

84

mac



State of New Hampshire

DEPARTMENT OF ADMINISTRATIVE SERVICES

25 Capitol Street

Concord, New Hampshire 03301

(603) 271-3201 Office@das.nh.gov

Charles M. Arlinghaus
Commissioner

Catherine A. Keane
Deputy Commissioner

Sheri L. Rockburn
Assistant Commissioner

August 1, 2025

Her Excellency, Governor Kelly A. Ayotte
and the Honorable Council
State House
Concord, New Hampshire 03301

REQUESTED ACTION

1) Authorize the Department of Administrative Services to enter into a contract with Triple Construction, LLC (VC#395282), Merrimack, NH, in an amount up to and not to exceed \$193,229.00 for stair tower roofs repointing services at the Concord Main Building at 105 Pleasant Street, Concord, NH, with the option to extend for an additional three months, effective upon Governor and Executive Council approval, through July 3, 2026. **Funding is 100% Capital Funds.**

2) Further authorize that a contingency in the amount of \$15,000.00 be approved for unanticipated site expenses. **Funding is 100% Capital Funds.**

3) Further authorize the amount of \$15,150.00 be approved for payment to the Department of Administrative Services, Division of Public Works Design and Construction (VC#311152) for engineering and project management services provided. **Funding is 100% Capital Funds.**

Funding is available in account title Department of Administrative Services as follows:

	<u>FY 2026</u>
01-14-14-149030-92890000 – L21:1IB2-Main Bldg Stair Tower Roof	
034-500162 - Repair / Renovation Buildings	\$193,229.00
034-500162 - Contingency	\$ 15,000.00
034-500162 - DPW Fees	<u>\$ 15,150.00</u>
Project Total	\$223,379.00

EXPLANATION

At the request of the Department of Administrative Services, Division of Plant & Property (DPP), the Bureau of Purchase and Property (BoPP), issued request for bid (RFB) 3048-25 on June 12, 2025, for Concord Main Building Stair Tower Roofs Repointing Services at the Concord Main Building at 105 Pleasant Street, Concord, NH, with responses due on July 11, 2025. This bid reached one hundred-eighteen (118) vendors through the NIGP registry with an additional twenty-five (25) directly sourced. There were five bid responses received with Triple

Construction, LLC providing the lowest cost submission for the Concord Main Building in Concord, NH.

Post bid analysis showed that Triple Construction, LLC was significantly lower than all other bid submissions and the project estimate provided by the DPW. A pre-award meeting was conducted on July 15, 2025, between BoPP, DPW, and Triple Construction, LLC to discuss project understanding, compliance, and submitted pricing. Triple Construction, LLC demonstrated sufficient project knowledge and verified that the submitted pricing was both correct and that they could perform the required work at the amount bid. Additionally, Dun & Bradstreet reporting was run on the contractor along with checks made to SAM.gov, both of which returned no known issues. Spend reporting was also run on Triple Construction, LLC from January 1, 2010, through July 14, 2025, and showed that seventeen (17) projects were completed with an average spend of \$528,393.96 per project. It is important to note that Triple Construction, LLC has been a reliable contractor in performing work with DPW in the past and is a recent recipient of a statewide contract to perform carpentry projects under \$25,000 for state agencies.

Upon approval this contract shall facilitate the required stair tower roofs repointing repair work at the Concord Main Building in Concord, NH. The full scope of this project represents a requested price limitation up to and not to exceed \$193,229.00 and includes a project allowance amount of \$50,000.00 for any unforeseen issues. Triple Construction, LLC has submitted all required and certified payment and performance bond paperwork. The payment and performance bond is certified at \$193,229.00 or 100% of the project cost. The total cost, including DPW fees, is \$223,379.00. The DPW estimate for the project is \$329,650.00 and includes the project allowance and all applicable fees. When compared against the DPW estimate this represents a cost savings to the State of \$106,271.00, or 32.24%.

Contract financials	
Vendor base bid	\$143,229.00
Vendor project allowance	\$50,000.00
Requested project price limitation	\$193,229.00
Project contingency	\$15,000.00
Total project fees	\$15,150.00
Project total (vendor bid, allowance, and all fees)	\$223,379.00
DPW estimate cost	\$329,650.00
Cost savings	\$106,271.00

The Department of Administrative Services has determined that the vendor is in good standing with the Secretary of State's Office, has secured the required levels of insurance, and has provided evidence of authority to execute and be bound by the contract. Documents supporting these assertions are available at the agency, for review upon request.

Her Excellency, Governor Kelly A. Ayotte
and the Honorable Council
Page 3 of 3

Based on the foregoing, I am respectfully recommending approval of the contract with Triple Construction, LLC.

Respectfully submitted,

Catherine A. Keane
for

Charles M. Arlinghaus
Commissioner



Division of Procurement Support Services
Bureau of Purchase Property

Gary S. Lunetta
Director
(603) 271-2201

RFB Bid Summary

Bid Descripti	Concord Main Building Stair Tower Roofs Repointing Services	Agency	Department of Administrative Services
RFB#	3048-25	Requisition#	N/A
Agent	Ryan Fuller	Bid Closing	July 11, 2025 at 9:30AM EST

Indicates Award:

Qty.	UO M	Product Description	Triple Construction LLC	Integrated Facilities Construction Corp	Turnstone Corporation	Schroeder Construction Management	D.L. King & Associates	DPW Estimate
1	EA	Concord Main Building Stair Tower Roofs Repointing Services Vendor Base Bid	\$143,229.00	\$236,700.00	\$249,840.00	\$264,974.00	\$344,400.00	\$329,650.00
1	EA	Concord Main Building Stair Tower Roofs Repointing Services Project Allowance	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00	
Total Amount			\$193,229.00	\$286,700.00	\$299,840.00	\$314,974.00	\$394,400.00	\$329,650.00

Recommendation Summary	
Price Limitation	\$193,229.00
Number of Solicitations Received	5
Number of Sourced bidders	25
Number of NIGP Vendors Sourced	118
Number of non-responsive bidders	138
P-37 Checklist Complete	Yes
D&B Report Attached	Yes
Method of Payment (P-card/ACH)	ACH
FOB Delivered	Yes
Special Notes:	

Notice: This agreement and all of its attachments shall become public upon submission to Governor and Executive Council for approval. Any information that is private, confidential or proprietary must be clearly identified to the agency and agreed to in writing prior to signing the contract.

AGREEMENT
The State of New Hampshire and the Contractor hereby mutually agree as follows:

GENERAL PROVISIONS

1. IDENTIFICATION.

1.1 State Agency Name Department of Administrative Services Bureau of Purchase and Property	1.2 State Agency Address 25 Capitol Street Concord, NH 03301	1.3 Contractor Name Triple Construction, LLC	1.4 Contractor Address 237 Daniel Webster Highway Merrimack, NH 03054	1.5 Contractor Phone Number 603-530-2159	1.6 Account Unit and Class	1.7 Completion Date July 3, 2026	1.8 Price Limitation \$193,229.00	1.9 Contracting Officer for State Agency Ryan Fuller	1.10 State Agency Telephone Number 603-271-2201	1.11 Contractor Signature _____	1.12 Name and Title of Contractor Signatory Kevin Corner, Member	1.13 State Agency Signature _____	1.14 Name and Title of State Agency Signatory Charles M. Arlinghaus, Commissioner	1.15 State Agency Signature Arthur A. Kern Date: 8/19/25	1.15 Approval by the N.H. Department of Administration, Division of Personnel (if applicable) By: _____ Director, On:	1.16 Approval by the Attorney General (Form, Substance and Execution) (if applicable) By: <i>Christina Allen</i> On: 9/17/25	1.17 Approval by the Governor and Executive Council (if applicable)	G&C Item number:	G&C Meeting Date:
---	--	---	---	---	----------------------------	-------------------------------------	--------------------------------------	---	--	------------------------------------	---	--------------------------------------	--	--	---	--	---	------------------	-------------------

2. SERVICES TO BE PERFORMED. The State of New Hampshire, acting through the agency identified in block 1.1 ("State"), engages contractor identified in block 1.3 ("Contractor") to perform, and the Contractor shall perform, the work or sale of goods, or both, identified and more particularly described in the attached EXHIBIT B which is incorporated herein by reference ("Services").

3. EFFECTIVE DATE/COMPLETION OF SERVICES.

3.1 Notwithstanding any provision of this Agreement to the contrary, and subject to the approval of the Governor and Executive Council of the State of New Hampshire, if applicable, this Agreement, and all obligations of the parties hereunder, shall become effective on the date the Governor and Executive Council approve this Agreement, unless no such approval is required, in which case the Agreement shall become effective on the date the Agreement is signed by the State Agency as shown in block 1.13 ("Effective Date").

3.2 If the Contractor commences the Services prior to the Effective Date, all Services performed by the Contractor prior to the Effective Date shall be performed at the sole risk of the Contractor, and in the event that this Agreement does not become effective, the State shall have no liability to the Contractor, including without limitation, any obligation to pay the Contractor for any costs incurred or Services performed.

3.3 Contractor must complete all Services by the Completion Date specified in block 1.7.

4. CONDITIONAL NATURE OF AGREEMENT.

Notwithstanding any provision of this Agreement to the contrary, all obligations of the State hereunder, including, without limitation, the continuance of payments hereunder, are contingent upon the availability and continued appropriation of funds. In no event shall the State be liable for any payments hereunder in excess of such available appropriated funds. In the event of a reduction or termination of appropriated funds by any state or federal legislative or executive action that reduces, eliminates or otherwise modifies the appropriation or availability of funding for this Agreement and the Scope for Services provided in EXHIBIT B, in whole or in part, the State shall have the right to withhold payment until such funds become available, if ever, and shall have the right to reduce or terminate the Services under this Agreement immediately upon giving the Contractor notice of such reduction or termination. The State shall not be required to transfer funds from any other account or source to the Account identified in block 1.6 in the event funds in that Account are reduced or unavailable.

5. CONTRACT PRICE/PRICE LIMITATION/ PAYMENT.

5.1 The contract price, method of payment, and terms of payment are identified and more particularly described in EXHIBIT C which is incorporated herein by reference.

5.2 Notwithstanding any provision in this Agreement to the contrary, and notwithstanding unexpected circumstances, in no event shall the total of all payments authorized, or actually made hereunder, exceed the Price Limitation set forth in block 1.8. The payment by the State of the contract price shall be the only and the complete reimbursement to the Contractor for all expenses, of

whatever nature incurred by the Contractor in the performance hereof and shall be the only and the complete compensation to the Contractor for the Services.

5.3 The State reserves the right to offset from any amounts otherwise payable to the Contractor under this Agreement those liquidated amounts required or permitted by N.H. RSA 80:7 through RSA 80:7-c or any other provision of law.

5.4 The State's liability under this Agreement shall be limited to monetary damages not to exceed the total fees paid. The Contractor agrees that it has an adequate remedy at law for any breach of this Agreement by the State and hereby waives any right to specific performance or other equitable remedies against the State.

6. COMPLIANCE BY CONTRACTOR WITH LAWS AND REGULATIONS/EQUAL EMPLOYMENT OPPORTUNITY.

6.1 In connection with the performance of the Services, the Contractor shall comply with all applicable statutes, laws, regulations, and orders of federal, state, county or municipal authorities which impose any obligation or duty upon the Contractor, including, but not limited to, civil rights and equal employment opportunity laws and the Governor's order on Respect and Civility in the Workplace, Executive order 2020-01. In addition, if this Agreement is funded in any part by monies of the United States, the Contractor shall comply with all federal executive orders, rules, regulations and statutes, and with any rules, regulations and guidelines as the State or the United States issue to implement these regulations. The Contractor shall also comply with all applicable intellectual property laws.

6.2 During the term of this Agreement, the Contractor shall not discriminate against employees or applicants for employment because of age, sex, sexual orientation, race, color, marital status, physical or mental disability, religious creed, national origin, gender identity, or gender expression, and will take affirmative action to prevent such discrimination, unless exempt by state or federal law. The Contractor shall ensure any subcontractors comply with these nondiscrimination requirements.

6.3 No payments or transfers of value by Contractor or its representatives in connection with this Agreement have or shall be made which have the purpose or effect of public or commercial bribery, or acceptance of or acquiescence in extortion, kickbacks, or other unlawful or improper means of obtaining business.

6.4. The Contractor agrees to permit the State or United States access to any of the Contractor's books, records and accounts for the purpose of ascertaining compliance with this Agreement and all rules, regulations and orders pertaining to the covenants, terms and conditions of this Agreement.

7. PERSONNEL.

7.1 The Contractor shall at its own expense provide all personnel necessary to perform the Services. The Contractor warrants that all personnel engaged in the Services shall be qualified to perform the Services and shall be properly licensed and otherwise authorized to do so under all applicable laws.

7.2 The Contracting Officer specified in block 1.9, or any successor, shall be the State's point of contact pertaining to this Agreement.

8. EVENT OF DEFAULT/REMEDIES.

8.1 Any one or more of the following acts or omissions of the Contractor shall constitute an event of default hereunder ("Event of Default"):

- 8.1.1 failure to perform the Services satisfactorily or on schedule;
- 8.1.2 failure to submit any report required hereunder; and/or
- 8.1.3 failure to perform any other covenant, term or condition of this Agreement.

8.2 Upon the occurrence of any Event of Default, the State may take any one, or more, or all, of the following actions:

8.2.1 give the Contractor a written notice specifying the Event of Default and requiring it to be remedied within, in the absence of a greater or lesser specification of time, thirty (30) calendar days from the date of the notice; and if the Event of Default is not timely cured, terminate this Agreement, effective two (2) calendar days after giving the Contractor notice of termination;

8.2.2 give the Contractor a written notice specifying the Event of Default and suspending all payments to be made under this Agreement and ordering that the portion of the contract price which would otherwise accrue to the Contractor during the period from the date of such notice until such time as the State determines that the Contractor has cured the Event of Default shall never be paid to the Contractor;

8.2.3 give the Contractor a written notice specifying the Event of Default and set off against any other obligations the State may owe to the Contractor any damages the State suffers by reason of any Event of Default; and/or

8.2.4 give the Contractor a written notice specifying the Event of Default, treat the Agreement as breached, terminate the Agreement and pursue any of its remedies at law or in equity, or both.

9. TERMINATION.

9.1 Notwithstanding paragraph 8, the State may, at its sole discretion, terminate the Agreement for any reason, in whole or in part, by thirty (30) calendar days written notice to the Contractor that the State is exercising its option to terminate the Agreement.

9.2 In the event of an early termination of this Agreement for any reason other than the completion of the Services, the Contractor shall, at the State's discretion, deliver to the Contracting Officer, not later than fifteen (15) calendar days after the date of termination, a report ("Termination Report") describing in detail all Services performed, and the contract price earned, to and including the date of termination. In addition, at the State's discretion, the Contractor shall, within fifteen (15) calendar days of notice of early termination, develop and submit to the State a transition plan for Services under the Agreement.

10. PROPERTY OWNERSHIP/DISCLOSURE.

10.1 As used in this Agreement, the word "Property" shall mean all data, information and things developed or obtained during the performance of, or acquired or developed by reason of, this Agreement, including, but not limited to, all studies, reports, files, formulae, surveys, maps, charts, sound recordings, video recordings, pictorial reproductions, drawings, analyses, graphic representations, computer programs, computer printouts, notes, letters, memoranda, papers, and documents, all whether finished or unfinished.

10.2 All data and any Property which has been received from the State, or purchased with funds provided for that purpose under this Agreement, shall be the property of the State, and shall be returned to the State upon demand or upon termination of this Agreement for any reason.

10.3 Disclosure of data, information and other records shall be governed by N.H. RSA chapter 91-A and/or other applicable law. Disclosure requires prior written approval of the State.

11. **CONTRACTOR'S RELATION TO THE STATE.** In the performance of this Agreement the Contractor is in all respects an independent contractor, and is neither an agent nor an employee of the State. Neither the Contractor nor any of its officers, employees, agents or members shall have authority to bind the State or receive any benefits, workers' compensation or other emoluments provided by the State to its employees.

12. ASSIGNMENT/DELEGATION/SUBCONTRACTS.

12.1 Contractor shall provide the State written notice at least fifteen (15) calendar days before any proposed assignment, delegation, or other transfer of any interest in this Agreement. No such assignment, delegation, or other transfer shall be effective without the written consent of the State.

12.2 For purposes of paragraph 12, a Change of Control shall constitute assignment. "Change of Control" means (a) merger, consolidation, or a transaction or series of related transactions in which a third party, together with its affiliates, becomes the direct or indirect owner of fifty percent (50%) or more of the voting shares or similar equity interests, or combined voting power of the Contractor, or (b) the sale of all or substantially all of the assets of the Contractor.

12.3 None of the Services shall be subcontracted by the Contractor without prior written notice and consent of the State.

12.4 The State is entitled to copies of all subcontracts and assignment agreements and shall not be bound by any provisions contained in a subcontract or an assignment agreement to which it is not a party.

13. **INDEMNIFICATION.** The Contractor shall indemnify, defend, and hold harmless the State, its officers, and employees from and against all actions, claims, damages, demands, judgments, fines, liabilities, losses, and other expenses, including, without limitation, reasonable attorneys' fees, arising out of or relating to this Agreement directly or indirectly arising from death, personal injury, property damage, intellectual property infringement, or other claims asserted against the State, its officers, or employees caused by the acts or omissions of negligence, reckless or willful misconduct, or fraud by the Contractor, its employees, agents, or subcontractors. The State shall not be liable for any costs incurred by the Contractor arising under this paragraph 13. Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the State's sovereign immunity, which immunity is hereby reserved to the State. This covenant in paragraph 13 shall survive the termination of this Agreement.

14. INSURANCE.

14.1 The Contractor shall, at its sole expense, obtain and continuously maintain in force, and shall require any subcontractor or assignee to obtain and maintain in force, the following insurance:

14.1.1 commercial general liability insurance against all claims of bodily injury, death or property damage, in amounts of not less than \$1,000,000 per occurrence and \$2,000,000 aggregate or excess; and

14.1.2 special cause of loss coverage form covering all Property subject to subparagraph 10.2 herein, in an amount not less than 80% of the whole replacement value of the Property.

14.2 The policies described in subparagraph 14.1 herein shall be on policy forms and endorsements approved for use in the State of New Hampshire by the N.H. Department of Insurance, and issued by insurers licensed in the State of New Hampshire.

14.3 The Contractor shall furnish to the Contracting Officer identified in block 1.9, or any successor, a certificate(s) of insurance for all insurance required under this Agreement. At the request of the Contracting Officer, or any successor, the Contractor shall provide certificate(s) of insurance for all renewal(s) of insurance required under this Agreement. The certificate(s) of insurance and any renewals thereof shall be attached and are incorporated herein by reference.

15. WORKERS' COMPENSATION.

15.1 By signing this agreement, the Contractor agrees, certifies and warrants that the Contractor is in compliance with or exempt from, the requirements of N.H. RSA chapter 281-A ("*Workers' Compensation*").

15.2 To the extent the Contractor is subject to the requirements of N.H. RSA chapter 281-A, Contractor shall maintain, and require any subcontractor or assignee to secure and maintain, payment of Workers' Compensation in connection with activities which the person proposes to undertake pursuant to this Agreement. The Contractor shall furnish the Contracting Officer identified in block 1.9, or any successor, proof of Workers' Compensation in the manner described in N.H. RSA chapter 281-A and any applicable renewal(s) thereof, which shall be attached and are incorporated herein by reference. The State shall not be responsible for payment of any Workers' Compensation premiums or for any other claim or benefit for Contractor, or any subcontractor or employee of Contractor, which might arise under applicable State of New Hampshire Workers' Compensation laws in connection with the performance of the Services under this Agreement.

16. **WAIVER OF BREACH.** A State's failure to enforce its rights with respect to any single or continuing breach of this Agreement shall not act as a waiver of the right of the State to later enforce any such rights or to enforce any other or any subsequent breach.

17. **NOTICE.** Any notice by a party hereto to the other party shall be deemed to have been duly delivered or given at the time of mailing by certified mail, postage prepaid, in a United States Post Office addressed to the parties at the addresses given in blocks 1.2 and 1.4, herein.

18. **AMENDMENT.** This Agreement may be amended, waived or discharged only by an instrument in writing signed by the parties hereto and only after approval of such amendment, waiver or discharge by the Governor and Executive Council of the State of New Hampshire unless no such approval is required under the circumstances pursuant to State law, rule or policy.

19. CHOICE OF LAW AND FORUM.

19.1 This Agreement shall be governed, interpreted and construed in accordance with the laws of the State of New Hampshire except where the Federal supremacy clause requires otherwise. The wording used in this Agreement is the wording chosen by the parties to express their mutual intent, and no rule of construction shall be applied against or in favor of any party.

19.2 Any actions arising out of this Agreement, including the breach or alleged breach thereof, may not be submitted to binding arbitration, but must, instead, be brought and maintained in the Merrimack County Superior Court of New Hampshire which shall have exclusive jurisdiction thereof.

20. **CONFLICTING TERMS.** In the event of a conflict between the terms of this P-37 form (as modified in EXHIBIT A) and any other portion of this Agreement including any attachments thereto, the terms of the P-37 (as modified in EXHIBIT A) shall control.

21. **THIRD PARTIES.** This Agreement is being entered into for the sole benefit of the parties hereto, and nothing herein, express or implied, is intended to or will confer any legal or equitable right, benefit, or remedy of any nature upon any other person.

22. **HEADINGS.** The headings throughout the Agreement are for reference purposes only, and the words contained therein shall in no way be held to explain, modify, amplify or aid in the interpretation, construction or meaning of the provisions of this Agreement.

23. **SPECIAL PROVISIONS.** Additional or modifying provisions set forth in the attached EXHIBIT A are incorporated herein by reference.

24. **FURTHER ASSURANCES.** The Contractor, along with its agents and affiliates, shall, at its own cost and expense, execute any additional documents and take such further actions as may be reasonably required to carry out the provisions of this Agreement and give effect to the transactions contemplated hereby.

25. **SEVERABILITY.** In the event any of the provisions of this Agreement are held by a court of competent jurisdiction to be contrary to any state or federal law, the remaining provisions of this Agreement will remain in full force and effect.

26. **ENTIRE AGREEMENT.** This Agreement, which may be executed in a number of counterparts, each of which shall be deemed an original, constitutes the entire agreement and understanding between the parties, and supersedes all prior agreements and understandings with respect to the subject matter hereof.

EXHIBIT A - SPECIAL PROVISIONS

There are no special provisions of this contract.

Contractor Initials

Date 7.22.25

EXHIBIT B - SCOPE OF SERVICES

1. INTRODUCTION:

1.1. Triple Construction, LLC (hereinafter referred to as the "Contractor") hereby agrees to provide the State of New Hampshire (hereinafter referred to as the "State"), Department of Administrative Services, with Concord Main Building Stair Tower Roofs Repointing Services at the Concord Main Building, Concord, NH in accordance with the bid submission in response to State Request for Bid #3048-25 and as described herein.

2. CONTRACT DOCUMENTS:

2.1. This Contract consists of the following documents ("Contract Documents"):

- State of New Hampshire Terms and Conditions, General Provisions Form P-37
- EXHIBIT A Special Provisions
- EXHIBIT B Scope of Services
- EXHIBIT C Method of Payment

2.2. In the event of any conflict among the terms or provisions of the documents listed above, the following order of priority shall indicate which documents control: (1), Form Number P-37 as modified by EXHIBIT A "Special Provisions", (2) EXHIBIT B "Scope of Services", (3) EXHIBIT C "Method of Payment".

3. TERM OF CONTRACT:

3.1. The term of the contract shall commence upon execution by Governor & Executive Council (the "effective date") and issuance of a Notice to Proceed (NTP) by the Division of Public Works (DPW) and shall continue thereafter until the DPW is provided documentation of successful completion. The term of the contract shall be through July 3, 2026, a period of approximately ten (10) months.

3.2. The contract may be extended under the same terms, conditions, and pricing structure at the sole discretion of the State and approval of the Governor & Executive Council for up to an additional three (3) months.

4. SCOPE OF WORK:

4.1. General

- 4.1.1. Contractor shall perform stair tower roofs repointing services at the Concord Main Building in Concord, NH. This includes, but is not limited to, stair tower roofs repointing services, and all required tasks to complete as noted in detail within the Project Specifications in Appendix A and supported by Project Drawings in Appendix B.
- 4.1.2. Examine all other sections of the specifications for requirements, which affect the work of this Section, whether or no such requirements are particularly mentioned herein.
- 4.1.3. Coordinate the work of this section with the related work of other trades, if applicable, and coordinate with such trades to assure the steady progress of all work of this Contract.
- 4.1.4. Where construction and trades codes appear in this specification, it shall be interpreted to mean the latest edition.

4.2. Summary

- 4.2.1. The work covered by this Section consists of furnishing all labor, materials, equipment, supplies, etc., the installation of the materials and equipment and the performance of all operations necessary to perform stair tower roofs repointing services at:

Department of Administrative Services

Main Building

105 Pleasant Street

Concord, NH 03301

as indicated on the Project Drawings and/or as described within the Project Specifications. See Appendices A and B for additional information.

- 4.2.2. This work shall include all costs involved in providing stair tower roofs repointing services as indicated, and any costs involved with any other special controls for the project. Without limiting the work required under this specification section, the following is included as noted:

Page 6 of 11

Contractor Initials RC

Date 7.22.25

- 4.2.2.1. Provide all materials to perform stair tower roofs repointing services.
- 4.2.2.2. Any and all work required to leave the facility as a fully operable project per the Contract.
- 4.2.2.3. Obtain and pay for all required permits, inspections, etc.
- 4.2.2.4. Provide any testing and commissioning for the project.

4.3. Appendices

- 4.3.1. Specific project requirements are incorporated into Appendix A as part of Exhibit B.
- 4.3.1.1. Appendix A incorporates the following project requirements into this document:

- 4.3.1.1.1. General Conditions
- 4.3.1.1.2. Supplementary Conditions
- 4.3.1.1.3. Summary
- 4.3.1.1.4. Price and Payment Procedures
- 4.3.1.1.5. Administrative Requirements
- 4.3.1.1.6. Submittal Procedures
- 4.3.1.1.7. Quality Requirements
- 4.3.1.1.8. Temporary Facilities and Controls
- 4.3.1.1.9. Construction Waste Management and Disposal
- 4.3.1.1.10. Product Requirements
- 4.3.1.1.11. Execution Requirements
- 4.3.1.1.12. Selective Demolition
- 4.3.1.1.13. Masonry Procedures
- 4.3.1.1.14. Masonry Mortar
- 4.3.1.1.15. Masonry Accessories
- 4.3.1.1.16. Masonry Restoration
- 4.3.1.1.17. Masonry Cleaning
- 4.3.1.1.18. Miscellaneous Carpentry
- 4.3.1.1.19. Interior Finish Carpentry
- 4.3.1.1.20. Ethylene-Propylene-Diene-Monomer (EPDM) Roofing
- 4.3.1.1.21. Sheet Metal Flashing and Trim
- 4.3.1.1.22. Roof Accessories
- 4.3.1.1.23. Joint Sealants
- 4.3.1.1.24. Treatment of Plaster
- 4.3.1.1.25. Painting

- 4.3.2. All project drawings are incorporated into Appendix B as part of Exhibit B.
- 4.3.3. The Contractor and any/all subcontractors shall abide by all project requirements and drawings set forth in Appendices A and B.

5. COMMERCIAL REQUIREMENTS:

- 5.1. The State of New Hampshire reserves the right to add or delete locations/equipment throughout the term of the contract. For the addition of a new location or new equipment, a requesting agency through the Division of Procurement and Support Services shall submit a request for quote (RFQ) including a detailed scope of work to the contractor. Quotes shall be in accordance with pricing and service requirements contained herein and no service shall be performed until documented acceptance by the State is received. The Contract may be amended, by agreement of the parties, effective upon approval of the commissioner of the Department of Administrative Services, without further approval needed by the Governor and Executive Council as long as the price limitation is unchanged or decreased as a result of the new or deleted locations/equipment.

- 5.2. Except as otherwise provided in this Scope of Services, all services performed under this Contract shall be performed between the hours of 7:00 A.M. and 4:00 P.M. unless other arrangements are made in advance with the State. Any deviation in work hours shall be pre-approved by the Contracting Officer. The State requires ten-day advance knowledge of said work schedules to provide security and access to respective work areas.
 - 5.3. The Contractor shall not commence work until a conference is held with each State agency intending to utilize the Contractor's services, at which representatives of the Contractor and the State are present. The conference will be arranged by the State agency.
 - 5.4. The State shall require correction of any defective work and the repair of any damages to any part of a building or its appurtenances caused by the Contractor or its employees, subcontractors, equipment or supplies. The Contractor shall correct, repair, or replace all defective work, as needed, to complete said work in satisfactory condition, and damages so caused in order to restore the building and its appurtenances to their previous condition. Upon failure of the Contractor to proceed promptly with the necessary corrections or repairs, the State may withhold any amount necessary to correct all defective work or repair all damages from payments to the Contractor.
 - 5.5. The work staff shall consist of qualified persons completely familiar with the products and equipment that they will use. The Contracting Officer may require the Contractor to dismiss from the work such employees as the Contracting Officer deems incompetent, careless, insubordinate, or otherwise objectionable, or whose continued employment on the work is deemed to be contrary to the public interest or inconsistent with the best interest of security and the State.
 - 5.6. Neither the Contractor nor its employees or subcontractors shall represent themselves as employees or agents of the State.
 - 5.7. While on State property the Contractor, its employees, and its sub-contractors shall be subject to the authority and control of the State, but under no circumstances shall such persons be deemed to be employees of the State.
 - 5.8. All personnel shall observe all regulations or special restrictions in effect at any State agency location at which services are to be provided.
 - 5.9. The Contractor's personnel shall be allowed only in areas where services are to be provided. The use of State telephones by the Contractor, its employees, or its sub-contractors is prohibited.
 - 5.10. If sub-contractors are to be utilized, Contractor shall provide information regarding the proposed sub-contractors including the name of the company, their address, contact person and three references for clients they are currently servicing. Approval by the State must be received prior to a sub-contractor starting any work.
- 6. OBLIGATIONS AND LIABILITY OF THE CONTRACTOR:**
- 6.1. The Contractor shall provide all stair tower roofs repointing services, strictly pursuant to, and in conformity with, the specifications described in State RFB 3048-25, as described herein, and under the terms of this Contract.
 - 6.2. It is the responsibility of the Contractor to maintain this contract and New Hampshire Vendor Registration with up to date contact information.
 - 6.3. Contract specific contact information (Sales contact, Contractor contract manager, etc.) shall be sent to the State's Contracting Office listed in Box 1.9 of Form P-37.
 - 6.4. Additionally, all updates i.e., telephone numbers, contact names, email addresses, W9, tax identification numbers are required to be current through a formal electronic submission to the Bureau of Purchase and Property at: [https://das.nh.gov/purchasing/vendorregistration/\(S\(q0fzcv55qhaeqs45jpyq5i45\)\)/welcome.aspx](https://das.nh.gov/purchasing/vendorregistration/(S(q0fzcv55qhaeqs45jpyq5i45))/welcome.aspx).
 - 6.5. The Contractor shall agree to hold the State of NH harmless from liability arising out of injuries or damage caused while performing this work. The Contractor shall agree that any damage to building(s), materials, equipment, or other property during the performance of the service shall be repaired at its own expense, to the State's satisfaction.
 - 6.6. Successful Contractor shall not be allowed to require any other type of order, nor shall the successful Contractor or be allowed to require the filling out or signing of any other document by State of New Hampshire personnel.

7. DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION LOWER TIER COVERED TRANSACTIONS:

7.1. The Contractor certifies, by signature of this contract, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal Department or Agency.

8. CONFIDENTIALITY & CRIMINAL RECORD:

8.1. If requested by the using agency, the Contractor and its employees, and Sub-Contractors (if any), shall be required to sign and submit a Confidential Nature of Department Records Form and a Criminal Authorization Records Form. These forms shall be submitted to the individual using agency prior to the start of any work.

8.2. The Department of Administrative Services, Courts Facilities, will complete required background checks for all personnel, including subcontractors, that will be working on the site premises prior to beginning the project.

8.3. Instructions for completing background checks and blank copies for the State of New Hampshire are located at Criminal History Record Requests | NH State Police.

8.4. All completed forms and additional questions can be sent to Brian Young at brian.g.young@das.nh.gov.

EXHIBIT C - METHOD OF PAYMENT

9. CONTRACT PRICE:

- 9.1. The Contractor hereby agrees to provide stair tower roofs repointing services in strict compliance with the terms and conditions specified in Exhibit B for an amount up to and not to exceed a price of \$193,229.00; this figure shall not be considered a guaranteed or minimum figure; however, it shall be considered a maximum figure from the effective date through the expiration date as indicated in Form P-37 Block 1.7.
- 9.2. The Contractor shall provide the requested stair tower roofs repointing services under a fixed-fee, percentage-based payment arrangement as defined herein.

10. PRICING STRUCTURE:

10.1. Project pricing structure is as follows:

CONTRACT 8003710 CONCORD MAIN BUILDING STAIR TOWER ROOFS REPOINTING SERVICES	
CONCORD MAIN BUILDING CONTRACTOR BASE AMOUNT	\$143,229.00
PROJECT ALLOWANCE	\$50,000.00

10.2. The Project Allowance is to be used at the State's discretion for any unforeseen issues or changes during construction work. This is not a guaranteed amount, and contractors shall not consider this as part of final payments. Utilizing the Project Allowance is subject to all change order provisions and procedures as listed in Appendix A.

11. CONTRACT BOND:

- 11.1. The Contractor, at the time of the execution of this Contract shall submit a Payment and Performance Bond in the sum equal to one hundred percent (100%) of the amount of the Contract as required by RSA 447:16. The Payment and Performance Bond must be written by a company licensed to do business in New Hampshire at the time the policy is issued. In addition, the company issuing the payment and performance bond shall be listed on the current list of "Surety Companies Acceptable on Federal Bonds" as published by the U.S. Department of the Treasury, Financial Management Services, Circular Number 570. See Surety Bonds – Circular 570 (treasury.gov).
- 11.2. Release of Claims and Final Payment:
 - 11.2.1. The final payment shall not become due until the Contractor delivers a complete release of all claims arising under and by virtue of this Contract, including claims for all subcontractors and suppliers of either materials or labor, plus a release of the Contract Bond and a statement that all subcontractors and suppliers have been paid.
 - 11.2.2. Application for Final Payment received from the Contractor will be processed for payment after project acceptance and final completion unless accompanied by a release of the Contract Bond. This payment shall be the amount of the Contract, less previous payments. All prior partial payments shall be subject to correction in the final estimate and payment.
- 11.3. Acceptance of Final Payment Constitutes Release:
 - 11.3.1. The acceptance of the Final Payment by the Contractor shall be and shall operate as a release to the Contractor of all claims and of all liability to the State for all things done or furnished in connection with this work. No payment, however, final or otherwise, shall operate to release the Contractor and its Sureties from any obligations under this Contract or the Contract Bond. Acceptance of Final Payment shall not impact any warranties provided by the Contractor with respect to this project.

12. INVOICE:

12.1. Invoices shall be submitted on a monthly basis to the State Project Manager based on the percentage of work completed. The Contractor shall submit invoices on AIA forms subject to review and approval by the State Project Manager. The percentage of work completed shall be determined by the State Project Manager.

12.2. Payment requisition forms, change order forms, and invoicing questions can be sent to Wyatt Porter-Brown at james.a.porter-brown@das.nh.gov.

13. PAYMENT:

- 13.1. Specifications for all payment provisions and procedures are found in Appendix A, General Conditions.
- 13.2. Payments shall be made on a monthly basis based on the percentage of work completed. Payments shall be made within thirty (30) days after receipt of the invoice and acceptance of the corresponding goods and/or services to the State's satisfaction.
- 13.3. A 5% retainage shall be withheld from each Progress Payment until issuance of a Certificate of Substantial Completion. The balance remaining after the specified percentage has been retained, less all previous payments, will be certified for payment on each partial estimate.
- 13.4. Payments may be made via ACH or P-Card. Use the following link to enroll with the State Treasury for ACH payments: <https://www.nh.gov/treasury>.
- 13.5. Contractor shall be paid within 30 days after receipt of properly documented invoice and acceptance of the work to the State's satisfaction.

Contractor Initials

Date 7.22.25

SECTION 00250

SPECIAL REQUIREMENTS – NHDAS-DPW

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. COVID-19 Response
- B. Security.
- C. Protection of Work

1.2 COVID-19 RESPONSE

- A. The Contractor shall comply with all applicable NH Governor Emergency Orders related to the COVID-19 pandemic. The Contractor is encouraged to adhere to all current State and Federal guidelines related to the prevention of the spread of coronavirus.

1.3 SECURITY

A. Security Check:

- 1. After Award of Bid and prior to the start of construction the Contractor shall submit a list of all contractors' employees, all subcontractors' employees, and other related personnel who will be physically required to work at the project site. Provide the following information for person:
 - a. Name.
 - b. Date of Birth.
 - c. Social Security Number.
 - d. Employer's Company Name
- 2. Anyone with a criminal history, other than traffic violations that have not been annulled will not be allowed to work at the project site. No exceptions will be allowed.
- 3. The Department will not provide copies of criminal records.

B. Security Program:

- 1. Initiate program in coordination with Owner's existing security system at project mobilization.
- 2. Maintain program throughout construction period until directed by NHDAS Division of Public Works Project Manager.

C. Entry Control:

- 1. Restrict entrance of persons and vehicles into Project site and existing facilities.
- 2. Allow entrance only to authorized persons with proper identification.
- 3. Maintain log of workers and visitors, make available to Owner on request.
- 4. Control entrance of persons and vehicles related to Owner's operations.

- D. Personnel Identification:
 - 1. A drivers license or other acceptable positive identification will be required.
 - 2. Contractor shall maintain list of accredited persons; submit copy to Owner on request.

- E. Restrictions:
 - 1. Do not allow cameras on site or photographs taken except as required by this contract or by written approval of Owner.

1.4 PROTECTION OF WORK

- A. Existing finishes
 - 1. Take necessary measures to protect interior finishes from rain damage during roofing operations.
 - 2. Take necessary measures to protect brick wall from damage during construction.
 - 3. Grade, loam and seed lawn areas disturbed by this contract work.

END OF SECTION

DOCUMENT 00708

GENERAL CONDITIONS – DPW
Issued 2-05-2004; Revised as noted

PART	ITEM
1	DEFINITIONS
2	CONTRACT DOCUMENTS
3	NOTICE
4	ACCESS TO THE WORK
5	ACCIDENT PROTECTION
6	HAZARDOUS MATERIALS
7	SUBCONTRACTS
8	RESPONSIBILITY OF CONTRACTOR TO ACT IN EMERGENCY
9	MUTUAL RESPONSIBILITY OF CONTRACTORS
10	PAYMENTS TO CONTRACTOR
11	CONTRACTOR'S TITLE TO MATERIALS
12	CHANGES IN WORK
13	PATENTS
14	ASSIGNMENTS
15	SUPERINTENDENCE BY CONTRACTOR
16	FAILURE TO COMPLETE WORK ON TIME
17	SUBSTANTIAL COMPLETION AND FINAL INSPECTION
18	DEFAULT AND TERMINATION OF CONTRACT
19	TERMINATION OF CONTRACT WITHOUT FAULT
20	ASSIGNMENT PROVISION

PART 1 DEFINITIONS

- A. **Addendum.** Written and/or graphic information issued before opening *Proposals* that modifies or interprets the *Bidding Documents* by additions, deletions, clarifications or corrections.
- B. **Advertisement.** A public announcement in the form of an *Invitation to Bid*, inviting *Bids* for *Work* to be performed and/or *Materials* to be furnished.
- C. **Alteration Order.** A written agreement between the *Contractor* and the *Department* that amends the *Contract* and identifies *Work* that affects either the *Contract Sum*, *Completion Date*, *Credit*, or any combination thereof.
- D. **Alternate.** A proposed change in the *Work* described in the *Contract Documents* providing the *State* with an option to select between alternative materials, products or systems, or to add or delete portions of *Work*.
- E. **Architect.** As defined in RSA 310-A:28, a person who, by reason of having acquired through professional education and practical experience an advanced training in building construction and architectural design and an extensive knowledge of building standards created to safeguard the public from hazards such as fire, panic, structural failure, and unsanitary conditions, is technically and legally qualified to practice architecture and who is licensed by the State of New Hampshire Board of Licensure for Architects to engage in the practice of architecture. The Architect has no contractual agreement with the *Contractor* and therefore shall not directly interact with the *Contractor*.
- F. **Award.** The acceptance of a *Bid* prior to execution of *Contract*.
- G. **Bid.** A complete and properly signed *Proposal*, submitted in accordance with the *Bidding Requirements*, to perform the *Work* for the amount or amounts stipulated therein.
- H. **Bid Bond.** A form of a *Proposal Guaranty* executed by the *Bidder* and a *Surety* to guarantee that the *Bidder* will enter into a *Contract* within a specified time.
- I. **Bid Opening Officer.** An authorized representative of the *Department*, who is responsible for opening and reading of *Bids*.
- J. **Bidder.** A *Corporation*, *Partnership*, or *Proprietorship* submitting a *Proposal*, subsequent to meeting the *Department's Bidding Requirements*.
- K. **Bidding Documents.** Collectively, the *Invitation to Bid*, *Bidding Requirements*, *Specifications*, *Drawings*, and *Addendum*.
- L. **Bidding Requirements.** The documents that contain information regarding bidding procedures with which a *Bidder* must conform and a *Proposal* that a *Bidder* shall use to submit a *Bid*.
- M. **Builders Risk Insurance.** A specialized form of property insurance that provides coverage for loss or damage during the course of construction.

- N. **Calendar Day.** A day shown on the calendar.
- O. **Certificate of Occupancy.** A document issued by the Office of the State Fire Marshal or its authorized representative certifying that all of, or a designated portion of a building, is approved for its designated use.
- P. **Certificate of Full or Partial Substantial Completion.** A document prepared by the *Department* when the *Project* reaches *Substantial Completion* and only issued after review and acceptance of the *Contractor's Request for Certificate of Full or Partial Substantial Completion*.
- Q. **Change Order.** A written agreement between the *Contractor* and the *Department* that identifies *Work* to be completed as part of an Allowance Item. Any change that affects either the *Contract Sum*, *Contract Time* or *Credit* shall be processed as an *Alteration Order*.
- R. **Clerk of the Works.** An authorized representative identified by the *Department*, responsible for observing construction on the State's behalf for conformance with the *Contract Documents*.
- S. **Commercial General Liability Insurance.** A broad form of liability insurance covering claims for bodily injury and property damage which combines under one policy coverage for business liability exposures, except those specifically excluded.
- T. **Commissioner.** The Commissioner of the State of New Hampshire Department of Administrative Services.
- U. **Completion Date.** The last day of the time allotted or the specific date established as identified in the *Contract Documents* for *Substantial Completion* of the *Work*, including any authorized extensions.
- V. **Consultant.** The *Architect*, *Engineer*, and/or professional engaged to develop/provide *Drawings*, *Specifications* and/or other services for the *Project*. The Consultant has no contractual agreement with the *Contractor* and therefore all interaction between any Consultant and the *Contractor* shall be done thru the *Contract Administrator*.
- W. **Contract.** The written agreement between the *Department* and the *Contractor* setting forth the obligations of the parties as outlined in the *Contract Documents*.
- X. **Contract Administrator.** The *Department's* Division of Public Works Project Manager or other appointed representative having specific authority per RSA 228:5 to act on the *Department's* behalf and shall be responsible for general supervision, control, and direction over all matters pertaining to design, construction, maintenance standards, preservation, and administration of the *Contract*.
- Y. **Contract Bond.** The approved form of security in compliance with RSA 447:16 executed by the *Contractor* and their *Surety* or *Sureties*, guaranteeing complete execution of the contract and all supplemental agreements pertaining thereto including the payment of all legal debts pertaining to the construction of the *Project*.

- Z. **Contract Documents.** Collectively, the *Invitation To Bid, Bidding Requirements, Contract Bond, Specifications, Drawings, Addendum*, and other documents included in the *Contract*, and modifications, clarifications, authorized *Alteration Orders and Change Orders* issued after the execution of the *Contract*, to complete the *Project*. All documents shall be written in English.
- AA. **Contract Sum.** The amount stated in the *Contract*. This sum shall be derived from the *Lump Sum Base Bid, Lump Sum Grand Total, or Negotiated Price*; modified to reflect the acceptance of any *Alternates*. The *Notice to Proceed* shall state the amount that the *State* is obligated to pay the *Contractor*.
- BB. **Contractor.** The *Corporation, Partnership, or Proprietorship*, or any combination thereof, contracting with the *State* for performance of prescribed work.
- CC. **Contractor's Request for Certificate of Full or Partial Substantial Completion.** A document prepared by the *Contractor* when the *Project* reaches *Substantial Completion*.
- DD. **Contractual Liability.** Liability assumed by the *Contractor* under a *Contract*.
- EE. **Corporation.** A legal entity organized under the laws of a particular jurisdiction who is legally authorized to do business in the *State*.
- FF. **Credit.** Any Change that results in a reduction in the *Contract Sum* or *Lump Sum Grand Total* Items. All credits shall be processed by an *Alteration Order* and may include modifications to *Lump Sum Grand Total* Items.
- GG. **Day.** Unless designated as a *Working Day*, or unless otherwise indicated, this term will mean a *Calendar Day*.
- HH. **Department.** The State of New Hampshire Department of Administrative Services.
- II. **Drawings (Plans).** The graphic and pictorial documents or reproductions thereof, which show the location, character, dimensions, and details of the prescribed work.
- JJ. **Final Completion.** Term denoting that the *Work* has been completed in accordance with the terms and conditions of the *Contract Documents* and all *Punch List* items have been completed.
- KK. **Final Payment.** Payment made by the *State* to the *Contractor*, upon *Final Completion*.
- LL. **General Conditions.** The part of the *Contract Documents* establishing the rights, responsibilities and relationships of the parties.
- MM. **Hazardous Material.** Shall include any material regulated by federal or state law and shall include but not limited to asbestos, toxic or hazardous waste, PCBs, combustible gases and materials, petroleum or radioactive material, or any other substances under any conditions and in such quantities as would pose a substantial danger to persons or property exposed to such substances.

- NN. **Indemnification.** A contractual obligation by which one person or entity agrees to reimburse others for loss or damage arising from specified liabilities.
- OO. **Invitation to Bid.** A portion of the *Bidding Documents*; the *Advertisement* for *Proposals* for *Work* or *Materials* on which *Bids* are requested. The *Advertisement* will indicate the time and place of the opening of *Proposals*, the type and location of *Work* to be performed, the character and quantity of the *Material* to be furnished and provide information on how to obtain *Drawings*, *Specifications* and *Proposal*.
- PP. **Liability Insurance.** A contract under which an insurance company agrees to protect a person or entity against claims arising from a real or alleged failure to fulfill an obligation or duty to a third party who is a named or an incidental beneficiary.
- QQ. **Lump Sum Base Bid.** One type of *Proposal* where the *Bid* is established by a single item price to perform all *Work* excluding any *Alternates* that may or may not become part of the *Contract*.
- RR. **Lump Sum Grand Total.** One type of *Proposal* where the *Bid* is established as a total of various items to perform all *Work* excluding any *Alternates* that may or may not become part of the *Contract*.
- SS. **Low Bid.** The *Bid* stating the lowest price proposed for performance of the *Work*, conforming to the *Bidding Documents*.
- TT. **Lowest Responsible Bidder.** The *Bidder* who submits the lowest bona fide *Bid* and is considered by the Department to be fully responsible and qualified to perform the *Work* for which the *Bid* is submitted.
- UU. **Material(s).** Any substance and/or product specified for use in the construction of the *Project* and its appurtenances.
- VV. **Negotiated Price.** A *Proposal* modified by the *Lowest Responsible Bidder* thru communication with the Department and *Using Agency(ies)* in which changes are made to the *Proposal* and/or *Completion Date* as required to meet budget, funding or scheduling requirements.
- WW. **Notice to Proceed.** A written notice to the *Contractor* to proceed with a portion of or all of the *Contract Work*; including the beginning of *Contract* time when applicable. The *Notice to Proceed* shall act as the final step in awarding the *Contract* or portion thereof.
- XX. **Occurrence Policy.** An insurance policy that covers acts or omissions occurring during the policy term, regardless of when a claim against the insured is first asserted, even if the policy is no longer in existence.
- YY. **Owner's Protective Liability Coverage.** Third-party legal liability insurance coverage protecting the *State* from claims arising from the construction process.
- ZZ. **Partnership.** An association of two or more persons or entities to conduct a business that shares profits and losses at a certain proportion.

- AAA. **Professional Engineer.** Referred to as Engineer. As defined in RSA 310-A:2, a person who by reason of advanced knowledge of mathematics and the physical sciences, acquired by professional education and practical experience, is technically and legally qualified to practice engineering, and who is licensed by or otherwise authorized by State of New Hampshire Professional Engineers Board to engage in the practice of engineering. The Engineer has no contractual agreement with the *Contractor* and therefore shall not directly interact with the *Contractor*.
- BBB. **Project.** The total construction of the *Work* to be performed.
- CCC. **Proposal.** A *Bidder's* offer, on *Department* prescribed forms, to perform stated work at the quoted price(s).
- DDD. **Proposal Guaranty.** The security furnished with a *Proposal*, which shall be a *Bid Bond*, provides that the *Bidder* if awarded the *Contract* will execute such *Contract* in accordance with the requirements of the *Bidding Documents*.
- EEE. **Proprietorship (Individual).** A form of business organization that is owned entirely by one person.
- FFF. **Provide.** To furnish and install a product, materials, systems, and/or equipment, complete in place, fully tested and approved.
- GGG. **Punch List.** A written document attached to the *Certificate of Substantial Completion* listing items to be completed or corrected prior to the *State's* approval of *Final Payment*.
- HHH. **Specifications.** The volume that is part of the *Contract Documents* which contain the *General Conditions*, *Supplementary General Conditions*, *Invitation to Bid*, and individual sections that consist of written requirements for material, equipment, construction systems, standards and workmanship, and other documents or reports as applicable.
- III. **State.** The State of New Hampshire.
- JJJ. **Subcontractor.** A *Corporation*, *Partnership*, *Proprietorship*, *Joint Venture* or any combination thereof, to whom the *Contractor* sublets any part of the *Contract*.
- KKK. **Substantial Completion.** As determined by an inspection by the *Department* that the work or portion thereof is substantially complete, in accordance with the *Contract Documents*, such that the *State* may occupy or utilize the *Work* for its intended use without disruption or interference by the *Contractor* in completing or correcting any remaining unfinished or unacceptable *Work*.
- LLL. **Substitution.** A *Material*, product or item of equipment in place of that specified.
- MMM. **Superintendent.** The *Contractor's* authorized representative responsible for field supervision, coordination, and completion of the *Work*.
- NNN. **Supplementary General Conditions.** A part of the *Contract Documents* which supplements and may also modify, change, add to or delete from provisions of the *General Conditions*.

- OOO. **Surety.** A *Corporation, Partnership, or Proprietorship* other than the *Contractor*, executing a bond furnished by the *Contractor*.
- PPP. **Umbrella Liability Insurance.** Insurance providing coverage in an amount above existing liability policies.
- QQQ. **Unit Price.** An amount stated in a *Lump Sum Grand Total Bid* as a price per unit for an item or portion of the contract or for specific materials and/or services described in the *Contract Documents*.
- RRR. **Using Agency.** The executive department, commission, independent establishment, public corporation which is an instrumentality of a state board, bureau, division, institution, service, office, officer, authority, administration or other establishment in the executive branch of the government, who are responsible for the facility and/or will occupy the facility after and/or during the Work. The Using Agency(ies) has/have no contractual agreement with the *Contractor* and therefore shall not direct the *Contractor* in any way.
- SSS. **Work.** The construction and services required by the *Contract Documents* to furnish all labor, materials, equipment, and incidentals necessary to complete the duties, obligations, and requirements imposed by the *Contract*.
- TTT. **Workers' Compensation Insurance.** Insurance covering the liability of an employer to employees for compensation and other benefits required by workers' compensation laws with respect to injury, sickness, disease or death arising from their employment.
- UUU. **Working Day.** Any calendar day, except Saturdays, Sundays, and Contract designated legal holidays.

PART 2 CONTRACT DOCUMENTS

- 2.1 The Contract Documents consist of the Invitation to Bid, Contract Agreement, General Conditions, Supplementary General Conditions, Drawings and Specifications, including all Addenda issued prior to execution of the Contract, wage scales where applicable, Bonds where required, insurance certificates, other documents listed in the Agreement and Modifications issued after the execution of the Contract, Change Orders and Alteration Orders issued in accordance with Part 12 of the General Conditions.
- A. Hierarchy of the Contract Documents shall be interpreted according to the following classes:
1. Department approved modifications to the Contract Documents after execution of the Contract.
 2. Addenda.
 3. Supplemental General Conditions.
 4. General Conditions.
 5. Division 1 – General Requirements.
 6. Remaining Specifications.
 7. Larger Scale Drawings & Details.
 8. Remaining Drawings.
- 2.2 A fully executed Contract shall not be in effect until approved by the Governor and Council and an issuance of the Notice to Proceed by the Division.
- 2.3 This Contract is executed in a number of counterparts, each of which is an original and constitutes the entire agreement between the parties. This Contract shall be construed according to the laws of the State. No portion of this Contract shall be understood to waive the sovereign immunity of the State. This Contract shall not be amended, except as specified in Parts 13 and 20.
- 2.4 The Contract Documents are complementary and anything called for by one of the Contract Documents and not called for by the others shall be of like effect as if required by all.
- 2.5 Should the Contract Documents contain inconsistencies within a class identified in Item 2.1A, the Contractor shall provide the better quality or greater quantity of work and/or materials. The Contractor shall identify any perceived discrepancies to the Contract Administrator prior to proceeding.
- 2.6 The Contractors and all Subcontractors shall refer to all of the Contract Documents, including those not specifically showing the work of their specialized trades, and shall perform all work reasonably inferable from them as being necessary to produce the intended results in compliance with applicable Federal, State, and Local codes.

- 2.7 All indications or notations which apply to one of a number of similar situations, materials or processes shall be deemed to apply to all such situations, materials or processes wherever they appear in the work, except where a contrary result is clearly indicated by the Contract Documents.
- 2.8 Where codes, standards, requirements, and publications of public and private bodies are referred to in the Contract Documents, such references shall be understood to be to the latest final and complete revision at the time of receiving Bids unless specifically identified, except where otherwise indicated.
- 2.9 Where no explicit quality or standards for materials or workmanship is established for work, such work is to be consistent with the best quality workmanship standards of the applicable trade.
- 2.10 All manufactured articles, materials, and equipment shall be applied, assembled, installed, connected, erected, tested, cleaned, and conditioned in accordance with the manufacturer's written or printed directions and instructions, unless specifically indicated otherwise in the Contract Documents.
- 2.11 The Drawings are made to scale as identified therein, but all working dimensions shall be taken from the figured dimensions and by actual measurements at the job; in no case by scaling. The Contractor shall study and compare all of the Drawings and verify all figures before laying out or constructing work. The Contractor shall be responsible for errors in his/her work that might have been avoided thereby. Whether or not an error is believed to exist, deviation from the Drawings and the dimensions given thereon shall be made only after approval in writing from the Contract Administrator.
- 2.12 All Drawings and Specifications and copies thereof are the property of the State and shall not be used by the Contractor or Subcontractor on other Projects.

PART 3 NOTICE

- 3.1 Any written notice by either party to the Contract shall be sufficiently given if delivered to or at the last known business address of the person, partnership or corporation constituting the other party to the Contract, or to his/her, their, or its duly authorized agent, representative, or officer, or when sent by registered mail to such last known business address. The last known business address shall be that location which is last provided in writing.
- 3.2 The parties shall provide their physical location/address, mailing address, telephone number, fax number, and, where available, pager number(s), email address(es), and other methods of contact for all persons associated with the Contract.

PART 4 ACCESS TO THE WORK

- 4.1 The Contractor shall provide for access to the work, at all times, for observation and/or inspection by the Department, Architect, Consultant, Engineer and government officials having jurisdiction. The Contractor shall provide proper facilities for such access and inspection.

PART 5 ACCIDENT PROTECTION

- 5.1 It is a condition of this Contract, and shall be made a condition of each subcontract entered into pursuant to the Contract, that the Contractor, any Subcontractors, or Independent Contractors shall not require any laborer or mechanic employed in the performance of the Contract to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous to the laborer's health or safety as determined by construction safety and health standards of the Occupational Safety and Health Administration, United States Department of Labor, which standards include, by reference, the established Federal Safety and Health Regulations for Construction. These standards and regulations comprise Part 1910 and Part 1926 respectively of Title 29 of the Code of Federal Regulations, as may be revised from time to time. In the event any revisions in the Code of Federal Regulations are published, such revisions will be deemed to supersede the appropriate Part 1910 and Part 1926, and be effective as of the date set forth in the revised regulation.

PART 6 HAZARDOUS MATERIALS

- 6.1 The Contractor shall also be aware of laws and regulations relating to hazardous materials that may be encountered during construction operations, either within project limits or at material sites off the project. The health and safety of employees, the general public, and the potential of damage to the overall environment is possible if hazardous materials are not recognized, reported, and the appropriate action taken to dispose of, remove from the site, or otherwise contain the possible contaminants.
- 6.2 If any abnormal condition is encountered or exposed that indicates the presence of a hazardous material or toxic waste, construction operations shall be immediately suspended in the area and the Contract Administrator notified. No further work shall be conducted in the area of the contaminated material until the site has been investigated and the Department has given approval to continue the work in the area. The Contractor shall fully cooperate with the State and perform any remedial work as directed. Work shall continue in other areas of the Project unless otherwise directed.
- 6.3 Exposure to hazardous materials may result from contact with, but not necessarily limited to, such items as drums, barrels, and other containers, waste such as cars, batteries, and building construction debris. Containers leaking unknown chemicals or liquids, abandoned cars leaking petroleum products, batteries leaking acid, construction debris which may include asbestos, or any other source of suspected hazardous material found within excavation areas or stockpiled on land within construction limits shall be referred to the Department of Environmental Services and Contract Administrator so that a proper identification of the materials may be made and disposal procedures initiated as required.
- 6.4 Disposition of the hazardous material or toxic waste shall be made under the requirements and regulations of the Department of Environmental Services. Work required to dispose of these materials and any remedial work shall be performed under a Supplemental Agreement or Contract item, if included in the Contract.

PART 7 SUBCONTRACTS

- 7.1 Nothing contained in the Specifications or Drawings shall be construed as creating any contractual relationship between any Subcontractor and the State. The Sections of the Specifications are not intended to control the Contractor in dividing the work among Subcontractors or to limit the work performed by any trade.
- 7.2 The Contractor shall be as fully responsible for the acts and omissions of Subcontractors and of persons employed by them, as he/she is for the acts and omissions of persons directly employed by him/her.
- 7.3 The Contractor shall, without additional expense to the State, utilize the services of specialty Subcontractors, as required to complete the work.
- 7.4 The Commissioner will not undertake efforts to settle or resolve any differences between the Contractor and Subcontractors or between Subcontractors.
- 7.5 The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind Subcontractors to the Contractor by the terms of the General Conditions and other Contract Documents insofar as applicable to the work of Subcontractors and to give the Contractor the same power to terminate any subcontract that the Commissioner may exercise over the Contractor under any provisions of the Contract Documents.

PART 8 RESPONSIBILITY OF CONTRACTOR TO ACT IN EMERGENCY

- 8.1 In case of any emergency that threatens loss or injury of property, and/or safety of life, the Contractor shall act as the situation may warrant. He/she shall notify the Contract Administrator thereof immediately thereafter. Any compensation claimed by the Contractor together with substantiating documents in regard to expense, shall be submitted to the Contract Administrator and the amount of compensation shall be determined by agreement.
- 8.2 In the event the Department learns of an emergency that threatens loss or injury of property, and/or safety of life, the Department shall notify the Contractor using the contact information provided pursuant to PART 3 herein. The Department may, but shall have no duty to take reasonable steps to mitigate the damage or loss to the Contractor. In either event, the Department shall have no duty to undertake any specific acts and shall have no liability for actions or inactions taken absent gross negligence.

PART 9 MUTUAL RESPONSIBILITY OF CONTRACTORS

- 9.1 If the Contractor or any of his/her Subcontractors or employees causes loss or damage to any separate Contractor or Subcontractor on the work, the Contractor or Subcontractor agrees to settle with such separate Contractor or Subcontractor by agreement, if he/she will so settle. If such separate Contractor or Subcontractor sues the State because of any loss so sustained, the Commissioner shall notify the Contractor and/or their Subcontractors, who shall indemnify and hold harmless the State against any expenses or judgment arising therefrom.

PART 10 PAYMENTS TO CONTRACTOR

- 10.1 The State will process payments to the Contractor each month on the basis of duly certified and approved estimates of the work performed during the preceding period. In preparing estimates, the material delivered on the site and any preparatory work done may be taken into consideration. Payments will only be approved in an amount no greater than the percentage of project completion, as determined by the Contract Administrator.
- 10.2 At least ten (10) days before the end of the billing period, the Contractor shall submit to the Contract Administrator, an itemized Requisition for Payment, supported by such data substantiating the Contractor's right to payment as the Commissioner may require. If payment is to be made for materials or equipment not incorporated in the work, but delivered and suitably stored at the site, or at some other location agreed upon in writing, such payment shall be conditional upon inspection and/or observation by the Department and submission by the Contractor of bills of sale or such other procedure satisfactory to the Commissioner to establish the State's title to such materials or equipment or otherwise protect the State's interest including applicable insurance and transportation to the site.
- 10.3 Immediately upon receipt of the Monthly Requisition for Payment, Contractor shall post same at the Contractor's Field Office or project site in a location where Subcontractors have clear access.
- 10.4 Retainage:
- A. Contract Payment Withheld: A 5% retainage shall be withheld from each Progress Payment until issuance of a Certificate of Substantial Completion.. The balance remaining after the specified percentage has been retained, less all previous payments, will be certified for payment on each partial estimate.
- ***** [OR] *****
- B. Irrevocable Letter of Credit: In lieu of retainage for Projects amounting to Five Hundred Thousand (\$500,000.00) or more, the Contractor, with the approval of the Commissioner, may provide the Commissioner with a Letter of Credit in an amount equal to five percent (5%) of the total adjusted Contract amount at the time of such request. Any such Letter of Credit must be irrevocable (that is, it may be modified or revoked only with the consent of the Commissioner). It shall have a termination date at least one hundred twenty (120) days after the completion date specified in the underlying Contract, or as may be altered in accordance with the Contract Documents, whichever is later. The Letter of Credit shall authorize the Commissioner to require the issuing financial institution to deposit with the State an amount equal to the retainage that would have been deducted from payment to the Contractor, as specified in 10.4.A. The Commissioner may utilize the amount so deposited in the same manner as retainage.
- 10.5 Retainage will be released at Final Payment.
- A. After the Certificate of Substantial Completion has been issued, upon written application by the Contractor and with the approval of the Surety, the Commissioner may release a portion of the retained amount.

10.6 Payment for Material On Hand:

- A. Partial payments are made for materials to be incorporated in the Work, provided the materials meet the requirements of the Contract and are delivered on, or in the vicinity of, the Project site and stored in acceptable places. Partial payments will not exceed 90 percent of the Contract unit price for the item or the amount supported by copies of paid invoices, freight bills, or other supporting documents required by the Department. The quantity paid will not exceed the corresponding quantity estimate in the Contract. No partial payment will be made on living or perishable materials until incorporated in the Work.
- B. When material payments exceed \$100,000 or 10 percent (10%) of the total contract amount, whichever is less, notarized copies of paid invoices or copies of canceled checks for all such materials must be submitted to the Contract Administrator within 45 days of the end date of the estimate on which the material allowance was paid. Failure to provide such documentation will result in the deduction of such material allowance from future estimates until documentation is provided.
- C. All material and work covered by partial payments made shall thereupon become the sole property of the State, but this provision shall not be construed as relieving the Contractor of the sole responsibility of all materials and work upon which payments have been made or the restoration of any damaged work or as a waiver of the right of the State to require the fulfillment of all the terms of the Contract.

10.7 Payment for Material Not on Hand:

- A. Upon receipt of a written request by the Contractor, partial payment may be made for acceptable, fully-fabricated, nonperishable materials not delivered that are unique to the Project provided the materials meet the requirements of the Contract and are stored in excess of 30 days at locations approved by the Department, and provided all required certificates of compliance, mill test reports, shop inspector's acceptance and any other required materials certification have been furnished. Materials shall be identifiable and accessible for inspection. Storage areas shall provide adequate protection so that such materials will meet the Contract requirements upon delivery to the site.
- B. Partial payment will be based on the actual cost to the Contractor as indicated on invoices furnished to the Contract Administrator. When material payments exceed \$100,000 or 10 percent of the total contract amount, whichever is less, notarized copies of paid invoices or copies of canceled checks for all such materials must be submitted to the Contract Administrator within 45 days of the end date of the estimate on which the material allowance was paid. Failure to provide such documentation will result in the deduction of such material allowance from future estimates until documentation is provided. Payment shall not exceed 90 percent of the bid price. NO payment will be made on materials for any item in the contract whose total dollar value is less than \$5,000. Approval of partial payment will not constitute final acceptance of the materials for use in completing items of work.

10.8 Release of Claims:

- A. Neither the final payment nor any part of the retained percentage shall become due until the Contractor shall deliver a complete release of all claims arising under and by virtue of this Contract, including claims for all Subcontractors and suppliers of either materials or labor, plus a release of the Contract Bond and a statement that all Subcontractors and suppliers have been paid. The Commissioner, may pay any and all such claims, in whole or in part, and deduct the amount or amounts so paid from any partial or final payment.

10.9 Final Payment:

- A. Application for Final Payment received from the Contractor will be processed for payment not less than 90 days after project acceptance and final completion unless accompanied by a release of the Contract Bond. This payment shall be the amount of the Contract, amended by approved alteration orders, less previous payments minus liquidated damages, additional penalties or holdbacks. All prior partial estimates and payments shall be subject to correction in the final estimate and payment.

10.10 Acceptance of Final Payment Constitutes Release:

- A. The acceptance of the Final Payment by the Contractor shall be and shall operate as a release to the Contractor of all claims and of all liability to the State for all things done or furnished in connection with this work. No payment, however, final or otherwise, shall operate to release the Contractor and its Sureties from any obligations under this Contract or the Contract Bond. Acceptance of Final Payment shall not impact any warranties provided by the Contractor with respect to this project.

PART 11 CONTRACTOR'S TITLE TO MATERIALS

- 11.1 No materials or supplies for the work shall be purchased by the Contractor or any Subcontractor subject to any chattel mortgage or under a conditional sale or other agreement by which an interest is retained by the seller. The Contractor warrants that good title has been obtained for all materials and supplies for which partial payment has been accepted. If any claim is made with respect to materials provided by the Contractor, Subcontractors, or Independent Contractors, the Contractor shall defend any such claim and shall pay any judgment or settlement thereon.

PART 12 CHANGES IN WORK

- 12.1 No charge for any extra work or material will be allowed without a fully executed Alteration Order. (Refer to Specification Section 01200-Price and Payment Procedures)
- 12.2 The Commissioner or his/her designee may, at any time, by a written order, and without notice to the Sureties, make changes in the Drawings and Specifications and Completion Date of the Contract and within the general scope thereof.
- 12.3 If any part of the work as installed be at variance with the Contract requirements, the Department may allow all or any part of such work to remain in place, if found to be in the best interest of the State, subject to proper adjustment in the Contract Price. Acceptance of installed work in one instance or in any instance does not constitute a waiver of Specifications, General Conditions or contract requirements.

PART 13 PATENTS

- 13.1 The Contractor shall hold the State and its officers, agents, servants, and employees harmless from liability of any nature including cost and expenses, for or on account of any patented or unpatented invention, process, article or applicable items manufactured or used in the performance of the Contract, including its use, unless otherwise specifically stipulated in the Contract Documents.

PART 14 ASSIGNMENTS

- 14.1 The Contractor shall not assign the whole or any part of this Contract or any monies due or to become due, hereunder, without the written consent of the Commissioner and of all Sureties executing any Bonds on behalf of the Contractor if in connection with said Contract.

PART 15 SUPERINTENDENCE BY CONTRACTOR

- 15.1 The Contractor shall have on the project site, at all times when work is being performed, a competent English speaking Superintendent capable of reading and thoroughly understanding the contract documents and thoroughly experienced in the type of work being performed, satisfactory to the Department. The Contractor shall not change superintendents without permission from the Department and shall submit a request in writing with justification for such a change.
- A. The Superintendent shall be responsible for verifying that all materials, installation, coordination, and workmanship are in conformance with the contract documents.
 - B. Unless the Department has granted prior written approval, the Superintendent shall not, himself, engage in "hands-on" construction work.
 - C. In the event the Superintendent fails or refuses to perform functions mentioned above as determined by the Department, the Contractor agrees to a stipulated penalty of \$1,200.00 per day, in addition to any liquidated damages provided hereunder.

PART 16 FAILURE TO COMPLETE WORK ON TIME

- 16.1 If the Contractor fails to complete all of the work or sections of the Project, if sections are indicated, within the time specified in the Contract or within any additional time allowed, for each working day the Liquidated Damages identified in 16.3 will be deducted from any money due the Contractor. This deduction will be made, not as a penalty, but as fixed, agreed liquidated damages for inconvenience to the State and for reimbursing the Department and Using Agency the cost of the Administration of the Contract, including personnel, time, engineering and inspection. Should the amount of money otherwise due the Contractor be less than the amount of such liquidated damages, the Contractor and its Surety shall be liable to the State for such deficiency.
- 16.2 If the Division of Public Works Design & Construction permits the Contractor to continue and finish the work after the time fixed for its completion, it shall in no way operate as a waiver on the part of the State of any of its rights under the Contract. When the final acceptance has been duly made by the Department, any liquidated damage charges shall end.

16.3 The fixed, agreed, liquidated damages shall be assessed in accordance with the following schedule:

Original Contract Amount, Plus Any Extras, Alteration Orders, and Alternates		Amount of Liquidated Damages Per Working Day
From More Than:	To and Including:	
\$0	\$25,000.00	\$200.00
\$25,000.00	\$50,000.00	\$250.00
\$50,000.00	\$100,000.00	\$400.00
\$100,000.00	\$500,000.00	\$450.00
\$500,000.00	\$1,000,000.00	\$800.00
\$1,000,000.00	\$2,000,000.00	\$1,200.00
\$2,000,000.00	\$5,000,000.00	\$1,600.00
\$5,000,000.00	\$10,000,000.00	\$2,000.00
\$10,000,000.00	and above	\$2,400.00

PART 17 SUBSTANTIAL COMPLETION AND FINAL INSPECTION

- 17.1 The Contractor shall provide a signed Substantial Completion Application to the Contract Administrator when the work is believed to be substantially complete, in accordance with specification section 01700, accompanied by a list of items, referred to as the Punch List, to be completed or corrected. The failure to include any items of such list does not alter the responsibility of the Contractor to complete all work in accordance with the Contract Documents. On the basis of an inspection by the Department who determines that the work is substantially complete, a Certificate of Substantial Completion will be issued.
- A. The Certificate of Substantial Completion shall:
1. Include any modifications to the Punch List or value as determined by the Department.
 2. Establish the Date of Substantial Completion.
 - a. Warranties required by the Contract Documents shall commence on the Date of Substantial Completion unless otherwise provided in the Certificate of Substantial Completion.
 3. Identify the responsibilities of the State and the Contractor for security, maintenance, heat, utilities, and damage to the work and insurance.
 4. Fix the time limit within which the Contractor shall complete the items listed herein.
- 17.2 Partial Occupancy or Use: The State may take occupancy or use of completed or partially completed portions of the work upon written agreement between the Commissioner and the Contractor. Said partial occupancy or use shall have the approval of the insurer and Code enforcement authorities having jurisdiction. Said partial occupancy or use, (whether substantial completion has been obtained or not) provided the Department and Contractor have agreed upon written terms detailing each of the entities responsibilities in their entirety, may be exercised under these General Conditions.
- A. A Written agreement shall stipulate the time period for completion of all Work and the commencement date for all applicable contract warranties. Said written agreement shall be preceded by a Contractor generated listing of all incomplete Work, meeting with the approval of the Department, before partial occupancy or use is taken by the State with prior approval of the Division.
- 17.3 If the Contractor fails to complete the items on the "punch list," by the date specified on the Substantial Completion Certificate, then in addition to the corrective measures listed in the Certificate of Substantial Completion, the State may use the monies still due the Contractor to have such items completed and the Contractor shall lose any claim to the monies so used. The Surety may be notified of any delay or failure to complete the work.
- 17.4 Upon written notice that the work is ready for final inspection and acceptance, the Department shall promptly make such inspection, to determine the work is acceptable under the Contract Documents and the Contract fully performed. The Contractor shall submit a request for payment, specifically identifying Final Payment. The Contractor shall provide all certificates and reports, as required, throughout the contract and shall coordinate their preparation and submission prior to request for final payment. Failure to submit such certificates and reports shall be considered default of contract.

PART 18 DEFAULT AND TERMINATION OF CONTRACT

18.1 If the Contractor:

- A. Fails to begin work under Contract within the time identified in specification section 01100.
- B. Fails to perform the work with sufficient workers and equipment, or with sufficient materials to assume prompt completion of said work, or
- C. Performs the work unsuitably or neglects or refuses to remove materials or to perform anew such work as may be rejected as unacceptable and unsuitable, or
- D. Discontinues the prosecution of the work, or
- E. Fails to resume work, which has been discontinued, within a reasonable time after notice to do so, or
- F. Becomes insolvent or has declared bankruptcy, or commits any act of bankruptcy or insolvency, or
- G. Makes an assignment for the benefit of creditors, or
- H. For any other causes whatsoever, fails to carry on the work in an acceptable manner.

18.2 The Commissioner will give notice, in writing, to the Contractor and his Surety for such delay, neglect, and default for any item identified above.

- A. Upon receipt of Notification of Default and the Contractor or Surety does not proceed in accordance with said Notification, then the Commissioner will Terminate the Contract. Upon which, the Commissioner shall have full power and authority, without violating the Contract, to assume the prosecution of the work. The Commissioner may enter into one or more agreements for the completion of said Contract according to the terms and conditions thereof, or use such other methods as will be required for the completion of said Contract in an acceptable manner.
 - 1. All extra costs and charges incurred by the Department as a result of such delay, neglect or default, together with the cost of completing the work under the Contract will be deducted from any monies due or which may become due said Contractor. If such expenses exceed the sum that would have been payable under the Contract, then the Contractor and the Surety shall be liable and shall pay to the Department, the amount of such excess.

PART 19 TERMINATION OF CONTRACT WITHOUT FAULT

- 19.1 Except in cases controlled by the preceding section, the Commissioner, for any cause, including, but not limited to an order of any Federal authority or petition of the Contractor due to circumstances beyond its control may, by written notice to the Contractor and the Surety, with the

concurrence of the Governor and Council, terminate the Contract or any portion thereof subject to the Condition(s) A, B, C, and D provided below.

19.2 Notwithstanding anything to the contrary contained in these conditions, it is understood and agreed by the parties hereto that all obligations of the Department hereunder, including the continuance of payments, are contingent upon the availability and continued appropriation of State and/or Federal Funds, and in no event shall the Department be liable for any payments hereunder in excess of such available or appropriated funds. In the event of a reduction, termination or failure to appropriate any or all such available funds or appropriations or a reduction of expenditures of State funds by the Advisory Budget Control Committee, the Commissioner may, by written notice to the Contractor and Surety, immediately terminate this Contract in whole or in part in accordance with the following conditions:

- A. When a Contract, or portion thereof, is terminated before completion of all items of work in the Contract, payment will be made for the actual items of work completed. Payment of items of work not completed at time of termination shall be the greater of the following amounts:
 - 1. A percentage of the Contract unit price, which percentage shall be the percentage of completion of the particular item at time of termination.
 - 2. Such amount as shall be mutually agreed upon by the parties. No claim for loss of anticipated profits on items or units of work not completed will be allowed.
- B. Reimbursement for organization of the work and mobilization, when not otherwise included in the Contract, shall be made where the volume of work completed is too small to compensate the Contractor for these expenses under the Contract; the intent being that an equitable settlement be made with the Contractor.
- C. Acceptable materials, obtained or ordered by the Contractor for the work, and that are not incorporated in the work shall, at the option of the Contractor, be purchased from the Contractor based upon the delivered cost of the materials at such points of delivery as may be designated by the Department. The Contractor shall do everything possible to cancel unfilled orders.
- D. Termination of a Contract, or a portion thereof, shall not relieve the Contractor of its responsibilities for the work completed nor shall it relieve the Surety of its obligations for and concerning any claims arising out of the work performed.

PART 20 ASSIGNMENT PROVISION

20.1 The Contractor hereby agrees that it will assign to the State, all causes of action that it may acquire under the anti-trust laws of New Hampshire and the United States as a result of conspiracies, combinations of contracts in restraint of trade which affect the price of goods or services obtained by the State under this Contract, if so requested by the State.

END OF SECTION

DOCUMENT 00818

SUPPLEMENTARY CONDITIONS – DPW

PART 1 GENERAL

1.1 SUMMARY

- A. The following supplements modify, change, delete or add to the General Conditions. Where any part of the General Conditions are modified or voided by these sections, the unaltered provisions of that part shall remain in effect.

1.2 MODIFICATIONS TO VARIOUS ARTICLES OF THE GENERAL CONDITIONS

- A. Part 15, Superintendence by Contractor
 1. Approval is hereby granted for the Superintendent to perform work, solely as ancillary services to their primary role as Superintendent's work on the Project.
- B. Part 16, Failure to Complete Work on Time
 1. Remove the liquidated damages schedule of item 16.3 and replace with the following schedule:

Original Contract Amount, Plus Any Extras, Alteration Orders, and Alternates		Amount of Liquidated Damages Per Working Day
From More Than:	To and Including:	
\$0	\$25,000.00	\$200.00
\$25,000.00	\$50,000.00	\$250.00
\$50,000.00	\$100,000.00	\$400.00
\$100,000.00	\$500,000.00	\$450.00
\$500,000.00	\$1,000,000.00	\$800.00
\$1,000,000.00	\$2,000,000.00	\$1,200.00
\$2,000,000.00	\$5,000,000.00	\$1,600.00
\$5,000,000.00	\$10,000,000.00	\$2,000.00
\$10,000,000.00	and above	\$2,400.00

END OF DOCUMENT

SECTION 01100

SUMMARY

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Contract description.
- B. Contractor's use of site and premises.
- C. Work sequence.
- D. State occupancy.
- E. Specification Conventions.

1.2 CONTRACT DESCRIPTION

- A. Work of the Project includes construction of new roofs and repointing/repair of exterior brick walls and stucco repair of interior walls as shown in the Contract Drawings.
- B. SITE EXAMINATION
 - I. A visit to Project site has been arranged for Bidders at 10:30 AM on 6/10/25.
- C. Perform Work of Contract under stipulated lump sum grand total contract with State in accordance with Conditions of Contract.
- D. The Contractor shall, except as otherwise specifically stated in the Contract Documents, provide and pay for all materials, labor, tools, equipment, water, heat, fuel, light, power, transportation, superintendence, temporary construction of every nature, and all other services and facilities of every nature whatsoever necessary to execute, complete, and deliver the work within the specified time.

1.3 CONTRACTOR'S USE OF SITE AND PREMISES

- A. Limit use of site and premises to allow:
 - I. State occupancy.
- B. Emergency Building Exits During Construction: Shall be maintained and all building entrances and exits shall remain functional.
- C. Construction Operations: Limited to areas noted on Drawings.
- D. Grade, loam and seed lawn areas disturbed by contract work.

- E. Time Restrictions for Performing Work: Normal working hours of [7:00] am to [3:00] pm, Monday through Friday with the following restrictions:
1. No access during the following observed holidays:
 - a. New Year's Day.
 - b. Martin Luther King Jr. Civil Rights Day.
 - c. Washington's Birthday.
 - d. Memorial Day.
 - e. Independence Day.
 - f. Labor Day.
 - g. Veterans' Day.
 - h. Thanksgiving Day.
 - i. Day after Thanksgiving.
 - j. Christmas Day.
 2. Access for work outside of normal working hours shall be requested in writing to the Contract Administrator, at least one week in advance. The Contract Administrator may accept or reject the request.

- F. Utility Outages and Shutdown: [Shall be coordinated with the building users to minimize disruption of services, and may require work to take place outside of normal working hours.]

1.4 WORK SEQUENCE

- A. Work shall commence within 15 days after issuance of Notice to Proceed. Failure to comply shall constitute Default of Contract.
- B. Construct Work in stages to accommodate State's occupancy requirements during construction period, coordinate construction schedule and operations with NHDAS Contract Administrator:

1.5 STATE OCCUPANCY

- A. The State will occupy the premises during the entire period of construction. Stage construction for the conduct of normal operations.
- B. Cooperate with State to minimize conflict, and to facilitate State's operations.
- C. Schedule the Work to accommodate State occupancy.

1.9 SPECIFICATION CONVENTIONS

- D. These specifications are written in imperative mood and streamlined form. This imperative language is directed to the Contractor, unless specifically noted otherwise. The words "shall be" are included by inference where a colon (:) is used within sentences or phrases.

END OF SECTION

SECTION 01200

PRICE AND PAYMENT PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Allowances.
- B. Testing and inspection allowances.
- C. Schedule of values.
- D. Requisition for payment.
- E. Change procedures.
- F. Defect assessment.
- G. Unit prices.
- H. Alternates.

1.2 ALLOWANCES

- A. Allowance: Include in the Contract, a stipulated sum/price of \$50,000.00 for use upon the Bureau's instruction. This Allowance will make money available for modifications and/or additions to contract items due to owner-initiated changes, or for unknown, latent or differing existing conditions, or for the removal of hazardous materials that are encountered by construction.
- B. Contractor's costs for products, delivery, installation, labor, insurance, payroll, taxes, equipment rental, overhead and profit will be included in Change Orders authorizing expenditure of funds from this Allowance. The cost of the bond for the amount of Allowance shall be included as part of the lump sum base bid.
- C. Funds will be drawn from an Allowance only by Change Order. Contractor can proceed with Change Order Work against Allowance with direction from the Contract Administrator. The Contractor shall not proceed with any work that will exceed the amount of Allowance remaining.
- D. Credits can only be added to an Allowance by Alteration Order. The Contractor may not use a credit until an Alteration Order is fully executed.
- E. Notwithstanding the Contractor's objection, the Contract Administrator may at any time reduce the funds remaining in the Allowance by Alteration Order.

- F. At Final Payment of the Contract, funds remaining in the Allowance will be credited to the State.

1.3 TESTING AND INSPECTION ALLOWANCES

- A. Contractor will include cost for Testing and inspection in their bid.

1.4 SCHEDULE OF VALUES

- A. Submit printed schedule on AIA Form G703 - Continuation Sheet for G702. Contractor's standard form or electronic media printout will be considered.
- B. Submit Schedule of Values in duplicate within 15 days after date of issuance of Notice to Proceed. Failure to submit within specified time period will constitute Default of Contract.
- C. Format: Utilize Table of Contents of these Specifications. Identify each line item with number and title of major specification Section. Identify bonds and insurance, allowances, and alternates.
- D. Include a separate line item for the amount of each Allowance and Alternates specified in this section. For unit cost Allowances, identify quantities taken from Contract Documents multiplied by unit cost to achieve total for each item.
- E. Revise schedule to list approved Alteration Orders, with each Requisitions For Payment.

1.5 REQUISITION FOR PAYMENT

- A. Submit three copies of each application on the Bureau's Requisition for Payment Form.
- B. Content and Format: Items on the Requisition for Payment shall be consistent with the items on the Proposal Form. Utilize the Schedule of Values as documentation for payment items.
- C. Submit updated construction schedule with each Requisition for Payment.
- D. Payment Period: Submit at intervals stipulated in Document 00708 General Conditions - NHDAS-DPW, Item 10.
- E. Submit with transmittal letter as specified in Section 01330.
- F. Substantiating Data: When the Contract Administrator requires substantiating information, submit data justifying dollar amounts in question.
- G. Include the following with Requisition for Payment, payment will not be processed if any items are missing or incomplete:
 - 1. Current construction photographs specified in Section 01330.

2. Record documents as specified in Section 01700, for review by the Contract Administrator on site.
3. Affidavits attesting to off-site stored products.
4. Construction progress schedules, revised and current as specified in Section 01330.

1.6 CHANGE PROCEDURES

- A. Submittals: Submit name of individual authorized to receive change documents, and be responsible for informing others in Contractor's employ or Subcontractors of changes to the Work.
- B. The Contract Administrator will advise of minor changes in the Work not involving adjustment to Contract Sum/Price or Contract Time, or that may be necessary to carry out the work included in the Contract, by issuing supplemental instructions.
- C. The Contract Administrator may issue a Proposal Request including a detailed description of proposed change(s) with supplementary or revised Drawings and specifications, a change in Contract Time for executing the change. The Contractor will prepare and submit estimate within ten days.
- D. Contractor may propose changes by submitting a request for change(s) to the Contract Administrator, describing proposed change and its full effect on the Work. Each request shall be a separate item and sequentially numbered. Include a statement describing reason for the change, and effect on Contract Sum/Price and Contract Time with full documentation and a statement describing effect on Work by separate or other Contractors.
- E. Stipulated Sum/Price Change Order: Based on Proposal Request and Contractor's fixed price quotation or Contractor's request for Change Order as approved by the Contract Administrator. Submit the breakdown of the following items on a Bureau Stipulated Sum/Price Change Order Form for review and approval by the Contract Administrator:
 1. The Contractor shall include the following indirect costs for work performed by the General Contractor as part of the Contractors' price:
 - a. Worker's Compensation and Employee Liability.
 - b. Unemployment and Social Security Taxes.
 2. In addition to the above indirect costs the General Contractor shall be allowed the following markups:
 - a. Twenty percent (20%). Said twenty percent (20%) shall be all inclusive for overhead, supervision, and profit for Work performed by the General Contractor
 - b. Materials (Actual Cost + 10%): For all materials entering permanently into the work plus freight charges thereon, and for all labor not entered directly on his payroll, the Contractor will receive the actual cost, as shown by original receipted bills forwarded to the Contract Administrator, to which cost will be added an amount equal to ten percent (10%) of the sum thereof. Bills presented by the Contractor for material taken back from his stock will be subject to the ten percent (10%) allowance if approved by the Contract Administrator.

- c. Equipment (Reasonable Rental Charge + 0%): For any trucks, machinery or special equipment, the Contractor will receive a reasonable rental charge to which sum no percentage will be added. This rental charge shall be agreed upon in writing before the work is begun and shall include an operator and all fuel, lubricants, and the upkeep of the equipment. Equipment does not include small tools and accessories for small tools.
 - d. Ten percent (10%) on that part of work performed by Subcontractors.
 - e. The same percentages above shall apply to Subcontractors.
 3. On any change that involves a net credit to the State, no allowance for overhead, supervision and profit shall be figured.
 4. Extension of Contract Time: State any requests for extension of Contract Time with justification for such a request.
- F. Unit Price Change Order: For contract unit prices and quantities, the Change Order will be executed on fixed unit price basis. For unit costs or quantities of units of work which are not pre-determined, execute Work under Construction Change Directive. Changes in Contract Sum/Price or Contract Time will be computed as specified for Time and Material Change Order.
- G. Construction Change Directive : The Contract Administrator may issue directive, signed by the Bureau Director or Deputy Director, instructing the Contractor to proceed with change in the Work, for subsequent inclusion in a Time and Material Change Order. Document will describe changes in the Work, and designate method of determining any change in Contract Sum/Price or Contract Time. Promptly execute change. Failure to comply will result in Default of Contract.
- H. Time and Material Change Order: Submit itemized account and supporting data within 10 days of completion of change. The Contract Administrator will determine change allowable in Contract Sum/Price and Contract Time as provided in Contract Documents.
 1. Maintain detailed records of work done on Time and Material basis. Provide full information required for evaluation of proposed changes, and to substantiate costs for changes in the Work.
 2. Document each quotation for change in cost or time with sufficient data to allow evaluation of quotation. If acceptable, a Change Order for a Not to Exceed Amount will be prepared.
 3. The Contractor as payment in full, including superintendence and overhead, shall accept the compensation herein provided and profit, for extra work performed. For all such work, the Contractor shall furnish certified copies of the payrolls on forms provided for that purpose, invoices of all materials, and such other information as may be required by the Contract Administrator. Submit the breakdown of items on a Bureau Time and Material Change Order Form for review and approval by the Contract Administrator:
 - a. Labor (Actual wage + 40%): The Construction Superintendent is responsible for logging the time for each individual. For all laborers and foremen engaged on the specific operation and entered directly on the Contractor's payroll, the Contractor will receive the actual rate of wage for each and every hour said laborers and Foremen are actually engaged in such work to which will be added an amount equal to forty percent

- (40%) of the sum thereof, which percentage shall include the cost percentages of the following items as applied to the labor cost involved:
- 1) Contract Bond Premium.
 - 2) Public Liability Insurance.
 - 3) Worker's Compensation Insurance.
 - 4) Federal Social Security.
 - 5) Unemployment Compensation Taxes
- b. Materials (Actual Cost + 10%): For all materials entering permanently into the work plus freight charges thereon, and for all labor not entered directly on his payroll, the Contractor will receive the actual cost, as shown by original receipted bills forwarded to the Contract Administrator, to which cost will be added an amount equal to ten percent (10%) of the sum thereof. Bills presented by the Contractor for material taken back from his stock will be subject to the ten percent (10%) allowance if approved by the Contract Administrator.
- c. Equipment (Reasonable Rental Charge + 0%): For any trucks, machinery or special equipment, the Contractor will receive a reasonable rental charge to which sum no percentage will be added. This rental charge shall be agreed upon in writing before the work is begun and shall include an operator and all fuel, lubricants, and the upkeep of the equipment. Equipment does not include small tools and accessories for small tools.
4. In addition to the above costs the General Contractor shall be allowed the following markups:
- a. Twenty percent (20%). Said twenty percent (20%) shall be all inclusive for overhead, supervision, and profit for Work performed by the General Contractor
 - b. Ten percent (10%) on that part of work performed by Subcontractors.
 - c. The same percentages above shall apply to Subcontractors.
5. Extension of Contract Time: State any requests for extension of Contract Time with justification for such a request.
- I. Any Changes that result in a credit to any portion of the contract and/or a change in the Contract Time must be processed as an Alteration Order except as provided for in Item 1.2E.
- J. Execution of Alteration Orders: Bureau of Public Works will issue Alteration Orders per the following procedures.
1. The Contract Administrator reviews cost for Change in Work with the Using Agency and Consultant(s). If needed the Contract Administrator will request additional items, back-up information, and request any possible changes or clarifications.
 2. Bureau Accountant will prepare an Alteration Order on a Bureau form.
 3. Bureau Director or Deputy Director will issue the Alteration Order to the Contractor for review and signature.
 4. Contractor submits signed Alteration Order to the Bureau Director.
 5. The Bureau completes the Alteration Order with the signature of the Bureau Director or Deputy Director.

6. A fully signed and executed Alteration Order is issued to Contract Administrator, Clerk of the Works, Contractor, and Using Agency.
- K. Execution of Change Orders: The Contractor is responsible for preparing and updating a spreadsheet log itemizing all Proposed Changes. A separate spreadsheet shall be completed for each Allowance Item. The spreadsheet shall include columns for Proposed Change Number, Description, Amount of Change, Status, and Approved Amounts. In addition a current balance remaining shall be included. Change Orders will be processed per the following procedures:
1. The Contract Administrator reviews cost for Change in Work with the Using Agency and Consultant(s). If needed the Contract Administrator will request additional items, back-up information, and request any possible changes or clarifications.
 2. Contract Administrator and Using Agency Representative signs Change Order.
 3. Contractor can proceed with Change Order Work with direction from the Contract Administrator.
 4. Contractor shall not proceed with any work that will exceed the amount of Allowance remaining.
 5. Fully signed and executed Change Order is issued to the Contract Administrator, Clerk of the Works, Contractor, and the Using Agency.
- L. Correlation Of Contractor Submittals:
1. Promptly revise Schedule of Values and Application for Payment forms to record each authorized Alteration Order as separate line item and adjust Contract Sum/Price.
 2. Promptly revise progress schedules to reflect change in Contract Time, revise sub-schedules to adjust times for other items of work affected by the change, and resubmit.
 3. Promptly enter changes in Project Record Documents.
- 1.7 DEFECT ASSESSMENT
- A. Replace the Work, or portions of the Work, not conforming to specified requirements.
 - B. If, in the opinion of the Contract Administrator, it is not practical to remove and replace the Work, the Contract Administrator will direct appropriate remedy or adjust payment.
 - C. The defective Work may remain, but unit sum/price will be adjusted to new sum/price at discretion of the Contract Administrator.
 - D. Defective Work will be repaired to instructions of and acceptance by the Contract Administrator, and unit sum/price will be adjusted to new sum/price at discretion of the Contract Administrator.
 - E. Authority of the Contract Administrator to assess defects and identify payment adjustments, is final.
 - F. Non-Payment For Rejected Products: Payment will not be made for rejected products for any of the following:
 1. Products wasted or disposed of in a manner that is not acceptable.

2. Products determined as unacceptable before or after placement.
3. Products not completely unloaded from transporting vehicle.
4. Products placed beyond lines and levels of required Work.
5. Products remaining on hand after completion of the Work.
6. Loading, hauling, and disposing of rejected products.

1.8 UNIT PRICES

- A. Take measurements and compute quantities. The Contract Administrator will verify measurements and quantities.
- B. Unit Quantities: Quantities and measurements indicated in Proposal Form are for contract purposes only. Quantities and measurements supplied or placed in the Work shall determine payment. Actual quantities provided shall determine payment.
 1. When actual Work requires more or fewer quantities than those quantities indicated, provide required quantities at unit sum/prices contracted.
 2. The Contractor shall not provide additional quantities than those included in the Contract Amount unless a Change Order has been approved.
- C. Payment Includes: Full compensation for required labor, products, tools, equipment, plant and facilities, transportation, services and incidentals; erection, application or installation of item of the Work; overhead and profit.
- D. Final payment for Work governed by unit prices will be made on basis of actual measurements and quantities accepted by the Contract Administrator multiplied by unit sum/price for Work incorporated in or made necessary by the Work.
- E. Measurement Of Quantities:
 1. Measurement by Area: Measured by square dimension using mean length and width or radius.
 2. Stipulated Sum/Price Measurement: Items measured by weight, volume, area, or linear means or combination, as appropriate, as completed item or unit of the
- F. Unit Price Schedule: SEE PLASTER AND REPAIR NOTES, SHEET A-1.0
 1. Item: Unit Price, Repoint brick 350 Square Feet
Description: Repoint brick in accordance with drawings and specifications.
 2. Item: Unit Price 2, Rebuild 30 SF brick wall
Description: Rebuild portion of masonry wall in accordance with drawings and specifications.
 3. Item: Unit Price 3, Remove and replace 300 SF damaged plaster
Description: Repair plaster in accordance with drawings and specifications.

END OF SECTION

SECTION 01300

ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Coordination and project conditions.
- B. Permits and fees.
- C. State Labor Requirements
- D. Preconstruction meeting.
- E. Site mobilization meeting.
- F. Progress meetings.
- G. Pre-installation meetings.
- H. Cutting and patching.
- I. Special procedures.

1.2 COORDINATION AND PROJECT CONDITIONS

- A. Coordinate scheduling, submittals, and Work of various sections of the Specifications to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- B. Comply with the "Underground Utility Damage Prevention System" per NH RSA 374 Sections 48 through 56 by notification to DIG-SAFE SYSTEM, Inc., of intent to excavate within 100 feet of an underground utility. Contact DIG-SAFE at 1-888-334-7233 (1-888-DIG-SAFE) or on-line at <http://www.digsafe.com> at least seventy-two (72) hours in advance of starting any excavation. Saturday, Sundays, and legal holidays are not included in the computation of the required seventy-two (72) hour notice.
- C. Maintain proper environmental conditions for installation of all building components and materials. This shall include but not be limited to manufacturers recommended temperature and humidity requirements. Maintain a weather tight building envelope and protect new work from any kind of spillage.
- D. Prior to the start of any Work, provide an independent company to locate utilities potentially affected by the Work and as shown and/or identified in the Contract Documents. All utilities shall be identified by the Contractor on the Record Drawings.

- E. Verify utility requirements and characteristics of operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, operating equipment.
- F. Coordinate space requirements, supports, and installation of mechanical and electrical Work indicated diagrammatically on Drawings. Follow routing shown 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.
- G. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within construction. Coordinate locations of fixtures and outlets with finish elements.
- H. Coordinate completion and clean-up of Work of separate sections in preparation for Substantial Completion and for portions of Work designated for State's occupancy.
- I. After State occupancy of premises, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of State's activities.

1.3 PERMITS AND FEES

- A. Obtain and pay for all construction licenses, permits, and fees as may be required by law for construction of State's facility, and pay for all fees and charges, and use of the property other than the site of the work for storage of materials or other purposes.
 - 1. **Per "Saf-C 8100 State Building Permit System" a Building Permit shall be obtained by the Contractor from the Office of the State Fire Marshal.**
 - 2. **A Construction Permit Application Form (DSFM#106), a Letter of Permission signed by the DAS Commissioner and complete set of Construction Documents have been submitted to the State Fire Marshal Office for review by DPW. A copy of the Construction Permit Application form and Permission Letter are attached at the end of this section for your use in picking up each required permit.**
 - 3. **Permit applications for the Trades (Mechanical, Mechanical gas, Electrical, Fire Protection, Plumbing and SWPPP) are 'sub-permits' to the Building Construction Permit and each requires a separate application and payment.**
 - 4. **Application for Trade Permits may be submitted in person at the SFMO 110 Smokey Bear Blvd. Concord, NH (603) 223-4289; or electronically at DOS.FMO.INSPEC@DOS.NH.GOV.**
 - 5. **When applying for a permit you will need the following:**
 - a. Submit a copy of the **General Building Permit** (GBP will be given to the Contractor by DPW at the pre-construction meeting). NOTE: until the Contractor pays for the General Building Permit, the permit is NOT active. DO NOT PERFORM WORK UNTIL THE PERMITS ARE PAID FOR.
 - b. Submit the **Construction Permit Application Form** attached to the end of this section which has Owner, Property and DPW PM information already completed.

- 1) Contractor shall write in the Contractor Information, Licensing Information and Calculate the Permit Fees.
 - 2) Contractor shall write in the design professional information available on the drawing set (the seal of the architect/engineer of record contains their registration number, or call the design professional).
 - 3) Contractor shall write the SFMO Project Number in the area next to the word "APPLICATION". The SFMO Project Number may be obtained from the Building Permit available from the State Contract Administrator at the Pre-Construction meeting.
- c. Submit the **Permission to Sign Letter** from the DAS Commissioner must be copied and attached to EVERY APPLICATION by the applicant.
 - d. Submit **payment** for the permit fee.
6. **Please direct all questions related to permitting process and fees to Ryan Brautovich at the Office of the State Fire Marshal – (603) 223-4289.**
 7. **Fees for all re-inspections shall be paid by the Contractor as stated on the application form.**
 8. **Immediately upon receipt of Permits from the Office of the Fire Marshal, Contractor shall transmit copies to the Contract Administrator.**
 9. **NOTE: along with Permits the State Fire Marshal's Office will issue:**
 - a. A list of required inspections and inspection contact information to the contractor in the form of an "inspection card." This card shall be maintained on site in a location available to the SFMO Inspectors and the Contract Administrator.
 - b. Permits may be applied for, and Inspections may be requested at DOS.FMO.INSPEC@DOS.NH.GOV and by telephone at (603) 223-4289.
 10. **Contractor shall post all paid Permits at the Contractor's Field Office or project site in a conspicuous location prior to beginning the work.**
 11. **Fees for interface with municipal (Town or City) and/or Private Infrastructure (Liberty, Eversource, Etc.) must be applied for and paid for separately from this permit process. The General Contractor is responsible to apply for, obtain and pay for required permits from each municipality and/or Private company as required. Unless noted otherwise in the Construction Documents.**
- B. Pay all applicable Federal, State, and Local sales and other taxes, except taxes and assessments on the real property comprising the site of the Project.
- C. **The Contractor's attention is called to RSA 72-B, Excavation Tax and related administrative rules of the Department of Revenue Administration, which among other provisions, levies a tax on earth and excavations as defined in RSA 155-E. The Contractor is required, on a yearly basis, to file a Notice of Intent to Excavate in each municipality where excavation operations are anticipated. Additionally, the Contractor shall post the Excavation Tax Certificate, received from the Dept of Revenue Administration, at the contractor's project bulletin board.**

- D. **Contractor must file with the Federal Aviation Administration in accordance with CFR Title 14 Part 77.9 at least 45 days prior to construction.**

1.4 STATE LABOR REQUIREMENTS

- A. Work Certificate for Contractors Before Beginning Their Work on Public Projects
1. Pursuant to RSA 21-I:80 and RSA 228:4-b, prior to any work being done by an individual contractor, such contractor, including ALL subcontractors and independent contractors, shall provide a Work Certificate for Contractors Before Beginning their Work on Public Projects (Work Certificate) to the Contract Administrator. Sample form can be obtained at <http://das.nh.gov/publicworks/pwdocuments.asp>
 2. The Work Certificate of this Contractor is required to be provided for APPROVAL of the Contract. This Work Certificate shall be provided to the Contractor during the Contract approval process by the NH DOT Bureau of Finance & Contracts. All required information shall be completed with attached documentation and shall be returned to the NH Department of Transportation, Bureau of Finance and Contracts.
 3. Subcontractors, including main and lower tier, will not be allowed to perform any work until their Work Certificates have been submitted to the Contract Administrator via this Contractor.
 4. This Contractor shall maintain a log of all submitted subcontractor Work Certificates on-site. The log shall identify all main and lower-tier subcontractors and the status of the Work Certificate submission. This log shall be reviewed at each Progress Meeting to coordinate scheduled work with required Work Certificate submissions. An up-dated log shall be submitted with each Payment Application.
 5. This Contractor shall keep a copy of all Work Certificates on the jobsite, either in electronic or hardcopy form.
- B. The Contractor shall obey all applicable State and Federal Labor laws.
- C. Pursuant to RSA 21-I:81-a, the Contractor shall provide to the Contract Administrator a list of the names and addresses of the CEO, CFO, other LLC principals, and each subcontractor to be used in the performance of the contract. This list shall be provided at the Preconstruction meeting. The name and address of each subcontractor shall be provided on the Subcontractor/Employee Master List (below).
- D. The Contractor shall maintain a Subcontractor/Employee Master List (Master List) of all personnel performing work on the job site, including the Contractor's employees, all subcontractors and subcontractor employees, and all independent contractors. Pursuant to RSA 21-I:81-b, the Master List shall identify which entity has hired each subcontractor and independent contractor and which entity is providing Workers Compensation coverage for the on-site personnel. The Master List shall also confirm that each employee has an OSHA-10 certification as required per RSA 277:5-a. Subcontractors and independent contractors will not be allowed to perform any work until they have been correctly identified on the Master List. A sample Master List document, created in

Microsoft Word, can be obtained at <http://das.nh.gov/publicworks/pwdocuments.asp>. The initial Master List submission shall be at the Preconstruction meeting.

- E. The Master List shall be posted on the jobsite and updated as needed to reflect any new subcontractors and independent contractors. The Master List shall be reviewed at each Progress Meeting. On a monthly basis, the Contractor shall provide to the Contract Administrator a .pdf or Microsoft Word file of the Master List, showing all current subcontracts.
- F. The Contractor shall maintain a daily log-in sheet of all personnel performing work on the jobsite. Personnel shall list their name, name of employer or identify themselves as independent contractors. No contractor, subcontractor or independent contractor performing work on the job site shall be allowed on site without first signing the daily log-in sheet.
- G. The Contractor shall verify that personnel listed on the daily log-in sheet are also listed on the Master List. If personnel are not listed on the Master List, they will not be allowed on site until their employer has certified, in writing, that the employee is covered under Workers Compensation coverage for the appropriate work classification noted on the Work Certificate.
- H. The Contractor shall post six (6) mandatory labor posters in a conspicuous, weather-tight place at the jobsite: Protective Legislation Law; Criteria to Establish an Employee or Independent Contractor; NH Minimum Wage Law; and Whistleblowers Protection Act; Workers Right to Know; Equal Pay Law. These posters can be found at the NH Dept. of Labor website <https://www.nh.gov/labor/forms/mandatory-posters.htm>
- I. The Contractor shall maintain, on the jobsite, copies of OSHA-10 certificates for all personnel listed on the Master List and required per RSA 277:5-a to have OSHA-10 certificates.

1.5 PRECONSTRUCTION MEETING

- A. The Contract Administrator will schedule meeting at the Project site prior to Contractor occupancy.
- B. Attendance Required (unless otherwise waived): Contract Administrator, Clerk of the Works, Using Agency Representative(s), Contractor, Contractor's Superintendent, and major Subcontractors.
- C. Potential Agenda Topics:
 - 1. Distribution of Contract Documents. The Contractor will be furnished a maximum of ten (10) sets of Specifications and Drawings, free of charge. Any additional sets required shall be paid for at the cost of reproduction as determined by Department.
 - 2. The Contractor shall submit Work Certificate(s) (as defined in this Section) for the Contractor and all known subcontractors.
 - 3. Submission of Work Certificate Log.

4. Submission of names and addresses of the Contractor's CEO, CFO, other LLC principals, and each subcontractor. The name and address of each subcontractor shall be reported on the Master List.
 5. Submission of Master List of subcontractors and all personnel expected to be on site.
 6. Review daily log-in sheet requirement and format. Contractor shall verify that personnel listed on log-in sheet are also on Master List.
 7. Review file of OSHA-10 certificates for all on-site personnel required to be certified per RSA 277:5-a.
 8. Verify that all mandatory labor posters are posted in a conspicuous, weather-tight place.
 9. Submission of list of products, schedule of values, and progress schedule.
 10. Submittal and posting of Excavation Tax Certificate, as required per RSA 72-B if over 1000CY of material are anticipated to be removed from the site.
 11. Designation of personnel representing parties in Contract.
 12. Use of premises by State and Contractor.
 13. State's requirements [and [partial] occupancy].
 14. Construction facilities and controls provided by State.
 15. Temporary utilities provided by State.
 16. Security and housekeeping procedures.
 17. Schedules.
 18. Traffic Control Plan.
 19. Application for payment procedures.
 20. Procedures for testing.
 21. Procedures for maintaining record documents.
 22. Requirements for start-up of equipment.
- D. Contract Administrator shall record minutes and distribute copies within two days after meeting to participants, with one copy to each person in attendance and one to those affected by decisions made.

1.6 PROGRESS MEETINGS

- A. Schedule and administer meetings throughout progress of the Work at maximum [bi-weekly intervals].
- B. Attendance Required (unless otherwise waived): Contract Administrator, Clerk of the Works, Using Agency Representative(s), Contractor, Contractor's Superintendent, and major Subcontractors.
- C. Potential Agenda Topics:
 1. Review minutes of previous meetings.
 2. Review of Work progress.
 3. Field observations, problems, and decisions.
 4. Identification of problems impeding planned progress.
 5. Review of submittals schedule and status of submittals.
 6. Review Work Certificate Log.
 7. Review Master List of subcontractors and on-site personnel.

8. Review daily log-in sheets. Contractor shall verify that all personnel on log-in sheets are on Master List and all OSHA-10 certificates required per RSA 277:5-a are on file.
 9. Review of off-site fabrication and delivery schedules.
 10. Maintenance of progress schedule.
 11. Corrective measures to regain projected schedules.
 12. Planned progress during succeeding work period.
 13. Traffic Control Plan.
 14. Coordination of projected progress.
 15. Maintenance of quality and work standards.
 16. Effect of proposed changes on progress schedule and coordination.
 17. Other business relating to Work.
- D. Contractor shall record minutes and distribute copies within two days after meeting to participants, with one copy to each person in attendance and one to those affected by decisions made.
- 1.7 PRE-INSTALLATION MEETING(S)
- A. When required in individual specification sections, convene pre-installation meetings at Project site prior to commencing work of specific section.
 - B. Require attendance of parties directly affecting, or affected by, Work of specific section.
 - C. Notify the Contract Administrator seven days in advance of meeting date.
 - D. Contractor shall prepare agenda and preside at meeting:
 1. Review conditions of installation, preparation and installation procedures.
 2. Review coordination with related work.
 - E. Contractor shall record minutes and distribute copies within two days after meeting to participants, with one copy to each person in attendance and one to those affected by decisions made.

PART 2 EXECUTION

2.1 CUTTING AND PATCHING

- A. Employ skilled and experienced installer to perform cutting and patching.
- B. Submit written request in advance of cutting or altering elements affecting:
 1. Structural integrity of element.
 2. Integrity of weather-exposed or moisture-resistant elements.
 3. Efficiency, maintenance, or safety of element.
 4. Visual qualities of sight exposed elements.
 5. Work of State or separate contractor.
- C. Execute cutting, fitting, and patching to complete Work, and to:
 1. Fit the several parts together, to integrate with other Work.

2. Uncover Work to install or correct ill-timed Work.
 3. Remove and replace defective and non-conforming Work.
 4. Remove samples of installed Work for testing.
 5. Provide openings in elements of Work for penetrations of mechanical and electrical Work.
- D. Execute work by methods to avoid damage to other Work, and to provide proper surfaces to receive patching and finishing.
- E. Cut masonry and concrete materials using masonry saw or core drill.
- F. Restore Work with new products in accordance with requirements of Contract Documents.
- G. Fit Work tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- H. Maintain integrity of wall, ceiling, roof, or floor construction; completely seal voids.
- I. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated to full thickness of penetrated element.
- J. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection; for assembly, refinish entire unit.
- K. Identify hazardous substances or conditions exposed during the Work to the Contract Administrator for decision or remedy.

2.2 SPECIAL PROCEDURES

- A. Materials: As specified in product sections; match existing with new products [and salvaged products] for patching and extending work.
- B. Employ skilled and experienced installer to perform alteration work.
- C. Cut, move, or remove items as necessary for access to alterations and renovation Work. Replace and restore at completion.
- D. Remove unsuitable material not marked for salvage, including rotted wood, corroded metals, and deteriorated masonry and concrete. Replace materials as specified for finished Work.
- E. Remove debris and abandoned items from area and from concealed spaces.
- F. Prepare surface and remove surface finishes to permit installation of new work and finishes.
- G. Close openings in exterior surfaces to protect [existing] work from weather and extremes of temperature and humidity. Provide temporary heating, cooling and dehumidification systems for specific product requirements identified within specification sections.

- H. Remove, cut, and patch Work in manner to minimize damage and to permit restoring products and finishes to [original] [or] [specified] condition.
- I. Refinish existing visible surfaces to remain in renovated rooms and spaces, to [specified] [renewed] condition for each material, with neat transition to adjacent finishes.
- J. Where new Work abuts or aligns with existing, provide smooth and even transition. Patch Work to match existing adjacent Work in texture and appearance.
- K. When finished surfaces are cut so that smooth transition with new Work is not possible, terminate existing surface along straight line at natural line of division and submit recommendation to Contract Administrator for review.
- L. Where change of plane of 1/4 inch or more occurs, submit recommendation for providing smooth transition to Contract Administrator for review.
- M. Trim existing doors to clear new floor finish. Refinish trim to original condition.
- N. Replace portions of existing and new surfaces, which are damaged, lifted, discolored, or showing other imperfections, which do not conform to product specifications.
- O. Patch or replace portions of existing surfaces which are damaged, lifted, discolored, or showing other imperfections.
- P. Finish surfaces as specified in individual product sections.

END OF SECTION

Office Use Only
(DSFM 106 rev 7/2021)

Date Rcv: _____

Rcv By: _____

Amount: _____

CK #: _____

Rev: _____

Permit #: _____

STATE OF NEW HAMPSHIRE DEPARTMENT OF SAFETY

John J. Barthelmes

Division of Fire Safety

Office of the State Fire Marshal

Sean Toomey, State Fire Marshal

Mailing Address: 33 Hazen Drive Concord NH 03305

603-223-4289, Fax 603-223-4294

TDD Access: Relay NH 1-800-735-2964 Arson Hotline 1-800-400-3526



STATE BUILDING PERMIT APPLICATION

Submit a separate application per permit

APPLICATION

Applicant Information (Property Owner)

Property Information

Name: _____

Building Name: _____

Title: _____

Map/Lot#: _____

Address: _____

Address: _____

City: _____ State: _____ Zip: _____

City: _____ State: _____ Zip: _____

Email: _____

Telephone #: _____

APPLICATION INFORMATION

Permit Type (Check One):

- Building Construction
- Fire Protection
- Electrical
- Mechanical (Fuel Gas/Equipment)
- Mechanical (Non-Fuel gas portion of work)
- Plumbing

Construction Type:

- New Construction
- Addition
- Renovation

IBC Use Group: _____

Building Area: _____ SF

CONTRACTOR INFORMATION

General Contractor Name: _____ Email: _____

Company Name: _____ Telephone #: _____

Address: _____

City: _____ State: _____ Zip: _____

LICENSING INFORMATION

Please provide a copy of applicable license for electrical, plumbing or mechanical applications

- Electrical
- Fire Protection
- Mechanical (Fuel Gas)
- Plumbing

NH License #: _____ Exp. Date: _____ Email: _____

Name: _____ Telephone #: _____

Company: _____

Address: _____

City: _____ State: _____ Zip: _____

RESPONSIBLE DESIGN PROFESSIONAL (IF APPLICABLE)

Name: _____ NH License # & Exp. Date: _____

Company: _____

Address: _____

City: _____ State: _____ Zip: _____

Brief Description:

Owner's Signature _____ Date: _____

I hereby certify, subject to the penalties of unsworn falsification pursuant to RSA 641:3, that all statements made on this application are true to the best of my knowledge and that I am responsible to ensure that all construction work will be completed in accordance with all Federal, State and local laws and ordinances, including local Zoning Ordinances as applicable and the State of NH Building Code, and that I further authorize employees and or agents of the NH Fire Marshal's Office to enter this property for purposes of inspections.

PERMIT FEES PURSUANT TO NH CODE OF ADMINISTRATIVE RULES Saf-C 8105

***Please make checks payable to "Treasurer, State of New Hampshire"**

Calculations: (Electrical/Mechanical/Plumbing)

Total cost of construction for permit calculation :\$ _____ (electrical/mechanical/plumbing only)

JOB COST	AMOUNT	MULTIPLY	INSP. FEE (MIN \$75.00)
1 st 100,000 0.01-100,000		1.2%	0.00
Cost 100,000.01-300,000	+	0.5%	+ 0.00
Costs 300,000.01 +	+	0.3%	+ 0.00
Total:	= 0.00	Total Fee:	= 0.00

Re-Inspection Fee (Electrical/Mechanical /Plumbing)

10% Re-inspection Fee: 10% of the fee calculated, provided that the fee shall not be less than \$100.00 nor more than \$500.00.

New Commercial Permit Fee (Building)

FEE TYPE	SQUARE FOOTAGE	FEE AMOUNT	TOTAL INSP. FEE
BUILDING PERMIT		0.30	0.00
OTHER STRUCTURES min. \$35.00		1.00	0.00

New Commercial Renovation Permit Fee (Building)

FEE TYPE	SQUARE FOOTAGE	FEE AMOUNT	TOTAL INSP. FEE
BUILDING PERMIT		0.15	0.00
OTHER STRUCTURES min. \$35.00		\$1.00	0.00

New Commercial Permit & Renovation Permit Fee (Fire Protection)

FEE TYPE	# OF DEVICES	FEE AMOUNT EACH	TOTAL INSP. FEE MIN \$35.00
FIRE PROTECTION		1.00	0.00

Re-Inspection fee for Building, Fire Protection and Other; Permit fee is \$100.00 per inspection



State of New Hampshire

DEPARTMENT OF ADMINISTRATIVE SERVICES

25 Capitol Street

Concord, New Hampshire 03301

(603) 271-3201 | Office@das.nh.gov

Charles M. Arlinghaus
Commissioner

Catherine A. Keane
Deputy Commissioner

Sheri L. Rockburn
Assistant Commissioner

August 15, 2025

Sean P. Toomey, Fire Marshal
NH State Fire Marshal Headquarters
Incident Planning and Operations Center (IPOC)
110 Smokey Bear Blvd.
Concord, NH 03301

RE: Permission for contractors to sign permits for projects under contract with the Department of Administrative Services, Division of Public Works Design and Construction.

Dear Fire Marshal Toomey:

I hereby give my permission for contractors who have an active contract with the State of New Hampshire Department of Administrative Services, Division of Public Works Design and Construction, to sign construction permit applications as an agent of the "owner".

Sincerely,

A handwritten signature in black ink, appearing to read "Charles".

Charles M. Arlinghaus
Commissioner

cma/dph

SECTION 01330

SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Submittal procedures.
- B. Construction progress schedules.
- C. Subcontractor list.
- D. Proposed products list.
- E. Product data.
- F. Shop drawings.
- G. Samples.
- H. Design data.
- I. Test reports.
- J. Certificates.
- K. Manufacturer's instructions.
- L. Manufacturer's field reports.
- M. Construction photographs.

1.2 SUBMITTAL PROCEDURES

- A. Contractor to also provide one hard-copy of all approved submittals to the Clerk of the Works to be kept on site. All other submittals will be transmitted electronically.
- B. At completion of the project the Contactor shall provide two (2) digital copies on compact discs or USB drives and one (1) hard copy in the form of a three-ring binder with all information from contract document.
- C. Transmit each submittal with Division accepted form.
- D. Sequentially number transmittal forms. Mark revised submittals with original number and sequential alphabetic suffix.

- E. Identify Project, Contractor, subcontractor and supplier; pertinent drawing and detail number, and specification section number, appropriate to submittal.
- F. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with requirements of the Work and Contract Documents. Incomplete items or items submitted without the Contractor's signed stamp of approval thereon will be returned rejected.
- G. Schedule submittals to expedite Project Coordinate submission of related items. Deliver to:
 - cc: below when submittals are sent directly to Architect and or Engineer.
 - 'Contract Administrator'
 - John O. Morton Building, Rm. 250
 - 7 Hazen Drive, POB 483
 - Concord, NH 03302-0483
- H. For each submittal for review, allow 14 days excluding delivery time to and from Architect, Engineer and the Division and Contractor.
 - 1. All shop drawings to be returned to Contractor electronically from the Contract Administrator. Direct return of shop drawings from Architect or Engineer to Contractor is not permitted unless the Contract Administrator is copied.
- I. Identify variations from Contract Documents and product or system limitations that may be detrimental to successful performance of completed Work.
- J. Allow space on submittals for Contractor and Architect or Engineer review stamps.
- K. When revised for resubmission, identify changes made since previous submission.
- L. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report inability to comply with requirements.
- M. Submittals not requested will not be recognized or processed.
- N. Work shall not begin until submittal items have been approved and returned to General Contractor by the A/E or Contract Administrator.

1.3 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit initial schedules at PreConstruction Meeting.
- B. Submit revised Progress Schedules with Application for Payment.
- C. Distribute copies of reviewed schedules to Project site file, subcontractors, suppliers, and other concerned parties.
- D. Instruct recipients to promptly report, in writing, problems anticipated by projections indicated in schedules.

- E. Submit horizontal bar chart with separate line for each major portion of Work or operation section of Work, identifying first work day of each week.

1.4 SUBCONTRACTOR LIST

- A. Submit list, at the PreConstruction Meeting, of subcontractors setting forth in detail the work for which they will be responsible. In addition, the General Contractor shall identify what work will be performed with the Bidder's own forces.

1.5 PROPOSED PRODUCT LIST

- A. Within 15 days after date of Notice to Proceed, submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
- B. For products specified only by reference standards, indicate manufacturer, trade name, model or catalogue designation, and reference standards.

1.6 PRODUCT DATA

- A. Product Data: Submit for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
- B. Submit copies electronically to Contract Administrator, Clerk of the Works, Architect, Engineer, Subconsultant, and Using Agency.
- C. Mark each submittal to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- D. Indicate product utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- E. After review, distribute in accordance with SUBMITTAL PROCEDURES article and for record documents described in Section 01700.

1.7 SHOP DRAWINGS

- A. Shop Drawings: Submit for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
- B. Indicate special utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- C. Submit Shop Drawings electronically to Contract Administrator, Clerk of the Works, Architect, Engineer, Subconsultant, and Using Agency.
- D. After review, produce copies and distribute electronically in accordance with SUBMITTAL PROCEDURES article and for record documents described in Section 01700.

1.8 SAMPLES

- A. Samples: Submit for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
- B. Samples For Selection as Specified in Product Sections:
 - 1. Submit to Contract Administrator for aesthetic, color, or finish selection.
 - 2. Submit samples of finishes [from full range of manufacturers' standard colors,] [in custom colors selected,] textures, and patterns for Contract Administrator and Architect/Engineer selection and State approval.
- C. Submit samples to illustrate functional and aesthetic characteristics of Products, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
- D. Include identification on each sample, with full Project information.
- E. Submit number of samples specified in individual specification sections; Contract Administrator will retain one sample and Architect or Engineer will retain one sample.
- F. Reviewed samples which may be used in the Work are indicated in individual specification sections.
- G. Samples will not be used for testing purposes unless specifically stated in specification section.
- H. After review, produce duplicates and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents purposes described in Section 01700.

1.9 DESIGN DATA

- A. Submit for Contract Administrator's and Architect or Engineer's knowledge.
- B. Submit for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.

1.10 TEST REPORTS

- A. Submit for Contract Administrator's and Architect or Engineer's and State's knowledge.
- B. Submit test reports for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.

1.11 CERTIFICATES

- A. When specified in individual specification sections, submit certification by manufacturer, installation/application subcontractor, or Contractor, to Contract Administrator in quantities specified for Product Data.
- B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.

- C. Certificates may be recent or previous test results on material or Product, but must be acceptable to the Contract Administrator.

1.12 MANUFACTURER'S INSTRUCTIONS

- A. When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, [start-up,] adjusting, and finishing, to the Contract Administrator in quantities specified for Product Data.
- B. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

1.13 MANUFACTURER'S FIELD REPORTS

- A. Submit reports for Contract Administrator's, and Architect and/or Engineer, and State's benefit.
- B. Submit report electronically, 7 days of observation to the Contract Administrator for information.
- C. Submit for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.

1.14 CONSTRUCTION PHOTOGRAPHS

- A. Provide photographs of construction throughout progress of Work produced by an experienced photographer, acceptable to the Contract Administrator.
- B. Each month submit photographs.
- C. Photographs: Submit digital images via e-mail.
- D. Take photographs from differing indicating relative progress of the Work.
- E. Take photographs as evidence of existing project conditions as follows:
 - 1. Interior views:
 - 2. Exterior views:
- F. Identify each image. Identify name of Project, contract number orientation of view, date and time of view.

END OF SECTION

SECTION 01400

QUALITY REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Quality control and control of installation.
- B. Tolerances
- C. References.
- D. Safety
- E. Mock-up requirements.
- F. Supervision
- G. Testing and inspection services.
- H. Manufacturers' field services.
- I. Examination.
- J. Preparation.

1.2 QUALITY CONTROL AND CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality. Prior to acceptance of approved materials on site, establish & maintain controlled environmental conditions required for proper, sequential installations. Products affected by inadequate environmental control (in storage or installed) shall be removed, disposed of and replaced in-kind with no adjustment to the contract price or work schedule.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. When manufacturers' instructions conflict with Contract Documents, request clarification from the Contract Administrator before proceeding.
- D. The Contractor shall notify the Contract Administrator of any discrepancies, ambiguities or obvious omissions found in the Contract Documents before proceeding with the work affected thereby. Such notification shall be made in writing requesting clarification and/or interpretation with reasonable promptness consistent with and reasonably inferable from the Contract Documents. If the Contractor fails to make such request, no excuse will thereafter be entertained for failure to carry out work in a satisfactory manner, and no monies will be paid for correcting of items.

- E. The Contractor shall give the Contract Administrator timely notice of any additional drawings, specifications or instructions required to define the work in greater detail or to permit the proper progress of the work.
- F. 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.
- G. Where, on any of the Drawings, a portion of the work is drawn out and the remainder is indicated in outline, the parts drawn out shall also apply to all other portions of the work.
- H. Perform Work by persons qualified to produce required and specified quality.
- I. Verify field measurements are as indicated on Shop Drawings or as instructed by manufacturer.
- J. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1.3 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. When manufacturers' tolerances conflict with Contract Documents, request clarification from the Contract Administrator before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

1.4 REFERENCES

- A. Conform to reference standard by date prior to the date of receiving bids, except where specific date is established by code. The standard referred to, except as modified in the specifications, shall have full force and effect as though printed in the Specifications.
- B. Obtain copies of standards where required by product specification sections.
- C. When specified reference standards conflict with Contract Documents, request clarification from the Contract Administrator before proceeding.
- D. Neither contractual relationships, duties, nor responsibilities of parties in Contract nor those of Architect or Engineer shall be altered from Contract Documents by mention or inference otherwise in reference documents.
- E. The Contractor shall comply with all applicable Federal, State, Local laws, ordinances, regulations, and requirements to work hereunder, including building code requirements. If the Contractor ascertains at any time that any requirement of this Contract is at variance with applicable laws, ordinances, regulations or building code requirements, he/she shall notify the Contract Administrator in writing.

1.5 SAFETY

- A. The Contractor shall, at all times, safely guard the State's property and persons from injury or loss in connection with this Contract. The Contractor shall, at all times, safely guard and protect their own work and that of adjacent property from damage. All passageways, guard fences, lights, and other facilities required for protection by Federal, State or Municipal laws and regulations must be provided and maintained.
- B. Place upon the work or any part thereof, only such loads as are consistent with the safety of that portion of the work.

1.6 MOCK-UP REQUIREMENTS

- A. Tests will be performed under provisions identified in this section and identified in respective product specification sections.
- B. Assemble and erect specified items with specified attachment and anchorage devices, flashings, seals, and finishes.
- C. Accepted mock-ups shall be comparison standard for remaining Work.
- D. Where mock-up has been accepted by the Contract Administrator and is specified in product specification sections to be removed; remove mock-up and clear area when directed to do so by the Contract Administrator.

1.7 SUPERVISION

- A. All work shall be done under the observation and inspection of the Contract Administrator.
- B. The Contract Administrator may observe, examine and test materials and workmanship at any and all times during manufacture and/or construction, and at any and all places where such manufacture and/or construction is carried on.
- C. The Contract Administrator shall suspend work that may be subject to damage by climatic conditions.
- D. Prior to final acceptance, the Contract Administrator at any time before final acceptance of the entire work to make an examination of work already completed that was not specifically called for to receive an inspection prior to covering over, and shall require removing or tearing out same, the Contractor shall, upon request, promptly furnish all necessary facilities, labor, and materials. If such work is found to be defective in any material respect, due to the fault of the Contractor or his Subcontractors, he shall defray all expenses of such examination and of satisfactory reconstruction. If however, such work is found to meet the requirements of the Contract, the actual cost of labor and material necessarily involved in the examination and replacement, shall be completed per a Time and Material Alteration Order.

1.8 TESTING AND INSPECTION SERVICES

- A. Employ and pay for services of an independent testing agency or laboratory acceptable to the State to perform specified testing.
1. Prior to start of Work, submit testing laboratory name, address, and telephone number, and names of full time registered Engineer or specialist and responsible officer.
 2. Submit copy of report of laboratory facilities inspection made by Materials Reference Laboratory of National Institute of Standards & Technology during most recent inspection, with memorandum of remedies of deficiencies reported by inspection.
- B. The independent firm will perform tests, inspections and other services specified in individual specification sections and as required by the Contract Administrator and Authority having jurisdiction.
1. Laboratory: Authorized to operate at Project location.
 2. Laboratory Staff: Maintain full time registered Engineer or specialist on staff to review services.
 3. Testing Equipment: Calibrated at reasonable intervals with devices of an accuracy traceable to National Institute of Standards and Technology or accepted values of natural physical constants.
- C. Testing, inspections and source quality control may occur on or off project site. Perform off-site testing as required by the Contract Administrator.
- D. Reports will be submitted by independent firm to the Contract Administrator and Contractor electronically, indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents.
- E. Cooperate with independent firm; furnish samples of materials, design mix, equipment, tools, storage, safe access, and assistance by incidental labor as requested.
1. Notify the Contract Administrator and independent firm 24 hours prior to expected time for operations requiring services.
 2. Make arrangements with independent firm and pay for additional samples and tests required for Contractor's use.
- F. Testing and employment of testing agency or laboratory shall not relieve Contractor of obligation to perform Work in accordance with requirements of Contract Documents.
- G. Re-testing or re-inspection required because of non-conformance to specified requirements shall be performed by same independent firm on instructions by the Contract Administrator. Payment for re-testing or re-inspection will be charged to Contractor.
- H. Testing Agency/Laboratory Responsibilities:
1. Test samples of mixes submitted by Contractor.
 2. Provide qualified personnel at site. Cooperate with the Contract Administrator and Contractor in performance of services.
 3. Perform specified sampling and testing of products in accordance with specified standards.

4. Ascertain compliance of materials and mixes with requirements of Contract Documents.
 5. Promptly notify the Contract Administrator and Contractor of observed irregularities or non-conformance of Work or products.
 6. Perform additional tests required in accordance with specification sections.
 7. Attend preconstruction meetings and progress meetings.
- I. Testing Agency/Laboratory Reports: After each test, promptly submit two copies of report to the Contract Administrator and two to the Contractor. When requested by the Contract Administrator or Contractor, provide interpretation of test results. Include the following:
1. Date issued.
 2. Project title and number.
 3. Name of inspector.
 4. Date and time of sampling or inspection.
 5. Identification of product and specifications section.
 6. Location in Project.
 7. Type of inspection or test.
 8. Date of test.
 9. Results of tests.
 10. Conformance with Contract Documents.
- J. Limits On Testing Agency/Laboratory Authority:
1. Testing Agency or laboratory may not release, revoke, alter, or enlarge on requirements of Contract Documents.
 2. Testing Agency or laboratory may not approve or accept any portion of the Work.
 3. Testing Agency or laboratory may not assume duties of Contractor.
 4. Testing Agency or laboratory has no authority to stop the Work.
- 1.9 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, as applicable, and to initiate instructions when necessary.
 - B. Submit qualifications of observer to the Contract Administrator 30days in advance of required observations.
 - C. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
 - D. Refer to Section 01330 - SUBMITTAL PROCEDURES, MANUFACTURERS' FIELD REPORTS article.

PART 2 EXECUTION

2.1 EXAMINATION

- A. Verify existing site conditions, controlled environment, protective measures and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.
- B. Verify 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. Notify the Contract Administrator and the Clerk of the Works of conditions, which prevent start of work.
- D. Verify utility services are available, of correct characteristics, and in correct locations.

2.2 PREPARATION

- A. Maintain specific environmental controls required in individual sections.
- B. Clean substrate surfaces prior to applying next material or substance.
- C. Seal cracks or openings of substrate prior to applying next material or substance.
- D. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying new material or substance in contact or bond.

END OF SECTION

SECTION 01500

TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Temporary Utilities:
 - 1. Temporary electricity.
 - 2. Temporary lighting for construction purposes.
 - 3. Temporary heating.
 - 4. Temporary ventilation.
 - 5. Telephone service.
 - 6. Data service.
 - 7. Temporary water service.
 - 8. Temporary sanitary facilities.

- B. Construction Facilities:
 - 1. Field offices and sheds.
 - 2. Vehicular access.
 - 3. Parking.
 - 4. Progress cleaning and waste removal.
 - 5. Project identification.
 - 6. Traffic regulation.

- C. Temporary Controls:
 - 1. Barriers.
 - 2. Enclosures and fencing.
 - 3. Security.
 - 4. Water control.
 - 5. Dust control.
 - 6. Erosion and sediment control.
 - 7. Noise control.
 - 8. Pest control.
 - 9. Pollution control.
 - 10. Rodent control.

- D. Removal of utilities, facilities, and controls.

- E. All work completed herein must conform to applicable state, federal requirements, and guidelines at the Contractor's expense as is necessary to complete the Work.

1.2 TEMPORARY ELECTRICITY

- A. State will pay cost of energy used. Exercise measures to conserve energy. Utilize State's existing power service.

- B. Provide temporary electric feeder from existing building electrical service at location as directed by State. Do not disrupt State's use of service.
- C. Complement existing power service capacity and characteristics as required for construction operations.
- D. Provide power outlets, with branch wiring and distribution boxes located as required for construction operations. Provide flexible power cords as required for portable construction tools and equipment.
- E. If required, provide main service disconnect and over-current protection at convenient location. feeder switch at source distribution equipment. meter.
- F. Permanent convenience receptacles may be utilized during construction.

1.3 TEMPORARY LIGHTING FOR CONSTRUCTION PURPOSES

- A. Provide and maintain lighting for construction operations to achieve minimum lighting level of 2 watt/sq ft
- B. Provide and maintain 1 watt/sq ft lighting to exterior staging and storage areas [entire site] after dark for security purposes.
- C. Provide and maintain 0.25 watt/sq ft lighting to interior work areas after dark for security purposes.
- D. Provide branch wiring from power source to distribution boxes with lighting conductors, pigtails, and lamps for specified lighting levels.
- E. Maintain lighting and provide routine repairs.
- F. Permanent building lighting may be utilized during construction.

1.4 TEMPORARY HEATING

- A. Existing facilities may be used.
- B. State will pay cost of temporary heat. Exercise measures to conserve energy. Utilize State's existing heat plant, as needed to maintain specified conditions for construction operations.
- C. Provide and pay for temporary heating devices if required to maintain minimum ambient temperature of 50 degrees F in areas where construction is in progress, unless indicated otherwise in product sections.

1.5 TEMPORARY VENTILATION

- A. Ventilate enclosed areas to achieve curing of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.

1.6 TELEPHONE SERVICE

- A. Provide, maintain, and pay for telephone service to field office and Clerk of the Work's field office at time of project mobilization.

1.7 DATA SERVICE

- A. Provide and pay for project internet service in the Contractors Office.

1.8 TEMPORARY WATER SERVICE

- A. State will pay cost of temporary water. Exercise measures to conserve energy. Utilize State's existing water system, extend and supplement with temporary devices as needed to maintain specified conditions for construction operations.
- B. Extend branch piping with outlets located so water is available by hoses with threaded connections. Provide temporary pipe insulation to prevent freezing.

1.9 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Existing facility use is not permitted. Provide facilities at time of project mobilization.

1.10 FIELD OFFICES AND SHEDS

- A. Designated existing spaces in the State's building may be used for field offices:
 - 1. Office Furnishings:
 - a. One desk 54 x 30 inch, with three drawers.
 - b. Plan rack to hold working Drawings, shop drawings, and record documents.
 - c. One standard size metal filing cabinet with locks and two keys for each lock.
 - d. Six linear ft of bookshelves.
 - e. Straight chairs.
 - f. One waste basket for each desk and table.
 - g. One floor broom and dust pan.
- B. Storage Areas And Sheds: Size to storage requirements for products of individual Sections, allowing for access and orderly provision for maintenance and for inspection of products to requirements of Section 01600.
- C. Preparation: Fill and grade sites for temporary structures sloped for drainage away from buildings.
- D. Installation:
 - 1. Install office spaces ready for occupancy prior to start of construction.
 - 2. Parking: hard surfaced parking spaces for use by Clerk of the Works, Contract Administrator, and Architect/Engineer, connected to office.
 - 3. Employee Residential Occupancy: Not allowed on State's property.

- E. Maintenance And Cleaning:
 - 1. Maintain approach walks free of mud, water, and snow.
- F. Removal: At completion of Work remove buildings, foundations, utility services, and debris. Restore areas.

1.11 VEHICULAR ACCESS

- A. Location approved by the Contract Administrator.
- B. Provide unimpeded access for emergency vehicles. Maintain 20 feet wide driveways with turning space between and around combustible materials.
- C. Provide and maintain access to fire hydrants and control valves free of obstructions.
- D. Provide means of removing mud from vehicle wheels before entering streets.
- E. Use designated existing on-site roads for construction traffic.

1.12 PARKING

- A. Arrange for surface parking areas to accommodate construction personnel.
- B. Locate as approved by the Contract Administrator.
- C. When site space is not adequate, provide additional off-site parking.
- D. Use of designated existing on-site streets and driveways used for construction traffic is permitted. Tracked vehicles not allowed on paved areas.
- E. Use of designated areas of existing parking facilities used by construction personnel is permitted.
- F. Do not allow heavy vehicles or construction equipment in parking areas.
- G. Do not allow vehicle parking on existing pavement.
- H. Designate one parking space for the Clerk of the Works.
- I. Permanent Pavements And Parking Facilities:
 - 1. Avoid traffic loading beyond paving design capacity. Tracked vehicles not allowed.
 - 2. Use of permanent parking structures is permitted if approved by the Agency.
- J. Maintenance:
 - 1. Maintain traffic and parking areas in sound condition free of excavated material, construction equipment, products, mud, snow, and ice.

2. Maintain existing and permanent paved areas used for construction; promptly repair breaks, potholes, low areas, standing water, and other deficiencies, to maintain paving and drainage in original, or specified, condition.
- K. Removal, Repair:
1. Repair existing permanent facilities damaged by use, to original condition.
- L. Mud From Site Vehicles: Provide means of removing mud from vehicle wheels before entering streets.
- 1.13 PROGRESS CLEANING AND WASTE REMOVAL
- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in 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 spaces.
 - 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 rubbish from site periodically and dispose off-site.
 - E. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.
- 1.14 PROJECT IDENTIFICATION
- A. Project Identification Sign:
1. One painted sign of construction and design as shown in sample attached to end of specification section One painted sign, 32 sq ft area, bottom 6 feet above ground.
 2. Content: Specific information to be determined after Award of Contract.
 - a. Project number, title, logo]and name of State Entity as indicated on Contract Documents.
 - b. Names Commissioner and Governor.
 - c. Names and titles of Architect/Engineer and Consultants.
 - d. Name of Prime Contractor [and major Subcontractors].
 - e. Contract Amount.
 - f. Legislation that authorized project.
 3. Graphic Design, Colors, Style of Lettering: As shown in attached sample at end of specification section.
 4. Lettering: Typeface – Times New Roman, Univers, Arial or CG Omega.
- B. Project Informational Signs:
1. Painted informational signs of same colors and lettering as Project Identification sign, or standard products; size lettering for legibility at 100 feet distance.
 2. Provide sign at each field office, storage shed, and directional signs to direct traffic into and within site. Relocate as Work progress requires.

3. Provide State agency directional traffic signs to and within site.
 4. No other signs are allowed without State permission except those required by law.
- C. Design sign and structure to withstand 60 miles/hr wind velocity.
- D. Sign Painter: Experienced as professional sign painter for minimum three years.
- E. Finishes, Painting: Adequate to withstand weathering, fading, and chipping for duration of construction.
- F. Show content, layout, lettering, color, foundation, structure, sizes, and grades of members.
- G. Sign Materials:
1. Structure and Framing: New wood or metal, structurally adequate.
 2. Sign Surfaces: Exterior grade plywood with medium density overlay, minimum $\frac{3}{4}$ inches thick, standard large sizes to minimize joints.
 3. Rough Hardware: Galvanized aluminum or brass.
 4. Paint and Primers: Exterior quality, two coats; sign background of color WHITE.
 5. Lettering: Exterior quality paint, contrasting of colors BLACK.
- H. Installation:
1. Install project identification sign prior to start of construction.
 2. Erect at designated location.
 3. Erect supports and framing on secure foundation, rigidly braced and framed to resist wind loadings.
 4. Install sign surface plumb and level, with butt joints. Anchor securely.
 5. Paint exposed surfaces of sign, supports, and framing.
- I. Maintenance: Maintain signs and supports clean, repair deterioration and damage.
- J. Removal: Remove signs, framing, supports, and foundations at completion of Project and restore area.
- 1.15 TRAFFIC REGULATION
1. Post Mounted and Wall Mounted Traffic Control and Informational Signs: As approved by Owner.
 2. Traffic Cones and Drums, Flares and Lights: As approved Owner.
- B. Traffic Signs And Signals:
1. Provide signs at approaches to site and on site, at crossroads, detours, parking areas, and elsewhere as needed to direct construction and affected public traffic.
 2. Relocate as Work progresses, to maintain effective traffic control.
- C. Removal:
1. Remove equipment and devices when no longer required.
 2. Repair damage caused by installation.
 3. Remove post.

1.16 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas to allow for State'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 authorities having jurisdiction for public rights-of-way and for public access to existing building.
- C. Provide protection for plants designated to remain. Replace damaged plants.
- D. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

1.17 ENCLOSURES AND FENCING

- A. Construction: Contractor's option chain link, to provide security, especially while staging is being used.
- B. Provide 6 feet (1.8 m) high fence around construction site; equip with vehicular and pedestrian gates with locks.

1.18 SECURITY

- A. Security Program:
- B. Security Program: Reference Section 000250 "Special Requirements"
 - 1. Protect Work existing premises from theft, vandalism, and unauthorized entry.
 - 2. Initiate program in coordination with State's existing security system at project mobilization.
 - 3. Maintain program throughout construction period until directed by the Contract Administrator.
- C. Entry Control:
 - 1. Restrict entrance of persons and vehicles into Project site and existing facilities.
 - 2. Allow entrance only to authorized persons with proper identification.
 - 3. Maintain log of workers and visitors, make available to State on request.
 - 4. Coordinate access of State's personnel to site in coordination with State's security forces.
- D. Personnel Identification:
 - 1. Each worker on site shall have a photo identification (Drivers License is acceptable).
 - 2. Each worker shall have OSHA 10 card on their person.
 - 3. Maintain list of accredited persons, submit copy to State on request.

1.19 WATER CONTROL

- A. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.

- B. Protect site from puddling or running water. [Provide water barriers as required to protect site from soil erosion.

1.20 DUST CONTROL

- A. Execute Work by methods to minimize raising dust from construction operations.
- B. Provide positive means to prevent air-borne dust from dispersing into atmosphere.

1.21 EROSION AND SEDIMENT CONTROL

- A. Prevent erosion and sedimentation from work and staging activity.
- B. Minimize surface area of bare soil exposed at one time.
- C. Provide temporary measures including berms, dikes, and drains, and other devices to prevent water flow.
- D. Construct fill and waste areas by selective placement to avoid erosive surface silts or clays.
- E. Periodically inspect to detect evidence of erosion and sedimentation; promptly apply corrective measures.

1.22 NOISE CONTROL

- A. Provide methods, means, and facilities to minimize noise produced by construction operations.

1.23 PEST CONTROL

- A. Provide methods, means, and facilities to prevent pests and insects from entering facility.

1.24 POLLUTION CONTROL

- A. 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.
- B. Comply with pollution and environmental control requirements of authorities having jurisdiction.

1.25 RODENT CONTROL

- A. Provide methods, means, and facilities to prevent rodents from accessing or invading premises.

1.26 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, materials, prior to Substantial Completion inspection.
- B. Remove underground installations to minimum depth of 2 feet . Grade site as indicated on Drawings or as needed to restore existing grades
- C. Clean and repair damage caused by installation or use of temporary work.
- D. Restore existing and permanent facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

STATE OF NEW HAMPSHIRE
CAPITAL IMPROVEMENT PROJECT

PROJECT TITLE
PROJECT TITLE

AUTHORIZATION: CHAPTER ###:## (*) (*), Laws of 200* as amended by ###:## (*****), Laws of 200#

CONTRACT : \$ 0.00

HONORABLE ***** , GOVERNOR

ARCHITECT

***** NH

CONTRACTOR

***** , NH

NEW HAMPSHIRE DEPARTMENT OF ADMINISTRATIVE SERVICES
DIVISION OF PUBLIC WORKS DESIGN & CONSTRUCTION

Scale: 1" = 1' - 0" (4' - 0" x 8' - 0" overall sign dimensions)

END OF SECTION

SECTION 01505

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Construction waste management plan.
 - 2. Construction waste recycling.
 - 3. Construction waste adaptive reuse.

1.2 PLAN REQUIREMENTS

- A. Construction Waste Management Plan shall be developed with the following intent:
 - 1. Divert construction, demolition, and land clearing debris from landfill disposal.
 - 2. Redirect recyclable material back to manufacturing process.
- B. Develop and implement a Construction Waste Management plan to be reviewed by the Contract Administrator for compliance with the following
 - 1. Divert 75 % of Project generated waste from landfills.

1.3 SUBMITTALS

- A. Section 01330 - Submittal Procedures: Requirements for submittals.
- B. Construction Plan: Submit construction waste management plan describing methods and procedures for implementation and monitoring compliance including the following:
 - 1. Project specific analysis of the projected jobsite waste to be generated. Include materials and estimated quantities (weight/volume) of projected waste.
 - 2. Construction waste materials anticipated for recycling and adaptive reuse.
 - 3. On site sorting and site storage methods.
 - 4. Name and location of landfill(s) to be used.
 - 5. Certification from the landfill of ability to receive the types of waste to be generated and of sufficient capacity to accept the waste.
 - 6. Transportation company hauling construction waste to waste processing facilities.
 - 7. Recycling and adaptive reuse processing facilities and waste type each facility will accept.
- C. Submit documentation with each application for payment substantiating that the construction waste management plan goals are being achieved. Include the following information:
 - 1. Material category
 - 2. Trash: Quantity by weight deposited in landfills.

3. Salvaged, recovered and recycled material: Quantity by weight with destination for each type of material salvaged or recovered for resale, recycling, or adaptive reuse.

1.4 CLOSEOUT SUBMITTALS

- A. Section 01700 - Execution Requirements: Requirements for submittals.
- B. Waste Management final report: Prior to Completion, submit a written Waste Management Final report summarizing the types and quantities of materials recycled and disposed of under the Waste Management Plan. Include the name and location of disposal facilities. Include the following:
 1. Material category
 2. Total quantity of waste, by weight
 3. Quantity of waste salvaged, both estimated and actual, by weight
 4. Quantity of waste recycled, both estimated and actual, by weight
 5. Total quantity of waste recovered (salvaged plus recycled) as a percentage of total waste. (Compare to minimum requirement of 75% by weight of waste.)

1.5 CONSTRUCTION WASTE MANAGEMENT PLAN

- A. Construction Waste Landfill Diversion: Minimum 75 percent by weight of construction waste materials for duration of Project through resale, recycling, or adaptive reuse.
- B. Implement construction waste management plan at start of construction.
- C. Review construction waste management plan at pre-construction meeting and progress meetings.
- D. Distribute the Construction Waste Management Plan to subcontractors and others affected by Plan Requirements.
- E. Oversee plan implementation, instruct construction personnel for plan compliance, and document plan results.
- F. Manager: The Contractor shall designate on-site personnel responsible for instructing workers and overseeing and documenting results of the Waste Management Plan for the Project.

1.6 CONSTRUCTION WASTE RECYCLING

- A. Use source separation method or co-mingling method suitable to sorting and processing method of selected recycling center.
- B. Source Separation Method: Recyclable materials separated from trash and sorted into separate bins or containers, identified by waste type, prior to transportation to recycling center.

- C. Co-Mingling Method: Recyclable materials separated from trash and placed in unsorted bins or container for sorting at recycling center.
- D. Materials recommended for recycling include:
 - 1. Packing materials including paper, cardboard, foam plastic, and sheeting.
 - 2. Recyclable plastics.
 - 3. Wood with and without embedded nails and staples.
 - 4. Metals.

1.7 CONSTRUCTION WASTE ADAPTIVE RE-USE

- A. Arrange with processing facility for salvage of construction material and processing for reuse. Do not reuse construction materials on site except as identified in the Contract Documents.
- B. Materials recommended for adaptive reuse include:
 - 1. Masonry units.

PART 2 EXECUTION

2.1 CONSTRUCTION WASTE COLLECTION

- A. Collect construction waste materials in containers identified for specific waste materials and arrange for transportation to recycling centers or adaptive salvage and reuse processing facilities.
- B. Maintain recycling and adaptive reuse storage and collection area in orderly arrangement with materials separated to eliminate co-mingling of materials required to be delivered separately to waste processing facility.
- C. Store construction waste materials to prevent environmental pollution, fire hazards, hazards to persons and property, and contamination of stored materials.
- D. Cover construction waste materials subject to disintegration, evaporation, settling, or runoff to prevent polluting air, water, and soil when not in use.
- E. Recycling and waste bin areas are to be kept neat and clean and clearly marked in order to avoid contamination of materials. Location shall be acceptable to the Contract Administrator.

2.2 CONSTRUCTION WASTE DISPOSAL

- A. Deliver construction waste to waste processing facilities. Obtain receipt for deliveries.

Dispose of construction waste, not capable of being recycled or adaptively reused, by delivery to landfill, incinerator, or other legal disposal facility. Obtain receipt for deliveries.

END OF SECTION

SECTION 01600

PRODUCT REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Products.
- B. Product delivery requirements.
- C. Product storage and handling requirements.
- D. Product options.
- E. Product substitution procedures.

1.2 PRODUCTS

- A. Furnish products of qualified manufacturers suitable for intended use. Furnish products of each type by single manufacturer unless specified otherwise.
- B. All materials and equipment shall be new, except as specifically permitted by Contract Documents.
- C. Furnish interchangeable components from same manufacturer for components being replaced.
- D. The use of asbestos containing materials shall be prohibited.

1.3 PRODUCT DELIVERY REQUIREMENTS

- A. Transport and handle products in accordance with manufacturer's instructions.
- B. Promptly inspect shipments to ensure products comply with requirements, quantities are correct, and products are undamaged.
- C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

1.4 PRODUCT STORAGE AND HANDLING REQUIREMENTS

- A. Store and protect products in accordance with manufacturers' instructions.
- B. Store with seals and labels intact and legible.
- C. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.

- D. For exterior storage of fabricated products, place on sloped supports above ground.
- E. Provide bonded off-site storage and protection when site does not permit on-site storage or protection only with prior approval from the Contract Administrator.
- F. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- G. Store loose granular materials on solid flat surfaces in well-drained area. Prevent mixing with foreign matter.
- H. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- I. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

1.5 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers with or without provision for substitutions: Products of one of manufacturers named and meeting specifications, no options or substitutions allowed. Submit request for substitution for any manufacturer not named in accordance with the following article.

1.6 PRODUCT SUBSTITUTION PROCEDURES

- A. Where Bidding Documents stipulate particular Products, substitution requests will ONLY be considered before receipt of Bids. Submit requests per the requirements specified in this section.
 - 1. All requests shall be submitted to the Contract Administrator not later than five (5) working days before the hour and day set for bid opening. Incomplete requests or requests received after this deadline will not be considered.
 - 2. All requests that are approved and are acceptable to the Department will be issued as part of an Addendum to each Bidder who has received a set of bidding documents, so that all Bidders may avail themselves of the change in submitting their Proposals.
- B. Substitutions [may] be considered after bid opening when a product becomes unavailable through no fault of the Contractor. The Contractor shall apply to the Contract Administrator, in writing, within ten (10) days of his realizing his inability to furnish the article specified, describing completely the substitution he desires to make. The Contractor shall include a dated written statement from the manufacturer outlining an explanation for the unavailability of the product. Substitutions for reasons of lead times, i.e., the time between when the Contractor orders necessary materials from the vendor and anticipated delivery, will only be reviewed if the lead time is more than the length of the contract time. The Department may extend the contract time to accommodate the product specified. No additional costs from the Contractor will be considered due to the

fact that the Contractor shall verify lead times and coordinate with contract time during the bidding phase.

- C. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents.
- D. A request constitutes a representation that Bidder:
 - 1. Has investigated proposed product and determined that it meets or exceeds quality level of specified product.
 - 2. Will provide same warranty for Substitution as for specified product.
 - 3. Will coordinate installation and make changes to other Work which may be required for the Work to be complete with no additional cost to the State.
 - 4. Waives claims for additional costs or time extension which may subsequently become apparent.
 - 5. Will reimburse Department and Architect and/or Engineer for review or redesign services associated with re-approval by authorities having jurisdiction.
- E. Substitutions will not be considered when they are indicated or implied on Shop Drawing or Product Data submittals, without separate written request, or when acceptance will require revision to Contract Documents.
- F. Substitution Submittal Procedure:
 - 1. Submit three copies of request for Substitution for consideration. Limit each request to one proposed Substitution.
 - 2. Submit Shop Drawings, Product Data, and certified test results attesting to proposed product equivalence. Burden of proof is on proposer.
 - 3. The Department will notify Bidders in writing of decision to accept by issuing an addendum.

END OF SECTION

SECTION 01700

EXECUTION REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Closeout procedures.
- B. Final cleaning.
- C. Protecting installed construction.
- D. Project record documents.
- E. Operation and maintenance data.
- F. Manual for materials and finishes.
- G. Product warranties and product bonds.
- H. Clean air certification.
- I. Guarantee of work.

1.2 CLOSEOUT PROCEDURES

- A. Submit a signed Substantial Completion Application attesting that the Contract Documents have been reviewed, Work has been inspected, and that all Work is complete in accordance with Contract Documents and ready for Contract Administrator review. The Substantial Completion Application for use by the Contractor is attached to the end of this specification section. The Contract Administrator may modify this Agreement to accommodate any changes in Work.
 - 1. Provide submittals to the Contract Administrator as required by the Contract Documents and as required by authorities having jurisdiction.
- B. Only after completion of all Punch List items and submission of all items the Contractor shall submit a Final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due.
- C. State will occupy all portions of building as specified in Section 01100.

1.3 FINAL CLEANING

- A. Execute final cleaning prior to final project assessment.

- 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. Clean debris from roofs, gutters, downspouts, and drainage systems.
- D. Clean site; sweep paved areas, rake clean landscaped surfaces.
- E. Remove waste and surplus materials, rubbish, and construction facilities from site.

1.4 PROTECTING INSTALLED CONSTRUCTION

- A. Protect installed Work and provide special protection where specified in individual specification sections.
- B. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- C. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- D. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- E. Prohibit traffic or storage upon waterproofed or roofed surfaces. When traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- F. Prohibit traffic from landscaped areas.

1.5 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change Orders and other modifications to the Contract.
 - 5. Reviewed Shop Drawings, Product Data, and Samples.
 - 6. Manufacturer's instruction for assembly, installation, and adjusting.
- B. Ensure entries are complete and accurate, enabling future reference by State.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress, not less than weekly.
- E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
 - 1. Manufacturer's name and product model and number.
 - 2. Product substitutions or alternates utilized.

3. Changes made by Addenda and modifications.
- F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
1. Measured depths of foundations in relation to finish [first] [main] floor datum.
 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
 4. Field changes of dimension and detail.
 5. Details not on original Contract drawings.
- G. Submit documents to the Contract Administrator at time of Substantial Completion.
- 1.6 MANUAL FOR MATERIALS AND FINISHES
- A. Submit electronic copies of preliminary draft or proposed formats and outlines of contents before start of Work. The Contract Administrator will review draft and return one copy with comments.
- B. Submit electronic copy of completed volumes 15 days prior to Substantial Completion. Draft will be reviewed and returned after Substantial Completion, with Architect/Engineer comments. Revise content of document sets as required prior to final submission.
- C. Submit two sets of revised final volumes in final form prior to final inspection.
- D. Building Products, Applied Materials, and Finishes: Include product data, with catalog number, size, composition, and color and texture designations. Include information for re-ordering custom manufactured products.
- E. Instructions for Care and Maintenance: Include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- F. Moisture Protection and Weather Exposed Products: Include product data listing applicable reference standards, chemical composition, and details of installation. Include recommendations for inspections, maintenance, and repair.
- G. Additional Requirements: As specified in individual product specification sections.
- H. Include listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.
- 1.7 MANUAL FOR EQUIPMENT AND SYSTEMS
- A. Submit electronic copies of preliminary draft or proposed formats and outlines of contents before start of Work. Contract Administrator will review draft and return copy with comments.

- B. Submit electronic copy of completed volumes 15 days prior to Substantial Completion. Draft copy be reviewed and returned after Substantial Completion, with Architect/Engineer comments. Revise content of document as required prior to final submission.
- C. Submit electronic and two sets of revised final volumes in final form prior to final inspection.
- D. Each Item of Equipment and Each System: Include description of unit or system, and component parts. Identify function, normal operating characteristics, and limiting conditions. Include performance curves, with engineering data and tests, and complete nomenclature and model number of replaceable parts.
- E. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- F. Include manufacturer's printed operation and maintenance instructions.
- G. Include sequence of operation by controls manufacturer.
- H. Include original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- I. Additional Requirements: As specified in individual product specification sections.
- J. Include listing in Table of Contents for design data, with tabbed dividers and space for insertion of data.

1.8 SPARE PARTS AND MAINTENANCE PRODUCTS

- A. Furnish spare parts, maintenance, and extra products in quantities specified in individual specification sections.
- B. Deliver to Project site and place in location as directed by State; obtain receipt prior to final payment.

1.9 PRODUCT WARRANTIES AND PRODUCT BONDS

- A. Obtain warranties and bonds executed in duplicate by responsible subcontractors, suppliers, and manufacturers, within ten days after Substantial Completion. All warranties start dates shall be the Substantial Completion Date, if project is phased all warranties to start at the date of Substantial Completion of each phase.
- B. Execute and assemble transferable warranty documents and bonds from subcontractors, suppliers, and manufacturers.
- C. Verify documents are in proper form, contain full information, and are notarized.
- D. Co-execute submittals when required.

- E. Include Table of Contents and assemble in three D side ring binder with durable plastic cover.
- F. Submit prior to final Application for Payment.
- G. Time Of Submittals:
 - 1. Make submittals within ten days after Date of Substantial Completion, prior to final Application for Payment.
 - 2. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within ten days after acceptance, listing date of acceptance as beginning of warranty or bond period.

1.10 CLEAN AIR CERTIFICATION

- A. The Contractor shall employ the services of a Certified Industrial Hygienist using a laboratory accredited by the American Industrial Hygiene Association to comply with **RSA 10-B, ENV-A 2200** Clean Air in State Buildings Rules (New Hampshire Air Program Rules).
- B. Certification of properly collected and analyzed data that demonstrates compliance with said standards will be made by the Department of Environmental Services, Bureau of Environmental and Occupational Health, Radon Indoor Air Quality Program, 29 Hazen Drive, Concord, NH 03302-0095, telephone 603/271-3911) upon receipt of data submitted by the Certified Industrial Hygienist.
- C. In accordance with Env-A 2200 & Env-A 2205 Standards, the following must be addressed:
 - 1. Ventilation.
 - 2. Noise.
 - 3. Radon.
 - 4. Carbon Dioxide.
 - 5. Asbestos.
 - 6. Formaldehyde.
 - 7. Carbon Monoxide
- D. The Contractor shall furnish the Clean Air Certification to the Contract Administrator **prior** to project Substantial Completion and before building occupancy.

1.11 GUARANTEE OF WORK

- A. Except as otherwise specified, all work shall be guaranteed by the Contractor against defects resulting from the use of inferior materials, equipment or workmanship for one (1) year from the Date of Substantial Completion of the work.
- B. If, within any guarantee period, repairs or changes are required in connection with guaranteed work, which in the opinion of the Contract Administrator, is rendered necessary as a result of the use of materials, equipment or workmanship which are inferior, defective, or not in accordance with the terms of the Contract shall, promptly upon receipt of notice from the Commissioner, and at his own expense:

1. Place in satisfactory condition in every particular, all such guaranteed work, correct all defects therein.
 2. Make good all damage to the building or site, or equipment or contents thereof, which in the opinion of the Contract Administrator, is the result of the use of materials, equipment or workmanship which are inferior, defective, or not in accordance with the terms of the Contract.
 3. Make good any work or material, or the equipment and contents of said building or site disturbed in fulfilling any such guarantee.
- C. In any case, wherein fulfilling the requirements of the Contract or of any guarantee, embraced in or required thereby, the Contractor disturbs any work guaranteed under another contract, he shall restore such disturbed work to a condition satisfactory to the Contract Administrator and guarantee such restored work to the same extent as it was guaranteed under such other contracts.
- D. If the Contractor, after notice, fails to proceed promptly to comply with the terms of the guarantee, the Commissioner may have the defects corrected and the Contractor and his/her Surety shall be liable for all expense incurred.
- E. All special guarantees applicable to definite parts of the work that may be stipulated in the Specifications or other papers forming a part of the Contract shall be subject to the term of this paragraph during the first year of the life of such special guarantee.
- F. Failure to adhere to guarantee terms may result in suspension or barring from the prequalification list, or, alternatively, the requirement of a Letter of Credit or other guaranty equal to a percentage of the Contract amount.

END OF SECTION



State of New Hampshire

DEPARTMENT OF ADMINISTRATIVE SERVICES
25 Capitol Street - Room 120
Concord, New Hampshire 03301

Joseph B. Bouchard
Assistant
Commissioner
(603) 271-3204

Catherine A. Keane
Deputy Commissioner
(603) 271-2059

Charles M.
Arlinghaus
Commissioner
(603) 271-3201

SUBSTANTIAL COMPLETION APPLICATION

Date:

Project Title: Re-Bid Concord Main Building Stair Tower Roofs Repointing
Project Number: 81234 **Contract:** C

Instructions: The items checked below are required to be completed, operational and documented in order for the project to be declared Substantially Complete. If Substantial Completion is anticipated on a portion of the work, the sequence and portions of the project shall be identified and the selected items below will be required for each substantial completion area. The Contractor shall submit this document, with attachments, to the Contract Administrator for review to determine if the terms of Substantial Completion have been met. If the terms have been met, the Contract Administrator will issue a Certificate of Substantial Completion. If the terms have not been met, the Contract Administrator will notify the Contractor of missing, incomplete, or incorrect items.

PART 1 STATE AND LOCAL REQUIREMENTS:

In addition to the requirements of the Construction Documents, Substantial Completion requires the following identified items be fully completed, executed, approved with certifications attached to this document. The Contractor is required to arrange and pay for all inspections and fees.

1.1 State of NH Office of the State Fire Marshal:

- A. Certificate of Occupancy.
- B. Modular Building Certificate

1.2 State of NH Office of the State Fire Marshal and Local Fire Official:

- A. Sprinkler system. Reference NFPA 13 - Contractor's Material and Test Certificate for Aboveground Piping Form.
- B. Fire detection and notification system. Reference NFPA 72 - Inspection and Testing Form
- C. Range hood and fire suppression system.
- D. Emergency lighting and exit signs.
- E. Oil fired equipment.
- F. Other (list):

1.3 State of NH Department of Labor Division of Boilers and Elevators:

- A. Elevator Inspection Certificate.
- B. Boiler Inspection Certificate.

Substantial Completion Application

- C. Pressure Vessel Certificate.
- 1.4 Local Building Inspection Department:
 - A. Building Permit.
- 1.5 State of NH Plumber's Licensing Board and Local Building Inspection Department:
 - A. Plumbing Inspections.
- 1.6 State of NH Electrician Board and Local Building Inspection Department:
 - A. Electrical Inspections.
- 1.7 State of NH Department of Environmental Services and Local Building Inspection Department:
 - A. Approved Underground/Above Ground Tank Approved Registration Form.
 - B. Approved Underground/Above Ground Storage Tank Closure Notification Form.
 - C. Septic System Operation Approval.
 - D. Water System Operation Approval.
 - E. Statement of Certification that compliance with the Clean Indoor Air in State Buildings, ENV A-2200 has been met.
 - F. Other (list):
- 1.8 Other (list):
 - A. Other (list):

PART 2 CONTRACTOR'S REQUIREMENTS

In addition to the requirements of the Construction Documents, Substantial Completion requires the following identified items be fully completed, executed, approved with certifications attached to this document. The Contractor is required to arrange and pay for all inspections and fees.

- 2.1 Contractor has completed and verified the following:
 - A. Building egress and exit paths are clear of construction materials and equipment.
 - B. All building systems are functional and correctly operating.
 - C. Other (list):
- 2.2 Contractor has furnished the required Documents, Training and Manuals:
 - A. Field Record Drawings with markings.
 - B. Building systems operations and maintenance manuals.
 - C. Spare parts and extra materials stocks as per specifications.
 - D. Final Punch List as required by the General Conditions (*Failure to include incomplete Work does not relieve the Contractor of the responsibility to complete or correct the Work*)
 - E. Hazardous Waste Shipment Record (WSR).
 - F. Hazardous Material Abatement/Remediation Report.

Project name: Re-Bid Concord Main Building Stair Tower
Roofs and Repointing

Project number and Contract letter: 81234, Contract C

**WORK CERTIFICATE for CONTRACTORS
BEFORE BEGINNING THEIR WORK on PUBLIC PROJECTS**

Certification Requirements of RSA 21-I:80 and RSA 228:4-b

By New Hampshire law, before any work is done on any major state project or any work on any highway, bridge or other construction, reconstruction, alteration or maintenance project, each contractor, subcontractor and independent contractor shall complete and sign this form and provide the following documents:

1. Attach a certificate of your current workers' compensation insurance coverage, naming NH Department of Administrative Services, Division of Public Works Design & Construction, Room 250, 7 Hazen Drive, Concord, NH 03302-0483 as the certificate holder, showing coverage specific for work within the State of New Hampshire. The Project Number and Contract Letter must be included on the certificate. [Note that any person directly performing work on a project, or who is actively engaged in on-site work on any construction site, cannot elect exclusion from workers' compensation coverage under RSA 281-A:18-a.]
2. Provide below an estimate of the total number of workers anticipated to be employed on the project during the contract period, and a number of days (8-hour periods), applied to each insurance classification code applicable to the work to be performed:

<u>Number of workers</u>	<u>Days</u>	<u>Classification code & description of work</u>

[Attach additional sheets as necessary]

3. Provide proof of compliance with NH Department of Labor safety program requirements under RSA 281-A:64, in the following form:
 - A. By signing and submitting this form, you agree to provide employees with safe employment; to furnish personal protective equipment, safety appliances and safeguards; to ensure that such equipment, appliances and safeguards are used regularly; and to adopt work methods and procedures which will protect the life, health and safety of employees.

B. Do you have 15 or more employees? **YES** or **NO**

If yes, you shall:

1. Prepare a current Written Safety Program. This program shall be updated biennially but does not need to be filed with the Department of Labor or this document.
2. Establish and administer a Joint Loss Management Committee, composed of equal numbers of employer and employee representatives.
3. Attach a copy of a completed Safety Summary Form, which includes the names of the Joint Loss Management Committee and a summary of your written safety program, to this document. The Safety Summary Form DOES need to be filed with the NH Department of Labor, but only one time. Note: Employers who have a current (2011 or later) Safety Summary form on file with the NH Department of Labor will not be required to file again. Employers who have not filed a Safety Summary Form since 2010 or who have never filed before are subject to the requirements of the revised RSA 281-A:64, effective January 1, 2013. Note that this requirement applies to all employers, including non-resident employers. The Safety Summary Form can be downloaded from the NH Department of Labor website forms link at <http://www.nh.gov/labor/forms/safety-summary.htm>.

By signing and submitting this form, you are providing a sworn statement that workers' compensation coverage shall remain in effect, covering each employee who is not legally excluded from coverage, for the duration of his or her anticipated work on the project. The commissioner may assess an administrative penalty of up to \$250 a day on any employer not in compliance with the Written Safety Program, and shall not be allowed to bid or work on state projects for up to 5 years. Each violation shall be subject to a separate administrative penalty. All penalties collected under this paragraph shall be deposited into the general fund.

Signed and submitted on this date: _____, 20__

By this contractor, subcontractor or independent contractor:

Business Name: _____

Address: _____

Telephone number: _____ Fax number: _____

Owner or Authorized Executive signature: _____

Printed name and job title: _____

This Form and all supporting documentation shall be forwarded to the address provided in Section 1 of this form.

SECTION 024119 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Demolition and removal of selected portions of building or structure.
 - 2. Salvage of existing items to be reused or recycled.
- B. Related Sections include the following:
 - 1. Division 1 Section “Summary” for use of premises.
 - 2. Division 1 Section “Temporary Facilities and Controls” for temporary construction and environmental-protection measures for selective demolition operations.
 - 3. Division 1 Section “Construction Waste Management and Disposal” for disposal of deconstructed materials.

1.3 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.
- B. Remove and Salvage: Detach items from existing construction and deliver them to Owner.
- C. Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.
- D. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.4 MATERIALS OWNERSHIP

- A. Historic items, relics, and similar objects of interest or value to Owner that may be encountered during selective demolition remain Owner's property. Carefully remove and salvage each item or object in a manner to prevent damage and deliver promptly to Owner.

1.5 SUBMITTALS

A. Schedule of Selective Demolition Activities: Indicate the following:

1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity.
2. Interruption of utility services. Indicate how long utility services will be interrupted.
3. Coordination for shutoff, capping, and continuation of utility services.
4. Means of protection for items to remain and items in path of waste removal from building.

1.6 QUALITY ASSURANCE

A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

B. Standards: Comply with ANSI A10.6 and NFPA 241.

1.7 PROJECT CONDITIONS

A. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.

B. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.

C. Storage or sale of removed items or materials on-site is not permitted.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.

B. Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged.

C. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.

3.2 PREPARATION

- A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - 1. Comply with requirements for access and protection specified in Division 1 Section "Temporary Facilities and Controls."
- B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
 - 1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.
 - 2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
 - 3. Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
 - 4. Comply with requirements for temporary enclosures, dust control, heating, and cooling specified in Division 1 Section "Temporary Facilities and Controls."
- C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being deconstructed.
 - 1. Strengthen or add new supports when required during progress of selective deconstruction.

3.3 SELECTIVE DEMOLITION, GENERAL

- A. General: Deconstruct and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
 - 1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.
 - 2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
 - 3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
 - 4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain fire watch and portable fire-suppression devices during flame-cutting operations.

5. Maintain adequate ventilation when using cutting torches.
6. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
7. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
8. Dispose of deconstructed items and materials promptly. Comply with requirements in Division 1 Section "Construction Waste Management."

B. Removed and Salvaged Items:

1. Clean salvaged items.
2. Pack or crate items after cleaning. Identify contents of containers.
3. Store items in a secure area until delivery to Owner.
4. Transport items to Owner's storage area designated by Owner.
5. Protect items from damage during transport and storage.

- C. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

3.4 DISPOSAL OF DECONSTRUCTED MATERIALS

- A. General: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove deconstructed materials from Project site and legally dispose of them in an EPA-approved landfill.
1. Do not allow deconstructed materials to accumulate on-site.
 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
 4. Comply with requirements specified in Division 1 Section "Construction Waste Management."
- B. Burning: Do not burn deconstructed materials.
- C. Disposal: Transport deconstructed materials off Owner's property and legally dispose of them.

3.5 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

3.6 SELECTIVE DEMOLITION SCHEDULE

- A. Existing Items and Construction to Be Removed: As shown in the Demolition Drawings and as required to perform this work.

- B. Existing Items to Be Removed and Salvaged: As indicated on the Drawings.
- C. Existing Items to Remain: As shown on the Drawings.

END OF SECTION 024119

SECTION 040500 - MASONRY PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. This section to conform to Division 1, General Requirements.
- B. This section includes:
 - 1. General: This section describes the general standards and requirements applicable to related sections of work.
 - a. Section 041000 - Masonry Mortar.
 - b. Section 041500 - Masonry Accessories.
 - c. Section 045000 - Masonry Restoration.
 - d. Section 045100 - Masonry Cleaning.

1.2 REFERENCES

- A. The following general standards apply to all work carried out in this and related sections.
 - 1. ASTM C270 - Mortar and Grout for Unit Masonry.
 - 2. CAN#-A371-1994 - Masonry Construction for Buildings.
 - 3. CAN3-A370-1994 - Connectors for Masonry.
- B. Additional material standards as relevant are referenced in related sections.
- C. Definitions as relevant are referenced in related sections.

1.3 SCOPE AND INTENT OF WORK

- A. The intent of this section is to carry out the work described herein in accordance with established procedures for historic masonry preservation.
- B. The intent of preservation is to preserve wherever possible the character and materials of the building and not necessarily to restore the building facades to their original as-built condition.
- C. Provide all labor, material and equipment and perform all operations required to carry out all masonry work as described herein, as described on the drawings, or as required for the proper completion of the work.
- D. Fully coordinate work with that of other trades and other masonry contractors.

1.4 SEQUENCE OF WORK

- A. The work shall be carried out in the following sequence:
 - 1. Masonry cleaning.

2. Cutting out mortar joints.
3. Backpointing.
4. Repairs to brick and stone.
5. Final pointing.
6. Final clean down.

1.5 SUBMITTALS

- A. Submit manufacturer's literature for all products.
- B. Samples: Submit samples of all materials to be used in the work including:
 1. One of each type of masonry accessory specified.
 2. One of all mortar constituents in 1-pint plastic container with screw top lid and with contents clearly marked.
 3. Sieve analyses from approved testing company of custom blended aggregate containing mortar sand, stone and brick dust.
- C. Submit details of all tools, machinery and equipment required to complete the work. Remove rejected items from site.

1.6 MOCK-UPS

- A. Prepare mock-ups of the following items of work:
 1. Raking out of mortar: 4 square feet of brick masonry on building in area designated by the Architect.
 2. Repointing: 4 square foot of brick masonry raked out.
 3. Cleaning: 4 square feet for each type of cleaning technique specified, representative of full range of soiling or stain.
- B. Samples shall be repeated until satisfactory results are obtained to the satisfaction of the Architect.
- C. Approved mock-ups shall form the standard for the method, quality and visual affect of work to be performed throughout the project.
- D. The intent is to match historic repointing style and color.

1.7 APPROVALS

- A. Do not proceed until approval of samples, mock-ups and submissions is obtained from the Architect.

1.8 QUALIFICATIONS

- A. **Restoration Specialist Qualifications: Engage an experienced masonry restoration and cleaning firm to perform work of this Section. Firm shall have completed work similar in material, design, and extent to that indicated for this Project with a record of successful in-**

service performance. Experience installing standard unit masonry is not sufficient experience for masonry restoration work.

- B. Provide competent trade foreperson, well skilled and experienced in the specialized type of work required, for continuous supervision and with at least five years experience with lime putty mortar for masonry restoration projects.**
- C. Provide specialized skilled and competent tradesmen who shall have had demonstrated related experience in this type of work and with a minimum of three year's experience on historic restoration projects using lime putty mortars.**
- D. Submit a detailed list of qualifications, details of training, projects and experience relating to all of the above workers.**
- E. Obtain acceptance of all workers prior to their commencing work on site.**

1.9 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver materials to job site in dry condition.
- B. Store all materials on pallets held off the ground by means of planks or timber skids and protect with waterproof non-staining covers.
- C. Maintain all materials in dry condition until use, except where specified otherwise.
- D. Remove contaminated or 'out of date' materials and replace at no cost to Owner.

1.10 ENVIRONMENTAL REQUIREMENTS

A. Cold Weather Requirements:

- 1. No masonry work shall be carried out when air temperatures fall below 50°F unless the following provisions are made.
- 2. When air temperatures fall below 50°F, provide a weathertight, heated enclosure in which to carry out work, store all materials and mix mortars, in area where the air temperature is maintained above 50°F at all times.
- 3. Maintain these conditions until March 31, or for a minimum 4 weeks following completion of any masonry work, which ever is greater.
- 4. Do not remove heat or enclosure where masonry is not thoroughly dried out. Request and obtain permission of Architect before removing heat or enclosure.
- 5. Maintain minimum/maximum thermometers and relative humidity gauges on site and in all enclosures and maintain a daily record of temperature and humidity.

B. Hot Weather Procedures:

- 1. When wall surfaces or ambient temperatures reach 75°F, protect new work from rapid drying by providing burlap protection kept misted as necessary to control drying and shrinkage, and covered with polyethylene tarps to control rapid evaporation.

C. Transportation, Use and Disposal of Chemical Materials:

1. Comply with the requirements of Federal and State Legislation related to the transportation, use and disposal of all chemical type of materials and all revisions and any other relevant legislation as applicable to this work.

1.11 PROTECTION

- A. Keep masonry dry using waterproof, non-staining coverings that fully protect new work from wind driven rain, until masonry work is complete and protected by flashings or other permanent construction.
- B. All completed or existing work shall be protected or kept from damage, marking and mortar droppings. Maintain non-staining coverings until completion of work.
- C. Refer to additional protection requirements in relevant sections.

1.12 ACCESS

- A. Access to all surfaces to be provided by scaffolding contractor to enable proper work supervision and inspection to be carried out.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Materials are specified in related sections.

PART 3 - EXECUTION

3.1 WORKMANSHIP

- A. Build masonry plumb, level and true to line.
- B. Layout coursing and bond to match existing masonry work.

END OF SECTION 040500

SECTION 041000 - MASONRY MORTAR

PART 1 - GENERAL

1.1 SUMMARY

A. This section to conform to Division 1, General Requirements.

1. Work included in this Section:

- a. The preparation and supply of mortar for all masonry work. It is assumed that the existing mortar is a lime putty mortar. The intent of the project is for the Masonry Restoration Contractor to test the mortar and, based on analysis, provide mortar to match the existing in strength, make up, performance and appearance.

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 040500 - Masonry Procedures.
- B. Section 041500 - Masonry Accessories.
- C. Section 045000 - Masonry Restoration.
- D. Section 045100 - Masonry Cleaning.

1.3 REFERENCES

A. Masonry mortar work to comply with ASTM C270 unless specified otherwise.

1.4 DEFINITIONS

A. Mortar is defective when:

1. It is cracked.
2. It is spalled, chalked, dusted or otherwise crumbling and excessively weathered back.
3. The Architect states so in writing.

1.5 SUBMITTALS

A. Submit samples, and obtain approvals as specified in Section 040500, Masonry Procedures.
Submit the following:

1. Pointing Mortar: Submit sets of mortar for pointing in the form of sample mortar strips, 6 inches (150 mm) long by 1/4 inch (6 mm) wide, set in aluminum or plastic channels.

- a. Have each set contain a close color range of at least three Samples of different mixes of colored sands and cements that produce a mortar matching the cleaned masonry when cured and dry.
 - b. Submit with precise measurements on ingredients, proportions, gradations, and sources of colored sands from which each Sample was made.
2. Dried 2-inch cubes for testing.
 3. Submit three samples of each type of mortar prepared, dated and labeled as to batch and mortar type.
 4. Submit 2-inch cubes for testing as requested throughout the job. 20 samples may be requested. Where testing determines samples do not meet those approved, additional cubes will be required to be submitted at no cost to Owner.
 5. Provide mortar samples using materials specified in Part 2. Provide as many samples as needed until approval from the Architect.

PART 2 - PRODUCTS

2.1 MORTAR MATERIALS

- A. Portland Cement: ASTM C 150, Type I or Type II, white or gray or both where required for color matching of exposed mortar.
- B. Prepared Lime Putty: ASTM C 1489, slaked, high calcium quick lime.
- C. Aggregates:
 1. Sand: to ASTM C144 specifications for Aggregate for Masonry Mortar sharp, screened and, washed pit sand, free of any organic material, grading and color to approval of Architect as follows:
 - a. Color: Provide natural sand of color necessary to produce required mortar color.
 - b. Match size, texture, and gradation of existing mortar sand as closely as possible. Blend several sands if necessary to achieve suitable match.
 - c. Provide custom blended sand conforming to the following sieve analysis for joints in excess of 3/8-inch wide:

<u>Sieve Size</u>	<u>Percentage by Weight retained on each sieve</u>	<u>Percentage by Weight passing each sieve</u>
No. 4	00	100
No. 8	10	90
No. 16	20	70
No. 30	20	50
No. 50	20	30

No. 100	15	15
No. 200	15	0

- d. Provide custom blended sand conforming to the following sieve analysis for joints less than 3/8-inch wide:

<u>Sieve Size</u>	<u>Percentage by Weight retained on each sieve</u>	<u>Percentage by Weight passing each sieve</u>
No. 4	00	100
No. 8	00	100
No. 16	10	90
No. 30	20	70
No. 50	30	40
No. 100	25	15
No. 200	15	0

D. Pozzolans:

1. A lime putty and pozzolan mortar mix is acceptable and preferred, provided a thorough testing procedure has been undertaken and the mason, including everyone that will be pointing the building, has a successful history of using the mix on at least 3 similar projects.

- E. Admixture of Color: Solomon Grind Inorganic pigment, dry powder, mineral oxide type. Provide custom blended pigment as required to match existing mortar.

- F. Water: Potable.

2.2 SOURCES

- A. Use same manufacturer brands and suppliers for sources of mortar material.

2.3 EQUIPMENT

- A. All mortars are to be prepared in a conventional paddle mixer.

2.4 MORTAR MIXES

- A. Preparing Lime Putty: Slake quicklime and prepare lime putty according to appendix to ASTM C 5 and manufacturer's written instructions. Use lime putty that is at least 4 months old, stored in air-tight containers.
- B. Measurement and Mixing: Measure cementitious materials and sand 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 materials and sand together before adding any water. Then mix again adding only enough water to produce a damp, unworkable mix that will retain its form when pressed into a ball. Maintain mortar in this dampened condition for 15 to 30 minutes. Add remaining water in small portions until mortar reaches desired consistency. Use mortar within one hour of final mixing; do not retemper or use partially hardened material.
- C. Colored Mortar: Produce mortar of color required by using specified ingredients. Do not alter specified proportions without Architect's approval.
 1. Mortar Pigments: Where mortar pigments are indicated, do not exceed a pigment-to-cement ratio of 1:10 by weight.
- D. Do not use admixtures in mortar unless otherwise indicated.
- E. Mortar Proportions: Mix mortar materials in the following proportions:
 1. Pointing Mortar: 1 part slaked lime putty, 3 parts masonry sand.
 - a. Add mortar pigments to produce mortar colors required to match Phase 1 mortar.
- F. Repair mortars for carrying out mortar fills to existing stone: refer to Section 04101 Proprietary Stone Repair Mortar.

PART 3 - EXECUTION

3.1 PREPARATION OF MORTARS

- A. Bulking of Sand and Aggregates:
 1. Bulking is the increase in volume of dry sand when it becomes damp.
 2. Damp sand can occupy as much as one-third more volume than either dry or saturated sand.
 3. Damp sand can be used if its volume is adjusted for bulking.
- B. Test and Adjustment of Sand Quantities for Bulking:
 1. Test sand to be used in mortar for bulking at the start of the work, after each new delivery of sand and any severe change in weather.
 2. Obtain a sample of sand which accurately reflects the average condition of the pile of damp sand, by the following methods:
 - a. Take 4 shovelfuls of sand, each from a different level of the pile, and mix thoroughly.
 - b. Place this sand in a conical pile and divide into 4 quarters with a board. Remove 2 opposite quarters from the pile, and combine the 2 remaining quarters and mix thoroughly.

- c. Repeat this quartering and mixing procedure until a sample of the size required for testing remains.
3. Fill a one-liter capacity jar, about two thirds full with the damp sand to be tested. Drop the sand in loosely. Do not pack it in. Level off the surface, then measure the depth of the damp sand (D).
4. Empty the sand into another container, being careful not to lose any, and half fill the container with water.
5. Pour back about half of the test sample of sand slowly into the water so that it is entirely saturated. Rod it thoroughly to remove any air.
6. Add the rest of the sand, rodding again to remove, and level off the surface. Measure the depth of the saturated sand (S), which will be less than the depth of the damp sand.
7. Calculate the percentage bulking, using formula: $[(D-S) \times 100\%]/S$ - percentage bulking; where D = depth of damp sand, and S = depth of saturated sand.
8. When batching the sand for use in mortar, increase the volume of the sand used by the percentage bulking shown in the test. For example, if the mortar mix is a standard 1:1:6 mix requiring 6 parts of sand and the percentage bulking is found to be 20%, the volume of sand used in the mortar should be: $(6 \times 12)/100 = 7.2$ parts. To adjust for bulking, the actual mortar mix will therefore be 1:1:7.2 when this same damp sand is being used.

C. Preparation of Coarse Stuff:

1. Prepare measuring boxes to ensure accurate proportioning of non-hydraulic lime putty and aggregates.
2. Take lime putty from bins, siphon off water by screening lime through muslin to remove excess water.
3. Adjust aggregate for bulking as described above.
4. Mix lime and sand thoroughly in paddle type mechanical mortar mixer for minimum 10 minutes. Do not add water.
5. Lime sand coarse stuff may be stored indefinitely if protected from air by storing in plastic airtight bins.
6. Standard masonry lime, dry or soaked, will not be accepted.

D. Gauging of Coarse Stuff with Portland Cement and Pigments:

1. Rework coarse stuff to regain workability prior to gauging with setting aids as follows:
 - a. Remix in the mixer for 10 minutes and continue further beating, ramming, and chopping by hand, ensuring thorough mixing to produce stiff workable mix. **DO NOT ADD WATER.**
 - b. Add mortar coloring additive and ensure thorough mixing with coarse stuff.
 - c. Slurry setting aid where required to prevent "balling" and add the coarse stuff. Mix thoroughly for minimum five minutes to produce workable, plastic mix, just wet enough to allow the mortar to hang on a trowel.
 - d. When gauging a setting aid with the coarse stuff the volume of coarse stuff is always equal to the total aggregate contents not the sum of the lime and aggregate. Thus a mix of 1 part setting aid to 2-1/2 parts lime and 9 parts sand will be gauged using 1 part

setting aid to 9 parts of coarse stuff

2. Measuring boxes are to be maintained for all mortar constituents.
3. Measuring container is to be maintained for the correct quantity of water for use in all batches.
4. Thoroughly clean all mortar boards, measuring boxes and mixer between batches.
5. Use mortar within two hours. Do not retemper beyond this time.

3.2 MORTAR COLOR

- A. Prepare samples as described in Section 040500 for approval.
- B. Mortars are to be prepared to match the color of the existing mortars (may vary per stair tower).

END OF SECTION 041000

SECTION 041500 - MASONRY ACCESSORIES

PART 1 - GENERAL

1.1 GENERAL

A. This section to conform to Division 1- General Requirements.

1. Work included in this Section:

- a. Supply of masonry anchors, dowels and cramps.
- b. Supply of other miscellaneous accessories.
- c. Supply of accessories for repairs specified in Section 045000, Masonry Restoration.

1.2 RELATED WORK

- A. Section 040500 - Masonry Procedures.
- B. Section 041000 - Masonry Mortar.
- C. Section 045000 - Masonry Restoration.
- D. Section 045100 - Masonry Cleaning.

1.3 REFERENCES

A. Masonry anchors shall conform to CAN3-A370-M84, Connectors for Masonry.

1.4 SUBMITTALS

A. Comply with requirements specified in Section 040500.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Pins: Stainless steel to ASTM A580, Type 304, nominal 2-6 mm. diameter, threaded for pinning across cracks. Size of pins to be approved by Architect.
- B. Anchors and Ties: Stainless steel, Type 304.
- C. Fasteners: Brass or stainless steel screws.
- D. Shields: Nylon body expansion type.
- E. Sealant: In accordance with Division 7 Section Joint Sealants.

- F. Asphalt Emulsion: Brush or spray applied: e.g.: "Bakor 700-01".
- G. Resin: Two-part epoxy resin system, low viscosity, high modulus, moisture insensitive, U.V. stable (non. yellowing).
- H. Burlap: Clean, non-staining (with no printed matter) to approval of Architect.
- I. Plumber's Hemp: Asbestos free, non-oily jute rope.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. The installation of masonry accessories are described in Section 045000, Masonry Restoration.

END OF SECTION 041500

SECTION 045000 - MASONRY RESTORATION

PART 1 - GENERAL

1.1 SUMMARY

- A. Division of this Specification into subsections is for convenience and clarity. Such division does not relieve the Contractor from the responsibility of ensuring that each trade or subtrade is fully familiar with the extent of their work or the work of other sections which may have an impact on their work. Each Section or Division may contain more or less than the work of any trade.

1.2 INTENT

- A. The intent of this Section is to carry out the work described herein in accordance with established procedures for historic masonry conservation.
- B. The intent of conservation is to preserve wherever possible the character and materials of the building and not necessarily to restore the building facades to their original as-built condition.

1.3 WORK INCLUDES

- A. Pointing of joints in brick masonry.
- B. Installation of masonry accessories, cramps, anchors and ties.
- C. Removal of surplus metal fixings and reinforcing, including pointing of scaffold tie holds.

1.4 RELATED WORK

- A. Section 040500 - Masonry Procedures.
- B. Section 041000 - Masonry Mortar.
- C. Section 041500 - Masonry Accessories.
- D. Section 045100 - Masonry Cleaning.

1.5 SUBMITTALS

- A. Submit samples, literature and details of tools, machinery and equipment as specified in Section 040500, Masonry Procedures.
- B. Execute mock-ups as specified in Section 040500, Masonry Procedures.

1.6 QUALIFICATIONS

- A. Comply with requirements specified Section 040500, Masonry Procedures, for all aspects of work specified in this section.

1.7 SEQUENCE OF WORK

- A. Refer to sequence of work specified in Section 040500, Masonry Procedures.
- B. The Contractor shall develop a sequence of work which shall be agreed with the Architect.

PART 2 - PRODUCTS

2.1 MATERIALS SPECIFIED ELSEWHERE

- A. Section 041000 - Masonry Mortars.
- B. Section 041500 - Masonry Accessories.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Seal and protect all openings, doors, windows, and adjacent areas to prevent damage and the spread of construction dust, water or other materials into the building or onto adjacent sidewalks.
- B. All roofs, sills and projecting courses are to be covered with rigid protection, secured into joints, for the duration of the work.
- C. Any part of the scaffolding, hoist or any construction plant shall not directly bear against the masonry. Provide isolating material or lumber or plywood with additional padding as necessary to prevent damage to the existing masonry.

3.2 TOOLS AND TECHNIQUES

- A. Tools for cutting out shall be narrower than the joint.
- B. Cutting out of mortar shall be carried out by one of the following techniques:
 - 1. Flat-bladed quirks and light hammers, hacksaw blades or similar tools are to be used where fine joints are encountered.
 - 2. Handheld rotary saws or any type of grinder or wheel are not permitted on this project.

3.3 POINTING OF JOINTS

- A. Obtain Architect's acceptance of raked out and backpointed, work prior to commencing pointing operations.
- B. Prevent mortar from being placed or smeared onto face of masonry to prevent mortar staining of masonry faces during pointing.
- C. Allow water to soak into masonry and mortar, leaving no standing water but remaining wet.
- D. Fill all bed and head joints full with pointing mortar, compact joints firmly to ensure positive adhesion to all inner surfaces.
 - 1. Tool exposed mortar joints to match existing masonry work.
- E. Thoroughly compact mortar into joint.
- F. Finish joints to match existing mortar profile, color, and texture.
- G. Keep work clean, remove all droppings as work proceeds, and again at the end of each day.
- H. Protection On Completion
 - 1. Protect newly laid mortar from sun, frost, rainfall or rapid drying conditions for 4 weeks.
 - 2. Provide burlap enclosure, misting and polyethylene protection for minimum 72 hours to prevent initial shrinkage of mortar.

3.4 REMOVAL OF SURPLUS EQUIPMENT AND METAL FIXINGS

- A. Remove all metal fixings, brackets, wires, bolts, nails, screws and shields from masonry.
- B. Remove any anchors or plugs by coring to ensure their complete removal.
- C. Where removed from masonry unit and masonry unit will not be replaced patch hole with repair mortar.
- D. Finish flush with face of masonry unit.
- E. Do not permit this matrix to spread onto face of masonry.

3.5 DAMAGE

- A. Take care to prevent damage to masonry units resulting from disassembly.
- B. Damage includes the nicks, gouges and chipped or scratched surfaces from cutting out tools, resulting from improper workmanship.

- C. All damaged units shall be replaced or repaired to the satisfaction of the Architect at no change in the contract price or schedule.

END OF SECTION 045000

SECTION 045100 - MASONRY CLEANING

PART 1 - GENERAL

1.1 SUMMARY

A. General Comment

1. Division of this specification into subsections is for convenience and clarity. Such division does not relieve the Contractor from the responsibility of ensuring that each trade or subtrade is fully familiar with the extent of their work or the work of other Sections which may have an impact on their work. Each Section or Division may contain more or less than the work of any trade.

1.2 INTENT

- A. Cleaning shall be carried out to masonry surfaces of the building to remove staining and soiling without causing damage to the substrate. This phase of the work will clean all masonry and rinse all portions of the building where cleaning process wets surfaces below. Clean the building to result in clean, finished appearance without streaking.
- B. The intent of the cleaning is to improve the performance of the masonry by removing elements in the masonry contributing to its deterioration. A 'like-new' appearance is not necessarily the goal of this work.

1.3 DESCRIPTION OF WORK

A. Work included in this Section.

1. The cleaning of all masonry surfaces of the building. Cleaning shall include but not be limited to:
 - a. Removal of bird droppings by scraping, poultice-based surfactant cleaning and pressure surfactant cleaning.
 - b. Removal of paint and caulking by means of chemicals, poulticing and abrasive cleaning.
 - c. Removal of soluble salts from the masonry by means of poultice based cleaning.
 - d. Removal of organic staining by means of a proprietary biocide.
 - e. Removal of metallic stains by means of poultice based organic solvent cleaning.
 - f. Removal of bitumen or tars by poultice based organic solvent cleaning followed by low pressure abrasive cleaning.
 - g. Removal of localised residual soiling.

1.4 RELATED WORK

- A. Section 040500 - Masonry Procedures.

- B. Section 041000 - Masonry Mortar.
- C. Section 041500 - Masonry Accessories.
- D. Section 045000 - Masonry Restoration.

1.5 SUBMITTALS

- A. Submit samples, literature and details of tools, machinery and equipment as specified in Section 040500 Masonry Procedures.
- B. Execute mock-ups as specified in Section 040500 - Masonry Procedures.

1.6 QUALIFICATIONS

- A. Comply with requirements of Section 040500 - Masonry Procedures.

1.7 ENVIRONMENTAL REQUIREMENTS

- A. In addition to the requirements of Section 040500 - Masonry Procedures, the following also applies.
 - 1. No masonry cleaning involving the use of water shall be undertaken within one month of average temperatures falling below freezing.
 - 2. No chemical cleaning shall be performed when ambient or wall surface temperatures fall below 50°F. Maintain temperature for a minimum three weeks following cleaning.
 - 3. No masonry cleaning shall be performed when winds are sufficiently strong to spread cleaning materials or rinsed cleaning materials to adjacent unprotected areas.
- B. Comply with the requirements of all Federal and State Legislation related to the transportation use and disposal of all cleaning materials.

1.8 PROTECTION

- A. Protect the general public and adjacent property from contact with cleaning materials by erecting properly constructed protection, positioned to confine and prevent any overspray of water, dust or chemicals. Provide complete details of such protection for approval by the Architect.
- B. Any materials that may be damaged by the effects of any of the cleaning operations shall be protected as described herein.
- C. All windows, including glass, frames and exterior metal shall be protected by minimum 6 mil polyethylene sheet secured at the edges with adhesive tape, strippable latex caulking and closed-cell backer rod to prevent penetration of dust or liquids. Ensure installation will not allow the penetration of any materials to the interior of the building. Take necessary corrective action to

address any such penetration into the building.

- D. Protect all other surrounding areas as recommended by the product manufacturer or as directed by the Architect. Such areas include adjacent shrubs and lawns, all non-masonry surfaces and particularly metal surfaces.
- E. Operatives shall be aware of hazardous nature of cleaning operations and shall wear appropriate safety clothing at all times during cleaning operations.
- F. Contain and collect all spent cleaning materials and water immediately below the area of cleaning to prevent run down on to surfaces not being cleaned and their subsequent staining. Dispose of spent cleaning materials in accordance with all relevant legislation and requirements.

1.9 SCHEDULE

- A. Provide schedule of cleaning operation prior to commencing work for approval by Architect.
- B. Provide Architect with minimum 48 hours notice of intent to commence cleaning operations.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Water: Potable, clean and free from contaminants.
- B. Where water has high iron or other metal content, pre-treat with complexing agents before use to reduce risk of staining.
- C. Surfactant: Non-ionic detergent suitable for use on masonry.
- D. Petroleum based solvents: Proprietary asphalt and tar removers to approval of Architect.
- E. Organic Solvents: Methylene chloride.
- F. Chemicals
 - 1. EDTA (Ethylene Diamine Tetra-acetic Acid).
 - 2. Phosphoric Acid or proprietary "ferrous stain remover".
 - 3. Proprietary ammonia-based "copper stain remover".
 - 4. Proprietary alkali masonry prewash system. Acceptable product: Sure Klean 766 Prewash by ProSoCo.
 - 5. Proprietary acidic based cleaner for siliceous substrates. Acceptable product: Sure Klean Restoration Cleaner by ProSoCo.
- G. Poultrice medium: absorbent clay medium; diatomaceous earth or attapulgate.

H. Poultrice reinforcement and accessories:

1. Fiber reinforcing: fibrillated fibre concrete reinforcement.
2. Plastic mesh reinforcing; alkali resisting.
3. 6 mil clear polyethylene film.

I. Abrasives:

1. Abrasives shall be non-siliceous slag aggregate to approval of Architect.
2. Abrasives for use with proprietary cleaning systems shall be to the approval of the Architect.

J. Biological Solution: Proprietary non-toxic, biodegradable, biological solution with a neutral pH.
Acceptable product: D2/Biological Solution distributed by Cathedral Stone.

K. Paint stripper: Proprietary paint stripper in poultrice form. Type may include:

1. Organic ester base. Acceptable product: "Peel-a-Way 6."

2.2 TOOLS

- A. Brushes: soft fibered nylon, natural soft and stiff bristle or phosphor bronze.
- B. Scrapers: wood, plastic or stainless steel.
- C. Trowels: corrosion resistant.

2.3 WATER RINSING EQUIPMENT

- A. Piping and fittings to be plastic or non-ferrous.
- B. Water pumps to be fitted with accurate pressure regulators and gauges that are capable of being pre-set and locked at maximum specified levels.
- C. Equipment shall be designed to provide a flow rate of between 4 -6 gpm at pressures ranging from 50 psi. - 600 psi.
- D. When rinsing on masonry or adjacent to masonry, employ pressures below 200 psi and working distances to ensure there is no loss of surface or damage to substrate.
- E. Equipment shall be equipped to provide heated rinse water at 200°F.
- F. Spray heads to be equipped with nozzles of the fan type with spray tips of between 15° and 25°.

2.4 ABRASIVE EQUIPMENT

- A. Equipment must incorporate an accurate and adjustable pressure gauge and moisture/oil separator on air supply from compressor to nozzle and be within 10 feet of operative.
- B. Proprietary cleaning systems based on micro abrasives and low pressure water delivered by means of various nozzles, including standard, micro and piccolo, producing a rotating vortex process. Acceptable material: Jos Cleaning System.

PART 3 - EXECUTION

3.1 PREPARATION

- A. All Methods: Provide protection as required and described herein and obtain approval of Architect.
- B. Each surface being cleaned shall be evenly lit during cleaning and while drying.
- C. Lighting shall be of the type and intensity required to illuminate surfaces to show stains, streaking and other defects as well as the level of cleaning results.

3.2 TESTING

- A. Carry out test panels to adequately demonstrate and assess the performance of each cleaning method and system and the variables involved.
- B. Locations of test panels shall be selected by the Architect and all tests shall be carried out in the presence of the Architect.
- C. If initial methods prove unsatisfactory, combinations of methods shall be tried from acceptable alternatives.
- D. Submit written results of tests, outlining methods, materials, concentrations of chemicals, dwell times etc. Obtain approval of Architect before proceeding.
- E. Accepted test panels shall form the standard and quality of work for the entire project.

3.3 CLEANING OF BIRD DROPPINGS AND STAINING.

- A. The removal of all pigeon soiling is to be carried out wherever present on the building.
- B. Note that pigeon droppings are considered a hazardous substance. Take all required safety precautions in accordance with the provisions of the General Instructions.
- C. When cleaning bird droppings or working in areas where they occur, wear respirators as suitable

for exposure in work area. Workers shall be educated as to risks, and be trained in safe work practices.

- D. Remove droppings by means of scraping with wooden paddles while removing loosened material with high efficiency particulate air filtered vacuum equipment. Remove droppings in sealed containers, labelled as to contents to disposal area acceptable to authorities having jurisdiction.
- E. Low pressure, maximum 200 psi surfactant cleaning shall be employed to remove all stains, and on completion to all work areas. Supplement water washing with bristle brushing where sound substrate exists.
- F. Use additional techniques in conjunction with poultices as necessary or as directed.

3.4 CLEANING OF GELS AND CAULKING

- A. The removal of all gels and caulking is to be carried out wherever present on the building.
- B. Use scrapers to remove as much of the material as possible.
- C. Apply methylene chloride in concentrated form.
- D. Allow to dwell on masonry for a maximum of 15 minutes.
- E. Do not allow solution to dry on surface. Reapply as necessary to keep moist.
- F. Thoroughly rinse all traces of cleaning solution from the masonry.
- G. Run residues to containers and dispose of in accordance with hazardous waste legislation.
- H. Where soiling remains prepare poultice with attapulgite clay and methylene chloride and mix to stiff cream consistency.
- I. Trowel apply poultice approximately 1/2" thick over soiled area and leave finished neatly.
- J. Apply cover of polyethylene film or sheet tape edges to control rate of drying.
- K. Remove plastic after 24 hours.
- L. Allow poultice to dry.
- M. Carefully scrape residue into plastic bags, seal and remove from site. Dispose of waste in accordance with hazardous waste legislation.
- N. Pick up any droppings and dispose of as above.
- O. Reapply poultice and repeat process as necessary.

- P. Micro-abrasive clean where pigeon repellent has been applied over soiled stone.

3.6 REMOVAL OF SOLUBLE SALTS

- A. Dry brush wall areas containing salts to remove Surface residues. Collect salts in bags and remove from site.
- B. Thoroughly irrigate wall to put salts into solution.
- C. Empty nebulised spray heads arranged to achieve Maximum saturation with minimum water run-off.
- D. Construct eavestrough to collect run-off and run to barrels. Remove from site.
- E. Prepare poultice medium from attapulgite clay and clean water to consistency of stiff cream. Reinforce with fibres as necessary.
- F. Trowel apply poultice to contaminated wall areas approximately 1/2" thick and leave finished neatly.
- G. Where appropriate to provide support for the poultice over large areas apply mesh over poultice and secure into mortar joints with stainless steel fasteners.
- H. Apply cover of polyethylene film or sheet and tape edges to control rate of drying.
- I. Remove plastic after 24 hours.
- J. Allow poultice to dry.
- K. Carefully scrape residue into plastic bags, seal and remove from site. Dispose of waste in accordance with tion.
- L. Pick up any droppings and dispose of as above.
- M. Reapply poultice up to four times as directed by the Architect.
- N. Permit samples to be taken for analysis between applications.
- O. Complete poultice cleaning by carrying out a final wash down to remove residual poultice media in the pores of the stone using Jos system with pressure and nozzles as determined by pre-testing and to approval of Architect.

3.7 REMOVAL OF PAINT

- A. Apply proprietary Organic ester based poultice in accordance with manufacturer's directions,

using brush or roller.

- B. Mask off and protect all other masonry from treatment.
- C. Contain solution in area being cleaned.
- D. Collect any run off and dispose of in accordance with hazardous waste legislation.
- E. Apply paste 1/16" to 1/8" according to thickness of coating. Cover with laminated Peel Away Paper and leave paper-covered paste in place for dwell time determined during mock-up
- F. Remove by sliding taping knife or Peel Away tool into pasted around edges of paper, easing paint, paste and paper away from the surface in one piece. Remove as much residual material as possible with tool before cleanup procedure.
- G. Pressure wash off residual material.
- H. Re-apply as necessary.

3.8 REMOVAL OF ORGANIC GROWTH

- A. Apply proprietary solution of biological solution in accordance with manufacturer's directions, using brush, roller, or pump sprayer to dry surface.
- B. Mask off and protect all other masonry from treatment.
- C. Contain solution in area being cleaned.
- D. Collect any run off and dispose of in accordance with hazardous waste legislation.
- E. Re-apply as necessary.

3.9 REMOVAL OF METALLIC STAINS, BITUMENS AND TARS

- A. Carry out cleaning using poultices to remove stains.
- B. Prepare poultice medium mixed with clean water or solvents or chemicals as appropriate to the nature of the soiling and as directed.
- C. Mix to consistency of stiff cream.
- D. Pre-wet soiled area with liquid portion of poultice.
- E. Trowel apply poultice approximately 1/2" thick over soiled area and leave finished neatly.
- F. Apply cover of polyethylene film or sheet and tape edges to control rate of drying.

- G. Remove plastic after 24 hours.
- H. Allow poultice to fully dry out.
- I. Carefully scrape residue into plastic bags, seal and remove from site.
- J. Dispose of waste in accordance with hazardous waste legislation.
- K. Pick up any droppings and dispose of as above.
- L. Re-apply poultice and repeat procedure as necessary.

3.10 REMOVAL OF ATMOSPHERIC SOILING

- A. Perform cleaning as determined by testing. Testing will have determined chemical dilution, dwell time, abrasive type and mesh size, nozzle type, pressures, working distances and level of clean.
- B. Clean without damaging masonry.
- C. Collect and dispose of cleaning materials from the work area twice daily, at the mid-day break and at the end of the working day.
- D. Clean masonry as follows:
 - 1. Pre-wet masonry surfaces to be cleaned.
 - 2. Apply restoration cleaner in dilution determined during testing using soft-fibered brush and agitating product on surface.
 - 3. Allow product to dwell on surface a maximum of 3-5 minutes, as determined by testing.
 - 4. Thoroughly rinse all traces of cleaning solution from masonry.
 - 5. Testing will have determined if rinsing process will be carried out using Jos system.
 - 6. Reapply restoration cleaner where heavier staining requires additional application of product.
 - 7. Rinse as described above. Carry out rinsing from bottom, keeping all masonry below cleaned areas wet to avoid absorption of rinsed material into dry masonry.
 - 8. Check effectiveness of rinsing process and neutralisation of acid by testing with pH papers.
 - 9. Continue rinsing until a neutral pH reading is obtained (pH 6-8).

3.11 FINAL CLEAN DOWN OF BUILDING

- A. Immediately prior to application of cleaning materials pre-wet section of wall to be cleaned using clean water.
- B. Apply sufficient water to surfaces to point where no further water is absorbed.
- C. Apply 5% solution by weight of surfactant.

- D. Agitate on wall to create lather and to remove soiling.
- E. Do not allow to dry out.
- F. Thoroughly rinse all traces of cleaning solution from the masonry.
- G. Reapply as necessary.

END OF SECTION 045100

SECTION 061053 - MISCELLANEOUS CARPENTRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Wood blocking and miscellaneous framing.
 - 2. Plywood sheathing.

1.3 DEFINITIONS

- A. Dimension Lumber: Lumber of 2 inches nominal (38 mm actual) or greater but less than 5 inches nominal (114 mm actual) in least dimension.
- B. Lumber grading agencies, and the abbreviations used to reference them, include the following:
 - 1. NeLMA: Northeastern Lumber Manufacturers' Association.
 - 2. NLGA: National Lumber Grades Authority.
 - 3. SPIB: The Southern Pine Inspection Bureau.

1.4 SUBMITTALS

- A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Stack lumber flat with spacers between each bundle to provide air circulation. Provide for air circulation around stacks and under coverings.

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

- A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency

certified by the ALSA Board of Review. Provide lumber graded by an agency certified by the ALSA Board of Review to inspect and grade lumber under the rules indicated.

1. Factory mark each piece of lumber with grade stamp of grading agency.
2. Where nominal sizes are indicated, provide actual sizes required by DOC PS 20 for moisture content specified. Where actual sizes are indicated, they are minimum dressed sizes for dry lumber.
3. Provide dressed lumber, S4S, unless otherwise indicated.

2.2 MISCELLANEOUS LUMBER AND PLYWOOD

- A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:
 1. Blocking and miscellaneous framing.
- B. For items of dimension lumber size, provide Construction or No. 2 grade lumber with 19 percent maximum moisture content of any species.
- C. For concealed boards, provide lumber with 19 percent maximum moisture content and any of the following species and grades:
 1. Eastern softwoods, No. 2 Common grade; NELMA.
- D. For blocking used for attachment of other construction, select and cut lumber to eliminate knots and other defects that will interfere with attachment of other work.
- E. Roof Sheathing (where noted).
 1. Basis of Design: Huber Engineered Woods LLC; AdvanTech
 2. Edge Profile: Tongue-and-groove
 3. Nominal Thickness: Not less than 23/32 inch (18.3 mm).
- F. Plywood Sheathing: 3/4" CDX; exterior grade unless noted otherwise.

2.3 FIRE-RETARDANT-TREATED MATERIALS

- A. General: Where fire-retardant-treated materials are indicated, materials shall comply with requirements in this article, that are acceptable to authorities having jurisdiction, and with fire-test-response characteristics specified as determined by testing identical products per test method indicated by a qualified testing agency.
- B. Fire-Retardant-Treated Lumber and Plywood by Pressure Process: Products with a flame-spread index of 25 or less when tested according to ASTM E 84, and with no evidence of significant progressive combustion when the test is extended an additional 20 minutes, and with the flame front not extending more than 10.5 feet (3.2 m) beyond the centerline of the burners at any time during the test.
 1. Treatment shall not promote corrosion of metal fasteners.

2. Interior Type A: Treated materials shall have a moisture content of 28 percent or less when tested according to ASTM D 3201 at 92 percent relative humidity. Use where exterior type is not indicated.
3. Design Value Adjustment Factors: Treated lumber shall be tested according to ASTM D 5664 and design value adjustment factors shall be calculated according to ASTM D 6841.

2.4 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this Article for material and manufacture.
- B. Nails, Brads, and Staples: ASTM F 1667.
- C. Power-Driven Fasteners: NES NER-272.
- D. Wood Screws: ASME B18.6.1.
- E. Screws for Fastening to Cold-Formed Metal Framing or Deck: ASTM C 954, except with wafer heads and reamer wings, length as recommended by screw manufacturer for material being fastened.
- F. Lag Bolts: ASME B18.2.1 (ASME B18.2.3.8M).
- G. Bolts: Steel bolts complying with ASTM A 307, Grade A (ASTM F 568M, Property Class 4.6); with ASTM A 563 (ASTM A 563M) hex nuts and, where indicated, flat washers.
- H. Expansion Anchors: Anchor bolt and sleeve assembly of material indicated below with capability to sustain, without failure, a load equal to 6 times the load imposed when installed in unit masonry assemblies and equal to 4 times the load imposed when installed in concrete as determined by testing per ASTM E 488 conducted by a qualified independent testing and inspecting agency.
 1. Material: Carbon-steel components, zinc plated to comply with ASTM B 633, Class Fe/Zn 5.
 2. Material: Stainless steel with bolts and nuts complying with ASTM F 593 and ASTM F 594, Alloy Group 1 or 2 (ASTM F 738M and ASTM F 836M, Grade A1 or A4).
- I. Hot-Dip, Heavy-Galvanized Steel Sheet: ASTM A 653/A 653M; Structural Steel (SS), high-strength low-alloy steel Type A (HSLAS Type A), or high-strength low-alloy steel Type B (HSLAS Type B); G185 (Z550) coating designation; and not less than 0.036 inch (0.9 mm) thick.
 1. Use for wood-preserved-treated lumber and where indicated.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Set carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit carpentry to other construction; scribe and cope as needed for accurate fit. Locate nailers, blocking, and similar supports to comply with requirements for attaching other construction.
- B. Provide blocking as indicated and as required to support facing materials, fixtures, specialty items, and trim.
- C. Sort and select lumber so that natural characteristics will not interfere with installation or with fastening other materials to lumber. Do not use materials with defects that interfere with function of member or pieces that are too small to use with minimum number of joints or optimum joint arrangement.
- D. Securely attach carpentry work to substrate by anchoring and fastening as indicated, complying with the following:
 - 1. NES NER-272 for power-driven fasteners.
 - 2. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code.
- E. Use common wire nails, unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting wood; do not countersink nail heads, unless otherwise indicated.

3.2 WOOD BLOCKING INSTALLATION

- A. Install where indicated and where required for attaching other work. Form to shapes indicated and cut as required for true line and level of attached work. Coordinate locations with other work involved.
- B. Attach items to substrates to support applied loading. Recess bolts and nuts flush with surfaces, unless otherwise indicated.

END OF SECTION 061053

SECTION 062023 - INTERIOR FINISH CARPENTRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:

- 1. Interior trim.

- B. Related Requirements:

- 1. Section 061053 "Miscellaneous Rough Carpentry" for furring, blocking, and other carpentry work not exposed to view.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of process and factory-fabricated product. Indicate component materials, dimensions, profiles, textures, and colors and include construction and application details.

- B. Samples for Verification:

- 1. For each species and cut of lumber with shop-applied finish, 4 x 12 inches (100 by 300 mm).

1.4 INFORMATIONAL SUBMITTALS

- A. Sample Warranty: For manufacturer's warranty.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Stack lumber, plywood, and other panels flat with spacers between each bundle to provide air circulation. Protect materials from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

- B. Deliver interior finish carpentry materials only when environmental conditions comply with requirements specified for installation areas. If interior finish carpentry materials must be stored in other than installation areas, store only where environmental conditions comply with requirements specified for installation areas.

1.6 FIELD CONDITIONS

- A. Environmental Limitations: Do not deliver or install interior finish carpentry materials until building is enclosed and weatherproof, wet work in space is completed and nominally dry, and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels during the remainder of the construction period.
- B. Do not install finish carpentry materials that are wet, moisture damaged, or mold damaged.
 - 1. Indications that materials are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
 - 2. Indications that materials are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

- A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, comply with the applicable rules of any rules-writing agency certified by the American Lumber Standard Committee's Board of Review. Grade lumber by an agency certified by the American Lumber Standard Committee's Board of Review to inspect and grade lumber under the rules indicated.
 - 1. Factory mark each piece of lumber with grade stamp of grading agency.
 - 2. For exposed lumber, mark grade stamp on end or back of each piece.

2.2 INTERIOR TRIM AND WALL FINISH

- A. Hardwood Lumber Trim for Opaque Finish:
 - 1. Species and Grade: Match existing interior trim, Select; NHLA.
 - 2. Maximum Moisture Content: 10 percent.
 - 3. Finger Jointing: Not allowed.
 - 4. Gluing for Width: Not allowed.
 - 5. Veneered Material: Not allowed.
 - 6. Face Surface: Surfaced (smooth).

2.3 MISCELLANEOUS MATERIALS

- A. Fasteners for Interior Finish Carpentry: Nails, screws, and other anchoring devices of type, size, material, and finish required for application indicated to provide secure attachment, concealed where possible.
- B. Low-Emitting Materials: Adhesives shall comply with the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."

- C. Glue: Aliphatic-resin, polyurethane, or resorcinol wood glue recommended by manufacturer for general carpentry use.
 - 1. Adhesives shall have a VOC content of 30 g/L or less.
 - D. Multi-Purpose Construction Adhesive: Formulation complying with ASTM D 3498 that is recommended for indicated use by adhesive manufacturer.
 - 1. Adhesives shall have a VOC content of 70 g/L or less.
- 2.4 FABRICATION
- A. Back out or kerf backs of the following members, except those with ends exposed in finished work:
 - 1. Interior standing and running trim.
 - B. Ease edges of lumber to 1/16-inch micro chamfer.

PART 3 - EXECUTION

- 3.1 EXAMINATION
- A. Examine substrates, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
 - B. Examine finish carpentry materials before installation. Reject materials that are wet, moisture damaged, and mold damaged.
 - C. Proceed with installation only after unsatisfactory conditions have been corrected.
- 3.2 PREPARATION
- A. Clean substrates of projections and substances detrimental to application.
 - B. Before installing interior finish carpentry, condition materials to average prevailing humidity in installation areas for a minimum of 24 hours.
- 3.3 INSTALLATION, GENERAL
- A. Do not use materials that are unsound; warped; improperly treated or finished; inadequately seasoned; too small to fabricate with proper jointing arrangements; or with defective surfaces, sizes, or patterns.
 - B. Install interior finish carpentry level, plumb, true, and aligned with adjacent materials. Use concealed shims where necessary for alignment.

1. Scribe and cut interior finish carpentry to fit adjoining work. Refinish and seal cuts as recommended by manufacturer.
2. Where face fastening is unavoidable, countersink fasteners, fill surface flush, and sand unless otherwise indicated.
3. Install to tolerance of 1/8 inch in 96 inches (3 mm in 2438 mm) for level and plumb. Install adjoining interior finish carpentry with 1/32-inch (0.8-mm) maximum offset for flush installation and 1/16-inch (1.5-mm) maximum offset for reveal installation.
4. Coordinate interior finish carpentry with materials and systems in or adjacent to it. Provide cutouts for mechanical and electrical items that penetrate interior finish carpentry.

3.4 STANDING AND RUNNING TRIM INSTALLATION

- A. Install with minimum number of joints practical, using full-length pieces from maximum lengths of lumber available. Do not use pieces less than 24 inches (610 mm) long, except where necessary. Stagger joints in adjacent and related standing and running trim. Miter at returns, miter at outside corners, and cope at inside corners to produce tight-fitting joints with full-surface contact throughout length of joint. Use scarf joints for end-to-end joints. Plane backs of casings to provide uniform thickness across joints where necessary for alignment.
 1. Match color and grain pattern of trim for transparent finish (stain or clear finish) across joints.
 2. Install trim after gypsum-board joint finishing operations are completed.
 3. Install without splitting; drill pilot holes before fastening where necessary to prevent splitting. Fasten to prevent movement or warping. Countersink fastener heads on exposed carpentry work and fill holes.

3.5 ADJUSTING

- A. Replace interior finish carpentry that is damaged or does not comply with requirements. Interior finish carpentry may be repaired or refinished if work complies with requirements and shows no evidence of repair or refinishing. Adjust joinery for uniform appearance.

3.6 CLEANING

- A. Clean interior finish carpentry on exposed and semi-exposed surfaces. Restore damaged or soiled areas and touch up factory-applied finishes if any.

3.7 PROTECTION

- A. Protect installed products from damage from weather and other causes during construction.
- B. Remove and replace finish carpentry materials that are wet, moisture damaged, and mold damaged.
 1. Indications that materials are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.

2. Indications that materials are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

END OF SECTION 062023

SECTION 075323 - ETHYLENE-PROPYLENE-DIENE-MONOMER (EPDM) ROOFING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

1. Adhered ethylene-propylene-diene-terpolymer (EPDM) roofing system.
2. Roof insulation.

B. Related Requirements:

1. Section 061053 "Miscellaneous Rough Carpentry" for wood nailers, curbs, and blocking.
2. Section 076200 "Sheet Metal Roofing, Flashing, and Trim" for roof edge flashings and counterflashings.
3. Section 079200 "Joint Sealants" for joint sealants, joint fillers, and joint preparation.

1.3 DEFINITIONS

- A. Roofing Terminology: Definitions in ASTM D 1079 and glossary of NRCA's "The NRCA Roofing Manual: Membrane Roof Systems" apply to work of this Section.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.

- B. Shop Drawings: Include roof plans, sections, details, and attachments to other work, including the following:

1. Layout and thickness of insulation.
2. Base flashings and membrane terminations.
3. Flashing details at penetrations.
4. Tapered insulation, thickness, and slopes.
5. Roof plan showing orientation of steel roof deck and orientation of roof membrane and fastening spacings and patterns for mechanically fastened roofing system.
6. Insulation fastening patterns for corner, perimeter, and field-of-roof locations.

- C. Wind Uplift Resistance Submittal: For roofing system, indicating compliance with wind uplift performance requirements.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer and manufacturer.
- B. Manufacturer Certificates:
 - 1. Performance Requirement Certificate: Signed by roof membrane manufacturer, certifying that roofing system complies with requirements specified in "Performance Requirements" Article.
 - a. Submit evidence of complying with performance requirements.
 - 2. Special Warranty Certificate: Signed by roof membrane manufacturer, certifying that all materials supplied under this Section are acceptable for special warranty.
- C. Sample Warranties: For manufacturer's special warranties.

1.6 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For roofing system to include in maintenance manuals.
- B. Certified statement from existing roof membrane manufacturer stating that existing roof warranty has not been affected by Work performed under this Section.

1.7 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's special warranty.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, approval or listing agency markings, and directions for storing and mixing with other components.
- B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid material from direct sunlight.
 - 1. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.
- C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Store in a dry location. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.

- D. Handle and store roofing materials, and place equipment in a manner to avoid permanent deflection of deck.

1.9 FIELD CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed according to manufacturer's written instructions and warranty requirements.

1.10 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within specified warranty period.
 - 1. Special warranty includes roof membrane, base flashings, roof insulation, fasteners, substrate board, and other components of roofing system.
 - 2. Warranty Period: 30 years from Date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. General Performance: Installed roofing system and base flashings shall withstand specified uplift pressures, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Roofing and flashings shall remain watertight.
 - 1. Accelerated Weathering: Roof membrane shall withstand 2000 hours of exposure when tested according to ASTM G 152, ASTM G 154, or ASTM G 155.
 - 2. Impact Resistance: Roof membrane shall resist impact damage when tested according to ASTM D 3746, ASTM D 4272, or the Resistance to Foot Traffic Test in FM Approvals 4470.
- B. Material Compatibility: Roofing materials shall be compatible with one another and adjacent materials under conditions of service and application required, as demonstrated by roof membrane manufacturer based on testing and field experience.
- C. Wind Uplift Resistance: Design roofing system to resist wind uplift pressures when tested according to FM Approvals 4474, UL 580, or UL 1897:
 - 1. Calculate wind pressure based on wind speed, exposure and use; see Structural Drawings.

2.2 ETHYLENE-PROPYLENE-DIENE-TERPOLYMER (EPDM) ROOFING

- A. EPDM Sheet: ASTM D 4637/D 4637M, Type I, non-reinforced, EPDM sheet with factory-applied seam tape.

1. Thickness: 90 mils (2.2 mm), nominal.
2. Exposed Face Color: Black.
3. Source Limitations: Obtain components for roofing system from manufacturers approved by roof membrane manufacturer.

2.3 AUXILIARY ROOFING MATERIALS

- A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with other roofing components.
 1. Adhesive and Sealants: Comply with VOC limits of authorities having jurisdiction.
- B. Sheet Flashing: Thickness required by manufacturer to meet warranty requirements; EPDM, partially cured or cured, according to application.
- C. Prefabricated Pipe Flashings: As recommended by roof membrane manufacturer.
- D. Bonding Adhesive: Manufacturer's Low VOC, solvent based.
- E. Seaming Material: Factory-applied seam tape, width as recommended by manufacturer.
- F. Lap Sealant: Manufacturer's standard, single-component sealant.
- G. Water Cutoff Mastic: Manufacturer's standard butyl mastic sealant.
- H. Metal Termination Bars: Manufacturer's standard; predrilled stainless steel or aluminum bars, approximately 1 by 1/8 inch (25 by 3 mm) thick; with anchors.
- I. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening components to substrate, and acceptable to roofing system manufacturer.
- J. Miscellaneous Accessories: Provide pourable sealers, preformed cone and vent sheet flashings, molded pipe boot flashings, preformed inside and outside corner sheet flashings, reinforced EPDM securement strips, T-joint covers, in-seam sealants, termination reglets, cover strips, and other accessories.

2.4 ROOF INSULATION

- A. General: Preformed roof insulation boards manufactured or approved by EPDM roof membrane manufacturer.
- B. Polyisocyanurate Insulation High-Density Insulation: ASTM C1289 Type II, Class 4, Grade 1, 1/2 inch (13mm) thick, with a minimum compressive strength of 80 psi (551 kPa).

2.5 INSULATION ACCESSORIES

- A. General: Roof insulation accessories recommended by insulation manufacturer for intended use and compatibility with other roofing system components.
- B. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening roof insulation and cover boards to substrate, and acceptable to roofing system manufacturer.
- C. Insulation Adhesive: Insulation manufacturer's recommended adhesive formulated to attach roof insulation to substrate or to another insulation layer as follows:
 - 1. Bead-applied, low-rise, one-component or multicomponent urethane adhesive.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance of the Work.
 - 1. Verify that roof openings and penetrations are in place, curbs are set and braced, and roof-drain bodies are securely clamped in place.
 - 2. Verify that wood blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match thicknesses of insulation.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing system installation according to roofing system manufacturer's written instructions. Remove sharp projections.
- B. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction. Remove roof-drain plugs when no work is taking place or when rain is forecast.

3.3 ROOFING INSTALLATION, GENERAL

- A. Install roofing system according to roofing system manufacturer's written instructions.
- B. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system at end of workday or when rain is forecast. Remove and discard temporary seals before beginning work on adjoining roofing.

- C. Install roof membrane and auxiliary materials to tie in to existing roofing to maintain weathertightness of transition and to not void warranty for existing roofing system.
- D. Coordinate installation and transition of roofing system component serving as an air barrier with vapor retarder/air barrier.

3.4 INSULATION INSTALLATION

- A. Coordinate installing roofing system components so insulation is not exposed to precipitation or left exposed at end of workday.
- B. Comply with roofing system and insulation manufacturer's written instructions for installing roof insulation.
- C. Install insulation with long joints of insulation in a continuous straight line with end joints staggered between rows, abutting edges and ends between boards. Fill gaps exceeding 1/4 inch (6 mm) with insulation.
 - 1. Cut and fit insulation within 1/4 inch (6 mm) of nailers, projections, and penetrations.

3.5 ADHERED ROOFING INSTALLATION

- A. Adhere roof membrane over area to receive roofing according to roofing system manufacturer's written instructions.
- B. Unroll roof membrane and allow to relax before installing.
- C. Start installation of roofing in presence of roofing system manufacturer's technical personnel.
- D. Accurately align roof membrane, and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.
- E. Bonding Adhesive: Apply to substrate and underside of roof membrane at rate required by manufacturer, and allow to partially dry before installing roof membrane. Do not apply to splice area of roof membrane.
- F. In addition to adhering, mechanically fasten roof membrane securely at terminations, penetrations, and perimeter of roofing.
- G. Apply roof membrane with side laps shingled with slope of roof deck where possible.
- H. Adhesive Seam Installation: Clean both faces of splice areas, apply splicing cement.
 - 1. Firmly roll side and end laps of overlapping roof membrane to ensure a watertight seam installation.
 - 2. Apply lap sealant and seal exposed edges of roofing terminations.
 - 3. Apply a continuous bead of in-seam sealant before closing splice if required by roofing system manufacturer.

- I. Tape Seam Installation: Clean and prime both faces of splice areas, apply splice tape.
 - 1. Firmly roll side and end laps of overlapping roof membrane to ensure a watertight seam installation.
 - 2. Apply lap sealant and seal exposed edges of roofing terminations.
- J. Repair tears, voids, and lapped seams in roof membrane that do not comply with requirements.

3.6 BASE FLASHING INSTALLATION

- A. Install sheet flashings and preformed flashing accessories, and adhere to substrates according to roofing system manufacturer's written instructions.
- B. Apply bonding adhesive to substrate and underside of sheet flashing at required rate, and allow to partially dry. Do not apply to seam area of flashing.
- C. Flash penetrations and field-formed inside and outside corners with cured or uncured sheet flashing.
- D. Clean splice areas, apply splicing cement, and firmly roll side and end laps of overlapping sheets to ensure a watertight seam installation. Apply lap sealant and seal exposed edges of sheet flashing terminations.
- E. Terminate and seal top of sheet flashings and mechanically anchor to substrate through termination bars.

3.7 FIELD QUALITY CONTROL

- A. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion.
- B. Repair or remove and replace components of membrane roofing system where inspections indicate that they do not comply with specified requirements.
- C. Additional inspections, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

3.8 PROTECTING AND CLEANING

- A. Protect roofing system from damage and wear during remainder of construction period. When remaining construction does not affect or endanger roofing system, inspect roofing system for deterioration and damage, describing its nature and extent in a written report, with copies to Architect and Owner.
- B. Correct deficiencies in or remove roofing system that does not comply with requirements, repair substrates, and repair or reinstall roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.

- C. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

END OF SECTION 075323

SECTION 076200 - SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

- 1. Formed sheet-metal flashing and trim fabrications.

B. Related Requirements:

- 1. division 6 Section "Miscellaneous Carpentry" for wood nailers, curbs, and blocking.
- 2. Division 7 Section "EPDM Membrane Roofing" for installing sheet metal flashing and trim integral with roofing membrane.
- 3. Division 7 Section "Joint Sealants" for field-applied sheet metal flashing and trim sealants.

1.3 COORDINATION

- A. Coordinate sheet metal flashing and trim installation with adjoining roofing and wall materials, joints, and seams to provide leak-proof, secure, and non-corrosive installation.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

- 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each manufactured product, type of panel and accessory.

1.5 QUALITY ASSURANCE

- A. Fabricator Qualifications: Employs skilled workers who custom fabricate sheet metal flashing, trim and roofing similar to that required for this Project and whose products have a record of successful in-service performance.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver components, metal panels, and other manufactured items so as not to be damaged or deformed. Package metal panels for protection during transportation and handling.

- B. Unload, store, and erect metal panels in a manner to prevent bending, warping, twisting, and surface damage.
- C. Stack metal panels horizontally on platforms or pallets, covered with suitable weathertight and ventilated covering. Store metal panels to ensure dryness, with positive slope for drainage of water.
- D. Do not store sheet metal flashing and trim materials in contact with other materials that might cause staining, denting, or other surface damage. Store sheet metal flashing, trim and roofing materials away from uncured concrete and masonry.
- E. Protect strippable protective covering on sheet metal flashing and trim from exposure to sunlight and high humidity, except to extent necessary for period of sheet metal flashing, trim and roofing installation.

1.7 FIELD CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit assembly of metal panels to be performed according to manufacturers' written instructions and warranty requirements.

1.8 WARRANTY

- A. Prepainted galvalume Warranty: 30 years from date of Substantial Completion.

1.9 PERFORMANCE REQUIREMENTS

- A. General: Sheet metal flashing and trim assemblies shall withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight.
- B. General Performance: Sheet metal roofing system including, but not limited to, metal roof panels, cleats, anchors and fasteners, sheet metal flashing integral with sheet metal roofing, fascia panels, trim, battens, underlayment, and accessories, shall comply with requirements without failure due to defective manufacture, fabrication, or installation, or due to other defects in construction. Sheet metal roofing and flashing shall remain watertight.
- C. Sheet Metal Standard for Flashing, Trim and Roofing: Comply with NRCA's "The NRCA Roofing Manual" and SMACNA's "Architectural Sheet Metal Manual" requirements for dimensions and profiles shown unless more stringent requirements are indicated.
- D. SPRI Wind Design Standard: Manufacture and install roof edge flashings tested according to ANSI/SPRI ES-1.
- E. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

PART 2 - PRODUCTS

2.1 SHEET METALS

- A. General: Protect mechanical and other finishes on exposed surfaces from damage by applying strippable, temporary protective film before shipping.
- B. Metallic-Coated Steel Sheet Prepainted with Coil Coating: Steel sheet metallic coated by the hot-dip process and prepainted by the coil-coating process to comply with ASTM A 755/A 755M.
1. Galvalume, ASTM A-792-83, AZ50, 50 ksi yield point, 52 ksi tensile strength.
 2. Surface: Smooth, flat finish.
 3. Thickness: 24 gauge.
 4. Exposed Finishes: Apply the following coil coating:
 - a. High-Performance Organic Finish: Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
 - 1) Fluorocarbon Finish: Manufacturer's standard 35-year color coatings comprised of a .8-.9 mil, full-strength, 70% Kynar 500 fluorocarbon (Polyvinylidene Fluoride PVF2) coating over a urethane primer of .2-.3 mil on the finish side, with primer and a wash coat on the reverse. Face fill thickness 1.0 mil \pm .2 mil.
 - 2) Film Thickness: Topside Finish: Primer shall be .2-.3 mil. Kynar 500 top coat shall to .8-.9 mil. Reverse side finish shall be .2-.3 mil primer with a wash coat. Total dry-film thickness for the coating system shall be 1.00 mil nominal. All measurements per NCCA Technical Bulletin II-4 or ASTM D1005-84.
 - 3) Specular Gloss: As determined per ASTM D523-85 at a glossmeter angle of 60 degrees. 10% maximum specular reflectance.
 - 4) Humidity Resistance: No blistering, cracking, peeling, loss of gloss or softening of the finish after 3,000 hours aluminum/1,000 hours coated steel, of exposure at 100% humidity at 95 degrees F., per Federal Test Method Standard 141, Method 6201 or ASTM D2247-87.
 - 5) Salt-Spray Resistance: Samples diagonally scored and subjected to 5% - at 95 degrees F., neutral salt spray per ASTM B117-85, then taped with Scotch #610 cellphone tape: 3,000 hours aluminum/1,000 hours coated steel, no blistering and no loss of adhesion greater than 1/8 from score line. (Samples taped one hour after removal from test cabinet.)
 - 6) Chemical Resistance: No effect after 24-hour exposure of a 10% solution of hydrochloric acid, and 18-hour exposure to 20% sulfuric acid, per ASTM D1308-85, including exposure to 10% muriatic acid and nitric acid fumes.
 - 7) Chalking Resistance: No chalking greater than #8 rating, per ASTM D659-86 test procedure after a 3,000-hour weatherometer test.
 - 8) Color Change: finish coat color change shall not exceed 5 NBS units per ASTM D-822-86, ASTM G-23-88 and ASTM D2244-85 (South Florida 10 years) test procedure after 3,000-hour weatherometer test.
 - 9) Abrasion Resistance: Shall pass 60 liters/mil., minimum of falling sand per ASTM D968-81. Method A.

5. Color: Dark Bronze

2.2 UNDERLAYMENT MATERIALS

- A. Self-Adhering, Sheet Underlayment, Polyethylene-Faced: ASTM D 1970/D 1970M, minimum of 40-mil- (1.0-mm-) thick, slip-resisting, polyethylene-film-reinforced top surface laminated to SBS-modified asphalt adhesive, with release backing; cold applied. Provide primer for adjoining concrete or masonry surfaces to receive underlayment.
- B. Slip Sheet at Galvalume: Geotextile fleece g/m² minimum.

2.3 MISCELLANEOUS MATERIALS

- A. General: Provide materials and types of fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required for complete sheet metal roofing and flashing installation and recommended by manufacturer of primary sheet metal unless otherwise indicated.
- B. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads and recommended by manufacturer of primary sheet metal.
1. General: Blind fasteners or self-drilling screws, gasketed, with hex-washer head.
- a. Exposed Fasteners: Heads matching color of sheet metal using plastic caps or factory-applied coating.
- b. Blind Fasteners: High-strength aluminum or stainless-steel rivets suitable for metal being fastened.
2. Fasteners for Zinc-Coated (Galvanized) Steel Sheet: Series 300 stainless steel or hot-dip galvanized steel according to ASTM A153/A 153M or ASTM F2329.
- C. Sealant Tape: Pressure-sensitive, 100 percent solids, gray polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, non-sag, nontoxic, non-staining tape 1/2 inch (13 mm) wide and 1/8 inch (3 mm) thick.
- D. Elastomeric Sealant: ASTM C 920, elastomeric polymer sealant; low modulus; of type, grade, class, and use classifications required to seal joints in sheet metal roofing and flashing and remain watertight.
- E. Bituminous Coating: Cold-applied asphalt emulsion complying with ASTM D 1187.
- F. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required for application.

2.4 FABRICATION, GENERAL

- A. General: Custom fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and

other characteristics of item indicated. Shop fabricate items where practicable. Obtain field measurements for accurate fit before shop fabrication.

- B. Fabricate sheet metal flashing and trim in thickness or weight needed to comply with performance requirements, but not less than that specified for each application and metal.
- C. Fabricate sheet metal flashing and trim without excessive oil canning, buckling, and tool marks and true to line and levels indicated, with exposed edges folded back to form hems.
 - 1. Seams: Fabricate nonmoving seams in accessories with flat-lock seams. Tin edges to be seamed, form seams, and solder.
- D. Sealed Joints: Form nonexpansion but movable joints in metal to accommodate elastomeric sealant to comply with SMACNA recommendations.
- E. Expansion Provisions: Where lapped or bayonet-type expansion provisions in the Work cannot be used, form expansion joints of intermeshing hooked flanges, not less than 1 inch (25 mm) deep, filled with sealant concealed within joints.
- F. Conceal fasteners and expansion provisions where possible on exposed-to-view sheet metal flashing and trim, unless otherwise indicated.
- G. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal.
 - 1. Thickness: As recommended by SMACNA's "Architectural Sheet Metal Manual" and FMG Loss Prevention Data Sheet 1-49 for application but not less than thickness of metal being secured.

2.5 ROOF SHEET METAL FABRICATIONS

- A. Roof Edge Flashing, Counterflashings and Other Shapes and Pieces needed for complete job at membrane roofs. Fabricate in minimum 96-inch- (2400-mm-) long, but not exceeding 10-foot- (3-m-) long, sections. Furnish with 6-inch- (150-mm-) wide joint cover plates.
 - 1. Joint Style: As indicated.
 - 2. Fabricate from 0.0396-inch thick, pre-painted, metallic-coated steel.

2.6 FINISHES

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Protect mechanical and painted finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- C. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, substrate, and other conditions affecting performance of the Work.
 - 1. Verify compliance with requirements for installation tolerances of substrates.
 - 2. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.
 - 3. Verify that air- or water-resistant barriers have been installed over sheathing or backing substrate to prevent air infiltration or water penetration.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

- A. General: Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement. Use fasteners, solder, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.
 - 1. Install sheet metal flashing and trim true to line, levels, and slopes. Provide uniform, neat seams with minimum exposure of solder, welds, and sealant.
 - 2. Install sheet metal flashing and trim to fit substrates and to result in watertight performance. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.
 - 3. Space cleats not more than 12 inches (300 mm) apart. Attach each cleat with at least two fasteners. Bend tabs over fasteners.
 - 4. Install exposed sheet metal flashing and trim with limited oil canning, and free of buckling and tool marks.
 - 5. Torch cutting of sheet metal flashing and trim is not permitted.
 - 6. Do not use graphite pencils to mark metal surfaces.
- B. Metal Protection: Where dissimilar metals contact each other, or where metal contacts pressure-treated wood or other corrosive substrates, protect against galvanic action or corrosion by painting contact surfaces with bituminous coating or by other permanent separation as recommended by sheet metal manufacturer or cited sheet metal standard.
 - 1. Coat concealed side of sheet metal flashing and trim with bituminous coating where flashing and trim contact wood, ferrous metal, or cementitious construction.
 - 2. Underlayment: Where installing sheet metal flashing and trim directly on cementitious or wood substrates, install underlayment and cover with slip sheet.
- C. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at maximum of 10 feet (3 m) with no joints within 24 inches (600 mm) of corner or intersection.

1. Form expansion joints of intermeshing hooked flanges, not less than 1 inch (25 mm) deep, filled with sealant concealed within joints.
 2. Use lapped expansion joints only where indicated on Drawings.
- D. Fasteners: Use fastener sizes that penetrate substrate not less than recommended by fastener manufacturer to achieve maximum pull-out resistance.
- E. Conceal fasteners and expansion provisions where possible in exposed work and locate to minimize possibility of leakage. Cover and seal fasteners and anchors as required for a tight installation.
- F. Seal joints as required for watertight construction.
1. Use sealant-filled joints unless otherwise indicated. Embed hooked flanges of joint members not less than 1 inch (25 mm) into sealant. Form joints to completely conceal sealant. When ambient temperature at time of installation is between 40 and 70 deg F (4 and 21 deg C), set joint members for 50 percent movement each way. Adjust setting proportionately for installation at higher ambient temperatures. Do not install sealant-type joints at temperatures below 40 deg F (4 deg C).
 2. Prepare joints and apply sealants to comply with requirements in Section 079200 "Joint Sealants."

3.3 ROOF FLASHING INSTALLATION

- A. General: Install sheet metal roof flashing and trim to comply with performance requirements, sheet metal manufacturer's written installation instructions, and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, set units true to line, and level as indicated. Install work with laps, joints, and seams that will be permanently watertight.
- B. Roof Edge Flashing: Anchor to resist uplift and outward forces.
1. Interlock bottom edge of roof edge flashing with continuous cleats anchored to substrate at 24-inch (600-mm) centers.
- C. Counterflashing: Coordinate installation of counterflashing with installation of base flashing. Insert counterflashing in reglets or receivers and fit tightly to base flashing. Extend counterflashing 4 inches (100 mm) over base flashing. Lap counterflashing joints a minimum of 4 inches (100 mm) and bed with sealant.
1. Secure in a waterproof manner by means of snap-in installation and sealant or lock bend and sealant.
- D. Flashing and Trim: Comply with performance requirements, manufacturer's written installation instructions, and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, and set units true to line and level as indicated. Install work with laps, joints, and seams that will be permanently watertight and weather resistant.
1. Install exposed flashing and trim that is without excessive oil canning, buckling, and tool marks and that is true to line and levels indicated, with exposed edges folded back to form hems. Install sheet metal flashing and trim to fit substrates and to result in waterproof and weather-resistant performance.

2. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 feet (3 m) with no joints allowed within 24 inches (600 mm) of corner or intersection. Where lapped or bayonet-type expansion provisions cannot be used or would not be sufficiently weather resistant and waterproof, form expansion joints of intermeshing hooked flanges, not less than 1 inch (25 mm) deep, filled with mastic sealant (concealed within joints).

3.4 CLEANING AND PROTECTION

- A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.
- B. Clean and neutralize flux materials. Clean off excess solder and sealants.
- C. Remove temporary protective coverings and strippable films, if any, as sheet metal roofing is installed. On completion of sheet metal roofing installation, clean finished surfaces, including removing unused fasteners, metal filings, pop rivet stems, and pieces of flashing. Maintain in a clean condition during construction.
- D. Replace panels that have been damaged or have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION 076200

SECTION 077200 - ROOF ACCESSORIES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Roof hatches.

1.2 COORDINATION

- A. Coordinate layout and installation of roof accessories with interfacing and adjoining construction to provide a leakproof, weathertight, secure, and noncorrosive installation.
- B. Coordinate dimensions with rough-in information or Shop Drawings of equipment to be supported.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of roof accessory.
 - 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

1.4 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For roof accessories to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. General Performance: Roof accessories to withstand exposure to weather and resist thermally induced movement without failure, rattling, leaking, or fastener disengagement due to defective manufacture, fabrication, installation, or other defects in construction.

2.2 ROOF HATCHES

- A. Roof Hatches: Metal roof-hatch units with lids and insulated double-walled curbs, welded and sealed corner joints, continuous lid-to-curb counterflashing and weathertight perimeter gasketing, and integrally formed deck-mounting flange at perimeter bottom.

1. Basis-of-Design Product: Bilco GSS 50.
 - B. Type and Size:
 1. Single-leaf lid, 30 by 30 inches (750 by 750 mm) or as needed to match existing opening.
 - C. Loads: Minimum 40-lbf/sq. ft. (1.9-kPa) external live load and 20-lbf/sq. ft. (0.95-kPa) internal uplift load.
 1. Dome Glazing: Minimum 40-lbf/sq. ft. (1.9-kPa) external live load and 20-lbf/sq. ft. (0.95-kPa) internal uplift load.
 - D. Hatch Material, Aluminum:
 1. Thickness: 11 gauge (2.3 mm).
 2. Finish: Mill.
 - E. Construction:
 1. Insulation: 1-inch- (25-mm-) thick, fiberboard insulation.
 - a. R-Value: 2.78 according to ASTM C1363.
 2. Nailer: Factory-installed wood nailer continuous around hatch perimeter.
 3. Hatch Lid: Glazed, insulated, and double walled, with manufacturer's standard metal liner of same material and finish as outer metal lid.
 4. Curb Liner: Manufacturer's standard, of same material and finish as metal curb.
 5. Fabricate curbs to minimum height of 12 inches (305 mm) above roofing surface unless otherwise indicated.
 - F. Hatch-Lid Glazing: Single polycarbonate glazing of thickness capable of resisting indicated loads.
 1. Single-Dome Color: Colorless, transparent.
 - G. Hardware: Spring operators, hold-open arm, stainless-steel spring latch with turn handles, stainless-steel butt- or pintle-type hinge system, and padlock hasp inside.
- 2.3 METAL MATERIALS
- A. Aluminum Sheet: ASTM B209 (ASTM B209M), manufacturer's standard alloy for finish required, with temper to suit forming operations and performance required.
 1. Mill Finish: As manufactured.
 - B. Aluminum Extrusions and Tubes: ASTM B221 (ASTM B221M), manufacturer's standard alloy and temper for type of use, finished to match assembly where used; otherwise mill finished.
 - C. Steel Tube: ASTM A500/A500M, round tube.

- D. Galvanized-Steel Tube: ASTM A500/A500M, round tube, hot-dip galvanized according to ASTM A123/A123M.
- E. Steel Pipe: ASTM A53/A53M, galvanized.

2.4 MISCELLANEOUS MATERIALS

- A. Provide materials and types of fasteners, protective coatings, sealants, and other miscellaneous items required by manufacturer for a complete installation.

2.5 GENERAL FINISH REQUIREMENTS

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, to verify actual locations, dimensions, and other conditions affecting performance of the Work.
- B. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.
- C. Verify dimensions of roof openings for roof accessories.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install roof accessories according to manufacturer's written instructions.
 - 1. Install roof accessories level; plumb; true to line and elevation; and without warping, jogs in alignment, buckling, or tool marks.
 - 2. Anchor roof accessories securely in place so they are capable of resisting indicated loads.
 - 3. Use fasteners, separators, sealants, and other miscellaneous items as required to complete installation of roof accessories and fit them to substrates.
 - 4. Install roof accessories to resist exposure to weather without failing, rattling, leaking, or loosening of fasteners and seals.

- B. Metal Protection: Protect metals against galvanic action by separating dissimilar metals from contact with each other or with corrosive substrates by painting contact surfaces with bituminous coating or by other permanent separation as recommended by manufacturer.
 - 1. Coat concealed side of uncoated aluminum roof accessories with bituminous coating where in contact with wood, ferrous metal, or cementitious construction.
 - 2. Underlayment: Where installing roof accessories directly on cementitious or wood substrates, install a course of underlayment and cover with manufacturer's recommended slip sheet.
 - 3. Bed flanges in thick coat of asphalt roofing cement where required by manufacturers of roof accessories for waterproof performance.
- C. Roof-Hatch Installation:
 - 1. Verify that roof hatch operates properly. Clean, lubricate, and adjust operating mechanism and hardware.

3.3 REPAIR AND CLEANING

- A. Galvanized Surfaces: Clean field welds, bolted connections, and abraded areas and repair galvanizing according to ASTM A780/A780M.
- B. Touch up factory-primed surfaces with compatible primer ready for field painting according to Division 9 Section "Exterior Painting."
- C. Clean exposed surfaces according to manufacturer's written instructions.
- D. Clean off excess sealants.
- E. Replace roof accessories that have been damaged or that cannot be successfully repaired by finish touchup or similar minor repair procedures.

END OF SECTION 077200

SECTION 079200 - JOINT SEALANTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes sealants for the following applications, including those specified by reference to this Section.
- B. This Section includes joint sealants for the following applications:
 - 1. Exterior joints in the following vertical surfaces and nontraffic horizontal surfaces:
 - a. Reglet joints for flashing in masonry.
 - b. Perimeter joints at exterior openings where indicated.
 - 2. Interior joints in the following vertical surfaces and nontraffic horizontal surfaces:
 - a. Perimeter joints of exterior openings where indicated.

1.3 PERFORMANCE REQUIREMENTS

- A. Provide elastomeric joint sealants that establish and maintain watertight and airtight continuous joint seals without staining or deteriorating joint substrates.
- B. Provide joint sealants for interior applications that establish and maintain airtight and water-resistant continuous joint seals without staining or deteriorating joint substrates.

1.4 SUBMITTALS

- A. Product Data: For each joint-sealant product indicated.
- B. Samples for Initial Selection: Manufacturer's color charts consisting of strips of cured sealants showing the full range of colors available for each product exposed to view.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who has specialized in installing joint sealants similar in material, design, and extent to those indicated for this Project and whose work has resulted in joint-sealant installations with a record of successful in-service performance.
- B. Source Limitations: Obtain each type of joint sealant through one source from a single manufacturer.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to Project site in original unopened containers or bundles with labels indicating manufacturer, product name and designation, color, expiration date, pot life, curing time, and mixing instruction for multi-component materials.
- B. Store and handle materials in compliance with manufacturer's written instructions to prevent their deterioration or damage due to moisture, high or low temperatures, contaminants, or other causes.

1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Do not proceed with installation of joint sealants under the following conditions:
 - 1. When ambient and substrate temperature conditions are outside limits permitted by joint-sealant manufacturer.
 - 2. When joint substrates are wet.
- B. Joint-Width Conditions: Do not proceed with installation of joint sealants where joint widths are less than those allowed by joint sealant manufacturer for applications indicated.
- C. Joint-Substrate Conditions: Do not proceed with installation of joint sealants until contaminants capable of interfering with adhesion are removed from joint substrates.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the products specified in the sealant schedules at the end of Part 3.

2.2 MATERIALS, GENERAL

- A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by sealant manufacturer, based on testing and field experience.

- B. VOC Content of Interior Sealants: Provide interior sealants and sealant primers that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
 - 1. Sealants: 250 g/L.
 - 2. Sealant Primers for Nonporous Substrates: 250 g/L.
 - 3. Sealant Primers for Porous Substrates: 775 g/L.
- C. Colors of Exposed Joint Sealants: As selected from manufacturer's full range for this characteristic.

2.3 ELASTOMERIC JOINT SEALANTS

- A. Elastomeric Sealant Standards: Comply with ASTM C 920 and other requirements indicated for each liquid-applied chemically curing sealant in the Elastomeric Joint-Sealant Schedule at the end of Part 3, including those referencing ASTM C 920 classifications for type, grade, class, and uses related to exposure and joint substrates.

2.4 JOINT-SEALANT BACKING

- A. General: Provide sealant backings of material and type that are nonstaining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.
- B. Cylindrical Sealant Backings: ASTM C 1330, of type indicated below and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance:
 - 1. Type C: Closed-cell material with a surface skin.
 - 2. Type O: Open-cell material.
 - 3. Type B: Bicellular material with a surface skin.
 - 4. Type: Any material indicated above.
- C. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint where such adhesion would result in sealant failure. Provide self-adhesive tape where applicable.

2.5 MISCELLANEOUS MATERIALS

- A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.
- B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming joint substrates and adjacent nonporous surfaces in any way, and formulated to promote optimum adhesion of sealants to joint substrates.

- C. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint-sealant performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions and the following requirements:
 - 1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.
 - 2. Clean porous joint substrate surfaces by brushing, grinding, blast cleaning, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining after cleaning operations above by vacuuming or blowing out joints with oil-free compressed air. Porous joint substrates include the following:
 - a. Masonry.
 - 3. Remove laitance and form-release agents from concrete.
 - 4. Clean nonporous surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants. Nonporous joint substrates include the following:
 - a. Metal.
 - b. Glass.
- B. Joint Priming: Prime joint substrates, where recommended in writing by joint-sealant manufacturer, based on preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.
- C. Masking Tape: Use masking tape where required to prevent contact of sealant with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

3.3 INSTALLATION OF JOINT SEALANTS

- A. General: Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.
- B. Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.
- C. Install sealant backings of type indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
 - 1. Do not leave gaps between ends of sealant backings.
 - 2. Do not stretch, twist, puncture, or tear sealant backings.
 - 3. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.
- D. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.
- E. Install sealants using proven techniques that comply with the following and at the same time backings are installed:
 - 1. Place sealants so they directly contact and fully wet joint substrates.
 - 2. Completely fill recesses in each joint configuration.
 - 3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.
- F. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.
 - 1. Remove excess sealant from surfaces adjacent to joints.
 - 2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
 - 3. Provide concave joint configuration per Figure 5A in ASTM C 1193, unless otherwise indicated.
 - 4. Provide flush joint configuration where indicated per Figure 5B in ASTM C 1193.
 - 5. Provide recessed joint configuration of recess depth and at locations indicated per Figure 5C in ASTM C 1193.
 - a. Use masking tape to protect surfaces adjacent to recessed tooled joints.

3.4 CLEANING

- A. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

3.5 PROTECTION

- A. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from original work.

3.6 ELASTOMERIC JOINT-SEALANT SCHEDULE

- A. Sealant: Where joint sealants of this type are indicated, provide products complying with the following:
1. Products: Provide the following or equivalent:
 - a. Geocel 2300 Construction Tripolymer Sealant.
 2. Applications: Joints at flashing in reglets in masonry and in seams of sheet-metal roofing.

3.7 LATEX JOINT-SEALANT SCHEDULE

- A. Latex Sealant: Where joint sealants of this type are required, provide products complying with the following:
1. Products: Provide one of the following:
 - a. Sherwin Williams Powerhouse 1100A Siliconized Acrylic Latex Caulk.
 - b. OSI Green Series Acrylic Urethane Indoor/Outdoor Sealant.
 - c. Tremco; Tremflex 834
 2. Applications: Joints in field painted vertical and overhead surfaces at perimeter of hollow metal frames in gypsum drywall and other interior painted joints.

END OF SECTION 079200

SECTION 090320 - HISTORIC TREATMENT OF PLASTER

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

- 1. Repair and replacement of historic interior lime plaster.

- B. Related Requirements:

- 1. Section 099000 "Painting".

1.3 ALLOWANCES

- A. Allowances for historic treatment of plaster are specified in Section 012100 "Allowances."

- 1. Perform historic treatment of plaster under quantity allowances and only as authorized. Authorized work includes work required by Drawings and Specifications and work as directed in writing by Architect.
- 2. Notify Owner and Architect weekly of extent of work performed that is attributable to quantity allowances.
- 3. Perform work that exceeds quantity allowances only as authorized by Change Orders.

- B. Repair and replace plasterwork in stair towers as part of Allowance #1.

1.4 UNIT PRICES

- A. Work of this Section is affected by unit prices specified in Section 012200 "Unit Prices."

- 1. Unit prices apply to authorized work covered by quantity allowances.
- 2. Unit prices apply to additions to and deletions from Work as authorized by Change Orders.

1.5 PRE-INSTALLATION MEETINGS

- A. Pre-Installation Conference: Conduct conference at Project site.

1.6 SEQUENCING AND SCHEDULING

- A. Perform historic treatment of plaster in the following sequence, which includes work specified in this and other Sections:
1. Verify that temporary protections have been installed.
 2. Examine condition of plaster surfaces.
 3. Clean plaster surface and remove paint and other finishes to the extent required.
 4. Repair and replace existing plaster and supports to the degree required for a uniform, tightly adhered surface on which to paint or apply other finishes.
 5. Cure repaired surfaces and allow them to dry for proper finishing.
 6. Paint and apply other finishes.

1.7 ACTION SUBMITTALS

- A. Product Data: For each type of product.
1. Include recommendations for product application and use.

1.8 QUALITY ASSURANCE

- A. Mockups: Prepare mockups of historic treatment processes for each type of plaster repair and reconstruction work to demonstrate aesthetic effects and to set quality standards for materials and execution and for fabrication and installation.
1. Locate mockups in locations that enable viewing under same conditions as the completed Work.
 2. Number and Size: Two wall surfaces of at least 50 sq. ft. (4.5 sq. m) or approximately 48 inches (1200 mm) in least dimension to represent surfaces and conditions for application of each type of plaster repair and reconstruction under same conditions as the completed Work. Include at least the following:
 - a. Patch 10-sq. ft. (1-sq. m) area of wet-applied plaster replacement.
 - b. Repair 3 linear ft. (1 m) of plaster cracks.
 - c. Reattach 4-sq. ft. (4-sq. m) area of delaminated plaster that has not fallen.
 3. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Deliver packaged materials to Project site in manufacturer's original and unopened containers, labeled with manufacturer's name and type of products.
- B. Store materials on elevated platforms, under cover, and in a dry location with ambient temperatures continuously maintained at not less than 45 deg F (7 deg C).

- C. Store hydrated lime and factory-prepared lime putty in manufacturer's original and unopened containers. Discard lime if containers have been damaged or have been opened for more than two days.
- D. Store materials not in use in tightly covered containers.
- E. Store lime putty covered with water in sealed containers.
- F. Store sand where grading and other required characteristics can be maintained and contamination avoided.

1.10 FIELD CONDITIONS

- A. Comply with plaster-material manufacturers' written instructions.
- B. Temperatures: Maintain temperatures in work areas at not less than 55 deg F (13 deg C) or greater than 80 deg F (27 deg C) for at least seven days before application of plaster, continuously during application, and for seven days after plaster has set or until plaster has dried.
- C. Avoid conditions that result in plaster drying out too quickly.
 - 1. Distribute heat evenly; prevent concentrated or uneven heat on plaster.
 - 2. Maintain relative humidity levels for prevailing ambient temperature that produce normal drying conditions.
 - 3. Ventilate work areas in a manner that prevents drafts of air from contacting surfaces during plaster application and until plaster is dry.

PART 2 - PRODUCTS

2.1 LIME-PLASTER MATERIALS

- A. Hydrated Lime: ASTM C206, Type N.
- B. Lime Putty: Factory-prepared lime putty according to ASTM C1489.
- C. Sand Aggregates: ASTM C897.
- D. Fiber: 1/2 to 1 inch (13 to 25 mm) in length; composed of alkali-resistant glass or polypropylene fiber; free of grease, waxes, and oils; and beaten well to separate fibers before blending into unfibered plaster material.
 - 1. Proportion of Fiber to Unfibered Plaster Material: 3.5 oz./cu. ft. (3.5 g/L) of unfibered plaster material, adjusted as required to produce a well-fibered, cohesive, spreadable, stiff mix with fibers uniformly distributed.

2.2 MISCELLANEOUS MATERIALS

- A. Water for Mixing and Finishing Plaster: Potable and free of substances capable of affecting plaster set or of damaging plaster, lath, or accessories.
- B. Plaster-Stabilization Materials: Acrylic emulsion(s) and related installation products shall have proven effectiveness in reattaching delaminated plaster and shall have been used previously by historic treatment specialist with successful results.
 - 1. Acrylic Emulsion(s), General: Aqueous emulsion(s) of acrylic polymer, adhesive to plaster and plaster substrates, nontoxic, and non-reemulsifiable after curing.
 - 2. Prewet Solution: Low-viscosity acrylic emulsion.
 - 3. Adhesive: Thickened acrylic emulsion; thickener as recommended in writing by resin manufacturer and historic treatment specialist.
- C. Other Products: Select materials and methods of use based on the following, subject to approval of a mockup:
 - 1. Previous effectiveness in performing the work involved.
 - 2. Little possibility of damaging exposed surfaces.
 - 3. Consistency of each application.
 - 4. Uniformity of the resulting overall appearance.
 - 5. Do not use products or tools that could do the following:
 - a. Remove, alter, or in any way harm the present condition or future preservation of existing surfaces, including surrounding surfaces not in contract.
 - b. Leave an unintended residue on surfaces.

PART 3 - EXECUTION

3.1 HISTORIC TREATMENT OF PLASTER, GENERAL

- A. Historic Treatment Appearance Standard: Completed work is to have a uniform appearance as viewed by Architect from building interior at 10 feet (3 m) away from surface.
- B. General: In treating historic plaster, disturb it as minimally as possible and as follows unless otherwise indicated:
 - 1. Dismantle loose, damaged, or deteriorated plaster that cannot be repaired.
 - 2. Verify extent of plaster deterioration against that indicated on Drawings. Consult Architect on types and extent of required work.
 - 3. Verify that substrate surface conditions are suitable for repairs.
 - 4. Leave repaired plasterwork in proper condition for painting or applying other finishes as indicated.

3.2 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for substrate and environmental conditions, installation tolerances, and other conditions affecting performance of the Work.
 - 1. If existing substrates cannot be prepared to an acceptable condition for plastering work, notify Architect in writing.
 - 2. Notify Architect of undocumented detrimental conditions including cracks, bulges, loose backup, rotted wood, rusted metal, and other deteriorated items.
- B. Masonry Substrates: Verify that mortar joints are struck flush. Notify Architect of undocumented masonry substrate without flush joints. Proceed with plastering as directed by Architect.
- C. Begin historic plastering work only after unsatisfactory conditions have been corrected.

3.3 PREPARATION FOR PLASTERING

- A. Substrates: Prepare according to plaster manufacturer's written instructions and as follows:
 - 1. Clean surfaces to remove dust, loose particles, grease, oil, incompatible curing compounds, form-release agents, and other foreign matter and deposits that could impair bond with plaster.
 - 2. Remove ridges and protrusions greater than 1/8 inch (3 mm) and fill depressions greater than 1/4 inch (6 mm) with patching material. Allow to set and dry.

3.4 PLASTER REMOVAL AND REPLACEMENT, GENERAL

- A. Dismantle plaster that is damaged or deteriorated to the limits indicated. Carefully dismantle areas along straight edges that lie over supports, without damaging surrounding plasterwork.
- B. Notify Architect of undocumented detrimental conditions including cracks, bulges, loose backup, and other deteriorated items.
- C. Do not deviate more than plus or minus 1/8 inch in 10 feet (3 mm in 3 m) from a true plane in finished plaster surfaces, as measured by a 10-foot (3-m) straightedge placed on surface.
- D. Clean substrate surfaces to remove grease, waxes, oils, waterborne staining, debris, and other foreign matter and deposits that could impair bond with repair material.
- E. Wet masonry bases before plaster application. Keep substrate damp to the touch but without visible water droplets.
- F. Wet remaining plaster abutting the replacement plaster before installing new plasterwork.
- G. Finish plaster flush with metal frames and other built-in metal items or accessories that act as a plaster ground unless otherwise indicated. Where casing bead does not terminate plaster at metal frame, cut base coat free from metal frame before plaster sets and groove finish coat at junctures with metal.

- H. Provide plaster surfaces that are ready to receive field-applied finishes indicated.

3.5 FLAT LIME-PLASTER REMOVAL AND REPLACEMENT

- A. General: Dismantle deteriorated plaster to existing sound plaster at locations indicated on Drawings.
 - 1. Sand bonding surfaces of repair area, and clean the surface with a nonmetallic bristle brush.
 - 2. Wet substrate to damp condition, but without visible water droplets, then install new plaster to original profiles.
- B. Lime-Plaster Base Coats:
 - 1. Scratch Coat: 1 part lime putty, 2-1/2 parts base-coat sand.
 - 2. Brown Coat: 1 part lime putty, 3 parts base-coat sand.
- C. Lime-Plaster Finish Coats:
 - 1. Finish-Coat Mix for Smooth-Float Finish or Finish-Coat Mix for Sandy-Float Finish: As required to match finish of design reference sample.
- D. Lime-Plaster Finishes: Match finish(es) of design reference sample(s).
- E. Hairline cracking within the plaster or plaster separation at edge of a replacement is unacceptable. Completely dismantle such work and reinstall or repair as a crack repair.

3.6 PATCH-TYPE REPAIR

- A. General: Patch voids, fractured surfaces, and crushed areas in otherwise sound plaster that are larger than cracks.
 - 1. Notify Architect of undocumented detrimental conditions including cracks, bulges, loose backup, and other deteriorated items.
 - 2. Inspect for deterioration of supporting plaster, and repair or replace deteriorated material as required for a sound substrate.
 - 3. Rake perimeter of hole to sound plaster, and slightly undercut existing plaster to enable replacement plaster to tuck behind existing plaster.
 - 4. Clean hole to remove loose materials and other foreign matter and deposits that could impair bond with repair material. Where grease, waxes, oils, waterborne staining, or other foreign matter and deposits that could impair bond with repair material have penetrated into the plaster, enlarge the hole to remove these deposits.
 - 5. Wet substrate to damp condition, but without visible water droplets, then install patch material to original profiles.
 - 6. Maintain adjacent plasterwork in an undamaged condition so far as practicable.
- B. Lime-Plaster Mix: Repair mix demonstrated in mockup.

- C. Finishing: Finish flat surfaces flush and with same texture as adjacent existing plaster. For molded plaster shapes, tool surface to restore the sharp edges and the shape of the molded shape to original contours.
- D. Hairline cracking within the plaster or plaster separation at edge of a patch is unacceptable. Completely dismantle such work and reinstall or repair.

3.7 HAIRLINE CRACK REPAIR

- A. General: Repair cracks 1/16 inch in width or narrower in otherwise sound plaster.
 - 1. Notify Architect of undocumented detrimental conditions including cracks, bulges, loose backup, and other deteriorated items.
 - 2. Maintain adjacent plasterwork in an undamaged condition so far as practicable.
- B. Existing Topcoat: Open crack in existing topcoat to at least 1/8 inch (3 mm) in width and check for broken fiber reinforcement in base coats.
- C. Existing Base Coats: Do not open crack wider in existing base coats unless inspection or other indication shows that the fiber reinforcement has broken. Where inspections indicate failure of fiber reinforcement, proceed as for a large crack repair, but only for length of crack with broken fiber reinforcement.
- D. Clean out crack to remove loose materials and other foreign matter and deposits that could impair bond with repair material. Where grease, waxes, oils, waterborne staining, or other foreign matter and deposits that could impair bond with repair material have penetrated into the topcoat plaster, widen the crack and sand surface of the exposed basecoat to remove these deposits.
- E. Wet substrate to damp condition, but without visible water droplets.
- F. Force repair material demonstrated in mockup into crack, filling crack to original plaster profile.
- G. Finishing: Finish flat surfaces flush and with same texture as adjacent existing plaster.

3.8 LARGE CRACK REPAIR

- A. General: Repair cracks over 1/8 inch (3 mm) in width in otherwise sound plaster at locations indicated on Drawings.
 - 1. Notify Architect of undocumented detrimental conditions including cracks, bulges, loose backup, and other deteriorated items.
 - 2. Maintain adjacent plasterwork in an undamaged condition so far as practicable.
- B. Open crack to at least 1/4 inch (6 mm) in width and full depth with V-groove tool, and check for bond separation.
- C. Abrade side surfaces of crack and remove inner crack debris by gouging (keying) the inside area of the crack.

- D. Clean out crack to remove loose materials and other foreign matter and deposits that could impair bond with repair material. Where grease, waxes, oils, waterborne staining, or other foreign matter and deposits that could impair bond with repair material have penetrated into the plaster, widen the crack to remove these deposits.
- E. Wet substrate to damp condition, but without visible water droplets.
- F. Install repair material demonstrated in mockup to fill crack to original plaster profile.
- G. Finishing: Finish flat surfaces flush and with same texture as adjacent existing plaster.
- H. Offset Cracks: If the crack is offset in surface plane by more than 1/8 inch (3 mm), dismantle the plaster on each side of the crack, a minimum width of 6 inches (150 mm) and down to the substrate. Then, repair as specified for flat-plaster removal and replacement.

3.9 INSTALLATION TOLERANCES

- A. Completed plaster installation shall not deviate from a true plane by more than 1/8 inch (3 mm) as measured by a 5-foot (1.5-m) straightedge placed at any location on a surface, except where existing plaster is retained as a substrate for new plasterwork.

3.10 CLEANING AND PROTECTION

- A. Protect work of other trades against damage. Promptly remove plaster from surfaces not indicated to be repaired or plastered. Do not scratch or damage finished surfaces.
- B. Repair floors, walls, and other surfaces stained, marred, or otherwise damaged during plastering.
- C. Correct damage to other historic surfaces and to new work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- D. Remove temporary protection and enclosure of other work.

END OF SECTION 090320

SECTION 099000 - PAINTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes surface preparation, painting, and finishing of exposed interior and exterior items and surfaces.
 - 1. Surface preparation, priming, and finish coats specified in this section are in addition to shop priming and surface treatment specified under other sections.
- B. Related Sections: The following sections contain requirements that relate to this section:
 - 1. Section 062023 " Interior Finish Carpentry".
 - 2. Section 090320 "Historic Treatment of Plaster".
- C. The Owner has not tested the existing paint. Assume that all existing paint contains lead. Handle and dispose of accordingly, in accordance with State and Federal Laws and Regulations.

1.3 SUBMITTALS

- A. Product Data: Manufacturer's technical information, label analysis, and application instructions for each material proposed for use.
 - 1. List each material and cross-reference the specific coating and finish system and application. Identify each material by the manufacturer's catalog number and general classification.
- B. Samples for verification purposes: For each type of topcoat product and finish to match existing.

1.4 QUALITY ASSURANCE

- A. Single-Source Responsibility: Provide primers and block fillers produced by the same manufacturer as the finish coats.
- B. Coordination of Work: Review other sections in which primers are provided to ensure compatibility of the total systems for various substrates. On request, furnish information on characteristics of finish materials to ensure use of compatible primers.

1. Notify the Architect of problems anticipated using the materials specified.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to the job site in the manufacturer's original, unopened packages and containers bearing manufacturer's name and label and the following information:
 1. Product name or title of material.
 2. Product description (generic classification or binder type).
 3. Manufacturer's stock number and date of manufacture.
 4. Contents by volume, for pigment and vehicle constituents.
 5. Thinning instructions.
 6. Application instructions.
 7. Color name and number.
- B. Store materials not in use in tightly covered containers in a well-ventilated area at a minimum ambient temperature of 45 degrees F. Maintain containers used in storage in a clean condition, free of foreign materials and residue.
 1. Protect from freezing. Keep storage area neat and orderly. Remove oily rags and waste daily. Take necessary measures to ensure that workers and work areas are protected from fire and health hazards resulting from handling, mixing, and application.

1.6 JOB CONDITIONS

- A. Apply water-based paints only when the temperature of surfaces to be painted and surrounding air temperatures are between 50 degrees F and 90 degrees F.
- B. Apply solvent-thinned paints only when the temperature of surfaces to be painted and surrounding air temperatures are between 45 degrees F and 95 degrees F.
- C. Do not apply paint in snow, rain, fog, or mist, when the relative humidity exceeds 85 percent, at temperatures less than 5 degrees F above the dew point, or to damp or wet surfaces.
 1. Painting may continue during inclement weather if surfaces and areas to be painted are enclosed and heated within temperature limits specified by the manufacturer during application and drying periods.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, products that may be incorporated in the work include but are not limited to, the following:
 1. Sherwin Williams Co.
 2. Benjamin Moore.
 3. PPG Paints.

B. PAINT MATERIALS, GENERAL

1. Material Compatibility: Primers, and finish-coat materials that are compatible with one another and with the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
2. Material Quality: Provide manufacturer's best-quality paint material of the various coating types specified that are factory formulated and recommended by manufacturer for application indicated. Paint-material containers not displaying manufacturer's product identification will not be acceptable.
3. Chemical Components of Interior Paints and Coatings: Provide products with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24) and the following chemical restrictions:
 - a. Flat Paints and Coatings: VOC content of not more than 50 g/L.
 - b. Non-Flat Paints and Coatings: VOC content of not more than 150 g/L.
 - c. Anti-Corrosive Coatings: VOC content of not more than 250 g/L.
4. Varnishes and Sanding Sealers: VOC content of not more than 350 g/L.
5. Stains: VOC content of not more than 250 g/L.
6. Aromatic Compounds: Paints and coatings shall not contain more than 1.0 percent by weight of total aromatic compounds (hydrocarbon compounds containing one or more benzene rings).
7. Restricted Components: Paints and coatings shall not contain any of the following:
 - a. Acrolein.
 - b. Acrylonitrile.
 - c. Antimony.
 - d. Benzene.
 - e. Butyl benzyl phthalate.
 - f. Cadmium.
 - g. Di (2-ethylhexyl) phthalate.
 - h. Di-n-butyl phthalate.
 - i. Di-n-octyl phthalate.
 - j. 1,2-dichlorobenzene.
 - k. Diethyl phthalate.
 - l. Dimethyl phthalate.
 - m. Ethylbenzene.
 - n. Formaldehyde.
 - o. Hexavalent chromium.
 - p. Isophorone.
 - q. Lead.
 - r. Mercury.
 - s. Methyl ethyl ketone.
 - t. Methyl isobutyl ketone.
 - u. Methylene chloride.
 - v. Naphthalene.
 - w. Toluene (methylbenzene).
 - y. 1,1,1-trichloroethane.
 - z. Vinyl chloride.

2.3 PRIMERS

- A. Interior Wood Primer: Factory-formulated, latex-based primer for interior wood.
 - 1. Benjamin Moore; Ultra Spec Interior Latex Primer (N53400): Applied at a dry-film thickness of not less than 1.3 mils.
- B. Interior Gypsum Board and Plaster Primer: Factory-formulated latex-based primer for interior application.
 - 1. Benjamin Moore; Latex Fresh Start Primer (N023): Applied at a dry film thickness of not less than 1.3 mils.

2.4 INTERIOR FINISH PAINT MATERIAL

- A. Semi-Gloss Acrylic Latex: Semi-gloss, acrylic latex for use over a primer on wood.
 - 1. Benjamin Moore; Ultra Spec 500 Semi-Gloss Enamel (N538): Applied at a dry film thickness of not less than 1.6 mils.
- B. Latex-Based Interior Eggshell Paint: Latex-based paint for use as an eggshell finish over prime-coated gypsum drywall or plaster.
 - 1. Benjamin Moore; Ultra Spec Interior Latex Low Sheen Enamel (N537): Applied at a dry film thickness of not less than 1.6 mils (0.041 mm).

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions under which painting will be performed for compliance with requirements for application of paint. Do not begin paint application until unsatisfactory conditions have been corrected and surfaces to receive paint are thoroughly dry.
 - 1. Start of painting will be construed as the Applicator's acceptance of surfaces and conditions within a particular area.

3.2 PREPARATION

- A. General Procedures: Remove hardware and hardware accessories, plates, machined surfaces, lighting fixtures, and similar items in place that are not to be painted, or provide surface-applied protection prior to surface preparation and painting. Remove these items if necessary for complete painting of the items and adjacent surfaces. Following completion of painting operations in each space or area, have items reinstalled by workers skilled in the trades involved.

1. Clean surfaces before applying paint or surface treatments. Remove oil and grease prior to cleaning. Schedule cleaning and painting so that dust and other contaminants from the cleaning process will not fall on wet, newly painted surfaces.
- B. Cleaning: Before applying paint or other surface treatments, clean substrates of substances that could impair bond of the various coatings. Remove oil and grease before cleaning.
 1. Schedule cleaning and painting so dust and other contaminants from the cleaning process will not fall on wet, newly painted surfaces.
- C. Surface Preparation: Clean and prepare surfaces to be painted in accordance with the manufacturer's instructions for each particular substrate condition and as specified.
 1. Provide barrier coats over incompatible primers or remove and reprime. Notify Architect in writing of problems anticipated with using the specified finish-coat material with substrates primed by others.
 2. Cementitious Materials: Prepare concrete, concrete unit masonry and cement plaster surfaces to be painted. Remove efflorescence, chalk, dust, dirt, grease, oils, and release agents. Roughen as required to remove glaze. If hardeners or sealers have been used to improve curing, use mechanical methods of surface preparation.
 - a. Use abrasive blast-cleaning methods if recommended by paint manufacturer.
 - b. Determine alkalinity and moisture content of surfaces by performing appropriate tests. If surfaces are sufficiently alkaline to cause the finish paint to blister and burn, correct this condition before application. Do not paint surfaces if moisture content exceeds that permitted in manufacturer's written instructions.
 2. Wood: Clean surfaces of dirt, oil, and other foreign substances with scrapers, mineral spirits, and sandpaper, as required. Sand surfaces exposed to view smooth and dust off.
 1. Scrape and clean small, dry, seasoned knots and apply a thin coat of white shellac or other recommended knot sealer before application of primer. After priming, fill holes and imperfections in finish surfaces with putty or plastic wood filler. Sand smooth when dried.
 2. Prime or seal wood to be painted immediately upon delivery. Prime edges, ends, faces, undersides, and backsides of wood.
 3. Existing Plaster:
 - a. Remove all loose and deteriorated plaster.
 - b. Patch plaster in kind using plaster patching compound. Match adjacent surfaces to remain.
 - c. Spot prime plaster patches.
- D. Materials Preparation: Carefully mix and prepare paint materials in accordance with manufacturer's directions.
 1. Maintain containers used in mixing and application of paint in a clean condition, free of foreign materials and residue.

2. Stir material before application to produce a mixture of uniform density; stir as required during application. Do not stir surface film into material. Remove film and, if necessary, strain material before using.
 3. Use only thinners approved by the paint manufacturer, and only within recommended limits.
- E. Tinting: Tint each undercoat a lighter shade to facilitate identification of each coat where multiple coats of the same material are applied. Tint undercoats to match the color of the finish coat, but provide sufficient differences in shade of undercoats to distinguish each separate coat.

3.3 APPLICATION

- A. Apply paint in accordance with manufacturer's directions. Use applicators and techniques best suited for substrate and type of material being applied.
- B. Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to formation of a durable paint film.
1. Surface treatments, and finishes are indicated in "schedules."
 2. Provide finish coats that are compatible with primers used.
- C. The number of coats and film thickness required is the same regardless of the application method. Do not apply succeeding coats until the previous coat has cured as recommended by the manufacturer. Sand between applications where sanding is required to produce an even smooth surface in accordance with the manufacturer's directions.
- D. Apply additional coats when undercoats, stains, or other conditions show through final coat of paint until paint film is of uniform finish, color, and appearance. Give special attention to ensure that surfaces, including edges, corners, crevices, welds, and exposed fasteners, receive a dry film thickness equivalent to that of flat surfaces.
- E. The term "exposed surfaces" includes areas visible when permanent or built-in fixtures, convector covers, covers for finned tube radiation, grilles, and similar components are in place. Extend coatings in these areas as required to maintain the system integrity and provide desired protection.
- F. Scheduling Painting: Apply first coat to surfaces that have been cleaned, pretreated, or otherwise prepared for painting as soon as practicable after preparation and before subsequent surface deterioration.
1. Allow sufficient time between successive coats to permit proper drying. Do not recoat until paint has dried to where it feels firm and does not deform or feel sticky under moderate thumb pressure and where application of another coat of paint does not cause lifting or loss of adhesion of the undercoat.
- G. Prime Coats: Before applying finish coats, apply a prime coat, as recommended by manufacturer, to material that is required to be painted or finished and that has not been prime coated by others. Recoat primed and sealed surfaces where evidence of suction spots or unsealed areas in first coat appears, to ensure a finish coat with no burn-through or other defects due to insufficient sealing.

- H. Pigmented (Opaque) Finishes: Completely cover surfaces as necessary to provide a smooth, opaque surface of uniform finish, color, appearance, and coverage. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections will not be acceptable.
- I. Completed Work: Match approved samples for color, texture, and coverage. Remove, refinish, or repaint work not complying with requirements.

3.4 CLEANING

- A. Cleanup: At the end of each workday, remove empty cans, rags, rubbish, and other discarded paint materials from the site.
- B. Upon completion of painting, clean glass and paint-spattered surfaces. Remove spattered paint by washing and scraping, using care not to scratch or damage adjacent finished surfaces.

3.5 PROTECTION

- A. Protect work of other trades, whether to be painted or not, against damage by painting. Correct damage by cleaning, repairing, or replacing, and repainting, as acceptable to Architect.
- B. Provide "wet paint" signs to protect newly painted finishes. Remove temporary protective wrappings provided by others for protection of their work after completion of painting operations.
 - 1. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.6 INTERIOR PAINT SCHEDULE

- A. General: The following paint systems for various substrates are based on Benjamin Moore recommendations.
- B. Opaque Finish Woodwork:
 - 1. Water-Based Finish: 2 finish coats.
 - a. First Coat: Interior Wood Primer.
 - b. Second Coat: Semi-Gloss Acrylic Latex.
 - c. Third Coat: Semi-Gloss Acrylic Latex.
- C. Gypsum Board/Plaster:
 - 1. Eggshell Latex Finish on New Gypsum Board/Plaster: 2 coats on primer.
 - a. Primer: Latex primer.
 - b. First Coat: Latex-Based Interior Eggshell Paint.
 - c. Second Coat: Latex-Based Interior Eggshell Paint.

D. Existing Gypsum Board/Plaster:

1. Eggshell Latex Finish.

- a. Spot prime patches.
- b. First Coat for Existing Painted GWB and Plaster: Latex-Based Interior Eggshell.
- c. Second Coat for GWB and Plaster Patches Only: Latex-Based Interior Eggshell.

END OF SECTION 099000

STATE OF NEW HAMPSHIRE

Department of Administrative Services
 DIVISION OF PUBLIC WORKS DESIGN & CONSTRUCTION

REBID CONCORD MAIN BUILDING STAIR TOWER ROOFS & REPOINTING

PROJECT ADDRESS: 123 PLEASANT STREET, CONCORD, NH

DPW Project # 81234 Contract C
 Department of Administrative Services
 1776



7 Hazen Drive PO Box 483 Room 250
 Concord, New Hampshire 03301
 P 603-286-3515 F 603-271-3515

DIRECTOR - DIVISION OF PUBLIC WORKS
 DESIGN & CONSTRUCTION

[Signature] 06/03/2025
 SIGNATURE DATE

PROJECT MANAGER - DIVISION OF
 PUBLIC WORKS

[Signature] 6/4/25
 SIGNATURE DATE

REVISIONS



REVISIONS

DATE	SYMBOL

DESCRIPTION

DATE SYMBOL

DESCRIPTION

DATE SYMBOL

DESCRIPTION

PROJECT NAME
 REBID CONCORD MAIN BUILDING
 STAIR TOWER ROOFS & REPOINTING

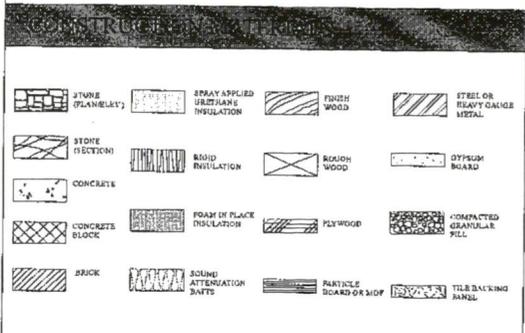
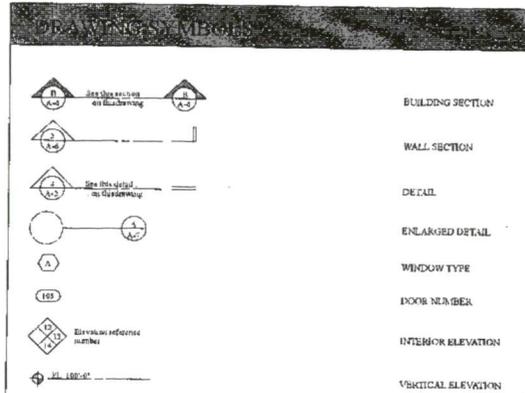
PROJECT NUMBER
 81234

ISSUE DATE
 06/05/2025

SHEET NUMBER
 T-1

ARCHITECT
 Smith Alvarez Sienkiewicz
 Architects
 117 St Paul Street, 3rd Fl
 Burlington, VT 05401
 p. 802-863-2227
 f. 802-863-0093
 stephanie@sasarchitects.com





ABBRE

ADD	additive bit of steel	FF	finish floor	FMT	paint(ed)
ACT	acoustic ceiling tile	FE	fire extinguisher	FR	ply
ADJ	adjustable	FLG	flashing	FT	footnote
ADP	above finish floor	FD	floor drain	FT	footnote
ALUM	aluminum	FRT	fire retardant	FWD	plywood
ANC	anchor, anchorage	FTG	finishing	EGT	extruder
ARCH	architectural	FND	foundation	GR	grout
BMT	basement	CA	cap	RM	room
DIT	dimension	CAV	channeled	RO	rough opening
BLKG	blinking	GC	general contractor	SAC	suspended acoustic ceiling
BD	board	GW	gypsum wall board	SHH	shelving
BOT	bottom	HPDL	high pressure decorative laminate	SH	shingle
BRK	brake	HW	hanging, ventilating & air conditioning	SPB	specification(s)
BLDG	building	HWAC	heating, ventilating & air conditioning	SP	specification
BWN	between	HT	height	SS	stainless steel
CB	catch basin	H-R	horizontal	STD	standard
CI	concrete	ICD	inside diameter	ST	storm drain
CLAJ	ceiling	INSUL	insulation	STRUC	structural
CT	ceramic tile	IS	inside diameter	SYS	system
CD	clean out	IT	interior	TBP	tile backing panel
CL	claw	JAN	janitor	TED	television decorative overlay
CLR	clear	JT	joint	TEL	telephone
CONC	concrete	LAV	lavatory	TG	tempered glass
CONC	concrete	MAX	maximum	THK	thickness
CONC	concrete	MCH	mechanical	TH	threshold
CONC	concrete	MFR	manufacturer	T&G	tongue & groove
CONC	concrete	MH	manhole	TOC	top of concrete
CONC	concrete	MO	masonry opening	TOA	top of masonry
CONC	concrete	MTL	metal	TOE	top of steel
CONC	concrete	MN	manhole	TOV	top of void
CONC	concrete	MC	metal contact	T	tile
CONC	concrete	MT	metal	TYP	typical
CONC	concrete	MT	metal	UNO	unobstructed
CONC	concrete	MT	metal	VERT	vertical
CONC	concrete	MT	metal	VCT	vinyl composition tile
CONC	concrete	MT	metal	VR	vapor retarder
CONC	concrete	MT	metal	VT	vent
CONC	concrete	MT	metal	WU	wire glass
CONC	concrete	MT	metal	WCO	wire glass with out wood
CONC	concrete	MT	metal	WD	wood



STATE OF NEW HAMPSHIRE
DEPARTMENT OF ADMINISTRATIVE SERVICES
DIVISION OF PUBLIC WORKS DESIGN & CONSTRUCTION
JOHN O. MORTON BUILDING
7 HAZEN DRIVE, ROOM 250
CONCORD, NH 03303-0483

REBID CONCORD MAIN BUILDING STAIR TOWER ROOFS & REPOINTING

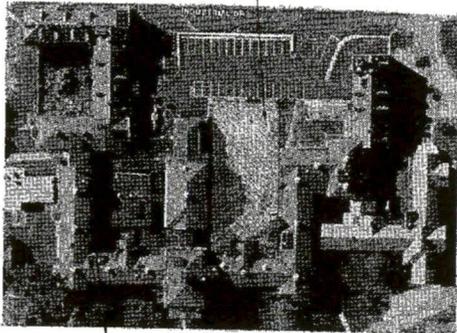
123 PLEASANT STREET, CONCORD, NH

LIST OF DRAWINGS

ARCHITECTURAL DRAWINGS	
A-1-0	ROOF PLANS, DETAILS & INTERIOR ELEVATIONS
A-2-0	STAIR TOWER PHOTOS

STAIR TOWER LOCATION MAP

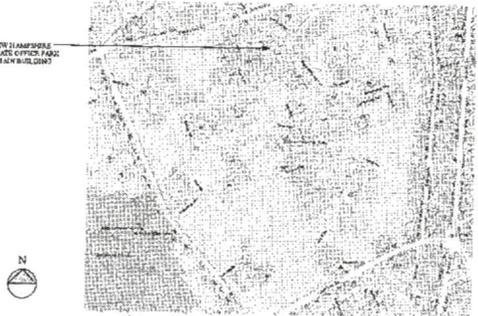
NOTE: THIS AREA (HATCHED) IS UNAVAILABLE DUE TO SPECIFIC CONTRACTING AND TRAFFIC IS ALLOWED AND TRAFFIC MUST BE STOPPED TO PREVENT THE POSSIBILITY OF DAMAGE TO THE STRUCTURE IF FOLLOWING IT TO BE SET UP.



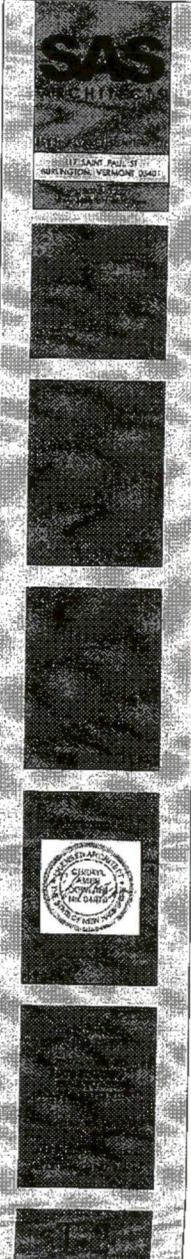
NEW HAMPSHIRE STATE OFFICE PARK - MAIN BUILDING

NOTE: THIS AREA IS UNAVAILABLE DUE TO SPECIFIC CONTRACTING AND TRAFFIC IS ALLOWED AND TRAFFIC MUST BE STOPPED TO PREVENT THE POSSIBILITY OF DAMAGE TO THE STRUCTURE IF FOLLOWING IT TO BE SET UP.

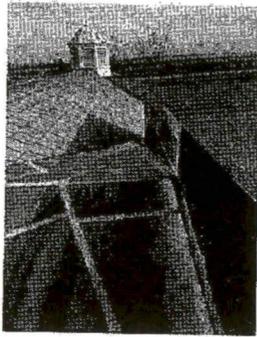
LOCATION MAP - PLEASANT STREET



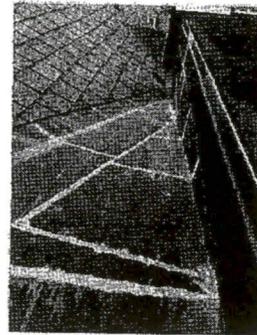
NEW HAMPSHIRE STATE OFFICE PARK - MAIN BUILDING



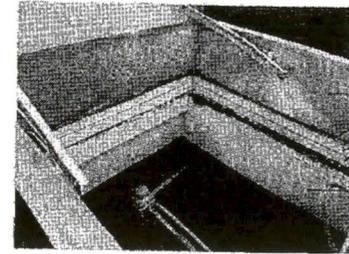




TYPICAL FLAT LOCK COVER DETAIL



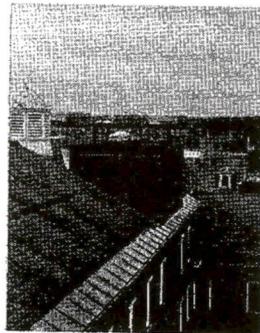
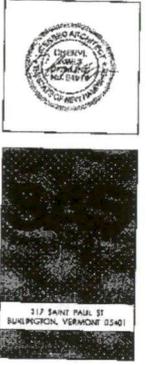
TYPICAL FLAT LOCK COVER DETAIL



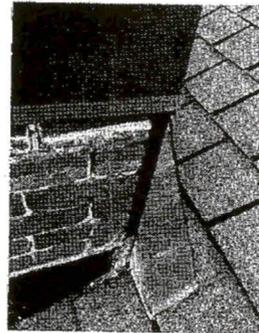
TYPICAL EXISTING RAFTER OPENING

- REMOVE AND REPLACE ROOF JOIST
- ADD PLYWOOD SUBROOFING
- ADD BRACK BLOCKING
- ADD BOARD SHEATHING
- REMOVE AND REPLACE TRIM BOARD

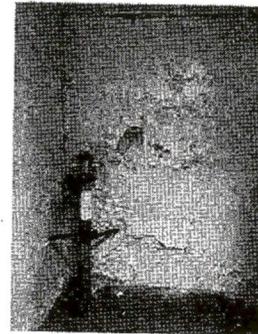
NOTE:
PHOTOS PROVIDED TO SHOW EXISTING
CONDITIONS AND CONTEXT OF SUBSEQUENT
ROOF AND STRUCTURE



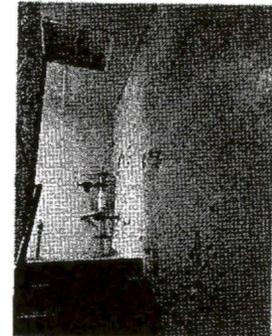
RUMFORD - EAST FACE



RUMFORD - SOUTHWEST CORNER



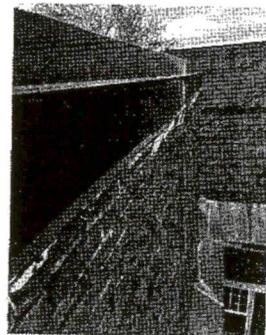
RUMFORD PLASTER / PAINT DETRIORATION



RUMFORD PLASTER / PAINT DETRIORATION



RUMFORD - WEST FACE



RUMFORD - BRICK WALL DAMAGE

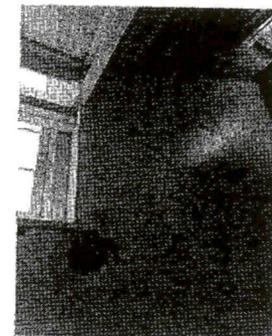
REQUIRED POSITION OF
BRICK WALL FACE BRACK
AT THIS LOCATION IS
SHOWN REFERS TO
WATER DRAINAGE



RUMFORD - PLASTER AND BRICK DETRIORATION



RUMFORD - PLASTER AND BRICK DETRIORATION



RUMFORD - PLASTER AND BRICK DETRIORATION

NH DPW P# 81234C
SAS PROJECT NUMBER: 1422

REBID
CONCORD
MAIN BUILDING
STAIR TOWER
ROOFS & REPAIRING

123 PLEASANT STREET
CONCORD, NH

DATE: JUNE 5, 2025
SCALE: AS NOTED
DRAWN BY: SA
CHECKED: SA

STAIR TOWER PHOTOS

A-2.0

Labor and Material Payment Bond

Bond#GM249306

KNOW ALL MEN BY THESE PRESENTS: Triple Construction LLC
237 Daniel Webster Highway, Merrimack, NH 03054

as Principal, hereinafter called Principal, and

Great Midwest Insurance Company, Houston, Texas

as Surety, hereinafter called Surety, are held and firmly bound unto

Department of Administrative Services
Bureau of Purchase and Property
25 Capitol Street
Concord, NH 03301

as Obligee, hereinafter called Owner, for the use and benefit of claimants as hereinbelow defined,
in the amount of
One-Hundred-Ninety-Three-Thousand-Two-Hundred-Twenty-Nine-Dollars-and No-Cents (\$193,229.00)

for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators,
successors and assigns, jointly and severally, firmly by these presents.

WHEAREAS,

Contractor has by written agreement dated the 22nd day of July, 2025 for Contract 8003710 Concord
Main Building Stair Tower Repointing Services 105 Pleasant Street, Concord, NH

which contract is by reference made a part hereof and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Principal shall promptly make payment to all claimants as hereinafter defined, for all labor and material used or reasonably required for use in the performance of the contract, then this obligation shall be void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

1. A claimant is defined as one having a direct contract with the Principal or with a Subcontractor of the Principal for labor, material, or both, used or reasonably required for use in the performance of the Contract, labor and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment directly applicable to the Contract.

2. The above named Principal and Surety hereby jointly and severally agree with the Owner that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work or labor was done or preformed, or materials were furnished by such claimant, may sue on this bond for the use of such claimant, prosecute the suite to final judgment for such sum or sums as may be justly due claimant, and have execution hereon. The Owner shall not be liable for the payment of any costs or expenses of any such suit.

3. No suit or action shall be commenced hereunder by any claimant:

a) unless claimant, other than one having a direct contract with the Principal, shall have given written notice to any two of the following: The Principal, the Owner, or the Surety above named, within ninety (90) days after such claimant did or preformed the last of the work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were

furnished, or for whom the work or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the Principal, Owner or Surety, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the stat in which the aforesaid project is located, save that such service need not be made by a public officer.

b) After the expiration of one (1) year following the date on which Principal ceased Work on said Contract, it being understood, however, that if any limitation embodied in this bond is prohibited by any law controlling the construction hereof such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.

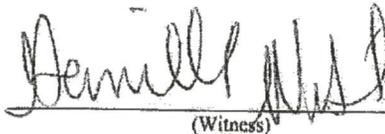
c) Other than in a state court of competent jurisdiction in and for the county or other political subdivision of the state in which the Project, or any part thereof, is situated, and not elsewhere.

4. The amount of this bond shall be reduced by and to the extent of any payment of payments made in good faith hereunder, inclusive of the payment by Surety of mechanics' liens which may be filed of record against said improvement, whether or not claim for the amount of such lien be presented under and against this bond.

Signed and sealed this 22nd day of July, 2025



(Witness)

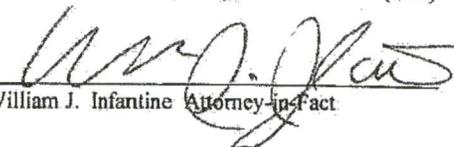


(Witness)

Triple Construction LLC _____
(Principal) (Seal)

(Title) *member*

Great Midwest Insurance Company _____
(Surety) (Seal)



William J. Infantine Attorney-in-Fact

POWER OF ATTORNEY

Great Midwest Insurance Company

KNOW ALL MEN BY THESE PRESENTS, that GREAT MIDWEST INSURANCE COMPANY, a Texas Corporation, with its principal office in Houston, TX, does hereby constitute and appoint William J. Infantine, Karen J. Case, Matthew Chrupcala, Lauryn Cochrane, Danielle West

its true and lawful Attorney(s)-In-Fact to make, execute, seal and deliver for, and on its behalf as surety, any and all bonds, undertakings or other writings obligatory in nature of a bond.

This authority is made under and by the authority of a resolution which was passed by the Board of Directors of GREAT MIDWEST INSURANCE COMPANY, on the 1st day of April, 2025 as follows:

Resolved, that the President, or any officer, be and hereby is, authorized to appoint and empower any representative of the Company or other person or persons as Attorney-In-Fact to execute on behalf of the Company any bonds, undertakings, policies, contracts of indemnity or other writings obligatory in nature of a bond not to exceed One-Hundred Million dollars (\$100,000,000.00), which the Company might execute through its duly elected officers, and affix the seal of the Company thereto. Any said execution of such documents by an Attorney-In-Fact shall be as binding upon the Company as if they had been duly executed and acknowledged by the regularly elected officers of the Company. Any Attorney-In-Fact, so appointed, may be removed in the Company's sole discretion and the authority so granted may be revoked as specified in the Power of Attorney.

Resolved, that the signature of the President and the seal of the Company may be affixed by electronic mail on any power of attorney granted, and the signature of the Secretary, and the seal of the Company may be affixed by electronic mail to any certificate of any such power and any such power or certificate bearing such electronic signature and seal shall be valid and binding on the Company. Any such power so executed and sealed and certificate so executed and sealed shall, with respect to any bond of undertaking to which it is attached, continue to be valid and binding on the Company.

IN WITNESS THEREOF, GREAT MIDWEST INSURANCE COMPANY, has caused this instrument to be signed by its President, and its Corporate Seal to be affixed this 8th day of April, 2025.

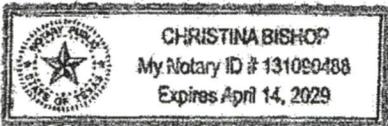


GREAT MIDWEST INSURANCE COMPANY

BY Mark W. Haushill
Mark W. Haushill
President

ACKNOWLEDGEMENT

On this 8th day of April 2025, before me, personally came Mark W. Haushill to me known, who being duly sworn, did depose and say that he is the President of GREAT MIDWEST INSURANCE COMPANY, the corporation described in and which executed the above instrument; that he executed said instrument on behalf of the corporation by authority of his office under the By-laws of said corporation.



BY Christina Bishop
Christina Bishop
Notary Public

CERTIFICATE

I, the undersigned, Secretary of GREAT MIDWEST INSURANCE COMPANY, A Texas Insurance Company, DO HEREBY CERTIFY that the original Power of Attorney of which the foregoing is a true and correct copy, is in full force and effect and has not been revoked and the resolutions as set forth are now in force.

Signed and Sealed at Houston, TX this 22nd Day of July 2025.



BY Patricia Ryan
Patricia Ryan
Secretary

WARNING: Any person who knowingly and with intent to defraud any insurance company or other person, files and application for insurance of claim containing any materially false information, or conceals for the purpose of misleading, information concerning any fact material thereto, commits a fraudulent insurance act, which is a crime and subjects such person to criminal and civil penalties.

Performance Bond

Bond # GM249305

KNOW ALL MEN BY THESE PRESENTS: Triple Construction, LLC
237 Daniel Webster Highway, Merrimack, NH 03054

as Principal and Great Midwest Insurance Company, Houston, Texas

as Surety, hereinafter called Surety, are held and firmly bound unto:

Department of Administrative Services
Bureau of Purchase and Property
25 Capitol Street
Concord, NH 03301

as Oblige, hereinafter called Owner, for the use and benefit of claimants as hereinbelow defined,
in the amount of
One-Hundred-Ninety-Three-Thousand-Two-Hundred-Twenty-Nine-Dollars-and No-Cents (\$193,229.00)

for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators,
successors and assigns, jointly and severally, firmly by these presents.

WHEAREAS,

Contractor has by written agreement dated the 22nd day of July, 2025 for Contract 8003710 Concord
Main Building Stair Tower Repointing Services 105 Pleasant Street, Concord, NH

which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if contractor shall promptly and faithfully perform said Contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

The Surety hereby waives notice of any alteration or extension of time made by the Owner.

Whenever Contractor shall be, and declared by Owner to be in default under the Contract, the Owner having preformed Owner's obligations thereunder, the Surety may promptly remedy the default, or shall promptly

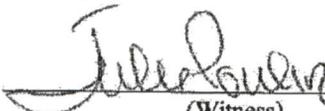
- 1) Complete the Contract in accordance with its terms and conditions, or
- 2) Obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and upon determination by Surety of the lowest responsible bidder, or, if the Owner elects, upon determination by the Owner and the Surety jointly of the lowest responsible Owner and the Surety jointly of the lowest responsible bidder, arrange for a contract between such bidder and Owner, and make available as Work progresses (even though there should be a default or succession of defaults

under the contract or contracts of completion arranged under this paragraph sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the contract price," as used in this paragraph, shall mean the total amount payable by Owner to Contractor under the Contract and any amendments thereto, less the amount properly paid by Owner to Contractor.

Any suit under this bond must be instituted before the expiration of two (2) years from the date on which final payment under the Contract falls due.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the Owner named herein or the heirs, executors, administrators or successors of the Owner.

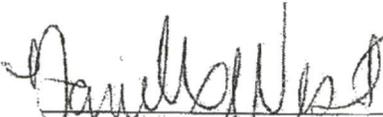
Signed and sealed this 22nd day of July, 2025



(Witness)

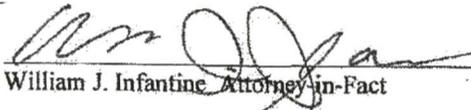
Triple Construction LLC.
(Principal) (Seal)

(Title) member



(Witness)

Great Midwest Insurance Company
(Surety) (Seal)



William J. Infantine Attorney-in-Fact

POWER OF ATTORNEY

Great Midwest Insurance Company

KNOW ALL MEN BY THESE PRESENTS, that GREAT MIDWEST INSURANCE COMPANY, a Texas Corporation, with its principal office in Houston, TX, does hereby constitute and appoint William J. Infantine, Karen J. Case, Matthew Chrupcala, Lauryn Cochrane, Danielle West

its true and lawful Attorney(s)-In-Fact to make, execute, seal and deliver for, and on its behalf as surety, any and all bonds, undertakings or other writings obligatory in nature of a bond.

This authority is made under and by the authority of a resolution which was passed by the Board of Directors of GREAT MIDWEST INSURANCE COMPANY, on the 1st day of April, 2025 as follows:

Resolved, that the President, or any officer, be and hereby is, authorized to appoint and empower any representative of the Company or other person or persons as Attorney-In-Fact to execute on behalf of the Company any bonds, undertakings, policies, contracts of indemnity or other writings obligatory in nature of a bond not to exceed One-Hundred Million dollars (\$100,000,000.00), which the Company might execute through its duly elected officers, and affix the seal of the Company thereto. Any said execution of such documents by an Attorney-In-Fact shall be as binding upon the Company as if they had been duly executed and acknowledged by the regularly elected officers of the Company. Any Attorney-In-Fact, so appointed, may be removed in the Company's sole discretion and the authority so granted may be revoked as specified in the Power of Attorney.

Resolved, that the signature of the President and the seal of the Company may be affixed by electronic mail on any power of attorney granted, and the signature of the Secretary, and the seal of the Company may be affixed by electronic mail to any certificate of any such power and any such power or certificate bearing such electronic signature and seal shall be valid and binding on the Company. Any such power so executed and sealed and certificate so executed and sealed shall, with respect to any bond of undertaking to which it is attached, continue to be valid and binding on the Company.

IN WITNESS THEREOF, GREAT MIDWEST INSURANCE COMPANY, has caused this instrument to be signed by its President, and its Corporate Seal to be affixed this 8th day of April, 2025.

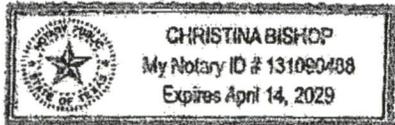


GREAT MIDWEST INSURANCE COMPANY

BY Mark W. Haushill
Mark W. Haushill
President

ACKNOWLEDGEMENT

On this 8th day of April 2025, before me, personally came Mark W. Haushill to me known, who being duly sworn, did depose and say that he is the President of GREAT MIDWEST INSURANCE COMPANY, the corporation described in and which executed the above instrument; that he executed said instrument on behalf of the corporation by authority of his office under the By-laws of said corporation.



BY Christina Bishop
Christina Bishop
Notary Public

CERTIFICATE

I, the undersigned, Secretary of GREAT MIDWEST INSURANCE COMPANY, A Texas Insurance Company, DO HEREBY CERTIFY that the original Power of Attorney of which the foregoing is a true and correct copy, is in full force and effect and has not been revoked and the resolutions as set forth are now in force.

Signed and Sealed at Houston, TX this 22nd Day of July 2025.



BY Patricia Ryan
Patricia Ryan
Secretary

WARNING: Any person who knowingly and with intent to defraud any insurance company or other person, files and application for insurance of claim, containing any materially false information, or conceals for the purpose of misleading, information concerning any fact material thereto, commits a fraudulent insurance act, which is a crime and subjects such person to criminal and civil penalties.

DEPARTMENT OF TRANSPORTATION
DIVISION OF PUBLIC WORKS
 JOHN O. MORTON BUILDING

HAZEN DRIVE BOX 483 ROOM 5
 CONCORD, NEW HAMPSHIRE 03302-0483
 (603 271-3516 FAX (603) 271-3914

SUMMARY OF ALL DIVISIONS

DATE: 7/7/2025
 PROJECT DESCRIPTION: Re-Roof Main Building 2 Stairs
 DPW PRO. 81234

Division # - Description	Subtotal	O&P	ALLOWANCE	Division Total
DIVISION 1 - GENERAL REQUIREMENTS	\$33,750.00	\$6,750.00	\$10,000.00	\$50,500.00
DIVISION 4 - MASONRY	\$50,443.00	\$10,088.60	\$10,000.00	\$70,531.60
DIVISION 6 - CARPENTRY	\$8,748.80	\$1,749.76	\$10,000.00	\$20,498.56
DIVISION 7 - THERMAL & MOISTURE PROTECTION	\$115,100.00	\$23,020.00	\$10,000.00	\$148,120.00
DIVISION 11 - EQUIPMENT	\$25,000.00	\$5,000.00	\$10,000.00	\$40,000.00
SUBTOTALS:	Subtotal	O&P	ALLOWANCE	
NOTES:	\$233,041.80	\$46,608.36	\$50,000.00	
TOTAL OF ALL DIVISIONS				\$329,650