

PROJECT MANUAL

PHASE 2 - STABILIZATION

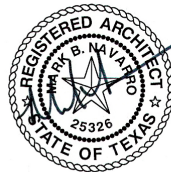
FOR THE

BANDERA COUNTY VISITOR CENTER BANDERA, TEXAS



ARCHITECT'S PROJECT NO. 2301 A1

August 8, 2024



Fisher Heck
ARCHITECTS

915 S. St. Mary's Street
Phone: 210.299.1500

San Antonio, TX 78205
Fax 210.299.1622

**SECTION 000110
TABLE OF CONTENTS**

PROCUREMENT AND CONTRACTING REQUIREMENTS

1.01 DIVISION 00 -- PROCUREMENT AND CONTRACTING REQUIREMENTS

- A. Table of Contents
- B. 001000 - Request for Competitive Sealed Proposals
- C. 005000 – Contracting Forms and Supplements
- D. 005200 – Agreement Form
- E. A101 Document Sample

SPECIFICATIONS

2.01 DIVISION 01 -- GENERAL REQUIREMENTS

- A. 011000 - Summary
- B. 012000 - Price and Payment Procedures
- C. 013000 - Administrative Requirements
- D. 014000 - Quality Requirements
- E. 015000 - Temporary Facilities and Controls
- F. 016000 - Product Requirements
- G. 017000 - Execution and Closeout Requirements

2.02 DIVISION 02 -- EXISTING CONDITIONS

- A. 024100 - Demolition

2.03 DIVISION 04 -- MASONRY

- A. 040000 – Masonry Repointing
- B. 040140 - Masonry Cleaning

2.04 DIVISION 06 -- WOOD, PLASTICS, AND COMPOSITES

- A. 062000 - Finish Carpentry

2.05 DIVISION 07 -- THERMAL AND MOISTURE PROTECTION

- A. 076100 - Sheet Metal Roofing

2.06 DIVISION 08 -- OPENINGS

- A. 085200 - Wood Windows
- B. 086100 – Window Restoration

2.07 DIVISION 09 -- FINISHES

- A. 099113 - Exterior Painting
- B. 099123 - Interior Painting

END OF SECTION

Request for Competitive Sealed Proposals (“RFCSP”)
Historic Stabilization of 1881 Jail and 1877
Courthouse.

RFCSP # 24-0808-11

EVENT	DATE
Issuance of RFCSP	8/08/2024
1 st Publication Date	8/14/2024
2 nd Publication Date	8/21/2024
Pre-Proposal Meeting/Tour (2:00 p.m.)	9/04/2024
RFCSP Question Deadline (5:00 p.m.)	9/25/2024
Proposal Submission Deadline (4:00 p.m.)	10/09/2024
County Consideration/Award	10/24/2024

A Pre-Proposal Meeting/Tour is scheduled to discuss the County's requirements under this RFCSP and tour the property described in this RFCSP. While attendance is at the discretion of the Proposer, those who do not attend will be deemed to have attended and to have received the information provided at the meeting/tour.

INTENT

Bandera County, Texas (hereinafter referred to as “County”) is requesting sealed proposals from qualified individuals interested in contracting with the County to provide construction services of approximately 4,130 sq. ft. structures located at 200 12th Street, Bandera, Texas. All proposals must be submitted on the form provided by the County, and further must be properly executed in the space(s) provided. The demolition site area and structures are illustrated on the plans prepared by Fisher Heck Architects, dated 8/08/2024, attached to this RFCSP (see Attachment A).

RECEIPT AND OPENING OF PROPOSALS

Proposers shall submit one (1) original of their proposal on the RFCSP Submission Form provided by the County. The original proposal must be clearly marked “Proposal for RFCSP # 24-0808-11 and include an original signature, in ink, in order to be accepted. Proposals must be received in the County Judge’s Office no later than 4:00 p.m. (CST) on 10/09/2024. Proposals will be opened at that time and read aloud. It is the Proposer’s sole responsibility to assure that the proposal is delivered in a timely fashion. Proposals received after this time will be rejected and returned unopened. Any proposal received after 4:00 p.m. on 10/09/2024 shall not be considered.

Proposals should be prepared simply, providing straightforward, concise description of the Proposer’s approach and capabilities necessary to satisfy the requirements of the RFCSP. Technical literature and elaborate promotional materials, if any, must be submitted separately. Emphasis in the proposal should be on completeness, clarity of content and adherence to the presentation structure required by the RFCSP.

Proposals shall be delivered using one of the following methods:

Hand-deliver to:

County Judge
500 Main Street
Bandera, TX 78003

Mail to:

ATTN: County Judge
P.O. Box 877
Bandera, TX 78003

Ship to (FedEx, UPS, DHL, etc.):

ATTN: County Judge
500 Main Street
Bandera, TX 78003

PRE-PROPOSAL MEEING / TOUR

A pre-proposal tour and meeting to discuss the County’s requirements pursuant to this RFCSP will be held on 09/04/2024 at 2 PM at the project site located at 200 12th Street, Bandera, Texas 78003. Attendance at this pre-proposal meeting/tour is not mandatory but interested parties are encouraged to attend.

CHANGES, QUESTIONS AND INQUIRIES

Any and all questions regarding this RFCSP must be submitted in writing and addressed to Daniel Tenorio, Fisher Heck Architects or emailed to dtensorio@fisherheck.com. All e-mails must indicate “RFCSP # 24-0808-11 in the subject line. It is the sender’s responsibility to verify receipt of email. The deadline for submittal of questions regarding this RFCSP is 5:00 p.m. 9/25/2024.

No person has the authority to verbally alter the terms of this RFCSP. Any changes to this RFCSP will be made in the form of an Addendum which will be made available online at banderacounty.org. It shall be the responsibility of interested proposers to check the website for addenda up to the proposal submission deadline. The complete RFCSP and all Addendums will be posted on the County’s website.

METHOD OF AWARD

Proposals will be evaluated by the County. The County will consider the completeness of a proposal and how well the proposal meets the needs of the County. This RFCSP may be awarded either to the lowest responsible Proposer or to the Proposer who will provide goods or services at the best value for

the County, in compliance with Texas Local Government Code, Section 262.006.

The County reserves the right to waive any informalities or technical errors, or consider alternate proposals and award as lump sum, individual basis, or any combination that in its judgment will best serve the interests of the County.

The County reserves the right to request that any Proposer clarify its proposal or supply any additional material deemed necessary to assist in the evaluation of the proposal.

The County reserves the right to make an award without further discussion of the submittals. Therefore, the proposal should be initially submitted on the most favorable terms the Proposer can offer. The Proposer selected will be expected to enter a contract with the County based on the AIA A101 contract form.

EVALUATION CRITERIA

The following criteria will be used by County staff to evaluate the proposals:

- **Qualifications/Experience** – The qualifications and experience of the Proposer in building demolition services, specifically involving National Emission Standards for Hazardous Air Pollutants (NESHAP) regulated projects. The proposal should describe Proposer’s qualifications, including years of experience. The proposal should also include examples of similar projects.
- **References** – Proposer shall provide a minimum of three (3) references for which the scope of work specifically included building demolition and clean-up services.
 - **Masons must meet the following criteria:**
 - NPS Technical Preservation Services Preservation Brief 2: Repointing Mortar Joints in Historic Masonry Buildings; 1998.
 - ASTM C1713 - Standard Specification for Mortars for the Repair of Historic Masonry; 2013.
 - Hot and Cold Weather Masonry Construction; Masonry Industry Council; 1999.
- **Schedule/Fee:** The Proposer shall provide an estimated project schedule and timeline to complete the scope of work. Proposer shall provide the County with a lump sum fee to complete the scope of this RFCSP.

A Proposer’s prior performance on similar contracts may be considered in evaluating proposals. Any additional information requested shall be considered as part of the proposal and evaluated as such. The County reserves the right to negotiate a best and final offer with the selected Proposer.

Evaluation of ranking firms submitting proposals will be based on the criteria shown in the following table. The selection will follow the Texas government Code. The firm that offers the best value to the County based on its ranking evaluation will be selected.

Criteria #	Criteria description	Category value
1	<u>Purchase price.</u> For every 1% variance from the apparent low bidder there will be a deduction of one point.	60
2	<u>Experience with similar projects.</u> Number of historic renovation / restoration projects. Proximity to the project site.	30
3	<u>Management and staffing.</u> Proximity to the project site. Staff ability to be on site as needed. References. Provide references with all contact information for similar projects. Understanding and implementing the scope.	10
Total score		100

NON-COLLUSION CERTIFICATE

STATE OF _____

COUNTY OF _____

The undersigned, being duly sworn, deposes and says that the person, firm, association, co- partnership or corporation herein named, has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competition in the preparation and submission of a proposal to Bandera County, Texas for consideration in the award of a contract on the improvement described as follows:

RFCSP 24-0808-11 – Phase 2 - Historic Stabilization of 1881 Jail and 1877 Courthouse

(Name of Firm)

By: (Authorized Signature)

Title:

Sworn to before me this day of , 2024.

Notary Public

NOTARY SEAL:

Historic Stabilization of 1881 Jail and 1877 Courthouse

RFCSP Submission Form

RFCSP # 24-0808-11

RFCSP Due Date: 10/09/2024

Submit to: Office of the County Judge
County of Bandera
500 Main Street
PO Box 877
Bandera, Texas 78003

Sealed proposals must be submitted on this form only. **Proposers are required to submit one original RFCSP submission form.**

The RFCSP Submission Form MUST be signed by an authorized representative. Original signature required.

Proposal for complete historic stabilization 1881 Jail and 1877 Courthouse. 200 12th Street, Bandera, Texas and to return property to a suitable site ready for future development.

Base bid \$ _____ Calendar days _____

Proposer acknowledges receipt of the following addenda:

Addendum #:	Addendum date:
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

As outlined in the Evaluation Criteria of this RFCSP, please be sure to attach evidence of the following:

- Qualifications and experience
- References
- Non Collusion Certificate

Company Name: _____

Signature of Authorized Representative: _____

Printed Name: _____

Title: _____

Contact Number: _____

Email: _____

Date: _____

EXHIBIT "A"
TERMS AND CONDITIONS

Definitions:

In order to simplify the language throughout this request for bids, the following definitions shall apply:

COUNTY – OWNER - Same as County of Bandera.

CONTRACT – An agreement between the County and a Vendor to furnish goods or services.

VENDOR – The successful Bidder(s) of this Request for Competitive Sealed Proposal.

Instructions:

The following instructions apply to all bids and become a part of terms and conditions of any bid submitted to Bandera County, Texas, unless otherwise specified elsewhere in this bid request.

Form:

Bids must be submitted on this form only. Bidders are required to submit one (1) original. All bids submitted must be itemized with prices extended when practical. **BIDDER MUST RETURN THE ENTIRE ORIGINAL BID DOCUMENT WITH BID OR PROPOSAL.**

Bid Return:

Bid must be sealed, and to ensure proper recognition upon its arrival, list the Bid Number, Bid Description and the Bid Opening Date on the outside of your envelope.

Late Bids:

Bids must be received prior to the time indicated on this form. Late bids will not be opened and will be returned to the bidder only upon written request.

Acceptance:

Bandera County, Texas reserves the right to accept or reject any or all bids, to waive any informalities and technicalities, to accept the offer considered most advantageous in order to obtain the best value for the County. Causes for rejection of a bid may include but are not limited to the bidder's current violation of any County ordinance, the bidder's current inability to satisfactorily perform the work or service, or the bidder's previous failure to timely perform its obligation under a contract with the County.

Bidders may be disqualified and rejection of proposals may be recommended for any of (but not limited to) the following causes:

1. Failure to use the proposal form furnished by the Owner,
2. Lack of signature by an authorized representative on the proposal form,
3. Failure to properly complete the proposal,
4. Evidence of collusion among proposers,
5. Omission of Bid Bond or other proposal guarantee,
6. Unauthorized alteration of bid form.

Owner reserves the right to waive any informality or irregularity.

All bidders are hereby notified that Bandera County, Texas shall consider all factors it believes to be relevant in selecting the offer that provides the best value for the County including, but not limited to the purchase price, the proximity of the bidder as it relates to bidder's ability to perform the contract for the

County, the delivery date, the reputation of the bidder and the bidder's goods or services, the quality of the bidder's goods or services, the extent to which the goods or services meet the County's needs, the impact on the ability of the County to comply with laws and rules relating to contracting with historically underutilized business and non-profit organizations employing persons with disabilities, the total long-term cost of the County to acquire the bidder's goods or services, the bidder's past performance under contracts with the County, the bidder's compliance with County ordinances, and any relevant criteria specifically listed in this request for bid.

The County is committed to obtaining its goods, products and services at the lowest price possible which benefits all citizens of Bandera. Therefore, in order to accomplish this objective/goal, it is not the intention of the County to exclude particular vendors or manufacturers nor to create restrictive situations in its request for bids and proposals. Any manufacturer's name, trade names, brand names, catalog numbers, technical data, etc. used in the specifications are there for the sole purpose of establishing and describing general performance, quality levels, type and dimensions and such references are not intended to be restrictive. Alternate bids on similar or comparable products and/or services of any manufacturer or vendor equal to the products and/or services described in the specifications are invited and will be given careful consideration provided the alternate will accomplish the same task. The County shall be the sole judge on whether the alternate product and/or service is similar to, equal to and in compliance with that specified. The decision of the County shall be final.

Award of Contract:

The contract may be awarded either to the lowest responsible bidder or to the bidder who provides goods or services at the best value for the County. The bid award may be based on, but not necessarily limited to, the following factors:

1. the purchase price, including payment discount terms;
2. the reputation of the bidder and of the bidder's goods or services;
3. the quality of the bidder's goods or services;
4. the extent to which the goods or services meet the County's needs;
5. the bidder's past relationship with the County;
6. the impact on the ability of the County to comply with laws and rules relating to contracting with historically underutilized businesses and nonprofit organizations employing persons with disabilities;
7. the total long-term cost of the County to acquire the bidder's goods or services; and
8. any relevant criteria specifically listed in this request for bid.

Term of Contract:

The contract will be performed to the satisfaction of the County within one (1) year, running from the date the contract is awarded.

Extension of Contract:

Upon completion of the term of the original contract and mutual agreement of both parties, the contract may be extended for up to two (2) additional one (1) year terms (three (3) years total). The renewal will be under the same terms and conditions as the original contract. In the event a new contract cannot be executed at the anniversary date of the original term or any renewal term, the contract may be renewed month-to-month until a new contract is executed.

Assignment of Contract:

This contract cannot be transferred or assigned to another party without written consent of the County and may be subject to cancellation by the County if such consent is requested.

Contract Termination:

The County may terminate this Contract at any time upon thirty (30) calendar day's written notice. Upon the Vendor's receipt of such notice, the Vendor shall cease work immediately. The Vendor shall be compensated for the services satisfactorily performed prior to the termination date.

If, through any cause, the Vendor fails to fulfill its obligations under this contract, or if the Vendor violates any of the agreements of this Contract, the County has the right to terminate this Contract by giving the Vendor five (5) calendar days written notice. The Vendor will be compensated for the services satisfactorily performed before termination date. Termination of the contract for cause shall be deemed as sufficient evidence and cause to remove the Vendor's name from the bidder's list for receiving future bids.

No term or provision of this Contract shall be construed to relieve the Vendor of liability to the County for damages sustained by the County because of any breach of contract by the Vendor. The County may withhold payments to the Vendor for the purpose of setoff until the exact amount of damages due the County from the Vendor is determined and paid.

Reimbursements:

There is no expressed or implied obligation for the County to reimburse responding firms for any expenses incurred in preparing bids in response to this Request for Bids and the County will not reimburse responding firms for these expenses, nor will Bandera County, Texas pay any subsequent costs associated with the provision of any additional information or presentation, or to procure a contract for these services.

Minority Owned Businesses:

Minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, creed, sex, or national origin in consideration for an award.

Variations:

Any variation (deviation) from these specifications must be indicated on a separate form and be made part of the bid.

Firm Prices:

Bidders must hold bid prices firm for 90 days after the bid opening date to allow the County sufficient time to award a contract. Once a Contract is awarded, the successful bidder must hold bid prices firm for the duration of the Contract.

Authorized Signature:

Bids must show full firm name and mailing address of bidder and be manually signed by an authorized representative of the bidder. Firm name and authorized signature should appear on each page of bid where spaces are provided. Submission of a signed bid will be interpreted to mean that bidder has

hereby agreed to all terms and conditions set forth in all of the sheets which make up this invitation.

Withdrawal-Alteration Of Bids:

Bids cannot be altered after receiving time or opening time. No bid may be withdrawn after opening time without acceptable reason in writing and with the approval of the Commissioners Court.

Payment Of Invoices:

Invoices must be submitted by the successful bidder to Bandera County, Texas, County Auditor, P.O. Box 463, Bandera, Texas 78003. All invoices to be paid in full within thirty (30) days after satisfactory delivery and billing, whichever is the latter. The County will not be liable for payment of invoices received more than sixty (60) days after delivery of order, or completion of service.

Taxes:

Bandera County, Texas is exempt from Federal Excise, State Sales and Transportation Taxes. TAX MUST NOT BE INCLUDED IN BID. The County upon request will execute Tax Exemption Certificates. Bandera County, Texas is statutorily exempt from State and Local Sales tax and a permit number is not required.

Delivery:

Bids must show the number of consecutive calendar days required to deliver the materials, services or equipment under normal conditions. Failure to specify delivery time will be considered reason enough to cause the bid to be disregarded. Delivery time quoted will be given consideration in awarding bids.

Liability:

Vendor shall be liable for all damages incurred while in performance of the work to be performed hereunder. Vendor assumes full responsibility for the work to be performed hereunder, and hereby releases, relinquishes, and discharges the County, its officers, agents, and employees, from all claims, demands, and causes of action of every kind and character including the cost of defense thereof, for any injury to, including death of, any person whether that person be a third person, vendor, or an employee of either parties hereto, and any loss of or damage to property, whether the same be that of either of the parties hereto or of third parties, caused by or alleged to be caused by, arising out of or in connection with the issuance of this order to Vendor, whether or not said claims, demands and causes of action in whole or in part are covered by insurance. Certificate of Insurance may be required for but not limited to Commercial General Liability, Commercial Auto Liability, and Workers Compensation.

Patents, Franchises, etc.:

The successful bidder agrees to protect the County from any claim involving patent right infringements, copyrights or sales franchises.

No Bids:

If bidder is unable to quote, the bid form should be returned to the purchasing agent before opening time, and reason given for not bidding if bidder desires to bid on future purchases.

Addenda:

In the event of a needed change in the published documents, it is understood that all the foregoing terms and conditions and all performance requirements will apply to any published addendum.

All published addenda shall be signed and included with your response package as acknowledgement of the addendum. Bidders are responsible for obtaining all published addenda from Bandera County, Texas. The County assumes no responsibility for the Bidders failure to obtain and/or properly submit any addendum. Failure to acknowledge and submit any addendum may be cause for the bid to be rejected. The County's decision to accept or reject any particular bid due to a failure to acknowledge and submit addenda shall be final.

H.B. 1295 Compliance:

The Vendor for the Contract shall comply with the requirements of Section 2252.908 of the Texas Government Code as adopted in 2015 as House Bill 1295. The law requires that a governmental entity may not enter in certain contracts with a business entity unless the business entity submits a Disclosure of Interested Parties to the governmental entity. The law applies only to a contract that either (1) requires an action or vote by the governing body of the entity or agency before the contract may be signed or (2) has a value of at least \$1 million.

Compliance with the law requires that the Vendor utilize the Texas Ethics Commission website to enter the required information on Form 1295 and print a copy of the complete form. The form must be signed, notarized and submitted to the contracting government entity.

The County, in the case of contracts formalized by Purchase Order or by other written contract, will notify the Vendor of Award by Council and request the completed Form 1295 within five (5) working days thereafter.

No Boycott of Israel:

By acceptance of this Contract, Vendor hereby certifies that it is not a company identified on the Texas Comptroller's list of companies known to have contacts with, or provide supplies or services to, a foreign organization designated as a Foreign Terrorist Organization by the U.S. Secretary of State. Vendor further certifies and verifies that neither vendor, nor any affiliate, subsidiary, or parent company of Vendor, if any, the "Vendor Companies"), boycotts Israel, and Vendor agrees that Vendor and Vendor Companies will not boycott Israel during the term of this Agreement. For purposes of this Agreement, the term "boycott" shall mean and include terminating business activities or otherwise taking any action that is intended to penalize, inflict economic hoard on, or limit commercial relations with Israel, or with a person or entity doing business in Israel or in an Israeli- controlled territory.

Engaged in Business with Iran, Sudan, or Foreign Terrorist Organization:

Pursuant to Texas Government Code Chapter 2252, Subchapter F, Vendor affirms that it is not identified on a list created by the Texas Comptroller of Public Accounts as a company known to have contracts with or provide supplies or services to a foreign terrorist organization.

Conflict of Interest:

By doing business or seeking to do business with the County, Vendor acknowledges that they have been notified of the requirements of Chapter 176 of the Texas Local Government Code and that they are solely responsible for compliance.

Applicable Law and Venue

This Contract shall be governed by the laws of the State of Texas. The parties agree that performance and all matters related thereto shall be in Bandera County, Texas and venue for any lawsuit, claim or dispute arising out of the contract shall be in Bandera County, Texas. Further, neither party will seek to

remove such litigation to the federal court system by application of conflicts of laws or any other removal process.

Proposal Security

Each proposal must be accompanied by proposal security in the amount of five percent (5%) of the Greatest Amount of the total bid including all allowances and additive alternates, pledging that the successful offeror will, within 30 calendar days after the successful offeror is notified of the acceptance of its proposal, enter into a written contract with the Owner on the terms stated in the proposal documents, as evidenced by the unconditional execution and delivery of such contract, and furnish payment and performance bonds, evidence of insurance and other submittals as required by the proposal documents. Should the successful offeror fail or refuse to enter into such contract or furnish such bonds or evidence of insurance within the time above-stated, such proposal security shall be forfeited to the Owner as damages, not as a penalty. Such proposal security shall be in the form of cash, certified funds payable to the order of the Owner, or a bid bond in favor of the Owner. The bond shall be on AIA Document A310 "2010 Edition," and shall be issued by a corporate surety duly authorized and admitted to do business in the State of Texas and licensed by the State of Texas to issue surety bonds. If the amount of the bond exceeds the legal underwriting limitation of the surety, the offeror and the surety shall provide the Owner with evidence that the excess is reinsured with one or more reinsurers who are duly authorized, accredited, and licensed to do business in the State of Texas. Any proposal, which is not accompanied with proposal security in the form and amount required herein, shall be rejected as nonconforming. The Owner shall have the right to retain the security of all offerors to whom an award is being considered until either (i) the Contract has been unconditionally executed and delivered by the parties and any required payment and performance bonds, evidence of insurance and other submittals have been furnished, or (ii) all proposals have been rejected by the Owner without the acceptance of any proposal.

Construction Bonds

The Contractor is required to tender to Owner, prior to commencing the Work, performance and payment bonds, as required by Tex. Gov't Code, Chapter 2253.

Performance Bond. A Performance Bond is required if the Contract Sum is in excess of \$100,000. The Performance Bond is solely for the protection of the Owner. The Performance Bond is to be for 100% of the Contract Sum to guarantee the faithful performance of the Work in accordance with the Contract Documents. The Performance Bond shall be effective through the Contractor's warranty period.

Payment Bond. A Payment Bond is required if the Contract Sum is in excess of \$25,000. The Payment Bond is to be for 100% of the Contract Sum and is payable to the Owner solely for the protection and use of payment bond beneficiaries as defined by Tex. Gov't Code, Chapter 2253.

Bond Requirements. Each bond shall be executed by a corporate surety or sureties authorized to do business in the State of Texas and acceptable to the Owner, on forms in compliance with Tex. Gov't Code, Chapter 2253, and in compliance with the relevant provisions of the Texas Insurance Code. If any bond is for more than 10 percent of the surety's capital and surplus, the Owner may require certification that the company has reinsured the excess portion with one or more reinsurers authorized to

do business in the State. A reinsurer may not reinsure for more than 10 percent of its capital and surplus. If a surety upon a bond loses its authority to do business in the State, the Contractor shall, within thirty (30) days after such loss, furnish a replacement bond at no added cost to the Owner.

Power of Attorney. Each bond shall be accompanied by a valid power- of- attorney (issued by the surety company and attached, signed and sealed with the corporate embossed seal, to the bond), authorizing the attorney in fact who signs the bond to commit the surety to the terms of the bond, and stating any limit in the amount for which the attorney can issue a single bond.

Bond Indemnification. The process of requiring and accepting bonds and making claims thereunder shall be conducted in compliance with Tex. Gov't Code, Chapter 2253. IF FOR ANY REASON A STATUTORY PAYMENT OR PERFORMANCE BOND IS NOT HONORED BY THE SURETY, THE CONTRACTOR SHALL FULLY INDEMNIFY AND HOLD THE OWNER HARMLESS OF AND FROM ANY COSTS, LOSSES, OBLIGATIONS OR LIABILITIES IT INCURS AS A RESULT.

Sureties. Sureties shall be listed on the US Department of the Treasury's Listing of Approved Sureties maintained by the Bureau of Fiscal Service (FMS), www.fiscal.treasury.gov/, stating companies holding Certificates of Authority as acceptable sureties on Federal Bonds and acceptable reinsuring companies (Department Circular 570).

Insurance

1. The Vendor shall procure and maintain at its sole cost and expense for the duration of the Contract insurance coverage for injuries to persons or damages to property that may arise from or in connection with the performance of the work hereunder by the Contractor, its agents, representatives, volunteers, employees or subcontractors. The Contractor's insurance coverage shall be primary insurance with respect to the County, its officials, employees and volunteers. Any insurance or self- insurance maintained by the County, its officials, employees or volunteers shall be considered in excess of the Contractor's insurance and shall not contribute to it. Further, the Contractor shall include the County as an additional insured under its policy. All coverage for subcontractors shall be subject to all of the requirements stated herein. Certificates of Insurance and endorsements shall be furnished to the County and approved by the County before work commences.
2. Standard Insurance Policies Required:
 - a. Commercial General Liability Policy
 - b. Automobile Liability Policy
 - c. Workers' Compensation Policy
3. General Requirements Applicable to All Policies:
 - a. General Liability and Automobile Liability insurance shall be written by a carrier with an A: VIII or better rating in accordance with the current Best Key Rating Guide.
 - b. Only Insurance Carriers licensed and admitted to do business in the State of Texas will be accepted.
 - c. Deductibles shall be listed on the Certificate of Insurance and are acceptable only on a per occurrence basis for property damage only.
 - d. "Claims Made" policies will not be accepted.
 - e. Bandera County, Texas, its officials, employees and volunteers, are to be added as

- “Additional Insured” to the General Liability policy. The coverage shall contain no special limitations on the scope of protection afforded to the County, its officials, employees or volunteers.
- f. A Waiver of Subrogation in favor of the County with respect to Workers’ Compensation Insurance must be included.
 - g. Each insurance policy shall be endorsed to state that coverage shall not be suspended, voided, canceled, reduced in coverage or in limits except after thirty (30) days prior written notice has been given to the County.
 - h. Upon request, certified copies of all insurance policies shall be furnished to the County.
4. Commercial General Liability
 - a. Minimum Combined Single Limit of
 - b. \$1,000,000.00 per occurrence for bodily injury and property damage.
 - c. No coverage shall be deleted from the standard policy without notification of individual exclusions being attached for review and acceptance.
 5. Automobile Liability
 - a. Minimum Combined Single limit of \$500,000.00 per occurrence for bodily injury and property damage.
 6. Worker’s Compensation
 - a. Statutory
 7. Certificates of Insurance shall be prepared and executed by the insurance company or its authorized agent. And shall contain the following provisions and warranties:
 - a. The company is licensed and admitted to do business in the State of Texas.
 - b. The insurance policies provided by the insurance company are underwritten on forms that have been provided by the Texas Board of Insurance.
 - c. All endorsements and insurance coverage according to requirements and instructions contained herein.
 - d. The form of the notice of cancellation, termination, or change in coverage provisions to Bandera County, Texas.
 - e. Original endorsements affecting coverage required by this section shall be furnished with the certificates of insurance.

Workers’ Compensation Provisions

(State law requires the following language in contracts on public works projects).

DEFINITIONS:

Certificate of Coverage (certificate) – A copy of a certificate of insurance, a certificate of authority to self-insure issued by the Texas Workers’ Compensation Commission, or a coverage agreement (TWCC-81, TWCC-82, TWCC-83, or TWCC-84), showing statutory workers’ compensation insurance coverage for the person’s or entity’s employees providing services on a project, for the duration of the project.

Duration of the Project – includes the time from the beginning of the work on the project until the

contractor's/person's work on the project has been completed and accepted by the County.

Persons providing services on the project – (“subcontractor” in 406.096) – includes all persons or entities performing all or part of the services the Contractor has undertaken to perform on the project, regardless of whether that person contracted directly with the Contractor and regardless of whether that person has employees. This includes, without limitations, independent contractors, subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnished persons to provide services on the project. “Services” include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other services related to a project. “Services” does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

The Contractor shall provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, that meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all employees of the Contractor providing services on the project, for the duration of the project.

The Contractor must provide a certificate of coverage to the County prior to being awarded the contract.

If the coverage period shown on the Contractor's current certificate of coverage ends during the duration of the project, the Contractor must, prior to the end of the coverage period, file a new certificate of coverage with the County showing that coverage has been extended.

The Contractor shall obtain from each person providing services on a project, and provide to the County:

1. a certificate of coverage, prior to that person beginning work on the project, so the County will have on file certificates showing coverage for all persons providing services on the project; and
2. no later than seven calendar days after receipt by the Contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.

The Contractor shall retain all required certificates of coverage for the duration of the project and for one (1) year thereafter.

The Contractor shall notify the County in writing by certified mail or personal delivery, within ten (10) calendar days after the Contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.

The Contractor shall post on each project site a notice, in the text, form and manner prescribed by the Texas Workers' Compensation commission, informing all persons providing services on the project that they are required to be covered and stating how a person may verify coverage and report lack of coverage.

The Contractor shall contractually require each person with whom it contracts to provide services on a project, to:

1. Provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, that meets the statutory requirements of Texas Labor Code,

Section 401.011(44) for all of its employees providing services on the project, for the duration of the project;

2. Provide to the Contractor, prior to that person beginning work on the project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on a project, for the duration of the project;
3. Provide the Contractor, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project;
4. Obtain from each person with whom it contracts, and provide to the Contractor:
 - a. a certificate of coverage, prior to the person beginning work on the project; and
 - b. a new certificate of coverage showing the extension of coverage, prior to the end of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the project.
5. Retain all required certificates of coverage on file for the duration of the project and for one (1) year thereafter;
6. Notify the County in writing by certified mail or personal delivery, within ten (10) calendar days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and
7. Contractually require each person with whom it contracts, to perform as required by paragraphs (1) – (7), with the certificates of coverage to be provided to the person for whom they are performing services.

By signing the contract, or providing, or causing to be provided a certificate of coverage, the Contractor is representing to the County that all employees of the Contractor who will provide services on the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the Commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the Contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.

The Contractor's failure to comply with any of these provisions is a breach of contract by the Contractor that entitles the County to declare the contract void if the contractor does not remedy the breach within ten (10) calendar days after receipt of notice of breach from the County.

**SECTION 005000
CONTRACTING FORMS AND SUPPLEMENTS**

PART 1 GENERAL

1.01 AGREEMENT AND CONDITIONS OF THE CONTRACT

- A. See Section 005200 - Agreement Form for the Agreement form to be executed.
- B. See Section 005200 - Agreement Form for the Agreement and General Conditions.
- C. The Agreement is based on AIA A101.
- D. The General Conditions are based on AIA A201.
- E. The General Conditions are based on AIA A201.

1.02 FORMS

- A. Use the following forms for the specified purposes unless otherwise indicated elsewhere in Contract Documents.
- B. Post-Award Certificates and Other Forms:
 - 1. Schedule of Values Form: AIA G703.
 - 2. Application for Payment Forms: AIA G702 with AIA G703 (for Contractors).
- C. Clarification and Modification Forms:
 - 1. Architect's Supplemental Instructions Form: AIA G710.
 - 2. Construction Change Directive Form: AIA G714.
 - 3. Change Order Form: AIA G701.
- D. Closeout Forms:
 - 1. Certificate of Substantial Completion Form: AIA G704.

1.03 REFERENCE STANDARDS

- A. AIA A101-2007 - Standard Form of Agreement Between Owner and Contractor where the basis of Payment is a Stipulated Sum; 2007.
- B. AIA A101 - Standard Form of Agreement Between Owner and Contractor where the basis of Payment is a Stipulated Sum; 2017.
- C. AIA A201 - General Conditions of the Contract for Construction; 2017.
- D. AIA G701 - Change Order; 2017.
- E. AIA G702 - Application and Certificate for Payment; 1992.
- F. AIA G703 - Continuation Sheet; 1992.
- G. AIA G704 - Certificate of Substantial Completion; 2017.
- H. AIA G710 - Architect's Supplemental Instructions; 2017.
- I. AIA G714 - Construction Change Directive; 2017.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 005200
AGREEMENT FORM**

PART 1 GENERAL

1.01 FORM OF AGREEMENT

1.02 THE AGREEMENT TO BE EXECUTED IS ATTACHED FOLLOWING THIS PAGE.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION



AIA Document A101® – 2017

Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum

AGREEMENT made as of the _____ day of _____ in the year _____
(In words, indicate day, month and year.)

BETWEEN the Owner:
(Name, legal status, address and other information)

and the Contractor:
(Name, legal status, address and other information)

for the following Project:
(Name, location and detailed description)

The Architect:
(Name, legal status, address and other information)

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

The parties should complete A101®–2017, Exhibit A, Insurance and Bonds, contemporaneously with this Agreement.

AIA Document A201®–2017, General Conditions of the Contract for Construction, is adopted in this document by reference. Do not use with other general conditions unless this document is modified.

The Owner and Contractor agree as follows.

TABLE OF ARTICLES

- 1 THE CONTRACT DOCUMENTS
- 2 THE WORK OF THIS CONTRACT
- 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION
- 4 CONTRACT SUM
- 5 PAYMENTS
- 6 DISPUTE RESOLUTION
- 7 TERMINATION OR SUSPENSION
- 8 MISCELLANEOUS PROVISIONS
- 9 ENUMERATION OF CONTRACT DOCUMENTS

EXHIBIT A INSURANCE AND BONDS

ARTICLE 1 THE CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary, and other Conditions), Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement, and Modifications issued after execution of this Agreement, all of which form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. An enumeration of the Contract Documents, other than a Modification, appears in Article 9.

ARTICLE 2 THE WORK OF THIS CONTRACT

The Contractor shall fully execute the Work described in the Contract Documents, except as specifically indicated in the Contract Documents to be the responsibility of others.

ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

§ 3.1 The date of commencement of the Work shall be:

(Check one of the following boxes.)

- The date of this Agreement.
- A date set forth in a notice to proceed issued by the Owner.
- Established as follows:
(Insert a date or a means to determine the date of commencement of the Work.)

If a date of commencement of the Work is not selected, then the date of commencement shall be the date of this Agreement.

§ 3.2 The Contract Time shall be measured from the date of commencement of the Work.

§ 3.3 Substantial Completion

§ 3.3.1 Subject to adjustments of the Contract Time as provided in the Contract Documents, the Contractor shall achieve Substantial Completion of the entire Work:

(Check one of the following boxes and complete the necessary information.)

- Not later than () calendar days from the date of commencement of the Work.

By the following date:

§ 3.3.2 Subject to adjustments of the Contract Time as provided in the Contract Documents, if portions of the Work are to be completed prior to Substantial Completion of the entire Work, the Contractor shall achieve Substantial Completion of such portions by the following dates:

Portion of Work	Substantial Completion Date
-----------------	-----------------------------

§ 3.3.3 If the Contractor fails to achieve Substantial Completion as provided in this Section 3.3, liquidated damages, if any, shall be assessed as set forth in Section 4.5.

ARTICLE 4 CONTRACT SUM

§ 4.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum shall be (\$), subject to additions and deductions as provided in the Contract Documents.

§ 4.2 Alternates

§ 4.2.1 Alternates, if any, included in the Contract Sum:

Item	Price
------	-------

§ 4.2.2 Subject to the conditions noted below, the following alternates may be accepted by the Owner following execution of this Agreement. Upon acceptance, the Owner shall issue a Modification to this Agreement. (Insert below each alternate and the conditions that must be met for the Owner to accept the alternate.)

Item	Price	Conditions for Acceptance
------	-------	---------------------------

§ 4.3 Allowances, if any, included in the Contract Sum:
(Identify each allowance.)

Item	Price
------	-------

§ 4.4 Unit prices, if any:

(Identify the item and state the unit price and quantity limitations, if any, to which the unit price will be applicable.)

Item	Units and Limitations	Price per Unit (\$0.00)
------	-----------------------	-------------------------

§ 4.5 Liquidated damages, if any:

(Insert terms and conditions for liquidated damages, if any.)

§ 4.6 Other:

(Insert provisions for bonus or other incentives, if any, that might result in a change to the Contract Sum.)

ARTICLE 5 PAYMENTS

§ 5.1 Progress Payments

§ 5.1.1 Based upon Applications for Payment submitted to the Architect by the Contractor and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.

§ 5.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

§ 5.1.3 Provided that an Application for Payment is received by the Architect not later than the day of a month, the Owner shall make payment of the amount certified to the Contractor not later than the day of the month. If an Application for Payment is received by the Architect after the application date fixed above, payment of the amount certified shall be made by the Owner not later than () days after the Architect receives the Application for Payment.

(Federal, state or local laws may require payment within a certain period of time.)

§ 5.1.4 Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. The schedule of values shall be prepared in such form, and supported by such data to substantiate its accuracy, as the Architect may require. This schedule of values shall be used as a basis for reviewing the Contractor's Applications for Payment.

§ 5.1.5 Applications for Payment shall show the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.

§ 5.1.6 In accordance with AIA Document A201™–2017, General Conditions of the Contract for Construction, and subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

§ 5.1.6.1 The amount of each progress payment shall first include:

- .1 That portion of the Contract Sum properly allocable to completed Work;
- .2 That portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction, or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing; and
- .3 That portion of Construction Change Directives that the Architect determines, in the Architect's professional judgment, to be reasonably justified.

§ 5.1.6.2 The amount of each progress payment shall then be reduced by:

- .1 The aggregate of any amounts previously paid by the Owner;
- .2 The amount, if any, for Work that remains uncorrected and for which the Architect has previously withheld a Certificate for Payment as provided in Article 9 of AIA Document A201–2017;
- .3 Any amount for which the Contractor does not intend to pay a Subcontractor or material supplier, unless the Work has been performed by others the Contractor intends to pay;
- .4 For Work performed or defects discovered since the last payment application, any amount for which the Architect may withhold payment, or nullify a Certificate of Payment in whole or in part, as provided in Article 9 of AIA Document A201–2017; and
- .5 Retainage withheld pursuant to Section 5.1.7.

§ 5.1.7 Retainage

§ 5.1.7.1 For each progress payment made prior to Substantial Completion of the Work, the Owner may withhold the following amount, as retainage, from the payment otherwise due:

(Insert a percentage or amount to be withheld as retainage from each Application for Payment. The amount of retainage may be limited by governing law.)

§ 5.1.7.1.1 The following items are not subject to retainage:
(Insert any items not subject to the withholding of retainage, such as general conditions, insurance, etc.)

§ 5.1.7.2 Reduction or limitation of retainage, if any, shall be as follows:
(If the retainage established in Section 5.1.7.1 is to be modified prior to Substantial Completion of the entire Work, including modifications for Substantial Completion of portions of the Work as provided in Section 3.3.2, insert provisions for such modifications.)

§ 5.1.7.3 Except as set forth in this Section 5.1.7.3, upon Substantial Completion of the Work, the Contractor may submit an Application for Payment that includes the retainage withheld from prior Applications for Payment pursuant to this Section 5.1.7. The Application for Payment submitted at Substantial Completion shall not include retainage as follows:
(Insert any other conditions for release of retainage upon Substantial Completion.)

§ 5.1.8 If final completion of the Work is materially delayed through no fault of the Contractor, the Owner shall pay the Contractor any additional amounts in accordance with Article 9 of AIA Document A201–2017.

§ 5.1.9 Except with the Owner’s prior approval, the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.

§ 5.2 Final Payment

§ 5.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when

- .1 the Contractor has fully performed the Contract except for the Contractor’s responsibility to correct Work as provided in Article 12 of AIA Document A201–2017, and to satisfy other requirements, if any, which extend beyond final payment; and
- .2 a final Certificate for Payment has been issued by the Architect.

§ 5.2.2 The Owner’s final payment to the Contractor shall be made no later than 30 days after the issuance of the Architect’s final Certificate for Payment, or as follows:

§ 5.3 Interest

Payments due and unpaid under the Contract shall bear interest from the date payment is due at the rate stated below, or in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

(Insert rate of interest agreed upon, if any.)

_____ % _____

ARTICLE 6 DISPUTE RESOLUTION

§ 6.1 Initial Decision Maker

The Architect will serve as the Initial Decision Maker pursuant to Article 15 of AIA Document A201–2017, unless the parties appoint below another individual, not a party to this Agreement, to serve as the Initial Decision Maker.

(If the parties mutually agree, insert the name, address and other contact information of the Initial Decision Maker, if other than the Architect.)

§ 6.2 Binding Dispute Resolution

For any Claim subject to, but not resolved by, mediation pursuant to Article 15 of AIA Document A201–2017, the method of binding dispute resolution shall be as follows:

(Check the appropriate box.)

- Arbitration pursuant to Section 15.4 of AIA Document A201–2017
- Litigation in a court of competent jurisdiction
- Other *(Specify)*

If the Owner and Contractor do not select a method of binding dispute resolution, or do not subsequently agree in writing to a binding dispute resolution method other than litigation, Claims will be resolved by litigation in a court of competent jurisdiction.

ARTICLE 7 TERMINATION OR SUSPENSION

§ 7.1 The Contract may be terminated by the Owner or the Contractor as provided in Article 14 of AIA Document A201–2017.

§ 7.1.1 If the Contract is terminated for the Owner’s convenience in accordance with Article 14 of AIA Document A201–2017, then the Owner shall pay the Contractor a termination fee as follows:

(Insert the amount of, or method for determining, the fee, if any, payable to the Contractor following a termination for the Owner’s convenience.)

§ 7.2 The Work may be suspended by the Owner as provided in Article 14 of AIA Document A201–2017.

ARTICLE 8 MISCELLANEOUS PROVISIONS

§ 8.1 Where reference is made in this Agreement to a provision of AIA Document A201–2017 or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents.

§ 8.2 The Owner’s representative:

(Name, address, email address, and other information)

§ 8.3 The Contractor’s representative:

(Name, address, email address, and other information)

§ 8.4 Neither the Owner’s nor the Contractor’s representative shall be changed without ten days’ prior notice to the other party.

§ 8.5 Insurance and Bonds

§ 8.5.1 The Owner and the Contractor shall purchase and maintain insurance as set forth in AIA Document A101™–2017, Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum, Exhibit A, Insurance and Bonds, and elsewhere in the Contract Documents.

§ 8.5.2 The Contractor shall provide bonds as set forth in AIA Document A101™–2017 Exhibit A, and elsewhere in the Contract Documents.

§ 8.6 Notice in electronic format, pursuant to Article 1 of AIA Document A201–2017, may be given in accordance with AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, if completed, or as otherwise set forth below:

(If other than in accordance with AIA Document E203–2013, insert requirements for delivering notice in electronic format such as name, title, and email address of the recipient and whether and how the system will be required to generate a read receipt for the transmission.)

§ 8.7 Other provisions:

ARTICLE 9 ENUMERATION OF CONTRACT DOCUMENTS

§ 9.1 This Agreement is comprised of the following documents:

- .1 AIA Document A101™–2017, Standard Form of Agreement Between Owner and Contractor
- .2 AIA Document A101™–2017, Exhibit A, Insurance and Bonds
- .3 AIA Document A201™–2017, General Conditions of the Contract for Construction
- .4 AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, dated as indicated below:
(Insert the date of the E203-2013 incorporated into this Agreement.)

.5 Drawings

Number	Title	Date
--------	-------	------

.6 Specifications

Section	Title	Date	Pages
---------	-------	------	-------

.7 Addenda, if any:

Number	Date	Pages
--------	------	-------

Portions of Addenda relating to bidding or proposal requirements are not part of the Contract Documents unless the bidding or proposal requirements are also enumerated in this Article 9.

.8 Other Exhibits:

(Check all boxes that apply and include appropriate information identifying the exhibit where required.)

- AIA Document E204™–2017, Sustainable Projects Exhibit, dated as indicated below:
(Insert the date of the E204-2017 incorporated into this Agreement.)

The Sustainability Plan:

Title	Date	Pages
-------	------	-------

Supplementary and other Conditions of the Contract:

Document	Title	Date	Pages
----------	-------	------	-------

.9 Other documents, if any, listed below:

(List here any additional documents that are intended to form part of the Contract Documents. AIA Document A201™–2017 provides that the advertisement or invitation to bid, Instructions to Bidders, sample forms, the Contractor’s bid or proposal, portions of Addenda relating to bidding or proposal requirements, and other information furnished by the Owner in anticipation of receiving bids or proposals, are not part of the Contract Documents unless enumerated in this Agreement. Any such documents should be listed here only if intended to be part of the Contract Documents.)

This Agreement entered into as of the day and year first written above.

OWNER (Signature)

CONTRACTOR (Signature)

(Printed name and title)

(Printed name and title)

**SECTION 011000
SUMMARY**

PART 1 GENERAL 1.01 PROJECT

- A. Project Name: Bandera County Visitor Center.
- B. Owner's Name: Bandera County.
- C. Architect's Name: Fisher Heck, Inc. Architects.
- D. The Project consists of the stabilization of the historic Bandera 1881 Jail and 1877 Courthouse.

1.02 CONTRACT DESCRIPTION

- A. Contract Type: The Proposer selected will be expected to enter a contract with the County based on the AIA A101 contract form.

1.03 OWNER OCCUPANCY

- A. Owner will not occupy premises until completion of project in Phase 3. Work under this Document is for Phase 2.
- B. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.
- C. Schedule the Work to accommodate Owner occupancy.

1.04 CONTRACTOR USE OF SITE AND PREMISES

- A. Construction Operations: Limited to areas noted on Drawings.
- B. Provide access to and from site as required by law and by Owner:
 - 1. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
 - 2. Do not obstruct roadways, sidewalks, or other public ways without permit.

1.05 SCOPE OF WORK

- A. Certifications and permits – The Proposer will be responsible for obtaining all certifications and permits necessary for completion of the project from the appropriate regulatory agencies.
- B. Salvage of Materials – Unless referenced otherwise in an Addendum, the Proposer shall take ownership and responsibility of all scrap/salvage materials.
- C. Extent of Underground Demolition – The buildings are on a variety of foundation types. All historic structures are to remain undisturbed. The Proposer will be responsible for positive surface drainage to all areas of the site.
- D. Responsibility for Temporary Facilities – The Proposer will be responsible for all temporary facilities necessary to successfully complete the project. Portable restrooms and maintenance of site fencing are required. Water and power utilities consumption will be paid for by Bandera County.
- E. Special Requirements – Caution and care must be exercised to prevent damage to adjacent property, sidewalks, pedestrians, and streetscape and to ensure that existing structures in the area can operate normally without significant disruption during demolition activities. Any required street closures shall be approved by the County and City of Bandera at least 48 hours in advance. Any damage to street, curb, or adjacent infrastructure will be at the responsibility of the Proposer.
- F. Storm Water Containment – In order to block solids in storm water runoff, to all nearby storm sewers the Proposer must use silt screens or secure loose dirt by using temporary berm to avoid discharge to storm inlet. Storm water best management practices must be implemented.

- G. Safety - The Proposer shall comply with safety rules and regulations pertaining to the activity, and shall govern employees according to, and in compliance with the applicable OSHA Regulations. Precautions and safety measures shall be provided for the safety of all workers. The Proposer shall maintain an accurate record of exposure data on all accidents incidental to work performed under this contract resulting in death, traumatic injury, occupational disease, or damage to property, materials, supplies, or equipment. Proposer shall provide information describing the specific safety measures/plans to be used in this project to protect personnel, public, structures and infrastructure. Proposal must include any/all fees related to this requirement.

END OF SECTION

**SECTION 012000
PRICE AND PAYMENT PROCEDURES**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Procedures for preparation and submittal of applications for progress payments.

1.02 RELATED REQUIREMENTS

- A. Section 005000 - Contracting Forms and Supplements: Forms to be used.

1.03 SCHEDULE OF VALUES

- A. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit draft to Architect for approval.
- B. Forms filled out by hand will not be accepted.
- C. Submit Schedule of Values in duplicate within 15 days after date of Owner-Contractor Agreement.
- D. Revise schedule to list approved Change Orders, with each Application For Payment.

1.04 APPLICATIONS FOR PROGRESS PAYMENTS

- A. Payment Period: Submit at intervals stipulated in the Agreement.
- B. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit sample to Architect for approval.
- C. Forms filled out by hand will not be accepted.
- D. Execute certification by signature of authorized officer.
- E. Submit one electronic and three hard-copies of each Application for Payment.
- F. Include the following with the application:
 - 1. Transmittal letter as specified for submittals in Section 013000.
 - 2. Construction progress schedule, revised and current as specified in Section 013000.

1.05 MODIFICATION PROCEDURES

- A. For minor changes not involving an adjustment to the Contract Sum or Contract Time, Architect will issue instructions directly to Contractor.
- B. For other required changes, Architect will issue a document signed by Owner instructing Contractor to proceed with the change, for subsequent inclusion in a Change Order.
 - 1. The document will describe the required changes and will designate method of determining any change in Contract Sum or Contract Time.
 - 2. Promptly execute the change.
- C. For changes for which advance pricing is desired, Architect will issue a document that includes a detailed description of a proposed change with supplementary or revised drawings and specifications, a change in Contract Time for executing the change with a stipulation of any overtime work required and the period of time during which the requested price will be considered valid. Contractor shall prepare and submit a fixed price quotation within 14 days.
- D. Computation of Change in Contract Amount: As specified in the Agreement and Conditions of the Contract.
 - 1. For change requested by Architect for work falling under a fixed price contract, the amount will be based on Contractor's price quotation.
 - 2. For change requested by Contractor, the amount will be based on the Contractor's request for a Change Order as approved by Architect.

- 3. For pre-determined unit prices and quantities, the amount will be based on the fixed unit prices.
- E. Execution of Change Orders: Architect will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.
- F. After execution of Change Order, promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item and adjust the Contract Sum.
- G. Promptly revise progress schedules to reflect any change in Contract Time, revise subschedules to adjust times for other items of work affected by the change, and resubmit. H. Promptly enter changes in Project Record Documents.

1.06 APPLICATION FOR FINAL PAYMENT

- A. Prepare Application for Final Payment as specified for progress payments, identifying total adjusted Contract Sum, previous payments, and sum remaining due.

END OF SECTION

**SECTION 013000
ADMINISTRATIVE REQUIREMENTS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Preconstruction meeting.
- B. Progress meetings.
- C. Construction progress schedule.
- D. Progress photographs.
- E. Submittal procedures.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 PRECONSTRUCTION MEETING A.

Schedule meeting after Notice of Award.

- B. Attendance Required:
 - 1. Owner.
 - 2. Architect.
 - 3. Contractor.
- C. Agenda:
 - 1. Execution of Owner-Contractor Agreement.
 - 2. Submission of executed bonds and insurance certificates.
 - 3. Distribution of Contract Documents.
 - 4. Submission of list of subcontractors, list of products, schedule of values, and progress schedule.
 - 5. Designation of personnel representing the parties to Contract, Owner and Architect.
 - 6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
 - 7. Scheduling.
- D. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.

3.02 PROGRESS MEETINGS

- A. Attendance Required:
 - 1. Contractor.
 - 2. Owner.
 - 3. Architect.
 - 4. Contractor's superintendent.
 - 5. Major subcontractors.
- B. Agenda:
 - 1. Review minutes of previous meetings.
 - 2. Review of work progress.
 - 3. Field observations, problems, and decisions.
 - 4. Identification of problems that impede, or will impede, planned progress.
 - 5. Review of submittals schedule and status of submittals.
 - 6. Maintenance of progress schedule.
 - 7. Corrective measures to regain projected schedules.
 - 8. Planned progress during succeeding work period.

9. Maintenance of quality and work standards.
10. Effect of proposed changes on progress schedule and coordination.
11. Other business relating to work.

- C. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.

3.03 CONSTRUCTION PROGRESS SCHEDULE

- A. If preliminary schedule requires revision after review, submit revised schedule within 10 days.
- B. Within 20 days after review of preliminary schedule, submit draft of proposed complete schedule for review.
 1. Include written certification that major contractors have reviewed and accepted proposed schedule.
- C. Within 10 days after joint review, submit complete schedule.
- D. Submit updated schedule with each Application for Payment.

3.04 PROGRESS PHOTOGRAPHS

- A. Submit new photographs at least once a week, within 3 days after being taken.
- B. Photography Type: Digital; electronic files.
- C. Provide photographs of site and construction throughout progress of work produced by an experienced photographer, acceptable to Architect.
- D. In addition to periodic, recurring views, take photographs of each of the following events:
- E. Views:
 1. Provide non-aerial photographs from four cardinal views at each specified time, until date of Substantial Completion.
 2. Consult with Architect for instructions on views required.
 3. Provide factual presentation.
 4. Provide correct exposure and focus, high resolution and sharpness, maximum depth of field, and minimum distortion.
- F. Digital Photographs: 24 bit color, minimum resolution of 1024 by 768, in JPG format; provide files unaltered by photo editing software.
 1. Delivery Medium: Via email.
 2. File Naming: Include project identification, date and time of view, and view identification.
 3. PDF File: Assemble all photos into printable pages in PDF format, with 2 to 3 photos per page, each photo labeled with file name; one PDF file per submittal.

END OF SECTION

**SECTION 014000
QUALITY REQUIREMENTS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Submittals.
- B. References and standards.
- C. Testing and inspection agencies and services.
- D. Control of installation.
- E. Tolerances.
- F. Manufacturers' field services.
- G. Defect Assessment.

1.02 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.

1.03 REFERENCES AND STANDARDS

- A. For products and workmanship specified by reference to a document or documents not included in the Project Manual, also referred to as reference standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Comply with reference standard of date of issue current on date of Contract Documents, except where a specific date is established by applicable code.
- C. Obtain copies of standards where required by product specification sections.
- D. Maintain copy at project site during submittals, planning, and progress of the specific work, until Substantial Completion.
- E. Should specified reference standards conflict with Contract Documents, request clarification from Architect before proceeding.
- F. Neither the contractual relationships, duties, or responsibilities of the parties in Contract nor those of Architect shall be altered from Contract Documents by mention or inference otherwise in any reference document.

1.04 TESTING AND INSPECTION AGENCIES AND SERVICES PART

2 PRODUCTS - NOT USED PART

3 EXECUTION

3.01 CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect before proceeding.
- D. Comply with specified standards as minimum quality for the work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Have work performed by persons qualified to produce required and specified quality.

- F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.

3.02 TOLERANCES

- A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Architect before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

3.03 TESTING AND INSPECTION

- A. Testing Agency Duties:
 - 1. Provide qualified personnel at site. Cooperate with Architect and Contractor in performance of services.
 - 2. Perform specified sampling and testing of products in accordance with specified standards.
 - 3. Ascertain compliance of materials and mixes with requirements of Contract Documents.
 - 4. Promptly notify Architect and Contractor of observed irregularities or non-compliance of Work or products.
 - 5. Perform additional tests and inspections required by Architect.
 - 6. Submit reports of all tests/inspections specified.
- B. Limits on Testing/Inspection Agency Authority:
 - 1. Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
 - 2. Agency may not approve or accept any portion of the Work.
 - 3. Agency may not assume any duties of Contractor.
 - 4. Agency has no authority to stop the Work.
- C. Contractor Responsibilities:
 - 1. Deliver to agency at designated location, adequate samples of materials proposed to be used that require testing, along with proposed mix designs.
 - 2. Cooperate with laboratory personnel, and provide access to the Work and to manufacturers' facilities.
 - 3. Provide incidental labor and facilities:
 - a. To provide access to Work to be tested/inspected.
 - b. To obtain and handle samples at the site or at source of Products to be tested/inspected.
 - c. To facilitate tests/inspections.
 - d. To provide storage and curing of test samples.
 - 4. Notify Architect and laboratory 24 hours prior to expected time for operations requiring testing/inspection services.
 - 5. Employ services of an independent qualified testing laboratory and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
 - 6. Arrange with Owner's agency and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
- D. Re-testing required because of non-compliance with specified requirements shall be performed by the same agency on instructions by Architect.

- E. Re-testing required because of non-compliance with specified requirements shall be paid for by Contractor.

3.04 MANUFACTURERS' FIELD SERVICES

- A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust, and balance equipment, and to initiate instructions when necessary.
- B. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

3.05 DEFECT ASSESSMENT

- A. Replace Work or portions of the Work not complying with specified requirements.
- B. If, in the opinion of Architect, it is not practical to remove and replace the work, Architect will direct an appropriate remedy or adjust payment.

END OF SECTION

**SECTION 015000
TEMPORARY FACILITIES AND CONTROLS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Temporary telecommunications services.
- B. Temporary sanitary facilities.
- C. Temporary Controls: Barriers, enclosures, and fencing.
- D. Security requirements.
- E. Vehicular access and parking.
- F. Waste removal facilities and services.
- G. Project identification sign.

1.02 RELATED REQUIREMENTS

- A. Section 015100 - Temporary Utilities.
- B. Section 015500 - Vehicular Access and Parking.

**1.03 TEMPORARY UTILITIES - SEE SECTION 015100 1.04
TELECOMMUNICATIONS SERVICES**

- A. Provide, maintain, and pay for telecommunications services to field office at time of project mobilization.
- B. Telecommunications services shall include:

1.05 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.
- B. Maintain daily in clean and sanitary condition.

1.06 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas that could be hazardous to workers or the public, to allow for owner's use of site and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- B. Provide barricades and covered walkways required by governing authorities for public rights-of-way and for public access to existing building.
- C. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

1.07 FENCING

- A. Maintain and protect from damage the existing fence around construction site; equip with locks.

1.08 SECURITY - SEE SECTION 013553

- A. Provide security and facilities to protect Work, existing facilities, and Owner's operations from unauthorized entry, vandalism, or theft.

1.09 VEHICULAR ACCESS AND PARKING - SEE SECTION 015500

- A. Coordinate access and haul routes with governing authorities and Owner.
- B. Provide and maintain access to fire hydrants, free of obstructions.
- C. Provide means of removing mud from vehicle wheels before entering streets.
- D. Provide temporary parking areas to accommodate construction personnel. When site space is not adequate, provide additional off-site parking.

1.10 WASTE REMOVAL

- A. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
- B. Provide containers with lids. Remove trash from site periodically.
- C. If materials to be recycled or re-used on the project must be stored on-site, provide suitable non-combustible containers; locate containers holding flammable material outside the structure unless otherwise approved by the authorities having jurisdiction.
- D. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

1.11 PROJECT IDENTIFICATION

- A. Provide project identification sign of design and construction.
- B. Erect on site at location as directed.
- C. No other signs are allowed without Owner permission except those required by law.

PART 2 PRODUCTS - NOT USED PART

3 EXECUTION - NOT USED

END OF SECTION

**SECTION 016000
PRODUCT REQUIREMENTS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Re-use of existing products.
- B. Transportation, handling, storage and protection.
- C. Product option requirements.
- D. Substitution limitations.
- E. Procedures for Owner-supplied products.

1.02 RELATED REQUIREMENTS

- A. Section 011000 - Summary: Lists of products to be removed from existing building.
- B. Section 012500 - Substitution Procedures: Substitutions made during procurement and/or construction phases.
- C. Section 016116 - Volatile Organic Compound (VOC) Content Restrictions: Requirements for VOC-restricted product categories.
- D. Section 017419 - Construction Waste Management and Disposal: Waste disposal requirements potentially affecting product selection, packaging and substitutions.

1.03 REFERENCE STANDARDS

- A. EN 15804 - Sustainability of Construction Works - Environmental Product Declarations - Core Rules for the Product Category of Construction Products; 2022 (Corrigendum 2021).
- B. GreenScreen (LIST) - GreenScreen for Safer Chemicals List Translator; Clean Production Action; Current Edition.
- C. GreenScreen (METH) - GreenScreen for Safer Chemicals Method v1.2; Clean Production Action; Current Edition.
- D. ISO 14025 - Environmental Labels and Declarations - Type III Environmental Declarations Principles and Procedures; 2006.
- E. ISO 14040 - Environmental Management - Life Cycle Assessment - Principles and Framework; 2006, with Amendment (2020).
- F. ISO 14044 - Environmental Management - Life Cycle Assessment - Requirements and Guidelines; 2006, with Amendment (2020).
- G. ISO 21930 - Sustainability in Buildings and Civil Engineering Works — Core Rules for Environmental Product Declarations of Construction Products and Services; 2017.

1.04 SUBMITTALS

- A. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- B. Shop Drawing Submittals: Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- C. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
 - 1. For selection from standard finishes, submit samples of the full range of the manufacturer's standard colors, textures, and patterns.

1.05 QUALITY ASSURANCE

- A. Environmental Product Declaration (EPD): Publicly available, critically reviewed life cycle analysis having at least a cradle-to-gate scope.
 - 1. Good: Product-specific; compliant with ISO 14044.
 - 2. Better: Industry-wide, generic; compliant with ISO 21930, or with ISO 14044, ISO 14040, ISO 14025, and EN 15804; Type III third-party certification with external verification, in which the manufacturer is recognized as the program operator.
 - 3. Best: Commercial-product-specific; compliant with ISO 21930, or with ISO 14044, ISO 14040, ISO 14025, and EN 15804; Type III third-party certification with external verification, in which the manufacturer is recognized as the program operator.
 - 4. Where demonstration of impact reduction below industry average is required, submit both industry-wide and commercial-product-specific declarations; or submit at least 5 declarations for products of the same type by other manufacturers in the same industry.
- B. GreenScreen Chemical Hazard Analysis: Ingredients of 100 parts-per-million or greater evaluated using GreenScreen (METH).
 - 1. Good: GreenScreen (LIST) evaluation to identify Benchmark 1 hazards; a Health Product Declaration includes this information.
 - 2. Better: GreenScreen Full Assessment.
 - 3. Best: GreenScreen Full Assessment by GreenScreen Licensed Profiler.
 - 4. Acceptable Evidence: GreenScreen report.

PART 2 PRODUCTS

2.01 EXISTING PRODUCTS

- A. Do not use materials and equipment removed from existing premises unless specifically required or permitted by Contract Documents.
- B. Unforeseen historic items encountered remain the property of the Owner; notify Owner promptly upon discovery; protect, remove, handle, and store as directed by Owner.
- C. Existing materials and equipment indicated to be removed, but not to be re-used, relocated, reinstalled, delivered to the Owner, or otherwise indicated as to remain the property of the Owner, become the property of the Contractor; remove from site.
- D. Specific Products to be Reused: The reuse of certain materials and equipment already existing on the project site is required.
 - 1. See Section 011000 for list of items required to be salvaged for reuse and relocation.

2.02 NEW PRODUCTS

- A. Provide new products unless specifically required or permitted by Contract Documents.
- B. Use of products having any of the following characteristics is not permitted:
- C. Where other criteria are met, Contractor shall give preference to products that:
 - 1. If used on interior, have lower emissions, as defined in Section 016116.
 - 2. If wet-applied, have lower VOC content, as defined in Section 016116.

2.03 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

PART 3 EXECUTION

3.01 SUBSTITUTION LIMITATIONS

- A. See Section 012500 - Substitution Procedures.

3.02 OWNER-SUPPLIED PRODUCTS

- A. Owner's Responsibilities:
 - 1. Arrange for and deliver Owner reviewed shop drawings, product data, and samples, to Contractor.
 - 2. Arrange and pay for product delivery to site.
 - 3. On delivery, inspect products jointly with Contractor.
 - 4. Submit claims for transportation damage and replace damaged, defective, or deficient items.
 - 5. Arrange for manufacturers' warranties, inspections, and service.
- B. Contractor's Responsibilities:
 - 1. Review Owner reviewed shop drawings, product data, and samples.
 - 2. Receive and unload products at site; inspect for completeness or damage jointly with Owner.
 - 3. Handle, store, install and finish products.
 - 4. Repair or replace items damaged after receipt.

3.03 TRANSPORTATION AND HANDLING

- A. Package products for shipment in manner to prevent damage; for equipment, package to avoid loss of factory calibration.
- B. If special precautions are required, attach instructions prominently and legibly on outside of packaging.
- C. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.
- D. Transport and handle products in accordance with manufacturer's instructions.
- E. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.
- F. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- G. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage, and to minimize handling.
- H. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

3.04 STORAGE AND PROTECTION

- A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication. See Section 017419.
- B. Store and protect products in accordance with manufacturers' instructions.
- C. Store with seals and labels intact and legible.
- D. Store sensitive products in weathertight, climate-controlled enclosures in an environment favorable to product.
- E. For exterior storage of fabricated products, place on sloped supports above ground.

- F. Protect products from damage or deterioration due to construction operations, weather, precipitation, humidity, temperature, sunlight and ultraviolet light, dirt, dust, and other contaminants.
- G. Comply with manufacturer's warranty conditions, if any.
- H. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- I. Prevent contact with material that may cause corrosion, discoloration, or staining.
- J. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- K. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

END OF SECTION

SECTION 017000

EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Examination, preparation, and general installation procedures.
- B. Cutting and patching.
- C. Surveying for laying out the work.
- D. Cleaning and protection.
- E. Closeout procedures, including Contractor's Correction Punch List, except payment procedures.
- F. General requirements for maintenance service.

1.02 RELATED REQUIREMENTS

- A. Section 078400 - Firestopping.

1.03 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Survey work: Submit name, address, and telephone number of Surveyor before starting survey work.
 - 1. On request, submit documentation verifying accuracy of survey work.
 - 2. Submit a copy of site drawing signed by the Land Surveyor, that the elevations and locations of the work are in compliance with Contract Documents.
 - 3. Submit surveys and survey logs for the project record.
- C. Demolition Plan: Submit demolition plan as specified by OSHA and local authorities.
 - 1. Indicate extent of demolition, removal sequence, bracing and shoring, and location and construction of barricades and fences. Include design drawings and calculations for bracing and shoring.
 - 2. Identify demolition firm and submit qualifications.
 - 3. Include a summary of safety procedures.
- D. Cutting and Patching: Submit written request in advance of cutting or alteration that affects:
 - 1. Structural integrity of any element of Project.
 - 2. Integrity of weather exposed or moisture resistant element.
 - 3. Efficiency, maintenance, or safety of any operational element.
 - 4. Visual qualities of sight exposed elements.
 - 5. Work of Owner or separate Contractor.

1.04 QUALIFICATIONS

- A. For surveying work, employ a land surveyor registered in the State in which the Project is located and acceptable to Architect. Submit evidence of surveyor's Errors and Omissions insurance coverage in the form of an Insurance Certificate. Employ only individual(s) trained and experienced in collecting and recording accurate data relevant to ongoing construction activities,
- B. For design of temporary shoring and bracing, employ a Professional Engineer experienced in design of this type of work and licensed in the State in which the Project is located.

1.05 PROJECT CONDITIONS

- A. Use of explosives is not permitted.
- B. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.
- C. Protect site from puddling or running water. Provide water barriers as required to protect site from soil erosion.
- D. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
- E. Pest and Rodent Control: Provide methods, means, and facilities to prevent pests and insects from damaging the work.
- F. Pollution Control: Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations. Comply with federal, state, and local regulations.

1.06 COORDINATION

- A. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- B. Notify affected utility companies and comply with their requirements.
- C. Verify that utility requirements and characteristics of new operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- D. Coordinate space requirements, supports, and installation of mechanical and electrical work that are indicated diagrammatically on drawings. Follow routing indicated for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- E. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements. F.
Coordinate completion and clean-up of work of separate sections.
- G. After Owner occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

PART 2 PRODUCTS

2.01 PATCHING MATERIALS

- A. New Materials: As specified in product sections; match existing products and work for patching and extending work.
- B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.
- C. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 016000 - Product Requirements.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.

- B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misfabrication.
- E. Verify that utility services are available, of the correct characteristics, and in the correct locations.
- F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

3.02 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

3.03 LAYING OUT THE WORK

- A. Verify locations of survey control points prior to starting work.
- B. Promptly notify Architect of any discrepancies discovered.
- C. Protect survey control points prior to starting site work; preserve permanent reference points during construction.
- D. Promptly report to Architect the loss or destruction of any reference point or relocation required because of changes in grades or other reasons.
- E. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Architect.
- F. Utilize recognized engineering survey practices.
- G. Establish elevations, lines and levels. Locate and lay out by instrumentation and similar appropriate means:
 1. Site improvements including pavements; stakes for grading, fill and topsoil placement; utility locations, slopes, and invert elevations.
 2. Grid or axis for structures.
 3. Building foundation, column locations, ground floor elevations.
- H. Periodically verify layouts by same means.
- I. Maintain a complete and accurate log of control and survey work as it progresses.

3.04 GENERAL INSTALLATION REQUIREMENTS

- A. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.
- B. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.
- C. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.
- D. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.
- E. Make neat transitions between different surfaces, maintaining texture and appearance.

3.05 CUTTING AND PATCHING

- A. Whenever possible, execute the work by methods that avoid cutting or patching.
- B. Perform whatever cutting and patching is necessary to:
 - 1. Complete the work.
 - 2. Fit products together to integrate with other work.
 - 3. Provide openings for penetration of mechanical, electrical, and other services.
 - 4. Match work that has been cut to adjacent work.
 - 5. Repair areas adjacent to cuts to required condition.
 - 6. Repair new work damaged by subsequent work.
 - 7. Remove samples of installed work for testing when requested.
 - 8. Remove and replace defective and non-complying work.
- C. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.
- D. Employ original installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.
- E. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.
- F. Restore work with new products in accordance with requirements of Contract Documents.
- G. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- H. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material in accordance with Section 078400, to full thickness of the penetrated element.
- I. Patching:
 - 1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
 - 2. Match color, texture, and appearance.
 - 3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.

3.06 PROGRESS CLEANING

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
- C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
- D. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.

3.07 PROTECTION OF INSTALLED WORK

- A. Protect installed work from damage by construction operations.
- B. Provide special protection where specified in individual specification sections.
- C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.

- D. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- E. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- F. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- G. Remove protective coverings when no longer needed; reuse or recycle coverings if possible.

3.08 ADJUSTING

- A. Adjust operating products and equipment to ensure smooth and unhindered operation.

3.09 FINAL CLEANING

- A. Use cleaning materials that are nonhazardous.
- B. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
- C. Remove all labels that are not permanent. Do not paint or otherwise cover fire test labels or nameplates on mechanical and electrical equipment.
- D. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
- E. Clean filters of operating equipment.
- F. Clean debris from roofs, gutters, downspouts, scuppers, overflow drains, area drains, drainage systems.
- G. Clean site; sweep paved areas, rake clean landscaped surfaces.
- H. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.

3.10 CLOSEOUT PROCEDURES

- A. Make submittals that are required by governing or other authorities.
- B. Accompany Project Coordinator on preliminary inspection to determine items to be listed for completion or correction in the Contractor's Correction Punch List for Contractor's Notice of Substantial Completion.
- C. Notify Architect when work is considered ready for Architect's Substantial Completion inspection.
- D. Submit written certification containing Contractor's Correction Punch List, that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Architect's Substantial Completion inspection.
- E. Conduct Substantial Completion inspection and create Final Correction Punch List containing Architect's and Contractor's comprehensive list of items identified to be completed or corrected and submit to Architect.
- F. Correct items of work listed in Final Correction Punch List and comply with requirements for access to Owner-occupied areas.
- G. Notify Architect when work is considered finally complete and ready for Architect's Substantial Completion final inspection.
- H. Complete items of work determined by Architect listed in executed Certificate of Substantial Completion.

3.11 MAINTENANCE

- A. Provide service and maintenance of components indicated in specification sections.
- B. Maintenance Period: As indicated in specification sections or, if not indicated, not less than one year from the Date of Substantial Completion or the length of the specified warranty, whichever is longer.
- C. Examine system components at a frequency consistent with reliable operation. Clean, adjust, and lubricate as required.
- D. Include systematic examination, adjustment, and lubrication of components. Repair or replace parts whenever required. Use parts produced by the manufacturer of the original component.
- E. Maintenance service shall not be assigned or transferred to any agent or subcontractor without prior written consent of the Owner.

END OF SECTION

**SECTION 024100
DEMOLITION**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Selective demolition of built site elements.
- B. Selective demolition of building elements for alteration purposes.
- C. Abandonment and removal of existing utilities and utility structures.

1.02 RELATED REQUIREMENTS

- A. Section 011000 - Summary: Limitations on Contractor's use of site and premises.
- B. Section 011000 - Summary: Sequencing and staging requirements.
- C. Section 011000 - Summary: Description of items to be salvaged or removed for re-use by Contractor.
- D. Section 015000 - Temporary Facilities and Controls: Site fences, security, protective barriers, and waste removal.
- E. Section 016000 - Product Requirements: Handling and storage of items removed for salvage and relocation.
- F. Section 017000 - Execution and Closeout Requirements: Project conditions; protection of bench marks, survey control points, and existing construction to remain; reinstallation of removed products; temporary bracing and shoring.
- G. Section 311000 - Site Clearing: Vegetation and existing debris removal.

1.03 REFERENCE STANDARDS

- A. 29 CFR 1926 - Safety and Health Regulations for Construction; Current Edition.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Project Record Documents: Accurately record actual locations of capped and active utilities and subsurface construction.

1.05 QUALITY ASSURANCE

- A. Demolition Firm Qualifications: Company specializing in the type of work required.

PART 2 PRODUCTS -- NOT USED

PART 3 EXECUTION

3.01 SCOPE

- A. Remove portions of existing buildings in the following sequence:
- B. Remove other items indicated, for salvage and relocation.

3.02 GENERAL PROCEDURES AND PROJECT CONDITIONS

- A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
 - 1. Obtain required permits.
 - 2. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.

3. Provide, erect, and maintain temporary barriers and security devices.
 4. Use physical barriers to prevent access to areas that could be hazardous to workers or the public.
 5. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
 6. Conduct operations to minimize obstruction of public and private entrances and exits; do not obstruct required exits at any time; protect persons using entrances and exits from removal operations.
 7. Being a sensitive historic structure, first attempt of removal or demolition of materials should be by use of hand tools creating minimal vibration. This is especially important for masonry and structural removal or demolition. Architect must be notified if small hand tools producing minimal vibration is not possible prior to using other tools. Pneumatic, reciprocating, impact or other similar hammer or chisel tools are not acceptable for use without prior authorization by the Architect.
- B. Do not begin removal until receipt of notification to proceed from Owner.
 - C. Do not begin removal until built elements to be salvaged or relocated have been removed.
 - D. Protect existing structures and other elements that are not to be removed.
 1. Provide bracing and shoring.
 2. Prevent movement or settlement of adjacent structures.
 3. Stop work immediately if adjacent structures appear to be in danger.
 - E. Minimize production of dust due to demolition operations; do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.
 - F. If hazardous materials are discovered during removal operations, stop work and notify Architect and Owner; hazardous materials include regulated asbestos containing materials, lead, PCB's, and mercury.

3.03 EXISTING UTILITIES

- A. Coordinate work with utility companies; notify before starting work and comply with their requirements; obtain required permits.
- B. Protect existing utilities to remain from damage.
- C. Do not disrupt public utilities without permit from authority having jurisdiction.
- D. Do not close, shut off, or disrupt existing life safety systems that are in use without at least 7 days prior written notification to Owner.
- E. Do not close, shut off, or disrupt existing utility branches or take-offs that are in use without at least 3 days prior written notification to Owner.
- F. Locate and mark utilities to remain; mark using highly visible tags or flags, with identification of utility type; protect from damage due to subsequent construction, using substantial barricades if necessary.
- G. Remove exposed piping, valves, meters, equipment, supports, and foundations of disconnected and abandoned utilities.
- H. Prepare building demolition areas by disconnecting and capping utilities outside the demolition zone; identify and mark utilities to be subsequently reconnected, in same manner as other utilities to remain.

3.04 SELECTIVE DEMOLITION FOR ALTERATIONS

- A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.

1. Verify that construction and utility arrangements are as indicated.
 2. Report discrepancies to Architect before disturbing existing installation.
 3. Beginning of demolition work constitutes acceptance of existing conditions that would be apparent upon examination prior to starting demolition.
- B. Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage.
- C. Remove existing work as indicated and as required to accomplish new work.
1. Remove rotted wood, corroded metals, and deteriorated masonry and concrete; replace with new construction specified.
 2. Remove items indicated on drawings.
- D. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications): Remove existing systems and equipment as indicated.
1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components.
 2. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
 3. Verify that abandoned services serve only abandoned facilities before removal.
 4. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification.
- E. Protect existing work to remain.
1. Prevent movement of structure; provide shoring and bracing if necessary.
 2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
 3. Repair adjacent construction and finishes damaged during removal work.
 4. Patch as specified for patching new work.

3.05 DEBRIS AND WASTE REMOVAL

- A. Remove debris, junk, and trash from site.
- B. Leave site in clean condition, ready for subsequent work.
- C. Clean up spillage and wind-blown debris from public and private lands.

END OF SECTION

**SECTION 040000
MASONRY REPOINTING**

PART 1

GENERAL 1.01 SECTION INCLUDES

- A. Repointing of deteriorated mortar joints at below-grade and above grade of masonry walls, as needed.
 - 1. NHL-based mortar mix, to match historic 20th century lime mortars, as approved by the THC.
 - 2. Need for repointing below-grade will be determined by Architect once below-grade walls are exposed after removal of previously excavated soils.
- B. Work in this section will be performed by the General Contractor and Masonry Subcontractor, in coordination with the Architect and the Owner.

1.02 REFERENCE STANDARDS

- A. NPS Technical Preservation Services Preservation Brief 2: Repointing Mortar Joints in Historic Masonry Buildings; 1998.
- B. ASTM C1713 - Standard Specification for Mortars for the Repair of Historic Masonry; 2013.
- C. Hot and Cold Weather Masonry Construction; Masonry Industry Council; 1999.

1.03 COORDINATION

- A. Coordinate work in this section with structural repairs.

1.04 MEETINGS

- A. Convene two weeks before starting work of this section and work of related sections affecting work of this section.
- B. Require attendance of parties directly affecting work of this section: Contractor, Mason(s), Architect, and those requested to attend.
- C. Review conditions of installation, installation procedures, and coordination with related work. Review manufacturer's requirements, product, and execution.

1.05 PERFORMANCE REQUIREMENTS

- A. All work shall comply with the United States Secretary of the Interior's Standards for the Treatment of Historic Properties, unless stated otherwise.
- B. Repointing basic reference standard shall be the NPS Preservation Brief 2: Repointing Mortar Joints in Historic Masonry Buildings, by Robert C. Mack, FAIA and John P. Speweik.

1.06 SUBMITTALS

- A. Certificates: Certify that mason experience and training meets or exceeds specified requirements below.
- B. Product Data: Provide data on mortar design components.

1.07 QUALITY ASSURANCE

- A. Restorer: Masonry contractor with documented expertise in masonry restoration with minimum ten years of experience and which employs technicians with documented training and experience in the required masonry restoration procedures. Work must be performed by specialists with documented prior experience working with Hydraulic Lime Mortars on historic masonry buildings. Specialists employed by contractor shall be identified in submittal along with a list of prior projects. Masonry contractor shall maintain a steady work crew consisting of skilled craftsmen who are experienced with the materials and methods specified. The foreman shall be present daily on the site. In acceptance or rejection of this work, no account shall be taken for incompetence on the part of the workmen.

- B. Modification: In the event that the masonry contractor wants to modify any of the specified materials or methods, the proposed changes shall be submitted in writing to the Architect and the Alamo Conservator and shall include all pertinent information requested for the specified products and techniques. No modifications shall take place without written approval.
- C. Source of materials: Obtain materials for repointing from a single source for each type of material required to ensure a match in quality, color and texture.
- D. Do not modify intended aesthetic effects, and ensure the mortar meets all performance requirements. Where modifications are proposed, submit comprehensive explanatory data to the Architects and the Conservator for review.
- E. Comply with all applicable Municipal, State, and Federal regulations.

1.08 MOCK-UP

- A. Submit the following mock ups for approval prior to starting the work. Please note that each mockup must be performed by each mason working on that task. These mockups include: Raking out of joints and repointing.
- B. For each mason who will work on a particular task, provide the following:
 - 1. Mortar removal mock-up for existing joints - sized minimum of 24 in x 24 in.
 - 2. Repointing - sized minimum of 24 inch x 24 inch.
 - 3. Repointing with chinking stone inserted in joints - sized minimum of 24 inch x 24 inch.
 - 4. Incorporate representative sample of repair mortar joint adjacent to existing sound mortar.
- C. Mortar color, texture and tooling: Match color, texture and tooling of designated historic mortars.
- D. Approved Mortar Sample: Protect and maintain approved mortar sample until all pointing work is complete and accepted.
- E. Locate where directed.
 - 1. Acceptable panel and procedures employed shall become the standard for work of this section.
 - 2. Mock-up may remain as part of the Work.

1.09 DELIVERY, STORAGE, AND PROTECTION

- A. Storage and Handling: Store masonry materials in a clean, dry location. Secure materials in location where unauthorized individuals cannot reach them.

1.10 PROJECT CONDITIONS

- A. Take whatever precautions are necessary to protect the existing building from damage resulting from work under this section.
- B. Prevent mortar and patching compounds used in repointing and repair work from staining face of surrounding masonry and other surfaces. Remove immediately mortar and patching compounds in contact with exposed masonry and other surfaces.

1.11 ENVIRONMENTAL REQUIREMENTS

- A. No repointing shall be undertaken when either the air or masonry surface temperature is below 45 degrees F, unless adequate, approved means are provided for maintaining 55 degree F temperature of the air and stone for 72 hours after application.

PART 2

PRODUCTS 2.01 MANUFACTURERS OF RESTORATION PRODUCTS

- A. Acceptable Manufacturer of Hydraulic Lime, Masonry Repair and Stabilization Products: Lime Works US. PO Box 151, Milford Square, PA, 18935. Phone: (215) 536 - 6706. Website: www.limeworks.us

- B. Reference in the specifications to materials by trade name is to establish a standard of quality. It is not intended to exclude other manufacturers whose materials that, in the judgment of the Architects, are equivalent to those named.

2.02 MATERIALS COURTHOUSE AND JAIL INTERIOR

- A. Lime: Should conform to ASTM C207, Type S, high plasticity, Hydrated Lime for Masonry Purposes.
 - 1. Lime which meets this standard will "work" well, resists drying during curing, and is sufficiently strong for the purpose of repointing and repairing.
 - 2. Lime expands as it hydrates, making high lime mortars more resistant to crack formation.
- B. Cement: Should conform to ASTM C150, Type I, White. It should not have more than 0.60% alkali nor more than 0.15% water soluble alkali. Use gray portland cement ONLY if a dark mortar is to be matched.
 - 1. Cement meeting this standard should increase the workability of the mortar, accelerate the setting time and slightly increase the strength of the mortar.
 - 2. The low alkali content will prevent efflorescence.
- C. Sand: Free of impurities and conforming to ASTM C144.
 - 1. Sand color, size, and texture should match the original as closely as possible. Provide a sample of the sand for comparison to the original, and have it approved by the RHPO before beginning repointing work.
 - 2. When possible, use bar sand or beach sand rather than crushed sand for the repointing mortar. Bar sand or beach sand should be washed to remove the salts before using.
 - i Crushed sand has sharp edges, which makes it more "sticky" and difficult to work into the joints.
 - ii Bar sand, on the other hand, has rounded edges and flows easily during the mortar application.
 - iii The working characteristics of mortar made with crushed sand may be improved by adding a slight amount of portland cement. The amount of cement should not exceed 20% of the total lime/cement binder. 20% or less of cement has minimal effect on the hardness of the mortar. Cement content above 20% will make the mortar too hard.
- D. Clean, potable water: If the water must be transported or stored in a container, the container must not impart any chemicals to the water.
- E. Stone dust finely ground from the same stone as that to be repointed.
- F. Additives: No antifreeze compounds or other admixture shall be used. Do not use anti-freeze compounds. These compounds are designed for use with cement mortars, and their effectiveness with high lime mortars is questionable. Furthermore, the compounds contain salts which can lead to serious problems in the masonry at a later time.
- G. Air entraining agents are not recommended. These agents are designed for use with cement rather than lime, and they result in decreased bonding of the mortar and the masonry. Air entraining is not necessary with high lime mortars because of the natural ability of these mortars to flex with temperature changes.

2.03 MORTAR MIXES

- A. Final mortar mix will be determined by Architect after observing Contractor mock ups.
- B. Mortar Mix #1: Lime Mortar
 - 1. 4 parts buff colored River Sand
 - 2. 1 part Lime
 - 3. 1/4 parts Portland Cement

- C. Measurement and Mixing: Measure cementitious and aggregate material in a dry condition by volume or equivalent weight. Do not measure by shovel; use known measure. Mix materials in a clean, mechanical batch mixer.
 - 1. Mixing Pointing Mortar: Thoroughly mix cementitious and aggregate materials together before adding any water. Then mix again adding only enough water to produce a damp, unworkable mix that shall retain its form when pressed into a ball. Maintain mortar in this dampened condition for 1 to 2 hours. Add remaining water in small portions until reaching mortar of the desired consistency. Use mortar within 30 minutes of final mixing; do not retemper or use partially hardened material.
- D. Do not use admixtures of any kind in mortar, unless otherwise indicated.

2.04 MATERIAL – JAIL EXTERIOR

- A. Water: Potable
- B. Mortar Material Testing: Provide laboratory testing of original mortar to determine required matching for composition and color of new mortar.
- C. Test and analyze existing original historic mortar before repointing in order to provide a match with the new repointing mortar.
- D. Historic mortars are usually softer than newer mortars, often using lime as a binder rather than cement. Lime for repointing mortar shall conform to ASTM C 207, Type S, unless otherwise specified.
- E. Full laboratory analysis of the existing mortar shall conform to ASTM C 1324.

2.05 MOTAR MIXES – JAIL EXTERIOR

- A. Mortar Material Testing: Provide laboratory testing of original mortar to determine required matching for composition and color of new mortar.
- B. Basis for Standard of Care: U.S. Department of the Interior – National Park Service – Standards and Guidelines.
- C. No masonry or mortar shall be used in the work until the samples and the represented mixture have been approved.
- D. Measurement and Mixing: Measure cementitious and aggregate material in a dry condition by volume or equivalent weight. Do not measure by shovel; use known measure. Mix materials in a clean, mechanical batch mixer.
 - 1. Mixing Pointing Mortar: Thoroughly mix cementitious and aggregate materials together before adding any water. Then mix again adding only enough water to produce a damp, unworkable mix that shall retain its form when pressed into a ball. Maintain mortar in this dampened condition for 1 to 2 hours. Add remaining water in small portions until reaching mortar of the desired consistency. Use mortar within 30 minutes of final mixing; do not retemper or use partially hardened material.
- E. Do not use admixtures of any kind in mortar, unless otherwise indicated.

PART 3 EXECUTION

3.01 PREPARATION FOR REPAIR

- A. Verify that surfaces to be repaired are ready for work in this section.
- B. Protect elements surrounding the work of this section from damage and disfigurement.
- C. Immediately remove stains, efflorescence, or other excess resulting from the work of this section.
- D. Provide waterproof dams to divert flowing water to exterior. Collect and remove all water from site, as required by Owner.

3.02 MORTAR REMOVAL - RAKING OUT OF MORTAR JOINTS

- A. The objective of mortar removal is to remove failed, incongruous and detrimental materials without damaging the stone. Emphasis should be placed on preserving the edges of the stone units.
- B. Remove all defective mortar material plus all cement based mortars from joints using a combination of hand tools and hand held grinders or specially designed mortar removal pneumatic tools. The use of hand held grinders or pneumatic tools will be allowed where, in the case of stone joints; joint widths can accommodate a single pass of the blade without touching either edge of the stone and, where mortar can be mechanically cut without damaging the stone. Each mechanic must demonstrate proficiency in the use of hand held grinders or pneumatic tools. Electric or pneumatic demolition hammers, chipping guns or the equivalent will not be allowed for removing mortar from joints.
- C. Rake out joints as follows:
 - 1. Rake out mortar joints to minimum depth of 1 inch.
 - 2. Remove and retain all chinking and filler stones for reinsertion into wall as necessary for repair.
 - 3. Remove mortar to provide reveals with square backs and to expose masonry for contact with pointing mortar. Remove dirt, dust and debris by washing with very low pressure water delivered from a garden hose.
 - 4. Moisten joints with clean water and stiff natural bristle brush before application of mortar to sufficient degree to avoid absorption of water from the mortar.

3.03 MORTAR MIXING

- A. Thoroughly mix ingredients in quantities needed for immediate use. Mix dry ingredients mechanically until uniformly distributed. Add water to achieve workable consistency that is suitable for the very absorbent limestone walls. Discard lumpy, caked, frozen and hardened mixes and mixes not used within 2 hours after initial mixing.
- B. Do not use antifreeze compounds to lower freezing temperature of mortar.

3.04 REPOINTING - MORTAR APPLICATION

- A. Use hand tools only. Do not use power tools.
- B. Do not damage masonry units.
- C. First layer to create a uniform depth for later applications and to be thoroughly compacted into cavities: apply mortar to a maximum thickness of 1/2".
- D. After joints have been filled to a uniform depth, apply remaining mortar in successive 1/2" thick layers: fully compact each layer and allow to dry to thumbprint hardness before applying next layer.
- E. Insert chinking stones were required to support stone units and maintain the historic appearance of mortar joints. Some chinking stones will be buried in the joint and others will be visible at the surface of the joint.
- F. When final layer is thumbprint hard, tool to match approved sample joint. Joint profile shall be slightly recessed from the edges of the stone units with small shim stones protruding from the mortar joints. A raised ribbon mortar joint profile and/or covering the faces of the stone units is not part of this contract.
- G. Avoid feather-edging of mortar joint. Slightly recess the mortar from face of stone to expose edges of each stone unit.
- H. Immediately after repointing, remove excess mortar by light brushing with a natural bristle brush. Do not leave encrusted matter.

- I. Keep mortar damp by wetting and covering completed work for 48 hours after pointing to permit proper hardening of mortar. The following cures are permissible:
 1. Cover masonry temporarily with burlap, which is moistened periodically.
 - a. Burlap to be fastened to walls through mortar joints only. Patch and repair holes as necessary following removal of burlap.
 2. Cover wall with plastic sheets temporarily to prevent evaporation.

3.05 MASONRY REPLACEMENT

- A. Replace masonry with salvaged stone from existing building, or approved sources.
- B. If a few isolated masonry units are to be replaced, remove each without disturbing the surrounding masonry. Deteriorated masonry units and mortar requiring replacement shall be removed by hand chiseling.
- C. Adjoining masonry units shall not be damaged during the removal of deteriorated units and mortar.
- D. Test the new element for fitting into its space without mortar. If wedges are used to support and align the new unit, they shall be covered with at least 1-1/2 inches of mortar when pointing is complete.
- E. Cover the four sides and back of the space with sufficient mortar to ensure that there will be no air spaces when the new unit is set. The new unit shall be lined up and set by tapping it into place with a wooden or rubber mallet.
- F. Align face of new unit with that of existing masonry.
- G. Joints shall be repointed to match the rest of the wall after new units have been properly installed and adjusted.
- H. Clean replacement areas with a non-metallic brush and water to remove excess mortar.

3.06 CLEANING

- A. The face of all stonework shall be appropriately cleaned after completion of pointing and other work liable to soil the stone. Do not use water cleaning unless directed by Architect.
 1. Remove any mortar splashes or smears carefully from the surface with scrapers. Do not damage masonry units.
 2. Interior stonework shall be cleaned with dry brushes ONLY. Carefully vacuum debris as needed.

3.07 PROTECTION

- A. Protect installed Work from subsequent construction operations.

END OF SECTION

**SECTION 040140
MASONRY CLEANING**

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes:
 - 1. Restoration of exposed exterior stone masonry.
 - 2. Repointing of existing mortar at existing stone masonry.
 - 3. Low-pressure cleaning.

1.02 CLEANING AND RESTORATION METHODS

- A. Submit for approval the cleaning and restoration methods, and materials selected for a specific structure, before work starts, taking into account the total construction system of the building to be worked upon, including different masonry and mortar materials, as well as non-masonry elements which may be affected by the work.

1.03 SUBMITTALS

- A. Mortar Material Testing: Provide laboratory testing of original mortar to determine required matching for composition and color of new mortar.

1.04 QUALITY ASSURANCE

- A. Basis for Standard of Care: U.S. Department of the Interior – National Park Service – Standards and Guidelines.
- B. Provide required qualifications for workers trained and experienced in restoration of masonry in historic structures, and furnish documentation of 5 consecutive years of work of this type.
- C. No masonry or mortar shall be used in the work until the samples and the represented mixture have been approved.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Furnish mortar in suitable bags used for packaging mortars. Labeling of packages shall clearly define contents, manufacturer, and batch identification.
- B. Detergents, masonry cleaners, paint removers, solvents, epoxies and other chemicals used for masonry cleaning shall be in sealed containers that legibly show the designated name, formula or specification number, quantity, date of manufacture, manufacturer's formulation number, manufacturer's directions including any warnings and special precautions, and name of manufacturer.
- C. Store materials in weathertight structures which will exclude moisture and contaminants. Accessories shall be stored avoiding contamination and deterioration.
- D. Admixtures which have been in storage onsite for six months or longer, or which have been subjected to freezing, shall not be used unless retested and proven to meet the specified requirements.

1.06 ENVIRONMENTAL REQUIREMENTS

- A. Masonry, mortar, and epoxy adhesives shall not be placed when weather conditions detrimentally affect the quality of the finished product. No masonry or mortar shall be placed when the air temperature is below 40 degrees F in the shade.
- B. When air temperature is likely to exceed 90 degrees F masonry and mortar shall have a temperature not exceeding 90 degrees F when deposited. Materials to be used in the work shall be neither produced nor placed during periods of rain or other precipitation. Stop material placements, and protect all in-place material from exposure, during periods of rain or other precipitation.

- C. Masonry surfaces shall be cleaned only when air temperatures are above 40 degrees F and will remain so until masonry has dried out, but for not less than 7 days after completion of the work.

1.07 WARRANTIES

- A. **Cleaning Warranty:** Cleaning procedures shall be warranted for a period of two years against harm to substrate (masonry and mortar) or to adjacent materials including, but not limited to, discoloration of substrate from improper procedures or usage, chemical damage from inadequate rinse procedures, and abrasive damage from improper procedures.
- B. **Repair Warranty:** Repair procedures, including repointing, shall be warranted for a period of two years against: discoloration or mismatch of new mortar to adjacent original historic mortar, discoloration or damage to masonry from improper mortar clean-up, loss of bond between masonry and mortar, fracturing of masonry edges from improper mortar joint preparation procedures or improper mortar formulation, and occurrence of efflorescence.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. **Masonry Cleaning:**
 - 1. Prosoco; Enviro Klean – ReKlaim Cleaner: prosoco.com
- B. **Masonry Protection:**
 - 2. Prosoco: Sure Klean – Limestone & Masonry Afterwash: prosoco.com

2.02 MATERIALS

- A. Materials, physical and chemical properties, and composition of masonry and mortar used in renovation work shall match that of original existing masonry and mortar to be repaired, unless samples and testing determine that existing mixtures and materials are faulty or nonperforming.

2.03 EQUIPMENT AND TECHNIQUES DEMONSTRATION

- A. Sandblasting equipment will not be allowed for cleaning masonry surfaces.
- B. **Water Cleaning**
 - 1. Provide water cleaning equipment including a trailer-mounted water tank, pumps, highpressure hose, wand with safety release cutoff control, nozzle, and auxiliary water resupply equipment.
 - 2. The equipment shall not be operated at a pressure which will cause etching or other damage to the masonry surface or mortar joints.
 - 3. Operate the equipment at a discharge capacity of 55 psi and 2.5 to 3 gpm for general surface cleaning operations.
 - 4. The water tank and auxiliary re-supply equipment shall be of sufficient capacity to permit continuous operations.
 - 5. Provide protective covers and barriers as required to prevent over-spray onto adjacent surfaces.
- C. Equipment and hand tools used for placing, finishing and texturing masonry and mortar shall be commercially available and commonly used in masonry construction and repair.
 - 1. Surface grinders, impact tools, and other equipment shall conform to the specified requirements, except as specifically required by the type of finish and texture.
- D. Compressed air equipment shall deliver clean, oil and moisture free compressed air at the surface to be cleaned.
 - 1. The compressed air line shall have at least two in-line air filters to remove oil and moisture from the air supply. Test the compressed air supply during each shift for the presence of oil and moisture.

2.04 MATERIAL HANDLING AND ASSOCIATED EQUIPMENT

- A. Provide equipment used for mixing, transporting, placing, and confining masonry and mortar placements capable of satisfactorily mixing material and supporting placement operations in an uninterrupted manner.
- B. Defects and deficiencies in operation or capacity shall be resolved prior to use in the work.
- C. Equipment used for mixing, conveying, and placing of materials shall be clean, free of old materials and contaminants, and shall conform to the material manufacturer's recommendations.
- D. Provide associated equipment, such as mixer timing equipment, valves, pressure gauges, pressure hoses, other hardware, and tools, as required to ensure a continuous supply of material and operation control.

2.05 REPAIR MATERIALS

- A. Test and analyze existing original historic mortar before repointing in order to provide a match with the new repointing mortar.
- B. Historic mortars are usually softer than newer mortars, often using lime as a binder rather than cement. Lime for repointing mortar shall conform to ASTM C 207, Type S, unless otherwise specified.
- C. Full laboratory analysis of the existing mortar shall conform to ASTM C 1324.

2.06 EPOXY MASONRY ADHESIVE FOR EPOXY INJECTION

- A. Manufacturer: Edison Coatings; 3 Northwest Drive; Plainville, CT 06062; www.edisoncoatings.com.
 - 1. Flexi-seal 510 for cracks 1/16" in width or smaller.
 - 2. Flexi-seal 510-U for cracks larger than 1/16" in width, and a maximum width of 1/8".

PART 3 - EXECUTION

3.01 TESTING, EVALUATION, AND ANALYSIS

- A. Masonry renovation shall be undertaken only after complete evaluation and analysis of the areas to be repaired are completed including sampling and testing of the existing mortar to determine its composition and qualities.
- B. No repair work shall be undertaken until conditions that have caused masonry deterioration have been identified; such conditions shall be corrected, if possible, prior to start of the work.

3.02 MASONRY CLEANING

- A. Historic materials shall not be damaged or marred in the process of cleaning. Cleaning shall conform to ASTM C 1515.
- B. Temporarily caulk or otherwise protect open joints to prevent water and cleaner intrusion into the interior of the structure from pressure spraying.
- C. Protect non-masonry materials and severely deteriorated masonry by approved methods prior to initiation of cleaning operations.
- D. Masonry cleaning shall remove all organic and inorganic contaminants from the surface and pores of the substrate, returning the masonry to its natural color. Surfaces shall be evenly cleaned with no evidence of streaking or bleaching. The cleaning process shall not affect the density, porosity, or color of the masonry or mortar.
- E. Cleaned masonry shall have a neutral pH. Use the gentlest methods possible for cleaning historic masonry to achieve the desired results. Make test patches to determine a satisfactory cleaning result.
- F. Cleaning shall proceed in an orderly manner, working from top to bottom of each scaffold width and from one end of each elevation to the other. Perform cleaning in a manner which results in

uniform coverage of all surfaces, including corners, moldings, interstices and which produces an even effect without streaking or damage to masonry.

- G. The cleaning materials, equipment, and methods shall not result in staining, erosion, marring, or other damage to the surfaces of the structure. Following an initial inspection and evaluation of the structure and surfaces, give the structure a surface cleaning which shall be completed prior to start of repair work, and sampling and testing of mortars. The work shall provide for the complete cleaning of all exterior masonry surfaces of the structures, removing all traces of moss, dirt, and other contaminants to allow determination of the masonry's color and shades, finish and texture, and other properties.
- H. Following completion of the surface cleaning of the structure (or side of structure) the masonry shall be dried prior to the start of any repair work.
- I. The following sequence of methods shall be used to determine the least aggressive, effective cleaning method:
 - 1. Water with brushes.
 - 2. Water with mild soap.
 - 3. Water with sodium hypochlorite (household bleach).
 - 4. Water with stronger soap plus vinegar (but not on calcareous masonry).
 - 5. Stronger chemical cleaners, only when above methods are determined to be ineffective by the Architect.
 - a. Acidic chemical cleaners shall not be used on limestone, marble, concrete and other calcareous (calcium containing) masonry materials.
- J. Follow the product sheet instructions when applying ReKlaim cleaning solution and Limestone & Masonry Afterwash:
 - 1. For 5-gallons of prepared solution, add 3 gallons clean water to a plastic container. Carefully add 1-gallon of ReKlaim Cleaner, followed by 1-gallon of ReKlaim Activator. Stir thoroughly with a nonmetallic tool. Prepared solutions must be used immediately.
 - 2. Working from the bottom to the top, apply prepared ReKlaim solution to a dry surface.
 - 3. Leave solution on the surface for 5–20 minutes. If solution begins to dry, reapply.
 - 4. Gently scrub heavily soiled areas.
 - 5. Rinse thoroughly with clean water. If using a sponge or string mop to rinse, change rinse water often. Pressure-rinse porous surfaces to remove heavy soiling.
 - 6. Immediately after rinsing ReKlaim from masonry surface, apply the prepared Limestone & Masonry Afterwash to the wet surface.
 - 7. Let the Afterwash dwell for three to five minutes.
 - 8. Pressure rinse from the bottom of the treated area to the top. Make sure to cover each portion of the masonry surface with a concentrated stream of water. To avoid streaking, keep wall surfaces immediately below area being cleaned running wet and free of cleaner rundown and residues.

3.03 TEST PATCHES

- A. The materials, equipment, and methods to be used in cleaning shall be demonstrated in a test section approximately 3 by 3 ft square.
- B. The location of the test section, and the completed test section shall be subject to approval. Adjust the cleaning process as required and the test section rerun until an acceptable process is obtained. Test patches shall be located in inconspicuous areas of the building.
- C. The areas tested shall exhibit soiling characteristics representative of those larger areas to be cleaned.

- D. Tested areas shall be allowed to dry before a determination is made on the effectiveness of a particular treatment.

3.04 PRESSURE SPRAYING

- A. Spray apply water to masonry surfaces to comply with requirements indicated by test patches for location, purpose, water temperature, pressure, volume, and equipment.
- B. Unless otherwise indicated, the surface washing shall be done with clean, low pressure water (pressure of less than 55 psi and 2.5 to 3 gpm discharge) and the spray nozzle shall not be held less than 12 inches from surface of masonry.
- C. Water shall be applied side to side in overlapping bands to produce uniform coverage.

3.05 HANDSCRUBBING

- A. Pre-wetted surfaces shall be scrubbed using hand-held natural bristle or nylon brushes.
- B. Wire brushes shall not be used.

3.06 RINSING

- A. Scrubbed surfaces shall be rinsed clean of all contaminants and cleaning solutions with water in a low-to-moderate pressure spray, working upwards from bottom to top of each treated area. B. The rinsing cycle shall remove all traces of contaminants and cleaning solutions.

3.07 TAKING AND PREPARATION OF SAMPLES

- A. Take and analyze samples of unweathered original historic mortar and different type of mortar in the structure in order to match the new mortar to be used for repointing.
- B. Four samples of each type of mortar to be matched shall be removed with a hand chisel from several locations on each building. Set aside the largest sample for comparison with the repointing mortar.
- C. The remaining samples shall be broken apart with a wooden mallet, powdering them into their constituent parts.

3.08 TOOLS AND EQUIPMENT

- A. Clean tools and equipment to be used again in the work before the epoxy-resin grout sets.

3.09 HEALTH AND SAFETY PRECAUTIONS

- A. Provide full-face shields for mixing, blending, and placing operations as required and protective coveralls and neoprene-coated gloves for workers engaged in the operations.
- B. Supply protective creams of a suitable nature for the operation. Adequate fire protection shall be maintained at mixing and placing operations.
- C. Smoking or the use of spark- or flame-producing devices shall be prohibited within 50 feet of mixing and placing operations.

3.10 JOINT SEALING

- A. Provide joint sealing as specified in Section 07 0005 JOINT SEALERS.

3.11 FINAL CLEANING

- A. No sooner than 72 hours after completion of the repair work and after joints are sealed, faces and other exposed surfaces of masonry shall be washed down with water applied with a soft bristle brush, then rinsed with clean water.
- B. Discolorations which cannot be removed by these procedures shall be considered defective work.
- C. Perform cleaning work when temperature and humidity conditions allow the surfaces to dry rapidly.

D. Protect adjacent surfaces from damage during cleaning operations.

3.12 FINAL INSPECTION

- A. Following completion of the work, inspect the structure for damage, staining, and other distresses. The patches shall be inspected for cracking, crazing, delamination, unsoundness, staining and other defects.
- B. The finish, texture, color and shade, and surface tolerances of the patches shall be inspected to verify that all requirements have been met.
- C. Repair surfaces exhibiting defects as directed.

END OF SECTION

**SECTION 062000
FINISH CARPENTRY**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Finish carpentry items.
- B. Wood casings and moldings.

1.02 REFERENCE STANDARDS

- A. NHLA G-101 - Rules for the Measurement and Inspection of Hardwood and Cypress; 2023.

1.03 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Shop Drawings: Indicate materials, component profiles, fastening methods, jointing details, and accessories.

PART 2 PRODUCTS

2.01 FINISH CARPENTRY ITEMS

- A. Exterior Woodwork Items:
 - 1. Window Casings and Moldings: Softwood; prepare for paint finish.
 - 2. Soffits and Fascias: Prepare for paint finish.
- B. Interior Woodwork Items:
 - 1. Moldings, Bases, Casings, and Miscellaneous Trim: Match existing species and finish. Provide sample to Architect for approval prior to constructing.
 - 2. Window Sills: Match existing species and finish. Provide sample to Architect for approval prior to constructing.

2.02 LUMBER MATERIALS

- A. Softwood Lumber: match existing species, submit to architect for approval, sawn, maximum moisture content of 6 percent; with vertical grain, of quality suitable for transparent finish.
 - 1. Grading: In accordance with rules certified by ALSC; www.alsc.org.
- B. Hardwood Lumber: match existing species, submit to architect for approval, sawn, maximum moisture content of 6 percent ; with vertical grain , of quality suitable for transparent finish.
 - 1. Grading: In accordance with NHLA G-101 Grading Rules; www.nhla.com.

2.03 WOOD TREATMENT

- A. Factory-Treated Lumber: Comply with requirements of AWPA U1 - Use Category System for pressure impregnated wood treatments determined by use categories, expected service conditions, and specific applications.
- B. Redry wood after pressure treatment to maximum ____ percent moisture content.

2.04 FABRICATION

- A. Shop assemble work for delivery to site, permitting passage through building openings.
- B. When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide trim for scribing and site cutting.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify adequacy of backing and support framing.

3.02 INSTALLATION

- A. Set and secure materials and components in place, plumb and level.
- B. Carefully scribe work abutting other components, with maximum gaps of 1/32 inch. Do not use additional overlay trim to conceal larger gaps.

**SECTION 076100
SHEET METAL ROOFING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Sheet metal roofing, associated flashings, and underlayment.
- B. Gutters.
- C. Downspouts.
- D. Integral fascias.
- E. Sealants for joints within sheet metal fabrications.

1.02 REFERENCE STANDARDS

- A. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix); 2022.
- B. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zincron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2020.
- C. ASTM C920 - Standard Specification for Elastomeric Joint Sealants; 2018.
- D. ASTM D1970/D1970M - Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection; 2021. E. ICC-ES AC188 - Acceptance Criteria for Roof Underlayments; 2023.
- F. SMACNA (ASMM) - Architectural Sheet Metal Manual; 2012.

1.03 ADMINISTRATIVE REQUIREMENTS

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data on metal types, finishes, characteristics, and gauge.
- C. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, and installation details.
- D. Installation Samples: Submit two samples 24 by 24 inches in size illustrating metal roofing mounted on plywood backing illustrating typical seam.
- E. Color Samples: Submit two samples 24 by 24 inches in size illustrating metal finish color.

1.05 QUALITY ASSURANCE

- A. Perform work in accordance with SMACNA (ASMM) requirements and standard details, except as otherwise noted.
 - 1. Maintain one copy on project site.
- B. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years of documented experience.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Stack material to prevent twisting, bending, or abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.
- B. Prevent contact with materials that could cause discoloration or staining.

1.07 WARRANTY

- A. See Section 017800 - Closeout Submittals for additional warranty requirements.
- B. Correct defective work within a 5-year period after Date of Substantial Completion. Defective work includes degradation of metal finish.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Sheet Metal Roofing Manufacturers:
 - 1. Berridge Manufacturing Company; Galvalume: www.berridge.com
 - 2. Construction Metal Products, Inc; Galvalume: www.cmpmetalsystems.com/#sle.
 - 3. Petersen Aluminum Corporation; Galvalume: www.pac-clad.com/#sle.
 - 4. Taylor Metal Products; Galvalume: www.taylormetal.com/#sle.
 - 5. Substitutions: See Section 016000 - Product Requirements.

2.02 SHEET MATERIALS

- A. Galvalume Standing Seam Sheet: Crimped Ridge 1" Seams and 21" Width panels. Gauge 0.0239-inch minimum metal thickness, shop precoated with Acrylic-Coated Galvalume – Natural Metal Finish.

2.03 FABRICATION

- A. Form sections true to shape, accurate in size, square, and free from distortion or defects.
- B. Fabricate cleats of same material as sheet, thickness to match roofing sheet, and at least ____ inch wide, interlockable with sheet.
- C. Fabricate starter strips, interlockable with sheet.
- D. Form pieces in longest practical lengths.
- E. Hem exposed edges on underside 1/2 inch; miter and seam corners.
- F. Form material with standing seams, except where otherwise indicated. At moving joints, use sealed lapped, bayonet-type or interlocking hooked seams.

2.04 FINISHES

- A. Acrylic-Coated Galvalume – Natural Metal Finish, to be applied to top and bottom side of sheet. Pre-Fabricated ridges not acceptable.

2.05 ACCESSORIES

- A. Fasteners: Galvanized steel, with soft neoprene washers.
- B. Underlayment: Synthetic non-asphaltic sheet, intended by manufacturer for self adhered fastened roofing underlayment.
 - 1. Minimum Requirements: Comply with requirements of ICC-ES AC188 for non-selfadhesive sheet.
 - 2. Self Sealability: Passing nail sealability test specified in ASTM D1970/D1970M.
 - 3. Ultraviolet Resistance and Weatherability: Approved in writing by manufacturer for exposure to weather for minimum of 12 months.
 - 4. Low Temperature Flexibility: Passing test specified in ASTM D1970/D1970M.
 - 5. Fasteners: As specified by manufacturer and building code qualification report or approval, if any.
- C. Concealed Sealants: Non-curing butyl sealant or butyl tape.
- D. Exposed Sealants: ASTM C920 elastomeric sealant, with minimum movement capability as recommended by manufacturer for sealed substrates; color to match adjacent material.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Inspect roof deck to verify deck is clean and smooth, free of depressions, waves, or projections, properly sloped to drains.
- B. Verify deck is dry and free of snow or ice. Verify joints in wood deck are solidly supported and fastened.
- C. Verify correct placement of wood nailers and insulation positioning between nailers.
- D. Verify roof openings, curbs, pipes, sleeves, ducts, or vents through roof are solidly set, reglets are in place, and nailing strips located.
- E. Verify roofing termination and base flashings are in place, sealed, and secure.

3.02 PREPARATION

- A. Install starter and edge strips, and cleats before starting installation.
- B. Back paint concealed metal surfaces and surfaces in contact with dissimilar metals with protective backing paint to a minimum dry film thickness of 15 mil, 0.015 inch.
- C. Place eave edge metal flashings tight with fascia boards. Weather lap joints 2 inches and seal with roof cement. Secure flange with nails spaced as recommended by manufacture. inches on center.

3.03 INSTALLATION

- A. Roofing:
 - 1. Apply underlayment over entire roof area, as follows:
 - 2. Apply slip sheet in one layer, laid loose.
 - 3. Cleat and seam sheet metal roofing joints.
 - 4. Use butyl tape to seal concealed joints between metal roofing surfaces.

3.04 MOCK UP

- A. Submit the following mock ups for approval prior to starting the work. These mockups include: A 24x24 in. mock up showing full roof system on top of rafters.
 - 1. Acceptable panel and procedures employed shall become the standard for work of this section.
 - 2. Mock-up may remain as part of the Work.

3.05 PROTECTION

- A. Do not permit traffic over unprotected roof surface.

END OF SECTION

SECTION 08 6100
WINDOW RESTORATION

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 DESCRIPTION OF WORK

- A. Extent of window restoration, renovation and replacement work is as indicated on the drawings and schedules and as specified herein, and including and following:
 - 1. Paint removal and general repair to selected historic wood window assemblies, including removal of wood window elements and required to effect restoration and alterations:
 - a. Cosmetic damage, including minor chips and gouges, need not be repaired, except as accomplished by general preparation for painting.
 - b. Reinforce, straighten and align, sagging or warping upper sash meeting rail/lower sash bottom rails.
 - c. Replace upper sash meeting rail requiring replacement with a new rail.
 - d. Realign and reglue loose sash joints.
 - e. Set nails in sash, frame, or trim members not fully set and fill resulting holes with epoxy patch.
 - f. Fill screw and nail holes with epoxy patch.
- B. Replacement of structurally damaged sash sections as well as various elements of the window frame and trim.
 - 1. Decayed wood shall be removed and the area epoxy patched/consolidated. If 25% or more of the element is rotted, replace entire element.
 - 2. Elements missing in their entirety (e.g. a window sill, parting stop, etc.) shall be replaced.
 - 3. Broken glass shall be replaced.
- C. Renovation of structurally damaged sash sections not to be replaced as well as designated elements of the window frame and trim:
 - 1. Repair as necessary, damaged elements, including chips, gouges, and splits, which hold water, allow water to penetrate, or which would tend to accelerate deterioration, to promote rapid runoff of water and eliminate pounding water within 1 hour of precipitation.
 - 2. Remove non-original elements and resultant holes patched (e.g. surface applied weather-stripping, eyehooks reinforcing angles at sash joints, sheet metal patches at rotten wood jamb/sill, wood blocks holding up upper sash, etc.)
 - 3. Reinforce, straighten and realign sagging or warped upper sash meeting rail/lower sash bottom rail.
 - 4. Replace upper sash meeting rails requiring replacement.
 - 5. Realign and reglue loose sash joints.
 - 6. Repair damaged existing weather-stripping to remain.

- D. Coordination of replacement of missing, cracked, and/or damaged glass:
 - 1. Reglaze, using existing glass, at sash indicated to receive structural repairs or joint realignment. Seal sash glazing groove continuously inside and out with specified sealant and glazing compound.
- E. With the completion of the work specified in this section, it is required that the condition of indicated windows be as follows:
 - 1. Selected sash units shall be restored as indicated ready for glazing and painting, all lower sash fully operational, with original or replicated hardware installed. Upper sash shall be fixed as indicated and sealed to preclude air and water penetration.
 - 2. Selected frame and trim shall be restored as indicated with damaged areas replaced or renovated, missing elements replaced, surface damage repaired and ready for painting or finishing and installation of sealant.
 - 3. Indicated meeting rail sections shall be reinforced with metal and bow removed from wood section.
 - 4. Weather-stripping of operable sash shall be restored, reworked, or replaced as indicated to produce no crack widths at sash junctures to frame in excess of 1/64".
- F. Exposed Replacement Hardware:
 - 1. Provide each restored window with full complement of hardware and fasteners matching that on original windows. Use salvaged, restored existing hardware insofar as possible and new hardware to match existing hardware where hardware is missing or existing hardware is damaged or deteriorated so as to be unrestorable.

1.3 RELATED WORK

- A. Glazing: Refer to "Glazing" Section for glazing window units.
- B. Joint Sealers: Refer to Division 7 Section "Joint Sealers".
- C. Painting and Coating: Refer to Division 9 Section "Painting and Coating".

1.4 QUALITY ASSURANCE

- A. General:
 - 1. Comply with repair guidelines contained in Preservation Briefs number 9, The Repair of Historic Wooden Windows, published by the U.S. Dept. of Interior and available from the Preservation Assistance Division. (202-343-9573)
 - 2. Comply with the general requirements for epoxy consolidation and repair of wood contained in Epoxies for Wood Repairs in Historic Buildings, published by the U.S. Dept. of the Interior and available from the Preservation Assistance Division. (202-343-9573)
 - 3. Qualified Manufacturer: To function as Contractor's Specialist for documentation of unit price work and to perform, modifications and repairs on historic window sash indicated to be removed and on window units indicated to be restored to operational condition, employ a specialized firm with not less than five years of previous experience replicating or remanufacturing comparable wood windows.

4. Installer Qualifications: Restoration work done “in situ” shall be performed by a firm with successful experience in similar work on not less than two complete previous projects comparable to this project in scope, nature, and complexity. Workmen shall be skilled finish carpenters (where applicable), and experienced in the type of repair work required.

1.5 SUBMITTALS

- A. Provide submittals in compliance with Division 1 Sections “Submittals” and “Shop Drawings, Product Data, and Samples” for the items herein described:
- B. Product Data: Submit manufacturer’s data sheets for every item of specified weather-stripping and window accessories.
- C. Shop Drawings: Submit shop drawings of detail in areas to be patched or restored showing field measurements taken in the field prior to demolition. Show details of proposed repair and restoration method in each case including the following information:
 1. Reinforced meeting rail section-full scale.

1.6 PROJECT/SITE CONDITIONS

- A. Remove and replace existing window sash element, frames, mullions, muntins, casings, sills, stools, aprons, and trim, or portions thereof, where:
 1. Indicated.
 2. Identified as damaged beyond repair during examination by Contractor’s repair specialist and approved by Owner’s representation.
 3. Damaged beyond repair during the Work under this Contract.
- B. Remove and replace entire sash unit, reglazed with original glass, and finished as indicated, where:
 1. Indicated.
 2. Required restoration procedures are so extensive that replacement is considered more practical by specialist and Owner’s representative concurs.
 3. Bottom rail of upper replacement sash shall be reinforced with metal.
- C. Contractor shall establish, during initial inspection of each work area with Owner’s representative and Architect which sash units shall be completely replaced.
- D. Sash removal may be required to perform the following repair procedures:
 1. Reinforce or replace warped sash rails.
 2. Repair, realign sash joints separated in excess of 1/8” cumulative across the width of window on operable window sash.
 3. Replace missing weather-stripping on operable windows.
 4. Adjust, repair, or replace weather-stripping on operable windows.
 5. Repair or replace sash weights and chain on operable windows.
 6. Where it is necessary to remove original sash to perform repair procedures, mark sash and frame in a concealed location with waterproof, non-staining to exposed surfaces marker with unique number for frame and corresponding sash element. Install restored sash at the same location from which it was removed.

- E. Removal of existing glass and reinstallation (reglazing with existing glass) is required where interior wood stops are altered or replaced.
- F. Coordinate glass and glazing work as follows:
 - 1. Where window sashes are to be removed and window sashes reinstalled, ensure that decorative glass (if any) and original polished plate glass have been removed from the sash and properly stored or sent to shop for repair as specified in Section "Glass and Glazing". Cooperate with glazier in removal of existing glass for protection or repair of existing glass.
 - 2. Note: Not all existing glass is believed to be original polished plate glass. Architect has not surveyed the locations of original polished plate glass. There is no known contemporary source for polished plate glass in the sizes required for replacement.
 - 3. Protecting existing glass to remain in place during indicated repair procedures and which do not otherwise require sash removal. Replace glass which is broken during repair procedures with products complying with the requirements indicated in the applicable "Glass and Glazing" Sections.
 - 4. Should it become necessary to remove existing interior window coverings, such as shutters, blinds, draperies, etc., in order to perform the restoration of the windows, the Contractor shall record, remove store, and reinstall window coverings in their original locations.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Epoxy Consolidant: Penetrating two part epoxy compound. A product complying with the requirement is Arcon Seep-N-Seal, as manufactured by Allied Resin Corporation, East Weymouth, Massachusetts.
- B. Three-part, semi-rigid compound consisting of one part epoxy resin, polysulfide polymer and curing agent, and fillers. Compound shall be equal to Compound No. 1 as set forth in the referenced standard Epoxies for Wood Repairs in Historic Buildings, or at Contractor's option, provide proprietary patching compound as follows:
- C. Epoxy patching compounds: Marine-Tex as manufactured by Travaco Laboratories, 345 Eastern Avenue, Chelsea MA. Abatron, Inc., 33 Center Drive, Gilberts, IL 60136.
- D. Replacement wood for sash repair/replacement: Clear, virgin, Long Leaf Pine lumber which has been treated with water repellent preservative in conformance with NWMA IS-4 standard after machining and kiln-dried to be moisture content of 6 to 12 percent at time of fabrication.
- E. Replacement wood for sills repair/replacement: Clear Cypress lumber which has been treated with water repellent preservative in conformance with NWMA IS-4 standard after machining and kiln-dried to be moisture content of 6 to 12 percent at time of fabrication.
- F. Replacement wood for exterior trim, frame: Clear, virgin, longleaf, heart pine which has been salvaged from historical buildings by suppliers experienced in providing such lumber.

- G. Replacement wood for interior trim: Clear White Oak kiln-dried to be moisture content of 6 to 12 percent at time of fabrication.
- H. Adhesive: Resorcinol formaldehyde resin waterproof adhesive per CS 35 Type 1.
- I. Wood primer/sealer: Product compatible with finish specified in Division 9 Sections and which is compatible with mildewcide additives as follows:
- J. Paint additive for Primer: An acceptable product is ADD-X Mildewcide Paint Additive manufactured by Zehring Corporation, Portland, Oregon.
- K. Fasteners: Comply with NWMA requirements for fabrication and with manufacturer's recommendations and standard industry practices for type and size of installation fasteners.
 - 1. For fabrication and installation of wood elements, use only countersunk stainless steel or brass structural reinforcements, screws, dowels, and resorcinol adhesives, or combinations of listed fasteners and adhesive.
 - 2. For hardware and accessory installation use brass screws.
 - 3. Pulls, latches, and other hardware items: Match existing fastener hardware on visible elements.
- L. Compression Weather-stripping for Operable Windows: Bronze spring metal, designed for permanently resilient sealing under bumper or wiper action, completely concealed when window sash is closed.
- M. Sash weights: Where sash weights are missing provide cast iron weights of the same weight of the existing units.
- N. Sash weight cords: Provide new copper coated steel chains, sized for the sash hardware, for repair of existing windows.
- O. Provide replicated replacement hardware on visible window elements or reinstall repaired, cleaned, salvaged hardware. Replacement hardware shall replicate the appearance of existing hardware elements visible when windows are closed.
- P. Salvaged hardware elements are suitable for reuse and shall be reinstalled on operable windows where salvaged hardware functions properly and has no missing components.

2.2 FABRICATION

- A. Replacement Units: Replacement sash, sill, other frame and trim sections shall match the existing in configuration, sash pattern and construction.

PART 3 - EXECUTION

3.1 GENERAL PREPARATION REQUIRED FOR ALL WINDOW ELEMENTS:

- A. Remove heavy paint build-up from all accessible exterior window elements. Protect interior finishes from staining or damage associated with paint removal techniques employed on exterior. Comply with Division 9 Section "Finish Removal" for general finish removal criteria for wood substrates. Accessible window elements will be considered free of heavy paint build-up if all loose paint is removed, paint is removed to bare wood at areas to receive patching, re-gluing, or chemical consolidation, and areas not required to be patched or consolidated have firmly adhered smooth paint film remaining.

- B. Where refinishing, replacement, or repair of interior sash elements or interior trim and parting stops is required, finish removal and refinishing of element may be performed at a remote location and reinstalled completely finished.
- C. Paint Removal: Remove paint which is peeling, crazing, alligating, or showing other similar defects by chemical stripping, or wet sanding. In extreme cases, a hot air gun may be required to loosen paint. It is not desirable to remove all paint. Remove to the degree necessary to perform repair operations, as herein specified, and to permit application of uniform finish.
- D. Remove wood elements indicated to be replaced or removed. Coordinate removal of glass which is broken or indicated to be replaced. Sand to feather junctions between paint to remain and bare wood.
- E. Remove applied sealant materials and unsound previous repair materials.
- F. Bare sound wood areas shall be treated with a paintable mildewcide preservative solution.
- G. Except where epoxy consolidation "in situ" is indicated or as recommended by Contractor's specialist and approved by Architect, decayed or unsound wood areas shall be removed with a plane or specialized tool which minimizes damage to adjacent sound wood prior to treatment and patching.
- H. Remove penetrating elements and foreign materials from window.
- I. Paint Disposal: Process debris shall remain segregated from all other waste material and disposed of in containers provided by Owner.
- J. Contractor's window specialist shall inspect window unit and mark repair areas with a non-staining marker which will not bleed through specified finishes. Specialist shall particularly note condition of areas which were concealed or not accessible for Architect's initial observations. Contractor shall mark and log location and extent of serious damage in these areas. Serious damage shall be defined to include warpage or deformation so extreme as to preclude proper operation (on windows to be made operable), impending structural failure due to rot or termite damage, and joint separation of intersecting sash parts in excess of 1/16" on operable sash units.
- K. Identify, mark and log locations of original polished plate glass. Indicate where original glass is intact. Indicate extent and nature of cracks or other damage to original glass in place.
- L. At intervals convenient to the Owner, assist Architect and Owner's representative in performing survey of prepared exterior window areas on the ground, first, second, third and fourth floors.
- M. Perform logs and inspections prior to work by separate asbestos abatement contractor. Photograph conditions at vulnerable areas.

3.2 GENERAL REPAIR PROCEDURES

- A. Remove indicated sash units. Remove loose paint, glazing, glazing compound and hardware. Fill screw and nail holes with epoxy patch.
 - 1. While sash is out of frame openings, the openings are to be provided with temporary covers to exclude wind driven rain.

- B. Resecure loose frame sections so that frame members fit tightly and the entire frame fits securely in the wall.
- C. Fill minor holes, gouges, weather worn areas, etc with epoxy patching compound applied in conformance with recommendations referenced. Sand surfaces so that new paint will smoothly blend in over areas which have been patched.
- D. Repair intact decayed wood with Epoxy Consolidant: Where indicated to consolidate, drill 1/8" to 1/4" diameter holes along the length of piece perpendicular to the grain. Fill holes with epoxy consolidant, repeating as wood absorbs the fluid. Cure according to referenced standards. Where approved by the Architect, consolidate existing wood in place, in lieu of complete replacement of piece. This option will only be considered by the Architect for repair of localized rot at frame and sill components.
- E. Repair of Wood Sections with Epoxy Patching Compound: Preparation and application shall be in accordance with the requirements as set forth in the publication referenced in Part 1, General, and as follows:
 - 1. Brush apply area to be patched with epoxy consolidant immediately prior to patching.
- F. Replace sill, frame, sash or trim members indicated to be replaced with the members of same configuration as original of material specified.

3.3 REPAIR PROCEDURES FOR OPAQUE FINISHED WOOD

- A. Epoxy Patch: Strengthen and stabilize wood using consolidant epoxies which saturate the bare wood. Confine application of epoxy consolidant to the immediate area to be patched. Apply epoxy patch while consolidant is still tacky. Then fill with epoxy patching compound and sand. Use epoxy compounds to building up missing damaged parts of members; duplicate existing profiles.
- B. Wood Replacement: Remove and discard damaged portion and cut and fit in a matching portion. Where window parts are damaged beyond practical repair by the indicated method, Contractor may elect with approval of Owner's representative to remove the entire part (such as an operating sash or an entire frame) and provide a new matching part. Where portions are indicated to be removed and new portions provided, the new portion shall be the entire portion (entire bottom sash rail, for example). Do not splice members. Where entire members have been removed and new members provided, provide joint reinforcements where new and existing or two members join. Retain and match existing woodwork joinery configurations adapting only as required to incorporate joint reinforcements and adhesive.
- C. Holes larger than 3/8" diameter (except for holes through sash): Install wood plug or "Dutchmen" with resorcinol adhesive.
- D. Seal bare areas immediately after repair work is complete with a clear primer sealer.

3.4 INSTALLATION

- A. Install replacement sash units, frame elements and trim elements with units of specified material to visually match the original missing elements.

- B. Re-install existing and install new sash weights on chain as specified. Replace sash weight access panels in jamb members so joints are flush and smooth.
- C. Replace missing or inoperative sash locks, weights and chains.

3.5 WINDOW OPERATIONS AND HARDWARE:

- A. Repair or remove and provide new parts for existing window operator parts at operable windows, such as counterbalances and sash-weight chains (or cords). New parts shall match existing, except substitute chains for cords.
- B. Rework existing bronze weather-stripping where salvageable, or where not feasible to reuse or where missing, provide new weather-stripping for each operable window within the Contract limit line. Weather-strip each side of each operator, including meeting rails.
- C. Remove existing window hardware which is deteriorated or damaged, salvaging items suitable for reuse. Where existing hardware has been removed or is missing, provide replacement hardware, including reinforcement, fasteners, and other hardware and devices required for proper window operation.
- D. Fix and seal operating panels at fixed sash locations, but provide, or retain, acceptable existing exposed to view hardware.
- E. Adjust hardware at operable windows for easy operation.

3.6 ADJUST AND CLEAN

- A. Adjust operating sash and hardware to provide smooth operation with tight, weatherproof closure. Lubricate hardware and moving parts.
- B. Refer to Division 9 Sections for required finish to be applied on wood window units at project site. Glaze each unit before application of final finish coat where coat extends over removable glazing bead or over exposed face glazing.
- C. Clean glass of window units promptly after installation; comply with requirements of "Glass and Glazing" Section for cleaning and maintenance.
- D. Institute protection required through remainder of construction period, to ensure that wood window units will be without damage or deterioration (other than normal weathering) at time of acceptance.

END OF SECTION

**SECTION 085200
WOOD WINDOWS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Custom-fabricated wood windows.
- B. Glazing.
- C. Wood trim for exterior finishing.

1.02 RELATED REQUIREMENTS

- A. Section 072500 - Weather Barriers: Sealing frames to water-resistive barrier installed on adjacent construction.
- B. Section 079200 - Joint Sealants: Sealing joints between frames and adjacent construction.

1.03 REFERENCE STANDARDS

- A. AAMA/WDMA/CSA 101/I.S.2/A440 - North American Fenestration Standard/Specification for Windows, Doors, and Skylights; 2022.
- B. AAMA 502 - Voluntary Specification for Field Testing of Newly Installed Fenestration Products; 2021.
- C. ASTM E783 - Standard Test Method for Field Measurement of Air Leakage Through Installed Exterior Windows and Doors; 2002 (Reapproved 2018).
- D. ASTM E1105 - Standard Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Skylights, Doors, and Curtain Walls, by Uniform or Cyclic Static Air Pressure Difference; 2015 (Reapproved 2023).

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Convene one week before starting work of this section.

1.05 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Show component dimensions, anchorage and fasteners, glass, internal drainage details, and descriptions of hardware and accessories..
- C. Shop Drawings: Indicate opening dimensions, framed opening tolerances, affected related work, installation requirements, and complete set of detailed drawings matching existing historic windows in-kind.
- D. Grade Substantiation: Prior to submitting shop drawings or starting fabrication, submit one of the following showing compliance with specified grade:
 - 1. Evidence of AAMA Certification; label or other documentation.
 - 2. Evidence of WDMA Certification.
 - 3. Evidence of CSA Certification.
 - 4. Test report(s) by independent testing agency itemizing compliance and acceptable to authorities having jurisdiction.
- E. Field Quality Control Submittals: Report of field testing for water penetration and air leakage.

1.06 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with not less than three years of documented experience.

- B. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years of documented experience.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Protect factory finished surfaces with wrapping. Do not use adhesive papers or sprayed coatings that bond when exposed to sunlight or weather.

1.08 FIELD CONDITIONS

- A. Do not install sealants when ambient temperature is less than 40 degrees F.
- B. Maintain this minimum temperature during and after installation of sealants.

1.09 WARRANTY

- A. See Section 017800 - Closeout Submittals for additional warranty requirements.
- B. Correct defective Work within a five year period after Date of Substantial Completion.
- C. Manufacturer Warranty: Provide 5-year manufacturer warranty for insulated glass units against seal failure, interpane dusting or misting, and replacement of same. Complete forms in Owner's name and register with manufacturer.
- D. Manufacturer Warranty: Provide 5-year manufacturer warranty against defects listed. Complete forms in Owner's name and register with manufacturer or warrantor.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Wood Windows:
 - 1. Hull Works; Custom: hullworks.com

2.02 WOOD WINDOWS

- A. Wood Windows: Wood frame and sash, custom fabricated and assembled.
 - 1. Configuration: To match historic windows in-kind.

2.03 COMPONENTS

- A. Glazing: Match existing historic windows in-kind.
- B. Frames: Match existing historic windows in-kind.
- C. Sills: Match existing historic windows in-kind.
- D. Stools: Match existing historic windows in-kind.
- F. Aprons: Match existing historic windows in-kind.
- G. Sealant and Backing Materials: Match existing historic windows in-kind.
- H. Flashing: Match existing historic windows in-kind.
- I. Sealant for Setting Sills, Stools, Aprons, and Sill Flashing: Clear continuous bead.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify wall openings and adjoining water-resistive barrier materials are ready to receive wood windows; see Section 072500.

3.02 INSTALLATION

- A. Attach window frame and shims to perimeter opening to accommodate construction tolerances and other irregularities.
- B. Align window plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work.

- C. Install sills, stools, aprons, to match existing historic windows in-kind.
- D. Set sill members and sill flashing in continuous bead of sealant.
- E. Provide thermal isolation where components penetrate or disrupt building insulation. Pack fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of thermal barrier.
- F. Install operating hardware.

3.03 MOCK UP

- A. Submit the following mock ups for approval prior to starting the work. These mockups include: Fabricate one complete window with all components, for review and approval of the Architect.
 - 1. Acceptable panel and procedures employed shall become the standard for work of this section.
 - 2. Mock-up may remain as part of the Work

3.04 TOLERANCES

- A. Maximum Variation from Level or Plumb: 1/16 inch per 3 ft non-cumulative or 1/8 inch per 10 ft, whichever is less.

3.05 FIELD QUALITY CONTROL

- A. Provide services of wood window manufacturer's field representative to observe for proper installation of system and submit report.
- B. See Section 014000 - Quality Requirements for independent field testing and inspection requirements, and requirements for monitoring quality of specified product installations.
- C. Provide field testing of installed wood windows by independent laboratory in accordance with AAMA 502 and AAMA/WDMA/CSA 101/I.S.2/A440 during construction process and before installation of interior finishes.
 - 1. Field test for water penetration in accordance with ASTM E1105 using Procedure B cyclic static air pressure difference; test pressure shall not be less than 1.9 psf.
 - 2. Field test for air leakage in accordance with ASTM E783 with uniform static air pressure difference of 6.27 psf.
- D. Repair or replace fenestration components that have failed designated field testing, and retest to verify performance complies with specified requirements.

3.06 ADJUSTING

- A. Adjust hardware for smooth operation and secure weathertight closure.

3.07 CLEANING

- A. Remove protective material from factory finished surfaces.
- B. Wash surfaces by method recommended and acceptable to window manufacturer; rinse and wipe surfaces clean.
- C. Remove excess glazing sealant by moderate use of mineral spirits or other solvent acceptable to sealant manufacturer.

END OF SECTION

**SECTION 099113
EXTERIOR PAINTING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Surface preparation.
- B. Field application of paints.
- C. Scope: Finish exterior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated, including the following:
- D. Do Not Paint or Finish the Following Items:
 - 1. Items factory-finished unless otherwise indicated; materials and products having factoryapplied primers are not considered factory finished.
 - 2. Items indicated to receive other finishes.
 - 3. Items indicated to remain unfinished.
 - 4. Fire rating labels, equipment serial number and capacity labels, and operating parts of equipment.
 - 5. Floors, unless specifically indicated.
 - 6. Glass.

1.02 REFERENCE STANDARDS

- A. ASTM D4442 - Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-Based Materials; 2020.
- B. MPI (APSM) - Master Painters Institute Architectural Painting Specification Manual; Current Edition.

1.03 QUALITY ASSURANCE 1.04 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
- B. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
- C. Paint Materials: Store at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.

1.05 FIELD CONDITIONS

- A. Do not apply materials when surface and ambient temperatures are outside the paint product manufacturer's temperature ranges.
- B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.
- C. Provide lighting level of 80 ft candles measured mid-height at substrate surface.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Provide paints and finishes used in any individual system from the same manufacturer; no exceptions.
- B. Provide paints and finishes from the same manufacturer to the greatest extent possible.

2.02 PAINTS AND FINISHES - GENERAL

- A. Paints and Finishes: All exterior woof finished to be Acrylic ready-mixed, unless required to be a field-catalyzed paint.

1. Provide paints and finishes of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
2. Supply each paint material in quantity required to complete entire project's work from a single production run.
3. Do not reduce, thin, or dilute paint or finishes or add materials unless such procedure is described explicitly in manufacturer's product instructions.
4. Provide color and finish sample for approval to Architect.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.
- C. Test shop-applied primer for compatibility with subsequent cover materials.
- D. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
 1. Exterior Wood: 15 percent, measured in accordance with ASTM D4442.

3.02 PREPARATION

- A. Clean surfaces thoroughly and correct defects prior to application.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces for finishing.
- D. Seal surfaces that might cause bleed through or staining of topcoat.
- E. Remove mildew from impervious surfaces by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.

3.03 APPLICATION

- A. Exterior Wood to Receive Opaque Finish: If final painting must be delayed more than 2 weeks after installation of woodwork, apply primer within 2 weeks and final coating within 4 weeks.
- B. Apply products in accordance with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual".
- C. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
- D. Apply each coat to uniform appearance.
- E. Sand wood and metal surfaces lightly between coats to achieve required finish.
- F. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.
- G. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

3.04 CLEANING

- A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.

3.05 PROTECTION

- A. Protect finishes until completion of project.
- B. Touch-up damaged finishes after Substantial Completion.

END OF SECTION

**SECTION 099123
INTERIOR PAINTING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Surface preparation.
- B. Field application of paints.
- C. Scope: Finish interior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated.
- D. Do Not Paint or Finish the Following Items:
 - 1. Items factory-finished unless otherwise indicated; materials and products having factory applied primers are not considered factory finished.
 - 2. Items indicated to receive other finishes.
 - 3. Items indicated to remain unfinished.
 - 4. Fire rating labels, equipment serial number and capacity labels, bar code labels, and operating parts of equipment.
 - 5. Floors, unless specifically indicated.
 - 6. Glass.
 - 7. Concealed pipes, ducts, and conduits.

1.02 REFERENCE STANDARDS

- A. ASTM D4442 - Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-Based Materials; 2020.
- B. MPI (APSM) - Master Painters Institute Architectural Painting Specification Manual; Current Edition.

1.03 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide complete list of products to be used, with the following information for each:
 - 1. Manufacturer's name, product name and/or catalog number, and general product category (e.g., "alkyd enamel").
 - 2. MPI product number (e.g., MPI #47).
 - 3. Cross-reference to specified paint system products to be used in project; include description of each system.
- C. Samples: Submit three paper "draw down" samples, 8-1/2 by 11 inches in size, illustrating range of colors available for each finishing product specified.
 - 1. Where sheen is specified, submit samples in only that sheen.

1.04 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified, with minimum three years documented experience.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
- B. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.

- C. Paint Materials: Store at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.

1.06 FIELD CONDITIONS

- A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.
- B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations. C. Provide lighting level of 80 fc measured mid-height at substrate surface.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Provide paints and finishes from the same manufacturer to the greatest extent possible.

2.02 PAINTS AND FINISHES - GENERAL

- A. Paints and Finishes: Ready-mixed, unless intended to be a field-catalyzed paint.
 - 1. Provide paints and finishes of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
 - 2. Supply each paint material in quantity required to complete entire project's work from a single production run.
 - 3. Do not reduce, thin, or dilute paint or finishes or add materials unless such procedure is specifically described in manufacturer's product instructions.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.
- C. Test shop-applied primer for compatibility with subsequent cover materials.
- D. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces is below the following maximums:
 - 1. Interior Wood: 15 percent, measured in accordance with ASTM D4442.

3.02 PREPARATION

- A. Clean surfaces thoroughly and correct defects prior to application.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Remove or repair existing paints or finishes that exhibit surface defects.
- D. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces or finishing.
- E. Seal surfaces that might cause bleed through or staining of topcoat.
- F. Wood Surfaces to Receive Opaque Finish: Wipe off dust and grit prior to priming. Seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after primer has dried; sand between coats. Back prime concealed surfaces before installation.

3.03 APPLICATION

- A. Apply products in accordance with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual".

- B. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
- C. Apply each coat to uniform appearance in thicknesses specified by manufacturer.
- D. Sand wood and metal surfaces lightly between coats to achieve required finish.
- E. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.
- F. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

3.04 CLEANING

- A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.

3.05 PROTECTION

- A. Protect finishes until completion of project.
- B. Touch-up damaged finishes after Substantial Completion.

END OF SECTION