coppers, so as to heat thoroughly the seam and sweat the solder through its full width. When soldering lead-coated copper, brush a liberal amount of flux into the seam.
D. Seams:
1. Standing seams shall finish not less than 1" high unless otherwise specified.
2. Flat-Lock Seams: Finish not less than 3/4" wide.
3. Lap seams where soldered: finish not less than 1" wide.
4. Lap seams: Not soldered overlap 3" unless otherwise noted.
5. Seams: make in direction of flow.
E. Dissimilar Metals: Place sheet lead between copper and iron, or steel, or paint the mating surfaces of copper and aluminum, iron or steel with asphaltum paint.
F. Preparation of Surfaces: Surfaces to which sheet metal is to be applied shall be smooth, sound, clean, dry and free from defects that might affect the application. Apply a layer of roofing felt followed by a layer of building paper to surfaces receiving copper roofing, valleys and gutter linings. Lap each ply 2" with the slope and nail with large flathead copper nails.

PART 3: EXECUTION

3.1 Inspection: Verify that substrates are smooth and clean to extent needed for sheet metal work. Verify that nails, cants, and blocking to receive sheet metal are installed and free of concrete and soil. Do not start sheet metal work until conditions are satisfactory.

3.2 Preparation: Before installation, verify shapes and dimensions of surfaces to be covered.

3.3 Hung Molded Gutters:

A. Size: Form hung molded gutters of the cross sectional profile shown of 16 ounce copper sheets 8'-0" or 10'-0" long. Lap ends 1" in direction of flow and solder and rivet seams. Rivets, 3/16" in diameter, shall be spaced 2" on centers.

B. Outer Edges: Reinforce outer edge with a 3/4" x 3/16" brass stiffening bar. Extend roof edge 6" up under roofing and attach by cleats on 12" centers.

C. Expansion Joints: Locate expansion joints midway between outlet tubes and not over 30'-0" apart. Loose lock expansion joints and fill with sealant to allow 1/2" movement.

D. Braces: Form transverse-gutter braces of 16 ounce copper, bent to form a channel 1-1/2" wide with 3/4" legs. Attach braces by riveting and soldering to top edges of gutter and space 36" on centers.

E. Hangers: Support gutter with 3/4" x 3/16" brass bars riveted or bolted to outer edge, spaced 36" on centers, and extending up 6" under roofing. Secure straps with two brass screws at roof.

F. Outlet Tubes: Outlet tubes shall be riveted and soldered to gutters and shall extend 3" into leaders or downspouts.

3.4 Cleaning:

A. Remove all flux, scraps, and dirt immediately. Excess flux shall be neutralized with a 5 to 10% solution of washing soda, then drenched with clean water.

3.5 Coloring of Copper:

A. Natural weathering mill finished copper. No applied finish.

3.6 Guarantee:

A. The contractor shall guarantee all workmanship and materials for a period of 2 years from the date of completion and acceptance of the work as provided for under the General Conditions, and at his own expense, make good all defects which may develop during the warranty period.

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SECTION 07714: PREFABRICATED ROOF RELIEF VENTS

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) and Division 1 as appropriate, apply to the Work specified in this Section.

1.2 Work Included: Coordinate all Work of this Section with Roofing, Flashing and Sheet Metal Sections.

1.3 Standards: Conform to requirements of Architectural Sheet Metal Manual. Sheet Metal and Air Conditioning Contractor's National Association, Inc. (SMACNA) and National Roofing Contractors Association Roofing Manual (NRCA).

1.4 Submittals:

A. Submit manufacturer's recommended installation and maintenance instructions, specified guarantees.

B. Submit in accordance with requirements of Division 1.

1.5 Product Handling: Carefully handle materials to prevent damage and store at the site above ground in a covered, dry location. Remove and replace damaged items that cannot be restored to like-new condition.

1.6 Guarantee: Prior to acceptance of Work, furnish written guarantee, co-executed by Contractor and subcontractor, for two (2) years, which covers repairs required to maintain roof accessories in watertight condition. Make repairs, within 24 hours of notification, at no expense to Owner.

PART 2: PRODUCTS

2.1 Acceptable Manufacturers:

A. For purposes of designating type and quality for the Work under this Section, Drawings and Specifications are based on Manville Building Materials Corp.

B. Subject to compliance with requirements acceptable manufacturers include; Lexsuco OWV, Marathon XL, or approved equal.

2.2 Pressure Relief Vents: Manville FP-10, one way roof vent, 4-1/2 inch diameter and 6-inch height minimum. Cover with weather proof cap which maintains free area of vent. Extend base flange six (6") inches minimum outward from vent onto roof.

PART 3: EXECUTION

3.1 Inspection: Verify that substrates are smooth and clean to extent needed for proper installation of roof accessories. Do not start work until conditions are satisfactory.

3.2 Installation:

A. Install accessories in accordance with roofing and equipment manufacturer's recommendations, NRCA, and SMACNA.

B. Install work watertight, plumb, level, and true to line without warp or rack. Anchor securely to surrounding construction.

C. At all new roofing over lightweight insulating fill, provide pressure relief vents in strict accordance with roofing manufacturers recommendations. Locate vents at 30 feet o.c. maximum, one per 1000 square feet. Exercise care that surface of insulating fill is exposed to vent tube and is not covered with bitumen or felt.

3.3 Cleaning: Clean all surfaces in accordance with manufacturer's instructions. Remove debris from work site.

* * *

SECTION 07920A: SEALANTS AND CAULKING

PART 1: GENERAL

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

1.2 Scope of Work: Furnish all necessary materials, labor and equipment for the complete installation of sealants and caulking, as shown on the drawings and specified herein. Provide all necessary supplementary items as required for a complete installation.

1.3 Guarantee:

A. Guarantee work for a period of two (2) years against defective materials and workmanship, warranting the air tightness and water tightness of the exterior sealant installation. Make repairs or replace material after proper notice at no additional cost to Owner.

B. Submit written guarantee co-executed by Contractor and subcontractor in accordance with Warranties and Bonds Section.

1.4 Product Handling: Handle to prevent inclusion of foreign matter or damage of materials by water or breakage. Procure and store in original containers until ready for use.

PART 2: PRODUCTS

2.1 General Purpose Interior Caulking: Siliconized acrylic-latex gun grade caulk for use in general purpose interior applications. Characteristics shall exceed those of oil based and butyl caulks. Color shall be as selected by A/E. Approved products: Sika Corporation, MasterSeal NP 520 and Pecora Corporation, AC-20. All others require prior approval.

2.2 Interior Silicone Caulking: For all toilet rooms, bathrooms, shower rooms, locker rooms, concession stand, kitchens and any other wet areas with sink toilets, lavatories, mop sinks, etc. Caulk around all plumbing fixtures, against walls, floors, and joints between laminate plastic counter tops and walls. Color shall be as selected by A/E. Approved products: GE Sanitary SCS 1700 Silicone Sealant. All others require prior approval.

2.3 Exterior Sealant Materials:

A. Approved Manufacturers: For the purposes of designating type and quality for the work under this section, drawings, and specifications are based on products manufactured or furnished by Sika Corporation, 201 Polito Avenue, Lyndhurst, New Jersey, 07071, Website: www.usa.sika.com. All others require approval.

B. Sealant: A premium, high-performance, very low-modulus, high-movement, non-sag, fast-curing, designed to adhere to low energy surfaces, one-component silyl-terminated polyether hybrid sealant. Tint base is a multi-component formulation that can be tinted to multiple colors to meet aesthetic needs.

1. Product: Sikaflex HY 150 Sealant or HY 150 Tinit Base Sealant
2. Compliance:
   a. ASTM C920, Type S, Grade NS, Class 50, Use NT, M, A, and O, capable of +100/-50 in normal field conditions.
   b. ASTM C 1382 for use with EIFS wall systems at 100% extension
   c. Federal Specification TT-S-001543A, Type II, Class A, Type Non-sag.
   d. Federal Specification TT-S-00230C, Type II, Class A.
   e. Corps of Engineers CRD-C-541, Type II, Class A.
   f. CFI accepted.
   g. USDA complaint for use in areas that handle meat and poultry.
   h. SWR Institute validated.
3. Service Temperature Range: Minus 40 to 180 degrees F (minus 40 to 82 degrees C)
4. Shrinkage: None.
5. Movement Capability, ASTM C719: Plus or minus 50 percent
6. Extension, ASTM C 1382: 100%
7. 100% Modulus, ASTM C 412: 35 psi.
8. Tensile Strength, ASTM D412: 140-180 psi.
9. Tear Strength, ASTM D1004: 40 pli.
10. Ultimate Elongation at Break, ASTM D412: 800-1000 percent.
11. Rheological, ASTM C639, sag in vertical displacement, 120 degrees F (49 degrees C): No sag.
12. Extrudability, ASTM C 1183: 2-3 sec.
13. Hardness, ASTM C661, Shore A: 17
14. Weight Loss, ASTM C 1246, after heat aging: less than 10 percent
15. Tack-Free Time, ASTM C 1246: 90 minutes.
16. Stain and Color Change, ASTM C 510: Passes, no visible stain.
17. Bond Durability, ASTM C719, on aluminum and concrete: Passes, plus or minus 50 percent movement.
18. Adhesion in Peel, ASTM C794:
    a. Aluminum: 35 pli
    b. Concrete: 36 pli
19. Artificial Weathering, ASTM G155, Xenon arc, 2,000 hours: No Cracking.

20. VOC Content:
    a. Sikaflex HY 150: 13.6 g/L, less water and exempt solvents.

C. Design Requirements:
1. Design number of joints and joint widths for maximum of plus of minus 50 percent movement.
2. Design depth of sealant to be 1/2 width of joint.
    a. Maximum Depth: 1/2 inch (13 mm).
    b. Minimum Depth: 1/4 inch (6 mm).
    c. Maximum Recommended Width" 1-1/2 inches (38 mm).

D. Accessories:
1. Sika, MasterSeal 921 – soft backer-rod.
2. Sika, MasterSeal 920 – low moisture absorption – below grade.
3. Porous Substrate Primer: Sikaflex Primer - 179
4. Cleaner: Sika, MasterSeal 990 or Xylene.

2.4 Color as selected by A/E from manufacturer's full standard range of colors.

2.5 Joint Backing: Round, flexible, closed cell polyurethane material, non-reactive with caulking materials and non-oily, approved by sealant manufacturer. Minimum density 3.24 lbs./cu.ft. Use no asphalt or bitumen-impregnated material with sealants.

PART 3: EXECUTION

3.1 Examination: Examine subsurface to receive work and report any conditions detrimental. Failure to observe this injunction constitutes a waiver to any subsequent claims to the contrary and will make this Contractor responsible for any corrections A/E may require. Commencement of work will be construed as acceptance of all subsurfaces.

3.2 Preparation:

A. Thoroughly clean all joints; blow out or vacuum loose particles from joints. Joint sides to be dry, fully cured, free of laitance, loose aggregate, form release agents, curing compounds, water repellents, and other surface treatments. Surface cleaning must be done in accordance with manufacturers recommendations. Comply with sealant manufacturer's recommendations.

B. Install joint backing or bond breaker in all joints to receive sealant. Size backing to require 30-50% insertion compression and depress 1/2 joint width. Do not insert backing material with a sharp implement that can puncture the surface.

C. Mask or otherwise protect adjacent surfaces. Apply tape in continuous strips in alignment with joint edge and remove immediately after joints have been sealed and tooled.

D. Prime as specified by manufacturer of sealant. Where primer is required, it shall be done by brush, uniformly on contact surfaces of the joint. Allow sufficient drying time before caulking.

3.3 Sealant:

A. Application: In strict accordance with manufacturer's instructions.

B. Tooling: Immediately after application, tool beads of sealant. Tooling can be done with a spatula of wood or metal, or finger, either dry or with water. Avoid solvents.

C. Apply sealant and caulking material under pressure to fill joints completely, preventing air pockets or voids.

3.4 Locations:

A. Single-Component Sealant: Apply single-component sealant in joints in vertical surfaces, exterior walls, around exterior perimeter of door and window frames, louvers and vents, in control joints and expansion joints at interior or exterior vertical surfaces, and at other similar exterior locations noted on the Drawings. Set exterior door frames and thresholds in full bed of sealant.

B. Caulking Compound: Apply caulking compound at interior locations, around penetrations of piping, conduits, duct work and similar items through walls and partitions, around interior perimeter of door frames, louvers, vents, in interior control joints at floors, walls, ceilings, and at other interior locations as noted on the Drawings.

3.5 Curing: Allow sealant to cure in accordance with manufacturer's instructions.

3.6 Inspection:

A. During work of the section, inspect work to ensure compliance with manufacturer's instructions, specifications, and drawings.

1. Evaluate adhesion of sealant in accordance with ASTM c1521.
2. Allow inspections of work and assist in testing requested by manufacturer's representative and A/E.

B. Non-Compliant Work: If inspections reveal non-compliant work or work that was not installed in accordance with Specifications, and/or manufacturer requirements, remove adjacent Work until a location is reached where installation was performed properly. Assist in spot-checking of remainder of Work.

3.5 Cleaning: Clean adjacent surfaces of sealant as work progresses in accordance with manufacturer's recommendations, using solvent or cleaning agent recommended by the manufacturer. Leave all finished work in a neat, clean condition. Clean discolored sealant with solvents approved by manufacturer and a clean rag. Avoid staining the surrounding surfaces.

3.6 Protection: Protect sealant from damage during construction.

END OF SECTION 07920A

SECTION 08710: FINISH HARDWARE

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 the Section.

1.2 Scope of Work: Furnish all necessary materials, labor and equipment for the complete installation of door hardware, thresholds, gasketing and accessories, as shown on the drawings and specified herein. Provide all necessary supplementary items for a complete installation intended by documents.

1.3 Qualifications:

A. Contractor shall select only a supplier who has in his employ qualified Architectural Hardware Consultants, who shall manage and coordinate the complete hardware contract. This consultant shall also be available to visit the job in order to solve or correct any conditions affecting proper hardware installation or adjustments as required.

B. Hardware Supplier to accumulate and hold to ship in one shipment when requested by the Contractor. Direct shipments from factories to job site will not be permitted.

1.4 Standards:

A. All items provided under this Section shall comply with all requirements of ANSI A117.1 "Specifications for Making Buildings and Facilities Accessible to and Usable by Physically Handicapped People", the "Americans with Disabilities Act" (ADA), the "Architectural Barriers Act" (ABA), International Building Code (IBC) latest edition, and "National Fire Protection Association" (NFPA) latest edition. It is the hardware supplier's responsibility to make sure all doors comply with the above codes.

B. Hardware shall comply with specified pressures and wind loading requirements indicated by IBC latest edition and ASCE 7 latest edition.

1.5 Submittals:

A. Submit the hardware schedule showing the quantities, types, catalog numbers, and locations of the various items of finish hardware required.

B. At the completion of the job all of the tools, instructions, and maintenance information shall be turned over to the Owner for his use in maintaining the hardware.

C. Comply with the requirements of Division 1.

1.6 Product Handling: Deliver hardware to the project site in the manufacturer's original packages. Neatly wrap and individually pack each article of hardware in a substantial carton or other container, properly marked or labeled so as to be readily identifiable with the schedule. Furnish a secure area for delivery by hardware supplier of finish hardware and storage of same.

PART 2: PRODUCTS

2.1 General Requirements: The hardware schedule is intended to cover doors and other movable parts of the building and establish type and standard of quality. Examine Drawings and Specifications and furnish proper hardware for all openings whether listed or not. Notify A/E of any omissions in hardware groups prior to bid opening, otherwise list will be considered complete. No extras will be allowed for omissions, changes, or corrections necessary to facilitate proper installation.

2.2 Type and Sizes:

A. Provide hardware of the types and sizes selected.

B. Templates: Application of hardware on metal shall be made to standard templates. Provide samples or templates as required for the proper manufacture and application. Frame manufacturer shall provide reinforcing for hardware.

C. Modification to hardware required by reasons of construction characteristics shall provide the same operation of functional features.

2.3 Keying: Hardware Consultant shall prepare key layout with the Owner and A/E. Set cylinders to Owner's masterkey and grand masterkey system as established by Owner. Deliver all permanent keys to the Owner in key cabinet showing the key set, key cut, and location. Furnish three (3) change keys per lockset and six (6) master keys for each master system, six (6) grandmaster keys for each grandmaster system, ten (10) construction master keys and five (5) control keys for interchangeable core series. Furnish fifty extra blanks for each keyway used. Deliver keys to Owner.

2.4 Characteristics:

1. Comply with Owner's instructions for master keying and, except as otherwise indicated, provide individual change key for each lock that is not designated to be keyed alike with a group of related locks.
   a. Permanently inscribe each key with number of lock that identifies cylinder manufacturer's key symbol, and notation, "DO NOT DUPLICATE."
2. Key Material: Provide keys of nickel silver only.
3. Existing System: Great Grandmaster key the locks to the Owner's existing system, with a new grand master key for the Project.

2.5 Key Control Software:

Provide to Owner Windows based software to work on currently offered windows operating systems, single license with network upgrade available. Software must come preloaded with factory bitting, door numbers, and keysets per instructions. Software must also have the capability of importing all future system additions, must not require manual additions to factory systems. Software will also have pinning chart capability.

PART 3: EXECUTION

3.1 Hardware Location:

A. Provide schedule of mounting heights for all items of hardware in the hardware schedule. Coordinate with door and frame supplier.

B. Hardware Consultant shall establish degree of opening for doors with holders, closers, etc. and include in hardware schedule.

3.2 Installation:

A. Application: Apply hardware with fasteners of proper size, quantity and finish, in accordance with manufacturer's instructions and templates. All items of hardware shall fit and operate properly.

B. All hardware shall be installed by mechanics skilled in the application of institutional grade hardware. Read and understand all instructions sheets, installation details, etc. packed with hardware before attempting to install.

3.3 Adjust and Clean: Adjust all hardware, specialties, and accessories for proper operation. Clean and polish all exposed surfaces. Deliver all keys and instruction sheets to Owner. Remove waste materials and debris from site.

3.4 Maintenance Instructions: After final acceptance, Hardware Consultant shall arrange for a maintenance meeting with the Owner. Instruct Owner's delegated personnel in the proper use, servicing, adjusting, and maintaining all items and hardware.

3.5 Hardware Schedule:

A. Furnish hardware set for doors indicated in accordance with the schedule. For the purpose of setting the specification quality and type, the manufacturers are listed below or approved equal. Quantities indicated are per set. Furnish complete set for each door listed for that set. Furnish all items or components of hardware required for completion of Work.

B. Provide top of the line products as manufactured by one of the manufacturers list below for each item list below:

1. Hinges & Pivots: Stanley, Bommer, Hager, Ives, McKinney
2. Continuous Hinges: Select, Roton
3. Panics Devices/Exit Devices: Von Duprin, Monarch, DORMA
4. Locksets & Padlocks: Marshal Best, Stanley
5. Closers: LCN, Sargent
6. Kickplates: Trimco, Ives Rockwood
7. Stops: Ives, Rockwood, Trimco
8. Weatherstripping & Thresholds: National Guard, Reese
9. Flush Bolts: Trimco
10. Push & Pull Sets: Trimco, Ives, Rockwood
11. Rim Bolts, Keeper and Coat Hook: Bommer

C. Products of other manufacturers will be considered with prior approval per Division 1.

3.6 Cores and Cylinders:

A. Permanent cores to be provided directly to owner for final installation.

B. Once permanent keying has been installed the contractor may sign out keys as needed, failure to return signed out keys will result in replacement of entire GGMK system at contractors expense.

C. Supply cylinder cams and cylinder rings as required per application.

3.7 Schedule:

A. Hardware Set 01 - Pair of Existing Store Front Doors
Each door shall have hardware to match existing.

3 EA Butt Hinges
1 EA Closer
1 EA Existing Lockset to Remain
1 EA Weatherstripping
1 EA Threshold
1 EA Bottom Door Sweep

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SECTION 08 80 00: GLAZING

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 necessary materials, labor and equipment for the complete installation of glazing, as shown on the Drawings and specified herein. Provide all necessary supplementary items for a complete installation intended by documents.

1.3 Quality Assurance:

A. All glazing shall comply with the Safety Standard for Architectural Glazing Materials (16CFR Part 1201) issued by the U.S. Consumer Product Safety Commission.
B. Reference to "Safety Glass" in Drawings shall indicate Laminated Safety Glass. Install Safety Glass in all windows within four (4') feet of an exterior door.
C. Prime Glass Standard: FS DD-G-451D.
D. Safety Glass Standard: CPSC 16 CFR 1201.

1.4 Submittals:

A. Provide structural, physical and environmental characteristics, size limitations, special handling or installation requirements.
B. Provide data on glazing sealant. Identify colors available.
C. Provide two (2) samples, 12-inch square of each glass product, except for clear single pane units.
D. Submit in accordance with requirements of Division 1.

1.5 Job Conditions: Pre-Installation: Meet with Glazer and other trades affected by glass installation, prior to beginning of installation. Do not perform work under adverse weather or job conditions. Install liquid sealants when temperatures are within lower or middle third of temperature range recommended by manufacturer.

PART 2: PRODUCTS

2.1 Acceptable Manufacturers: Regularly engaged in the manufacture of glass and glass products.

2.2 Glass Products, General:

A. Provide primary glass, which complies with FS DD-G-451 requirements, including those indicated by reference to type, class, quality, and form.
B. Fabricate glass to size required for glazing openings indicated, with edge clearances and tolerances complying with recommendations of glass manufacturer. Provide thicknesses as indicated on the Drawings, or, if not otherwise indicated, as recommended by glass manufacturer for application indicated.

2.3 Sealants: 1-Part Silicone Rubber Glazing Sealant. Elastomeric silicone sealant complying with FS TT-S-001543, Class A, non-sag. Provide acid type recommended by manufacturers where only non-porous bond surfaces are contacted; provide non-acid type recommended by the manufacturer where one or more porous bond surfaces are contacted. G.E. Silicone or approved equal.

2.4 Miscellaneous Glazing Materials:

A. Cleaners, Primers and Sealers: Type recommended by sealant or gasket manufacturer.

B. Setting Blocks: Neoprene or EPDM, 70-90 durometer hardness, with proven compatibility with sealants used.

PART 3: EXECUTION

3.1 Standards and Performance:

A. Watertight and airtight installation of each glass product is required, except as otherwise shown. Each installation must withstand normal temperature changes, wind loading, impact loading (for operating sash and doors), without failure including loss or breakage of glass, failure of sealants or gaskets to remain watertight and airtight, deterioration of glazing materials and other defects in the work.

B. Protect glass from edge damage during handling and installation, and subsequent operation of glazed components of the work. During installation, discard units with significant edge damage or other imperfections.

C. Glazing channel dimensions as shown are intended to provide for necessary bite on glass, minimum edge clearance, and adequate sealant thicknesses, with reasonable tolerances. Adjust as required by job conditions at the time of installation.

D. Comply with combined recommendations and technical reports by manufacturers of glass and glazing products as used in each glazing channel, and with recommendations of Flat Glass Marketing Association "Glazing Manual," except where more stringent requirements are indicated.

3.2 Preparation for Glazing:

A. Clean glazing channel and other framing members to receive glass, immediately before glazing. Remove coatings, which are not firmly bonded to substrate. Remove lacquer from metal surfaces where elastomeric sealants are used.

B. Apply primer or sealant to joint surfaces where recommended by the sealant manufacturer.

3.3 Glazing:

A. Install setting blocks of proper size in sill rabbet, located 1/4 of glass width from each corner. Set blocks in thin course of heel-bead compound, if any.

B. Set units of glass in each series with uniformity of pattern, draw, bow and similar characteristics.

C. Force sealants into channels to eliminate voids and to ensure complete "wetting" or bond of sealant to glass and channel surfaces.

D. Tool exposed surfaces of glazing liquids and compounds to provide a substantial "wash" away from glass.

E. Clean and trim excess glazing materials from glass and stops or frames promptly after installation and eliminate stains and discolorations.

3.4 Cure, Protection and Cleaning:

A. Protect exterior glass from breakage immediately upon installation, by use of crossed streamers attached to framing and held away from glass. Do not apply markers to surfaces of glass. Remove non-permanent labels and clean surfaces. Cure sealants for high early strength and durability.

B. Remove and replace glass which is broken, chipped, cracked, abraded or damaged in other ways during construction period, including natural causes, accidents and vandalism.

C. Wash and polish glass on both faces not more than four (4) days prior to date scheduled for inspections intended to establish date of substantial completion in each area of project. Comply with the glass product manufacturer's recommendations for final cleaning.

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SECTION 09201: FURRING AND LATHING

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 necessary materials, labor and equipment for the complete installation of furring and lathing and other accessories indicated on drawings and in specifications. Provide all necessary supplementary items for a complete installation intended by documents.

1.3 Quality Assurance:

A. Design Criteria: Ceiling support system shall limit deflection of finished ceiling to less than 1/360 of span.

B. Accomplish interior furring and lathing in accordance with requirements of ANSI/ASTM C841.

1.4 Requirements of Regulatory Agencies: Conform to local building code for fire resistance ratings of walls, ceilings, column protection and smoke partition requirements.

1.5 Submittals: Furnish manufacturer's literature, written instructions for installation or partition and ceiling suspension systems. Submit in accordance with requirements of Division 1.

1.6 Product Handling:

A. Deliver products and materials in original unopened packages, containers, or bundles with manufacturer's label intact and legible.

B. Remove items delivered in broken, damaged, rusted, or unlabeled condition from project site immediately.

C. Protect metal items from dampness or wetting. Store metallic materials and accessories indoors, off floor.

PART 2: PRODUCTS

2.1 Acceptable Manufacturers: Furnish metal framing, furring, and accessories from Dale Industries, Gold Bond, Milcor Division Inryco, Inc., U.S. Gypsum, or approved equal.

2.2 Ceiling/Wall/Partition Framing and Furring Channels: Conform to requirements of Ceiling Suspension Systems.

2.3 Metal Lath:

A. Fabricate from cold rolled steel. Furnish galvanized.

B. Diamond Mesh: 3.6 pounds/square yard.

2.4 Metal Accessories:

A. General: Shapes used as grounds to be sized and dimensioned to provide for required plaster thickness. Flanges designed to permit complete embedment of accessory in plaster and to provide for alignment and attachment to underlying surface.

B. Corner Beads: Minimum 26 gage galvanized steel, small nose type, expanded flanges.

C. Casing Beads: Minimum 24 gage galvanized steel, square end type.

D. Cornerite: Minimum 2.5 pounds/square yard flat expanded metal lath. Shape to fit 90 degree internal corner with minimum 3 inch legs each side.

E. Striplath: Minimum 2.5 pounds/square yard expanded metal lath, 4 inch minimum width.

F. Soffit Vents: Fry Reglet Corp. PCS-75-V-300 Vented Drip-Screed, white finish.

G. Plaster Molding: Fry Reglet Corp. "J" Plaster Molding, white finish.

H. Base Screed: Minimum 26 gage galvanized steel, expanded flanges.

I. Expansion Joints: Minimum 26 gage galvanized steel or zinc alloy. Provide with double stops, expanded flanges.

PART 3: EXECUTION

3.1 Installation of Suspended Ceilings: Conform to requirements of Ceiling Suspension System.

3.2 Installation of Metal Lath:

A. Install with long dimension running perpendicular to supports. Lap diamond-mesh lath minimum 1/2 inch at sides. Lap metal lath 1 inch at ends. Stagger end laps from row to row. Lap ends over supports.

B. Diamond mesh lath installed on both ceilings and walls or partitions: bend into corner and lap adjoining lath 6 inches or butt lath into corners and apply cornerite over abutting lath.

C. Secure Lath to Supports: Maximum spacing of fasteners, 6 inches o.c. At metal supports and adjacent lath, use tie wires or self-tapping screws. At wood supports, use barbed roofing nails. At steel joints, wire-tie with ends of loops twisted together.

D. Secure Lath to Masonry: Maximum spacing of fasteners, 6 inches o.c.; nails driven into masonry joints or attached to tie wires previously embedded.

E. Do not continue lath across control or expansion joints.

3.3 Installation of Metal Accessories:

A. General:

1. Fasten in place using wire ties, galvanized staples, or hardened concrete nails as required to prevent dislodging or misalignment by subsequent operation. Fasten at both ends and maximum 12 inches o.c. along sides.

2. Bring grounding edge of accessories to true lines, plumb, level and straight. Install to provide required depth of plaster and to bring plaster surface to required plane.

3. Connect lengths of accessories as recommended by manufacturer to assure a continuous line.
4. Where plaster abuts dissimilar materials, terminate with plaster casing bead if not covered by trim.
5. Install accessory beads to provide minimum 1/8 inch clearance between structural units and termination point of surface to receive plaster finish.

B. Cornerite: Install at plastered interior angles where both converging surfaces are plastered. Fasten along outer edges of lath only to secure firmly in position. Fasten to lath only, not to structural framing.

C. Corner Beads: Provide at plastered external angles where plastered on both sides of angles.

D. Expansion Joints and Soffit Vents: Install at locations indicated on Drawings and in accordance with manufacturer's recommendations.

3.4 Access Panel: Install in accordance with manufacturer's instructions, and to meet UL and code requirements.

3.5 Cleaning: Remove access materials and debris from site.

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SECTION 09220: PORTLAND CEMENT PLASTER

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 necessary materials, labor and equipment for the complete installation of portland cement plaster and all accessories indicated on drawings or specified herein. Provide all necessary supplementary items for a complete installation intended by documents.

1.3 Quality Assurance:

A. Allowable Tolerances: Maximum deviation from true plane 1/8 inch 10 feet as measured by straight edge placed at any location on surface.

B. Sample Panel: 2 feet square sample panel of same materials as for project. Show texture and workmanship of finished work. Do not proceed with work until sample plaster finish is reviewed by A/E. Maintain sample panel on project site for duration of project for comparison purposes. Remove upon project completion, or when directed by A/E.

C. Apply cement plaster in accordance with ASTM C926, ASTM C1063 and Portland Cement Association - Plaster (Stucco) Manual.

1.4 Submittals: Manufacturer's certificate that materials meet specifications requirements if requested by A/E. Furnish manufacturer's written recommendations, proportion mixes, and installation instructions. Submit in accordance with requirements of Division 1.

1.5 Product Handling: Deliver manufactured materials in original unopened packages or containers, with manufacturer's label intact and legible. Keep cement and lime dry, stored off ground, under cover, and away from damp surfaces. Remove wet and deteriorated materials from project site.

1.6 Job Conditions:

A. Environmental Requirements: Do not use frozen materials in cement plaster mixes. Do not apply cement plaster to frozen surfaces or surfaces containing frost. Do not apply cement plaster unless minimum ambient temperature of 50 degrees F has been and continues to be maintained for minimum of 48 hours prior to application and until plaster is cured. Do no apply plaster when substrate or ambient air temperature is more than 80 degrees F. Protect cement plaster from uneven and excessive evaporation during hot, dry weather.

B. Protection: Protect finished surfaces installed prior to plastering by covering with plastic sheets, non-staining kraft paper, or removable masking tape. Maintain protection in place until completion of work.

PART 2: PRODUCTS

2.1 Materials:

A. Portland Cement: ASTM C 150, Type 1 or 1A.

B. Masonry Cement: ASTM C 91.

C. Aggregate: Sand, conforming to ASTM C 144.

D. Water: Clean and free from substances harmful to plaster.

E. Finish Coat: May be factory prepared plaster approved by A/E, at Contractor's option.

2.2 Mixes:

A. Mixing, General:

1. Accurately proportion materials for each plaster batch with measuring devices of known volume. Size batches for complete use within maximum of one hour after mixing.

2. Re-temper plaster stiffened from evaporation, but do not use or re-temper partially hydrated cement plaster. Do not use frozen, caked, or lumping materials and remove such materials from job site immediately.

3. Mix factory prepared cement plaster in accordance with manufacturer's written instructions.

4. Use moist, loose, sand in mix proportions. Withhold 10% of mixing water until mixing is almost complete, then add as needed to produce necessary consistency.

B. Mechanical Mixing: Clean mixer of set or hardened materials before loading for new batch. Maintain mixer in continuous operation while adding materials. Conform to mixing sequence, cycle of operations, and time recommended by manufacturer of plaster materials.

C. Hand Mixing: Do not hand mix unless authorized by A/E (for small quantities only). Use waterproof mixing boxes and water barrels when mixing in building.

D. Mix Proportions: Scratch coat - 1 part portland cement, 1 part masonry cement, 3 parts sand per sum of cementitious materials. Brown and finish coats - 1 part portland cement 2 parts masonry cement, 3 parts sand per sum of cementitious materials.

PART 3: EXECUTION

3.1 Inspection:

A. Verify that surfaces to be plastered are free of dust, loose particles, oil and other foreign matter, which would affect bond of plaster coats.

B. Examine construction, grounds, and accessories to insure that finished plaster surfaces will be true to line, level, and plumb, without requiring additional thickness of plaster.

3.2 Application:

A. General:

1. Interrupt cement plaster only at junctions of plaster planes, at openings, or at control joints. Tool through second and finish coats to produce "V" joint at intersection of frames or other items of metal or wood which act as plaster grounds.

2. Apply second coat to first coat, bringing out to grounds, flat to true surface, and free of imperfections, which would reflect in finish coat. Reconsolidate second coat by floating, and roughen to assure bond with finish coat.

3. Nominal Plaster Thickness: Maximum 7/8 inch from back of lath.

B. Base Coats: Apply with sufficient material to form keys through metal lath. Embed and fill all spaces of lath and scratch vertical surfaces horizontally. Scratch horizontal surfaces in one direction only.

C. Finish Coats: Apply plaster to nominal thickness and fill out to true even plane. Trowel or float finish to true even surface after moisture has left surface. Provide sand texture as directed by Architect.

D. Curing: Maintain moist conditions by fine fog spray or vapor barrier. Cure base coats minimum of 48 hours after application. Cure finish coat for minimum of 7 days or in accordance with manufacturer's instructions.

3.3 Adjust and Clean:

A. Patching: Upon completion, point-up plaster around trim and other locations where plaster meets dissimilar materials. Cut out and patch defective or damaged plaster. Match patch of defective or damaged plaster to existing work in form and texture.

B. Cleaning: Remove plaster and protective materials from expansion beads, perimeter beads, and adjacent surfaces. Remove stains from plaster surfaces that would adversely affect subsequent finishes.

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SECTION 09260: GYPSUM WALLBOARD SYSTEMS - STEEL STUDS

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 necessary materials, labor and equipment for the complete installation of gypsum wallboard systems - steel studs, for walls and ceilings as shown on the Drawings and specified herein. Provide all necessary supplementary items for a complete installation intended by documents.

1.3 Quality Assurance:

A. Requirements of Regulatory Agencies: Underwriters Laboratories Inc.; Fire Hazard Classification (40U822) and Fire Resistance Classification (40U18). Conform to local building code for fire resistance ratings and smoke partition requirements.

B. Testing: Fire resistance, ASTM E 119. Flame spread, ASTM E 84. Sound transmission, ASTM E 90.

C. Perform work in accordance with recommendations of ASTM C 754 and Gypsum Association GA-216.

1.4 Submittals:

A. Test Reports: Submit copies of fire test report on fire-rated gypsum wallboard assemblies. Submit copies of evidence of fire hazard classification for gypsum wallboard. Certified test reports of other acceptable testing agencies which perform testing in accordance with ASTM E 119 and E 84 and E 90 are acceptable.

B. Certificates: Furnish manufacturer's certification or literature indicating that materials meet or exceed specification requirements.

C. Manufacturer's Instructions: Furnish manufacturer's printed instructions for installation of the assemblies.

D. Submit in accordance with requirements of Division 1.

1.5 Product Handling:

A. Delivery and Handling: Deliver materials to the project site with manufacturer's labels intact and legible. Handle with care to prevent damage. Deliver fire-rated materials bearing testing agency label and required fire classification number.

B. Storage: Store materials inside under cover, stack flat, off floor. Stack wallboard so that long lengths are not over short lengths. Avoid overloading floor system. Store adhesives in dry area, providing protection against freezing at all times.

C. Protect metal items from dampness or wetting. Store metallic materials and accessories indoors, off floor.

1.6 Job Conditions:

A. Temperature: During cold weather, in areas receiving wallboard installation, maintain temperature range between 55-70 degrees F for 24 hours before, during, and after gypsum wallboard and joint treatment application.

B. Ventilation: Provide ventilation during and following adhesives and joint treatment applications. Use temporary air circulators in enclosed areas lacking natural ventilation. Under slow drying conditions, allow additional drying time between coats of joint treatment. Protect installed materials from drafts during hot, dry weather.

C. Protection: Protect adjacent surfaces against damage and stains.

PART 2: PRODUCTS

2.1 Acceptable Manufacturers: For purposes of designating type and quality for the work under this section, Drawings and specifications are based on products manufactured by U.S. Gypsum, Dietrich, MBA Metal Framing or approved equal.

2.2 Gypsum Wallboard:

A. Fire Rated Gypsum Board: ASTM C 36; Type X UL Rated, size as indicated on the Drawings, beveled taper or tapered edges.

2.3 Fasteners: Self-drilling, self-tapping, bugle head, for use with power driven tool, Type S for wallboard to sheet metal application. Length; one (1") inch at single layer or base layer application, 1 5/8 inch at face layer of two layer application.

2.4 Joint Treatment Materials:

A. Joint Tape: ASTM C 475, perforated tape.

B. Joint Compounds: ASTM C 475, powdered or ready-mixed, taping and topping or all purpose compound.

2.5 Edge Trim: Galvanized steel, 26 gage, with knurled surfaces for bedding cement.

2.6 Corner Beads: Provide corner beads with perforated flanges at all exposed external corners and channel type casing bead at edges meeting dissimilar materials if not covered by trim.

2.7 Drywall Suspension System:

A. Check framing for accurate spacing and alignment. Verify that spacing of installed framing does not exceed maximum allowable for thickness of wallboard to be used.

B. Verify that frames are set for thickness of wallboard to be used.

C. Do not proceed with installation of wallboard until deficiencies are corrected and surfaces to receive wallboard are acceptable.

D. Protrusions of framing, twisted framing members, or unaligned members must be repaired before installation of wallboard is started.

PART 3: EXECUTION

3.1 Inspection:

A. Check framing for accurate spacing and alignment. Verify that spacing of installed framing does not exceed maximum allowable for thickness of wallboard to be used.

B. Verify that frames are set for thickness of wallboard to be used.

C. Do not proceed with installation of wallboard until deficiencies are corrected and surfaces to receive wallboard are acceptable.

D. Protrusions of framing, twisted framing members, or unaligned members must be repaired before installation of wallboard is started.

3.2 Application, General:

A. Wallboard of maximum lengths to minimize end joints. Stagger end joints when they occur. Locate end joints as far as possible from center of wall or ceiling.

B. Abut wallboards without forcing. Neatly fit ends and edges. Do not place butt ends against tapered edges.

C. Support ends and edges of wallboard panels on framing or furring members except for face layer of double layer and where ends are back blocked and floated.

3.3 Single Layer Application:

A. Ceilings: Apply wallboard with long dimension at right angles to framing. Back block ends and edges of wallboard.

B. Walls: Apply wallboard horizontally where ceilings are eight (8') feet in height or less, vertically elsewhere. When installing wallboard horizontally, attach upper wallboard first. Stagger end joints to occur on different framing members on opposite sides of partition.

C. Fasteners:

1. Attach single layer of wallboard to metal framing with Type S screws. Minimum edge clearance from mechanical fasteners: 3/8 inch.
2. Stagger mechanical fasteners opposite each other on adjacent ends or edges.
3. Sand abutting ends or edges over support surface.
4. Space screws 12 inches o.c. along supports at ceilings. Space screws 12 inches o.c. along ends and edges and field of wallboards at walls.
5. Drive screws with positive clutch electric screwdriver.

3.4 Double Layer Application:

A. Base Layer, Ceilings: Apply wallboard base layer with long dimension at right angles to framing. Apply wallboard face layer perpendicular to edges of base layer. Provide 10 inch minimum offset of joints in base layer from parallel joints in face layer.

B. Base Layer, Walls: Apply wallboard base layer vertically. Stagger vertical joints of base layer on opposite side of partition to occur on different framing members. Apply face layer horizontally. Minimum 10 inch offset of joints in face layer from parallel joints in base layer.

C. Screws:
1. Center abutting ends or edges over center of the board surface. Space screws as required for fire-rated ceilings and walls.
2. Ceilings: 16 inches o.c. along abutting end or edges and 16 inches o.c. in field of base layer and as required for fire rating.
3. Walls, Horizontal Application: 12 inches o.c. along abutting ends in field of base layer and as required for fire rating.
4. Walls, Vertical Application: Eight (8") inches o.c. staggering along abutting edges, 12 inches o.c. in field of base layer and as required for fire rating.

D. Face Layer:
1. Attach face layer of double layers with Type S screws annual ring nails. Attach starting from center of wallboard and proceed toward outer ends and edges.
2. Walls and Ceilings:
   a. Eight (8") inches o.c. at walls; seven (7") inches o.c. at ceilings;
   b. Twelve (12") inches o.c. along ends and edges and in field of wallboard and as required for fire rating.
3. Set screws with positive clutch electric screwdriver maximum 1/32 inch dimple in board surface. Do not fracture wallboard faceboard.
4. Do not fasten along overlapping ends or edges at inside corners.

3.5 Fire Rated Walls and Ceilings: Install fire-rated board in accordance with manufacturer's and U.L. requirements to provide ratings as indicated on the Drawings.

3.6 Joint System:

A. Taping or Embedding Joints:
1. Apply compound in this uniform layer to all joints and angles to be reinforced.
2. Apply reinforcing tape immediately. Center tape over joint, and seat tape into compound. Leave approximately 1/64 to 1/32 inch compound under tape to provide bond.
3. Apply skim coat immediately following tape embedment but not to function as fill or second coat.
4. Fold tape and embed in angles to provide true angle.
5. Dry embedding coat prior to application of fill coat.

B. Filling:
1. Apply joint compound over embedding coat. Fill taper flush with surface. Apply fill coat to cover tape.
2. Feather out fill coat beyond tape and previous joint compound line.
3. Do not apply fill coat on interior angles.
4. Allow fill coat to dry prior to application of finish coat.

C. Finishing:
1. Spread joint compound evenly over and beyond fill coat on all joints. Feather to smooth uniform finish.
2. Apply finish coat to taped angles to cover tape and taping compound.

3. Sand final application of compound to provide surface ready for decoration.

D. Filling and Finishing Depressions: Apply joint compound as first coat to fastener depressions. Apply at least two (2) additional coats of compound after first coat is dry. Leave filled and finished depressions level with plane of surface.

E. Finishing Beads and Trim:
   1. First Fill Coat: Apply joint compound to bead and trim. Feather out from ground to plane of surface. Dry compound prior to application of second fill coat.
   2. Second Fill Coat: Apply joint compound in same manner as first fill coat. Extend beyond first coat onto face of wallboard. Dry compound prior to application of finish cat.
   3. Finish Coat: Apply joint compound to bead and trim. Extend beyond second fill coat. Feather finish coat from ground to plane of surface. Sand finish coat to provide flat surface ready for decoration.

F. Where paneling or hardboard is to be installed over wallboard, tape and float wallboard to assure a smooth surface. Final finishing is not required.

G. Where wallboard is installed in a non-exposed location, tape and float wallboard to assure compliance with fire resistance and smoke partition classifications. Final finishing is not required.

H. Assure tight seal around all penetrations through walls and ceilings such as plumbing lines, vents, electrical items, etc. Fire tape around penetrations.

3.7 Adjust and Clean:

A. Defective Fastening: When face paper is punctured, drive new screw approximately 1-1/2 inches from defective fastening and remove defective fastening. Fill damaged surface with compound.

B. Ridging: Do not repair ridging until condition has fully developed; approximately six (6) months after installation or one heating season. Sand ridges to reinforcing tape without cutting through tape. Fill concave areas on both sides of ridge with topping compound. After fill is dry, blend in topping compound over repaired area.

C. Fill cracks with compound and finish smooth and flush.

D. Remove all excess materials and debris from project site. Clean all soiled surfaces.

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SECTION 09510: ACOUSTICAL CEILINGS

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 necessary materials, labor and equipment for the complete installation of acoustical ceilings and other accessories, as shown on the drawings and specified herein. Provide all necessary supplementary items for a complete installation intended by documents.

1.3 Quality Assurance:

A. Qualifications of Installer: Minimum of three project installations of comparable extent as proposed project and acceptable to ceiling systems manufacturer.

B. Tolerances: Surface to receive acoustical treatment shall be free from irregularities and level to within 1/4 inch in 12 feet. Suspension system components, hangers, and fastening devices supporting light fixtures, ceiling grilles, and acoustical units shall have maximum deflection of 1/360 of the span as per ASTM C 635. Finished acoustical ceiling system shall be level within 1/8 inch in 12 feet.

1.4 Submittals:

A. Samples: Submit samples of all ceiling units, suspension system, and accessories.

B. Manufacturer's Literature: Submit for review of A/E, the manufacturer's recommendations for installation of suspension system and acoustical units.

C. Certificates: Furnish literature or certification that materials and systems conform to specification requirements including fire endurance rating, flame spread index, structural classification of suspension system.

D. Maintenance Material: Furnish extra materials equal to 5% of each type of ceiling material supplied. Furnish suspension system components in amount sufficient to install extra ceiling units.

E. Submit in accordance with requirements of Division 1.

1.5 Product Delivery, Storage and Handling:

A. Deliver materials in original, unopened, protective packaging, with manufacturer's labels indicating brand name, pattern, size, thickness and fire rating as applicable, legible and intact.

B. Store materials in original protective packaging to prevent soiling, physical damage or wetting. Store cartons open at each end to stabilize moisture content and temperature.

C. Do not begin installation until sufficient materials to complete a room are received.

1.6 Environmental Requirements: Complete installation of dampening materials before beginning work. Maintain humidity of 65-75% in area where acoustical materials are to be installed, 25 hours before, during, and 25 hours after installation. Maintain a uniform temperature in the range of 55-70 degrees F prior to and during installation of materials.

PART 2: PRODUCTS

2.1 Acceptable Manufactures:

A. For purpose of designating type and quality for the Work under this Section, Drawings and Specifications are based on products manufactured or furnished by Armstrong.

B. Subject to compliance with requirements, acceptable manufacturers include U.S.G. or approved equal.

2.2 Suspension System:

A. Type: Lay-In Tile Square, ASTM C 635, structural classification - intermediate duty system. All components of system from one manufacturer.

B. Main, Cross, and Concealed Members: Single or double web design, cold-rolled steel, minimum thickness of 0.020 inch for single web, 0.015 inch for double web, electric-zinc coated and factory painted low sheen satin white finish, 15/16 inch width exposed flange.

C. Edge Molding: Minimum 0.020 inch steel, channel or angle shaped, with minimum flange width of 15/16 inch.

D. Hold Down Clips: Type as supplied by suspension system manufacturer.

E. Hanger Wire: Minimum 12-gage, galvanized, soft- annealed, mild steel wire.

F. Color: As selected from manufacturer's standard colors.

2.3 Acoustical Units:

A. Type I:

1. Style: Fine Fissured, Lay-In.
2. Size: 24" x 48" x 5/8"
3. Composition: Mineral Fiber
4. Light Reflect Range: LR-1; 0.82 or more light reflectance
5. NRC Range: 0.55
6. STC Range: 35
7. Fire Hazard Classification: Class A.
8. Edge: Square
9. Surface Finish: Factory applied vinyl latex paint finish.
10. Surface Color: As selected from manufacturer's standard colors.

PART 3: EXECUTION

3.1 Condition of Surfaces: Examine surfaces scheduled to receive suspended acoustical units for unevenness, irregularities, dampness that would affect quality and execution of work.

3.2 Installation:

A. Suspension Systems: ASTM C 636.

B. Rough Suspension:

1. Hangers: Space hanger wires four (4) feet on center, each direction. Install additional hangers at ends of each suspension member and at light fixtures, six (6) inches from vertical surfaces. Do not splay wires more than five (5) inches in a four (4) foot vertical drop. Wrap wire a minimum of three times horizontally, turning ends upward.

2. Main and Cross Runners: Space main runners at four (4) feet on center, leveled square to adjacent walls. Space cross runners at two (2) feet on center.
3. Wall Molding: Install at intersection of suspended ceiling and vertical surfaces. Miter corners where wall moldings intersect or install corner caps. Attach to vertical surface with mechanical fasteners.
4. Install impact at damage resistant ceiling units in accordance with manufacturer's instructions.

C. Ceiling Units: Install in level plane in straight line courses. Place materials to bear all around on suspension members. Minimum width of border tiles, one-half unit dimension unless otherwise indicated on Drawings. Install units surrounding recessed troffer lights with hold-down clips to prevent movement or displacement of units.

3.3 Cleaning: Clean soiled or discolored unit surfaces after installation. Touch up scratches, abrasions, voids, and other defects in painted surfaces. Remove and replace damaged or improperly installed units.

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SECTION 09678: RESILIENT BASE AND ACCESSORIES

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 necessary materials, labor and equipment for the complete installation of resilient base and other accessories, as shown on the drawings and specified herein. Provide all necessary supplementary items for a complete installation intended by documents.

1.3 Submittals:

A. Submit samples of type and color of base material. Upon completion and prior to acceptance of the work, furnish 3 copies of a list of recommended maintenance products, methods, and procedures.

B. Submit in accordance with requirements of Division 1.

1.4 Product Delivery and Storage: Deliver materials to project site in manufacturer's original unopened containers with labels indicating brand names, colors and patterns, and quality designations legible and intact. Do not open containers or remove markings until materials are inspected and accepted. Store and protect in accordance with manufacturer dictions and recommendations.

1.5 Environmental Requirements: Maintain temperature in space to receive base between 70 and 90 degrees F for not less than 24 hours before and 48 hours after installation. Following this period, maintain minimum temperature of 55 degrees after base is installed.

PART 2: PRODUCTS

2.1 Acceptable Manufacturers:

A. For purposes of designating type and quality for work under this section, Drawings and Specifications are based on products manufactured by Armstrong.

B. Subject to compliance with requirements acceptable manufacturers include Kentile, or approved equal.

2.2 Base Materials:

A. Uniform in thickness. As long lengths as practicable to suit conditions of installation.

B. Base: FS SS-W-4D, Type II, 4 inch high rubber coved base.

C. Base Accessories: Pre-molded end stops and external corners of same material, size, and color as base.

D. Color: As selected by A/E from manufacturer's standard colors.

2.3 Application Materials: Provide type and brands of adhesive as recommended by manufacturer of covering material for the conditions of the installation.

PART 3: EXECUTION

3.1 Inspection of Surfaces: Examine substrates for excessive moisture content and unevenness which would prevent execution and quality of resilient base specified.

3.2 Preparation: Remove dirt, oil, grease, or other foreign matter from surfaces to receive base materials. Prime surfaces if recommended by base covering manufacturer.

3.3 Application of Adhesives: Mix and apply adhesives in accordance with manufacturer's instructions. Apply uniformly over surfaces. Cover only that amount of area which can be covered by base material within the recommended working time of the adhesive. Remove any adhesive which dries or films over. Do not soil adjacent areas. Promptly remove any spillage.

3.4 Installation of Base:

A. Install base around perimeter of room or space and at toe-space of cabinets, shelves, etc. Unroll base material and cut into accurate lengths as required for minimum number of joints. Match edges of all seams or double cut adjoining lengths. Install with tight butt joints.

B. Apply adhesive and firmly adhere to wall surfaces. Press down so that bottom cove edge follows floor profile. Form external corners by coping and bending sufficient length around corner for anchorage. Form internal corners by mitering. Do not use pre-molded interior corners. Scribe base accurately to abutting materials.

3.5 Finishing and Cleaning: Upon completion of the installation of base, adjacent work, and after materials have set, clean surface with a neutral cleaner as recommended by the floor covering manufacturer. Protect completed work from damage until acceptance by Owner.

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SECTION 09910A: EXTERIOR PAINTING

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 necessary materials, labor and equipment for the complete painting of exposed surfaces, as shown on the drawings and specified herein. Complete coverage of all new exposed surfaces within areas affected by work of this contract is intended unless otherwise indicated. Examine the Specifications for the various trades and materials and be thoroughly familiar with all provisions regarding painting. Paint all new exposed piping, conduit, etc. directly related to work included in this Contract. Color code exposed piping, ducts, conduit, etc., as directed by A/E. Provide all necessary supplementary items for a complete installation intended by documents.

1.3 Quality Assurance:

A. Include on label of containers: Manufacturer's name, type of paint, manufacturer' stock number, color, and instructions for reducing, where applicable.

B. Field Quality Control: Request review of first finished room, space, or item of each color scheme required by A/E for color, texture, and workmanship. Use first acceptable room, space, or item as project standard for each color scheme.

C. MPI Standards:

1. Products: Complying with MPI standards indicated and listed in "MPI Approved Products List".

2. Preparation and Workmanship: Comply with requirements in "MPI Architectural Painting Specification Manual" for products and paint systems indicated.

1.4 Submittals:

A. Furnish tests and samples of materials as acceptable to the A/E. Submit manufacturer's analysis of paint if requested. Pigment percentage shall be not less than that in specified coatings.

B. Submit manufacturer's color chips if requested by A/E for preparation of a color selection and location schedule. A/E may vary colors after inspecting sample room, space, or item.

C. Submit in accordance with requirements of Division 1.

1.5 Product Delivery, Storage, and Handling: Deliver sealed containers with labels legible and intact. Store only acceptable project materials on project site, in a suitable location. Restrict storage to paint materials and related equipment. Comply with health and fire regulations.

1.6 Job Conditions: Comply with manufacturer's recommendations as to environmental conditions under which coatings and coating systems can be applied. Do not apply finish in areas where dust is being generated. Cover or otherwise protect finished work of other trades and surfaces not being painted concurrently or not to be painted.

1.7 Extra Stock: Turn over to the Owner at final inspection one (1) gallon of each type and final color of finish used on this project.

PART 2: PRODUCTS:

2.1 Acceptable Manufacturers: Drawings and specifications are based on products manufactured by Sherwin Williams, Pittsburgh Paints or Benjamin Moore.

2.2 Materials: Materials selected for coating systems for each type surface shall be the product of a single manufacturer. Only first-line architectural grade coatings will be acceptable.

2.3 Colors: Colors of paints shall match color chips submitted to the A/E for selection and shall match approved shades in sample areas.

2.4 Mixing and Tinting: Deliver paints ready-mixed to job site. Accomplish job mixing and tinting only when acceptable to the A/E. Mix only in mixing pails placed in suitably sized non-ferrous or oxide resistant metal pans. Use tinting colors recommended by manufacturer for the specific type of finish. Fungicidal agent shall be incorporated into the paint by the manufacturer.

2.5 No paint shall contain more than 0.06% lead by weight calculated as lead metal in the total non-volatile content of liquid paints or in the dried film of paint already applied.

PART 3: EXECUTION

3.1 Inspection: Examine surfaces scheduled to receive paint and finishes for conditions that will adversely affect execution permanence, or quality of condition through preparatory work as included in Article 3.2 Preparation. Do not proceed with surface preparation or coating application until conditions are suitable.

3.2 Surface Preparation:

A. Strictly follow paint manufacturer's surface preparation recommendations for all surfaces.

B. Protect items not to be painted or removed prior to painting. If required to be removed, reposition after painting.

C. Make any exposed miscellaneous metal items, such as steel supports, anchors, bucks, hollow metal frames and the like clean, free of rust, dust, grease and dirt.

D. Wash any unprimed galvanized metal with a solution of "Galva-Clean"; allow to dry.

E. Make any wood and plywood surfaces clean, smooth, dry, and fully sanded. Knots and pitch pockets under paint finish shall be sealed with knot sealer.

Fill joints, cracks, nail holes, disfigurations, etc. with wood filler after priming; then sand smooth.

F. Seal any concrete, masonry, plaster and similar surfaces to be painted and fill to smooth, even surfaces after neutralizing with a wash of 4 lbs. sulphate of zinc and one (1) gallon water. Concrete block to be filled with manufacturer's recommended block filler except where noted herein. Remove grease or oil with benzine.

G. Comply strictly with manufacturer's instructions for preparation of previously painted surfaces.

3.3 Workmanship:

A. Do all work under supervision of capable foreman.

B. Thoroughly cover with uniform color and finish; the number of coats specified being a minimum, provide any additional coats to produce Work satisfactory to A/E.

C. Any air registers and grilles, flanges around ceiling fixtures, exposed electrical panel boards, primed hardware, etc., shall be painted to match adjacent surfaces, unless otherwise directed.

3.4 Application:

A. Strictly follow paint manufacturer's application recommendations and information.

B. Do not apply initial coating until moisture content of surface is within limitations recommended by paint manufacturer. Test with moisture meter (Delmhorst or equal). At concrete block, reading shall be not more than 15 degrees before block fill is applied. Do not apply finish coats over block fill unless reading is less than 15 degrees. Notify A/E to be present when readings are taken.

C. Apply finishes with suitable brushes or rollers. Rate of application shall not exceed that as recommended by paint manufacturer for the surface involved less ten percent allowance for losses. Keep brushes and rollers clean, dry, free from contaminates, and suitable for the finish required.

D. Comply with recommendation of product manufacturer for drying time between succeeding coats. Vary slightly the color of successive coats.

E. Sand and dust between each coat to remove defects visible from a distance of five (5') feet. Finish coats shall be smooth, free of brush marks, streaks, laps, or pile up of paints, and skipped or missed areas. Finished metal surfaces shall be free of skips, voids, or pinholes in any coat when tested with a low voltage detector.

F. Do no apply additional coats until completed coat has been inspected by the A/E. Only inspected coats of paint will be considered in determining number of coats applied.

G. Leave all parts of molding and ornaments clean and true to details with no undue amount of paint in corners and depressions. Make edges of paint adjoining other materials or colors clean and sharp with no overlapping.

H. Apply primer and first coat on all new glass frames and stops before glazing.

I. Provide tops, bottoms, edges and sides of all doors with complete number of specified coats. Note that hardware is to be removed from doors prior to painting.

J. Refinish whole wall where portion of finish has been damaged or is not acceptable.

3.5 Cleaning: Touch-up and restore finish where damaged. Remove spilled, splashed, or splattered paint from all surfaces. Do not mar surface finish of item being cleaned. Leave storage space clean and in condition required for equivalent spaces in project.

3.6 Painting Schedule:

A. Surfaces Not To Be Painted:
   1. Pre-finished wall, ceiling, and floor coverings.
   2. Items of aluminum, stainless steel, other plated finish.
   3. Concealed ducts, pipes, and conduit.
   4. All other surfaces shall be painted. Contractor shall submit painting schedule to A/E as a shop drawings for review.
   5. All new surfaces and their adjacent surfaces corner to corner shall painted.

B. Miscellaneous Materials: Thinners, cleaners, other materials shall be only as recommended by coatings manufacturer.

C. Exterior Painting Schedule:
   1. Galvanized Steel and Non-Ferrous Metals:
      a. Surface Preparation: Solvent Cleaning (SSPC-SPI).
      b. First and Second Coats: SW Macropoxy 646 Fast Cure Epoxy.
   2. Ferrous Materials:
      a. Touch-Up: SW Pro-Cryl Universal Metal Primer.
      b. First Coat: SW Sher-Cryl HPA Acrylic.
      c. Second Coat: SW Sher-Cryl HPA Acrylic.
   3. Portland Cement Plaster – Elastomeric System, Flat Finish
      a) 1st Coat: S-W Loxon Concrete & Masonry Primer Sealer, A24W8300, (8 mils wet, 3.2 mils dry).
      b) 2nd Coat: S-W ConFlex XL Elastomeric High Build Coating, A5-400 Series.
      c) 3rd Coat: S-W ConFlex XL Elastomeric High Build Coating, A5-400 Series, (16 mils wet, 7.5 mils dry per coat).
   4. Pressure-Treated Exposed Wood:
      a) 1st Coat: Super Deck Exterior Waterborne Semi-Transparent Stain, SD3T00025.
      b) 2nd Coat: Super Deck Exterior Waterborne Clear Sealer, SD1T00100, Clear.
      c) 3rd Coat: Super Deck Exterior Waterborne Clear Sealer, SD1T00100, Clear.

D. Verify Existing Coatings: Contractor shall verify that new coatings are compatible with existing coatings. Obtain written verification from new coating manufacturer. Existing surfaces that have an existing coating shall be prepared, cleaned and primed in strict accordance with new coating manufacturer's instructions. Provide recommended primers and finish coats to obtain desired finishes. Verify any incompatible coatings with new coating manufacturer.

E. Locations:

1. All other ferrous metal within spaces where the walls are to have epoxy finish shall have epoxy finish also; where walls are painted, provide painted finish.
2. Exterior plaster repair to match adjacent existing.

* * *

SECTION 09920A: INTERIOR PAINTING

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 necessary materials, labor and equipment for the complete finish painting of exposed surfaces, as shown on the Drawings and specified herein. Complete coverage of all new exposed surfaces within areas affected by work of this contract is intended unless otherwise indicated. Examine the Specifications for the various trades and materials and be thoroughly familiar with all provisions regarding painting. Paint all new exposed piping, conduit, panels, roof vents, etc. in finished spaces. Refer to Mechanical and Electrical Divisions for any required color coding of piping, ducts, etc. Color code exposed piping, ducts, conduit, etc. as directed by A/E. Provide all necessary supplementary items for a complete installation intended by documents.

1.3 Quality Assurance:

A. Include on label of containers: Manufacturer's name, type of paint, manufacturer's stock number, color, and instructions for reducing, where applicable.

B. Field Quality Control: Request review of first finished room, space, or item of each color scheme required by A/E for color, texture, and workmanship. Use first acceptable room, space, or item as project standard for each color scheme.

1.4 Submittals:

A. Furnish tests, samples of materials as acceptable to the A/E. Submit manufacturer's analysis of paint if required. Pigment % shall be not less than in specified sections.

B. Submit manufacturer's color chips if requested by A/E for preparation of a color selection and location schedule. A/E may vary colors after inspecting sample room, space, or site.

C. Submit in accordance with requirements of Division 1.

1.5 Product Delivery, Storage, and Handling: Deliver sealed containers with labels legible and intact. Store only acceptable project materials on project site, in a suitable location. Restrict storage to paint materials and related equipment. Comply with health and fire regulations.

1.6 Job Conditions: Comply with manufacturer's recommendations as to environmental conditions under which coatings and coating systems can be applied. Do not apply finish in areas where dust is being generated. Cover or otherwise protect finished work of other trades and surfaces not being painted concurrently or not to be painted.

1.7 Extra Stock: Turn over to the Owner at final inspection one (1) gallon of each type and final color of finish used on this project.

1.8 Surfaces to be Coated:

A. Concrete: Poured, Pre-cast, Tilt-Up, Cast-in-Place, Cement Board, Plaster
B. Concrete: Floors
C. Masonry: (CMU – Concrete, Split face, Scored, Smooth, etc)
D. Metal: Aluminum, Galvanizing
E. Metal: (Structural Steel, Joists, Trusses, Beams, Partitions, etc.) All metal duct work exposed to view.
F. Wood: Walls, Ceilings, Doors, Trim, etc.
D. Drywall: Walls, Ceilings, Soffits.

PART 2: PRODUCTS

2.1 Acceptable Manufacturers:

A. For purposes of designating type and quality for the work under this section, Drawings and specifications are based on products manufactured by Sherwin Williams, unless otherwise indicated.
B. Subject to compliance with requirements, acceptable manufacturers include Sherwin Williams, Pittsburg Paints, Benjamin Moore or approved equal.

2.2 Lead Content: No paint shall contain more than 0.06% lead by weight calculated as lead metal in the total non-volatile content of liquid paints or in the dried film of paint already applied.

2.3 Materials selected for coating systems for each type surface shall be the product of a single manufacturer. Only first-line Architectural grade coatings will be acceptable.

2.4 Colors: Colors of paints shall match color chips submitted to the A/E for selection and shall match approved shades in sample areas.

2.5 Mixing and Tinting: Deliver paints ready-mixed to job site. Accomplish job mixing and tinting only when acceptable to the A/E. Mix only in mixing pails placed in suitably sized non-ferrous or oxide resistant metal pans. Use tinting colors recommended by manufacturer for the specific type of finish. Fungicidal agent shall be incorporated into the paint by the manufacturer.

PART 3: EXECUTION

3.1 Inspection: Examine surfaces scheduled to receive paint and finishes for conditions that will adversely affect execution permanence, or quality of work and which cannot be put into an acceptable condition through preparatory work as included in Article 3.2 Preparation. Do not proceed with surface preparation or coating application until conditions are suitable.

3.2 Surface Preparation:

A. Strictly follow paint manufacturer's surface preparation recommendations for all surfaces.

B. Protect items not to be painted or remove prior to painting. If required to be removed, reposition after painting.

C. Make any exposed miscellaneous metal items, such as steel supports, anchors, bucks, hollow metal frames and the like clean, free of rust, dust, grease and dirt.

D. Wash any unprimed galvanized metal with a solution of "Galva-Cleane"; allow to dry.

E. Make any wood and plywood surfaces clean, smooth, dry, and fully sanded. Knots and pitch pockets under paint finish shall be sealed with knot sealer. Fill joints, cracks, nail holes, disfigurations, etc. with wood filler after priming; then sand smooth.

F. Seal any concrete, masonry, plaster and similar surfaces to be painted and fill to smooth even surfaces after neutralizing with a wash of four (4) pounds sulphate of zinc and one (1) gallon of water. Concrete block to be filled with manufacturer's recommended block filler except where noted herein. Remove grease or oil wit benzine.

G. Clean thoroughly any wallboard surfaces to be painted. Spackle any nail holes after primer has dried. Sand smooth all rough surfaces.

H. Comply strictly with manufacturer's instructions for preparation of previously painted surfaces.

3.3 Workmanship:

A. Do all Work under supervision of capable foreman.

B. Thoroughly cover with uniform color and finish; the number of coats specified being a minimum, provide any additional coats to produce Work satisfactory to A/E.

C. Any air registers and grilles, flanges around ceiling fixtures, exposed electrical panelboards, primed hardware, etc., shall be painted to match adjacent surfaces, unless otherwise directed.

3.4 Application:

A. Strictly follow paint manufacturer's application recommendations and information.

B. Do not apply initial coating until moisture content of surface is within limitations recommended by paint manufacturer. Test with moisture meter (Delmhorst or equal). At concrete block, reading shall be not more than 15 degrees before block fill is applied. Do not apply finish coats over block fill unless reading is less than 15 degrees. Notify A/E to be present when readings are taken.

C. Apply finishes with suitable brushes or rollers. Rate of application shall not exceed that as recommended by paint manufacturer for the surface involved less 10 percent allowance for losses. Keep brushes and rollers clean, dry, free from contaminates and suitable for the finish required.

D. Comply with recommendation of product manufacturer for drying time between succeeding coats. Vary slightly the color of successive coats.

E. Sand and dust between each coat to remove defects visible from a distance of five (5') feet. Finish coats shall be smooth, free of brush marks, streaks, laps, or pile up of paints, and skipped or missed areas. Finished metal surfaces shall be free of skips, voids, or pinholes in any coat when tested with a low voltage detector.

F. Do not apply additional coats until completed coat has been inspected by the A/E. Only inspected coats of paint will be considered in determining number of coats applied.

G. Leave all parts of moldings and ornaments clean and true to details with no undue amount of paint in corners and depressions. Make edges of paint adjoining other materials or colors clean and sharp with no overlapping.

H. Apply primer and first coat on all new glass frames and stops before glazing.

I. Provide tops, bottoms, and sides of all new doors with complete number of specified coats. See Division 8; note that hardware is to be removed from doors prior to painting.

J. Refinish whole wall where portion of finish has been damaged or is not acceptable.

3.5 Cleaning: Touch-up and restore finish where damaged. Remove spilled, splashed, or splattered paint from all surfaces. Do not mar surface finish of item being cleaned. Leave storage space clean and in condition required for equivalent spaces in project.

3.6 Verify Existing Coatings: Contractor shall verify that new coatings are compatible with existing coatings. Obtain written verification from new coating manufacturer. Existing surfaces that have an existing coating shall be prepared, cleaned and primed in strict accordance with new coating manufacturer's instructions. Provide recommended primers and finish coats to obtain desired finishes. Verify any incompatible coatings with new coating manufacturer.

3.7 Painting Schedule (Sherwin Williams Paints unless otherwise noted.)

A. Surfaces Not To Be Painted:
   1. Pre-finished wall, ceiling, and floor coverings.
   2. Items of aluminum, stainless steel, other plated finish.
   3. Concealed ducts, pipes, and conduit.
   4. All other surfaces shall be painted. Contractor shall submit painting schedule to A/E as a shop drawings for review painting schedule to A/E as a shop drawings for review.
   5. **EDIT AS APPROPRIATE FOR RENOVATION PROJECTS.** All new surfaces and their adjacent surfaces corner to corner shall painted.

B. Miscellaneous Materials: Thinners, cleaners, other materials shall be only as recommended by coatings manufacturer.

C. Interior Painting Schedule:
   1. Ferrous Metals (Painted):
      a. First Coat: SW Pro-Cryl Universal Metal Primer.
      b. Second and Third Coats: SW Pro-Mar Alkyd Egg-Shell, B33.
   2. Ferrous Metals (Epoxy):

a. First Coat: SW Pro-Cryl Universal metal Primer.
b. Second and Third Coats: SW Pro Industrial Hi-Build Waterbased Catalyzed Epoxy.

3. Gypsum Board (Epoxy):
   a. First coat: SW Pro Mar 200 Wall Primer.
   b. Second and third coats: SW Pro Industrial Hi-Build Waterbased Catalyzed Epoxy.
4. Gypsum Board Walls (Latex):
   a. Texture: Orange Peel
   b. First Coat: SW Prom Mar 200 Wall Primer.
   c. Second and Third Coats: SW Pro Mar 200 Latex, Egg-Shell.
5. Gypsum Board Ceilings (Latex):
   a. Texture: Orange Peel
   b. First Coat: SW Hi-Build Primer.
   c. Second and Third Coats: SW Pro Mar 400 Latex, Flat.

D. Locations:
   1. See Finish Schedule on the Drawings for wall and ceiling finishes.
   2. All ferrous metal within spaces where the walls are to have epoxy finish shall have epoxy finish; where walls are painted, provide painted finish.

E. Verify Existing Coatings: Contractor shall verify that new coatings are compatible with existing coatings. Obtain written verification from coating manufacturer. Provide recommended primers and finish coats to obtain desired finishes. Verify any incompatible coatings with coating manufacturer.

* * *

Matt Kuhlman

Midsouth Specialty Products

Aug 22, 2025 | 27 Photos

ROOFING INSPECTION

BUR Gravel Side of Expansion Joint

ROOF CORE #1 (Next to expansion Joint)

Roof deck = Structural Concrete

Existing Roof = 2" poly iso base layer mopped to concrete/Tapered Perlite/ BUR Gravel asphalt

Thickness from Deck to top of Roof 7"

Drainage = Roof Drains

ROOF CORE #4 (next to wall panels)

Roof deck = Structural Concrete

Existing Roof = 2" poly iso base layer mopped to concrete/Tapered Perlite/ BUR Gravel asphalt

Thickness from Deck to top of Roof =8"

1



Roof Core #1 (BUR Gravel Surface Asphalt)

Project: Sewage And Water Board Engineering Bldg
Date: Aug 19, 2025, 9:15 AM
Creator: Matt Kuhlman

2



Roof Core #1 Top of Perlite Tapered

Project: Sewage And Water Board Engineering Bldg
Date: Aug 19, 2025, 9:16 AM
Creator: Matt Kuhlman

3



Roof Core #1 down to top of Polyiso Insulation

Project: Sewage And Water Board Engineering Bldg
Date: Aug 19, 2025, 9:19 AM
Creator: Matt Kuhlman

4



Roof Core #1 depth of Tapered Perlite =5"

Project: Sewage And Water Board Engineering Bldg
Date: Aug 19, 2025, 9:19 AM
Creator: Matt Kuhlman

5



Roof Core #1 depth to concrete deck = 7"

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Date: Aug 19, 2025, 9:22 AM
Creator: Matt Kuhlman

6



Roof Core #1 Water on concrete deck

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Date: Aug 19, 2025, 9:22 AM
Creator: Matt Kuhlman

7



Wall Panel with Wood Strips over Joints

Project: Sewage And Water Board Engineering Bldg
Date: Aug 19, 2025, 10:01 AM
Creator: Matt Kuhlman

8



Roof Core #4 Flashing Height at Wall =5-1/2"

Project: Sewage And Water Board Engineering Bldg
Date: Aug 19, 2025, 10:01 AM
Creator: Matt Kuhlman

9



Roof Core #4 (at wall BUR SIDE)

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Date: Aug 19, 2025, 10:03 AM
Creator: Matt Kuhlman

10



Roof Core #4 top of Tapered Perlite

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Date: Aug 19, 2025, 10:04 AM
Creator: Matt Kuhlman

11



Roof Core #4

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Date: Aug 19, 2025, 10:07 AM
Creator: Matt Kuhlman

12



Roof Core #4 Depth to top of Polyiso Insulation =6"

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Date: Aug 19, 2025, 10:08 AM
Creator: Matt Kuhlman

13



Roof Core #4 Depth from Concrete to top of roof 8"

Project: Sewage And Water Board Engineering Bldg
Date: Aug 19, 2025, 10:09 AM
Creator: Matt Kuhlman

14



Copper Standing Seam and Flashing
(New roof should run under the existing Copper Standing Seam)

Project: Sewage And Water Board Engineering Bldg
Date: Aug 19, 2025, 9:11 AM
Creator: Matt Kuhlman

15



Existing Square Penetrations
(Can get rid of pitch pocket and install liquid flashing)

Project: Sewage And Water Board Engineering Bldg
Date: Aug 19, 2025, 9:11 AM
Creator: Matt Kuhlman

16



Square penetrations

Project: Sewage And Water Board Engineering Bldg
Date: Aug 19, 2025, 9:12 AM
Creator: Matt Kuhlman

SBS Roof Side of Expansion Joint

ROOF CORE #2 (Next to expansion Joint)

Roof deck = FLAT STEEL DECK

Existing Roof = 2" poly iso base layer mech attached to Steel/Tapered Perlite/ 2 ply SBS (Copper Clad Flashing)

(Note: Copper Clad flashing no longer available)

Thickness from Deck to top of Roof 9" at expansion Joint

Drainage = Perimeter edge

ROOF CORE #3 (back near gutter edge)

2" poly iso base layer mech attached to Steel/Tapered Perlite/ 2 ply SBS

Thickness from Deck to top of Roof 3-1/2"-4" near gutter

1



Roof Core #2 next to expansion joint

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Date: Aug 19, 2025, 9:24 AM
Creator: Matt Kuhlman

2



Roof Core #2 Top of Tapered Perlite

Project: Sewage And Water Board Engineering Bldg
Date: Aug 19, 2025, 9:24 AM
Creator: Matt Kuhlman

3



Roof Core #2 Depth to top of 2" Polyiso =7"

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Creator: Matt Kuhlman

4



Roof Core #2 Depth to Steel Deck =9"

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Date: Aug 19, 2025, 9:36 AM
Creator: Matt Kuhlman

5



Roof Core #2 down to steel deck

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Date: Aug 19, 2025, 9:37 AM
Creator: Matt Kuhlman

6



Project: Sewage And Water Board Engineering Bldg
Date: Aug 19, 2025, 9:12 AM
Creator: Matt Kuhlman

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Expansion Joint Height above roof =7"

Project: Sewage And Water Board Engineering Bldg
Date: Aug 19, 2025, 9:24 AM
Creator: Matt Kuhlman

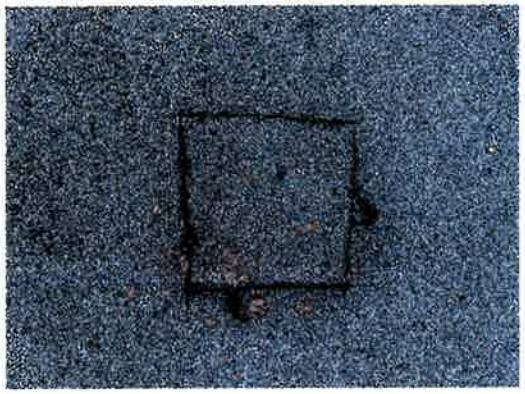
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Roof Core #3 Location

Project: Sewage And Water Board Engineering Bldg
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Creator: Matt Kuhlman

9



Roof Core #3

Project: Sewage And Water Board Engineering Bldg
Date: Aug 19, 2025, 9:50 AM
Creator: Matt Kuhlman

10



Roof Core #3 Top of Tapered Perlite

Project: Sewage And Water Board Engineering Bldg
Date: Aug 19, 2025, 9:50 AM
Creator: Matt Kuhlman

11



Roof Core #3 =2" Iso and 1-1/2 Tapered Perlite

Project: Sewage And Water Board Engineering Bldg
Date: Aug 19, 2025, 9:52 AM
Creator: Matt Kuhlman

SEWERAGE AND WATER BOARD OF NEW ORLEANS

ENGINEERING DEPARTMENT

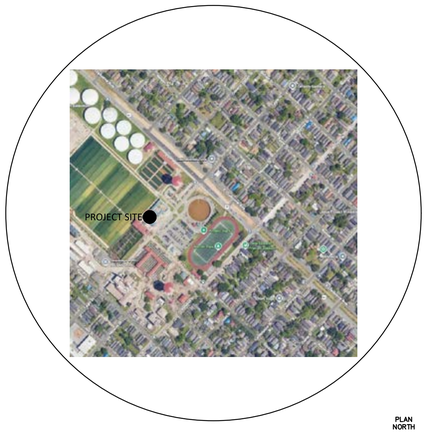
CONTRACT 8174

REPAIRS TO THE ENGINEERING BUILDING

8800 S. CLAIBORNE AVENUE, NEW ORLEANS, LOUISIANA 70118

A/E PROJECT NUMBER: 25-1130-0046

SHEET No.	TITLE	SHEET No.	TITLE
G001	TITLE SHEET, SITE PLAN	S000	EXISTING ROOF FRAMING PLAN (REFERENCE ONLY)
G002	GENERAL INFORMATION	S100	WIND PRESSURE DIAGRAM
G003	GENERAL NOTES	S101	WIND PRESSURE DIAGRAM
G004	PHOTOGRAPHS, KEYNOTES	S102	TRUSS DETAIL
G005	PHOTOGRAPHS, KEYNOTES, DETAILS		
A101	DEMOLITION/ REMEDIAL FIRST FLOOR PLAN		
A102	DEMOLITION/ REMEDIAL SECOND FLOOR PLAN		
A201	DEMOLITION/ REMEDIAL EXTERIOR ELEVATIONS		
A300	PHOTOGRAPHS, KEYNOTES		
A301	PHOTOGRAPHS, KEYNOTES		
A302	ROOF PLAN, GENERAL AND KEYNOTES, LEGEND		
A303	ROOF DETAILS		



SITE OR LOCATION PLAN

PLAN NORTH

THIS ACKNOWLEDGES THAT THE ATTACHED DRAWINGS HAVE BEEN RECEIVED BY THE SEWERAGE & WATER BOARD OF NEW ORLEANS AND HEREBY FORWARDED FOR PROCUREMENT. THE SEWERAGE & WATER BOARD OF NEW ORLEANS DOES NOT RELEASE CONSULTANT/DESIGNER FROM ANY LEGAL LIABILITY THAT MAY ARISE FROM THE BOARD'S ACCEPTANCE OR USE OF THE ATTACHED DRAWINGS FOR THEIR INTENDED PURPOSE.

GENERAL SUPERINTENDENT

project no. 25-1130-0046
drawn CSHB
checked AD
date 12.18.2025
revised

ALFONSO F. ROMERO
REG. NO. 9380
STATE OF LOUISIANA
REGISTERED ARCHITECT

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ENGINEERS + ARCHITECTS

TITLE SHEET, SITE PLAN

REPAIRS TO THE ENGINEERING BUILDING
8800 S. Claiborne Avenue, New Orleans, LA 70118
CONTRACT: 8174, SWB DWG NO: 12312-W-43

sheet no.
G001

1 of 16 sheets

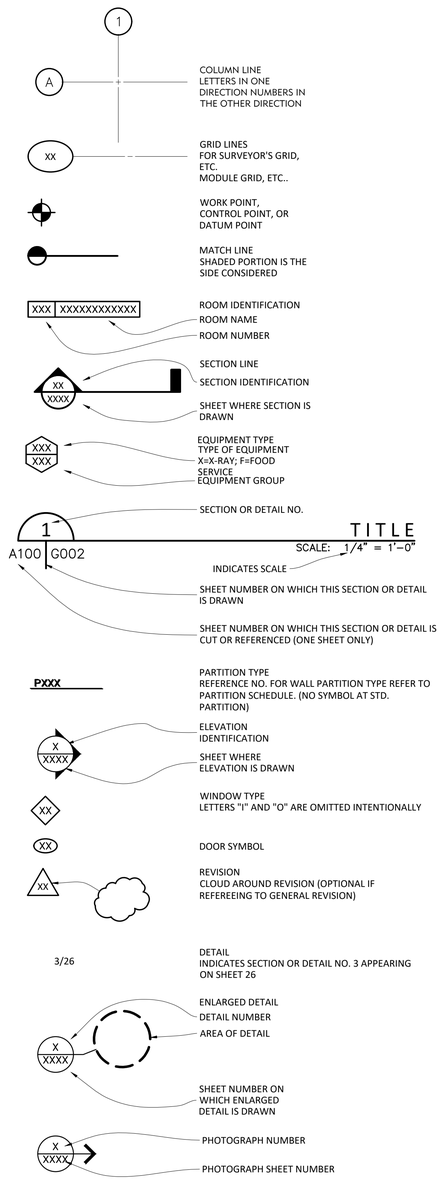
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ABBREVIATIONS

&	AND	F.E.C.	FIRE EXTINGUISHER CAB.	PREFAB.	PREFABRICATED
L	ANGLE	F.F.	FACE OF FOUNDATION	PREFIN.	PRE-FINISHED
@	AT	F.H.C.	FIRE HOSE CABINET	PT.	POINT
℄	CENTERLINE	FIN.	FINISH	P.T.D.	PAPER TOWEL DISPENSER
ø	DIAMETER OR ROUND	FL.	FLOOR	P.T.D./R.	COMBINATION PAPER TOWEL DISPENSER & RECEPTACLE
#	POUND OR NUMBER	FLASH.	FLASHING		
ACOUS.	ACOUSTICAL	FLG.	FLOORING	PTN.	PARTITION
ACT.	ACTUAL	FLOUR.	FLUORESCENT	P.T.R.	PAPER TOWEL RECEPTACLE
ADD.	ADDENDUM				
A.D.	AREA DRAIN	F.O.C.	FACE OF CONCRETE	Q.T.	QUARRY TILE
ADJ.	ADJUSTABLE	F.O.F.	FACE OF FINISH	QT.	QUART
A.F.F.	ABOVE FINISHED FLOOR	F.O.S	FACE OF STUDS	QTR.	QUARTER
AGGR.	AGGREGATE	F.P.M.	FEET PER MINUTE	QUANT.	QUANTITY
AL.	ALUMINUM	FPRF.	FIRE PROOF	1/4 RD.	QUARTER-ROUND
ALT.	ALTERNATIVE	F.R.	FIRE RATED		
APPROX.	APPROXIMATE	F.S.	FULL SIZE	R.	RISER
APT.	APARTMENT	FT.	FOOT OR FEET		
ARCH.	ARCHITECTURAL	FTG.	FOOTING	RAD.	RADIUS
ASB.	ASBESTOS	FURR.	FURRING	RCP.	REINF. CONC. PIPE
ASPH.	ASPHALT	FUT.	FUTURE	RD.	ROAD
AVE.	AVENUE			R.D.	ROOF DRAIN
AVG.	AVERAGE	GA.	GAUGE	REF.	REFERENCE
		GAL.	GALLON	REFR.	REFRIGERATOR
BD.	BOARD	GALV.	GALVANIZED	RGTR.	REGISTER
BITUM.	BITUMINOUS	G.B.	GRAB BAR	REINF.	REINFORCED
BLDG.	BUILDING	G.L.	GRADE LINE	REQ.	REQUIRED
BLK.	BLOCK	GL.	GLASS	RESIL.	RESILIENT
BLKG.	BLOCKING	GND.	GROUND	RM.	ROOM
B.L.	BUILDING LINE	G.P.M	GALLONS PER MINUTE	RNG.	RANGE
BM.	BEAM	GR.	GRADE	R.O.	ROUGH OPENING
B.M.	BENCH MARK	GYP.	GYPSUM	R.P.M.	REVOLUTIONS PER MINUTE
BOT.	BOTTOM			RT.	RIGHT
BRG.	BEARING	H.B.	HOSE BIB	RWD.	REDWOOD
BRS.	BRASS	H.C.	HOLLOW CORE	R.E.L.	RAIN WATER LEADER
BRZ.	BRONZE	H/C	HANDICAPPED		
B&S.	BELL & SPIGOT	HDWD.	HARDWOOD	S.	SOUTH
		HDWE.	HARDWARE	S.A.T.	SUSPENDED ACOUS. TILE
CAB.	CABINET	H.M.	HOLLOW METAL	S.C.	SOLID CORE
C.B.	CATCH BASIN	HORIZ.	HORIZONTAL	S.C.D.	SEAT COVER DISPENSER
CEM.	CEMENT	HR.	HOUR	SCHED.	SCHEDULE
CER.	CERAMIC	HGT.	HEIGHT	S.D.	SOAP DISPENSER
C.F.M.	CUBIC FEET PER MINUTE			SYS.	SYSTEM
C.G.	CORNER GUARD	I.O.	INSIDE DIAMETER	SECT.	SECTION
C.I.	CAST IRON	INSUL.	INSULATION	SH.	SHELF
C.J.	CONTRACTION JOINT	INT.	INTERIOR	SHR.	SHOWER
C.S.P.	CORRUGATED STEEL PIPE	INV.	INVERT	SHT.	SHEET
CLG.	CEILING			SIM.	SIMILAR
CLKG.	CAULKING	JAN.	JANITOR	S.N.D.	SANITARY NAPKIN DISPENSER
CLO.	CLOSET	J.B.	JUNCTION BOX	S.N.R.	SANITARY NAPKIN RECEPTACLE
CLR.	CLEAR	JT.	JOINT		
C.M.U.	CONCRETE MASONRY UNIT			SPEC.	SPECIFICATION(S)
CNTR.	COUNTER	KIT.	KITCHEN	SQ.	SQUARE
C.O.	CLEAN OUT			S.ST.	STAINLESS STEEL
COL.	COLUMN	LAB.	LABORATORY	S.SK.	SERVICE SINK
CONC.	CONCRETE	LAM.	LAMINATE	STA.	STATION
CONN.	CONNECTION	LAV.	LAVATORY	STD.	STANDARD
		LB.	POUND	STL.	STEEL
CONSTR.	CONSTRUCTION	LT.	LIGHT	STOR.	STORAGE
CONT.	CONTINUOUS	LIN.	LINEAR	STRL.	STRUCTURAL
CORR.	CORRIDOR	LKR.	LOCKER	SUSP.	SUSPENDED
CTSK.	COUNTERSUNK	LL.	LIVE LOAD	SYM.	SYMMETRICAL
CTR.	CENTER	LT.	LEFT		
CU.FT.	CUBIC FEET			T.	TEE
CU.YD.	CUBIC YARDS	MAX.	MAXIMUM	T/C	TOP OD CASTING
		M.C.	MEDICAL CABINET		TOP OF CONCRETE
DLB.	DOUBLE	MECH.	MECHANICAL	TRANS.	TRANSFORMER
DEPT.	DEPARTMENT	MEMB.	MEMBRANE	TRD.	TREAD
D.F.	DRINKING FOUNTAIN	MFR.	MANUFACTURER	T.B.	TOWEL BAR
DET.	DETAIL	MH.	MANHOLE	T/C	TOP OF CURB
DIA.	DIAMETER	MIN.	MINIMUM	TEL.	TELEPHONE
DIM.	DIMENSION	MIR.	MIRROR	TER.	TERRAZZO
DISP.	DISPENSER	MISC.	MISCELLANEOUS	T.&G.	TONGUE & GROOVE
DN.	DOWN	M.K.J.	METAL-KEYED JOINT	THK.	THICK
D.O.	DOOR OPENING	M.O.	MASONRY OPENING	T/P	TOP OF PAVEMENT
DR.	DOOR	M.P.H.	MILES PER HOUR	T.P.D.	TOILET PAPER DISPENSER
DWR.	DRAWER	MBLT.	MARBLE THRESHOLD	T/S	TOP OF STEEL
DS.	DOWNSPOUT	M.T.	METAL THRESHOLD	T.V.	TELEVISION
D.S.P.	DRY STANDPIPE	MTL.	METAL	T/W	TOP OF WALL
DTL	DETAIL	MTD.	MOUNTED	TYP.	TYPICAL
DWG.	DRAWING	MIL.	MILLION		
				UNF.	UNFINISHED
E.	EAST	N.	NORTH	U.O.N.	UNLESS OTHERWISE NOTED
EA.	EACH	N/A	NOT APPLICABLE	UR.	URINAL
E.I.F.S	EXTERIOR INSULATION & FINISH SYSTEM	N.I.C.	NOT IN CONTRACT		
		NO. or #	NUMBER	V.	VOLTS
E.J.	EXPANSION JOINT	NOM.	NOMINAL	V.C.T.	VINYL COMPOSITION TILE
EL.	ELEVATION	N.T.S.	NOT TO SCALE	VERT.	VERTICAL
ELEC.	ELECTRICAL			VEST.	VESTIBULE
ELEV.	ELEVATOR	O.A.	OVERALL	VOL.	VOLUME
EMER.	EMERGENCY	OBS.	OBSCURE	VOJ.	VERIFY ON JOB
ENCL.	ENCLOSURE	O.C.	ON CENTER	V.W.C	VINYL WALL COVERING
E.P.	ELECTRICAL PANELBOARD	O.D.	OUTSIDE DIAMETER		
EQ.	EQUAL	OFF.	OFFICE	W.	WEST
EQPT.	EQUIPMENT	OPNG.	OPENING	W/	WITH
E.W.C.	ELECTRIC WATER COOLER	OPP.	OPPOSITE	W.C.	WATER CLOSET
EXIST.	EXISTING			WD.	WOOD
EXPO.	EXPOSED	PL.	PLATE	W.H.	WATER HEATER
EXP.	EXPANSION	P.LAM.	PLASTIC LAMINATE	W/O	WITHOUT
EXT.	EXTERIOR	PLAS.	PLASTER	WP.	WATER PROOF
		PLYWD.	PLYWOOD	WSCT.	WAINSCOT
F.A.	FIRE ALARM	P.M.S.	PRE-FINISHED METAL SIDING	WT.	WEIGHT
F.B.	FLAT BAR	PNL.	PANEL	W.G.	WATER GAGE
F.D.	FLOOR DRAIN	POS.	POSITIVE		
FDN.	FOUNDATION	PR.	PAIR	YD.	YARD
F.E.	FIRE EXTINGUISHER	PRCST.	PRE-CAST		

GRAPHIC SYMBOL LEGEND



MATERIALS LEGEND

ELEVATION

- BRICK
- CONCRETE or PLASTER
- MASONRY (STACKED BOND)
- WOOD
- CERAMIC TILE
- GLAZING
- SHEET METAL

PLAN or SECTION

- ACOUSTICAL TILE
- CERAMIC TILE
- CONC. MASONRY UNITS
- FLOORING, RESILIENT
- GYPSUM SHEATHING
- METAL (LARGE SCALE)
- METAL (SMALL SCALE)
- SAND FILL
- TERRAZZO
- WOOD, FINISHED
- BRICK
- CONCRETE
- EARTH
- GYPSUM BOARD or PLASTER
- INSULATION, BATT
- INSULATION, RIGID
- PLYWOOD
- SHELL FILL
- TILE ON CONCRETE
- WOOD, ROUGH

STRUCTURAL ENGINEER

INFINITY ENGINEERING CONSULTANTS, LLC
4000 DIVISION STREET, METAIRIE, LA 70002 (504) 304-0548

REFERENCE CODES

INTERNATIONAL BUILDING CODE (2021)
OCCUPANCY CLASSIFICATION: ***BUSINESS***
CONSTRUCTION TYPE: ***II (B)***

INTERNATIONAL EXISTING BUILDING CODE (2021)
CLASSIFICATION OF WORK: ***ALTERATION - LEVEL I***

NFPA LIFE SAFETY 101 (2018)
OCCUPANCY CLASSIFICATION: ***BUSINESS***
CONSTRUCTION TYPE: ***II (000)***

2010 ADA STANDARDS FOR ACCESSIBLE DESIGN

SCOPE OF WORK

1.1. BASE BID: A) BUILDING ANNEX - REMOVE AND REPLACE EXISTING DAMAGED COPPER STANDING SEAM METAL ROOF PANELS WITH NEW PREFINISHED STANDING SEAM METAL ROOF CONSTRUCTION, INCLUDING ALL GUTTERS, TRIM, FLASHING, AND ACCESSORIES AT ROOF AND WALL JUNCTIONS; B) MAIN STAIR E2 - REPAIR THE EXISTING MODIFIED BITUMEN ROOFING ASSEMBLY AND COVER WITH NEW COLD LIQUID APPLIED MEMBRANE ROOFING OVER EXISTING ROOFING. PATCH AND REPAIR SKYLIGHT TO ELIMINATE LEAKAGE; C) ENGINEERING BUILDING - REMOVE AND REPLACE ALL FLAT ROOFING WITH NEW MODIFIED BITUMEN ROOFING CONSTRUCTION, INCLUDING ALL GUTTERS, TRIM, FLASHING, AND ACCESSORIES AT ROOF AND WALL JUNCTIONS; AND D) MISCELLANEOUS INTERIOR AND EXTERIOR REPAIRS.

1.2. ALTERNATES: ALTERNATE NO. 1 - ADDITIVE ALTERNATE: PRESSURE-TREATED 1x4 WOOD BATTENS, FULL WALL HEIGHT, THIRTY (30) COUNT OVER EXISTING METAL WALL PANELS AT ROOF OF ENGINEERING BUILDING. STAINED AND SEALED.

1.3. UNIT PRICES: 1) ALL WORK SHOWN WITHIN CONSTRUCTION DOCUMENTS (INTERIOR AND EXTERIOR) EXCLUDING WORK WITH UNIT PRICES 2-9 - LUMP SUM; 2) REMOVAL/REPLACEMENT OF GRAVEL AND BUILT-UP ROOF ASSEMBLY W/ NEW MODIFIED BITUMEN ROOF ASSEMBLY - LUMP SUM; 3) REMOVAL/ REPLACEMENT OF MODIFIED BITUMEN ROOF ASSEMBLY - LUMP SUM; 4) PATCH MODIFIED BITUMEN ROOF ASSEMBLY/ NEW COLD APPLIED LIQUID MEMBRANE COATING SYSTEM - LUMP SUM; 5) REMOVAL/REPLACEMENT OF STANDING SEAM METAL ROOF ASSEMBLY - LUMP SUM; 6) REMOVAL OF ADDITIONAL DAMAGE ROOFTOP AND FUME HOOD EQUIPMENT - LUMP SUM; 7) COPPER GUTTER - LINEAR FOOT; 8) GYPSUM BOARD REPLACEMENT - SQUARE FOOT; 9) ACOUSTICAL CEILING TILES - EACH; AND 10) PRESSURE-TREATED 1x4 WOOD BATTENS - ADDITIVE ALTERNATE - EACH.

project no. 25-1130-0046
drawn CSHB
checked AD
date 12.18.2025
revised

ALFONSO F. ROMERO
REG. NO. 9360
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ENGINEERS + ARCHITECTS

GENERAL INFORMATION

REPAIRS TO THE ENGINEERING BUILDING
8800 S. Claiborne Avenue, New Orleans, LA 70118
CONTRACT: 8174, SWB DWG NO: 12312-W-43

sheet no.
G002
2 of 16 sheets

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P:\2025\PROJECTS\1130\25-1130-0046 REPAIRS ENGINEERING BUILDING SWBNO\PROJECT DESIGN\ARCHITECTURAL\DRAWINGS\25-1130-0046 G002 GENERAL INFO.DWG

1. SCOPE OF WORK: THE SCOPE OF WORK FOR THIS PROJECT CAN GENERALLY, BUT NOT COMPLETELY, BE DESCRIBED AS FOLLOWS:
   1.1. BASE BID: A) BUILDING ANNEX - REMOVE AND REPLACE EXISTING DAMAGED COPPER ROOFING ASSEMBLY WITH NEW PREFINISHED STANDING SEAM METAL ROOF PANELS WHICH INCLUDES ALL GUTTERS, TRIM, FLASHING, AND ACCESSORIES AT ROOF AND WALL JUNCTIONS; B) MAIN STAIR E2 - REPAIR THE EXISTING MODIFIED BITUMEN ROOFING ASSEMBLY AND COVER WITH NEW COLD LIQUID APPLIED MEMBRANE ROOFING OVER EXISTING ROOFING. PATCH AND REPAIR EXISTING SKYLIGHT TO ELIMINATE LEAKAGE; C) ENGINEERING BUILDING - REMOVE AND REPLACE ALL FLAT ROOFING WITH NEW MODIFIED BITUMEN ROOFING CONSTRUCTION, INCLUDING ALL GUTTERS, TRIM, FLASHING, AND ACCESSORIES AT ROOF AND WALL JUNCTIONS; AND D) MISCELLANEOUS INTERIOR AND EXTERIOR REPAIRS.
   1.2. ALTERNATES: ALTERNATE NO. 1 - ADDITIVE ALTERNATE: PRESSURE-TREATED 1x4 WOOD BATTENS.
   1.3. UNIT PRICES: 1) ALL WORK SHOWN WITHIN CONSTRUCTION DOCUMENTS (INTERIOR AND EXTERIOR) EXCLUDING WORK WITHIN UNIT PRICES 2-9 - LUMP SUM; 2) GRAVEL/ BUILT-UP ROOF ASSEMBLY/ REPLACEMENT MODIFIED BITUMEN ROOF ASSEMBLY - LUMP SUM; 3) REMOVAL/ REPLACEMENT OF MODIFIED BITUMEN ROOF ASSEMBLY - LUMP SUM; 4) PATCH MODIFIED BITUMEN ROOF ASSEMBLY/ NEW COLD APPLIED LIQUID MEMBRANE COATING SYSTEM - LUMP SUM; 5) REMOVAL/ REPLACEMENT OF STANDING SEAM METAL ROOF ASSEMBLY - LUMP SUM; 6) REMOVAL OF ADDITIONAL DAMAGE ROOFTOP AND FUME HOOD EQUIPMENT - LUMP SUM; 7) COPPER GUTTER - LINEAR FOOT; 8) GYPSUM BOARD REPLACEMENT - SQUARE FOOT; 9) ACOUSTICAL CEILING TILES- EACH; 10) PRESSURE-TREATED 1x4 WOOD BATTENS - ADDITIVE ALTERNATE - EACH.

2. THE TERM "DOCUMENTS" USED IN THESE GENERAL NOTES REFERS TO THE DRAWINGS, SPECIFICATIONS, PROJECT MANUAL AND ANY ADDENDUM ISSUED.

3. THE CONTRACTOR SHALL VISIT THE SITE AND THOROUGHLY ACQUAINT HIMSELF WITH ALL ASPECTS OF THE WORK OUTLINED IN THESE BIDDING AND CONSTRUCTION DOCUMENTS PRIOR TO SUBMITTING A BID. ANY DISCREPANCIES OR CONDITIONS NOT ACCURATELY DESCRIBED IN THE DRAWINGS AND SPECIFICATIONS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE A/E PRIOR TO BID DATE. FAILURE TO DO SO WILL RENDER THE CONTRACTOR RESPONSIBLE FOR THE CONDITION SHOULD HE BE AWARDED THE CONTRACT.

4. AT THE COMPLETION OF THE WORK THE CONTRACTOR SHALL PROVIDE A COMPLETELY CLEANED CONSTRUCTION SITE WITH NEW ROOFS THAT DO NOT LEAK. INTERIOR OF BUILDING SPACES SHALL BE KEPT DRY, AND FREE OF ANY WATER INTRUSION FROM STORMS DURING DEMOLITION AND INSTALLATION OF NEW CONSTRUCTION. GENERAL CONTRACTOR SHALL CLEAN AND REPAIR ANY RESULTANT WATER DAMAGE AT HIS EXPENSE.

5. EXISTING CONDITIONS, THE LOCATIONS OF BUILT STRUCTURES, FENCING, AND FIELD INDICATED ON THE DRAWINGS ARE BASED ON INFORMATION PROVIDED BY THE OWNER, LIMITED FIELD MEASUREMENTS, SATELLITE IMAGERY, AND FIELD OBSERVATIONS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFYING THE LOCATIONS OF ALL ITEMS WITHIN AREA OF WORK. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL FIELD AND JOB CONDITIONS PRIOR TO PREPARING HIS BID.

6. THE CONTRACTOR SHALL PROTECT EXISTING CONSTRUCTION THAT WILL REMAIN THROUGHOUT THE DURATION OF CONSTRUCTION. THE CONTRACTOR SHALL REPLACE, IN KIND, ALL EXISTING BUILDING COMPONENTS AND MATERIALS DAMAGED DURING CONSTRUCTION.

7. WHERE EXISTING CONSTRUCTION TO REMAIN INTERSECTS WITH CONSTRUCTION TO BE REMOVED, CONTRACTOR SHALL EXECUTE THE DEMOLITION IN SUCH A MANNER THAT THE EXISTING CONSTRUCTION WILL BE PROTECTED AND WILL READILY RECEIVE NEW FINISHES.

8. SALVAGE RIGHTS TO ALL ITEMS TO BE REMOVED SHALL FIRST BE GIVEN TO THE OWNER PRIOR TO INITIATION OF THE DEMOLITION WORK. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER AS TO ANY ITEMS THAT THE OWNER HAS IDENTIFIED FOR SALVAGE AND DELIVER TO LOCATIONS ON THE PREMISES AS DIRECTED. ALL REMOVED MATERIALS NOT SALVAGED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROMPTLY REMOVED AND DISPOSED OF IN A LEGAL MANNER BY THE CONTRACTOR.

9. THE A/E SHALL APPLY FOR THE BUILDING PERMIT AND SUBMIT THE DOCUMENTS TO THE LOUISIANA STATE FIRE MARSHAL, IF APPLICABLE. HOWEVER, THE CONTRACTOR SHALL PICK UP AND PAY FOR ALL REQUIRED BUILDING PERMITS FROM THE AUTHORITY HAVING JURISDICTION (AHJ).

10. THE CONTRACTOR SHALL NOT SPLIT THE SET OF CONSTRUCTION DOCUMENTS TO DISTRIBUTE TO THEIR SUBCONTRACTORS. THE DOCUMENTS PROVIDED FOR CONSTRUCTION SHALL REMAIN A COMPLETE SET OF DOCUMENTS AND SHALL BE USED FOR CONSTRUCTION OF THE PROJECT.

11. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE AND PERFORM ANY WORK SHOWN ON ANY SHEET OF THE DOCUMENTS REGARDLESS OF WHERE IT IS SHOWN. IF THERE IS CONFLICTING INFORMATION IN THE DOCUMENTS THEN THE MORE STRINGENT OF THE REQUIREMENTS AS DETERMINED BY THE A/E SHALL BE REQUIRED.

12. THE CONTRACTOR SHALL ALLOW THE OWNER AND THE A/E ACCESS TO THE SITE AT ALL TIMES.

13. CONTRACTOR SHALL AT ALL TIMES CONDUCT HIS OPERATIONS AS TO ENSURE THE LEAST INCONVENIENCE TO THE OWNERS'S STAFF, VISITORS, AND ADJACENT PROPERTY OWNERS.

14. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE DEPARTMENTS OF INSPECTION AND CODE ENFORCEMENT, SAFETY AND PERMITS, LOUISIANA STATE FIRE MARSHAL'S OFFICE, PUBLIC WORKS DEPARTMENTS, PUBLIC UTILITIES, ACCOMPANYING PROJECT SPECIFICATIONS AND OTHER SUCH PARISH, STATE, OR FEDERAL STANDARDS THAT ARE APPLICABLE.

15. STAGING AREA: THE LOCATION OF THE STAGING AREA SHALL BE DETERMINED BY THE OWNER. CONTRACTOR SHALL STORE ALL HIS MATERIALS, SUPPLIES, AND EQUIPMENT IN THE STAGING AREA. CONTRACTOR SHALL PROTECT HIS STAGING AREA WITH TEMPORARY FENCING. OWNER SHALL NOT BE RESPONSIBLE FOR THEFT AND VANDALISM TO CONTRACTOR'S TRAILER OR ANY MATERIALS, SUPPLIES OR EQUIPMENT STORED IN THE STAGING AREA.

16. USE OF THE OWNER'S TOILET ROOMS IS STRICTLY PROHIBITED. CONTRACTOR SHALL PROVIDE SELF-CONTAINED PORTABLE TOILET UNITS FOR USE BY HIS WORK FORCE.

17. CONTRACTOR SHALL PROVIDE CLEAN COLD ICE WATER IN APPROVED WATER JUGS AND DRINKING CUPS FOR HIS WORK FORCE AT ALL TIMES WHEN WORK IS IN PROGRESS.

18. IF REQUIRED BY THE OWNER, ALL CONTRACTING PERSONNEL SHALL DISPLAY THEIR COMPANY IDENTIFICATION BADGE AT ALL TIMES WHEN THEY ARE WORKING IN OR AROUND THE BUILDING.

19. ONSITE PARKING FOR CONTRACTOR'S PERSONNEL SHALL BE PERMITTED BUT ONLY AT THE LOCATIONS APPROVED BY THE OWNER. THE CONTRACTOR SHALL NOT ALLOW ANY VEHICLES TO PARK AT ANY OTHER LOCATION ON THE PROJECT SITE.

20. DELIVERIES: VEHICLES DELIVERING MATERIALS, SUPPLIES AND EQUIPMENT FOR THE PROJECT SHALL BE ALLOWED ON THE BUILDING SITE. CONTRACTOR SHALL UNLOAD MATERIALS AND EQUIPMENT IN A TIMELY MANNER AND THEN MOVE THE DELIVERY VEHICLE OFF SITE.

21. WASTE MATERIALS: DISPOSE OF REGULATED AND HAZARDOUS WASTE MATERIALS OFF SITE, IN A LEGAL MANNER AND IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL LAWS, CODES, ORDINANCES AND REGULATIONS. ALL OTHER WASTE MATERIALS SHALL BE DISPOSED OF IN A TRASH DUMPSTER THAT IS PROVIDED BY AND PAID FOR BY THE CONTRACTOR. LOCATE TRASH DUMPSTER AS DIRECTED BY OWNER. USE OF THE OWNER'S TRASH DUMPSTER IS STRICTLY PROHIBITED. ALL CLEAN-UP SHALL BE PERFORMED BY THE GENERAL CONTRACTOR ON A REGULAR BASIS THAT IS ACCEPTABLE TO THE OWNER. ANY TRASH OR DEBRIS FOUND OUTSIDE THE AREA OF WORK DUE TO CONSTRUCTION SHALL BE REMOVED IMMEDIATELY.

22. CONTRACTORS ARE REQUIRED TO RESEARCH LOCAL NOISE LAWS, CODES AND ORDINANCES ALLOWED AND TIMES WHEN CONSTRUCTION ACTIVITIES ARE ALLOWED.

23. NOISY WORK: CONTRACTOR IS ADVISED THAT THE BUILDING WILL BE OCCUPIED DURING CONSTRUCTION AND THAT IT MAY BE NECESSARY FOR THE OWNER TO DIRECT HIM TO STOP PERFORMING EXCESSIVELY NOISY WORK (SUCH AS GRINDING, DRILLING, SAW CUTTING, JACK HAMMERING, ETC.) IN SOME AREAS. UPON NOTIFICATION THE CONTRACTOR SHALL IMMEDIATELY STOP THE NOISY WORK AND RELOCATE HIS WORK TO ANOTHER AREA. NO EXTRA CHARGE SHALL BE ALLOWED IF THE CONTRACTOR IS DIRECTED TO STOP NOISY WORK IN A SPECIFIC AREA. CONTRACTOR IS ADVISED THAT THE NOISY WORK WILL HAVE TO BE PERFORMED DURING OFF HOURS, WEEKENDS OR HOLIDAYS AS DIRECTED BY THE OWNER. NOISY WORK TO BE PERFORMED ON THIS PROJECT INCLUDING CORE DRILLING, SAW CUTTING, GRINDING, ETC. REQUIRES 48 HOURS ADVANCE WRITTEN NOTICE TO THE OWNER.

24. WORK THAT INVOLVES ODOR EMITTING MATERIAL OR EQUIPMENT: CONTRACTOR IS ADVISED THAT THE BUILDING MAY BE OCCUPIED DURING CONSTRUCTION AND THAT IT MAY BE NECESSARY FOR THE OWNER TO DIRECT HIM TO STOP PERFORMING WORK THAT PRODUCES AN OBJECTIONABLE ODOR. SUCH ODOROUS WORK SHALL INCLUDE BUT SHALL NOT BE LIMITED TO PAINTING, ADHESIVES, ROOFING, AND EQUIPMENT THAT PRODUCES EXHAUST, OR ANY OTHER OBJECTIONABLE ODOR PRODUCED BY THE WORK. UPON NOTIFICATION THE CONTRACTOR SHALL IMMEDIATELY STOP THE ODOROUS WORK AND PERFORM WORK TO ANOTHER AREA. NO EXTRA CHARGE SHALL BE ALLOWED IF THE CONTRACTOR IS DIRECTED TO STOP ODOROUS WORK. CONTRACTOR IS ADVISED THAT THE ODOROUS WORK WILL HAVE TO BE PERFORMED DURING OFF HOURS, AT NIGHT, WEEKENDS OR HOLIDAYS AS DIRECTED BY THE OWNER. ODOROUS WORK TO BE PERFORMED ON THIS PROJECT REQUIRES 48 HOURS ADVANCE WRITTEN NOTICE TO THE OWNER.

25. THE CONTRACTOR SHALL MAINTAIN ALL PARTS OF THE EXTERIOR OF THE ENGINEERING BUILDING AND ANNEX, AND OTHER ADJACENT STRUCTURES IN A CLEAN AND SANITARY CONDITION AT ALL TIMES. OTHER PORTIONS OF THE PROJECT SITE ARE NOT TO BE DISTURBED SUCH AS PARKING LOTS, LANDSCAPE AREAS AND LAWN AREAS. DO NOT ALLOW TRASH AND CONSTRUCTION DEBRIS TO ACCUMULATE AROUND THE PROJECT SITE.

26. REPAIR ALL DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS. TAKE ALL PRECAUTIONS NECESSARY TO PROTECT THE BUILDING AND ITS OCCUPANTS DURING THE WORK.

27. ALL SURFACES SHALL BE THOROUGHLY CLEANED OF ALL DEBRIS AT THE COMPLETION OF THE DEMOLITION PHASE OF THE PROJECT.

28. CONTRACTOR SHALL COORDINATE ALL DEMOLITION WORK WITH NEW REQUIRED WORK PRIOR TO COMPLETION OF THE DEMOLITION PHASE OF THE PROJECT.

29. THE CONTRACTOR SHALL MAINTAIN ALL PARTS OF THE INTERIOR OF THE BUILDING IN A CLEAN AND SANITARY CONDITION AT ALL TIMES. CONFINE WORK TO THE AREAS OF THE PROJECT AND AS ASSOCIATED WITH THE WORK. THE CONTRACTOR SHALL ERECT DUST WALLS TO PROTECT AREAS NOT UNDER CONSTRUCTION FROM DIRT, DUST, AND OTHER CONSTRUCTION DEBRIS. CONTRACTOR SHALL DAILY CLEAN ALL AREAS NOT IN THE CONSTRUCTION AREA THAT BECOME DUSTY AND DIRTY DUE TO CONSTRUCTION ACTIVITIES.

30. PROTECT EXISTING BUILDING COMPONENTS TO REMAIN IN PLACE. DOCUMENT EXISTING CONDITIONS PRIOR TO START OF WORK. ANY DAMAGES OCCURRING DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPLACE AT HIS EXPENSE. REPAIR WORK SHALL BE SUBJECT TO THE APPROVAL OF THE A/E AND THE OWNER.

31. WORK RESTRICTIONS: REFER TO SPECIFICATIONS FOR COMPLIANCE WITH RESTRICTIONS ON CONSTRUCTION OPERATIONS AND HOURS PERMITTED.

32. CONTRACTOR SHALL SUBMIT A DETAILED CONSTRUCTION SCHEDULE TO THE A/E TEN (10) DAYS AFTER RECEIPT OF NOTICE OF AWARD. CONTRACTOR SHALL SUBMIT A REVISED CONSTRUCTION SCHEDULE AT THE PRE-CONSTRUCTION CONFERENCE. CONTRACTOR SHALL SUBMIT REVISED CONSTRUCTION SCHEDULES TO THE A/E MONTHLY THEREAFTER. THE CONTRACTOR IS ADVISED THAT THE A/E WILL NOT APPROVE ANY PAY APPLICATIONS THAT DO NOT HAVE A REVISED CONSTRUCTION SCHEDULE ATTACHED. ANY PAY APPLICATIONS SUBMITTED WITHOUT A REVISED AND CURRENT CONSTRUCTION SCHEDULE SHALL BE RETURNED TO THE CONTRACTOR WITHOUT ACTION AND SHALL NOT BE GROUNDS FOR A CLAIM FOR ADDITIONAL COST.

33. NO SMOKING. SMOKING IS NOT PERMITTED ANYWHERE ON THE PROJECT SITE; INCLUDING THE CONTRACTOR'S FIELD OFFICE (TRAILER). ANY CONTRACTING PERSONNEL THAT ARE SEEN SMOKING ON THE PROJECT SITE SHALL BE DISMISSED FROM THE PROJECT PERMANENTLY. THIS INCLUDES E-CIGARETTES AND VAPING.

34. THE PLAYING OF MUSIC ON THE JOBSITE IS NOT ALLOWED.

35. DRUGS, ALCOHOL AND FIREARMS ARE NOT ALLOWED ANYWHERE ON THE PROJECT SITE.

36. CONTRACTING PERSONNEL SHALL AT ALL TIMES BE APPROPRIATELY DRESSED. SHIRTS AND SHOES SHALL BE WORN AT ALL TIMES. PANTS SHALL NOT BE WORN BELOW THE WAIST LINE. SHIRTS, HATS OR OTHER CLOTHING SHALL NOT HAVE ANY VULGAR REFERENCES, ALCOHOLIC ADVERTISEMENTS, TOBACCO ADVERTISEMENTS, REFERENCES TO DRUGS OR POLITICAL ENDORSEMENTS OF ANY KIND.

37. ALL CONTRACTING PERSONNEL SHALL CONDUCT THEMSELVES IN A PROFESSIONAL MANNER AT ALL TIMES AND ANY WORKMAN MAKING CAT CALLS OR WOLF WHISTLES SHALL BE IMMEDIATELY ESCORTED OFF THE PROJECT SITE PERMANENTLY. INTERACTION BETWEEN CONTRACTOR'S AND BUILDING'S STAFF IS STRICTLY FORBIDDEN.

38. AT ANY TIME WORK IS IN PROGRESS THE CONTRACTOR SHALL HAVE A FOREMAN OR SUPERINTENDENT ON SITE DIRECTING THE WORK. THE CONTRACTOR'S FOREMAN OR SUPERINTENDENT SHALL CHECK IN DAILY WITH THE OWNER'S ON SITE REPRESENTATIVE AND GIVE THE OWNER'S REPRESENTATIVE HIS MOBILE PHONE NUMBER. THE CONTRACTOR'S FOREMAN OR SUPERINTENDENT SHALL ALSO GIVE A LIST OF NAMES TO THE OWNER'S ON SITE REPRESENTATIVE OF THE CONTRACTING PERSONNEL THAT WILL BE WORKING ON THE SITE THAT DAY.

39. CONTRACTOR SHALL PROVIDE TEMPORARY FENCING FOR THE DURATION OF THE PROJECT. CONSTRUCT AND MAINTAIN FENCING AND BARRICADES SUFFICIENT TO PREVENT INJURY TO PERSONS AND DAMAGE TO PROPERTY IN ACCORDANCE WITH ALL SAFETY LAWS AND REQUIREMENTS. PROVIDE FENCING TO EXCLUDE UNAUTHORIZED VISITORS FROM THE STAGING AREA. THE TYPE OF PROTECTION FENCING IS TO BE DETERMINED BY THE CONTRACTOR; HOWEVER, IT IS NOTED THAT PLASTIC MESH FENCING, CAUTION TAPE OR A SINGLE CHAIN ARE NOT ACCEPTABLE.

40. THE A/E WILL NOT MAKE COLOR OR MATERIAL SELECTIONS ON INDIVIDUAL PRODUCTS SUBMITTED FOR REVIEW BUT WILL MAKE ALL COLOR AND MATERIAL SELECTIONS AT ONE TIME AFTER HE HAS RECEIVED ALL ITEMS THAT REQUIRE A COLOR AND MATERIAL SELECTION. SAMPLES THAT REQUIRE A COLOR AND/OR MATERIAL SELECTION SHALL BE SUBMITTED TO THE A/E AS SOON AS POSSIBLE SO THAT HE, TOGETHER WITH THE OWNER, MAY COORDINATE ALL COLORS AND MATERIALS OF THE ENTIRE BUILDING AT ONE TIME. NO EXTRA TIME WILL BE GIVEN TO THE CONTRACTOR FOR DELAYS CAUSED BY HIS OFFICE NOT SUBMITTING COLORS AND MATERIALS TO THE A/E IN A TIMELY MANNER.

41. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND COORDINATING WITH THE APPROPRIATE UTILITY COMPANY FOR THE CONSTRUCTION, CONNECTION, RELOCATION OR REMOVAL OF ANY AND ALL UTILITIES REQUIRED FOR THIS PROJECT INCLUDING BUT NOT LIMITED TO ELECTRIC POWER, WATER, SEWER, DRAINAGE, GAS, TELEPHONE, CABLE TELEVISION, SATELLITE TELEVISION, CLOSED CIRCUIT TELEVISION, INTERNET, AND ANY OTHER UTILITY REQUIRED FOR THIS PROJECT. CONTRACTOR SHALL BE RESPONSIBLE FOR PAYING FOR ALL CONSTRUCTION, CONNECTION, RELOCATION OR REMOVAL COST AND ANY AND ALL PERMITS AND FEES ASSOCIATED WITH THE CONSTRUCTION, CONNECTION, RELOCATION OR REMOVAL OF ANY UTILITY REQUIRED FOR THIS PROJECT. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND COORDINATING WITH THE APPROPRIATE UTILITY COMPANY FOR THE CONSTRUCTION, CONNECTION, RELOCATION AND REMOVAL OF ANY ELECTRIC POWER POLES, WATER LINES, SEWER LINES, DRAINAGE LINES, GAS LINES, TELEPHONE POLES, UTILITY POLES, TELEPHONE LINES, CABLE TELEVISION LINES, INTERNET LINES AND ANY OTHER UTILITY REQUIRED FOR THIS PROJECT.

42. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE DIRECTLY WITH THE APPROPRIATE UTILITY COMPANIES TO HAVE THE UTILITIES RELOCATED, DISRUPTED AND/OR INSTALLED.

43. CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES OR DEPARTMENTS LISTED BELOW PRIOR TO COMMENCEMENT OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE IF THERE ARE ANY OTHER UTILITIES IN THE AREA AND TO CONTACT THE APPROPRIATE UTILITY COMPANY:
   43.1. LOUISIANA ONE CALL
   43.2. LOCAL ELECTRICAL COMPANY
   43.3. LOCAL GAS COMPANY
   43.4. LOCAL TELEPHONE COMPANY
   43.5. LOCAL WATER DEPARTMENT
   43.6. LOCAL DRAINAGE DEPARTMENT
   43.7. LOCAL SEWER DEPARTMENT
   43.8. CABLE TELEVISION PROVIDER FOR THAT LOCATION
   43.9. DEPARTMENT OF PUBLIC WORKS
   43.10. PARISH AND/OR CITY ENGINEERING DEPARTMENT
   43.11. PARISH AND/OR CAPITAL PROJECTS DEPARTMENT
   43.12. DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
   43.13. ANY OTHER DEPARTMENT OR UTILITY COMPANY THAT WILL BE ASSOCIATED WITH THIS PROJECT.

44. CONTRACTOR SHALL COORDINATE AND PAY FOR THE DE-ENERGIZING AND RE-ENERGIZING OF POWER LINES FOR CONSTRUCTION PURPOSES AS REQUIRED BY LOCAL, STATE AND FEDERAL AGENCIES AND THE LOCAL UTILITY COMPANY.

45. IF AIR CONDITIONING UNITS REQUIRE DISCONNECTION DUE TO PROGRESS OF WORK, CONTRACTOR SHALL ADD NEW REFRIGERANT AND PROPERLY PRESSURIZED THE UNIT TO MANUFACTURER'S RECOMMENDATIONS.

46. ALL GRASS AREAS AFFECTED BY CONSTRUCTION SHALL BE SODDED, FERTILIZED, AND MAINTAINED UNTIL THE GRASS IS ESTABLISHED AT THE CONCLUSION OF CONSTRUCTION.

47. IN ACCORDANCE WITH REQUIREMENTS OF THE LOUISIANA STATE FIRE MARSHAL ALL BLOCKING, WHETHER HIDDEN, CONCEALED OR EXPOSED TO VIEW SHALL BE FIRE RETARDANT TREATED WOOD.

48. ALL WOOD COMPONENTS INSTALLED AS PART OF THIS PROJECT (NAILERS, BLOCKING, ETC.) SHALL BE PRESSURE TREATED AND HAVE AN AWAP UC4A, GROUND CONTACT GENERAL USE RATING UNLESS NOTED OTHERWISE.

49. ALL FASTENERS USED IN INSTALLING ALL WOOD COMPONENTS SHALL BE OF THE TYPE, MATERIAL, AND CORROSION RESISTANCE TO BE COMPATIBLE WITH ALL SUBSTRATES AND WOOD TREATMENTS REQUIRED. FASTENERS SHALL BE OF MATERIALS THAT ARE NOT SUSCEPTIBLE TO A GALVANIC REACTION WITH ANY OF THE NEW OR EXISTING CONSTRUCTION MATERIALS.

50. ALL METAL FLASHING SHALL BE FABRICATED PER THE REQUIREMENTS OF THE METAL ROOF PANELS AND MODIFIED BITUMEN MEMBRANE MANUFACTURERS AND THE 7TH EDITION OF THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION, INC. (SMACNA) ARCHITECTURAL SHEET METAL MANUAL, 7TH EDITION.

51. ALL METAL FLASHING SHALL BE FABRICATED WITH 1/2" HEMMED EDGES.

52. SAFETY PRECAUTIONS AND PROGRAMS: THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISION OF ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH PERFORMANCE OF THE CONTRACT.

53. THE CONTRACTOR SHALL COMPLY WITH APPLICABLE LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF PUBLIC AUTHORITIES BEARING ON SAFETY OF PERSONS OR PROPERTY OR THEIR PROTECTION FROM DAMAGE, INJURY OR LOSS.

54. THE CONTRACTOR SHALL TAKE PRECAUTIONS FOR SAFETY OF, AND SHALL PROVIDE PROTECTION TO PREVENT DAMAGE, INJURY OR LOSS TO, EMPLOYEES ON THE JOB SITE AND OTHER PERSONS WHO MAY BE AFFECTED.

55. COMPLY WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS. INSPECT MATERIALS OR EQUIPMENT IMMEDIATELY UPON DELIVERY AND AGAIN PRIOR TO INSTALLATION. REJECT DAMAGED AND DEFECTIVE ITEMS.

56. PRICES QUOTED SHALL BE COMPLETE SO AS TO COVER EVERY COST, EXPENSE, FEE OR CHARGE INCURRED BY THE BIDDER IN PERFORMANCE OF THE CONTRACT, INCLUDING ALL FEDERAL, STATE, AND LOCAL TAXES. PRICES QUOTED SHALL INCLUDE ALL TRANSPORTATION, LOADING, UNLOADING, PACKING, CRATING, AND STORAGE CHARGES (AS APPLICABLE), AND SHALL BE FOB TO THE PROJECT SITE IN ORLEANS PARISH, LOUISIANA.

57. IN ACCORDANCE WITH SEWERAGE AND WATER BOARD OF NEW ORLEANS SUPPLEMENTARY CONDITIONS SC-13.07, COMPLY WITH OWNER CORRECTION PERIOD REQUIREMENTS.

58. 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.

59. RECORD DRAWINGS AND SPECIFICATIONS SHALL BE PREPARED BY THE CONTRACTOR THROUGHOUT THE COURSE OF THE PROJECT AND SHALL SHOW, IN RED INK, ALL CHANGES TO THE ORIGINAL CONSTRUCTION DOCUMENTS. AT THE COMPLETION OF THE PROJECT ALL RECORD DRAWINGS AND SPECIFICATIONS SHALL BE FINALIZED AND PUT INTO ONE COMPREHENSIVE SET OF DOCUMENTS BY THE CONTRACTOR AND DELIVERED TO THE ARCHITECT AS THE RECORD SET OF DRAWINGS AND SPECIFICATIONS. RECORD DRAWINGS AND SPECIFICATIONS SHALL REFLECT ALL CHANGES MADE BY THE OWNER, CONTRACTOR, ARCHITECT, SUBCONTRACTOR OR ANY OTHER ENTITY INVOLVED WITH THE PROJECT. ALL RECORD DRAWINGS AND SPECIFICATIONS SHALL INCLUDE ANY CHANGE MADE BY ADDENDUM, CHANGE ORDER, CONSTRUCTION CHANGE DIRECTIVE, MINOR CHANGES MADE BY THE ARCHITECT BY WAY OF ARCHITECTS SUPPLEMENTAL INSTRUCTIONS OR WRITTEN LETTER OR ANY CHANGE MADE IN THE FIELD BY THE CONTRACTOR, SUBCONTRACTOR, INSTALLER, SUPPLIER OR ANY OTHER ENTITY INVOLVED WITH THE PROJECT.

60. CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD.

61. ALL SCOPE ITEMS ARE NEW, HOWEVER, THE TERM "NEW" IS NOT USED IN THE DRAWINGS FOR CLARITY. ALL EXISTING CONSTRUCTION IS NOTED AS EXISTING.

62. CONTRACTOR SHALL TAKE PRECAUTIONS AROUND EXISTING CABLE, CAMERAS, AIR INTAKES, CONDUIT AND PIPING. ANY DAMAGE SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.

63. ALL ROOFING COMPONENTS SHALL COMPLY WITH SPECIFIED PRESSURES AND WIND LOADING REQUIREMENTS INDICATED ON THE DOCUMENTS AND BY IBC 2021 AND ASCE 7. IT IS THE RESPONSIBILITY OF THE METAL ROOF PANEL MANUFACTURER AND MODIFIED BITUMEN MANUFACTURER TO CALCULATE AND DESIGN ALL CONNECTIONS OF THE ROOFING SYSTEM TO THE EXISTING PURLINS OR ROOF DECK.

project no. 25-1130-0046
drawn AFR
checked AD
date 12.18.2025
revised

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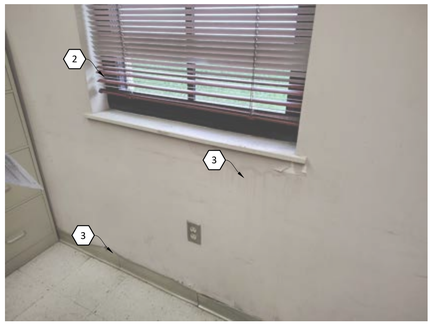
GENERAL NOTES

REPAIRS TO THE ENGINEERING BUILDING
8800 S. Claiborne Avenue, New Orleans, LA 70118
CONTRACT: 8174, SWB DWG NO: 12312-W-43

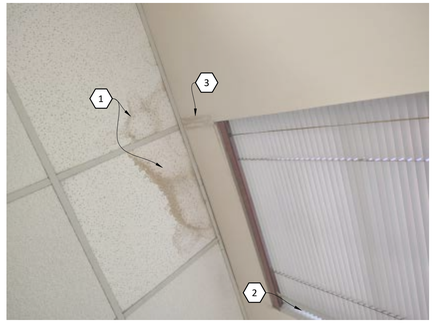
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G003
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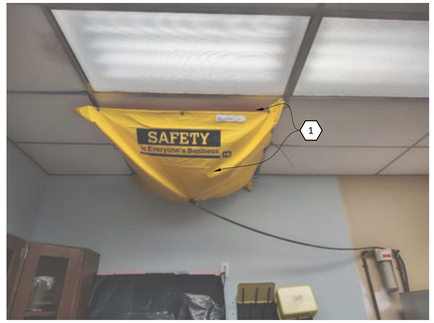
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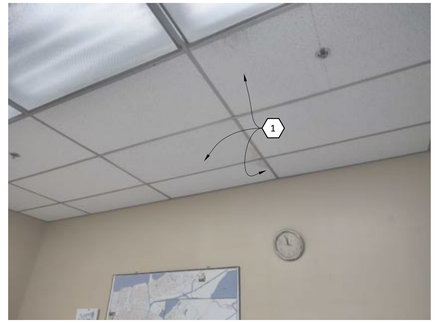
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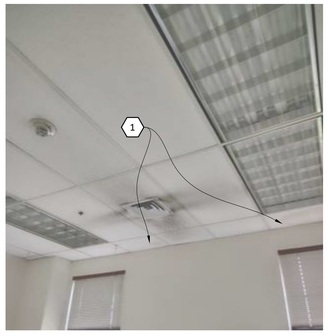
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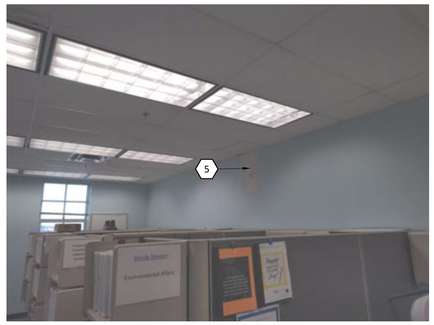
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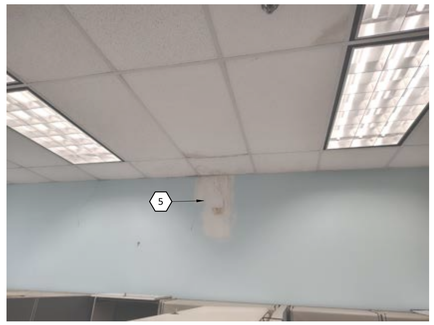
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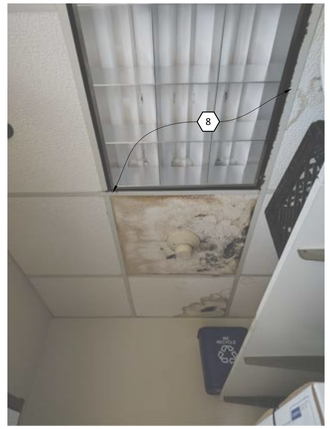
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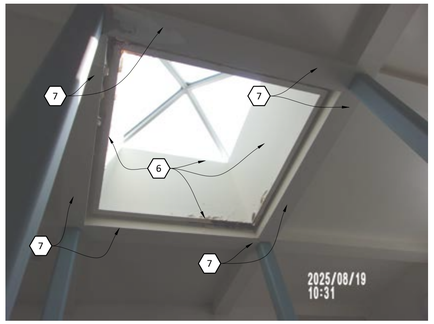
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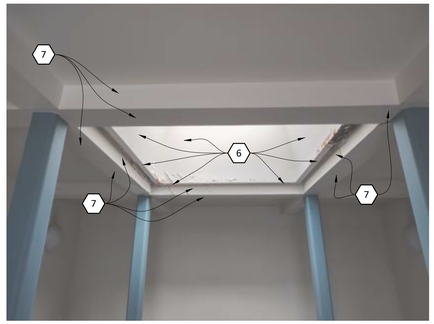
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8 PHOTOGRAPH N.T.S.
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9 PHOTOGRAPH N.T.S.
G004



10 PHOTOGRAPH N.T.S.
G004



11 PHOTOGRAPH N.T.S.
G004

GENERAL PHOTOGRAPH NOTES

1. THE CONDITIONS CAPTURED AND NOTED IN THE PHOTOGRAPHS ASSEMBLED IN THESE DOCUMENTS REPRESENT EXAMPLES OF EXISTING CONDITIONS. THIS IS ONLY A MEANS TO DEPICT THE TYPE OF CONDITIONS AND THEREFORE WORK THAT IS THE CONTRACTOR'S IN THE SCOPE. THE CONTRACTOR IS RESPONSIBLE TO FULLY SURVEY THE SITE AND BRING ATTENTION TO THE A/E IF THERE ARE CONDITIONS NOT CAPTURED.

KEYNOTES:

NOTE: ALL KEYNOTES ARE SPECIFIC TO THIS SHEET

1. REMOVE AND REPLACE DAMAGED ACOUSTICAL CEILING TILES. FIELD VERIFY LOCATIONS. (SQUARE FEET). ACOUSTICAL CEILING SUSPENSION GRID, HVAC, ELECTRICAL, AND SPECIAL SYSTEMS TO REMAIN. PROTECT AS REQUIRED. SEE FLOOR PLANS FOR SCOPE OF WORK.
2. REMOVE AND REPLACE PERIMETER WINDOW SURROUND SEALANTS (INTERIOR AND EXTERIOR). WINDOW TO REMAIN. PROTECT AS REQUIRED. SEE FLOOR PLANS FOR SCOPE OF WORK.
3. REMOVE AND REPLACE DAMAGED GYPSUM BOARD, WALL INSULATION, AND WALL BASE. FIELD VERIFY LOCATIONS. (SQUARE FEET). PAINT TO MATCH ADJACENT WALLS. SEE FLOOR PLANS FOR SCOPE OF WORK.
4. REMOVE AND REPLACE WET GLAZE SEALS (INTERIOR AND EXTERIOR) OF STOREFRONT ENTRY, SIDELITES, AND TRANSOM; PERIMETER SURROUND SEALANTS (INTERIOR AND EXTERIOR); AND HARDWARE (BUTTS, SWEEPS, THRESHOLD, WEATHERSTRIP FELTS, AND CLOSURES). DOOR AND WINDOW SYSTEM TO REMAIN. PROTECT AS REQUIRED. SEE FLOOR PLANS AND ELEVATIONS FOR SCOPE OF WORK.
5. REMOVE AND REPLACE DAMAGED GYPSUM BOARD AND WALL INSULATION. FIELD VERIFY LOCATIONS. (SQUARE FEET). PAINT TO MATCH ADJACENT WALLS. REFER TO SHEETS A101 AND A102 FOR SCOPE OF WORK.
6. REMOVE AND REPLACE SKYLIGHT INTERIOR GYPSUM BOARD SHAFT SURROUND. (SQUARE FEET). PAINT TO MATCH ADJACENT WALLS. SKYLIGHT TO REMAIN. PROTECT AS REQUIRED. REFER TO SHEETS A102, A302 AND DETAIL 9/G005 FOR ADDITIONAL INFORMATION.
7. REMOVE AND REPLACE GYPSUM BOARD BEAM SURROUND. (SQUARE FEET). PAINT TO MATCH ADJACENT WALLS. SEE FLOOR PLANS, ROOF PLAN, AND DETAIL 9/G005 FOR SCOPE OF WORK.
8. REMOVE AND REPLACE DAMAGED ACOUSTICAL CEILING SUSPENSION GRID. FIELD VERIFY LOCATIONS. (LINEAR FEET). REFER TO SHEETS A101 AND A102 FOR SCOPE OF WORK.

project no. 25-1130-0046
drawn CSHB
checked AD
date 12.18.2025
revised

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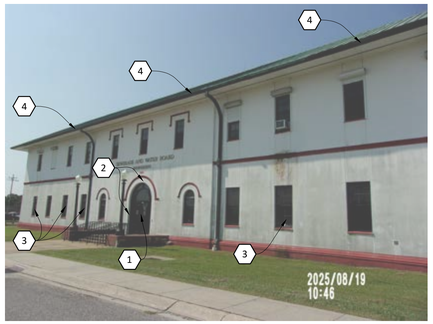
PHOTOGRAPHS, KEYNOTES

REPAIRS TO THE ENGINEERING BUILDING
8800 S. Claiborne Avenue, New Orleans, LA 70118
CONTRACT: 8174, SWB DWG NO: 12312-W-43

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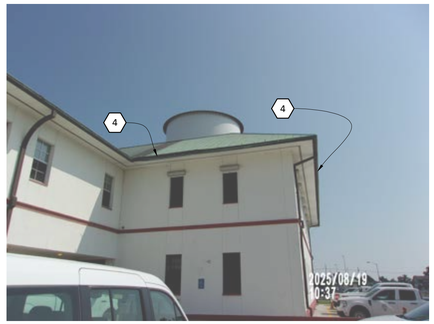
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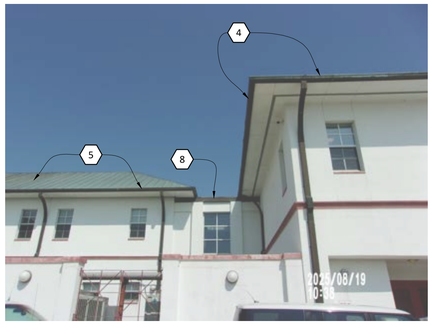
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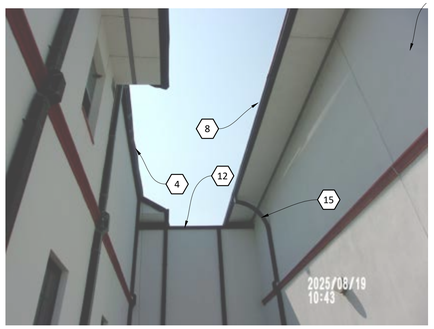
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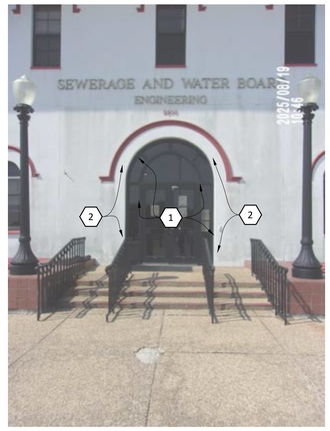
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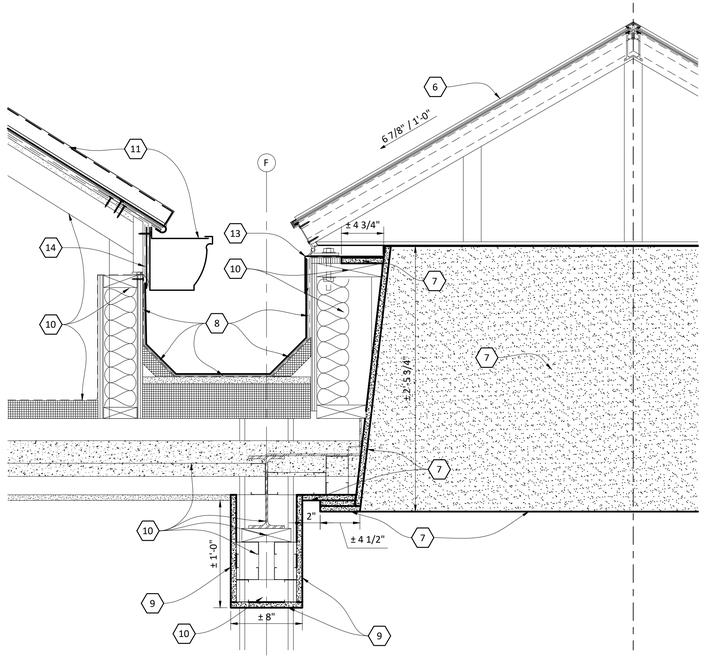
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7 G005 PHOTOGRAPH N.T.S.



8 G005 PHOTOGRAPH N.T.S.



9 G005 SKYLIGHT DETAIL SCALE: 1-1/2" = 1'-0"

GENERAL PHOTOGRAPH NOTES

1. THE CONDITIONS CAPTURED AND NOTED IN THE PHOTOGRAPHS ASSEMBLED IN THESE DOCUMENTS REPRESENT EXAMPLES OF EXISTING CONDITIONS. THIS IS ONLY A MEANS TO DEPICT THE TYPE OF CONDITIONS AND THEREFORE WORK THAT IS THE CONTRACTOR'S IN THE SCOPE. THE CONTRACTOR IS RESPONSIBLE TO FULLY SURVEY THE SITE AND BRING ATTENTION TO THE A/E IF THERE ARE CONDITIONS NOT CAPTURED.

KEYNOTES:

NOTE: ALL KEYNOTES ARE SPECIFIC TO THIS SHEET

1. REMOVE AND REPLACE WET GLAZE SEALS (INTERIOR AND EXTERIOR) OF STOREFRONT ENTRY, SIDELITES, AND TRANSOM; PERIMETER SURROUND SEALANT (INTERIOR AND EXTERIOR); AND HARDWARE (BUTTS, SWEEPS, THRESHOLD, WEATHERSTRIP FELTS, AND CLOSURES). DOOR AND WINDOW SYSTEM TO REMAIN. PROTECT AS REQUIRED.
2. REMOVE AND REPLACE DAMAGED PLASTER. (SQUARE FEET). MATCH EXISTING PLASTER TEXTURE. PAINT TO MATCH EXISTING. SEE FLOOR PLAN AND ELEVATIONS FOR SCOPE OF WORK.
3. REMOVE AND REPLACE MISSING WINDOW SCREEN. VERIFY DIMENSION IN FIELD.
4. REMOVE AND REPLACE DAMAGED METAL GUTTER. MATCH EXISTING GUTTER MATERIAL, PROFILE, SIZE, ETC. IN ALL RESPECTS. DOWNSPOUT AND ROOFING FLASHING TO REMAIN. PROTECT AS REQUIRED. SEE ROOF PLAN FOR ADDITIONAL INFORMATION.
5. REMOVE AND REPLACE DAMAGED COPPER ROOF SYSTEM, TRIMS, FLASHING, AND GUTTERS. MATCH EXISTING GUTTER PROFILE, SIZE, ETC. IN ALL RESPECTS. DOWNSPOUTS TO REMAIN. PROTECT AS REQUIRED. REFER TO SHEET A302 FOR ADDITIONAL INFORMATION.
6. EXISTING SKYLIGHT TO REMAIN. REMOVE AND REINSTALL TO ALLOW ROOFING REPAIRS, ROOF COATING SYSTEM, AND FLASHING TO BE APPLIED. CLEAN AND PREP SKYLIGHT ASSEMBLY AND REMOVE AND REPLACE ALL INTERIOR AND EXTERIOR GLAZING SEALANTS. , WATER TEST TO VERIFY WATERPROOF CONDITION. REFER TO DETAIL 9/G005 AND SHEET A302 FOR ADDITIONAL INFORMATION.
7. REMOVE AND REPLACE SKYLIGHT INTERIOR GYPSUM BOARD SHAFT SURROUND. (SQUARE FEET). PAINT TO MATCH EXISTING. SKYLIGHT TO REMAIN. PROTECT AS REQUIRED. SEE FLOOR PLANS, ROOF PLAN, AND DETAIL 9/G005 FOR SCOPE OF WORK.
8. PATCH AND REPAIR EXISTING MODIFIED BITUMEN ROOFING SYSTEM, TRIMS, FLASHING, ETC. TO RECEIVE NEW LIQUID APPLIED ROOF COATING. REFER TO SHEET A302 FOR ADDITIONAL INFORMATION.
9. REMOVE AND REPLACE GYPSUM BOARD BEAM SURROUND. (SQUARE FEET). PAINT TO MATCH EXISTING. SEE FLOOR PLAN FOR SCOPE OF WORK.
10. EXISTING BUILDING CONSTRUCTION TO REMAIN. (TYPICAL) PROTECT AS REQUIRED.
11. REMOVE EXISTING COPPER ROOFING PANEL SYSTEM, FLASHING, TRIMS, GUTTER, ETC. TO PLYWOOD DECKING BELOW. MATCH GUTTER PROFILE AND SIZE IN ALL RESPECTS. DOWNSPOUTS TO REMAIN. PROTECT AS REQUIRED. PATCH AND REPAIR PLYWOOD DECKING AS REQUIRED TO RECEIVE NEW STANDING SEAM METAL ROOFING SYSTEM. SEE ROOF PLAN FOR SCOPE OF WORK.
12. EXISTING GUTTER TO REMAIN.
13. REMOVE AND REPLACE EXISTING SILL FLASHING WITH NEW CONT. STAINLESS-STEEL FLASHING AT PERIMETER OF SKYLIGHT OPENING. PRIME UNDERSIDE AND SET IN BED OF MASTIC.
14. APPLY NEW LIQUID APPLIED ROOF COATING UP WALL AND UNDER GUTTER. EXTEND COATING UP TO GUTTER AT OPPOSITE SIDE OF ROOF (EXISTING CONSTRUCTION TO REMAIN)
15. EXISTING COPPER DOWNSPOUT TO REMAIN. CAREFULLY TRIM AWAY FROM GUTTER TO BE REMOVED AND REATTACH TO NEW CONSTRUCTION. REFER TO SHEET A302 FOR ADDITIONAL INFORMATION.

project no. 25-1130-0046
drawn CSHB
checked AD
date 12.18.2025
revised

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PHOTOGRAPHS, KEYNOTES, DETAILS

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CONTRACT: 8174, SWB DWG NO: 12312-W-43

sheet no.
G005
5 of 16 sheets

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LEGEND

EXISTING - NO WORK THIS SPACE

AREA TO RECEIVE WORK. SEE CONSTRUCTION DOCUMENTS.

1 DEMO/ REMEDIAL FIRST FLOOR

A101 SCALE: 1/8" = 1'-0"

TRUE NORTH

GENERAL NOTES:

1. THE CONTRACTOR SHALL VISIT THE SITE AND THOROUGHLY ACQUAINT THEMSELVES WITH ALL ASPECTS OF THE WORK OUTLINED IN THESE BIDDING AND CONSTRUCTION DOCUMENTS PRIOR TO SUBMITTING A BID. ANY DISCREPANCIES SHALL BE BROUGHT IMMEDIATELY TO THE ATTENTION OF THE A/E.
2. EXISTING CONDITIONS INDICATED ON THE DRAWINGS AND PHOTOGRAPHS ARE BASED ON INFORMATION PROVIDED BY THE OWNER AND LIMITED FIELD MEASUREMENTS AND OBSERVATIONS. CONDITIONS SHOWN IN PHOTOGRAPHS ARE ONLY SELECT EXAMPLES OF EXISTING CONDITIONS AND ARE FOR REFERENCE ONLY. PHOTOGRAPHS ARE NOT A COMPLETE REPRESENTATION OF ALL EXISTING CONDITIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL FIELD AND JOB CONDITIONS PRIOR TO PREPARING THEIR BID. ANY CONDITIONS NOT ACCURATELY DESCRIBED IN THE DRAWINGS, PHOTOGRAPHS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE A/E PRIOR TO BID DATE. FAILURE TO DO SO WILL RENDER THE CONTRACTOR RESPONSIBLE FOR THE CONDITION SHOULD HE BE AWARDED THE CONTRACT.
3. ALTHOUGH THE DRAWINGS ARE DRAWN TO A SCALE, THE CONTRACTOR SHALL NOT SCALE DRAWINGS TO DETERMINE A DIMENSION. THESE DOCUMENTS HAVE BEEN PREPARED FROM LIMITED FIELD OBSERVATIONS AND INFORMATION PROVIDED BY THE OWNER. CONTRACTOR SHALL VERIFY ALL EXISTING FIELD CONDITIONS PRIOR TO SUBMITTING A BID. IF A DIMENSION IS NOT WRITTEN AND IS NOT APPARENT, THE CONTRACTOR SHALL NOTIFY THE A/E DURING THE BIDDING PHASE. FAILURE TO VERIFY THE EXISTING CONDITIONS ARE NOT GROUNDS FOR ADDITIONAL COST TO THE CONTRACTOR.
4. CONTRACTOR SHALL AT ALL TIMES CONDUCT THEIR OPERATIONS AS TO ENSURE THE LEAST INCONVENIENCE TO THE OWNER, GENERAL PUBLIC, AND ADJACENT PROPERTY OWNERS.
5. ALL SURFACES SHALL BE THOROUGHLY CLEANED AT THE COMPLETION OF THE DEMOLITION PHASE OF THE PROJECT.
6. CONTRACTOR SHALL COORDINATE ALL DEMOLITION WORK WITH NEW REQUIRED WORK PRIOR TO COMPLETION OF THE DEMOLITION PHASE OF THE PROJECT.
7. THE CONTRACTOR SHALL MAINTAIN ALL PARTS OF THE INTERIOR OF THE BUILDING IN A CLEAN AND SANITARY CONDITION AT ALL TIMES. CONFINE WORK IN THE BUILDING TO THE AREAS OF THE PROJECT AND AS ASSOCIATED WITH THE WORK. THE CONTRACTOR SHALL ERECT DUST WALLS TO PROTECT AREAS NOT UNDER CONSTRUCTION FROM DIRT, DUST, AND OTHER CONSTRUCTION DEBRIS. CONTRACTOR SHALL DAILY CLEAN ALL AREAS NOT IN CONSTRUCTION AREA THAT BECOME DUSTY AND DIRTY DUE TO CONSTRUCTION ACTIVITIES.
8. CONTRACTOR SHALL NOTIFY THOSE AFFECTED BY CONSTRUCTION 48 HOURS PRIOR TO DISRUPTION OF UTILITY SERVICES. UTILITY SERVICES SHALL BE PROMPTLY REPAIRED AND NOT REMAIN OUT OF SERVICE OVERNIGHT.
9. THE CONTRACTOR SHALL BE AWARE THAT THE BUILDING WILL BE OCCUPIED THROUGHOUT THE CONSTRUCTION PROCESS AND SHALL TAKE ALL NECESSARY STEPS TO KEEP THE BUILDING AND SITE CLEAN AND WATERTIGHT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING AND REPAIRING ANY DAMAGED WORK DUE TO STORM WATER INTRUSION.

DEMOLITION/ REMEDIAL KEYNOTES:

NOTE: ALL KEYNOTES ARE SPECIFIC TO THIS SHEET

1. REMOVE AND REPLACE DAMAGED ACOUSTICAL CEILING TILES. FIELD VERIFY LOCATIONS. (SQUARE FEET). ACOUSTICAL CEILING SUSPENSION GRID, HVAC, ELECTRICAL, AND SPECIAL SYSTEMS TO REMAIN. PROTECT AS REQUIRED.
2. REMOVE AND REPLACE PERIMETER WINDOW SURROUND SEALANT (INTERIOR AND EXTERIOR). WINDOW TO REMAIN. PROTECT AS REQUIRED.
3. REMOVE AND REPLACE DAMAGED GYPSUM BOARD, WALL INSULATION, AND WALL BASE. FIELD VERIFY LOCATIONS. (SQUARE FEET). PAINT TO MATCH EXISTING.
4. REMOVE AND REPLACE WET GLAZE SEALS (INTERIOR AND EXTERIOR) OF STOREFRONT ENTRY, SIDELITES, AND TRANSOM; PERIMETER SURROUND SEALANT (INTERIOR AND EXTERIOR); AND HARDWARE (BUTTS, SWEEPS, THRESHOLD, WEATHERSTRIP FELTS, AND CLOSERS). DOOR AND WINDOW SYSTEM TO REMAIN. PROTECT AS REQUIRED.
5. NOT USED THIS SHEET.
6. NOT USED THIS SHEET.
7. NOT USED THIS SHEET.
8. REMOVE AND REPLACE DAMAGED PLASTER. (SQUARE FEET). MATCH EXISTING PLASTER TEXTURE. PAINT TO MATCH EXISTING.
9. REMOVE AND REPLACE MISSING WINDOW SCREEN. VERIFY DIMENSION IN FIELD.
10. NOT USED THIS SHEET.

project no. 25-1130.0046
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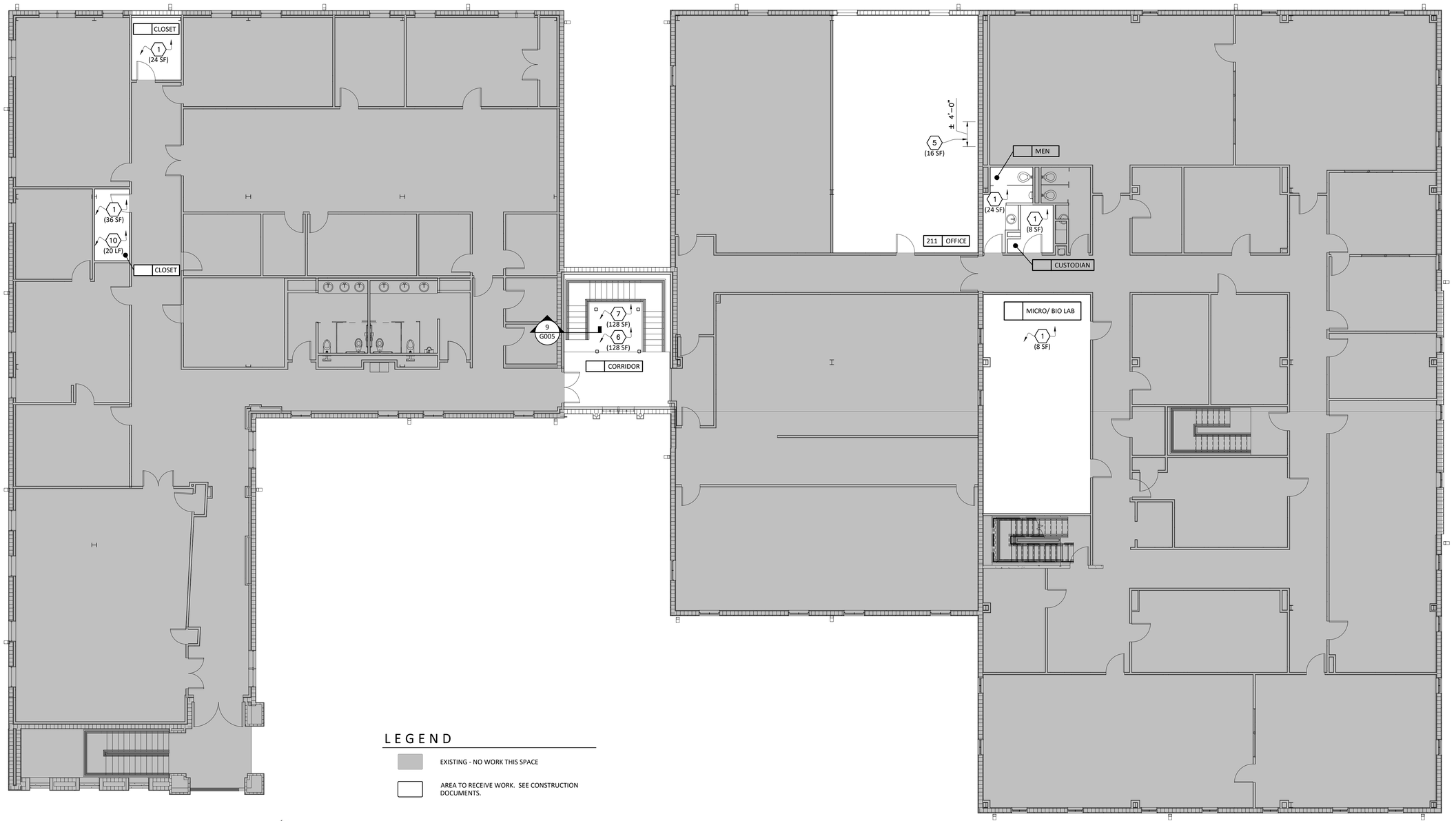
DEMO/ REMEDIAL FIRST FLOOR PLAN

REPAIRS TO THE ENGINEERING BUILDING
8800 S. Claiborne Avenue, New Orleans, LA 70118
CONTRACT: 8174, SWB DWG NO: 12312-W-43

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6 of 16 sheets

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1 DEMO/ REMEDIAL SECOND FLOOR

A102 SCALE: 1/8" = 1'-0"

TRUE NORTH

LEGEND

EXISTING - NO WORK THIS SPACE

AREA TO RECEIVE WORK. SEE CONSTRUCTION DOCUMENTS.

GENERAL NOTES:

1. THE CONTRACTOR SHALL VISIT THE SITE AND THOROUGHLY ACQUAINT THEMSELVES WITH ALL ASPECTS OF THE WORK OUTLINED IN THESE BIDDING AND CONSTRUCTION DOCUMENTS PRIOR TO SUBMITTING A BID. ANY DISCREPANCIES SHALL BE BROUGHT IMMEDIATELY TO THE ATTENTION OF THE A/E.
2. EXISTING CONDITIONS INDICATED ON THE DRAWINGS AND PHOTOGRAPHS ARE BASED ON INFORMATION PROVIDED BY THE OWNER AND LIMITED FIELD MEASUREMENTS AND OBSERVATIONS. CONDITIONS SHOWN IN PHOTOGRAPHS ARE ONLY SELECT EXAMPLES OF EXISTING CONDITIONS AND ARE FOR REFERENCE ONLY. PHOTOGRAPHS ARE NOT A COMPLETE REPRESENTATION OF ALL EXISTING CONDITIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL FIELD AND JOB CONDITIONS PRIOR TO PREPARING THEIR BID. ANY CONDITIONS NOT ACCURATELY DESCRIBED IN THE DRAWINGS, PHOTOGRAPHS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE A/E PRIOR TO BID DATE. FAILURE TO DO SO WILL RENDER THE CONTRACTOR RESPONSIBLE FOR THE CONDITION SHOULD HE BE AWARDED THE CONTRACT.
3. ALTHOUGH THE DRAWINGS ARE DRAWN TO A SCALE, THE CONTRACTOR SHALL NOT SCALE DRAWINGS TO DETERMINE A DIMENSION. THESE DOCUMENTS HAVE BEEN PREPARED FROM LIMITED FIELD OBSERVATIONS AND INFORMATION PROVIDED BY THE OWNER. CONTRACTOR SHALL VERIFY ALL EXISTING FIELD CONDITIONS PRIOR TO SUBMITTING A BID. IF A DIMENSION IS NOT WRITTEN AND IS NOT APPARENT, THE CONTRACTOR SHALL NOTIFY THE A/E DURING THE BIDDING PHASE. FAILURE TO VERIFY THE EXISTING CONDITIONS ARE NOT GROUNDS FOR ADDITIONAL COST TO THE CONTRACTOR.
4. CONTRACTOR SHALL AT ALL TIMES CONDUCT THEIR OPERATIONS AS TO ENSURE THE LEAST INCONVENIENCE TO THE OWNER, GENERAL PUBLIC, AND ADJACENT PROPERTY OWNERS.
5. ALL SURFACES SHALL BE THOROUGHLY CLEANED AT THE COMPLETION OF THE DEMOLITION PHASE OF THE PROJECT.
6. CONTRACTOR SHALL COORDINATE ALL DEMOLITION WORK WITH NEW REQUIRED WORK PRIOR TO COMPLETION OF THE DEMOLITION PHASE OF THE PROJECT.
7. THE CONTRACTOR SHALL MAINTAIN ALL PARTS OF THE INTERIOR OF THE BUILDING IN A CLEAN AND SANITARY CONDITION AT ALL TIMES. CONFINE WORK IN THE BUILDING TO THE AREAS OF THE PROJECT AND AS ASSOCIATED WITH THE WORK. THE CONTRACTOR SHALL ERECT DUST WALLS TO PROTECT AREAS NOT UNDER CONSTRUCTION FROM DIRT, DUST, AND OTHER CONSTRUCTION DEBRIS. CONTRACTOR SHALL DAILY CLEAN ALL AREAS NOT IN CONSTRUCTION AREA THAT BECOME DUSTY AND DIRTY DUE TO CONSTRUCTION ACTIVITIES.
8. CONTRACTOR SHALL NOTIFY THOSE AFFECTED BY CONSTRUCTION 48 HOURS PRIOR TO DISRUPTION OF UTILITY SERVICES. UTILITY SERVICES SHALL BE PROMPTLY REPAIRED AND NOT REMAIN OUT OF SERVICE OVERNIGHT.
9. THE CONTRACTOR SHALL BE AWARE THAT THE BUILDING WILL BE OCCUPIED THROUGHOUT THE CONSTRUCTION PROCESS AND SHALL TAKE ALL NECESSARY STEPS TO KEEP THE BUILDING AND SITE CLEAN AND WATERTIGHT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING AND REPAIRING ANY DAMAGED WORK DUE TO STORM WATER INTRUSION.

DEMOLITION/ REMEDIAL KEYNOTES:

NOTE: ALL KEYNOTES ARE SPECIFIC TO THIS SHEET

1. REMOVE AND REPLACE DAMAGED ACOUSTICAL CEILING TILES. FIELD VERIFY LOCATIONS. (SQUARE FEET). ACOUSTICAL CEILING SUSPENSION GRID, HVAC, ELECTRICAL, AND SPECIAL SYSTEMS TO REMAIN. PROTECT AS REQUIRED.
2. NOT USED THIS SHEET.
3. NOT USED THIS SHEET.
4. NOT USED THIS SHEET.
5. REMOVE AND REPLACE DAMAGED GYPSUM BOARD AND WALL INSULATION. FIELD VERIFY LOCATIONS. (SQUARE FEET). PAINT TO MATCH EXISTING.
6. REMOVE AND REPLACE SKYLIGHT GYPSUM BOARD INTERIOR SHAFT SURROUND. (SQUARE FEET). PAINT TO MATCH EXISTING. SKYLIGHT TO REMAIN. PROTECT AS REQUIRED. SEE DETAIL 9/G005.
7. REMOVE AND REPLACE GYPSUM BOARD BEAM SURROUND. (SQUARE FEET). PAINT TO MATCH EXISTING. SEE DETAIL 9/G005.
8. NOT USED THIS SHEET.
9. NOT USED THIS SHEET.
10. REMOVE AND REPLACE DAMAGED ACOUSTICAL CEILING SUSPENSION GRID. FIELD VERIFY LOCATIONS. (LINEAR FEET).

project no. 25-1130-0046
drawn CSHB
checked AD
date 12.18.2025
revised

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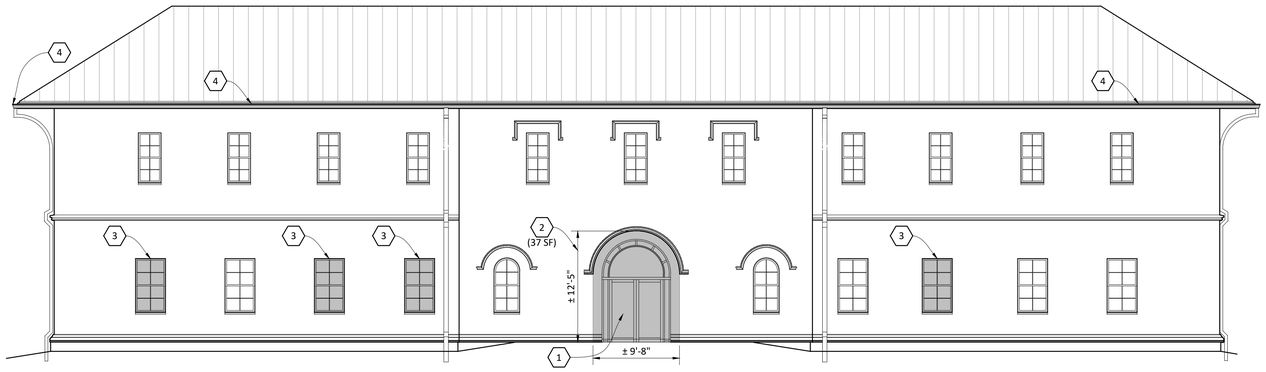
DEMO/ REMEDIAL SECOND FLOOR PLAN

REPAIRS TO THE ENGINEERING BUILDING
8800 S. Claiborne Avenue, New Orleans, LA 70118
CONTRACT: 8174, SWB DWG NO: 12312-W-43

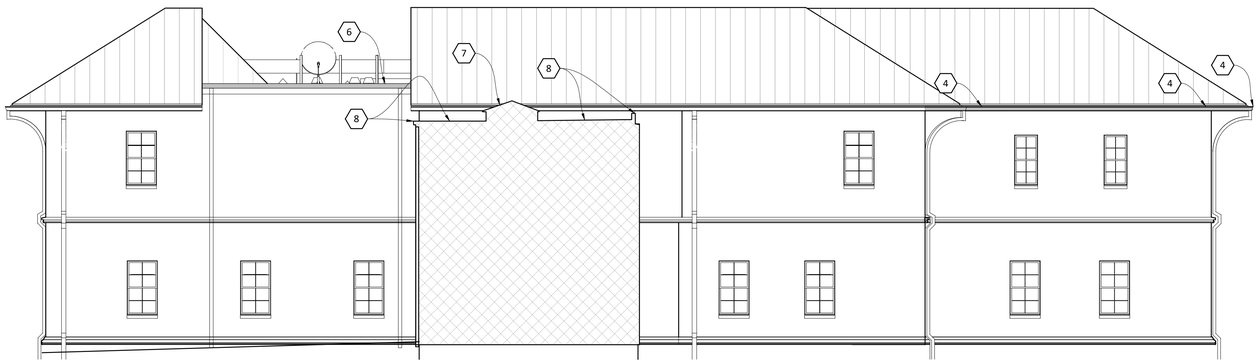
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P:\2025\PROJECTS\1130\25-1130-0046 REPAIRS ENGINEERING BUILDING SWBNO\PROJECT DESIGN\ARCHITECTURAL\DRAWINGS\25-1130-0046 A102 SECOND FLOOR PLAN.DWG



1 A201 DEMO/ REMEDIAL NORTH ELEVATION
SCALE: 1/8" = 1'-0"



2 A201 DEMO/ REMEDIAL SOUTH ELEVATION
SCALE: 1/8" = 1'-0"



3 A201 DEMO/ REMEDIAL EAST ELEVATION
SCALE: 1/8" = 1'-0"

LEGEND

AREA TO RECEIVE WORK. SEE CONSTRUCTION DOCUMENTS.

EXISTING - NO WORK THIS SPACE

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6. CONTRACTOR SHALL COORDINATE ALL DEMOLITION WORK WITH NEW REQUIRED WORK PRIOR TO COMPLETION OF THE DEMOLITION PHASE OF THE PROJECT.
7. THE CONTRACTOR SHALL MAINTAIN ALL PARTS OF THE INTERIOR OF THE BUILDING IN A CLEAN AND SANITARY CONDITION AT ALL TIMES. CONFINE WORK IN THE BUILDING TO THE AREAS OF THE PROJECT AND AS ASSOCIATED WITH THE WORK. THE CONTRACTOR SHALL ERECT DUST WALLS TO PROTECT AREAS NOT UNDER CONSTRUCTION FROM DIRT, DUST, AND OTHER CONSTRUCTION DEBRIS. CONTRACTOR SHALL DAILY CLEAN ALL AREAS NOT IN CONSTRUCTION AREA THAT BECOME DUSTY AND DIRTY DUE TO CONSTRUCTION ACTIVITIES.
8. CONTRACTOR SHALL NOTIFY THOSE AFFECTED BY CONSTRUCTION 48 HOURS PRIOR TO DISRUPTION OF UTILITY SERVICES. UTILITY SERVICES SHALL BE PROMPTLY REPAIRED AND NOT REMAIN OUT OF SERVICE OVERNIGHT.
9. THE CONTRACTOR SHALL TO BE AWARE THAT THE BUILDING WILL BE OCCUPIED THROUGHOUT THE CONSTRUCTION PROCESS AND SHALL TAKE ALL NECESSARY STEPS TO KEEP THE BUILDING AND SITE CLEAN AND WATERTIGHT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING AND REPAIRING ANY DAMAGED WORK DUE TO STORM WATER INTRUSION.

DEMOLITION/ REMEDIAL KEYNOTES:

NOTE: ALL KEYNOTES ARE SPECIFIC TO THIS SHEET

1. REMOVE AND REPLACE WET GLAZE SEALS (INTERIOR AND EXTERIOR) OF STOREFRONT ENTRY, SIDELITES, AND TRANSOM; PERIMETER SURROUND SEALANTS (INTERIOR AND EXTERIOR); AND HARDWARE (BUTTS, SWEEPS, THRESHOLD, WEATHERSTRIP FELTS, AND CLOSERS). DOOR AND WINDOW SYSTEM TO REMAIN. PROTECT AS REQUIRED.
2. REMOVE AND REPLACE DAMAGED PLASTER. (SQUARE FEET). MATCH EXISTING PLASTER TEXTURE. PAINT TO MATCH EXISTING.
3. REMOVE AND REPLACE MISSING WINDOW SCREEN. VERIFY DIMENSION IN FIELD.
4. REMOVE AND REPLACE DAMAGED METAL GUTTER. MATCH EXISTING GUTTER MATERIAL, PROFILE, SIZE, ETC. IN ALL RESPECTS. DOWNSPOUT AND ROOFING FLASHING TO REMAIN. PROTECT AS REQUIRED. SEE ROOF PLAN FOR ADDITIONAL INFORMATION.
5. REMOVE AND REPLACE DAMAGED COPPER STANDING SEAM METAL ROOF SYSTEM WITH PRE-FINISHED METAL STANDING SEAM ROOF SYSTEM INCLUDING ALL TRIMS, FLASHINGS, ACCESSORIES, AND GUTTERS. MATCH EXISTING GUTTER PROFILE, SIZE, ETC. IN ALL RESPECTS. DOWNSPOUTS TO REMAIN. PROTECT AS REQUIRED. SEE ROOF PLAN FOR ADDITIONAL INFORMATION.
6. REMOVE AND REPLACE DAMAGED ASPHALTIC GRAVEL ROOF SYSTEM AND METAL GUTTER. MATCH EXISTING GUTTER PROFILE, SIZE, ETC. IN ALL RESPECTS. DOWNSPOUTS TO REMAIN. PROTECT AS REQUIRED. SEE ROOF PLAN FOR ADDITIONAL INFORMATION.
7. EXISTING SKYLIGHT TO REMAIN. REMOVE AND REINSTALL TO ALLOW REPAIR WORK OF EXISTING ROOFING SYSTEM AND APPLICATION OF NEW ROOF COATING. REMOVE ALL GLAZING SEALANTS, CLEAN AND PREP TO RECEIVE NEW MATERIAL. WATER TEST TO VERIFY WATERPROOF CONDITION. SEE ROOF PLAN AND DETAIL 9/G005 FOR ASSOCIATED WORK.
8. EXISTING MODIFIED BITUMEN ROOFING ASSEMBLY TO REMAIN IN PLACE. PATCH AND REPAIR TO RECEIVE NEW COLD APPLIED MEMBRANE ROOFING SYSTEM. REMOVE AND REPLACE COPPER COPING CAP WITH LIKE KIND. GUTTER AND DOWNSPOUTS TO REMAIN. PROTECT AS REQUIRED.

project no. 25-1130-0046
drawn CSHB
checked AD
date 12.18.2025
revised

ALFONSO F. ROMERO REG. NO. 9365 STATE OF LOUISIANA REGISTERED ARCHITECT

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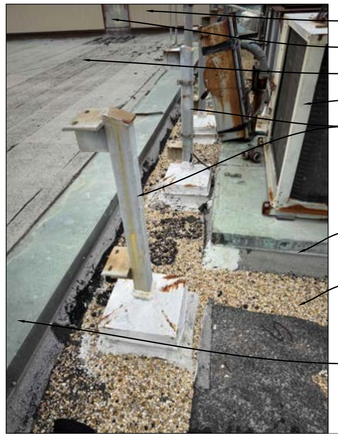
DEMO/ REMEDIAL EXTERIOR ELEVATIONS

REPAIRS TO THE ENGINEERING BUILDING
8800 S. Claiborne Avenue, New Orleans, LA 70118
CONTRACT: 8174, SWB DWG NO: 12312-W-43

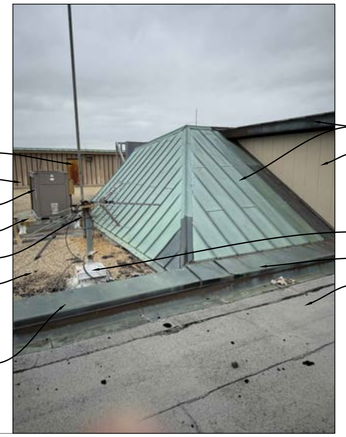
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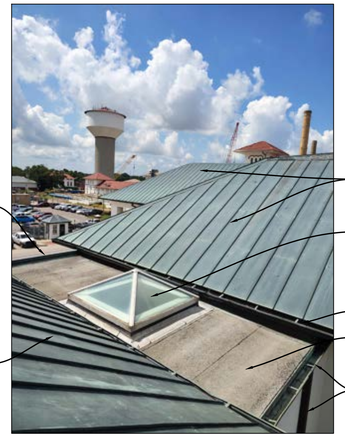
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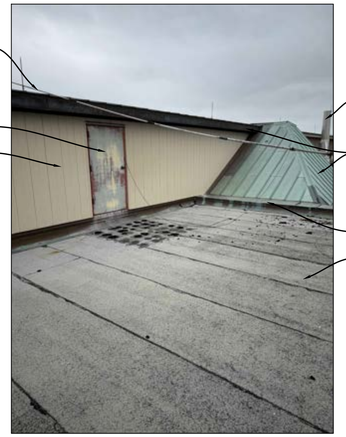
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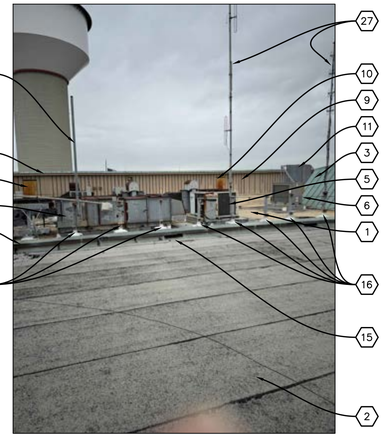
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3 PHOTOGRAPH N.T.S.
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4 PHOTOGRAPH N.T.S.
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5 PHOTOGRAPH N.T.S.
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6 PHOTOGRAPH N.T.S.
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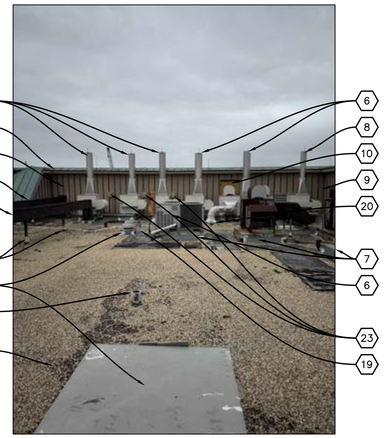
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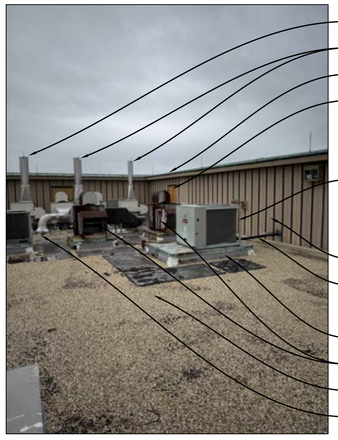
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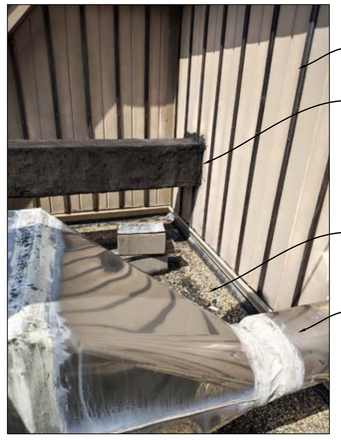
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13 PHOTOGRAPH N.T.S.
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14 PHOTOGRAPH N.T.S.
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15 PHOTOGRAPH N.T.S.
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KEYNOTES

NOTE: ALL KEYNOTES ARE SPECIFIC TO THIS SHEET

1. EXISTING BUILT-UP ROOFING ASSEMBLY AND GRAVEL TO BE REMOVED IN ITS ENTIRETY. PATCH AND REPAIR CONCRETE DECK BELOW PRIOR TO ACCEPTING NEW WORK.
2. EXISTING MODIFIED BITUMEN ROOFING ASSEMBLY TO BE REMOVED IN ITS ENTIRETY. PATCH AND REPAIR METAL DECKING BELOW PRIOR TO ACCEPTING NEW WORK.
3. EXISTING COPPER ROOFING, TRIM AND FLASHING TO REMAIN. PATCH AND REPAIR AS REQUIRED TO ACCOMMODATE NEW WORK.
4. EXISTING COPPER ROOFING, TRIM, FLASHING AND GUTTERS TO BE REMOVED AND REPLACED. PATCH AND REPAIR PLYWOOD DECKING BELOW PRIOR TO ACCEPTING NEW WORK.
5. EXISTING MECHANICAL UNIT, DUCTWORK, AND WIRING TO BE REMOVED IN ITS ENTIRETY. PREP CURB AS REQUIRED FOR NOTE #7.
6. EXISTING MECHANICAL UNIT TO REMAIN. PROTECT DURING ALL PHASES OF CONSTRUCTION.
7. EXISTING CONCRETE CURB TO REMAIN. STRIP AND CLEAN OF ALL MATERIAL TO ACCEPT NEW ROOFING AND STAINLESS-STEEL COVER.
8. UNIT PRICE #2 – REMOVE EXISTING HOOD UNIT AND ACCESSORIES IN THEIR ENTIRETY. TRIM AND SEAL DUCTWORK INSIDE BUILDING. REPAIR PLYWOOD SHEATHING AND VAPOR BARRIER TO MAINTAIN WEATHERPROOFING. REPLACE ALL DAMAGED METAL WALL PANELS AND BATTEN WITH NEW MATCHING CONSTRUCTION.
9. EXISTING METAL WALL PANELS TO REMAIN. REMOVE AND REPLACE WOOD BATTENS (30 COUNT) WITH NEW PRESSURE-TREATED 1x4 WOOD BATTENS (ADD/ALT.). SEAL ALL HOLES FOUND ON PANELS PRIOR TO INSTALLING NEW STRAPS. REMOVE AND REPLACE BASE FLASHING WITH NEW WORK AS REQUIRED TO ACCOMMODATE NEW CONSTRUCTION.
10. EXISTING DOOR ASSEMBLY TO REMAIN. CLEAN AND PREP TO RECEIVE NEW PAINT FINISH AT EXTERIOR SIDE ONLY. REPLACE SILL FLASHING TO MATCH ADJACENT PANELS.
11. EXISTING ELECTRICAL PANEL, SUPPORTING STEEL STRUCTURE AND CURB TO REMAIN. REMOVE ALL PITCH POCKETS, CLEAN AND PREP PRIOR TO ACCEPTING NEW WORK.
12. EXISTING VTR TO REMAIN. PATCH AND PREP TO RECEIVE NEW CONSTRUCTION AND EXTEND OPENING TO MINIMUM OF 8" ABOVE NEW ROOF.
13. EXISTING CONDUITS TO REMAIN. PROTECT DURING ALL PHASES OF CONSTRUCTION. REMOVE AND REPLACE ALL EXISTING WOOD BLOCKING WITH NEW EPDM BLOCKS SPACED AT 8'-0" ON CENTER MAXIMUM.
14. EXISTING ROOF DRAINS TO REMAIN. PATCH AND REPAIR TO ACCEPT NEW RETROFIT DRAIN.
15. EXISTING COPPER-FABRICATED EXPANSION JOINT/SCUPPER ASSEMBLY TO BE REMOVED IN ITS ENTIRETY. PATCH AND REPAIR ADJACENT AREA PRIOR TO ACCEPTING NEW WORK.
16. EXISTING GALVANIZED STEEL SUPPORT TO REMAIN. REMOVE CURB AND INTERNAL PITCH POCKET IN THEIR ENTIRETY. CLEAN, PATCH AND REPAIR SUPPORT AND ROOF AREA PRIOR TO ACCEPTING NEW WORK.
17. EXISTING BLACK-COATED ELEVATED DUCT TO REMAIN. PROTECT DURING ALL PHASES OF CONSTRUCTION.
18. EXISTING BLACK-COATED DUCT PENETRATION AND CURB TO REMAIN. PROTECT DURING ALL PHASES OF CONSTRUCTION. CLEAN AND PREP CURB TO ACCEPT NEW WORK. CLEAN AND RESEAL DUCT AS REQUIRED
19. EXISTING ELECTRICAL WIRING TO REMAIN. PROTECT DURING ALL PHASES OF CONSTRUCTION. REMOVE METAL COVER AND PREP TO RECEIVE NEW PITCH POCKETS.
20. EXISTING DUCT PENETRATION TO REMAIN. REMOVE AND REPLACE STAINLESS-STEEL COVER WITH LIKE MATERIAL AND WATERPROOF AS REQUIRED. CLEAN AND PATCH CURB TO RECEIVE NEW ROOFING MEMBRANE.
21. EXISTING GOOSENECK VENT TO BE REMOVED AND REPLACE WITH NEW STAINLESS-STEEL CONSTRUCTION OF SAME SIZE AND PROFILE.
22. EXISTING SKYLIGHT TO REMAIN. REMOVE AND REINSTALL TO ALLOW NEW LIQUID MEMBRANE COATING TO BE APPLIED. REMOVE ALL GLAZING SEALANT, CLEAN AND PREP TO RECEIVE NEW MATERIAL. WATER TEST TO VERIFY WATERPROOF CONDITION.
23. EXISTING ELECTRICAL BOX TO REMAIN. REMOVE WIRING TO DEMOLISHED UNIT AND SEAL AS REQUIRED.
24. EXISTING COPPER GUTTER AND DOWNSPOUTS TO REMAIN. PATCH AND REPAIR AS REQUIRED TO ACCOMMODATE NEW WORK.
25. EXISTING GUTTER TO BE REMOVED AND REPLACE WITH NEW CONSTRUCTION OF LIKE KIND MATERIAL, PROFILE, AND BRACKETS.
26. ALL EXISTING REFRIGERANT LINES TO RECEIVE NEW INSULATION AND PLASTIC PIPE INSULATION JACKETING.
27. EXISTING ELECTRONIC EQUIPMENT TO REMAIN. PROTECT DURING ALL PHASES OF CONSTRUCTION.
28. EXISTING MODIFIED BITUMEN ROOFING ASSEMBLY TO REMAIN IN PLACE. PATCH AND REPAIR TO ACCEPT NEW LIQUID MEMBRANE COATING.
29. EXISTING COPPER COPING TO BE REMOVED AND REPLACED WITH NEW LIKE MATERIAL AND PROFILE.
30. EXISTING METAL WALL PANELS TO REMAIN SEAL REMOVE AND REPLACE BASE FLASHING WITH NEW WORK AS REQUIRED TO ACCOMMODATE NEW CONSTRUCTION.

project no. 25-1130-0046
drawn AFR
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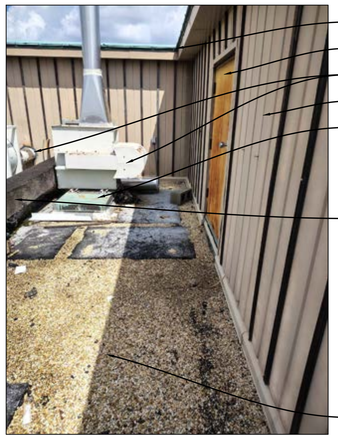
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PHOTOGRAPHS, KEYNOTES

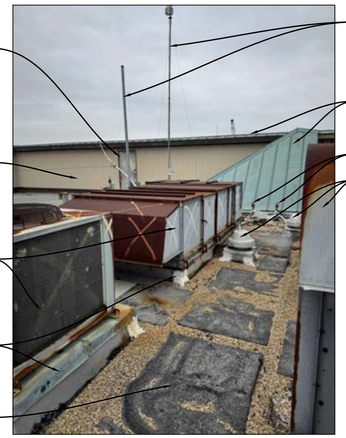
REPAIRS TO THE ENGINEERING BUILDING
8800 S. Claiborne Avenue, New Orleans, LA 70118
CONTRACT: 8174, SWB DWG NO: 12312-W-43

sheet no.
A300
9 of 16 sheets

P:\2025\PROJECTS\1130\25-1130-0046 REPAIRS ENGINEERING BUILDING SWBNO\PROJECT DESIGN\ARCHITECTURAL\DRAWINGS\25-1130-0046 A300-303 ROOF PLAN.DWG



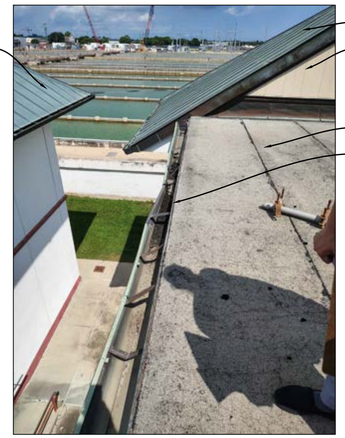
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9 A301 PHOTOGRAPH N.T.S.



10 A301 PHOTOGRAPH N.T.S.



11 A301 PHOTOGRAPH N.T.S.



12 A301 PHOTOGRAPH N.T.S.

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2. EXISTING MODIFIED BITUMEN ROOFING ASSEMBLY TO BE REMOVED IN ITS ENTIRETY. PATCH AND REPAIR METAL DECKING BELOW PRIOR TO ACCEPTING NEW WORK.
3. EXISTING COPPER ROOFING, TRIM AND FLASHING TO REMAIN. PATCH AND REPAIR AS REQUIRED TO ACCOMMODATE NEW WORK.
4. EXISTING COPPER ROOFING, TRIM, FLASHING AND GUTTERS TO BE REMOVED AND REPLACED. PATCH AND REPAIR PLYWOOD DECKING BELOW PRIOR TO ACCEPTING NEW WORK.
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6. EXISTING MECHANICAL UNIT TO REMAIN. PROTECT DURING ALL PHASES OF CONSTRUCTION.
7. EXISTING CONCRETE CURB TO REMAIN. STRIP AND CLEAN OF ALL MATERIAL TO ACCEPT NEW ROOFING AND STAINLESS-STEEL COVER.
8. UNIT PRICE #2 – REMOVE EXISTING HOOD UNIT AND ACCESSORIES IN THEIR ENTIRETY. TRIM AND SEAL DUCTWORK INSIDE BUILDING. REPAIR PLYWOOD SHEATHING AND VAPOR BARRIER TO MAINTAIN WEATHERPROOFING. REPLACE ALL DAMAGED METAL WALL PANELS AND BATTEN WITH NEW MATCHING CONSTRUCTION.
9. EXISTING METAL WALL PANELS TO REMAIN. REMOVE AND REPLACE WOOD BATTENS (30 COUNT) WITH NEW PRESSURE-TREATED 1x4 WOOD BATTENS (ADD/ALT.). SEAL ALL HOLES FOUND ON PANELS PRIOR TO INSTALLING NEW STRAPS. REMOVE AND REPLACE BASE FLASHING WITH NEW WORK AS REQUIRED TO ACCOMMODATE NEW CONSTRUCTION.
10. EXISTING DOOR ASSEMBLY TO REMAIN. CLEAN AND PREP TO RECEIVE NEW PAINT FINISH AT EXTERIOR SIDE ONLY. REPLACE SILL FLASHING TO MATCH ADJACENT PANELS.
11. EXISTING ELECTRICAL PANEL, SUPPORTING STEEL STRUCTURE AND CURB TO REMAIN. REMOVE ALL PITCH POCKETS, CLEAN AND PREP PRIOR TO ACCEPTING NEW WORK.
12. EXISTING VTR TO REMAIN. PATCH AND PREP TO RECEIVE NEW CONSTRUCTION AND EXTEND OPENING TO MINIMUM OF 8" ABOVE NEW ROOF.
13. EXISTING CONDUITS TO REMAIN. PROTECT DURING ALL PHASES OF CONSTRUCTION. REMOVE AND REPLACE ALL EXISTING WOOD BLOCKING WITH NEW EPDM BLOCKS SPACED AT 8'-0" ON CENTER MAXIMUM.
14. EXISTING ROOF DRAINS TO REMAIN. PATCH AND REPAIR TO ACCEPT NEW RETROFIT DRAIN.
15. EXISTING COPPER-FABRICATED EXPANSION JOINT/SCUPPER ASSEMBLY TO BE REMOVED IN ITS ENTIRETY. PATCH AND REPAIR ADJACENT AREA PRIOR TO ACCEPTING NEW WORK.
16. EXISTING GALVANIZED STEEL SUPPORT TO REMAIN. REMOVE CURB AND INTERNAL PITCH POCKET IN THEIR ENTIRETY. CLEAN, PATCH AND REPAIR SUPPORT AND ROOF AREA PRIOR TO ACCEPTING NEW WORK.
17. EXISTING BLACK-COATED ELEVATED DUCT TO REMAIN. PROTECT DURING ALL PHASES OF CONSTRUCTION.
18. EXISTING ELECTRICAL WIRING TO REMAIN. PROTECT DURING ALL PHASES OF CONSTRUCTION. REMOVE METAL COVER AND PREP TO RECEIVE NEW PITCH POCKETS.
19. EXISTING DUCT PENETRATION AT ROOF TO BE REMOVED AND INFILLED WITH NEW INSULATED CONSTRUCTION PRIOR TO INSTALLING NEW ROOFING MEMBRANE.
20. EXISTING GOOSENECK VENT TO BE REMOVED AND REPLACE WITH NEW STAINLESS-STEEL CONSTRUCTION OF SAME SIZE AND PROFILE.
21. EXISTING ELECTRICAL BOX TO REMAIN. REMOVE WIRING TO DEMOLISHED UNIT AND SEAL AS REQUIRED.
22. EXISTING GUTTER TO BE REMOVED AND REPLACE WITH NEW CONSTRUCTION OF LIKE KIND MATERIAL, PROFILE, AND BRACKETS.
23. ALL EXISTING REFRIGERANT LINES TO RECEIVE NEW INSULATION AND PLASTIC PIPE INSULATION JACKETING.
24. EXISTING ELECTRONIC EQUIPMENT TO REMAIN. PROTECT DURING ALL PHASES OF CONSTRUCTION.
25. EXISTING METAL WALL PANELS TO REMAIN SEAL REMOVE AND REPLACE BASE FLASHING WITH NEW WORK AS REQUIRED TO ACCOMMODATE NEW CONSTRUCTION.

project no. 25-1130-0046
drawn AFR
checked AD
date 12.18.2025
revised

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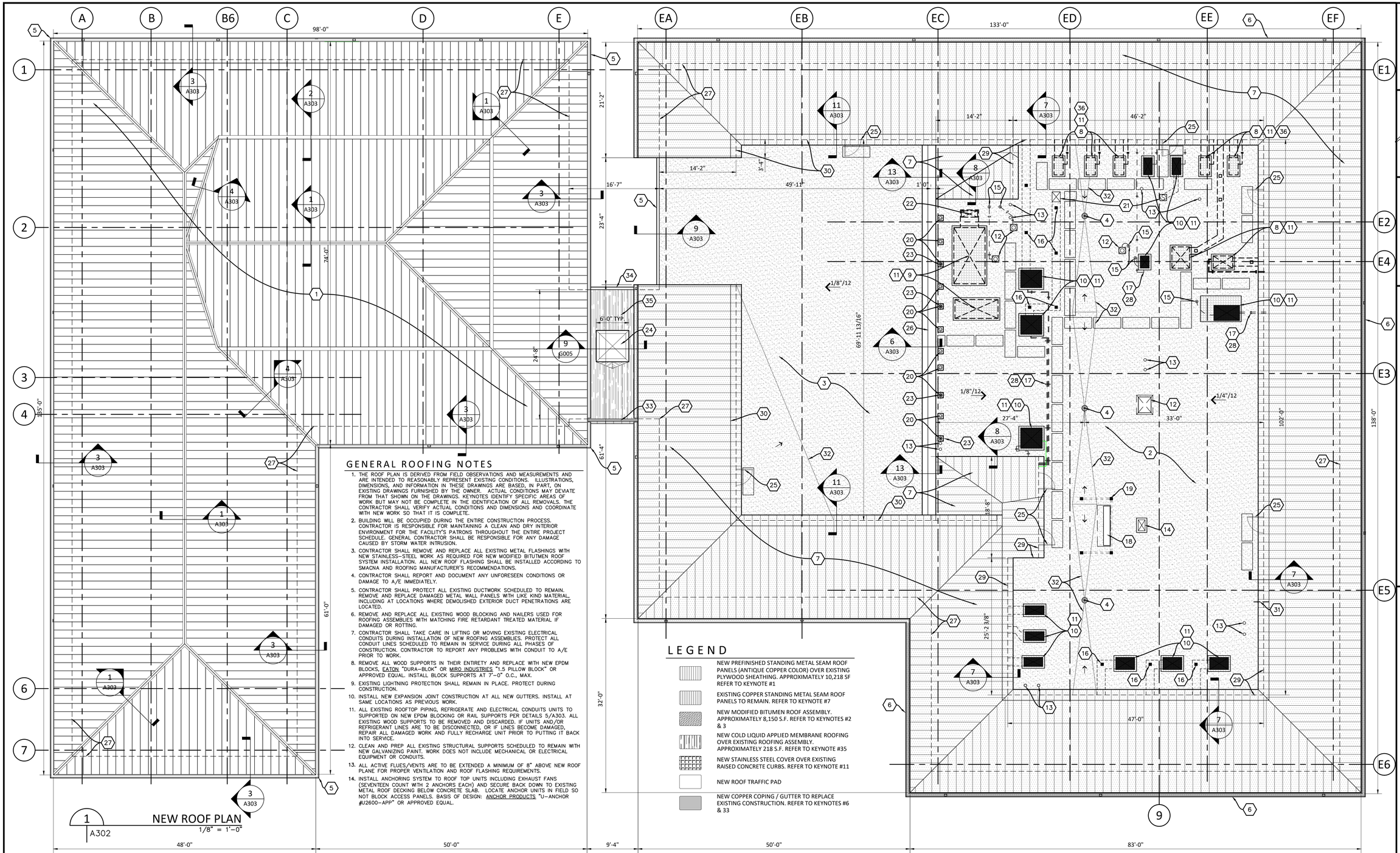
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PHOTOGRAPHS, KEYNOTES

REPAIRS TO THE ENGINEERING BUILDING
8800 S. Claiborne Avenue, New Orleans, LA 70118
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sheet no.
A301
10 of 16 sheets

P:\2025\PROJECTS\1130\25-1130-0046 REPAIRS ENGINEERING BUILDING SWENG\PROJECT DESIGN\ARCHITECTURAL\DRAWINGS\25-1130-0046 A300-303 ROOF PLAN.DWG



GENERAL ROOFING NOTES

1. THE ROOF PLAN IS DERIVED FROM FIELD OBSERVATIONS AND MEASUREMENTS AND ARE INTENDED TO REASONABLY REPRESENT EXISTING CONDITIONS. ILLUSTRATIONS, DIMENSIONS, AND INFORMATION IN THESE DRAWINGS ARE BASED, IN PART, ON EXISTING DRAWINGS FURNISHED BY THE OWNER. ACTUAL CONDITIONS MAY DEVIATE FROM THAT SHOWN ON THE DRAWINGS. KEYNOTES IDENTIFY SPECIFIC AREAS OF WORK BUT MAY NOT BE COMPLETE IN THE IDENTIFICATION OF ALL REMOVALS. THE CONTRACTOR SHALL VERIFY ACTUAL CONDITIONS AND DIMENSIONS AND COORDINATE WITH NEW WORK SO THAT IT IS COMPLETE.
2. BUILDING WILL BE OCCUPIED DURING THE ENTIRE CONSTRUCTION PROCESS. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A CLEAN AND DRY INTERIOR ENVIRONMENT FOR THE FACILITY'S PATRONS THROUGHOUT THE ENTIRE PROJECT SCHEDULE. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED BY STORM WATER INTRUSION.
3. CONTRACTOR SHALL REMOVE AND REPLACE ALL EXISTING METAL FLASHINGS WITH NEW STAINLESS-STEEL WORK AS REQUIRED FOR NEW MODIFIED BITUTMEN ROOF SYSTEM INSTALLATION. ALL NEW ROOF FLASHING SHALL BE INSTALLED ACCORDING TO SMACNA AND ROOFING MANUFACTURER'S RECOMMENDATIONS.
4. CONTRACTOR SHALL REPORT AND DOCUMENT ANY UNFORESEEN CONDITIONS OR DAMAGE TO A/E IMMEDIATELY.
5. CONTRACTOR SHALL PROTECT ALL EXISTING DUCTWORK SCHEDULED TO REMAIN. REMOVE AND REPLACE DAMAGED METAL WALL PANELS WITH LIKE KIND MATERIAL, INCLUDING AT LOCATIONS WHERE DEMOLISHED EXTERIOR DUCT PENETRATIONS ARE LOCATED.
6. REMOVE AND REPLACE ALL EXISTING WOOD BLOCKING AND NAILERS USED FOR ROOFING ASSEMBLIES WITH MATCHING FIRE RETARDANT TREATED MATERIAL IF DAMAGED OR ROTTING.
7. CONTRACTOR SHALL TAKE CARE IN LIFTING OR MOVING EXISTING ELECTRICAL CONDUITS DURING INSTALLATION OF NEW ROOFING ASSEMBLIES. PROTECT ALL CONDUIT LINES SCHEDULED TO REMAIN IN SERVICE DURING ALL PHASES OF CONSTRUCTION. CONTRACTOR TO REPORT ANY PROBLEMS WITH CONDUIT TO A/E PRIOR TO WORK.
8. REMOVE ALL WOOD SUPPORTS IN THEIR ENTIRETY AND REPLACE WITH NEW EPDM BLOCKS, EATON "DURA-BLOK" OR MIRO INDUSTRIES "1.5 PILLOW BLOCK" OR APPROVED EQUAL. INSTALL BLOCK SUPPORTS AT 7'-0" O.C., MAX.
9. EXISTING LIGHTNING PROTECTION SHALL REMAIN IN PLACE. PROTECT DURING CONSTRUCTION.
10. INSTALL NEW EXPANSION JOINT CONSTRUCTION AT ALL NEW GUTTERS. INSTALL AT SAME LOCATIONS AS PREVIOUS WORK.
11. ALL EXISTING ROOFTOP PIPING, REFRIGERATE AND ELECTRICAL CONDUITS UNITS TO SUPPORTED ON NEW EPDM BLOCKING OR RAIL SUPPORTS PER DETAILS 5/A303. ALL EXISTING WOOD SUPPORTS TO BE REMOVED AND DISCARDED. IF UNITS AND/OR REFRIGERANT LINES ARE TO BE DISCONNECTED, OR IF LINES BECOME DAMAGED, REPAIR ALL DAMAGED WORK AND FULLY RECHARGE UNIT PRIOR TO PUTTING IT BACK INTO SERVICE.
12. CLEAN AND PREP ALL EXISTING STRUCTURAL SUPPORTS SCHEDULED TO REMAIN WITH NEW GALVANIZING PAINT. WORK DOES NOT INCLUDE MECHANICAL OR ELECTRICAL EQUIPMENT OR CONDUITS.
13. ALL ACTIVE FLUES/VENTS ARE TO BE EXTENDED A MINIMUM OF 8" ABOVE NEW ROOF PLANE FOR PROPER VENTILATION AND ROOF FLASHING REQUIREMENTS.
14. INSTALL ANCHORING SYSTEM TO ROOF TOP UNITS INCLUDING EXHAUST FANS (SEVENTEEN COUNT WITH 2 ANCHORS EACH) AND SECURE BACK DOWN TO EXISTING METAL ROOF DECKING BELOW CONCRETE SLAB. LOCATE ANCHOR UNITS IN FIELD SO NOT BLOCK ACCESS PANELS. BASIS OF DESIGN: ANCHOR PRODUCTS "U-ANCHOR #U2600-APP" OR APPROVED EQUAL.

LEGEND

- NEW PREFINISHED STANDING METAL SEAM ROOF PANELS (ANTIQUE COPPER COLOR) OVER EXISTING PLYWOOD SHEATHING. APPROXIMATELY 10,218 SF REFER TO KEYNOTE #1
- EXISTING COPPER STANDING METAL SEAM ROOF PANELS TO REMAIN. REFER TO KEYNOTE #7
- NEW MODIFIED BITUMEN ROOF ASSEMBLY. APPROXIMATELY 8,150 S.F. REFER TO KEYNOTES #2 & 3
- NEW COLD LIQUID APPLIED MEMBRANE ROOFING OVER EXISTING ROOFING ASSEMBLY. APPROXIMATELY 218 S.F. REFER TO KEYNOTE #35
- NEW STAINLESS STEEL COVER OVER EXISTING RAISED CONCRETE CURBS. REFER TO KEYNOTE #11
- NEW ROOF TRAFFIC PAD
- NEW COPPER COPING / GUTTER TO REPLACE EXISTING CONSTRUCTION. REFER TO KEYNOTES #6 & 33

KEYNOTES

1. UNIT PRICE – REFERENCE NO. 5: REMOVE EXISTING COPPER ROOF PANELS AND BUILDING FELT IN ITS ENTIRETY TO EXPOSE PLYWOOD DECKING BELOW. REPLACE WITH NEW PREFINISHED STANDING SEAM METAL ROOF PANELS AND SELF-ADHERING ROOFING UNDERLAYMENT.
2. UNIT PRICE – REFERENCE NO. 2: REMOVE EXISTING GRAVEL AND BUILT-UP ROOFING ASSEMBLY TO EXPOSE CONCRETE DECK BELOW. REPLACE WITH NEW MODIFIED BITUMEN ROOFING ASSEMBLY OVER TAPERED RIGID INSULATION.
3. UNIT PRICE – REFERENCE NO. 3: REMOVE EXISTING MODIFIED BITUMEN ROOFING ASSEMBLY TO EXPOSE METAL DECKING BELOW. REPLACE WITH NEW MODIFIED BITUMEN ROOFING ASSEMBLY OVER TAPERED RIGID INSULATION.
4. REMOVE AND REPLACE EXISTING 6" ø ROOF DRAINS WITH NEW RETRO-FIT ROOF DRAINS OF EQUAL SIZE. CONTRACTOR TO TEST DRAINS FOR LEAKS AFTER INSTALLATION.
5. REMOVE EXISTING COPPER GUTTERS AND BRACKETS ONLY AND REPLACE WITH NEW PREFINISHED METAL OF MATCHING PROFILE. TIE AND SEAL NEW WORK INTO EXISTING COPPER DOWNSPOUTS SCHEDULED TO REMAIN. INSTALL NEW EXPANSION JOINTS AT ORIGINAL LOCATIONS.
6. UNIT PRICE – REFERENCE NO. 7: REMOVE AND REPLACE ENTIRE LENGTH OF DAMAGED GUTTER AND BRACKETS WITH LIKE MATERIAL AND PROFILE. REFER TO EXTERIOR ELEVATIONS FOR ADDITIONAL INFORMATION.
7. EXISTING COPPER ROOF PANELS TO REMAIN. PROTECT DURING CONSTRUCTION. PATCH AND REPAIR PANELS AND UNDERLYING BUILDING FELT WHERE NEW WORK TIES INTO EXISTING, WHETHER INDICATED ON THE DRAWINGS OR NOT.
8. UNIT PRICE – REFERENCE NO. 6: REMOVE EXISTING FLUME HOOD EQUIPMENT AND ACCESSORIES IN THEIR ENTIRETY. PATCH AND REPAIR ALL SURROUNDING AREAS INCLUDING EXTERIOR WALL WITH NEW WORK TO MAINTAIN WEATHERPROOF CONDITIONS.
9. BASE BID: EXISTING MECHANICAL EQUIPMENT AND ACCESSORIES TO BE REMOVED IN ITS ENTIRETY. PATCH AND REPAIR ADJACENT AREAS AS REQUIRED.
10. EXISTING MECHANICAL EQUIPMENT TO REMAIN. PROTECT DURING ALL PHASES OF CONSTRUCTION.
11. EXISTING CONCRETE EQUIPMENT CURB TO REMAIN. CLEAN, PATCH AND REPAIR ALL SURFACES TO ACCEPT NEW ROOFING FLASHING MEMBRANES. CAP WITH NEW STAINLESS-STEEL COVER. REFER TO DETAIL 15/A303.
12. EXISTING EXHAUST FAN TO REMAIN. REMOVE UNIT AND REBUILD CURB AS REQUIRED TO MAINTAIN A MINIMUM OF 8" ABOVE NEW ROOF. FLASH WITH NEW ROOFING MEMBRANE AS REQUIRED. REFER TO DETAIL 10/A303.
13. EXISTING VENT-THRU-ROOF (VTR) TO REMAIN. PATCH AND PREP TO RECEIVE NEW CONSTRUCTION AND EXTEND OPENING TO MINIMUM OF 8" ABOVE NEW ROOF. REFER TO DETAIL 14/A303.
14. REMOVE AND REPLACE EXISTING GOOSENECK VENT WITH NEW STAINLESS-STEEL CONSTRUCTION THAT MATCHES PROFILE AND OPENING. PROTECT OPENING WITH NEW INSECT SCREEN. RAISE CURB AS REQUIRED TO MAINTAIN A MINIMUM OF 8" ABOVE NEW ROOF. SIMILAR TO DETAIL 10/A303.
15. EXISTING CONDUIT SEALED PENETRATION ASSEMBLY TO BE REMOVED AND REPLACED WITH NEW COLD LIQUID APPLIED MEMBRANE COATING.
16. EXISTING STEEL SUPPORTS TO REMAIN. REMOVE PITCH POCKET IN ITS ENTIRETY. CLEAN AND PREP SUPPORT TO RECEIVE NEW COLD LIQUID APPLIED MEMBRANE COATING.
17. EXISTING CONDUITS TO REMAIN. REMOVE AND REPLACE WOOD SUPPORTS WITH NEW EPDM BLOCKING. SIZE NEW BLOCKING TO SUPPORT SINGLE OR MULTIPLE PIPING WHERE REQUIRED.
18. EXISTING ELECTRIC PANEL AND CURB TO REMAIN. CLEAN AND PREP CURB TO RECEIVE NEW COLD LIQUID APPLIED MEMBRANE COATING.
19. EXISTING STEEL STRUCTURE TO REMAIN. CLEAN AND PREP TO RECEIVE NEW GALVANIZING PAINT. REMOVE PITCH POCKETS IN THEIR ENTIRETY. CLEAN AND PREP TO RECEIVE NEW COLD LIQUID APPLIED MEMBRANE COATING.
20. EXISTING STEEL POSTS TO REMAIN. REMOVE CURBS AND PITCH POCKETS IN THEIR ENTIRETY. CLEAN AND PREP TO RECEIVE NEW COLD LIQUID APPLIED MEMBRANE COATING.
21. EXISTING DUCT PENETRATION TO REMAIN. REMOVE AND REPLACE STAINLESS-STEEL COVER WITH LIKE MATERIAL AND WATERPROOF AS REQUIRED. CLEAN AND PATCH CURB TO RECEIVE NEW ROOFING MEMBRANE.
22. EXISTING DUCT PENETRATION AT ROOF TO BE REMOVED AND INFILL WITH NEW INSULATED CONSTRUCTION PRIOR TO INSTALLING NEW ROOFING MEMBRANE. REFER TO DETAIL 12/A303.
23. EXISTING ANTENNAE TO REMAIN. PROTECT DURING ALL PHASES OF CONSTRUCTION.
24. EXISTING SKYLIGHT TO REMAIN. REMOVE AND REINSTALL FOR ROOF TO RECEIVE NEW COLD LIQUID APPLIED MEMBRANE COATING. REMOVE ALL EXTERIOR GLAZING SEALANT, CLEAN AND PREP TO RECEIVE NEW MATERIAL. WATER TEST TO VERIFY WATERPROOF CONDITION.
25. EXISTING DOOR/FRAME TO REMAIN. CLEAN AND PREP TO RECEIVE NEW PAINT FINISH AT EXTERIOR SURFACES ONLY.
26. EXISTING COPPER EXPANSION JOINT/SCUPPER CONSTRUCTION TO BE REMOVED IN ITS ENTIRETY. PATCH AND REPAIR ENTIRE LENGTH OF JOINT AND ADJACENT AREAS TO RECEIVE NEW CONSTRUCTION.
27. LINE OF EXISTING BUILDING BELOW ROOF.
28. REPLACE ALL REFRIGERANT LINE INSULATION WITH NEW INSULATION AND PLASTIC JACKET.
29. ADDITIVE ALTERNATE #1: REMOVE AND REPLACE EXISTING WOOD STRIPS WITH NEW PRESSURE-TREATED 1x4 WOOD BATTENS. REFER TO DETAIL 7/A303.
30. EXISTING METAL PANELS TO REMAIN. REMOVE AND REPLACE BASE FLASHING AS REQUIRED TO ACCOMMODATE NEW CONSTRUCTION. REFER TO DETAIL 11/A303.
31. REMOVE ABANDONED PIPING AND REPLACE DAMAGED METAL PANEL WITH NEW MATCHING CONSTRUCTION.
32. NEW ROOF CRICKET.
33. REMOVE AND REPLACE COPPER COPING ONLY WITH NEW LIKE MATERIAL.
34. EXISTING COPPER GUTTER, BRACKETS, AND DOWNSPOUTS TO REMAIN. PROTECT DURING CONSTRUCTION.
35. EXISTING MODIFIED BITUMEN ROOFING MEMBRANE TO REMAIN. PATCH AND REPAIR TO RECEIVE NEW COLD LIQUID APPLIED MEMBRANE COATING.
36. REMOVE AND REPLACE EXISTING METAL PANELS WITH LIKE KIND WHERE DAMAGED BY DUCT PENETRATIONS. CUT OFF INTERIOR DUCTWORK ONE (1) FOOT AWAY FROM WALL AND SEAL.

project no. 25-1130-0046
drawn AFR
checked AD
date 12.18.2025
revised

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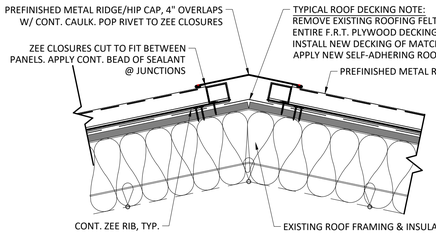
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ROOF PLAN, GENERAL AND KEYNOTES, LEGEND

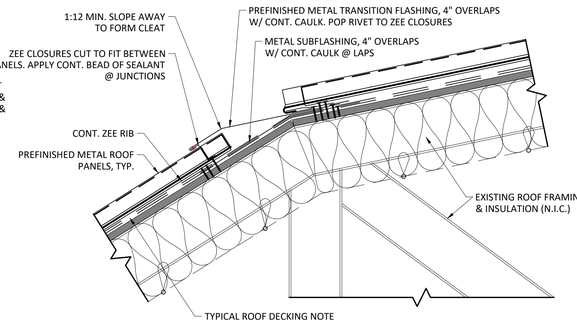
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CONTRACT: 8174, SWB DWG NO: 12312-W-43

sheet no.
A302
11 of 16 sheets

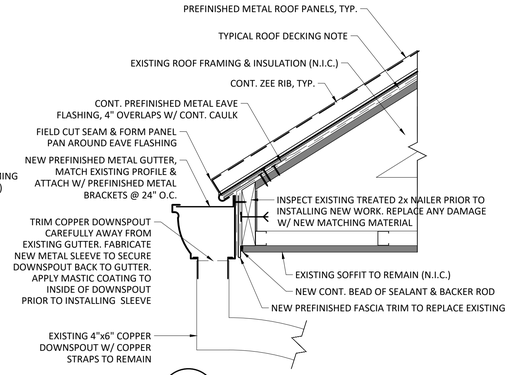
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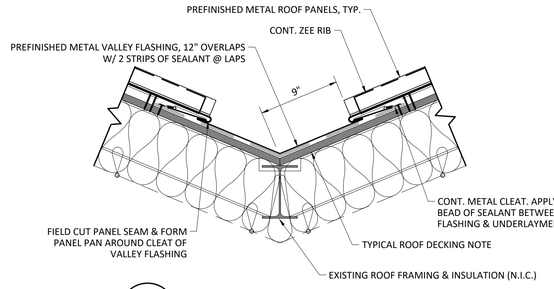
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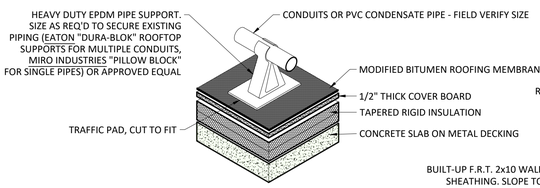
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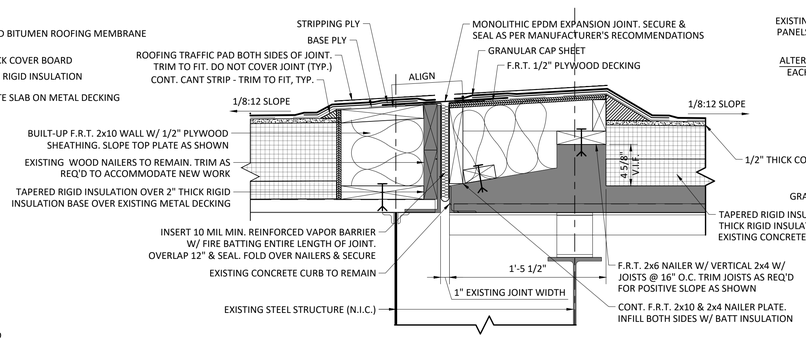
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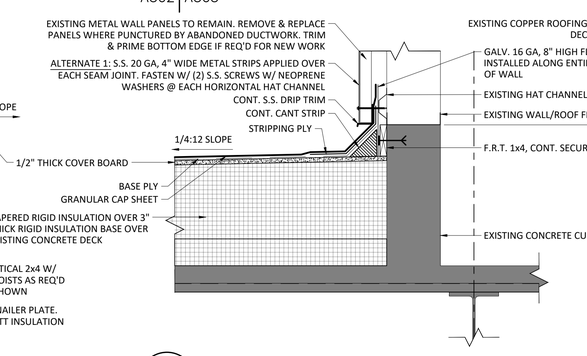
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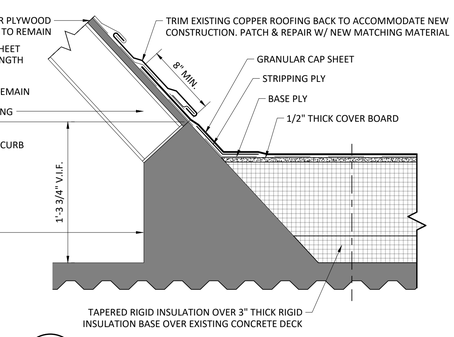
5 PIPE SUPPORT DETAIL
5 A303 SCALE: 1–1/2" = 1'–0"



6 EXPANSION JOINT / OVERFLOW DETAIL (TYPICAL)
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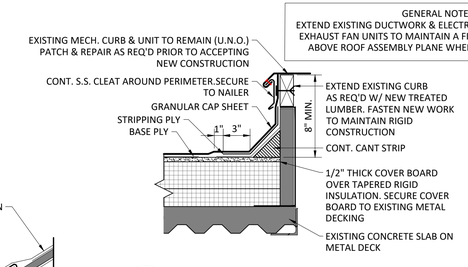


7 ROOF / WALL JUNCTION DETAIL
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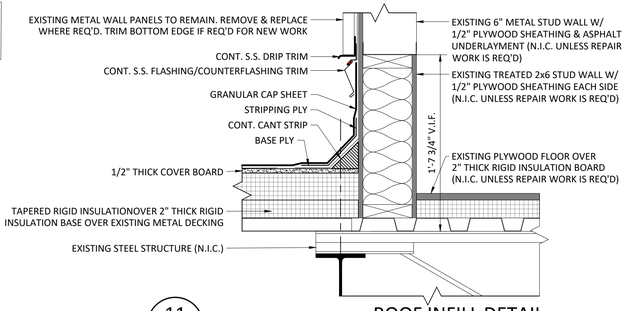


8 SLOPED ROOF / WALL DETAIL
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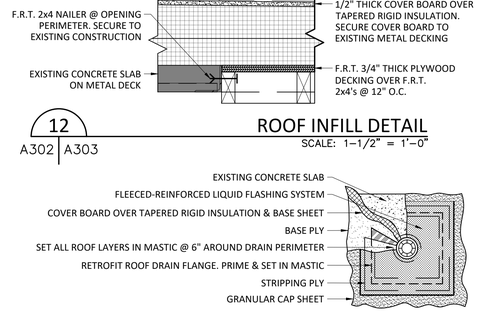
9 COPPER ROOF EDGE DETAIL (TYPICAL)
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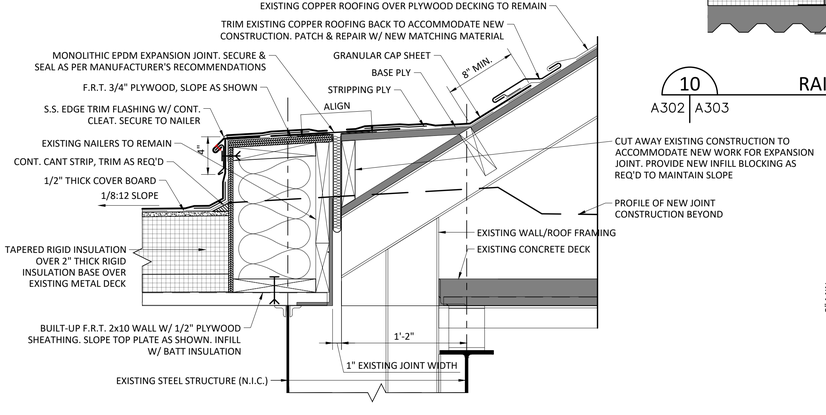
10 RAISED CURB DETAIL
A302 | A303 SCALE: 1–1/2" = 1'–0"



11 ROOF INFILL DETAIL
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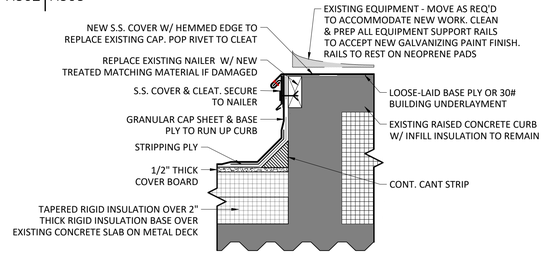


12 ROOF INFILL DETAIL
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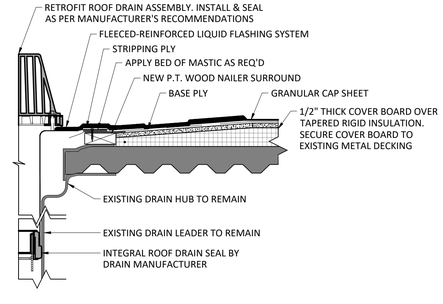


13 RAISED EXPANSION JOINT DETAIL (TYPICAL)
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14 VTR DETAIL
A302 | A303 SCALE: 1–1/2" = 1'–0"



15 EQUIPMENT CURB DETAIL
A302 | A303 SCALE: 1–1/2" = 1'–0"



16 RETROFIT ROOF DRAIN DETAIL
A302 | A303 SCALE: 1–1/2" = 1'–0"

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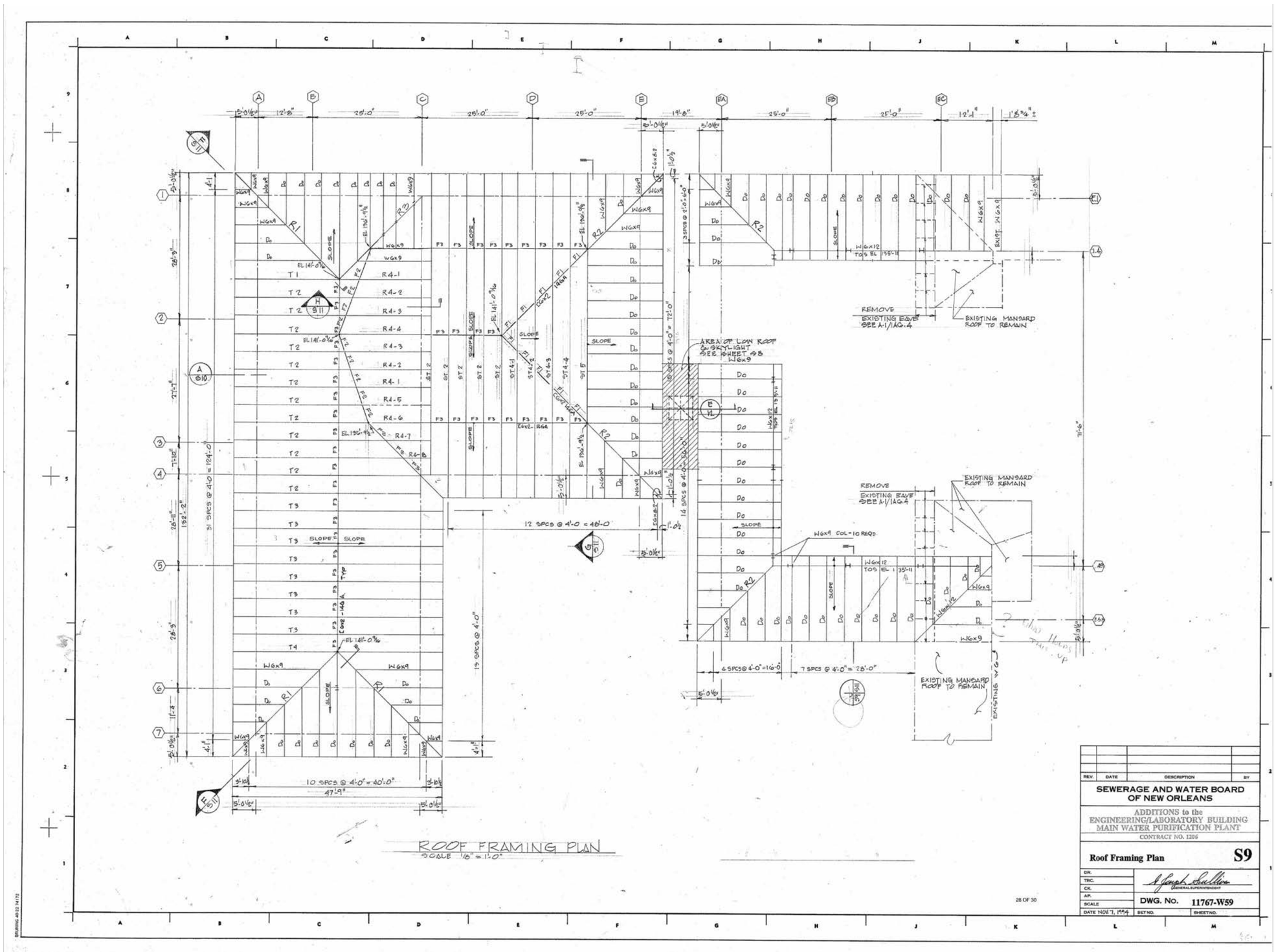
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ROOF DETAILS

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SEWERAGE AND WATER BOARD OF NEW ORLEANS

ADDITIONS to the
ENGINEERING/LABORATORY BUILDING
MAIN WATER PURIFICATION PLANT
CONTRACT NO. 1206

Roof Framing Plan **S9**

DR.	
TRC.	
CK.	
AP.	
SCALE	
DATE NOV 7, 1994	DWG. No. 11767-W59
	SET NO. / SHEET NO.

GENERAL SUPERINTENDENT

project no. 25-1130-0046
drawn
checked AD
date 12.18.2025
revised

Meyer Engineers, Ltd.
A Thompson Holdings Company
4937 Hearst Street | Suite 1B
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504.885.9892 (o)
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meyer
ENGINEERS + ARCHITECTS

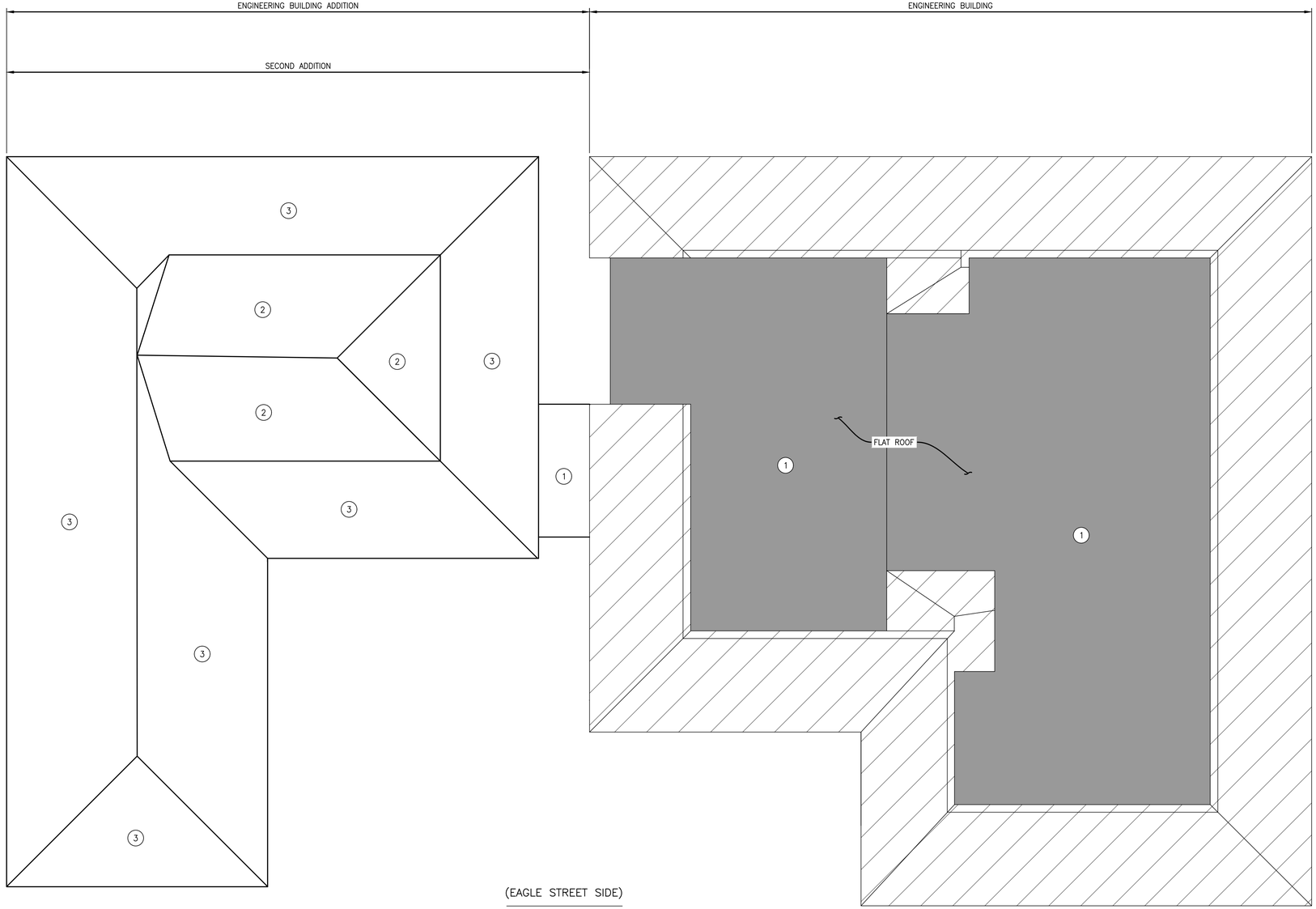
EXISTING ROOF FRAMING PLAN (REFERENCE ONLY)

REPAIRS TO THE ENGINEERING BUILDING
8800 S. Claiborne Avenue, New Orleans, LA 70118
CONTRACT: 8174, SWB DWG NO: 12312-W-43

sheet no.
S000
13 of 16 sheets

DISCLAIMER

DRAWING IS NOT TO SCALE. SHEET S9 - ROOF FRAMING PLAN DWG. NO. 11767-W59 DATED NOV 7, 1994 IS PROVIDED BY OWNER AS REFERENCE FOR IDENTIFICATION PURPOSES. MEYER ENGINEERS DOES NOT CERTIFY OR HAS VERIFIED EXISTING DRAWING FOR ACCURACY. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO VERIFY ALL INFORMATION OBTAINED FROM THIS SHEET PRIOR TO BIDDING FOR THEIR SOLE PURPOSE AND USE.



MWFRS NET WIND PRESSURES	
WINDWARD	LEEWARD
ZONE (1): POS. – 8 PSF, NEG. – –50.13 PSF	
ZONE (2): POS. – 8 PSF, NEG. – –66.46 PSF	ZONE (2): POS. – N/A, NEG. – –41.33 PSF
ZONE (3): POS. – 19.52 PSF, NEG. – –22.37 PSF	ZONE (3): POS. – N/A PSF, NEG. – –38.49 PSF

NOTES

1. THE WIND VELOCITY IS 157 MPH, 3 SEC. GUST, ANY HORIZONTAL DIRECTION, PER ASCE/SEI 7–16
2. EXPOSURE CATEGORY "C", ENCLOSED BUILDING.
3. POSITIVE IS PUSHING INWARD. NEGATIVE IS PULLING OUTWARD.

LEGEND:

NOT IN SCOPE

MWFRS
WIND PRESSURE DIAGRAM

SCALE: NTS

project no. 25-1130-0046
drawn JCB
checked RAK
date 12.18.2025
revised

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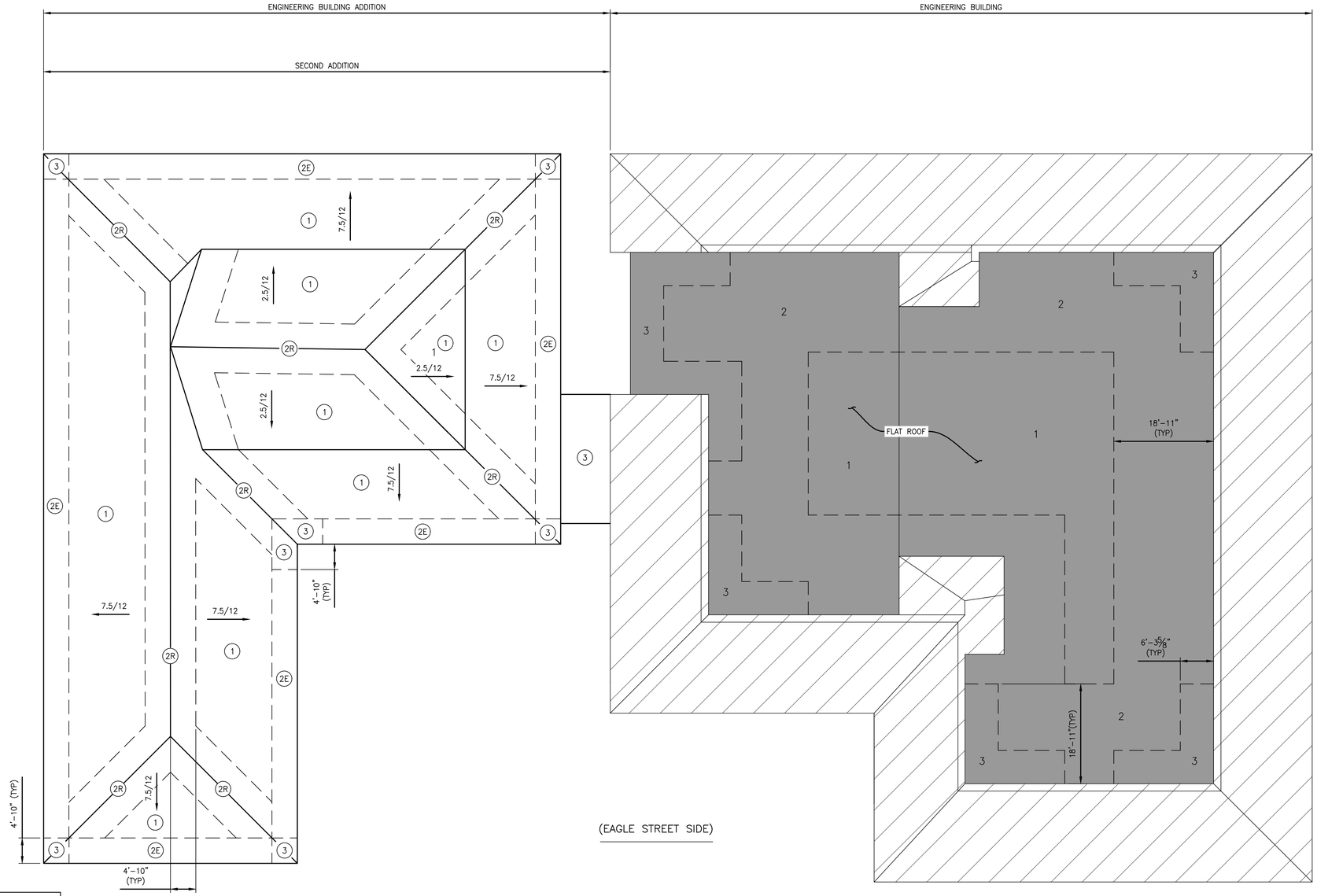
WIND PRESSURE DIAGRAM

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CONTRACT: 8174, SWB DWG NO: 12312-W-43

FIRM No: LA – EF. 0003109
Infinity Engineering Consultants, LLC
IEC Project No 25-073
Civil Structural Mechanical Electrical Marine Transportation
Metairie, LA www.infinityec.com 504-304-0548

sheet no.
S100
14 of 16 sheets

P:\PROJECTS\25-073 MEYER ENGINEERS – SWBNO ENG BLDG ROOF REPLACEMENT\CAD\SHEETS\WIND PRESSURE DIAGRAMS.DWG



COMPONENTS AND CLADDING NET WIND PRESSURES				
	2.5/12 SLOPE		7.5/12 SLOPE	
ZONE (1):	32 PSF	−77.2 PSF	46.5 PSF	−74.5 PSF
ZONE (2E):	32 PSF	−77.2 PSF	46.5 PSF	−74.5 PSF
ZONE (2R):	32 PSF	−126.8 PSF	46.5 PSF	−74.5 PSF
ZONE (3):	–	–	46.5 PSF	−114.4 PSF
FLAT ROOF				
ZONE (1):	23.8 PSF		−62.7 PSF	
ZONE (2):	23.8 PSF		−122.6 PSF	
ZONE (3):	23.8 PSF		−153.5 PSF	

LEGEND:

NOT IN SCOPE

NOTES:

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2. EXPOSURE CATEGORY "C", ENCLOSED BUILDING
3. POSITIVE IS PUSHING INWARD. NEGATIVE IS PULLING OUTWARD.

COMPONENTS & CLADDING WIND PRESSURE DIAGRAM

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WIND PRESSURE DIAGRAM

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CONTRACT: 8174, SWB DWG NO: 12312-W-43

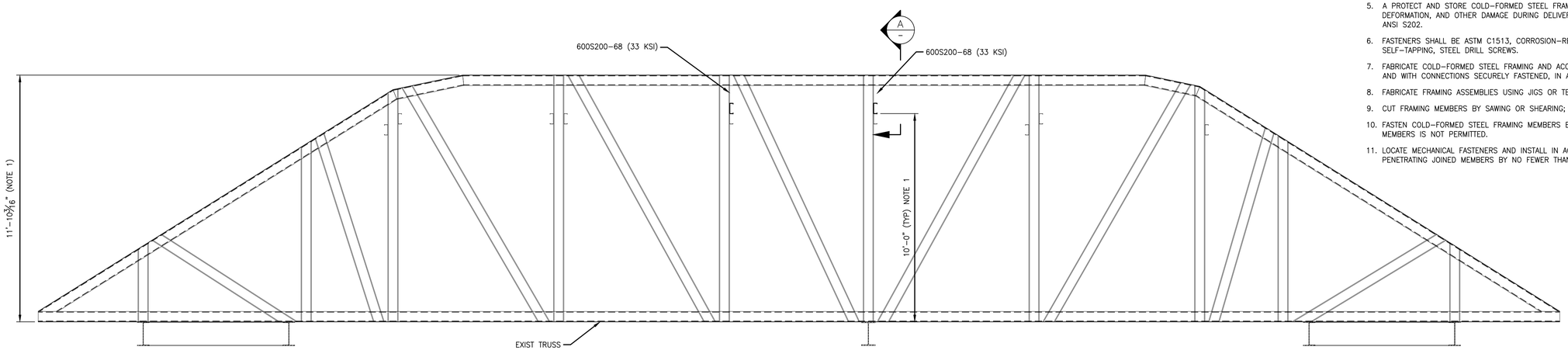
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S101
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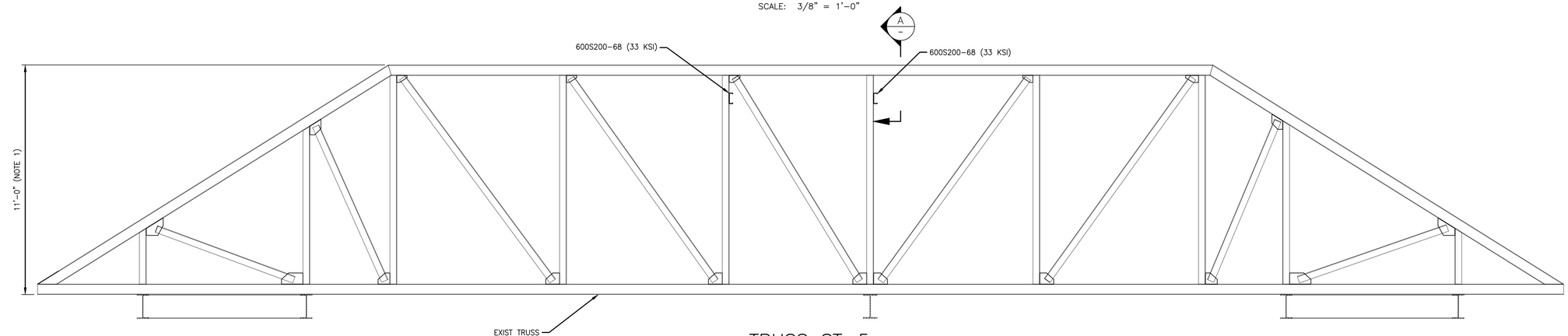
NOTES:

1. TRUSSES SHOWN WERE DRAWN ACCORDING TO "ADDITIONS TO THE ENGINEERING LABORATORY BUILDING MAIN WATER PURIFICATION PLANT" DRAWINGS, DATED 11/7/1994. INFERENCES WERE MADE WHERE REQUIRED & FIELD VERIFICATION OF TRUSS LAYOUT, LOCATION, MEMBER SIZES, ETC WAS NOT PERFORMED.
2. FIELD VERIFY LAYOUT OF TRUSS & MEMBER SIZES PRIOR TO BEGINNING WORK. IMMEDIATELY NOTIFY OWNER OR OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES.
3. GENERAL CONTRACTOR IS RESPONSIBLE FOR INDIVIDUAL MEANS AND METHODS TO PERFORM WORK AS INDICATED ON THIS SHEET. EXISTING BUILDING CONSTRUCTION FROM TOP OF ROOF OR WITHIN BUILDING (IE. PLYWOOD DECKING, INSULATION, BRACING, CEILING SYSTEMS, ELECTRICAL, HVAC, ETC.) REMOVED TO PERFORM WORK SHALL BE REPLACED NEW TO MATCH IN KIND IN ALL RESPECTS.
4. SEE REFERENCE DWG NO.11767-W59 FOR TRUSS LOCATIONS.
5. A PROTECT AND STORE COLD-FORMED STEEL FRAMING FROM CORROSION, MOISTURE STAINING, DEFORMATION, AND OTHER DAMAGE DURING DELIVERY, STORAGE, AND HANDLING AS REQUIRED IN ANSI S202.
6. FASTENERS SHALL BE ASTM C1513, CORROSION-RESISTANT-COATED, SELF-DRILLING, SELF-TAPPING, STEEL DRILL SCREWS.
7. FABRICATE COLD-FORMED STEEL FRAMING AND ACCESSORIES PLUMB, SQUARE, AND TRUE TO LINE, AND WITH CONNECTIONS SECURELY FASTENED, IN ACCORDANCE WITH AISI S240 AND STANDARDS.
8. FABRICATE FRAMING ASSEMBLIES USING JIGS OR TEMPLATES.
9. CUT FRAMING MEMBERS BY SAWING OR SHEARING; DO NOT TORCH CUT.
10. FASTEN COLD-FORMED STEEL FRAMING MEMBERS BY SCREW FASTENING. WIRE TYING OF FRAMING MEMBERS IS NOT PERMITTED.
11. LOCATE MECHANICAL FASTENERS AND INSTALL IN ACCORDANCE WITH DRAWINGS, WITH SCREWS PENETRATING JOINED MEMBERS BY NO FEWER THAN THREE EXPOSED SCREW THREADS.



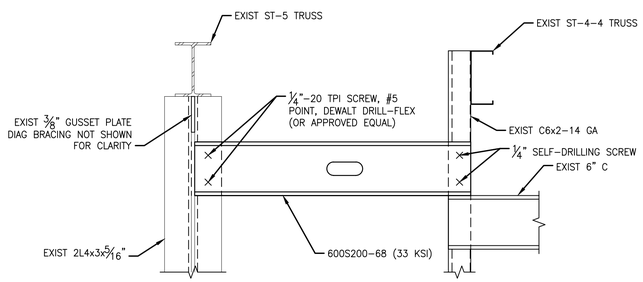
TRUSS ST-4-4

SCALE: 3/8" = 1'-0"



TRUSS ST-5

SCALE: 3/8" = 1'-0"



(2 REQ'D)

SECTION A-A

SCALE: 1-1/2" = 1'-0"

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TRUSS DETAIL

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