



**REQUEST**

**FOR**

**BIDS**

**Re-Roofing Project**

**at River Valley Community College**

**1 College Drive, Claremont, NH, 03743**

**A COMPONENT OF THE**

**Community College System of New Hampshire**

**26 College Drive, Concord, NH**

**Project# RVC 20-03**

**January 18, 2023**

## DOCUMENT 00015

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## M SECTION 00010 - INVITATION TO BID – CCSNH

Electronic Bids per the Project Manual Technical Specifications will be accepted by email to Matthew Moore, Director of Capital Planning and Development at [memoore@ccsnh.edu](mailto:memoore@ccsnh.edu) until **2:00pm Monday, February 13th, 2023** for the following project:

**RVCC Re-Roofing Project**

**at River Valley Community College, 1 College Drive, Claremont, NH 03743**

**A component of the Community College System of New Hampshire**

**26 College Drive, Concord, NH**

**Project Number RVC 20-03**

Description: This project consists of installation of new roofing on a portion of River Valley Community College. (Approx. 46,207 square feet of roof surface).

Project includes: Removal of all existing membrane roofing, including underlayments, flashings, drip edge fascia, abandoned roof curbs, roof drain strainers, wood sleepers, etc., to expose existing rigid insulation and roof edge blocking or nailers for inspection; replace any damaged, wet, rotted or deleterious rigid insulation, wood blocking or nailers and install new rigid insulation, roofing surface, flashings, drip edge fascia with fascia extenders, retrofit roof drains, wood sleepers, etc. to provide a complete, watertight, weatherproof roofing surface.

The Project will include but not be limited to the Disciplines of: Roofing and Flashing

Plans and specifications will be available from the Community College System of New Hampshire, Wednesday, **January 18, 2023 on the CCSNH website** [www.ccsnh.edu/about-ccsnh/bidding-rfp/](http://www.ccsnh.edu/about-ccsnh/bidding-rfp/)

Plans and specifications will also be available at the following printers:

- Signature Press and Blueprinting, Inc., 45 Londonderry Turnpike, Rte. 28 Bypass, Hooksett, NH 03106;
- Construction Summary of NH: Inc., 734 Chestnut Street, Manchester, NH 03104;
- Infinite Imaging: 933 Islington Street, Portsmouth, NH 03801
- Minuteman Press: 109 Gosling Road, Newington, NH 03801;
- Community College System of New Hampshire website  
[www.ccsnh.edu/about-ccsnh/bidding-rfp/](http://www.ccsnh.edu/about-ccsnh/bidding-rfp/)

**BIDDERS SHOULD ACT PROMPTLY AND SUBMIT ALL QUESTIONS IN WRITING TO: MATTHEW MOORE, DIRECTOR OF CAPITAL PLANNING AND DEVELOPMENT, E-MAIL [memoore@ccsnh.edu](mailto:memoore@ccsnh.edu) .**

A MANDATORY SITE VISIT WILL NOT BE HELD:

To schedule a non-mandatory site visit call Jason Thornton at RVCC at 603.543.7569

**Project Substantial Completion Date for work: August 24, 2023.**

Proposals must be completed in both words and figures on forms furnished by the College, or on previously-approved, substantially-identical forms generated by computer software, which shall be submitted electronically in an e-mail titled: **“Bid for: RVC20-03 RVCC Re-Roofing Project”** received by MATTHEW MOORE at

[memoore@ccsnh.edu](mailto:memoore@ccsnh.edu) as specified no later than **2:00 PM, Monday, February 13, 2023.**

Companies, corporations, or trade names, except sole proprietorships must be registered with the Secretary of State (Corporate Division, Telephone No. 603/271-3244) in order to do business with the State of New Hampshire.

Bidders must show three recent years' experience with installations of a similar complexity and cost and prior experience with installations of the materials within 100 miles of the project site.

The successful bidder will be required to comply with State of New Hampshire RSA#21-1:81-a. The successful bidder will be required to furnish a 100% payment and 100% performance bond prior to execution of contract.

The award will be based on the proposal that best meets the needs of the college. Factors included will be the cost, completeness of the proposal, quality of the technology provided, and experience of the contractor and installation team. The college reserves the right to waive any informality in or to reject any or all proposals.

All contract documents can be found on the CCSNH website at:

[www.ccsnh.edu/about-ccsnh/bidding-rfp/](http://www.ccsnh.edu/about-ccsnh/bidding-rfp/)

Before your submission, always check for any addenda or other materials that may have been issued which would affect the invitation to bid by checking the CCSNH website at [www.ccsnh.edu/about-ccsnh/bidding-rfp/](http://www.ccsnh.edu/about-ccsnh/bidding-rfp/)

CCSNH reserves the right to waive any and all informalities in its best interest or to reject any or all proposals.



Matthew Moore, PE,  
Contract Representative  
Director of Capital Planning & Development  
Community College System of New Hampshire

END OF DOCUMENT

## DOCUMENT 001153 - REQUEST FOR QUALIFICATIONS

## 1.1 PURPOSE, LAWS, AND REGULATIONS

- A. The purpose of the Prequalification Procedure described in this Document is to provide Owner with a mechanism to evaluate and determine whether Prospective Bidders are qualified to participate in the construction of Project. Evaluation will be limited to that office of the Prospective Bidder that is proposed to perform the Work.

## 1.2 DEFINITIONS

- A. Prospective Bidder: A Prospective Bidder is a person or entity who submits a Submittal of Qualifications to Owner.

## 1.3 QUALIFICATION PROCEDURES

- A. Prospective Bidders shall complete all required forms and attachments described in the Prequalification Documents, entering "Not Applicable" where information does not apply. Absence of any of the forms included in the Prequalification Documents will be reason for possible disqualification. All required qualification forms to be submitted with Bid forms.
- B. Status of Prospective Bidders:
  - 1. Proprietors submitting bids shall indicate their status as proprietors.
  - 2. Prospective Bidders submitting qualifications for partnerships shall indicate their status as partners and shall submit a certified copy of the power of attorney authorizing the executor of the submittal to bind the partnership.
  - 3. Prospective Bidders submitting qualifications for corporations shall indicate their status as corporations and shall submit a certified copy of the board of directors' authorization for the Prospective Bidder to bind the corporation and shall affix the corporate seal on the submittal.
  - 4. Prospective Bidders shall provide the following:
    - a. Names and addresses of proprietors, of all members of a partnership, or of the corporation's officers.
    - b. Name of jurisdiction where the partnership is registered or where the corporation is incorporated. Corporations must be licensed to do business in Project state at the time of executing the Contract.

## 1.4 WITHDRAWAL

- A. A Qualification Statement may be withdrawn on personal request received from the Prospective Bidder.

## 1.5 QUALIFICATION STATEMENT

- A. The undersigned submits answers to the following questions to enable the Community College System of New Hampshire to judge experience and ability in the work proposed to be done.

1. The work, if awarded to you, will have the resident personal supervision of whom? State his/her name, title, and their special qualifications.

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2. (a) Provide a brief history of your firm. (b) Demonstrate that your firm has provided satisfactory work on similar projects.

a) \_\_\_\_\_

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b) \_\_\_\_\_

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3. How many years has your organization been in business as a contractor under the name in which you propose to execute this contract?

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4. Has your present organization ever failed to complete any work awarded to it? If so, state when, where and why:

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5. Provide three (3) Examples of Experience with full responsibility for work of a similar size to this project and within 100 miles of the project site.

**Qualifications to perform the work: List Three****Experience with full responsibility for work of a similar size and within 100 miles of the project site.****Bidders are to provide evidence of qualifications with the bid.**

NAME OF REFERENCE PROJECT	_____	_____
Location of Project	_____	_____
Date work performed	_____	_____
Name of Owner	_____	_____
Contact Name & Phone Number	_____	_____
Description of Project	_____	_____
Approx. Contract value	_____	_____

NAME OF REFERENCE PROJECT	_____	_____
Location of Project	_____	_____
Date work performed	_____	_____
Name of Owner	_____	_____
Contact Name & Phone Number	_____	_____
Description of Project	_____	_____
Approx. Contract value	_____	_____

NAME OF REFERENCE PROJECT	_____	_____
Location of Project	_____	_____
Date work performed	_____	_____
Name of Owner	_____	_____
Contact Name & Phone Number	_____	_____
Description of Project	_____	_____
Approx. Contract value	_____	_____

END OF DOCUMENT

## DOCUMENT 00204

INSTRUCTIONS TO BIDDERS – Community College System of New Hampshire (CCSNH)  
Issued 2-05-2004; Revised as noted

Revised 4/17/18

PART	ITEM
1	DEFINITIONS
2	PREPARATION AND SUBMISSION OF BIDS
3	RECEIPT AND OPENING OF BIDS
4	WITHDRAWAL OF BIDS
5	PROPOSAL GUARANTY (intentionally omitted)
6	CONDITIONS AT SITE OR BUILDING
7	EXPLANATION TO BIDDERS
8	REJECTION OF BIDS
9	CONTRACT BOND
10	CONTRACTOR’S AND SUBCONTRACTOR’S INSURANCE
11	BIDDING DOCUMENTS
12	SUBSTITUTIONS
13	AWARD OF CONTRACT
14	PERMITS AND FEES



## PART 1 DEFINITIONS

- 1.1 Refer to Document 00708: General Conditions – CCSNH:

## PART 2 PREPARATION AND SUBMISSION OF BIDS

- 2.1 The Bidder is required to bid on all items called for in the Proposal. If Alternates are included, the Bidder shall set forth in the space provided the amount to be added to or deducted from the Lump Sum Base Bid or the Lump Sum Grand Total. If an Alternate called for does not involve a change in price, the Bidder shall so indicate in the space provided.
- 2.2 Bids shall be submitted upon the Proposal Form furnished and shall be signed in ink. The Bidder shall specify a unit price, both in words and figures, for each item called for in the Lump Sum Grand Total Proposal. All of the words and figures shall be in ink or typed. If a unit price or a Lump Sum Grand Total already entered by the Bidder on the Proposal Form is to be altered, it should be crossed out with ink, the new unit price and the Lump Sum Grand Total bid entered above or below it and initialed by the Bidder; also in ink. In case of discrepancy between the prices written in words and those written in figures, the prices written in words shall govern. Bids containing any conditions, omissions, unexplained erasures or alterations, or items not called for in the Proposal or irregularities of any kind may be rejected by the Chancellor as being incomplete non-conforming, or non-responsive. All required qualification forms to be submitted with Bid forms.
- 2.3 Each bid must contain the full business address of the Bidder and be signed by him/her with his/her usual signature.
- A. Bids by a partnership of any form must furnish the full names of all partners, and must be signed in the partnership name by one of the members of the partnership or by an authorized representative, followed by the designation of the person signing. All Contracts with partnerships must include a certificate of authorization demonstrating that the partner(s) or authorized individuals have been authorized by the partnership to enter into the Contract on behalf of the partnership.
- B. Bids by a corporation of any form must be signed with the legal name of the corporation, followed by the name of the State of incorporation and by the signature and designation of the president, secretary or other person authorized to bind it in the matter. The name of each person signing shall also be typed or printed below the signature. *[A bid by a person who affixes to his/her signature, the word "President," "Secretary," "Agent" or other designation, without disclosing whom he/she is representing if other than the contracting entity noted above, may be held to the bid of the individual signing.]*
- C. Bids by proprietorships (individuals), or by individuals with a registered trade name, or doing business under an assumed name (aka d/b/a), shall be executed by the individual in their name, with reference to the trade name or assumed name.

- 2.4 Bids to be scanned and transmitted by electronic mail to [memmoore@ccsnh.edu](mailto:memmoore@ccsnh.edu) no later than the bid deadline.

### PART 3 RECEIPT AND OPENING OF BIDS

- 3.1 The bid opening officer will decide when the specified time has arrived, and no bid received or presented thereafter will be considered. No responsibility or liability will be attached to any officer for the premature opening of a bid not properly addressed and identified.

### PART 4 WITHDRAWAL OF BIDS

- 4.1 A bid may be withdrawn upon written request received from the bidder at the Director of Capital Planning and Development office at 26 College Drive, Concord, NH 03301-7407, with reasonable time prior to the time fixed for opening. Negligence on the part of the bidder in preparing the bid confers no right for the withdrawal of the bid after it has been opened.

### PART 5 PROPOSAL GUARANTY (intentionally omitted)

### PART 6 CONDITIONS AT SITE OR BUILDING

- 6.1 Bidders shall visit the site and be responsible for having ascertained pertinent local conditions; such as location, accessibility and general character of the site or building, the character and extent of existing work within or adjacent to the site, and any other work being performed thereon at the time of submitting the bid.

### PART 7 EXPLANATION TO BIDDERS

- 7.1 No oral explanation in regard to the meaning of the Bidding Documents will be made and no oral instructions will be given before the award of the Contract. Discrepancies, omissions or doubts as to the meanings of Bidding Documents shall be communicated in writing to the Director of Capital Planning and Development for interpretation no later than five (5) working days before the hour and date set for the bid opening. Any interpretations will be in the form of an Addendum to the Bidding Documents that will be forwarded to all Bidders of record and sent to all other locations identified in the Invitation to Bid where documents are made available.

## PART 8 REJECTION OF BIDS

- 8.1 The Chancellor reserves the right to reject any or all bids, to waive technicalities or to advertise for new bids, if in his/her judgment, the best interests of the State will be promoted thereby. The Chancellor reserves the right to reject the bid of a Bidder who is not in a position to perform the Contract.
- 8.2 The Chancellor reserves the right to waive any informality in bids received, if in the best interest of the CCSNH.
- 8.3 The Chancellor reserves the right to reject any Bidders not meeting all stated requirements.

## PART 9 CONTRACT BOND

- 9.1 The successful Bidder, at the time of the execution of the Contract, must deposit with the Chancellor, Surety in the sum equal to one hundred percent (100%) of the amount of the Contract as required by RSA 447:16. The form of Bond shall be that provided for by the CCSNH and the Surety shall be acceptable to the Chancellor. The Contract 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 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 <http://www.fms.treas.gov/c570/index.html>

**PART 10 CONTRACTOR'S AND SUBCONTRACTOR'S INSURANCE**

- 10.1 The Contractor shall deliver to the Chancellor at the time of submitting a signed Contract, certificates of all insurance required hereunder. The certificates of insurance shall contain a description of the project, including the project name and number, and shall state that the companies issuing insurance will mail to the Chancellor thirty (30) days' notice of cancellation, alteration of material change of any listed policies or ten (10) days in cases of non-payment of premium. The Contractor shall keep in force the insurance required herein for the period of the Contract, through the Warranty period, and Owners and Contractors Protective (OCP) Liability coverage shall be kept in force through the date of Substantial Completion, or longer at the Director of Capital Planning and Development's direction. The Contractor shall have a continuing duty to provide new certificates of insurance as policies are amended or renewed. At the request of the Chancellor, the Contractor shall promptly make available a copy of any and all listed insurance policies. The required insurance must be written by a Company licensed to do business in the State of New Hampshire at the time the policy is issued. In addition, the company must have a rating of no less than A- based on the current A.M. Best with a size of VIII and satisfying and the terms and conditions described below or the minimum limits required of the Prime Contractor under the Contract Documents.
- 10.2 Prior to the start of the Contractor's Work, the Contractor and any subcontractors, consultants or third parties approved to perform Services pursuant to this contract, will carry, in full force and effect during the entire term of this Agreement, insurance with a carrier rated at minimum "A-" by A.M. Best with a size of VIII and satisfying and the terms and conditions described below or the minimum limits required of Prime Contractor under the Contract Documents.
- A. Commercial General Liability (CGL) with limits of Insurance of not less than \$1,000,000 each occurrence and \$2,000,000 Annual Aggregate.
- .1) If the CGL coverage contains a General Aggregate Limit, such General Aggregate shall apply separately to each project.
  - .2) CGL coverage shall be written on ISO Occurrence form CG 00 01 (10/93) or a substitute form providing equivalent coverage and shall cover liability arising from premises, operations, independent contractors, products- completed operations, and personal and advertising injury.
  - .3) Owner and all other parties required of the Contractor, shall be included as insured's on the CGL, using ISO Additional Insured Endorsement CG 20 10 (11/85) or CG 2010 (10/93) **AND** CG 20 37 (10/01) or CG2033(10/01) **AND** CG2037 (10/01) or an endorsement providing equivalent coverage to the additional insured's. This insurance for the additional insured's shall be as broad as the coverage provided for the named insured Contractor. It shall apply as Primary and non-contributing Insurance before any other insurance or self-insurance, including any deductible, maintained by, or provided to, the additional insured.
  - .4) Contractor shall maintain CGL coverage for itself and all additional insured's for the duration of the project and maintain Completed Operations coverage for itself and each additional insured for at least 7 years after completion of the Work.

- .5) If Contractor is performing snow removal the policy must include the addition of CG 22 92 12 07 for Snow Removal Operations Coverage or equivalent

#### 10.3 Commercial Automobile Liability

- .1) Business Auto Liability with limits of at least \$1,000,000 for each accident.
- .2) Business Auto coverage must include coverage for liability arising out of all owned, leased, hired and non-owned automobiles.
- .3) Owner and all other parties required of the Contractor, shall be included as additional insured's on the auto policy.

#### 10.4 Commercial Umbrella

- .1) Umbrella limits must be at least \$2,000,000.
- .2) Umbrella coverage must include as insured's all entities that are additional insured's on the CGL and coverage shall be as broad as provided on the underlying coverages.

#### 10.5 Workers Compensation and Employers Liability

- .1) Employers Liability Insurance limits of at least \$500,000 each accident for bodily injury by accident and \$500,000 each employee for injury by disease.
- .2) Where applicable, U.S. Longshore and Harborworkers Compensation Act Endorsement shall be attached to the policy.
- .3) Where applicable, the Maritime Coverage Endorsement shall be attached to the Policy.
- .4) All employees, including the Owner, partners and officers, shall provide proof of workers' compensation coverage prior to working on the job site.

#### 10.6 Waiver of Subrogation

- .1) To the fullest extent permitted by law, Contractor waives all rights against Owner and Architect and their agents, officers, directors and employees for recovery of damages to the extent these damages are covered by commercial general liability, commercial umbrella liability, business auto liability or workers compensation and employers liability insurance where acceptable by law.

#### 10.7 Pollution Liability Insurance

- .1) Pollution Limits with at least \$1,000,000 each occurrence, claim or wrongful act with an aggregate of \$1,000,000 for bodily injury, property damage, pollution or environmental harm arising out of the work, asbestos, lead, or silica related claims, claims arising out of microbial matter or bacteria, testing, monitoring, measuring operations or laboratory analyses, or liability arising out of treatment facility. If a motor vehicle is used in connection with the work,

the business automobile policy will include coverage at least as broad as ISO CA 99 48 and be endorsed to include Motor Carrier Act Endorsement MCS 90.

.2) The policy must meet all other insurance requirements applicable to general liability, including, but not limited to additional insured, waiver of subrogation and cancellation notification.

.3) If there is a retroactive date, claims made will apply back to the first date of services provided to the Owner.

.4) The coverage shall be effective for 5 years following completion of the engagement.

.5) Proof of Pollution Liability Insurance shall be provided on a certificate acceptable to the Owner.

- 10.8 Attached to each certificate of insurance shall be a copy of the Additional Insured Endorsement that is part of the Contractor's Commercial General Liability Policy. These certificates and the insurance policies required shall contain a provision that coverage afforded under the policies will not be canceled or allowed to expire until at least 30 days prior written notice has been given to the Owner. Any subcontractors, consultants or third parties performing services for Contractor as contemplated herein, shall also maintain insurance as required above. Notwithstanding the foregoing, the Owner, in its sole and absolute discretion and taking into account the scope and character of the Services to be provided by Contractor, may reduce the required liability insurance minimums. Such reduction in the required liability insurance minimum of Contractor

shall be evidence by a written instrument specifically referencing this Exhibit I and signed by the Owner.

- 10.9 The Contractor shall require each Subcontractor employed on the Project to maintain the coverage listed above unless the Contractor's insurance covers activities of the Subcontractor on the Project.
- 10.10 No operations under this Contract shall commence until certificates of insurance attesting to the above listed requirements have been filed with the Chancellor and a Notice to Proceed is issued.
- A. If blasting and/or demolition is required by the Contract, the Contractor or subcontractor shall obtain the respective coverage for those activities, and shall furnish to the Chancellor a Certificate of Insurance evidencing the required coverages prior to commencement of any operations involving blasting or demolition or both.
- B. Owner's and Contractor's Protective Liability (OCP) coverage for the benefit of the Community College System of New Hampshire.
1. Limits of Liability:
- a. \$2,000,000 Each Occurrence
- b. \$3,000,000 Aggregate
- \*\*\*\*\* [OR] \*\*\*\*\*
- c. \$2,000,000 Bodily Injury & Property
- C. Property and Builder's Risk Insurance (Fire and Extended Coverage):
1. The Community College System of New Hampshire shall insure the work included in the Contract, including extras and change orders, on an "All Risk" basis, on one hundred percent (100%) completed value basis of the Contract, as modified. Builder's Risk coverage shall include materials located at the Contractor's premises, on-site, in-transit, and at any temporary site. The policy by its own terms or by endorsement shall specifically permit partial or beneficiary occupancy prior to completion or acceptance of the entire work. The policies shall be in the names of the Community College System of New Hampshire and the Contractor. The policies shall provide for the inclusion of the names of all other Contractors, Subcontractors, and others employed on the premises as insureds. The policies shall stipulate that the insurance companies shall have no right of subrogation against any Contractors, Subcontractors or other parties employed on the premises.
2. CCSNH is not responsible to insure Contractor's owned or leased equipment/property.
- D. General Insurance Conditions
1. Failure to secure and maintain, or add by endorsement, Owner and all subsidiaries, agents, and employees as required shall not act as a defense to the enforcement of the terms of this Contract. Any such insurance policy shall apply separately to each insured against whom claim is made or suit is brought and shall contain no provision which excludes coverage of a claim made by one insured under the policy against another insured under the policy.
2. Each policy shall contain a clause prohibiting cancellation or modifications of the policy earlier than thirty (30) days or ten (10) days in cases of non-payment of premium after written notice thereof has been received by CCSNH.

E. Indemnification:

1. To the fullest extent of the law the Contractor shall indemnify, defend, and hold harmless the Community College System of New Hampshire, its Officers, and its agents and employees from and against any and all claims, liabilities, suits or penalties arising out of (or which may be claimed to arise out of) acts or omissions of the Contractor or subcontractors in the performance of work covered by the Contract. This covenant shall survive the termination of the Contract. Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the Community College System of New Hampshire, which immunity is hereby reserved by the Community College System of New Hampshire. The covenant in paragraph I shall survive the termination of this Agreement.

F. Additional Insurance for Design/Build Contracts:

1. In addition to the insurance requirements listed in the above paragraphs, the Designer/Builder Team shall provide the following coverage.
  - a. The Designer/Builder Team, or the Designer shall purchase and maintain professional liability coverage for this project. The coverage shall provide the CCSNH with protection against design errors and omissions and shall have an annual aggregate limit of no less than \$2,000,000. The coverage shall be maintained through the legal statute of repose period, currently stipulated to be three (3) years from the date of Substantial Completion. If the professional liability coverage is maintained by other than the firm holding the prime contract with the CCSNH for this project, the prime contractor shall provide evidence of indemnifications, approved by the CCSNH, that indicate that this insurance coverage is in place and available for the protection of the CCSNH. The indemnification may not create a re-assignment of contractual responsibilities between the CCSNH and the prime contractor.

## PART 11 BIDDING DOCUMENTS

- 11.1 Bidders shall use only complete sets of Bidding Documents in preparation of bids; the CCSNH assumes no responsibility for mistakes due to the use of incomplete sets of Bidding Documents.

## PART 12 SUBSTITUTIONS

- 12.1 Where Bidding Documents stipulate particular Products, substitution requests will ONLY be considered before receipt of Bids. Refer to specification section 01600 – Product Requirements.

## PART 13 AWARD OF CONTRACT

- 13.1 The Contract will be Awarded as soon as possible to the Responsible Bidder on the basis of the Highest Score, see Score Sheet in Section 00300.
  - A. The CCSNH may request a Negotiated Price from the Highest Score Responsible Bidder.



- 13.2 The signed Contract, together with the Contract Bond, and certificate of insurance shall be returned to the CCSNH within 10 days after the date of notice that the Proposal has been accepted.
- A. If the successful bidder fails to execute the Contract and submit acceptable bond and required attachments within 20 days after the date of notice of acceptance of the Proposal, the CCSNH may cancel the notice of award. Contract award may then be made to the next lowest responsible bidder or the Work may be re-advertised.
- 13.3 Prior to the issuance of Notice to Proceed, each Bidder shall be prepared, if so requested by the Chancellor, to present evidence of his/her experience, qualifications, and financial ability to carry out the terms of the Contract.
- 13.4 A Contract that has been Awarded with required attachments is not executed until submitted and approved by the CCSNH Board of Trustees, if required, and issuance of the Notice to Proceed by the CCSNH.

#### PART 14 PERMITS AND FEES

- 14.1 CCSNH shall secure and pay for all Permits and Fees required by the Work of this Contract.

END OF DOCUMENT 002004

**SECTION 00300 – BID PROPOSAL FORM – CCSNH****PROPOSAL – STIPULATED BASE LUMP SUM GRAND TOTAL BID – GENERAL CONSTRUCTION****PROPOSAL TO: Received by email no later than 2:00 PM, Monday, February 13, 2023.**

Matthew Moore, PE  
[memooore@ccsnh.edu](mailto:memooore@ccsnh.edu)  
Director of Capital Planning & Development  
Community College System of New Hampshire  
26 College Drive  
Concord, New Hampshire 03301

**SUBJECT: Project #: RVC 20-03**  
**Project Name: RVCC Re-Roofing Project**

**1. CERTIFICATION:** The undersigned Prime Contractor

Name of Firm: \_\_\_\_\_

Address of Firm: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Email: \_\_\_\_\_

Signature: \_\_\_\_\_

Name and Title: \_\_\_\_\_

(Contractor's Name Printed Here)

certifies that they have examined and fully comprehend the requirements and intent of the Bidding and Contract Documents for this Project, including any and all Addenda issued, and also certifies that they have visited the location of the Project work and examined all conditions at the site which will affect the work. All required qualification forms to be submitted with Bid forms.

**AWARD OF CONTRACT**

Bidders must show three recent years' experience with installations of a similar complexity and cost and prior experience with installations of the materials within 100 miles of the project site.

The successful bidder will be required to comply with State of New Hampshire RSA#21-1:81-a. The successful bidder will be required to furnish a 100% payment and 100% performance bond prior to execution of contract.

The award will be based on the proposal that best meets the needs of the college. Factors included will be the cost, completeness of the proposal, quality of the technology provided, and experience of the contractor and installation team. The college reserves the right to waive any informality in or to reject any or all proposals.

2. BASE BID(Stipulated sum)

The undersigned Contractor proposes to furnish all labor, materials, equipment, services and related items necessary for, or incidental to, the proper execution and completion of the Work in strict conformance with the Bidding and Contract Documents, on or before the time of completion specified, for the Stipulated Sum for Materials plus Labor of:

**TOTAL BASE BID AMOUNT: Materials plus Labor**

\_\_\_\_\_  
(Words)

\_\_\_\_\_ DOLLARS (\$) \_\_\_\_\_  
(Figures)

Provide a breakout below of the Materials and Labor costs contained in the Total Base Bid Amount above to satisfy the Owner's insurance requirements.

**MATERIALS:**

\_\_\_\_\_  
(words)

\_\_\_\_\_ DOLLARS (\$) \_\_\_\_\_ (figures)

**LABOR:**

\_\_\_\_\_  
(words)

\_\_\_\_\_ DOLLARS (\$) \_\_\_\_\_ (figures)

**UNIT PRICES**

Any change in the scope of the contract after contract award for the following specific items may be adjusted on the basis of direct invoice cost, plus overhead and profit.

a. It is anticipated that the existing plywood roof sheathing substrate to which the new roofing surfaces is to be applied is in good condition and suitable for application of the new roofing materials. In the event that specific portions or sections of the substrate decking is deteriorated and must be replaced, the Contractor shall provide a unit price per sheet for replacement of the substrate with material to match the existing. The substrate used for replacement of the existing plywood roof sheathing shall be of the same thickness and material specifications as the existing.

\_\_\_\_\_ DOLLARS (\$\_\_\_\_\_) per sheet  
(words) (figures)

b. It is anticipated that the existing perimeter built-up wood roof edge which the new roofing surfaces is to be applied is in good condition and suitable for application of the new roofing materials. In the event that specific portions or sections of the built-up wood roof edge is deteriorated and must be replaced, the Contractor shall provide a price per linear foot for replacement of the wood roof edge with material to match the existing. The roof edge used for replacement of the existing roof edge shall be of the same thickness and material specifications as the existing.

\_\_\_\_\_ DOLLARS (\$\_\_\_\_\_) per sheet  
(words) (figures)

#### CONTRACT CHANGE PRICES

Any change in the scope of the contract after contract award may be adjusted on the basis of direct invoice cost to the Contractor, plus a percentage for overhead and profit of:

\_\_\_\_\_ Percent \_\_\_\_\_ %  
(words) (figures)

### 3. ADDENDUM RECEIPT

The undersigned Contractor acknowledges the receipt of the following Addenda to the Bidding and Contract Documents, but he agrees that he is bound by all Addenda, whether or not listed herein:

Addendum No. \_\_\_\_\_ Dated: \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated: \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated: \_\_\_\_\_

All required qualification forms found in  
DOCUMENT 001153 - REQUEST FOR QUALIFICATIONS  
to be submitted with Bid forms.

STATEMENT OF NON-COLLUSION

By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of his knowledge and belief: (1) The prices in this bid have been arrived at independently without collusion, consultation, communications, or agreement, for the purpose of restricting competition as to any matter relating to such prices with any other bidder or with any competitor; (2) Unless required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any other competitor, and (3) No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

SIGNATURE: \_\_\_\_\_

NAME: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

PHONE: \_\_\_\_\_

EMAIL: \_\_\_\_\_

Corporate Seal:

End of Document

## DOCUMENT 00708

## GENERAL CONDITIONS – COMMUNITY COLLEGE SYSTEM OF NEW HAMPSHIRE (CCSNH)

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	ASSIGNMENTS
14	SUPERINTENDENCE BY CONTRACTOR
15	FAILURE TO COMPLETE WORK ON TIME
16	SUBSTANTIAL COMPLETION AND FINAL INSPECTION
17	DEFAULT AND TERMINATION OF CONTRACT
18	TERMINATION OF CONTRACT WITHOUT FAULT
19	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 *Community College System of New Hampshire* 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 *Community College System of New Hampshire* 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.** One 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 Community College System of New Hampshire, who is responsible for opening and reading of *Bids*.
- J. **Bidder.** A *Corporation*, *Partnership*, or *Proprietorship* submitting a *Proposal*, subsequent to meeting the Community College System of New Hampshire'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 *Community College System of New Hampshire* 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. **Chancellor.** The Chancellor of the Community College System of New Hampshire.
- R. **Change Order.** A written agreement between the *Contractor* and the *Community College System of New Hampshire* 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 *Change Order*.
- S. **Clerk of the Works.** An authorized representative identified by the *Community College System of New Hampshire*, responsible for observing construction on the *Community College System of New Hampshire's* behalf for conformance with the *Contract Documents*.
- T. **College.** The college who is responsible for the facility and/or will occupy the facility after and/or during the *Work*. The College(s) has/have no contractual agreement with the *Contractor* and therefore shall not direct the *Contractor* in any way.
- U. **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.
- V. **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.
- W. **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 Representative*.
- X. **Contract.** The written agreement between the *Community College System of New Hampshire* and the *Contractor* setting forth the obligations of the parties as outlined in the *Contract Documents*.
- Y. **Contract Representative.** The *Community College System of New Hampshire's* appointed representative is the CCSNH Director of Capital Planning and Development having specific authority to act on the *Community College System of New Hampshire'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*. The *Architect* does not have such authority.

- Z. **Contract Bond.** The approved form of security to the Community College System of New Hampshire (political subdivision) 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*.
- AA. **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.
- BB. **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 *Community College System of New Hampshire* is obligated to pay the *Contractor*.
- CC. **Contractor.** The *Corporation*, *Partnership*, or *Proprietorship*, or any combination thereof, contracting with the Community College System of New Hampshire for performance of prescribed work.
- DD. **Contractor's Request for Certificate of Full or Partial Substantial Completion.** A document prepared by the *Contractor* when the *Project* reaches *Substantial Completion*.
- EE. **Contractual Liability.** Liability assumed by the *Contractor* under a *Contract*.
- FF. **Corporation.** A legal entity organized under the laws of a particular jurisdiction who is legally authorized to do business in the State.
- GG. **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.
- HH. **Day.** Unless designated as a *Working Day*, or unless otherwise indicated, this term will mean a *Calendar Day*.
- 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 *Community College System of New Hampshire* 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 Community College System of New Hampshire 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 Community College System of New Hampshire 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 *Community College System of New Hampshire* 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 *Community College System of New Hampshire* 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*, certified check or cashier's check and which provide 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 *Community College System of New Hampshire* 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 *Contract Representative* that the work or portion thereof is substantially complete, in accordance with the *Contract Documents*, such that the *Community College System of New Hampshire* 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. **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*.
- SSS. **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.
- TTT. **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. Community College System of New Hampshire 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 the contract is approved and an issuance of the Notice to Proceed by the Community College System of New Hampshire.
- 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 *Community College System of New Hampshire*. 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 Representative 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 Representative.
- 2.12 All Drawings and Specifications and copies thereof are the property of the Community College System of New Hampshire 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 Community College System of New Hampshire, 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 Representative notified. No further work shall be conducted in the area of the contaminated material until the site has been investigated and the Community College System of New Hampshire has given approval to continue the work in the area. The Contractor shall fully cooperate with the Community College System of New Hampshire 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 Representative 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 Community College System of New Hampshire. 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 Community College System of New Hampshire, utilize the services of specialty Subcontractors, as required to complete the work.
- 7.4 The Contract Representative 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 Contract Representative 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 Representative thereof immediately thereafter. Any compensation claimed by the Contractor together with substantiating documents in regard to expense, shall be submitted to the Contract Representative and the amount of compensation shall be determined by agreement.
- 8.2 In the event the Community College System of New Hampshire learns of an emergency that threatens loss or injury of property, and/or safety of life, the Community College System of New Hampshire shall notify the Contractor using the contact information provided pursuant to PART 3 herein. The Community College System of New Hampshire may, but shall have no duty to take reasonable steps to mitigate the damage or loss to the Contractor. In either event, the Community College System of New Hampshire 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 Community College System of New Hampshire because of any loss so sustained, the Contract Representative shall notify the Contractor and/or their Subcontractors, who shall indemnify and hold harmless the Community College System of New Hampshire against any expenses or judgment arising therefrom.

## PART 10 PAYMENTS TO CONTRACTOR

- 10.1 The Community College System of New Hampshire 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 Representative.
- 10.2 At least ten (10) days before the end of the billing period, the Contractor shall submit to the Contract Representative, an itemized Requisition for Payment, supported by such data substantiating the Contractor's right to payment as the Contract Representative 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 Community College System of New Hampshire and submission by the Contractor of bills of sale or such other procedure satisfactory to the Contract Representative to establish the Community College System of New Hampshire's title to such materials or equipment or otherwise protect the Community College System of New Hampshire'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 Community College System of New Hampshire, may provide the Community College System of New Hampshire 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 Community College System of New Hampshire). 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 Community College System of New Hampshire to require the issuing financial institution to deposit with the Community College System of New Hampshire an amount equal to the retainage that would have been deducted from payment to the Contractor, as specified in 10.4.A.1. The Community College System of New Hampshire 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 Contract Representative 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 Community College System of New Hampshire. 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 Representative 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 Community College System of New Hampshire, 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 Community College System of New Hampshire 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 Community College System of New Hampshire, 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 Representative. 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 Representative 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 Chancellor, 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 Community College System of New Hampshire 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 Chancellor 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 Contract Representative may allow all or any part of such work to remain in place, if found to be in the best interest of the Community College System of New Hampshire, 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.

- 12.4 The Contractor shall hold the Community College System of New Hampshire 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 13 ASSIGNMENTS

- 13.1 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 Chancellor and of all Sureties executing any Bonds on behalf of the Contractor if in connection with said Contract.

#### PART 14 SUPERINTENDENCE BY CONTRACTOR

- 14.1 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 Community College System of New Hampshire. The Contractor shall not change superintendents without permission from the Contract Representative 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 Contract Representative 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 Contract Representative, the Contractor agrees to a stipulated penalty of \$1,200.00 per day, in addition to any liquidated damages provided hereunder.

## PART 15 FAILURE TO COMPLETE WORK ON TIME

- 15.1 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 Community College System of New Hampshire and for reimbursing the Community College System of New Hampshire 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 Community College System of New Hampshire for such deficiency.
- 15.2 If the Community College System of New Hampshire 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 Community College System of New Hampshire of any of its rights under the Contract. When the final acceptance has been duly made by the Contract Representative, any liquidated damage charges shall end.
- 15.3 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

Revised 02-25-2007

## PART 16 SUBSTANTIAL COMPLETION AND FINAL INSPECTION

Revised 12/08/04

- 16.1 The Contractor shall provide a signed Substantial Completion Application to the Contract Representative 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 Contract Representative 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 Contract Representative.
  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 Community College System of New Hampshire 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.
- 16.2 Partial Occupancy or Use: The Community College System of New Hampshire may take occupancy or use of completed or partially completed portions of the work upon written agreement between the Chancellor 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 Contract Representative 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 Contract Representative, before partial occupancy or use is taken by the Community College System of New Hampshire with prior approval of the Division.
- 16.3 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 Community College System of New Hampshire 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.
- 16.4 Upon written notice that the work is ready for final inspection and acceptance, the Contract Representative 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 17 DEFAULT AND TERMINATION OF CONTRACT

##### 17.1 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.

##### 17.2 The Chancellor 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 Chancellor will Terminate the Contract. Upon which, the Chancellor shall have full power and authority, without violating the Contract, to assume the prosecution of the work. The Chancellor 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 Community College System of New Hampshire 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 Community College System of New Hampshire, the amount of such excess.



## PART 18 TERMINATION OF CONTRACT WITHOUT FAULT

- 18.1 Except in cases controlled by the preceding section, the Chancellor, 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.
- 18.2 Notwithstanding anything to the contrary contained in these conditions, it is understood and agreed by the parties hereto that all obligations of the Community College System of New Hampshire 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 Community College System of New Hampshire 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 Community College System of New Hampshire funds by the Advisory Budget Control Committee, the Chancellor 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 Contract Representative. 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 19 ASSIGNMENT PROVISION

- 19.1 The Contractor hereby agrees that it will assign to the Community College System of New Hampshire, 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 Community College System of New Hampshire under this Contract, if so requested by the Community College System of New Hampshire.

END OF SECTION

## SECTION 01100

## SUMMARY

## PART 1 GENERAL

## 1.1 SECTION INCLUDES

- A. Contract description.
- B. Work by College.
- C. College supplied products.
- D. Contractor's use of site.
- E. Work sequence.
- F. College occupancy.
- G. Specification Conventions.

## 1.2 CONTRACT DESCRIPTION

- A. Description
  - 1. Description: This project consists of installation of new roofing on a portion of River Valley Community College. (Approx. 46,207 square feet of roof surface).
  - 2. Project Includes: Removal of all existing membrane roofing, including underlayments, flashings, drip edge fascias, abandoned roof curbs, roof drain strainers, wood sleepers, etc., to expose existing rigid insulation and roof edge blocking or nailers for inspection; replace any damaged, wet, rotted or deleterious rigid insulation, wood blocking or nailers and install new rigid insulation, roofing surface, flashings, drip edge fascias with fascia extenders, retrofit roof drains, wood sleepers, etc. to provide a complete, watertight, weatherproof roofing surface.
- B. The Project will include but not be limited to the Disciplines of: Roofing & Flashing.
- C. Perform Work of Contract under stipulated lump sum grand total contract with the College 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 WORK BY COLLEGE

1. NONE

1.4 COLLEGE SUPPLIED PRODUCTS

1. NONE

1.5 CONTRACTOR'S USE OF SITE [AND PREMISES]

- A. Limit use of site and premises to allow:
  1. College occupancy.
  2. Work by Others and Work by College.
- B. Access to Site: Limited to Normal working hours.
- C. Construction Operations: Limited to areas as designated in the plans and specifications.
- D. Time Restrictions for Performing Work: Normal working hours of [7:30] am to [4:30] 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 Representative, at least one week in advance. The Contract Representative may accept or reject the request.
- E. 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 with request and approval.

## 1.6 WORK SEQUENCE

- A. Work shall commence within 7, days after issuance of Notice to Proceed. Failure to comply shall constitute Default of Contract.
- B. Construct Work to accommodate College's occupancy requirements during construction period, coordinate construction schedule and operations with CCSNH Contract Administrator:

## 1.7 COLLEGE OCCUPANCY

- A. The College intends to occupy the campus during the Project. The Contractor's guarantee of work identified in Section 1700 shall not commence until the Contractor is granted a Certificate of Substantial Completion.
- B. Cooperate with College to minimize conflict, and to facilitate College's operations.
- C. Schedule the Work to accommodate College occupancy.
- D. Partial Occupancy. The College will be permitted to partially occupy the premises as phases of the project are completed. Warranties for items contained within the areas subject to partial occupancy shall commence upon the College's use of those premises identified in the Partial Occupancy. Warranties on systems extending beyond the area subject to the Partial Occupancy shall not commence until all areas utilizing those system(s) are complete and fully functional.

## 1.9 SPECIFICATION CONVENTIONS

- E. 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.

## PART 2 PRODUCTS

Not Used.

## PART 3 EXECUTION

Not Used.

END OF SECTION

## SECTION 01200

## PRICE AND PAYMENT PROCEDURES

## PART 1 GENERAL

## 1.1 SECTION INCLUDES

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

## 1.2 ALLOWANCES (intentionally omitted).

## 1.3 TESTING AND INSPECTION ALLOWANCES (intentionally omitted)

## 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 Change Orders, with each Requisitions For Payment.

## 1.5 REQUISITION FOR PAYMENT

- A. Submit one copy of each application.
- 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. CCSNH
- E. Substantiating Data: When the Contract Representative requires substantiating information, submit data justifying dollar amounts in question.
- F. Include the following with Requisition for Payment, payment will not be processed if any items are missing or incomplete:
  - 1. Record documents as specified in Section 01700, for review by the Contract Representative, which will be returned to Contractor.
  - 2. Affidavits attesting to off-site stored products.
  - 3. 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 Representative 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 Representative 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 Representative, 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

Representative. Submit the breakdown of the following items on a Stipulated Sum/Price Change Order Form for review and approval by the Contract Representative:

1. The Contractor shall include the following indirect costs for work performed by the General Contractor as part 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. Ten percent (10%). Said ten percent (10%) shall be all inclusive for overhead, supervision, and profit for Work performed by the General Contractor
  - b. Five percent (5%) on that part of work performed by Subcontractors.
  - c. 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 Representative may issue directive, signed by the Bureau Administrator or Assistant Administrator, 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 Representative 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 Representative. Submit the breakdown of items on a Bureau Time and Material Change Order Form for review and approval by the Contract Representative:
  - 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 Representative, 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 Representative.
- c. Equipment (Reasonable Rental Charge + 0%): For any trucks, machinery or special equipment, other than small tools, 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.
4. In addition to the above costs the General Contractor shall be allowed the following markups:
- a. Ten percent (10%). Said ten percent (10%) shall be all inclusive for overhead, supervision, and profit for Work performed by the General Contractor
  - b. Five percent (5%) 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 Change Order except as provided for in Item 1.2E.
- J. Execution of Change Orders: CCSNH Contract Representative will issue Change Orders per the following procedures.
1. The Contract Representative reviews cost for Change in Work. If needed the Contract Representative will request additional items, back-up information, and request any possible changes or clarifications.
  2. Contract Representative will prepare a Change Order.
  3. Contract Representative will issue the Change Order to the Contractor for review and signature.
  4. Contractor submits signed Change Order to the Contract Representative.

5. The Contract Representative completes the Change Order with the signature of the College Representative
  6. A fully signed and executed Change Order is issued to Contract Representative, Clerk of the Works, and Contractor.
- 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, (or initial order of magnitude), 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 Representative reviews cost for Change in Work with the College and Consultant(s). If needed the Contract Representative will request additional items, back-up information, and request any possible changes or clarifications.
  2. Contract Representative and College Representative signs Change Order.
  3. Contractor can proceed with Change Order Work with direction from the Contract Representative.
  4. Fully signed and executed Change Order is issued to the Contract Representative, Clerk of the Works, and Contractor.
- L. Correlation Of Contractor Submittals:
1. Promptly revise Schedule of Values and Application for Payment forms to record each authorized Change 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 Representative, it is not practical to remove and replace the Work, the Contract Representative 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 Representative.
  - D. Defective Work will be repaired to instructions of and acceptance by the Contract Representative, and unit sum/price will be adjusted to new sum/price at discretion of the Contract Representative.
  - E. Authority of the Contract Representative 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. NONE

1.9 ALTERNATES (intentionally omitted)

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

## SECTION 01300

## ADMINISTRATIVE REQUIREMENTS

## PART 1 GENERAL

## 1.1 SECTION INCLUDES

- A. Coordination and project conditions.
- B. Permits and fees.
- C. Field engineering.
- D. Preconstruction meeting.
- E. Site mobilization meeting.
- F. Progress meetings.
- G. Pre-installation meetings.
- H. Cutting and patching.
- I. Notification of Subcontractors and Workmen's Compensation Insurance (SB 78)
- J. 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. The Contractor shall comply with the "Underground Utility Damage Prevention System" by notification to DIG-SAFE SYSTEM of intent to excavate near or around any underground utility installations in public ways. The Contractor shall call 1-800/225-4977 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. Prior to any Work, the Contractor shall hire 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.
- D. 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.

- E. 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.
- F. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within construction. Coordinate locations of fixtures and outlets with finish elements.
- G. Coordinate completion and clean-up of Work of separate sections in preparation for Substantial Completion [and for portions of Work designated for State's [partial] occupancy].
- H. 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. The CCSNH shall obtain and pay for all permits, and impact fees as may be required by law for construction of CCSNH's facility. The Contractor shall 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.
- B. The Contractor shall 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.

### 1.4 FIELD ENGINEERING (not used)

### 1.5 PRECONSTRUCTION MEETING

- A. The Contract Representative will schedule meeting at the Project site prior to Contractor occupancy.
- B. Attendance required (unless otherwise waived): Contract Representative, Clerk of the Works, Contractor, Contractor's Superintendent, and major Subcontractors.
- C. Potential Agenda Topics:
  - 1. Distribution of Contract Documents.
  - 2. Submission of list of Subcontractors, insurance carriers, subcontracting relationship, list of products, schedule of values, and progress schedule.
  - 3. Designation of personnel representing parties in Contract.
  - 4. Use of premises by CCSNH and Contractor.
  - 5. College's requirements and partial occupancy.
  - 6. Construction facilities and controls provided by CCSNH.
  - 7. Temporary utilities provided by CCSNH
  - 8. Security and housekeeping procedures.
  - 9. Schedules.
  - 10. Application for payment procedures.
  - 11. Procedures for maintaining record documents.

12. Requirements for start-up of equipment.
  13. Inspection and acceptance of equipment put into service during construction period.
- D. Contract Representative 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 weekly intervals.
- B. Attendance required (unless otherwise waived): Contract Representative, Clerk of the Works, 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 of off-site fabrication and delivery schedules.
  7. Maintenance of progress schedule.
  8. Corrective measures to regain projected schedules.
  9. Planned progress during succeeding work period.
  10. Coordination of projected progress.
  11. Maintenance of quality and work standards.
  12. Effect of proposed changes on progress schedule and coordination.
  13. Other business relating to Work.
- D. Contract Representative 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 Representative 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.

## PART 2 PRODUCTS

Not Used.

## PART 3 EXECUTION

### 3.1 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 CCSNH or separate contractor.
- C. Execute cutting, fitting, and patching [including excavation and fill,] 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 material in accordance with design and code requirements, 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 Representative for decision or remedy.

### 3.2 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.
- H. Remove, cut, and patch Work in manner to minimize damage and to permit restoring products and finishes to original condition.
- I. Refinish existing visible surfaces to remain in renovated rooms and spaces, to original 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 Representative for review.
- L. Where change of plane of **1/4 inch** or more occurs, submit recommendation for providing smooth transition to Contract Representative for review.
- M. Trim existing doors to clear new floor finish. Refinish trim to original condition.
- N. Patch or replace portions of existing surfaces which are damaged, lifted, discolored, or showing other imperfections.
- O. Finish surfaces as specified in individual product sections.

END OF SECTION



## 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. Erection drawings.
- N. Construction photographs.

## 1.2 SUBMITTAL PROCEDURES

- A. Transmit each submittal with CCSNH accepted form.
- B. Sequentially number transmittal forms. Mark revised submittals with original number and sequential alphabetic suffix.
- C. Identify Project, Contractor, subcontractor and supplier; pertinent drawing and detail number, and specification section number, appropriate to submittal.

- D. 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.
- E. Schedule submittals to expedite Project. Coordinate submission of related items. Deliver to:
  - Contract Representative
  - Matthew Moore
  - [memmoore@ccsnh.edu](mailto:memmoore@ccsnh.edu)
  - Director of Capital Projects & Planning
  - Community College System of New Hampshire
  - 26 College Drive
  - Concord, NH 03301
- F. For each submittal for review, allow 14 days excluding delivery time to and from Contract Representative.
  - 1. All shop drawings to be returned to Contractor from the Contract Representative. Direct return of shop drawings from Architect or Engineer to Contractor is not permitted.
- G. Identify variations from Contract Documents and product or system limitations that may be detrimental to successful performance of completed Work.
- H. Allow space on submittals for Contractor and Architect or Engineer review stamps.
- I. When revised for resubmission, identify changes made since previous submission.
- J. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report inability to comply with requirements.
- K. Submittals not requested will not be recognized or processed.
- L. Work shall not begin until [All] submittal items have been approved and returned to General Contractor by the Contract Representative.

### 1.3 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit initial schedules at PreConstruction Meeting.
- B. Submit revised Progress Schedules with each 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\ and section of Work, identifying first work day of each week.
- F. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Indicate early and late start, early and late finish, float dates, and duration.
- G. Indicate estimated percentage of completion for each item of Work at each submission.
- H. Submit separate schedule of submittal dates for shop drawings, product data, and samples, including CCSNH furnished products and dates reviewed submittals will be required from Contract Representative. Indicate decision dates for selection of finishes. Selection of finishes cannot occur until ALL finish items are submitted and products are approved.
- I. Indicate delivery dates for furnished products.
- J. Revisions To Schedules:
  - 1. Indicate progress of each activity to date of submittal, and projected completion date of each activity.
  - 2. Identify activities modified since previous submittal, major changes in scope, and other identifiable changes.
  - 3. Prepare narrative report to define problem areas, anticipated delays, and impact on Schedule. Report corrective action taken, or proposed, and its effect including effect of changes on schedules of separate contractors.

#### 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.
- B. Provide Subcontractor and Insurance information as required under SB 78.
  - 1. Subcontractor list is to include subcontracting relationship and the carrier of Workmen Compensation Insurance for all subcontractors, all tiers.
  - 2. Proof of Insurance is to be provided within 36 hours of request.
  - 3. Changes and additional to Subcontractor and Insurance is to be provided to the CCSNH within 36 hours of occurrence.
  - 4. The CCSNH will post this information in a publicly accessible website for the duration of the contract.

#### 1.5 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 electronic copies to the Contract Representative. The copy for the CCSNH is separate from the copy the Contractor to provide as part of close out procedures.

- C. Mark each copy 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, produce copies and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents described in Section 01700.

#### 1.6 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 an electronic copy to the Contract Representative. The copy for the CCSNH is separate from the copy the Contractor to provide as part of close out procedures.
- D. After review, produce copies and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents described in Section 01700.

#### 1.7 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 Representative 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 Representative and System 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 Representative 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.

## 1.8 DESIGN DATA

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

## 1.9 TEST REPORTS

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

## 1.10 CERTIFICATES

- A. When specified in individual specification sections, submit certification by manufacturer, installation/application subcontractor, or Contractor, to Contract Representative 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 Representative.

## 1.11 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 Representative in quantities specified for Product Data.
- B. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

## 1.12 MANUFACTURER'S FIELD REPORTS

- A. Submit reports for Contract Representative's and System's benefit.
- B. Submit report in duplicate within 7 days of observation to the Contract Representative for information.
- C. Submit for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.

## 1.13 ERECTION DRAWINGS

- A. Submit to the Architect and Contract Representative for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.

- B. Data indicating inappropriate or unacceptable Work may be subject to action by the Architect, Engineer, or Contract Representative.

#### 1.14 CONSTRUCTION PHOTOGRAPHS

- A. Provide photographs of construction throughout progress of Work produced by an experienced] photographer, acceptable to the Contract Representative.
- B. Twice monthly submit photographs.
- C. Photographs: Submit digital images on 3-1/2" diskettes or on compact discs.
- D. Take multiple site photographs from differing directions and interior photographs indicating relative progress of the Work, three (3) days maximum prior to submitting.
- E. Identify each image. Identify name of Project, contract number phase orientation of view, date and time of view.

#### PART 2 PRODUCTS

Not Used.

#### PART 3 EXECUTION

Not Used.

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.
- F. Equipment electrical characteristics and components.

## 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 Representative.
- 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 Representative not later than five (5) business 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 CCSNH 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 Representative, 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.

## PART 2 PRODUCTS

- A. Not used

## PART 3 EXECUTION

Not Used.

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. Manual for materials and finishes.
- F. Product warranties and product bonds.
- G. 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 Representative review. The Substantial Completion Application for use by the Contractor is attached to the end of this specification section. The Contract Representative may modify this Agreement to accommodate any changes in Work.
  - 1. Provide submittals to the Contract Representative 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. College will occupy portions of building as specified in Section 01100.

## 1.3 FINAL CLEANING

- A. Execute final cleaning prior to final project assessment.
- B. Clean debris from roofs, gutters, downspouts, and drainage systems.
- C. Clean site; sweep paved areas, rake clean landscaped surfaces.
- D. 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 Representative at time of Substantial Completion.

#### 1.6 MANUAL FOR MATERIALS AND FINISHES

- A. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. The Contract Representative will review draft and return one copy with comments.
- B. For equipment, or component parts of equipment put into service during construction and operated by State, submit documents within ten days after acceptance.
- C. Submit one copy of completed volumes (15) fifteen days prior to Substantial Completion. Draft copy be reviewed and returned after Substantial Completion, with Architect/Engineer comments. Revise content of document sets as required prior to final submission.
- D. Submit one set of revised final volumes in final form prior to final inspection, and one electronic version.
- E. 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.
- F. 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.
- G. 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.
- H. Additional Requirements: As specified in individual product specification sections.
- I. Include listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.

#### 1.7 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. For equipment or component parts of equipment put into service during construction with State's permission, submit documents within (10) ten days after acceptance.
  - 2. Make other submittals within (10) ten days after Date of Substantial Completion, prior to final Application for Payment.
  - 3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within (10) ten days after acceptance, listing date of acceptance as beginning of warranty or bond period.

#### 1.8 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 Representative, 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 Chancellor, 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 Representative, 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 Representative 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 Chancellor 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.

## PART 2 PRODUCTS

Not Used.

## PART 3 EXECUTION

Not Used.

END OF SECTION



**Project # RVC 20-03**

**EXHIBIT "A"**

**FOR**

**Re-Roofing Project**

**AT**

**River Valley Community College**

**1 College Drive, Claremont, NH 03743**

**A COMPONENT OF THE**

**Community College System of New Hampshire**

**26 College Drive, Concord, NH**

**PROJECT MANUAL**

Attached to this exhibit:

Roofing Replacement Specifications: Dated: February 2, 2021 (48 Pages)

Roofing Replacement Drawings: Dated: February 2, 2021 (5 Drawings)

RPF Environmental Roof Study: Dated September 4, 2020 (18 Pages)

## 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 a building or structure.
  - 2. Repair procedures for selective demolition operations.
- B. Related Sections include the following:
  - 1. All project sections in these project specifications for use of the premises and phasing requirements.

#### 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 ready for reuse.
- 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. Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, demolished materials shall become Contractor's property and shall be removed from Project site.

#### 1.5 SUBMITTALS

- A. Qualification Data: For firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of Architects and Owners, and other information specified.



- B. Proposed Dust-Control and Noise-Control Measures: Submit statement or drawing that indicates the measures proposed for use, proposed locations, and proposed time frame for their operation. Identify options if proposed measures are later determined to be inadequate.
- C. 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. Ensure Owner's on-site operations are uninterrupted.
  - 2. Interruption of utility services.
  - 3. Locations of building's existing means of egress.
  - 4. Coordination of Owner's continuing occupancy of portions of existing building and of Owner's partial occupancy of completed Work.
- D. Pre-Demolition Photographs or Videotape: Show existing conditions of adjoining construction and site improvements, including finish surfaces that might be misconstrued as damage caused by selective demolition operations. Submit before Work begins.

#### 1.6 QUALITY ASSURANCE

- A. Qualifications: Experienced personnel specialized in demolition work similar in material and extent to that indicated for this Project.
- B. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.
- C. Standards: Comply with ANSI A10.6 and NFPA 241.
- D. Pre-Demolition Conference: Conduct conference at Project site to comply with requirements in Division 1. Review methods and procedures related to selective demolition including, but not limited to, the following:
  - 1. Inspect and discuss condition of construction to be selectively demolished.

#### 1.7 PROJECT CONDITIONS

- A. Maintain access to existing walkways and other adjacent occupied or used facilities.
  - 1. Do not close or obstruct walkways or access to other occupied or used facilities without written permission from authorities having jurisdiction.
- B. Owner assumes no responsibility for condition of areas to be selectively demolished.

- C. Storage or sale of removed items or materials on-site will not be permitted.
- D. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
  - 1. Maintain fire-protection facilities in service during selective demolition operations.

## PART 2 - PRODUCTS

### 2.1 REPAIR MATERIALS

- A. Use repair materials identical to existing materials.
  - 1. If identical materials are unavailable or cannot be used for exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible.
  - 2. Use materials whose installed performance equals or surpasses that of existing materials.
- B. Comply with material and installation requirements specified in individual specification sections.

## 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.

### 3.2 UTILITY SERVICES

- A. Existing Utilities: Maintain services indicated to remain and protect them against damage during selective demolition operations.
- B. Do not interrupt existing utilities serving occupied or operating facilities unless authorized in writing by Owner and authorities having jurisdiction. Provide temporary services during interruptions to existing utilities, as acceptable to Owner and to authorities having jurisdiction.

### 3.3 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. Do not close or obstruct streets, walks, walkways, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways, if required by governing regulations.
  2. Erect temporary protection, such as walks, fences, railings, canopies, and covered passageways, where required by authorities having jurisdiction.
  3. Protect existing site improvements, appurtenances, and landscaping to remain.
  4. Erect a plainly visible fence around drip line of individual trees or around perimeter drip line of groups of trees to remain.
- 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.
- C. Temporary Enclosures: Provide temporary enclosures for protection of existing building and construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.

### 3.4 POLLUTION CONTROLS

- A. Disposal: Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas and in accordance with all local, state and federal laws and guidelines.
1. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
- B. Cleaning: Clean adjacent areas of dirt and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

### 3.5 SELECTIVE DEMOLITION

- A. General: Demolish 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.
  - 2. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
  - 3. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
  - 4. Dispose of demolished items and materials promptly.
- B. Existing Facilities: Comply with Contract Representative's requirements for protecting walkways, building entries and other building facilities during selective demolition operations.
- C. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition.
- D. Roofing: Remove no more existing roofing than can be covered in one day by new roofing. Refer to applicable Division 7 Section for new roofing requirements.

### 3.6 PATCHING AND REPAIRS

- A. General: Promptly repair damage to adjacent construction caused by selective demolition operations.
- B. Repairs: Where repairs to existing surfaces are required, patch to produce surfaces suitable for new materials.
- C. Finishes: Restore exposed finishes of patched areas and extend restoration into adjoining construction in a manner that eliminates evidence of patching and refinishing.

### 3.7 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Promptly dispose of demolished materials in accordance with all applicable local, state and federal laws and ordinances. Do not allow demolished materials to accumulate on-site.
- B. Burning: Do not burn demolished materials.
- C. Disposal: Transport demolished materials and dispose of at designated legal locations in accordance with all local, state, and federal laws and ordinances.

3.8 SELECTIVE DEMOLITION

- A. See construction documents.
- B. Existing Items to Remain: See construction documents.

END OF SECTION 024119

## SECTION 061053 - MISCELLANEOUS ROUGH 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. Wood blocking and nailers.
- B. Related Requirements:
  - 1. Section 077100 "Roof Specialties".

#### 1.3 DEFINITIONS

- A. Boards or Strips: Lumber of less than 2 inches nominal (38 mm actual) size in least dimension.
- B. Dimension Lumber: Lumber of 2 inches nominal (38 mm actual) or greater size but less than 5 inches nominal (114 mm actual) size in least dimension.

#### 1.4 QUALITY ASSURANCE

- A. Testing Agency Qualifications: For testing agency providing classification marking for fire-retardant-treated material, an inspection agency acceptable to authorities having jurisdiction that periodically performs inspections to verify that the material bearing the classification marking is representative of the material tested.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Stack lumber flat with spacers beneath and between each bundle to provide air circulation. Protect lumber from weather by covering with waterproof sheeting, securely anchored. 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 ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC 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.

- B. Maximum Moisture Content of Lumber: 15 percent for 2-inch nominal (38-mm actual) thickness or less, 19 percent for more than 2-inch nominal (38-mm actual) thickness unless otherwise indicated.

## 2.2 WOOD-PRESERVATIVE-TREATED MATERIALS

- A. Preservative Treatment by Pressure Process: AWP A U1; Use Category UC2 for interior construction not in contact with ground, Use Category UC3b for exterior construction not in contact with ground, and Use Category UC4a for items in contact with ground.

1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.

- B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Do not use material that is warped or does not comply with requirements for untreated material.

- C. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.

- D. Application: Treat items indicated on Drawings, and the following:

1. Wood nailers, blocking, and similar members in connection with roofing and flashing.

## 2.3 MISCELLANEOUS LUMBER

- A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:

1. Blocking.
2. Nailers.

- B. For blocking not used for attachment of other construction, Utility, Stud, or No. 3 grade lumber of any species may be used provided that it is cut and selected to eliminate defects that will interfere with its attachment and purpose.

- C. For blocking and nailers used for attachment of other construction, select and cut lumber to eliminate knots and other defects that will interfere with attachment of other work.

## 2.4 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.

1. Where carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners of Type 304 stainless steel.
- B. Nails, Brads, and Staples: ASTM F 1667.
- C. Screws for Fastening to Metal Framing: ASTM C 1002, length as recommended by screw manufacturer for material being fastened.

## PART 3 - EXECUTION

### 3.1 INSTALLATION, GENERAL

- A. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.
- B. Set carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit carpentry accurately to other construction. Locate nailers, blocking, and similar supports to comply with requirements for attaching other construction.
- C. Provide blocking and framing as indicated and as required to support facing materials, specialty items, and trim.
- D. Sort and select lumber so that natural characteristics do 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.
- E. Comply with AWPA M4 for applying field treatment to cut surfaces of preservative-treated lumber.
  1. Use inorganic boron for items that are continuously protected from liquid water.
  2. Use copper naphthenate for items not continuously protected from liquid water.
- F. Where wood-preservative-treated lumber is installed adjacent to metal decking, install continuous flexible flashing separator between wood and metal decking.
- G. Securely attach carpentry work to substrate by anchoring and fastening as indicated, complying with the following:
  1. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code.
  2. ICC-ES evaluation report for fastener.
- H. Use steel common nails unless otherwise indicated. Make tight connections between members. Install fasteners without splitting wood. Drive nails snug but do not countersink nail heads unless otherwise indicated.



### 3.2 WOOD BLOCKING AND NAILER 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.

### 3.3 PROTECTION

- A. Protect wood that has been treated with inorganic boron (SBX) from weather. If, despite protection, inorganic boron-treated wood becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.
- B. Protect miscellaneous rough carpentry from weather. If, despite protection, miscellaneous rough carpentry becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

END OF SECTION 061053

## SECTION 070150 - PREPARATION FOR REROOFING

### 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. Full tear-off for a partial section of roof.
- B. Related Requirements:
  - 1. Section 011000 "Summary" for use of the premises and phasing requirements.
  - 2. Section 015000 "Temporary Facilities and Controls" for temporary construction and environmental-protection measures for reroofing preparation.

#### 1.3 DEFINITIONS

- A. Roofing Terminology: Definitions in ASTM D 1079 and glossary of NRCA's "The NRCA Roofing and Waterproofing Manual" apply to work of this Section.
- B. Full Roof Tear-Off: Partial removal of existing roofing system from rigid insulation on tectum roof deck.

#### 1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: Include plans, sections, and details.

#### 1.5 INFORMATIONAL SUBMITTALS

- A. Landfill Records: Indicate receipt and acceptance of demolished roofing materials and hazardous wastes, such as asbestos-containing materials, by a landfill facility licensed to accept them.

#### 1.6 QUALITY ASSURANCE

- A. Installer Qualifications: Licensed to perform asbestos abatement in the state or jurisdiction where Project is located.

- B. Regulatory Requirements: Comply with governing EPA notification regulations before beginning roofing removal. Comply with hauling and disposal regulations of authorities having jurisdiction.
- C. Reroofing Conference: Conduct conference at Project site.
  - 1. Meet with Owner; Architect; Owner's insurer if applicable; testing and inspecting agency representative; roofing system manufacturer's representative; roofing installer, including project manager, superintendent, and foreman; and installers whose work interfaces with or affects reroofing, including installers of roof deck, roof accessories, and roof-mounted equipment.
  - 2. Review methods and procedures related to roofing system tear-off and replacement, including, but not limited to, the following:
    - a. Reroofing preparation, including roofing system manufacturer's written instructions.
    - b. Temporary protection requirements for existing roofing system components that are to remain.
    - c. Existing roof drains and roof drainage during each stage of reroofing, and roof-drain plugging and plug removal.
    - d. Construction schedule and availability of materials, installer's personnel, equipment, and facilities needed to avoid delays.
    - e. Existing roof insulation, roof edge blocking and nailer conditions requiring notification of Architect.
    - f. Existing roof insulation, roof edge blocking and nailer removal procedures and Owner notifications.
    - g. Condition and acceptance of existing roof insulation and base flashing substrate for reuse.
    - h. Structural loading limitations of roof surface during reroofing.
    - i. Base flashings, special roofing details, drainage, penetrations, equipment curbs, and condition of other construction that affect reroofing.
    - j. HVAC shutdown and sealing of air intakes.
    - k. Shutdown of fire-suppression, protection, and alarm and detection systems.
    - l. Asbestos removal and discovery of asbestos-containing materials.
    - m. Governing regulations and requirements for insurance and certificates if applicable.

- n. Existing conditions that may require notification of Architect before proceeding.

## 1.7 FIELD CONDITIONS

- A. Owner will occupy portions of building immediately below reroofing area. Conduct reroofing so Owner's operations are not disrupted. Provide Owner with not less than 72 hours' notice of activities that may affect Owner's operations.
  - 1. Coordinate work activities daily with Owner so Owner can place protective dust and water-leakage covers over sensitive equipment and furnishings, shutdown HVAC and fire-alarm or detection equipment if needed, and evacuate occupants from below work area.
  - 2. Before working over structurally impaired areas of deck, notify Owner to evacuate occupants from below affected area. Verify that occupants below work area have been evacuated before proceeding with work over impaired deck area.
- B. Protect building to be reroofed, adjacent buildings, walkways, site improvements, exterior plantings, and landscaping from damage or soiling from reroofing operations.
- C. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities.
- D. Conditions existing at time of inspection for bidding are maintained by Owner as far as practical.
- E. Limit construction loads on roof to 60 psf for uniformly distributed loads.
- F. Weather Limitations: Proceed with reroofing preparation only when existing and forecasted weather conditions permit Work to proceed without water entering existing roofing system or building.
  - 1. Remove only as much roofing in one (1) day as can be made watertight in the same day.

## PART 2 - PRODUCTS

### 2.1 AUXILIARY REROOFING MATERIALS

- A. General: Use auxiliary reroofing preparation materials recommended by roofing system manufacturer for intended use and compatible with components of new roofing system.

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Shut-off rooftop utilities and service piping before beginning the Work.
- B. Test existing roof drains to verify that they are not blocked or restricted. Immediately notify Architect of any blockages or restrictions.

- C. Coordinate with Owner to shutdown air-intake equipment in the vicinity of the Work. Cover air-intake louvers before proceeding with reroofing work that could affect indoor air quality or activate smoke detectors in the ductwork.
- D. During removal operations, have sufficient and suitable materials on-site to facilitate rapid installation of temporary protection in the event of unexpected rain.
- E. Maintain roof drains in functioning condition to ensure roof drainage at end of each workday. Prevent debris from entering or blocking roof drains and conductors. Use roof-drain plugs specifically designed for this purpose. Remove roof-drain plugs at end of each workday, when no work is taking place, or when rain is forecast.
  - 1. If roof drains are temporarily blocked or unserviceable due to roofing system removal or partial installation of new roofing system, provide alternative drainage method to remove water and eliminate ponding. Do not permit water to enter into or under existing roofing system components that are to remain.

### 3.2 ROOF TEAR-OFF

- A. General: Notify Owner each day of extent of roof tear-off proposed for that day and obtain authorization to proceed.
- B. Partial Roof Tear-Off: Remove existing roofing and other roofing system components down to the rigid insulation.
  - 1. Remove cover boards, etc.

### 3.3 DECK PREPARATION

- A. Inspect rigid insulation after tear-off of roofing system.
- B. Verify that rigid insulation is visibly dry and free of moisture.

### 3.4 DISPOSAL

- A. Collect demolished materials and place in containers. Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on-site.
  - 1. Storage or sale of demolished items or materials on-site is not permitted.
- B. Transport and legally dispose of demolished materials off Owner's property.

END OF SECTION 070150

## 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-monomer (EPDM) roofing system.
2. Roof insulation.
3. Cover board

- B. Related Requirements:

1. Section 061053 "Miscellaneous Rough Carpentry" for wood nailers, curbs, and blocking.
2. Section 077100 "Roof Specialties" for roof edge specialties, reglets and counterflashings, replacement roof drains, replacement roof curbs, roof hatch safety railing and gate, and roof edge guardrail.

#### 1.3 DEFINITIONS

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

#### 1.4 PREINSTALLATION MEETINGS

- A. Preinstallation Roofing Conference: Conduct conference at Project site.

1. Meet with Owner, Architect, testing and inspecting agency representative, Roofing Installer, roofing system manufacturer's representative, and installers whose work interfaces with or affects roofing, including installers of roof accessories and roof-mounted equipment.
2. Review methods and procedures related to roofing installation, including manufacturer's written instructions.
3. Review and finalize construction schedule, and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.

4. Examine roof substrate conditions and finishes for compliance with requirements, including flatness and fastening.
5. Review structural loading limitations of roof surface during and after roofing.
6. Review base flashings, special roofing details, roof drainage, roof penetrations, and condition of other construction that affects roofing system.
7. Review governing regulations and requirements for insurance and certificates if applicable.
8. Review temporary protection requirements for roofing system during and after installation.
9. Review roof observation and repair procedures after roofing installation.

#### 1.5 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, fastening spacings, and patterns for mechanically fastened roofing system.
  6. Insulation fastening patterns for corner, perimeter, and field-of-roof locations.
- C. Samples for Verification: For the following products:
  1. Roof membrane and flashing, of color required.

#### 1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A qualified manufacturer that is UL listed for roofing system identical to that used for this Project.
- B. 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.

## 1.7 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.

## 1.8 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.

## 1.9 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 membrane roofing, base flashings, roof insulation, fasteners, cover boards, roofing accessories, and other components of roofing system.
  - 2. Warranty Period: 30 years from date of Substantial Completion.
- B. Special Project Warranty: Submit roofing Installer's warranty, on warranty form at end of this Section, signed by Installer, covering Work of this Section, including all components of roofing system such as membrane roofing, base flashing, roof insulation, fasteners, cover boards, substrate boards, vapor retarders, roof pavers, and walkway products, for the following warranty period:
  - 1. Warranty Period: Two years from date of Substantial Completion.



## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Source Limitations: Obtain components including roof insulation, fasteners, etc., for roofing system from same manufacturer as membrane roofing or manufacturer approved by membrane roofing manufacturer.

### 2.2 PERFORMANCE REQUIREMENTS

- A. General Performance: Installed roofing 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 base flashings shall remain watertight.
  - 1. Accelerated Weathering: Roofing system shall withstand 2000 hours of exposure when tested according to ASTM G 152, ASTM G 154, or ASTM G 155.
  - 2. Impact Resistance: Roofing system shall resist impact damage when tested according to ASTM D 3746 or ASTM D 4272.
- B. Material Compatibility: Roofing materials shall be compatible with one another and adjacent materials under conditions of service and application required, as demonstrated by roofing manufacturer based on testing and field experience.
- C. Roofing System Design: Tested by a qualified testing agency to resist the following uplift pressures:
  - 1. Corner Uplift Pressure: 70 PSF
  - 2. Perimeter Uplift Pressure: 47 PSF
  - 3. Field-of-Roof Uplift Pressure: 30 PSF
- D. FM Global Listing: Roofing, base flashings, and component materials shall comply with requirements in FM Global 4450 or FM Global 4470 as part of a built-up roofing system, and shall be listed in FM Global's "RoofNav" for Class 1 or noncombustible construction, as applicable. Identify materials with FM Global markings.
  - 1. Fire/Windstorm Classification: Class 1-75
  - 2. Hail-Resistance Rating: MH.
- E. Exterior Fire-Test Exposure: ASTM E 108 or UL 790, Class A; for application and roof slopes indicated; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

### 2.3 EPDM ROOFING

- A. EPDM: ASTM D 4637, Type I, nonreinforced, uniform, flexible EPDM sheet.

1. Thickness: 60 mils (1.5 mm), nominal.
2. Exposed Face Color: Black on black.

## 2.4 AUXILIARY ROOFING MATERIALS

- A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with roofing.
  1. Liquid-type auxiliary materials shall comply with VOC limits of authorities having jurisdiction.
- B. Sheet Flashing: 60-mil-(1.5-mm-) thick EPDM, partially cured or cured, according to application.
- C. Bonding Adhesive: Manufacturer's standard.
- D. Modified Asphaltic Fabric-Backed Membrane Adhesive: Roofing system manufacturer's standard modified asphalt, asbestos-free, cold-applied adhesive formulated for compatibility and use with fabric-backed membrane roofing.
- E. Water-Based, Fabric-Backed Membrane Adhesive: Roofing system manufacturer's standard water-based, cold-applied adhesive formulated for compatibility and use with fabric-backed membrane roofing.
- F. Low-Rise, Urethane, Fabric-Backed Membrane Adhesive: Roof system manufacturer's standard spray-applied, low-rise, two-component urethane adhesive formulated for compatibility and use with fabric-backed membrane roofing.
- G. Seaming Material: Single-component, butyl splicing adhesive and splice cleaner.
- H. Lap Sealant: Manufacturer's standard, single-component sealant, colored to match membrane roofing.
- I. Water Cutoff Mastic: Manufacturer's standard butyl mastic sealant.
- J. 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.
- K. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Global 4470, designed for fastening membrane to substrate, and acceptable to roofing system manufacturer.
- L. Miscellaneous Accessories: Provide preformed inside and outside corner sheet flashings, reinforced EPDM securement strips, T-joint covers, in-seam sealants, termination bars, cover strips, and other accessories.

## 2.5 ROOF INSULATION

- A. General: Preformed roof insulation boards manufactured or approved by EPDM roofing manufacturer, selected from manufacturer's standard sizes suitable for application, of thicknesses indicated and that produce FM Global-approved roof insulation.
- B. Polyisocyanurate Board Insulation: ASTM C 1289, Type II, Class 1, Grade 3, felt or glass-fiber mat facer on both major surfaces.
  - 1. Compressive Strength: 20 psi.
  - 2. Size: 48 by 96 inches.
  - 3. Thickness: As indicated on the Drawings.
- C. Provide preformed crickets, tapered edge strips, and other insulation shapes where indicated for sloping to drain. Fabricate to slopes indicated.

## 2.6 INSULATION ACCESSORIES

- A. General: Roof insulation accessories recommended by insulation manufacturer for intended use and compatibility with roofing.
- B. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Global 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. Modified asphaltic, asbestos-free, cold-applied adhesive.
  - 2. Bead-applied, low-rise, one-component or multicomponent urethane adhesive.
  - 3. Full-spread spray-applied, low-rise, two-component urethane adhesive.
- D. Cover Board: ASTM C 1177/C 1177M, glass-mat, water-resistant gypsum substrate, 1/2 inch (16 mm) thick, factory primed.

## 2.7 ASPHALT MATERIALS

- A. Roofing Asphalt: ASTM D 312, Type III or Type IV.
- B. Asphalt Primer: ASTM D 41/D 41M.

## 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-drain bodies are securely clamped in place.
  - 2. Verify that wood blocking and nailers are securely anchored to roof deck at terminations and that nailers match thicknesses of insulation.
  - 3. Verify that any damaged sections of rigid insulation, roof edge blocking or nailers have been repaired or replaced.
- 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 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, listed roof assembly requirements, and FM Global Property Loss Prevention Data Sheet 1-29.
- B. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system at the end of the workday or when rain is forecast. Remove and discard temporary seals before beginning work on adjoining roofing.
- C. Install roofing and auxiliary materials to tie in to existing roofing system, where indicated, to maintain weather tightness of transition and to not void warranty for existing roofing system.

### 3.4 INSULATION INSTALLATION

- A. Coordinate installing roofing system components so insulation is not exposed to precipitation or left exposed at the end of the workday.
- B. Comply with roofing system and insulation manufacturer's written instructions for installing roof insulation.

- C. At internal roof drains, slope insulation to create a square drain sump with each side equal to the diameter of the drain bowl plus 24 inches.
  - 1. Trim surface of insulation where necessary at roof drains so completed surface is flush and does not restrict flow of water.
- D. 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.
- E. Adhered Insulation: Install each layer of insulation and adhere to substrate as follows:
  - 1. Set each layer of insulation in a uniform coverage of full-spread insulation adhesive, firmly pressing and maintaining insulation in place.
- F. Install cover boards over insulation with long joints in continuous straight lines with end joints staggered between rows. Offset joints of insulation below a minimum of 6 inches (150 mm) in each direction. Loosely butt cover boards together and adhere to roof insulation.
  - 1. Adhere cover boards according to requirements in FM Global's "RoofNav" for specified Windstorm Resistance Classification.
  - 2. Adhere cover boards to resist uplift pressure at corners, perimeter, and field of roof.

### 3.5 INSTALLATION OF COVER BOARDS

- A. Install cover boards over insulation with long joints in continuous straight lines with end joints staggered between rows. Offset joints of insulation below a minimum of 6 inches in each direction.
  - 1. Trim cover board neatly to fit around penetrations and projections, and to fit tight to intersecting sloping roof surfaces.
  - 2. At internal roof drains, conform to slope of drain sump.
    - a. Trim cover board so that water flow is unrestricted.
  - 3. Cut and fit cover board tight to nailers and penetrations.
  - 4. Adhere cover board to substrate using adhesive according to SPRI's Directory of Roof Assemblies listed roof assembly requirements for specified Wind Uplift Load Capacity and FM Global Property Loss Prevention Data Sheet 1-29, as follows:

- a. Set cover board in ribbons of bead-applied insulation adhesive, firmly pressing and maintaining insulation in place.
- B. Install slip sheet over cover board and immediately beneath roof membrane.

### 3.6 ADHERED MEMBRANE ROOFING INSTALLATION

- A. Adhere roofing over area to receive roofing according to membrane roofing system manufacturer's written instructions. Unroll membrane roofing and allow to relax before installing.
- B. Start installation of roofing in presence of roofing system manufacturer's technical personnel.
- C. Accurately align roofing and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.
- D. Bonding Adhesive: Apply to substrate and underside of roofing at rate required by manufacturer and allow to partially dry before installing roofing. Do not apply to splice area of roofing.
- E. Fabric-Backed Membrane Adhesive: Apply to substrate at rate required by manufacturer, and install fabric-backed roofing.
- F. In addition to adhering, mechanically fasten roofing securely at terminations, penetrations, and perimeters.
- G. Apply roofing with side laps shingled with slope of roof insulation where possible.
- H. Adhesive Seam Installation: Clean both faces of splice areas, apply splicing cement, and firmly roll side and end laps of overlapping roofing according to manufacturer's written instructions to ensure a watertight seam installation. Apply lap sealant and seal exposed edges of roofing terminations.
  - 1. Apply a continuous bead of in-seam sealant before closing splice if required by roofing system manufacturer.
- I. Repair tears, voids, and lapped seams in roofing that do not comply with requirements.
- J. Spread sealant or mastic bed over deck-drain flange at roof drains, and securely seal membrane roofing in place with clamping ring.

### 3.7 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.

### 3.8 PROTECTING AND CLEANING

- A. Protect membrane roofing system from damage and wear during remainder of construction period. When remaining construction does not affect or endanger roofing, inspect roofing 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 membrane roofing system that does not comply with requirements, repair substrates, and repair or reinstall membrane 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.

### 3.9 ROOFING INSTALLER'S WARRANTY

- A. WHEREAS \_\_\_\_\_ of \_\_\_\_\_, herein called the "Roofing Installer," has performed roofing and associated work ("work") on the following project:
  - 1. Owner: <Insert name of Owner>.
  - 2. Address: <Insert address>.
  - 3. Building Name/Type: <Insert information>.
  - 4. Address: <Insert address>.
  - 5. Area of Work: <Insert information>.
  - 6. Acceptance Date: \_\_\_\_\_.
  - 7. Warranty Period: <Insert time>.
  - 8. Expiration Date: \_\_\_\_\_.
- B. AND WHEREAS Roofing Installer has contracted (either directly with Owner or indirectly as a subcontractor) to warrant said work against leaks and faulty or defective materials and workmanship for designated Warranty Period,

- C. NOW THEREFORE Roofing Installer hereby warrants, subject to terms and conditions herein set forth, that during Warranty Period he will, at his own cost and expense, make or cause to be made such repairs to or replacements of said work as are necessary to correct faulty and defective work and as are necessary to maintain said work in a watertight condition.
- D. This Warranty is made subject to the following terms and conditions:
1. Specifically excluded from this Warranty are damages to work and other parts of the building, and to building contents, caused by:
    - a. lightning;
    - b. peak gust wind speed exceeding 110 mph (m/sec);
    - c. fire;
    - d. failure of roofing system substrate, including cracking, settlement, excessive deflection, deterioration, and decomposition;
    - e. faulty construction of parapet walls, copings, chimneys, vents, equipment supports, and other edge conditions and penetrations of the work;
    - f. vapor condensation on bottom of roofing; and
    - g. activity on roofing by others, including construction contractors, maintenance personnel, other persons, and animals, whether authorized or unauthorized by Owner.
  2. When work has been damaged by any of foregoing causes, Warranty shall be null and void until such damage has been repaired by Roofing Installer and until cost and expense thereof have been paid by Owner or by another responsible party so designated.
  3. Roofing Installer is responsible for damage to work covered by this Warranty but is not liable for consequential damages to building or building contents resulting from leaks or faults or defects of work.
  4. During Warranty Period, if Owner allows alteration of work by anyone other than Roofing Installer, including cutting, patching, and maintenance in connection with penetrations, attachment of other work, and positioning of anything on roof, this Warranty shall become null and void on date of said alterations, but only to the extent said alterations affect work covered by this Warranty. If Owner engages Roofing Installer to perform said alterations, Warranty shall not become null and void unless Roofing Installer, before starting said work, shall have notified Owner in writing, showing reasonable cause for claim, that said alterations would likely damage or deteriorate work, thereby reasonably justifying a limitation or termination of this Warranty.



5. During Warranty Period, if original use of roof is changed and it becomes used for, but was not originally specified for, a promenade, work deck, spray-cooled surface, flooded basin, or other use or service more severe than originally specified, this Warranty shall become null and void on date of said change, but only to the extent said change affects work covered by this Warranty.
6. Owner shall promptly notify Roofing Installer of observed, known, or suspected leaks, defects, or deterioration and shall afford reasonable opportunity for Roofing Installer to inspect work and to examine evidence of such leaks, defects, or deterioration.
7. This Warranty is recognized to be the only warranty of Roofing Installer on said work and shall not operate to restrict or cut off Owner from other remedies and resources lawfully available to Owner in cases of roofing failure. Specifically, this Warranty shall not operate to relieve Roofing Installer of responsibility for performance of original work according to requirements of the Contract Documents, regardless of whether Contract was a contract directly with Owner or a subcontract with Owner's General Contractor.

E. IN WITNESS THEREOF, this instrument has been duly executed this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

1. Authorized Signature: \_\_\_\_\_.
2. Name: \_\_\_\_\_.
3. Title: \_\_\_\_\_.

END OF SECTION 075323

## SECTION 075419 - POLYVINYL-CHLORIDE (PVC) 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 polyvinyl chloride (PVC) roofing system.
  - 2. Roof insulation.
  - 3. Cover board.
- B. Section includes installation of sound-absorbing insulation strips in ribs of roof deck. Sound-absorbing insulation strips are furnished under Section 053100 "Steel Decking."
- C. Related Requirements:
  - 1) Section 061053 "Miscellaneous Rough Carpentry" for wood nailers, curbs, and blocking.
  - 2) Section 077100 "Roof Specialties" for roof edge specialties, reglets and counterflashings, replacement roof drains, replacement roof curbs, roof hatch safety railing and gate, and roof edge guardrail.

#### 1.3 DEFINITIONS

- A. Roofing Terminology: Definitions in ASTM D1079 and glossary in NRCA's "The NRCA Roofing Manual: Membrane Roof Systems" apply to work of this Section.

#### 1.4 PREINSTALLATION MEETINGS

- a. Preinstallation Roofing Conference: Conduct conference at Project site.
  - 1) Meet with Owner, Architect, testing and inspecting agency representative, Roofing Installer, roofing system manufacturer's representative, and installers whose work interfaces with or affects roofing, including installers of roof accessories and roof-mounted equipment.
  - 2) Review methods and procedures related to roofing installation, including manufacturer's written instructions.

- 3) Review and finalize construction schedule, and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
- 4) Examine roof substrate conditions and finishes for compliance with requirements, including flatness and fastening.
- 5) Review structural loading limitations of roof surface during and after roofing.
- 6) Review base flashings, special roofing details, roof drainage, roof penetrations, and condition of other construction that affects roofing system.
- 7) Review governing regulations and requirements for insurance and certificates if applicable.
- 8) Review temporary protection requirements for roofing system during and after installation.
- 9) Review roof observation and repair procedures after roofing installation.

#### 1.5 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, fastening spacings, and patterns for mechanically fastened roofing system.
  6. Insulation fastening patterns for corner, perimeter, and field-of-roof locations.
- C. Samples for Verification: For the following products:
  1. Roof membrane and flashing, of color required.

## 1.6 QUALITY ASSURANCE

- a. Manufacturer Qualifications: A qualified manufacturer that is UL listed for roofing system identical to that used for this Project.
- b. 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.

## 1.7 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.

## 1.8 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.

## 1.9 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, cover boards, and other components of roofing system.
  2. Warranty Period: 30 years from date of Substantial Completion.
- B. Special Project Warranty: Submit roofing Installer's warranty, on warranty form at end of this Section, signed by Installer, covering the Work of this Section, including all components of roofing system such as roof membrane, base flashing, roof membrane,

base flashings, roof insulation, fasteners, cover boards, for the following warranty period:

1. Warranty Period: Two years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- a. Source Limitations: Obtain components including roof insulation, fasteners, etc., for roofing system from same manufacturer as membrane roofing or manufacturer approved by membrane roofing manufacturer.

### 2.2 PERFORMANCE REQUIREMENTS

- A. General Performance: Installed roofing 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. Roof system and flashings shall remain watertight.
  1. Accelerated Weathering: Roof membrane shall withstand 2000 hours of exposure when tested according to ASTM G152, ASTM G154, or ASTM G155.
  2. Impact Resistance: Roof membrane shall resist impact damage when tested according to ASTM D3746, ASTM D4272/D4272M, 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. Roofing System Design: Tested by a qualified testing agency to resist the following uplift pressures:
  - 1) Corner Uplift Pressure: 70 PSF
  - 2) Perimeter Uplift Pressure: 47 PSF
  - 3) Field-of-Roof Uplift Pressure: 30 PSF
- D. FM Global Listing: Roofing, base flashings, and component materials shall comply with requirements in FM Global 4450 or FM Global 4470 as part of a built-up roofing system, and shall be listed in FM Global's "RoofNav" for Class 1 or noncombustible construction, as applicable. Identify materials with FM Global markings.
  - 1) Fire/Windstorm Classification: Class 1-75
  - 2) Hail-Resistance Rating: MH.

- E. Exterior Fire-Test Exposure: ASTM E 108 or UL 790, Class A; for application and roof slopes indicated; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

## 2.3 POLYVINYL CHLORIDE (PVC) ROOFING

- A. PVC Sheet: ASTM D4434/D4434M, Type II, glass-fiber reinforced, felt backed.
  - 1. Thickness: 60 mils
  - 2. Exposed Face Color: Evergreen

## 2.4 AUXILIARY ROOFING MATERIALS

- A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with other roofing components.
  - 1. Adhesives and Sealants: Comply with VOC limits of authorities having jurisdiction.
- B. Sheet Flashing: Manufacturer's standard sheet flashing of same material, type, reinforcement, thickness, and color as PVC sheet.
- C. Water-Based, Fabric-Backed Membrane Adhesive: Roofing system manufacturer's standard water-based, cold-applied adhesive formulated for compatibility and use with fabric-backed membrane roofing.
- D. Metal Termination Bars: Manufacturer's standard, predrilled stainless steel or aluminum bars, approximately 1 by 1/8 inch thick; with anchors.
- E. Miscellaneous Accessories: Provide preformed inside and outside corner sheet flashings, T-joint covers, lap sealants, termination bars, and other accessories.

## 2.5 ROOF INSULATION

- A. General: Preformed roof insulation boards manufactured or approved by PVC roof membrane manufacturer, selected from manufacturer's standard sizes suitable for application, of thicknesses indicated and that produce FM Global-approved roof insulation.
- B. Polyisocyanurate Board Insulation: ASTM C1289, Type II, Class 1, Grade 2 felt or glass-fiber mat facer on both major surfaces.
  - 1. Compressive Strength: 20 psi.
  - 2. Size: 48 by 96 inches.
  - 3. Thickness:
    - a. Base Layer: 3 inches.

- C. Provide preformed crickets, tapered edge strips, and other insulation shapes where indicated for sloping to drain. Fabricate to slopes indicated.

## 2.6 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.
- D. Cover Board: ASTM C1289 Type II, Class 4, Grade 1, 1/2-inch thick polyisocyanurate, having a minimum compressive strength of 80 psi.

## 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-drain bodies are securely clamped in place.
  - 2. Verify that wood blocking nailers are securely anchored to roof deck at terminations and that nailers match thicknesses of insulation.
  - 3. Verify that any damaged sections of cementitious concrete decks have been repaired or replaced.
- 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 INSTALLATION OF ROOFING, GENERAL

- A. Install roofing system according to roofing system manufacturer's written instructions, listed roof assembly requirements, and FM Global Property Loss Prevention Data Sheet 1-29.
- 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 roofing and auxiliary materials to tie in to existing roofing system, where indicated, to maintain weather tightness of transition and to not void warranty for existing roofing system.

### 3.4 INSTALLATION OF INSULATION

- 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 upper layers of insulation with joints of each layer offset not less than 12 inches from previous layer of insulation
  - 1. Staggered end joints within each layer not less than 24 inches in adjacent rows.
  - 2. Install with long joints continuous and with end joints staggered not less than 12 inches in adjacent rows.
  - 3. Trim insulation neatly to fit at projections and to fit tight to intersecting sloping roof decks.
  - 4. Make joints between adjacent insulation boards not more than 1/4 inch in width.
- D. At internal roof drains, slope insulation to create a square drain sump with each side equal to the diameter of the drain bowl plus 24 inches.
  - 1. Trim surface of insulation where necessary at roof drains so completed surface is flush and does not restrict flow of water.
- E. 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.
- F. Adhered Insulation: Install each layer of insulation and adhere to substrate as follows:



1. Set each layer of insulation in a uniform coverage of full-spread insulation adhesive, firmly pressing and maintaining insulation in place.

### 3.5 INSTALLATION OF COVER BOARDS

- A. Install cover boards over insulation with long joints in continuous straight lines with end joints staggered between rows. Offset joints of insulation below a minimum of 6 inches in each direction.
  1. Trim cover board neatly to fit around penetrations and projections, and to fit tight to intersecting sloping roof decks.
  2. At internal roof drains, conform to slope of drain sump.
    - a. Trim cover board so that water flow is unrestricted.
  3. Cut and fit cover board tight to nailers and penetrations.
  4. Adhere cover board to substrate using adhesive according to SPRI's Directory of Roof Assemblies listed roof assembly requirements for specified Wind Uplift Load Capacity and FM Global Property Loss Prevention Data Sheet 1-29, as follows:
    - a. Set cover board in ribbons of bead-applied insulation adhesive, firmly pressing and maintaining insulation in place.
    - b. Set cover board in a uniform coverage of full-spread insulation adhesive, firmly pressing and maintaining insulation in place.
- B. Install slip sheet over cover board and immediately beneath roof membrane.

### 3.6 INSTALLATION OF ADHERED ROOF MEMBRANE

- 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. Fabric-Backed Roof Membrane Adhesive: Apply to substrate at rate required by manufacturer, and install fabric-backed 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. Seams: Clean seam areas, overlap roofing, and hot-air weld side and end laps of roof membrane and sheet flashings to ensure a watertight seam installation.
  - 1. Test lap edges with probe to verify seam weld continuity. Apply lap sealant to seal cut edges of roof membrane and sheet flashings.
  - 2. Verify field strength of seams a minimum of twice daily, and repair seam sample areas.
  - 3. Repair tears, voids, and lapped seams in roof membrane that do not comply with requirements.
- I. Spread sealant bed over deck-drain flange at roof drains, and securely seal roof membrane in place with clamping ring.

### 3.7 INSTALLATION OF BASE FLASHING

- 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 seam areas, overlap, and firmly roll sheet flashings into the adhesive. Hot-air weld side and end laps to ensure a watertight seam installation.
- E. Terminate and seal top of sheet flashings and mechanically anchor to substrate through termination bars.

### 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, 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.

### 3.9 ROOFING INSTALLER'S WARRANTY

- A. WHEREAS \_\_\_\_\_ of \_\_\_\_\_, herein called the "Roofing Installer," has performed roofing and associated work ("work") on the following project:
1. Owner: <Insert name of Owner>.
  2. Address: <Insert address>.
  3. Building Name/Type: <Insert information>.
  4. Address: <Insert address>.
  5. Area of Work: <Insert information>.
  6. Acceptance Date: \_\_\_\_\_.
  7. Warranty Period: <Insert time>.
  8. Expiration Date: \_\_\_\_\_.
- B. AND WHEREAS Roofing Installer has contracted (either directly with Owner or indirectly as a subcontractor) to warrant said work against leaks and faulty or defective materials and workmanship for designated Warranty Period,
- C. NOW THEREFORE Roofing Installer hereby warrants, subject to terms and conditions herein set forth, that during Warranty Period Roofing Installer will, at Roofing Installer's own cost and expense, make or cause to be made such repairs to or replacements of said work as are necessary to correct faulty and defective work and as are necessary to maintain said work in a watertight condition.
- D. This Warranty is made subject to the following terms and conditions:
1. Specifically excluded from this Warranty are damages to work and other parts of the building, and to building contents, caused by:
    - a. lightning;
    - b. peak gust wind speed exceeding 120 mph.
    - c. fire;
    - d. failure of roofing system substrate, including cracking, settlement, excessive deflection, deterioration, and decomposition;
    - e. faulty construction of parapet walls, copings, chimneys, skylights, vents, equipment supports, and other edge conditions and penetrations of the work;

- f. vapor condensation on bottom of roofing; and
    - g. activity on roofing by others, including construction contractors, maintenance personnel, other persons, and animals, whether authorized or unauthorized by Owner.
  - 2. When work has been damaged by any of foregoing causes, Warranty shall be null and void until such damage has been repaired by Roofing Installer and until cost and expense thereof have been paid by Owner or by another responsible party so designated.
  - 3. Roofing Installer is responsible for damage to work covered by this Warranty but is not liable for consequential damages to building or building contents resulting from leaks or faults or defects of work.
  - 4. During Warranty Period, if Owner allows alteration of work by anyone other than Roofing Installer, including cutting, patching, and maintenance in connection with penetrations, attachment of other work, and positioning of anything on roof, this Warranty shall become null and void on date of said alterations, but only to the extent said alterations affect work covered by this Warranty. If Owner engages Roofing Installer to perform said alterations, Warranty shall not become null and void unless Roofing Installer, before starting said work, shall have notified Owner in writing, showing reasonable cause for claim, that said alterations would likely damage or deteriorate work, thereby reasonably justifying a limitation or termination of this Warranty.
  - 5. During Warranty Period, if original use of roof is changed and it becomes used for, but was not originally specified for, a promenade, work deck, spray-cooled surface, flooded basin, or other use or service more severe than originally specified, this Warranty shall become null and void on date of said change, but only to the extent said change affects work covered by this Warranty.
  - 6. Owner shall promptly notify Roofing Installer of observed, known, or suspected leaks, defects, or deterioration and shall afford reasonable opportunity for Roofing Installer to inspect work and to examine evidence of such leaks, defects, or deterioration.
  - 7. This Warranty is recognized to be the only warranty of Roofing Installer on said work and shall not operate to restrict or cut off Owner from other remedies and resources lawfully available to Owner in cases of roofing failure. Specifically, this Warranty shall not operate to relieve Roofing Installer of responsibility for performance of original work according to requirements of the Contract Documents, regardless of whether Contract was a contract directly with Owner or a subcontract with Owner's General Contractor.
- E. IN WITNESS THEREOF, this instrument has been duly executed this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.
1. Authorized Signature: \_\_\_\_\_.

2. Name: \_\_\_\_\_.

3. Title: \_\_\_\_\_.

END OF SECTION 075419

## SECTION 077100 - ROOF ACCESSORIES AND SPECIALTIES

### 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. Roof-edge specialties.
  - 2. Reglets and counterflashings.
  - 3. Replacement Roof Drains.
  - 4. Replacement Roof Curbs.
  - 5. Roof Hatch Safety Railing and Gate.
  - 6. Roof Edge Guardrail.
- B. Related Requirements:
  - 1. Section 061053 "Miscellaneous Rough Carpentry" for wood nailers and blocking.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
  - 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
- B. Samples for Initial Selection: For each type of roof specialty indicated with factory-applied color finishes.

#### 1.4 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A qualified manufacturer offering products meeting requirements that are FM Approvals listed for specified class and SPRI ES-1 tested to specified design pressure.
- B. Source Limitations: Obtain roof specialties approved by manufacturer providing roofing-system warranty specified in Section 075323 "EPDM Roofing".

## 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Do not store roof specialties in contact with other materials that might cause staining, denting, or other surface damage. Store roof specialties away from uncured concrete and masonry.
- B. Protect strippable protective covering on roof specialties from exposure to sunlight and high humidity, except to extent necessary for the period of roof-specialty installation.

## 1.6 FIELD CONDITIONS

- A. Field Measurements: Verify profiles and tolerances of roof-specialty substrates by field measurements before fabrication and indicate measurements on Shop Drawings.
- B. Coordination: Coordinate roof specialties with flashing, trim, and construction of parapets, roof deck, roof and wall panels, and other adjoining work to provide a leakproof, secure, and noncorrosive installation.

# PART 2 - PRODUCTS

## 2.1 PERFORMANCE REQUIREMENTS

- A. General Performance: Roof specialties shall 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.
- B. SPRI Wind Design Standard: Manufacture and install copings tested according to SPRI ES-1 and capable of resisting the following design pressures listed in Section 075323 "EPDM Roofing"
- C. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, hole elongation, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Provide clips that resist rotation and avoid shear stress as a result of thermal movements. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

## 2.2 ROOF-EDGE SPECIALTIES

- A. Roof-Edge Fascia: Manufactured, two-piece, roof-edge fascia consisting of snap-on metal fascia cover in section lengths not exceeding 12 feet and a continuous metal water dam with integral drip-edge cleat to engage fascia cover and secure single-ply roof membrane. Provide matching pre-fabricated corner units.
  - 1. Formed Sheet Fascia Covers: Steel sheet, 22 ga.
    - a. Surface: Smooth, flat finish.
    - b. Finish: Kynar 500 finish, color as selected by Architect.

2. Corners: Factory mitered, mechanically clinched and sealed watertight.
3. Splice Plates: Concealed, of same material, finish, and shape as fascia cover.
4. Water Dam: Galvanized steel sheet, 24 ga.

## 2.3 REGLETS AND COUNTERFLASHINGS

- A. Reglets: Manufactured units formed to provide secure interlocking of separate reglet and counterflashing pieces, from the following exposed metal:
  1. Zinc-Coated Steel: Nominal 24 ga. thickness.
  2. Corners: Mechanically clinched and sealed watertight.
  3. Surface Mounted Type: Provide reglets with 1-½ inch top flange for cut-in masonry applications.
- B. Counterflashings: Manufactured units of heights to overlap top edges of base flashings by 4 inches and in lengths not exceeding 12 feet, designed to snap into reglets and compress against base flashings with joints lapped, from the following exposed metal:
  1. Zinc-Coated Steel: Nominal 24 ga. thickness.
- C. Accessories:
  1. Flexible-Flashing Retainer: Provide resilient plastic or rubber accessory to secure flexible flashing in reglet where clearance does not permit use of standard metal counterflashing or where reglet is provided separate from metal counterflashing.
  2. Counterflashing Wind-Restraint Clips: Provide clips to be installed before counterflashing to prevent wind uplift of counterflashing lower edge.
- D. Zinc-Coated Steel Finish:
  1. Color: As selected by Architect from manufacturer's full range.

## 2.4 REPLACEMENT ROOF DRAINS

- A. Cast-Iron, Large-Sump, General-Purpose Roof Drains to match existing:
  1. Standard: ASME A112.6.4, for general-purpose roof drains.
  2. Body Material: Cast iron.
  3. Dimension of Body: to match existing roof drains.
  4. Combination Flashing Ring and Gravel Stop: Not required.
  5. Outlet: to accommodate existing roof drain piping.



6. Extension Collars: As Required.
7. Underdeck Clamp.
8. Sump Receiver Plate.
9. Dome Material: Cast iron.

## 2.5 REPLACEMENT ROOF CURBS

- A. Roof Curbs: Internally reinforced roof-curb units capable of supporting superimposed live and dead loads, including equipment loads and other construction indicated on Drawings, bearing continuously on roof structure, and capable of meeting performance requirements; with welded or mechanically fastened and sealed corner joints, straight sides, and integrally formed deck-mounting flange at perimeter bottom.
- B. Size: Coordinate dimensions with existing.
- C. Material: Zinc-coated (galvanized) steel sheet, thickness to match existing.
  1. Finish: Mill phosphatized, color to match existing.
- D. Construction:
  1. Curb Profile: Manufacturer's standard compatible with roofing system.
  2. Fabricate curbs to minimum height of 8 inches above roofing surface unless otherwise indicated.
  3. Top Surface: Level top of curb, with roof slope accommodated by sloping deck-mounting flange or by use of leveler frame.
  4. Insulation: Factory insulated with glass-fiber board insulation of thickness to match existing.
  5. Metal Counterflashing: Manufacturer's standard, removable, fabricated of same metal and finish as curb.

## 2.6 ROOF HATCH SAFETY RAILING AND GATE

- A. Basis-of-Design Product: Subject to compliance with requirements, provide Bilco Thermally Broken Roof Hatch Safety Railing System or comparable product by one of the following:
  - a. Nystrom
  - b. Babcock Davis
- B. Safety Railing System: Manufacturer's standard system including rails, clamps, fasteners, safety barrier at railing opening, and accessories required for a complete

installation; attached to existing roof hatch and complying with 29 CFR 1910.23 requirements and authorities having jurisdiction.

1. Height: 42 inches (1060 mm) above finished roof deck.
2. Posts and Rails: Galvanized-steel pipe, 1-1/4 inches (31 mm) in diameter or galvanized-steel tube, 1-5/8 inches (41 mm) in diameter.
3. Flat Bar: Galvanized steel, 2 inches (50 mm) high by 3/8 inch (9 mm) thick.
4. Maximum Opening Size: System constructed to prevent passage of a sphere 21 inches (533 mm) in diameter.
5. Chain Passway Barrier: Galvanized proof coil chain with quick link on fixed end.
6. Self-Latching Gate: Fabricated of same materials and rail spacing as safety railing system. Provide manufacturer's standard hinges and self-latching mechanism.
7. Post and Rail Tops and Ends: Weather resistant, closed or plugged with prefabricated end fittings.
8. Provide weep holes or another means to drain entrapped water in hollow sections of handrail and railing members.
9. Fabricate joints exposed to weather to be watertight.
10. Fasteners: Manufacturer's standard, finished to match railing system.
11. Finish: Manufacturer's standard.
  - a. Color: As selected by Architect from manufacturer's full range.

## 2.7 METAL MATERIALS

- A. Zinc-Coated (Galvanized) Steel Sheet: ASTM A 653/A 653M, G90 (Z275) coating designation.
  1. Exposed Coil-Coated Finish: Prepainted by the coil-coating process to comply with ASTM A 755/A 755M. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
    - a. Two-Coat Fluoropolymer Finish: AAMA 621. System consisting of primer and fluoropolymer color topcoat containing not less than 70 percent PVDF resin by weight.
- B. Aluminum Extrusions and Tubes: ASTM B 221 (ASTM B 221M), manufacturer's standard alloy and temper for type of use, finished to match assembly where used; otherwise mill finished.

- C. Steel Shapes: ASTM A 36/A 36M, hot-dip galvanized according to ASTM A 123/A 123M unless otherwise indicated.
- D. Steel Tube: ASTM A 500/A 500M, round tube.
- E. Galvanized-Steel Tube: ASTM A 500/A 500M, round tube, hot-dip galvanized according to ASTM A 123/A 123M.
- F. Steel Pipe: ASTM A 53/A 53M, galvanized.

## 2.8 ROOF EDGE GUARDRAIL

- A. Permanent roof edge protection.
  - 1. Wall mount guardrail.
  - 2. Basis-of-Design Product: Subject to compliance with requirements, provide products manufactured by Leading Edge Safety, LLC or comparable product.
- B. Product: IBC Wall Mount Guardrail, Powder Coated Steel. Permanent full-perimeter fall protection, allowing direct mounting to interior parapet walls using a dual plate mounting system that assures water-tight installation. Backup plates, target patches, and upright plates creates a compression attachment to prevent water infiltration around mounting studs. Powder coated steel colors available to match Kynar sheet metal or other building components and RAL colors.
  - 1. Standards:
    - a. ICC Building Codes: Meets and exceeds 50 lbs per ft (74.4 kg per m).
    - b. Meets and exceeds OSHA Standard 29 CFR 1926.501, 1926.502, 1910.29.
    - c. ANSI/ASEE A1264.1-2007.
  - 2. Materials:
    - a. Uprights: 1.625 x 0.25 inch (41 x 6 mm) steel tube per ASTM A-513-5-08A DOM Grade 1026.
    - b. Mounting Bracket: 3/16 inch (0.28 mm) steel plate per ASTM A36 bracket with pre-punched holes for mounting stud attachment.
    - c. Horizontal Rails: 1.625 x 0.065 inch (41 x 1.6 mm) and 1.375 x .065 inch (35 x 1.6 mm) per ASTM A-513 DOM Grade 1020 steel tube adjustable slide rails.
  - 3. Sizes:
    - a. Uprights: Custom designed per project to OSHA Standards and IBC code requirements.

- b. Horizontal Rails: 5 ft (1524 mm) on center; 70 to 43 inch (1778 to 1092), 43 to 29 inch (1092 to 737 mm) adjustable.
- 4. Hardware: 3/8-16 inch x 1 inch (25 mm) zinc plated steel. Consult LES for approved structural attachment fasteners.
- 5. Labels: Applicable safety warnings and manufacturer's contact information.
- 6. Finish: Powder coated steel or Hot-Dipped Galvanized to ASTM A123.
- 7. Colors: As determined by the Architect from Manufacturer's range.

#### C. INSTALLATION

- 1. Install in accordance with manufacturer's instructions including the following.
  - a. Set uprights, horizontal rails and corners accurately in location, alignment and elevation, measured from established lines and levels and per installation drawings.
  - b. Install fasteners as recommended by manufacturer in holes provided on the upright bracket.
  - c. Inspect final installation and test for capacity in accordance with manufacturer's recommendations.
- 2. Wall Mount Guardrail shall provide water-tight installation through wall flashings on parapet walls with the use of backup plates, target patches and wall mount brackets. Target patches shall be field fabricated to fit around backup plate mounting studs and provide roof manufacturers recommended seam width around perimeter of target patch. Mounting studs shall be sealed behind target patch with non-curing butyl or manufacturers recommended sealant.

#### 2.9 MISCELLANEOUS MATERIALS

- A. Fasteners: Manufacturer's recommended fasteners, suitable for application and designed to meet performance requirements. Furnish the following unless otherwise indicated:
  - 1. Exposed Penetrating Fasteners: Gasketed screws with hex washer heads matching color of sheet metal.
  - 2. Fasteners for Aluminum: Aluminum or Series 300 stainless steel.
  - 3. Fasteners for Zinc-Coated (Galvanized) Steel Sheet: Series 300 stainless steel or hot-dip, zinc-coated steel according to ASTM A 153/A 153M or ASTM F 2329.
- B. Elastomeric Sealant: ASTM C 920, elastomeric polyurethane polymer sealant of type, grade, class, and use classifications required by roofing-specialty manufacturer for each application.

- C. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for hooked-type joints with limited movement.

## 2.10 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: Noticeable variations in same piece are unacceptable. 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.
- D. Coil-Coated Galvanized-Steel Sheet Finishes:
  - 1. High-Performance Organic Finish: Prepare, pretreat, and apply coating to exposed metal surfaces to comply with ASTM A 755/A 755M and coating and resin manufacturers' written instructions.
    - a. Three-Coat Fluoropolymer: AAMA 621 fluoropolymer finish containing not less than 70 percent PVDF resin by weight in both color coat and clear topcoat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
    - b. Concealed Surface Finish: Apply pretreatment and manufacturer's standard acrylic or polyester backer finish consisting of prime coat and wash coat with a minimum total dry film thickness of 0.5 mil (0.013 mm).

## 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. Examine walls, roof edges, and parapets for suitable conditions for roof specialties.
- C. Verify that substrate is sound, dry, smooth, clean, sloped for drainage where applicable, and securely anchored.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION, GENERAL

- A. General: Install roof specialties according to manufacturer's written instructions. Anchor roof specialties securely in place, with provisions for thermal and structural movement. Use fasteners, solder, protective coatings, separators, underlayments,

sealants, and other miscellaneous items as required to complete roof-specialty systems.

1. Install roof specialties level, plumb, true to line and elevation; with limited oil-canning and without warping, jogs in alignment, buckling, or tool marks.
2. Provide uniform, neat seams with minimum exposure of solder and sealant.
3. Install roof specialties to fit substrates and to result in weathertight performance. Verify shapes and dimensions of surfaces to be covered before manufacture.
4. Torch cutting of roof specialties is not permitted.
5. Do not use graphite pencils to mark metal surfaces.

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 specialties with bituminous coating where in contact with wood, ferrous metal, or cementitious construction.
2. Bed flanges in thick coat of asphalt roofing cement where required by manufacturers of roof specialties for waterproof performance.

C. Expansion Provisions: Allow for thermal expansion of exposed roof specialties.

1. Space movement joints at a maximum of 12 feet with no joints within 18 inches of corners or intersections unless otherwise indicated on Drawings.
2. 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.

D. Fastener Sizes: Use fasteners of sizes that penetrate substrate not less than recommended by fastener manufacturer to achieve maximum pull-out resistance.

E. Seal concealed joints with butyl sealant as required by roofing-specialty manufacturer.

F. Seal joints as required for weathertight construction. Place sealant to be completely concealed in joint. Do not install sealants at temperatures below 40 deg F (4 deg C).

### 3.3 ROOF-EDGE SPECIALITIES INSTALLATION

- A. Install cleats, cants, and other anchoring and attachment accessories and devices with concealed fasteners.
- B. Anchor roof edgings with manufacturer's required devices, fasteners, and fastener spacing to meet performance requirements.

### 3.4 REGLET AND COUNTERFLASHING INSTALLATION

- A. General: Coordinate installation of reglets and counterflashings with installation of base flashings.
- B. Surface-Mounted Reglets: Install reglets to receive flashings where flashing without embedded reglets is indicated on Drawings. Install at height so that inserted counterflashings overlap 4 inches over top edge of base flashings.
- C. Counterflashings: Insert counterflashings into reglets or other indicated receivers; ensure that counterflashings overlap 4 inches over top edge of base flashings. Lap counterflashing joints a minimum of 4 inches and bed with butyl sealant. Fit counterflashings tightly to base flashings.

### 3.5 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 as roof specialties are installed. On completion of installation, clean finished surfaces, including removing unused fasteners, metal filings, pop rivet stems, and pieces of flashing. Maintain roof specialties in a clean condition during construction.
- D. Replace roof specialties that have been damaged or that cannot be successfully repaired by finish touchup or similar minor repair procedures.

END OF SECTION 077100



# CCSNH-RVCC

## RE-ROOFING PROJECT NO. RVC20-03



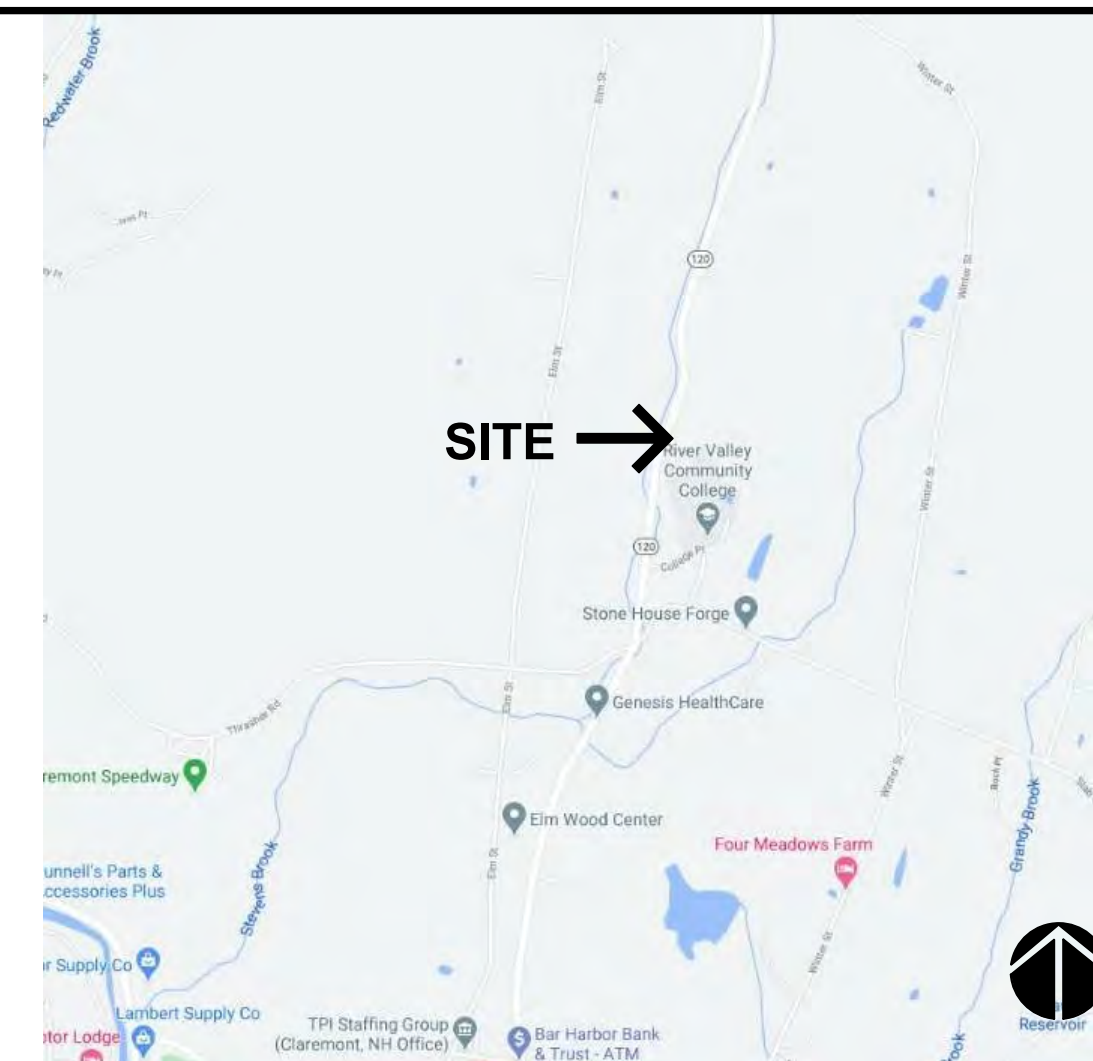
# ISSUED FOR BIDDING

02/02/2021

1 COLLEGE PLACE  
CLAREMONT, NH 03743

PROJECT NUMBER: 5071

LOCUS MAP 1



LOCUS MAP 2



DESIGNED AND ENGINEERED BY:

TURNER GROUP

The H.L. Turner Group Inc.

27 Locke Rd.  
Concord, New Hampshire 03301  
t:603.228.1122  
hlturner.com

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CONSTRUCTED BY:

ARCHITECT OF RECORD:

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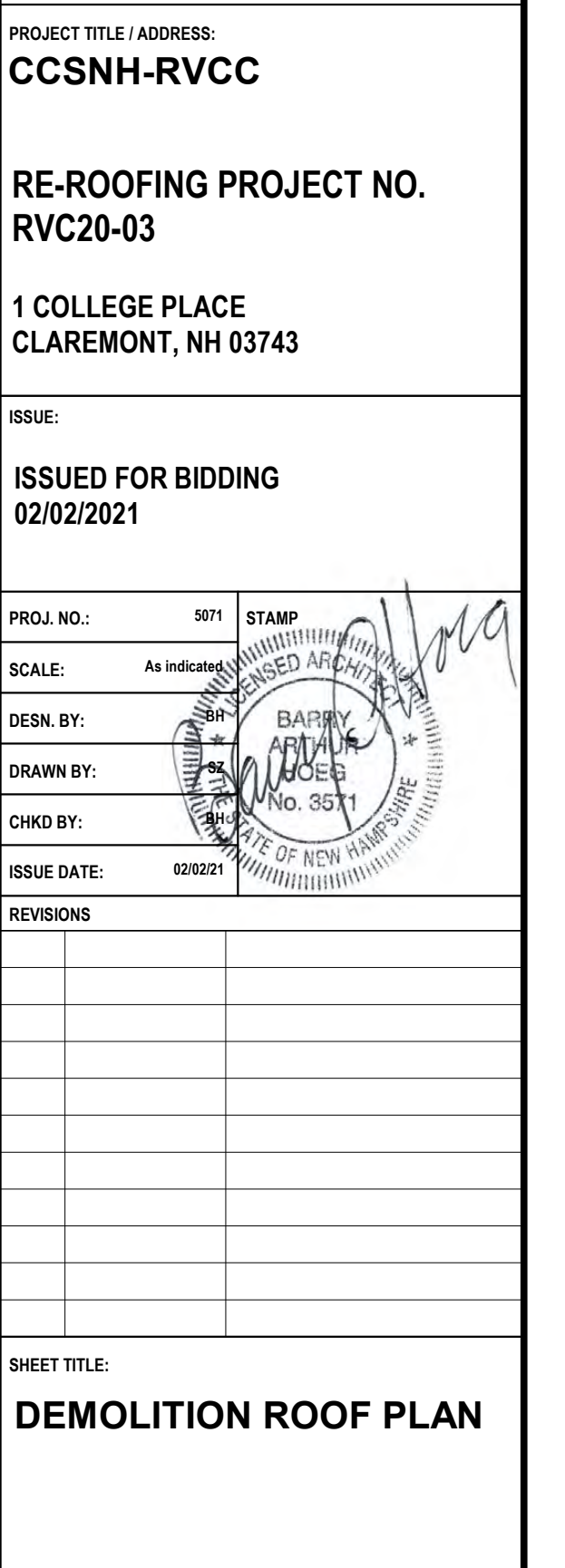
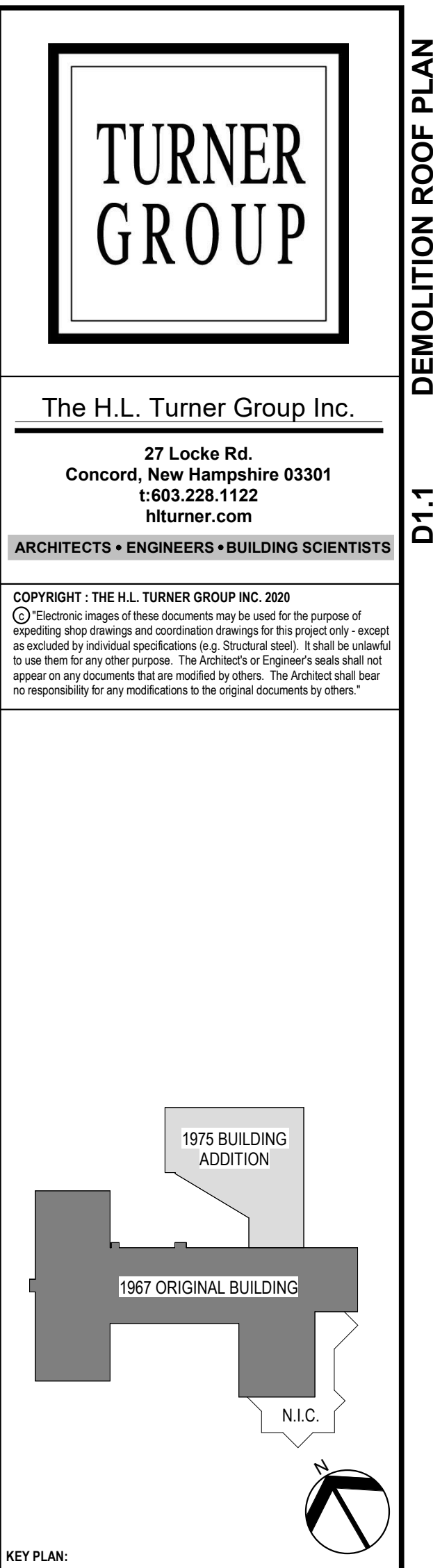
BARRETT  
ARCHITECTS  
No. 3571  
STATE OF NEW HAMPSHIRE

ARCHITECT NAME  
HL TURNER GROUP, INC.

DRAWING LIST	
SHEET NUMBER	DRAWING TITLE
GENERAL	
COVER	COVER SHEET
ARCHITECTURAL	
D1.1	DEMOLITION ROOF PLAN
A1.1	ROOF PLAN
A2.1	ROOF DETAILS
A2.2	ROOF DETAILS

COVER SHEET COVER 5/14/2022 9:56:59 AM









- 5/4/2022 9:56:57 AM

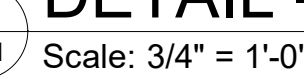
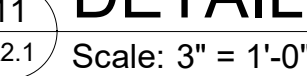
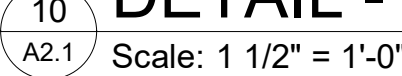
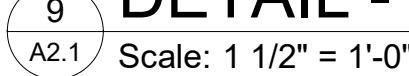
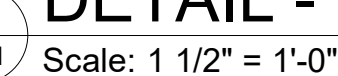
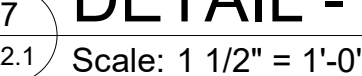


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1  
A2.1



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## ROOF DETAILS

## A2.1



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3  
A2.2

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A2.2

**KEY PLAN:**

PROJECT TITLE / ADDRESS:

CCSNH-RVCC

**RE-ROOFING PROJECT NO.**  
**RVC20-03**

1 COLLEGE PLACE  
CLAREMONT, NH 03743

SSUE:

**ISSUED FOR BIDDING**  
**02/02/2021**

PROJ. NO.:

SCALE:  $1\frac{1}{2}" = 1'-0"$

DESIGN BY:

DRAWN BY:

CHKD BY:

ISSUE DATE: 02/02/21

## REVISIONS

SHEET TITLE:

## ROOF DETAILS

## A2.2

September 4, 2020

Mr. William Hickey  
VP of Architectural & Structural Services  
HL Turner Group, Inc.  
27 Locke Road  
Concord, NH 03301-1126

Re: CCSNH, River Valley Community College  
Roof Survey Findings  
RPF File No. 209984

Dear Mr. Hickey:

On July 30, 2020, RPF Environmental, Inc. (RPF) conducted a survey at the River Valley Community College located at 1 College Place in Claremont, NH. The survey was performed of roofing on the building, as designated by you, for accessible asbestos containing building material (ACBM). Below is a summary of findings, discussion of the results and preliminary recommendations for proper management of the identified ACBM. Attached to this report are the survey data tables, laboratory results, survey methodologies and limitations.

This report is not intended to be used as an abatement specification or work plan. To proceed with abatement work, the following important steps are necessary:

1. A work plan or project design documents must be prepared prior to abatement by a certified abatement project designer.
2. The abatement specification or work plan should then be used to solicit bids from qualified abatement contractors. Only properly licensed contractors should be used for asbestos abatement and disposal.
3. A qualified industrial hygiene/testing consultant should conduct sufficient testing and inspections of the work, independent of the abatement contractor. The consultant should also prepare final abatement reports for the work.

## Summary of Findings

The roof of the River Valley Community College in Claremont consists of a rolled asphalt roof over isocyanate foam insulation and pressboard on a lightweight concrete or tectum board deck over most of the building, with an area of a white synthetic roof atop the main entrance portion of the school. The scope of this survey consisted of an invasive survey of the EPDM roofing throughout the building and excluded the synthetic roofing over the entrance. Melanson Roofing was on-hand, under contract with HL Turner, to conduct patching of the various core holes advanced during this survey.

The scope of the survey included accessible asbestos-containing building material in accordance with the initial asbestos inspection requirements prior to renovation or demolition work as stated in the State regulations and applicable federal regulations.

In the accessible areas of the roof surveyed, several types of suspect asbestos-containing building material (ACBM) were observed by RPF, including friable and nonfriable suspect material. Based on the testing performed by RPF asbestos was detected in black roof patch compounds observed throughout the roof and black flashing material around penetrations throughout the roof.

Depending on the extent of renovation and final construction plans, proper abatement and/or management of the materials will be required in accordance with applicable State and federal regulations. Renovation and demolition plans should be reviewed by a certified industrial hygienist and a licensed project designer for possible asbestos impact issues. Based on the impact assessment and planned usage, technical specifications should be prepared for abatement, as applicable. A management plan should also be prepared to address any asbestos or other hazardous material scheduled to remain after construction.

## Discussion of Findings

Asbestos is the name for a group of naturally occurring minerals that separate into strong, very fine fibers. The adverse health effects associated with asbestos exposure have been extensively studied for many years. Results of these studies and epidemiological investigations have demonstrated that inhalation of asbestos fibers may lead to increased risk of developing one or more diseases. In all cases, extreme care must be used not to disturb asbestos-containing materials or to create fiber release episodes.

In the accessible locations surveyed, RPF identified fourteen (14) homogeneous groups of accessible suspect asbestos-containing building material. Suspect materials were identified based on current industry standards, EPA, and other guideline listings of potential suspect ACBM.

The following is a summary list of the suspect ACBM identified and sampled during this survey:

- Black Roof Patch
- Roll Asphalt Roofing
- Pressboard
- Isocyanate Foam with Felt Backing
- Roofing Tar
- Lightweight Concrete Deck
- Black Flashing Compound
- Black/Silver Membrane (at expansion joint)
- Tectum Board
- White Roof Caulk
- Black Roof Caulk

A total of forty-one (41) samples were extracted from the different groups of suspect material in accordance with EPA sampling protocols. Of the samples collected by RPF, asbestos was detected in two (2) groups of suspect ACBM including black penetration flashing and roof patch material located sporadically throughout the roof system.

Table 1 of Appendix A includes a list of ACBM identified associated with the portions of roofing included in this survey, EPA category listings, and asbestos content. A listing of the different homogenous groups of suspect material identified, samples collected, and analytical results is included in Appendix A.



The ACBM identified during this survey consists of nonfriable material which was observed to be in good to fair condition and, left undisturbed and properly managed, is unlikely to cause any major fiber release episodes.

Limited exploratory survey methods were employed during this survey in an effort to identify possible hidden potentially suspect material associated with each area of roofing surveyed. However, it is possible for some inaccessible ACBM to be present in areas not specifically sampled. Further inspection should be performed in conjunction with demolition activity for any suspect material not specifically referenced in this report.

Suspect materials encountered at the site subsequent to this survey, which are not included on the enclosed listings of suspect material sampled, should be assumed to be ACBM until proper testing proves otherwise (for example prior to any disturbance due to maintenance, renovation or demolition activity). Please notify RPF in this event to arrange for proper testing and assessments.

## Conclusions

Based on the survey findings, the roof of the River Valley Community College building was found to contain ACBM. In accordance with current regulatory requirements, ACBM that may be impacted or disturbed (such that asbestos fiber release occurs) by renovation, demolition or other such activity must be removed by qualified, licensed firms. Although regulations for removal of nonfriable ACBM are somewhat less stringent than the requirements for friable ACBM, it should be noted that nonfriable ACBM that is subjected to grinding, abrasion, and other forces, could be rendered friable. In this event, the nonfriable ACBM would be re-categorized friable ACBM.

ACBM that will not be impacted by renovation or demolition activity may be left in place if managed properly and if the materials are maintained in good condition. ACBM to remain in the building should be included in an asbestos management plan and operations and maintenance (O&M) program detailing the measures to be used to safely occupy the building until the ACBM is fully removed. An accredited Management Planner should prepare the O&M Program in accordance with the guidelines set forth in 40 CFR Part 763 (ASHERA).

Sufficiently in advance of the start of renovation and/or remediation work, abatement project design should be completed. As part the initial design steps any planned renovation and demolition activity should be reviewed for potential impact on ACBM. Asbestos removal is highly regulated at the State and federal level, and in some cases, at the local level also. Notification to NH Air Resources is required 10-days prior to the start of abatement work and demolition. Only qualified, trained firms should be engaged to complete removal of ACBM roofing. In cases where the removal of ACBM roofing may result in rendering the ACBM friable, a licensed abatement contractor would be required. Asbestos abatement work must be designed (abatement specifications or work plan prepared) by accredited personnel.

All employees and contractors that may access or otherwise disturb areas with suspect ACBM present should be notified of the presence of ACBM and possible hidden ACBM, and the need to use caution when proceeding with work. Appropriate notifications, labeling and other hazard

communications should be completed to all employees, contractors and others in accordance with US OSHA regulations and other applicable requirements (including asbestos labeling in accordance with 29 CFR Part 1926). The scope of RPF services for this survey did not include labeling of ACBM or hazard communications to other employees, building occupants, contractors, or subcontractors.

Documentation of current ACBM conditions and in-depth hazard assessment is beyond the scope-of-work for this initial survey. With the exception of the specific testing and analysis detailed herein, no other samples of materials, oil, water, ground water, air, or other suspect hazardous materials were collected in the course of this inspection that supports or denies these conclusions. No additional services beyond those explicitly stated herein were performed and none should be inferred or implied. The summary and conclusions are based on reasonably ascertainable information as described in this report. RPF Environmental, Inc. makes no guarantees, warranties, or references regarding this property or the condition of the property after the period of this report.

If you have any questions at this time, or if you would like to discuss the remediation process, please call our office.

Sincerely,  
RPF ENVIRONMENTAL, INC.



Allan D. Mercier, CMC  
Field Operations Manager  
Licensed Asbestos Inspector

Enclosures:

- Appendix A: Data and Analytical Tables
- Appendix B: Figures and Photographs
- Appendix C: Summary of Methodology and Limitations

209940 RVCC Roof 073020 Report



## **APPENDIX A**

**TABLE 1**

**H.L. TURNER GROUP, INC.**  
**River Valley Community College, 1 College Place, Claremont**  
**Partial Roof Survey**

**SUMMARY OF ACBM IDENTIFIED**

Building Material	Location	Approximate Quantity	EPA Category	Asbestos Results
Roof Patch (black)	Throughout roof	Unknown	Category I Nonfriable	5% Chrysotile
Flashing	Throughout roof at penetrations	1000 Square Feet	Category I Nonfriable	3% Chrysotile

Notes:

- Table 1 does not include a listing of all ACBM and suspect ACBM present at the site, only the roofing materials found to be ACBM during the limited testing of this partial survey. Full testing and inspections are required to further identify the other types, locations and quantities of ACBM present at this site.
- Please note that Category 1 and Category 2 nonfriable ACM are recategorized as friable and/or RACM under certain conditions. Current State asbestos regulations are more strict and comprehensive than the EPA NESHAPs requirements.
- All quantities are approximate only and should be confirmed during abatement project design and abatement bidding.
- It is likely that some concealed or inaccessible ACBM is present. Care should be used when renovating/demolishing inaccessible building space. Further explorative survey work may be necessary during design and/or in conjunction with demolition.

**TABLE 2**

**H.L. TURNER GROUP, INC.**  
**River Valley Community College, 1 College Place, Claremont**  
**Partial Roof Survey**

**Polarized Light Microscopy – EPA 600/R-93/116 Method**  
 Samples Collected: July 30, 2020

Sample ID	Description	Asbestos Content
073020-HG1a	Roof Patch, black, south low roof	None Detected
073020-HG1b	Roof Patch, black, south low roof	None Detected
073020-HG1c	Roof Patch, black, east roof at edge	None Detected
073020-HG1d	Roof Patch, black, sloped roof at top edge	None Detected
073020-HG1e	Roof Patch, black, center roof at penetration	5% Chrysotile
073020-HG2a	Roll asphalt roofing, black, south low roof, outer	None Detected
073020-HG2b	Roll asphalt roofing, black, south low roof, inner	None Detected
073020-HG2c	Roll asphalt roofing, black, southwest low roof	None Detected
073020-HG2d	Roll asphalt roofing, black, center roof	None Detected
073020-HG2e	Roll asphalt roofing, black, east roof	None Detected
073020-HG2f	Roll asphalt roofing, black, north low roof	None Detected
073020-HG3a	Pressboard, tan, south, low roof	None Detected
073020-HG3b	Pressboard, tan, center roof	None Detected
073020-HG4a - A	Felt, black, south low roof	None Detected
073020-HG4a - B	Isocyanate Foam, yellow, south low roof	None Detected
073020-HG4b - A	Felt, black, center roof	None Detected
073020-HG4b - B	Isocyanate Foam, Yellow, center roof	None Detected
073020-HG4c - A	Felt, black, east roof	None Detected
073020-HG4c - B	Isocyanate Foam, yellow, east roof	None Detected
073020-HG5a	Tar, black, south low roof, under insulation	None Detected
073020-HG5b	Tar, black, southwest low roof, under insulation	None Detected

Notes:

- SFP Means analysis was terminated because asbestos was detected on a previous homogenous sample.
- Please reference the full report for discussions and additional information and limitations pertaining to these results.

**TABLE 2**

**H.L. TURNER GROUP, INC.**  
**River Valley Community College, 1 College Place, Claremont**  
**Partial Roof Survey**

**Polarized Light Microscopy – EPA 600/R-93/116 Method**

Samples Collected: July 30, 2020

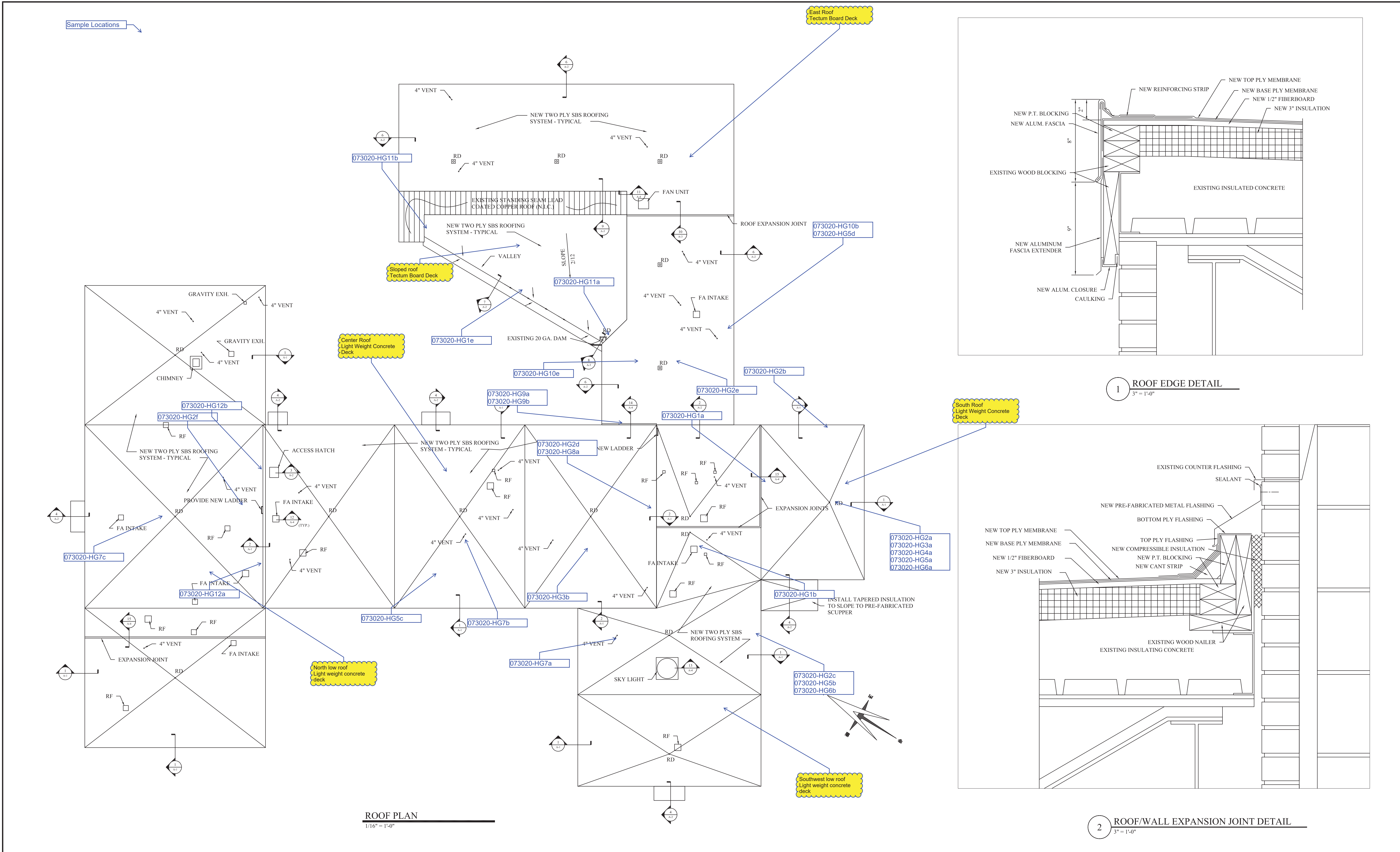
Sample ID	Description	Asbestos Content
073020-HG5c - A	Built up roofing, black, center roof, under insulation	None Detected
073020-HG5c - B	Cementitious layer, gray, center roof, under insulation	None Detected
073020-HG5d	Tar, black, east roof, under insulation	None Detected
073020-HG6a	Lightweight Concrete, grey, south low roof, deck	None Detected
073020-HG6b	Lightweight Concrete, grey, southwest low roof, deck	None Detected
073020-HG6c	Lightweight Concrete, grey, center roof, deck	None Detected
073020-HG6d - A	Concrete, grey, north low roof, deck	None Detected
073020-HG6d - B	Tar, black, north low roof, deck	None Detected
073020-HG7a	Flashing, black, southwest low roof, around vent pipe penetration	3% Chrysotile
073020-HG7b	Flashing, black, center roof, around vent pipe penetration	*SFP
073020-HG7c	Flashing, black, north low roof, around vent pipe penetration	*SFP
073020-HG8	Pressboard, tan, center roof, at edge bottom layer, used as canted layer	None Detected
073020-HG9a	Membrane, black/silver, center roof to east roof, expansion joint	None Detected
073020-HG9b	Membrane, black/silver, center roof to east roof, expansion joint	None Detected
073020-HG10a	Tectum board, tan, East roof, center	None Detected
073020-HG10b	Tectum board, tan, east roof, edge	None Detected
073020-HG11a	Caulk, white, sloped roof, north edge	None Detected
073020-HG11b	Caulk, white, sloped roof, south, edge	None Detected
073020-HG12a	Caulk, black, north low roof, south abutment on top of metal flashing	None Detected
073020-HG12b	Caulk, black, north low roof, south abutment on top of metal flashing	None Detected


209984

Notes:

- SFP Means analysis was terminated because asbestos was detected on a previous homogenous sample.
- Please reference the full report for discussions and additional information and limitations pertaining to these results.

## **APPENDIX B**



	STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION BUREAU OF PUBLIC WORKS				REVISIONS		ROOF REPLACEMENT NH COMMUNITY TECHNICAL COLLEGE, RT 120 CLAREMONT, NEW HAMPSHIRE NH COMMUNITY TECHNICAL COLLEGE SYSTEM			
	JOHN O. MORTON BUILDING HAZEN DRIVE, BOX 483, ROOM 15 CONCORD, NEW HAMPSHIRE 03302-0483 (603) 271-3516 FAX(603) 271-3515				DATE	DESCRIPTION	BY	ROOF PLAN AND DETAILS		
	ENGINEER/ARCHITECT: GRG							DRAWN BY: JHH	SCALE: AS NOTED	PROJECT NO.: 97876 CONTRACT D
	DESIGNED BY:		APPROVED BY:		CHECKED BY:			DATE: 17 Jan 02	A-1 SHEET: 2 OF 5	





Aerial view of River Valley Community College



Rollled asphalt roofing present throughout roof. No asbestos detected directly associated with the roof itself.

## EXAMPLE PICTURES

Site Address:  
HL Turner Group  
River Valley Community College, Claremont, NH



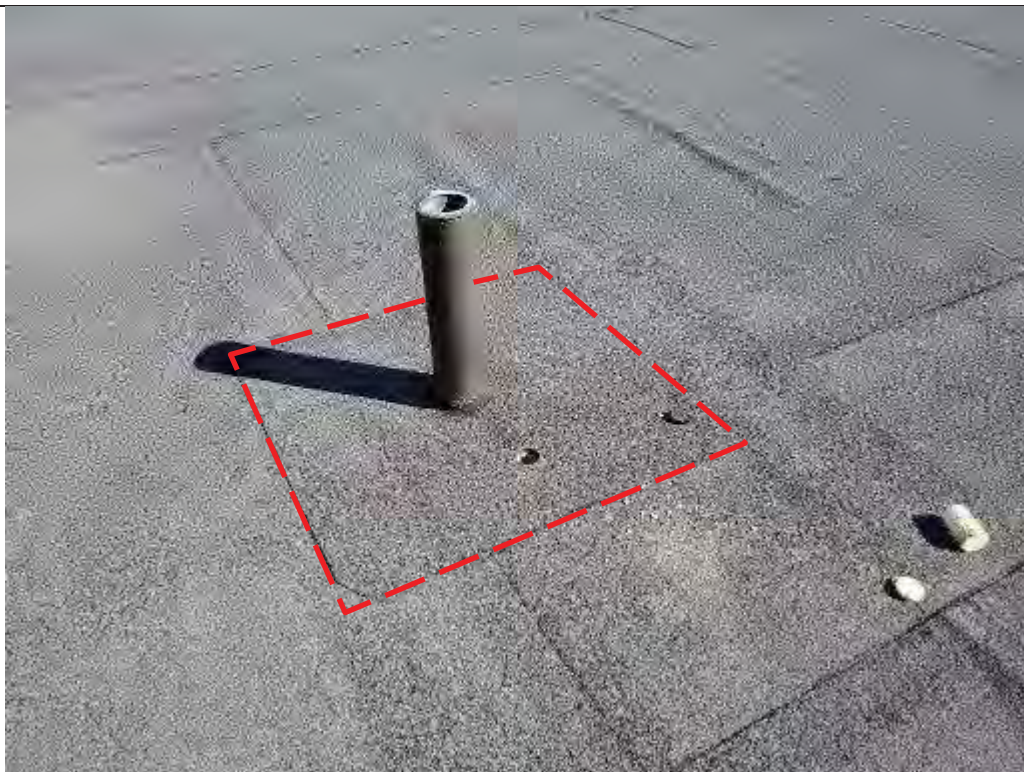
www.airpf.com  
888-SAFE AIR

RPF Job No. 209984





Typical core sample location showing roll asphalt roof on insulation on roof deck.



Example of typical pipe/penetration with ACBM flashing around base.

## EXAMPLE PICTURES

Site Address:  
HL Turner Group  
River Valley Community College, Claremont, NH



www.airpf.com  
888-SAFE AIR

RPF Job No. 209984





Variety of black roof patch materials throughout the roof. Homogeneous group determined to be ACM.

## EXAMPLE PICTURES

Site Address:  
HL Turner Group  
River Valley Community College, Claremont, NH



[www.airpf.com](http://www.airpf.com)  
888-SAFE AIR

RPF Job No. 209984

## **APPENDIX C**

## Summary of Methodology: Asbestos-Containing Building Materials Survey

EPA accredited inspector(s) surveyed accessible space in the building or site areas included within the RPF Scope of Work (SOW) to identify suspect asbestos-containing building material (ACBM). Suspect ACBM was inventoried and categorized into homogeneous groups of materials. To the extent indicated in the report, samples were then extracted from the different groups of homogeneous materials in accordance with applicable State and federal rules and regulations. For surveys in which the SOW included full inspections of the affect space, sampling methodologies were based on the requirements set forth in 40 CFR Part 763 (EPA) and 29 CFR Part 1926.1101 (OSHA). For preliminary or limited surveys, findings apply to only the affected material or space as indicated in the RPF SOW and Report and additional inspection and testing will be required to satisfy regulatory obligations associated with renovation, demolition, maintenance and other occupational safety and health requirements. Sampling methodologies used are as set forth in 40 CFR Part 763 (EPA):

- Surfacing Material: 3 bulk samples from each homogenous area and/or material that is 1,000 square feet or less. 5 bulk samples from each homogenous area that is greater than 1,000 square feet but less than or equal to 5000 square feet. 7 bulk samples from each homogenous area that is greater than 5,000 square feet.
- Thermal System Insulation: 3 bulk samples from each homogenous area. 1 bulk sample from each homogenous area of patched thermal system insulation if the patched section is less than 6 linear or square feet. Samples sufficient to determine whether the material is ACM from each insulated mechanical system where cement is utilized on tees, elbows, or valves.
- Miscellaneous ACM: 3 samples from each miscellaneous material. 1 sample if the amount of miscellaneous material is less than 6 square or linear feet.

Collected samples were individually placed into sealed containers, labeled, and submitted with proper chain of custody forms to the RPF NVLAP-accredited vendor laboratory. Sample containers and tools were cleaned after each sample was collected. Samples were analyzed for asbestos content using polarized light microscopy (PLM). Although PLM is the method currently recognized in State and federal regulations for asbestos identification in bulk samples, PLM may not be sensitive enough to detect all of the asbestos fibers in certain types of materials, such as floor tile and other nonfriable ACBM. In the event that more definitive results are requested in cases of with negative or trace results of asbestos are detected, RPF recommends that confirmation testing be completed using transmission electron microscopy.

For each homogeneous group of suspect material, a “stop at first positive” (SFP) method may have been employed during the analysis. The SFP method is based on current EPA sampling protocols and means that if one sample within a homogeneous group of suspect material is found to contain >1% asbestos, then further analysis of that specific homogenous group samples is terminated and the entire homogeneous group of material is considered to be ACBM regardless of the other sample results. This is based on the potential for inconsistent mix of asbestos in the product yielding varying findings across the different individual samples collected from the same homogeneous group. Unless otherwise noted in the report, sample groups found to have 1% to <10% asbestos content are assumed to be ACBM; to rebut this assumption further analysis with point count methods are required.

Inaccessible and hidden areas, including but not limited to wall/floor/ceiling cavity space, space with obstructed access (such as fiberglass insulation above suspended ceilings), sub floors, interiors of mechanical and process equipment, and similar spaces were not included in the inspection and care should be used when accessing these areas in the future. Unless otherwise noted in the RPF Report, destructive survey techniques were not employed during this survey.

In the event that additional suspect materials are encountered that are not addressed in this report, the materials should be properly tested by an accredited inspector. For example, during renovation and demolition it is likely that additional suspect material will be encountered and such suspect materials should be assumed to be hazardous until proper inspection and testing occurs.

RPF followed applicable industry standards; however, various assumptions and limitations of the methods can result in missed materials or misidentification of materials due several factors including but not limited to: inaccessible space due to physical or safety constraints, space that is difficult to reach to fully inspection, assumptions regarding the determination of homogenous groups of suspect material, assumptions regarding attempts to conduct representative sampling, and potential for varying mixtures and layers of material sampled not being representative of all areas of similar material. Also reference the Limitations document attached to the report.

## LIMITATIONS

1. The observations and conclusions presented in the Report were based solely upon the services described herein, and not on scientific tasks or procedures beyond the RPF Environmental, Inc. Scope of Work (SOW) as discussed in the proposal and/or agreement. The conclusions and recommendations are based on visual observations and testing, limited as indicated in the Report, and were arrived at in accordance with generally accepted standards of industrial hygiene practice and asbestos professionals. The nature of this survey or monitoring service was limited as indicated herein and in the report or letter of findings. Further testing, survey, and analysis is required to provide more definitive results and findings.
2. For site survey work, observations were made of the designated accessible areas of the site as indicated in the Report. While it was the intent of RPF to conduct a survey to the degree indicated, it is important to note that not all suspect ACM material in the designated areas were specifically assessed and visibility was limited, as indicated, due to the presence of furnishings, equipment, solid walls and solid or suspended ceilings throughout the facility and/or other site conditions. Asbestos or hazardous material may have been used and may be present in areas where detection and assessment is difficult until renovation and/or demolition proceeds. Access and observations relating to electrical and mechanical systems within the building were restricted or not feasible to prevent damage to the systems and minimize safety hazards to the survey team.
3. Although assumptions may have been stated regarding the potential presence of inaccessible or concealed asbestos and other hazardous material, full inspection findings for all asbestos and other hazardous material requires the use of full destructive survey methods to identify possible inaccessible suspect material and this level of survey was not included in the SOW for this project. For preliminary survey work, sampling and analysis as applicable was limited and a full survey throughout the site was not performed. Only the specific areas and /or materials indicated in the report were included in the SOW. This inspection did not include a full hazard assessment survey, full testing or bulk material, or testing to determine current dust concentrations of asbestos in and around the building. Inspection results should not be used for compliance with current EPA and State asbestos in renovation/demolition requirements unless specifically stated as intended for this use in the RPF report and considering the limitations as stated therein and within this limitations document.
4. Where access to portions of the surveyed area was unavailable or limited, RPF renders no opinion of the condition and assessment of these areas. The survey results only apply to areas specifically accessed by RPF during the survey. Interiors of mechanical equipment and other building or process equipment may also have asbestos and other hazardous material present and were not included in this inspection. For renovation and demolition work, further inspection by qualified personnel will be required during the course of construction activity to identify suspect material not previously documented at the site or in this survey report. Bordering properties were not investigated and comprehensive file review and research was not performed.
5. For lead in paint, observations were made of the designated accessible areas of the site as indicated in the Report. Limited testing may have been performed to the extent indicated in the text of the report. In order to conduct thorough hazard assessments for lead exposures, representative surface dust testing, air monitoring and other related testing throughout the building, should be completed. This type of in depth testing and analysis was beyond the scope of services for the initial inspection. For lead surveys with XRF readings, it is recommended that surfaces found to have LBP or trace amount of lead detected with readings of less than 4 mg/cm<sup>2</sup> be confirmed using laboratory analysis if more definitive results are required. Substrate corrections involving destructive sampling or damage to existing surfaces (to minimize XRF read-through) were not completed. In some instances, destructive testing may be required for more accurate results. In addition, depending on the specific thickness of the paint films on different areas of a building component, differing amounts of wear, and other factors, XRF readings can vary slightly, even on the same building component. Unless otherwise specifically stated in the scope of services and final report, lead testing performed is not intended to comply with other state and federal regulations pertaining to childhood lead poisoning regulations.

6. Air testing is to be considered a “snap shot” of conditions present on the day of the survey with the understanding that conditions may differ at other times or dates or operational conditions for the facility. Results are also limited based on the specific analytical methods utilized. For phase contrast microscopy (PCM) total airborne fiber testing, more sensitive asbestos-specific analysis using transmission electron microscopy (TEM) can be performed upon request.
7. For asbestos bulk and dust testing, although polarize light microscopy (PLM) is the method currently recognized in State and federal regulations for asbestos identification in bulk samples, some industry studies have found that PLM may not be sensitive enough to detect all of the asbestos fibers in certain nonfriable material, vermiculate type insulation, soils, surface dust, and other materials requiring more sensitive analysis to identify possible asbestos fibers. In the event that more definitive results are requested, RPF recommends that confirmation testing be completed using TEM methods or other analytical methods as may be applicable to the material. Detection of possible asbestos fibers may be made more difficult by the presence of other non-asbestos fibrous components such as cellulose, fiber glass, etc., by binder/matrix materials which may mask or obscure fibrous components, and/or by exposure to conditions capable of altering or transforming asbestos. PLM can show significant bias leading to false negatives and false positives for certain types of materials. PLM is limited by the visibility of the asbestos fibers. In some samples the fibers may be reduced to a diameter so small or masked by coatings to such an extent that they cannot be reliably observed or identified using PLM.
8. For hazardous building material inspection or survey work, RPF followed applicable industry standards; however, RPF does not warrant or certify that all asbestos or other hazardous materials in or on the building has been identified and included in this report. Various assumptions and limitations of the methods can result in missed materials or misidentification of materials due to several factors including but not limited to: inaccessible space due to physical or safety constraints, space that is difficult to reach to fully inspect, assumptions regarding the determination of homogenous groups of suspect material, assumptions regarding attempts to conduct representative sampling, and potential for varying mixtures and layers of material sampled not being representative of all areas of similar material.
9. Full assessments often requires multiple rounds of sampling over a period of time for air, bulk material, surface dust and water. Such comprehensive testing was beyond the scope of RPF services. In addition clearance testing for abatement, as applicable, was based on the visual observations and limited ambient area air testing as indicated in the report and in accordance with applicable state and federal regulations. The potential exists that microscopic surface dust remains with contaminant present even in the event that the clearance testing meets the state and federal requirements. Likewise for building surveys, visual observations are not sufficient alone to detect possible contaminant in settled dust. Unless otherwise specifically indicated in the report, surface dust testing was not included in the scope of the RPF services.
10. For abatement or remediation monitoring services: RPF is not responsible for observations and test for specific periods of work that RPF did not perform full shift monitoring of construction, abatement or remediation activity. In the event that problems occurred or concerns arouse regarding contamination, safety or health hazards during periods RPF was not onsite, RPF is not responsible to provide documentation or assurances regarding conditions, safety, air testing results and other compliance issues. RPF may have provided recommendations to the Client, as needed, pertaining to the Client’s Contractor compliance with the technical specifications, schedules, and other project related issues as agreed and based on results of RPF monitoring work. However, actual enforcement, or waiving of, contract provisions and requirements as well as regulatory liabilities shall be the responsibility of Client and Client’s Contractor(s). Off-site abatement activities, such as waste transportation and disposal, were not monitored or inspected by RPF.
11. For services limited to clearance testing following abatement or remediation work by other parties: The testing was limited to clearance testing only and as indicated in the report and a site assessment for possible environmental health and safety hazards was not performed as part of the scope of this testing. Client, or Client’s abatement contractor as applicable, was responsible for performing visual inspections



of the work area to determine completeness of work prior to air clearance testing by RPF.

12. For site work, including but not limited to air clearance testing services, in which RPF did not provide full site safety and health oversight, abatement design, full shift monitoring of all site activity, RPF expresses no warranties, guarantees or certifications of the abatement work conducted by the Client or other employers at the job site(s), conditions during the work, or regulatory compliance, with the exception of the specific airborne concentrations as indicated by the air clearance test performed by RPF during the conditions present for the clearance testing. Unless otherwise specifically noted in the RPF Report, visual inspections and air clearance testing results apply only to the specific work area and conditions present during the testing. RPF did not perform visual inspections of surfaces not accessible in the work area due to the presence of containment barriers or other obstructions. In these instances, some contamination may be present following RPF clearance testing and such contamination may be exposed during and after removal of the containment barriers or other obstructions following RPF testing services. Client or Client's Contractor is responsible for using appropriate care and inspection to identify potential hazards and to remediate such hazards as necessary to ensure compliance and a safe environment.
13. The survey was limited to the material and/or areas as specifically designated in the report and a site assessment for other possible environmental health and safety hazards or subsurface pollution was not performed as part of the scope of this site inspection. Typically, hazardous building materials such as asbestos, lead paint, PCBs, mercury, refrigerants, hydraulic fluids and other hazardous product and materials may be present in buildings. The survey performed by RPF only addresses the specific items as indicated in the Report.
14. For mold and moisture survey services, RPF services did not include design or remediation of moisture intrusion. Some level of mold will remain at the site regardless of RPF testing and Contractor or Client cleaning efforts. RPF testing associated with mold remediation and assessments is limited and may or may not be representative of other surfaces and locations at the site. Mold growth will occur if moisture intrusion deficiencies have not been fully remedied and if the site or work areas are not maintained in a sufficiently dry state. Porous surfaces in mold contaminated areas which are not removed and disposed of will likely result in future spore release, allergen sources, or mold contamination.
15. Existing reports, drawings, and analytical results provided by the Client to RPF, as applicable, were not verified and, as such, RPF has relied upon the data provided as indicated, and has not conducted an independent evaluation of the reliability of these data.
16. Where sample analyses were conducted by an outside laboratory, RPF has relied upon the data provided, and has not conducted an independent evaluation of the reliability of this data.
17. All hazard communication and notification requirements, as required by U.S. OSHA regulation 29 CFR Part 1926, 29 CFR Part 1910, and other applicable rules and regulations, by and between the Client, general contractors, subcontractors, building occupants, employees and other affected persons were the responsibility of the Client and are not part of the RPF SOW.
18. The applicability of the observations and recommendations presented in this report to other portions of the site was not determined. Many accidents, injuries and exposures and environmental conditions are a result of individual employee/employer actions and behaviors, which will vary from day to day, and with operations being conducted. Changes to the site and work conditions that occur subsequent to the RPF inspection may result in conditions which differ from those present during the survey and presented in the findings of the report.