



PROJECT MANUAL
Design Specifications

2023 Roof Repairs Project

1 Junkins Avenue
Portsmouth, NH 03801

Created for:
Portsmouth City Hall
1 Junkins Avenue
Portsmouth, NH 03801

Designer/Owner's Representative:
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SECTION 01 11 13

**WORK COVERED BY CONTRACT
DOCUMENTS**

- SECTION 01 11 13 -
WORK COVERED BY CONTRACT DOCUMENTS

PART 1 GENERAL

1.1 SCOPE OF WORK

- A. Provide labor and materials necessary to remove the designated existing materials and install the new specified roofing and related components for Portsmouth City Hall repairs to the building's existing slate roof.

B. SUMMARY OF WORK

1. Installation includes:

a. Existing slate repairs:

- i. The existing slate designated in red and yellow on the attached Roof Condition Report will be removed and replaced in accordance with the specifications. The estimated quantities are labeled on the attached Roof Condition Report.**
- ii. Alternate #1: Remove and replace the existing slate designated in blue on the attached Roof Condition Report in accordance with the specifications. The estimated quantities are labeled on the attached Roof Condition Report.**
- iii. Color, size, and thickness of new slate to match the existing.**
- iv. These repair slate will be nailed with smooth shank copper nails as required in the Slate Roofing Contractors Association. Cover all nails with copper bibs.**
- v. Bibs: Provide freedom grey copper bibs a minimum of 4" wide and 6" long at all slate repair or roof jack locations. Slate hooks are also acceptable. Installing copper "straps" to hold slate is not acceptable.**
- vi. Provide slater's cement behind all repairs.**
- vii. Provide new high temp. ice and water shield under large (areas over 4 square feet) of replacement slate.**

b. Miscellaneous caulking and sealants.

c. All fasteners shall be sized to only penetrate the roof deck by a minimum of 3/4".

2. The project shall comply with ASCE 7-22 Wind Uplift criteria (see code compliance specification Section 07 53 23:3.6, for more information).

C. Related Documents:

1. Roof Condition Report

- D. The roof condition report indicates and show limits of construction for this project. The specifications specify materials and work requirements for this project. Both are complimentary to each other and both shall be followed to complete the work.

1.2 QUALIFICATIONS OF SUPERINTENDENTS

- A. Contractor shall supply statement of qualifications outlining experience and technical expertise relative to the Project. The Owner shall have the right to review the qualifications of the proposed superintendent and

foreman. The Owner can ask for a replacement of either if, in the Owner's opinion, the person proposed does not meet the qualifications that the project will demand.

- B. This foreman shall be on the job site at all times while work is in progress, including overtime operations by the Contractor's forces or by subcontractors.
- C. No changes in the foreman or superintendent position shall be made without the Owner's prior approval.
- D. The same foreman who was in charge during the general progress of the work shall oversee the completion of all punch list items.
- E. The foreman shall have a 30-hour OSHA certification.
- F. The successful company shall have a current Construction Supervisors License in the state of the work being performed.

1.3 QUALITY CONTROL

- A. Contractor shall:
 - 1. Be experienced in the specified roof system to the satisfaction of the Owner and Owner's Representative.
 - 2. Be approved by Owner.
 - 3. Be certified installer of the roof system manufacturer and can show three projects within a 100-mile radius completed in the past five years that have been completed by the contractor of similar design.
 - 4. Be licensed in the state and appropriate county to complete the work, as specified.
 - 5. Be approved to provide all steep slope repairs by the manufacturer, as specified.
- B. Jobsite Inspector:
 - 1. A Job Site Inspector may be present throughout critical phases of the work. Presence of the Jobsite Inspector in no way relieves or lessens the responsibility of the contractor to perform the work per specifications. The Jobsite Inspector is the Owner's Representative and has the authority to stop roofing operations if he/she feels that the work is not in accordance with the specification or good roofing practice. **If such a stoppage occurs the contractor shall make the roof watertight until any dispute is resolved.**
 - 2. The Contractor must notify the Owner's Representative as to the working schedule on a daily basis. Ample notification must be given to accommodate inspection personnel.
- C. Random sampling:
 - 1. Roofing material:
 - a. During the course of the work the Owner's Representative may require samples of materials being used at job site and submit them to an independent laboratory for comparison to specified material.
 - b. Should test results prove that a material is not functionally equal to specified material, or that coverage/application rates are not as specified:
 - i. Contractor shall pay for all testing.
 - ii. Roofing installed and found not to comply with the specifications shall be removed and replaced with no change in the contract price.
- D. Roofing Material Manufacturer site inspections:

-
1. The roofing Contractor shall arrange for the roofing material manufacturer to provide Technical Field Representative to be on-site to observe the work, make corrective recommendations and provide written field reports to the Owner's Representative. The manufacturer's Technical Field Representative shall be on-site as indicated below:
 - a. At any time where the roofing Contractor, Owner or Owner's Representative feels that a technical, material or installation problem exists and that it could compromise the integrity of the roof assembly.
 - b. Final Inspection.
 - c. All field inspection and Final inspection reports generated by the roofing material manufacturer will immediately be distributed to the Owner's Representative.
 - E. Pre-Award Meeting (if required by the owner):
 1. After the bids are received, the Owner and Owner's Representative, at their discretion, may conduct a pre-award meeting with bidders selected by the Owner.
 2. The purpose of the pre-award meeting is to establish:
 - a. The contractor's approach to this specific project.
 - b. The anticipated manpower being provided by the contractor for the project.
 - c. The anticipated production rate the contractor's crew is expected to make per day.
 - d. Crew size
 - e. Mobilization date
 - f. All other factors deemed by the Owner or the Owner's Representative as pertinent to this specific project.
 3. If a pre-award meeting is not conducted, all of the above information shall be addressed during the pre-construction meeting.

1.4 GENERAL CONDITIONS

- A. Contractor's licensing law:
 1. Only the Bids of Contractors licensed in accordance with all applicable laws and operating in accordance with 01 11 13:1.4 will be considered. Contractor shall ensure that all Subcontractors are licensed in accordance with all laws before submitting his/her Bid. **(No roofing sub-contractors.)**
 2. In a binder, kept on site, a copy of the appropriate license of all operators, from all contractors, utilizing hoisting or lifting equipment.
 3. In a separate binder, to be kept on site, a copy of all Manufacturer's Safety Data Sheets shall be stored.
- B. Examination and bidder representation:
 1. Each bidder, by submitting his Bid, represents that he has read and understands all Contract Documents and that he has visited the site and has familiarized himself with the local conditions under which the Work is to be performed. Contractors will not be given extra payments for conditions that can be determined by thoroughly examining the site and Contract Documents.
- C. Occupational Safety and Health Act:
 1. The Contractor represents that he is conversant with the Occupational Safety and Health Act and regulations for construction promulgated there under and agrees to comply with all such regulations applicable to the performance of the Work. The Contractor accepts the affirmative duty of enforcing those investigations by Federal Safety and Inspectors at the Contractor's workplace at the job site and

of the outcome of any such inspection. The Contractor assumes exclusive responsibility for, and agrees to indemnify the Owner, Owner's Agent, and the Owner's Representative against all consequences of any violations of those regulations by the Contractor, including the payment of any fines, penalty and interest assessed in connection therewith and any court costs and attorneys' fees incurred by the Owner, Owner's Agent, or Owner's Representative.

D. Inspection of site and contract documents:

1. Contractor represents that it has carefully inspected the Contract Documents and examined the Drawings and Specifications and is familiar with and has satisfied itself as to the nature, location, and amount of the Work, the Contractor's access thereto and ability to perform the Work, the terms of this Contract and all incorporated documents as well as the quality, quantity, and availability of labor, materials, equipment, and facilities and other items required for the performance of the Work and the limiting physical and other conditions which may be encountered in the performance of the Work, and assumes all risks there from. Additionally, it is expected that the Contractor has completed this type of Work in the past and has anticipated the cost of all related work necessary to complete the Work at the highest possible quality standards and included that cost in the bid.
2. Prior to submitting a bid, the Contractor shall carefully study and compare the Contract Documents and shall at once report to the Owner's Representative, any (1) error, inconsistency, or omission occurring therein or (2) any failure to comply with applicable laws, ordinances, rules, regulations, codes, or orders of any public authority that come to the attention of the Contractor or would have come to its attention with the exercise of due care. If the Contractor performs, or allows any subcontractor to perform, any of the Work knowing, or when with the exercise of due care it would have known, it to be subject to an error, inconsistency, or omission in the Drawings and Specifications, or contrary to applicable laws, ordinances, rules, regulations, codes, or others of any public attorney, and fails to give the Owner's Representative notice thereof prior to performance thereof, the Contractor shall bear all costs arising there from.

E. Miscellaneous:

1. Contractor shall be responsible for all financial obligations to obtain all necessary permits and licenses and comply with all statutes, ordinances, rules, regulations, and orders of any governmental or quasi-governmental authority applicable to the performance of the Work and be responsible for and correct any violations thereof. The Contractor shall provide such evidence of compliance with the foregoing as the Owner or Owner's Representative may request.
2. Contractor shall, at its sole cost and expense, remedy all damage to the Work or property of others caused by Contractor, including but not limited to property of the Owner's to the satisfaction of the Owner.
3. The Contractor shall be as fully responsible to the Owner for the acts and omissions of its subcontractors, their agents and persons directly or indirectly employed by them, and other persons performing any of the work as it is for the acts and omissions of persons directly employed by Contractor.
4. It is the Contractor's responsibility during the course of the Work to bring to the attention of the Owner's Representative any defective membrane, insulation or deck discovered where not previously identified.

F. Procedures:

1. The work shall be performed subject to, and in strict accordance with, the following requirements:
 - a. The Contractor shall submit work plans, shop drawings, samples and other submittals required under the Contract Documents within 2 weeks from notice of award from the building Owner or the Owner's Representative and in a manner that will not cause delay in the progress of the work of the Contractor. No extension of time shall, in any event, be granted for delay by the Contractor in preparing drawings or in securing approval of the Owner's Representative thereto where such

drawings are not properly prepared or when the Contractor, by the exercise of reasonable diligence and judgment, could have anticipated the delay. No portion of the Work requiring shop drawings, samples or other submittals shall commence until the Contractor has submitted, and the Owner's Representative has approved such submittals.

2. The Contractor, in carrying out its Work, shall take all necessary precautions to properly protect the finished and unfinished work of other trades and adjacent property from damage caused by its operations and further agrees to pay the Owner for any damages or delay that may be caused to such work by the Contractor.
3. The Owner and Owner's Representative reserve the right to perform Work related to the project with its own forces and to award separate contracts in connection with other portions of the project. The Contractor shall cooperate with the Owner and the Owner's Representative and any such separate contractors in avoiding interference and shall participate in the preparation of coordinated drawings as required by the Owner or as otherwise appropriate, specifically noting and advising the Owner's Representative of any interference. The Contractor shall use labor force compatible with those of any separate contractors, so the Work may proceed without interference by labor disputes.
4. The Contractor, upon request by the Owner's Representative, shall furnish weekly, type written progress reports on the Work and such other periodic reports as the Owner's Representative may require, including information of the status of materials and equipment that may be in the course of preparation or manufacture.
5. The Contractor specifically agrees that it is responsible for the protection of its Work and the interior of the building until final completion and acceptance thereof by the Owner, and that it will make good or replace, at no expense to the Owner, any damage that occurs prior to said final acceptance.
6. The Contractor shall have the right to store tools, equipment, materials and supplies, only as, when and where directed by the Owner or Owner's Representative. The Contractor shall only use such access to and from the site as specifically designated by the Owner. The Contractor, its Subcontractors and their agents and employees shall park only in those areas designated by the Owner. The Contractor shall be liable for all damages resulting from the use of entry upon private property whether with or without the consent of the Owner or Owner's Representative; and the Contractor shall defend and hold harmless the Owner and Owner's Representative from any and all claims and liabilities with respect thereto.
7. The Contractor shall properly store and protect its equipment, tools and all materials delivered to the site but not incorporated into the Work; and any loss thereto shall be borne solely by the Contractor.
8. The Contractor shall furnish sheds, portable toilet facilities, scaffolding, ladders, hoists, temporary protection and similar general condition items required to perform the Work. All tools shall be neatly stored at the end of each day.
9. Contractor acknowledges that the Owner, its tenants, and their respective guests and invitees will continue to occupy the existing buildings of the property and the Contractor shall (1) not interrupt or interfere with access to the buildings compromising the property and the normal business of the property, (2) limit construction operations to methods and procedures which will not adversely and unduly affect the normal business operations of the property and, (3) take all appropriate steps to minimize noise, drafts, odors, air pollution, ambient discomfort, poor lighting, hazards and other undesirable effects and conditions. None of the foregoing shall justify and extension of the Contract time or an increase in the Contract Sum.
10. If the Owner or Owner's Representative determines that the roofing contractor's superintendent, Foreman, crew or sub-contractor's actions are in any way detrimental to the project, quality/quantity of work or not acting in the best interest of the Owner they will have the right to have such individual(s) removed from the project and the property. Contractor shall replace at no cost to the Owner.
11. The contractor is responsible to ensure the segregation of their employees and sub-contractors from the employees and visitors of the Owner. This may include but is not limited to, having their employees

and contractors shuttled to and from the site from off-site parking lots. Providing an exterior means to allow for the employees and contractors to access the roof without entering the building is required.

G. Work to be performed:

1. Except as otherwise provided herein, Contractor shall furnish all labor, materials, tools, equipment, supervision, and services necessary to execute and complete the work identified and described in these specifications. The work shall be performed by the Contractor in a good and workman-like manner strictly in accordance with the Contract Documents.
2. **Do not sub-contract roofing operations.**

H. Removal of debris:

1. Removal of rubbish and debris caused by the Contractor's Work shall be done by the Contractor whenever required by the Owner or Owner's Representative. If such removal is not done by the Contractor as directed, the Owner or Owner's Representative may do so at the Contractor's expense. The Project site shall be maintained in an orderly and clean condition and the Contractor shall leave the Project site, at the completion of the Contractor's work, free of all rubbish and debris caused by the Contractor, and in a condition satisfactory to the Owner. The Owner and Owner's Representative reserve the right to cause all unidentifiable debris to be removed from the Project site and allocate the cost thereof, by way of back charge or otherwise, among the responsible parties.
2. The site shall be monitored periodically during the day and kept free of any debris.

I. Regulatory and permit requirements:

1. (IEBC) 2018 International Existing Building Code.
2. (ASCE) 7-22 American Society of Civil Engineers
3. Contractor is responsible for acquiring all building permits to satisfy Federal, State and Local requirements.
4. Contractor is responsible for acquiring the necessary approvals from the Fire Department, if applicable.
5. OSHA – United States Department of Labor

1.5 SITE CONDITIONS

A. Field measurements and material quantities:

1. **Contractor shall have SOLE responsibility for accuracy of all measurements, estimates of material quantities and sizes, and site conditions that will affect work.**
2. **Areas provided on roof condition report shall be verified. Contractor is responsible for all detailed measurements.**

B. Existing conditions:

1. If there are any deficiencies, issues, or unsatisfactory conditions with the substrate or any other item that the roof will be covering, these items need to be brought to the attention of the Owner/Owner's Representative and Architect of Record. If no communications are received the contractor accepts responsibility for the conditions and is responsible to provide the fit and finish to the standards of this specification and good roofing practices.
2. Building space directly under roof area covered by this specification will be utilized by ongoing operations. Do not interrupt operations unless prior written approval is received from Owner/Owner's Representative.

3. Contractor shall coordinate with Owner to survey the underside of the deck on a daily basis to avoid contacting electrical conduit wires or other mechanical lines with membrane or insulation fasteners.
Any damage to conduit of other materials affixed to the deck will be repaired at the Contractor's expense.

C. Safety requirements:

1. All application, material handling and associated equipment shall conform to and be operated in conformance with OSHA safety requirements.
2. Comply with federal, state, local and Owner fire and safety requirements.
3. Owner whenever work is expected to be hazardous to Owner, employees, and/or operators.
4. Maintain fire extinguishers within easy access whenever power tools are being used.
5. Utilize a safety line with flags at perimeter of work area at all times.
6. Post and maintain MSDS sheets for all products being used on the project.
7. Any access points used to access the roof shall be secured to prevent access to the roof by person's not involved with the work.
8. Comply with Chapter 14 of the 2018 International Existing Building Code.

D. Set up and access:

1. The set-up area for the Contractor will be designated at the Pre-Bid meeting. The Contractor will be responsible for replacing damaged landscaping concrete or asphalt and will be required to leave a clean, level, raked area, not contaminated by solvents, adhesives, cleaners, etc.
2. Contractor will be responsible for cleaning any and all dirt or contamination to the building walls that is determined to have come from the reroofing project at the end of the project.
3. Contractor shall provide a portable sanitary facility which must be secured against vandalism.
4. Any damage done to the premises shall be repaired or replaced to the Owner's satisfaction at the contractor's expense.
5. Any delivery trucks, cranes or contractor vehicles leaking fluids, oil or other contaminants will be cleaned and remediated in accordance with EPA standards at the Contractor's expense.
6. Contractor shall not stage or store materials or tools on adjacent low slope roof areas while roof operations are ongoing. Any damaged insulation or membrane found to be a result of the contractor's failure to follow these guidelines will be replaced at the contractor's expense.
7. The roofing contractor is to access the roof via their own bucket lift. The roof shall be inaccessible to anyone outside of the project at the end of each workday.
8. **Contractor will take all possible precautions to keep foot and equipment traffic off completed and adjacent roof sections not in the contract.**
9. The contractor shall be responsible and hold the building owner and owner's representative harmless for any chemicals or foreign material considered hazardous being placed in the dumpsters during the duration of the project.
10. The contractor shall provide tarps to prevent, to the greatest extent possible, rainwater from entering the dumpsters and flushing out debris and chemicals.
11. **The entire grounds (including roof areas) of the building are considered a "no smoking zone". No smoking or vaping will be allowed during the roofing project, on the roof or off.**
12. **The entire grounds (including roof areas) of the building are considered a "no radio zone". No radios will be allowed during the roofing project, on the roof or off.**

1.6 SCHEDULE OF VALUES

- A. Contractor shall provide a schedule of values for the project prior to commencement of work.
 - 1. Schedule of values shall be indicated by the following categories:
 - 2. MOBILIZATION:
 - a. Staging and Pedestrian Protection
 - b. Other: Portable Sanitary Facility, Aerial lifts or Lulls, Craning etc.
 - c. Permits
 - 3. Roofing:
 - a. Steep Slope Slate Roofing material
 - b. Labor to Install: Steep Slope Slate Roofing Material
 - c. Misc. Accessories: deck repair, fall protection, ladders etc.
 - d. Misc. Sheet Metal Fabrications: bibs
 - e. Lumber: Plywood, tongue and groove, etc.
 - 4. Miscellaneous Work:
 - a. Plumbing
 - b. Electrical
 - c. Landscaping/Site Work
 - d. Police detail or sidewalk closings with the City of Portsmouth.

END OF SECTION

SECTION 01 20 00

**PROPOSAL
(BID) FORM**

- SECTION 01 20 00 -
PROPOSAL (BID) FORM

To the City of Portsmouth, New Hampshire, herein called the Owner.

The undersigned, as Bidder, herein referred to as singular and masculine declares as follows:

1. All interested in the Bid as Principals are named herein.
2. This bid is not made jointly, or in conjunction, cooperation or collusion with any other person, firm, corporation, or other legal entity;
3. No officer, agent or employee of the Owner is directly or indirectly interested in this Bid.
4. The bidder has carefully examined the sites of the proposed work and fully informed and satisfied himself as to the conditions there existing, the character and requirements of the proposed work, the difficulties attendant upon its execution and the accuracy of all estimated quantities stated in this Bid, and the bidder has carefully read and examined the Agreement, Specifications and other Contract Documents therein referred to and knows and understands the terms and provisions thereof;
5. The bidder understands that the quantities of work calculated in the Bid or indicated on the Drawings or in the Specifications or other Contract Documents are subject to increase or decrease or deletion as deemed necessary by the Portsmouth City Engineer. Any such changes will not result in or be justification for any penalty or increase in contract prices; and agrees that, if the Bid is accepted the bidder will contract with the Owner, as provided in the Contract Documents, this Bid Form being part of said Contract Documents, and that the bidder will supply or perform all labor, services, plant, machinery, apparatus, appliances, tools, supplies and all other activities required by the Contract Documents in the manner and within the time therein set forth, and that the bidder will take in full payment therefore the following item prices;
6. This project will be bid as lump sum:

To Bidder: It is the intention of this contract that the items listed above describe completely and thoroughly the entirety of the work as shown on the plans and as described in the specifications. All items required to accomplish the above items are considered to be subsidiary work, unless shown as a pay item.

The undersigned agrees that for extra work, if any, performed in accordance with the terms and provisions of the Contract Documents, the bidder will accept compensation as stipulated therein.

Portsmouth City Hall
1 Junkins Avenue
Portsmouth, NH 03801
01-10-2023



DATE: _____

SUBMITTED BY:

Name of Bidder

Representative Telephone Number

Email Address

Street Address

City State Zip Code

TO: **Finance/Purchasing Department**
1 Junkins Avenue
Portsmouth NH, 03801
PROJECT: City Hall Slate Roof Repairs Bid #23-23
Submit completed bids to this, and only this, location by noon on February 15th, 2023

PROJECT: **Portsmouth City Hall Repairs**

1.1 STIPULATED SUM (Base Bid)

- A. Having examined the Report and Specifications, dated November 16, 2022 and January 10, 2023, respectively, for repairs of the said project, and having inspected the site of/and the conditions affecting and governing the construction of the said projects, the undersigned hereby proposes to furnish all labor, materials, transportation, services, and equipment necessary and/or reasonably required to construct and properly execute the re-roofing work included in the documents for a Base Bid representing the total of all the following bid items:

Base Bid: All labor, materials, services, equipment, permits and all applicable taxes necessary for completion of the work shown on the report and in the specifications, except for the item(s) described as alternates (if any) in Section 01 23 00.

Alternates: All labor, materials, services, equipment, permits and all applicable taxes necessary for completion of the work shown on the report and in the specifications for the item(s) described as alternates in Section 01 23 00.

B. Base Bid: For all work as outlined in the Project Manual (Section 01 11 13-1.1.B) which includes all roof areas shown on the roof plan.

1. Roof Repairs designated as red and yellow on the Roof Condition Report.

Base Bid: \$ _____

C. Alternate #1: For all work as outlined in the Project Manual (Section 01 11 13-1.1.B.1.ii) which includes repairs to slate designated in blue on the attached roof condition report.

1. **Alternate #1:** Roof repairs designated as blue on the Roof Plan:

Alternate #1: \$ _____

D. Each bidder shall enter a cost figure for all pricing called for, as well as, the Base Bid. Failure to comply subjects bid to disqualification.

E. The undersigned affirms that the Base Bid and Alternate Bids represent the entire cost per drawings, specifications, addenda, and any other documents. No claim will be made due to any increase in wage scales, material prices, taxes, insurance, cost indexes, or any other factors affecting the construction industry or this project.

F. The undersigned further agrees to modify this proposal to include, at the Owner's option, any alternates negotiated before execution of the Contract.

1.2 ADDENDA

A. The undersigned acknowledges receipt of Addendum No. N/A to Addendum No. N/A issued during the bidding period.

1.3 INVITATION TO BID AND INSTRUCTIONS TO BIDDERS

A. The Invitation To Bid and Instructions To Bidders are herewith incorporated as a part of this Proposal Form.

B. A mandatory Pre-Bid walk-through will be conducted at 11AM on Wednesday January 25th, 2023.

C. Bids should be emailed only to the executive director listed on page 1 of this section, no later than noon on February 15th, 2023.

1.4 OWNER'S CONSTRUCTION SCHEDULE

A. The undersigned is aware of the following time schedule for the project:

-
- | | |
|--|---|
| 1. Roofing replacement work out to bid: | February 17 th , 2023 |
| 2. Roofing replacement work pre-bid: | February 22 nd , 2023 @ 11:00 AM |
| 3. Roofing replacement work bids due: | March 8 th , 2023 by 2:00PM |
| 4. Roofing replacement work award: | March 15 th , 2023 (on or about) |
| 5. Pre-construction Meeting on or about: | TBD |
| 6. Start roofing re-cover work on site: | TBD |
| 7. Project complete: | TBD |

- B. The undersigned declares that their proposal is based on the referenced schedule and sequence. They understand that they must prepare a detailed Construction Time Schedule for all trades based on the schedule and sequence.
- C. The undersigned is aware of the extent of work required under the Base Bid and Alternate Bid to be performed during the hours approved by the building owner.
- D. The undersigned agrees to complete the work required by the referenced schedule and declares that the Base Bid and Alternate Bid set forth in the proposal contains sufficient sums of money to assure completion of the work (and each component thereof) on the referenced schedule. Including the sums sufficient for the hiring of additional help and/or overtime and/or shift work in order to permit completion of work (or any component thereof) on or before the date specified by the referenced schedule.

1.5 LIST OF SUBCONTRACTORS

- A. The undersigned agrees, if notified of the acceptance of this proposal, that they will utilize the following subcontractors for the following noted types of work, and that all other work not listed below will be performed directly by the undersigned. Attach an additional page if necessary. No substitutions shall be made in the employment of subcontractors without written approval having first been obtained through the Owner.

Contractor Acknowledgement: _____ Please Initial

Subcontractor	Type of Work
(Name, Address, Telephone Number)	

1.6 WORK TO BE DONE DIRECTLY

- A. The undersigned hereby states that they will perform the work of the following major trades directly without employment of subcontractors:

1.7 OCCUPANCY AND WORK BY OTHERS

- A. The undersigned declares that the Owner shall have the right to beneficial occupancy of parts of the project at the designated phase end to do whatever is necessary when the general construction work for such spaces is complete, to install fixtures, equipment, to train personnel, or for any other purpose.
- B. The undersigned expressly affirms the Owner’s right to employ other contractors in connection with this project. The undersigned will afford other contractors and their workmen reasonable opportunity for introduction and storage of materials and equipment, and for execution of their work, and will properly connect and coordinate their work with the other workers. The undersigned will also incorporate comparable provisions in all their subcontracts relating to the above-affirmed right of the Owner to let other contracts.
- C. The undersigned declares that the other contractors employed by the Owner on the basis of separate contracts may proceed at such times as necessary to install items of work required by the Owner.
- D. The undersigned declares that they will cooperate with the other contractors employed by the Owner and, in addition to other coordination and expediting efforts, will coordinate their work by written notices regarding necessity of such work to be done on or before certain dates.

PRICING:

Submitted by:		FOB Information:	
Address:		(Shipping address)	
		Availability:	

Portsmouth City Hall
 1 Junkins Avenue
 Portsmouth, NH 03801
 01-10-2023



Warranty/guarantee:		Price holds for:	
Date:		SSN or EIN:	
Telephone #:		Fax #:	
Signature:		Title:	

Any deviations from the above stated specifications must be so noted and any bid prices must be reflective of these deviations. The FOB point is always to be 1 Junkins Ave Portsmouth, NH 03801 unless otherwise stated by the bidder. A FOB point other than the Portsmouth City Hall must be so stipulated by the bidder.

END OF SECTION 01 20 00

SECTION 01 23 00

ALTERNATES

- SECTION 01 23 00 –
ALTERNATES

PART 1 - GENERAL

1.1 SCOPE

- A. This Section lists the Alternates which appear in the Contract Documents. Consult the individual sections of the detailed requirements of each Alternate.
- B. Bid prices for each Alternate shall include overhead, profit, and all other expenses incidental to the work under each Alternate.
- C. The Contractor and Subcontractors shall be responsible for the examining the scope of each Alternate generally defined herein and for recognizing modifications to the work caused by the Alternates and including the cost thereof in the Bid price.
- D. The Contractor's alternate amount shall include the net change in cost to perform all of the work described in the Alternate.

1.2 LIST OF ALTERNATES

- A. **Alternate #1:** For all work as outlined in the Project Manual (Section 01 11 13-1.1.B.1.ii) which includes repairs to slate designated as blue on the attached roof condition report.

END OF SECTION 01 23 00

SECTION 01 33 00

SUBMITTAL PROCEDURES

**- SECTION 01 33 00 -
SUBMITTAL PROCEDURE**

PART 1 - GENERAL

1.1 SUBMITTAL COORDINATION

- A. Make submittals in a proper and timely fashion, allowing for administrative procedures, Owner's Representative's review, corrections to submissions and re-submittal, if necessary, and fabrication of products without delaying the Project. Minimum processing times required by the Owner's Representative are as follows:
 - 1. Review for Owner's Representative's office only: Allow a minimum of ten (10) working days for review and processing.
 - 2. Reprocessing of submittals: For submittals requiring re-submittal, reprocessing time required shall be the same as first submittal.
 - 3. No extension of Contract Time will be authorized due to failure to transmit submittals sufficiently in advance of scheduled performance of work.
- B. Make submittals of similar items, systems, or those specified in a single specification section together.
- C. Make submittals for products which other products are contingent upon, first.
- D. The Contractor is fully responsible for delay in delivery of materials or progress of work caused by late review of shop drawings due to failure of the Contractor to submit, revise, or re-submit shop drawings in adequate time to allow the Owner's Representative checking and processing of each submission or re-submission.

1.2 PRE-CONSTRUCTION PREPAREDNESS

- A. Prior to the pre-construction meeting the contractor shall go through all of the project details.
- B. The contractor will bring any questions that they may have about the required finished product to the meeting for discussion.
- C. **ARM** requires the project to be done to our details and specification which, in some cases, are above and beyond what the manufacturer would require for warranty.
- D. If a substitute is being requested by the contractor the contractor shall supply the modified detail they are looking to substitute in writing for review.
- E. A copy of the final agreed upon drawing will be supplied by the contractor to be kept in the **ARM** job file.
- F. If there are no questions or changes discussed and agreed upon, the roof membrane, flashings and metal shall be installed per the details and specifications.
- G. If there are any details installed differently than shown in the details or outlined in the specification the materials will be removed and new materials installed per the details and specifications at no charge to the owner.

1.3 SCHEDULE OF SUBMISSIONS

- A. Schedule procedure: Immediately after being awarded the Contract, meet with the Owner's Representative to discuss the schedule of submissions and then prepare and submit, within seven (7) calendar days, for approval of a schedule of submissions for the Work. The schedule of submissions shall be related to the entire Project, and shall contain shop drawing Schedule (for shop drawings to be provided by the Contractor).
- B. List all submissions required of each trade:
 - 1. Include the Specification Section number, name of subcontractor or vendor, submittal type, item, description, type, quantity, and size (where applicable) of each submission.
 - 2. For each submission, provide the following dates, as estimated:
 - a. Scheduled date of submission
 - b. Required date of approval. (permit time for appropriate review and re-submissions as may be required).
 - c. Estimated date of beginning fabrication or manufacture of product (where applicable).
 - d. Required date for delivery of product to site.
 - e. Required date for beginning of installation of product.
 - f. Required date for completion of installation (and in-place testing)
- C. For each submittal, schedule to allow adequate time for review by the Owner's Representative. The Owner's Representative will not be responsible for Work performed in shop or field prior to approval. Long-lead items requiring expedited action must be clearly indicated.
 - 1. The schedule shall be reviewed and re-submitted as necessary to conform to approved modifications to the construction Project Schedule, and shall be updated as may be required by the Owner's Representative.
- D. Posting of submittal schedule: Print and distribute the submittal schedule to Owner's Representative, Owner, subcontractors, and other parties affected. Post copies in field.
- E. Update schedule throughout progress of the Project, coordinated with scheduling changes in the Work, and re-distribute monthly in conjunction with submittal of Application for Payment.

1.5 SUBMITTAL PROCEDURES AND GRADING

- A. Prepare and submit to the Owner's Representative a Construction Schedule, a Schedule of Values, and a Schedule of shop drawings, product data, and samples.
- B. Provide space for Contractor, Owner's Representative, and engineering consultant review stamps, on the front page of each item's submittal copy. Apply Contractor's stamp, signed or initialed certifying that review, verification of products required, field dimensions, adjacent construction Work, and coordination of information, is in accordance with the requirements of the Work and the Contract Documents. The Owner's Representative's stamp shall contain the following data:

_____ **REVIEWED**
_____ **FURNISH AS CORRECTED**
_____ **REVISE AND RE-SUBMIT**
_____ **REJECTED**

- 1. The Owner's Representative will insert the date of action taken and an identification of the person taking the action.
- 2. Submittal Grading:
 - a. REVIEWED – No corrections, no marks.
 - b. FURNISH AS CORRECTED – Re-submission not required. Minor amounts of corrections; all items can be fabricated without further corrections to original submission; checking is complete and all corrections are deemed obvious without ambiguity.

- c. REVISE AND RESUBMIT – Re-submission required. Minor amounts of corrections; checking is not complete; details of items noted by checker are to be clarified further before full review can be given. Correct and re-submit, do not fabricate noted items requiring correction.
 - d. REJECTED – Submittal is rejected as not in accord with the Contract Documents, too many corrections, or other justifiable reasons. When returning submission, Owner’s Representative will state reasons for rejection. Correct and re-submit, do not fabricate.
3. Review/approval neither extends nor alters any contractual obligations of the Owner’s Representative, Engineer, or Contractor.

C. Identify all variations from Contract Documents, and product or system limitations which may be detrimental to successful performance of the completed work.

D. Coordinate related submittals and schedule submissions to expedite the Project; the contractor shall be required to upload to the Owner’s Box file sharing system. The link and access will be given to the successful bidder upon award.

E. Transmit submittals to Owner’s Representative at the above address, with individual transmittal forms for each submission, using AIA Document G810.

1. On transmittal form, identify Project, Contractor, subcontractor, installer or supplier, pertinent Drawing sheet and detail number(s), and specification Section number, as appropriate. Transmittals received by the Owner’s Representative from sources other than the Contractor will be returned without any action taken.
2. Contractor shall number submittals sequentially by Specifications Section prior to submittal. Resubmitted items shall retain number and be noted as re-submitted.

F. Contractor’s review: Review all shop drawings and product data. Include, without limitation, verification of the following:

1. Proper title, original date, drawing number (which shall be changed if re-submitted), revision numbers and dates, designation of project contractor, subcontractor, and/or supplier.
2. Identification of Shop Drawings or Product Data by Specification Section and subsection or paragraph where appropriate and identification of Contract Drawings by number and detail.
3. On each submittal, as a minimum, Contractor shall identify the following:
 - a. Errors, inconsistencies, and omissions discovered in the contract documents and field conditions must be reported at once to the Owner’s Representative.
 - b. Any variations from code requirements contained in the contract documents must be reported promptly in writing to both the Owner’s Representative and the Owner.
 - c. Promptly report to the Owner’s Representative. information that any design, process, or product infringes on a patent.
 - d. Names of subcontractors and Suppliers must be given in writing to the Owner’s Representative as soon as practicable after award of the Contract, preferably at the pre-construction meeting. (Note: If objection is made, a change order is possible) List shall include name(s) of contact person(s), address, telephone, and fax number(s).

G. Revise and re-submit submittals as required, identify all changes made since previous submittal. Distribute copies of reviewed submittals to concerned parties; instruct parties to promptly report any inability to comply with provisions.

1.6 PROPOSED PRODUCTS LIST

- A. Within seven (7) days after date of Owner-Contractor Agreement, submit complete list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
- B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation and reference standards.

1.8 SHOP DRAWINGS

- A. General: Provide accurately prepared, large scale and detailed shop drawings prepared specifically for this Project. Show adjacent conditions and related work. Show accurate field dimensions where appropriate. Identify materials and products shown. Note all conditions that require coordination with other trades and special installation procedures. Standard information prepared without specific reference to this Project is not considered shop drawings.
1. Shop drawings include fabrication and installation drawings, setting diagrams, schedules, patterns, templates, and similar drawings
 2. Show every component of fabricated items, notes regarding manufacturing process coatings and finishes, dimensions, and appropriate trade names. Show anchorage and fastening details, including type, size, and spacing. Show material gauge and thickness. Indicate welding details and joint types.
 3. Review each submittal for conformity with the Contract requirements prior to submittal; certify such review on each shop drawing with Contractor's stamp, signature, and date. Reference on shop drawings to other sections, installers, suppliers, or trade(s) shall designate the appropriate specification sections, and the term "by others" shall not be used.

1.8 PRODUCT DATA

- A. Submit Product data to Owner's Representative in packets of (5) copies each for distribution and filing, as the Owner's Representative may prescribe, accompanied by an appropriate transmittal form. Product data includes, but is not limited to:
1. Catalog cuts
 2. Complete specifications
 3. Standard color charts
 4. Performance data
 5. Certified laboratory test report data
 6. Health and safety precautions
 7. Illustrated capacities, characteristics, wiring diagrams, controls, and other pertinent information for complete product and product use description.
- B. **If more than one size or type is shown on any printed sheet, indicate clearly intended item(s).**
- C. When accepted or disapproved, the Owner's Representative will retain three (3) copies. Submit sufficient copies for all other parties. No copies stamped, REJECTED or RE-SUBMIT shall be sent to the job site.

1.9 MANUFACTURER'S INSTRUCTIONS

- A. When specified in individual Specification Sections, submit manufacturer's printed instructions for delivery, handling, storage, assembly, installation, start-up, adjusting, and finishing in quantities specified for project data.
- B. Identify conflicts between manufacturer's instructions and Contract Documents.

1.10 MANUFACTURER'S CERTIFICATES

- A. When specified in individual Specification Sections, submit manufacturer's certificate to Owner's Representative for review, in quantities specified under product data.
- B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.

- C. Certificates must be recent or the most current test results on material or product, but either must be approved by Owner's Representative.

1.11 EMERGENCY ADDRESSES

- A. Within seven (7) days of Notice to Proceed, submit to both the Owner and the Owner's Representative, in writing, the name, addresses, and telephone numbers of key members of their organization, including Contractor's Superintendent and personnel at the site, to be contacted in the event of emergencies at the building site, which may occur during non-working hours.

END OF SECTION 01 33 00

SECTION 07 31 26

SLATE SHINGLES

**- SECTION 07 31 26 -
SLATE SHINGLES**

PART 1 GENERAL

1.1 SUMMARY

- A. The work of this section involves installing new slate shingles and related items as indicated on the roof condition report and specified herein. The work involves, but is not limited to:
1. Installation of replacement slate shingles. Provide 1,200 slate shingles for replacement.
 2. Repair of slate shingles.

1.2 SUBMITTALS

- A. General: Submit in accordance with Section 01 33 00 - Submittal Procedures.
- B. Contractor shall supply statement of qualifications, about the project foreman and superintendent, outlining experience and technical expertise relative to the Project. Slate work should be highlighted in these qualifications.
- C. Product Data: Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of product indicated.
- D. Samples for Initial Selection: Manufacturer's color samples (not printed from the computer) consisting of units or sections of units showing the full range of colors, textures, and patterns available for each type of slate shingle indicated.
- E. Samples for Verification: Full-size units for each type of slate shingle indicated; in sets for each color, texture, shape, and size specified, showing the full range of variations expected. Prepare Samples from the same material to be used for the Work.
- F. Installation Instructions: Submit shingle manufacturer's and waterproof underlayment manufacturer's written installation instructions. Variations between the manufacturer's printed instructions and these Specifications shall be noted in the submittal.
- G. Maintenance Data: Provide complete maintenance instructions for include in Operating and Maintenance Manual

1.3 QUALITY ASSURANCE

- A. Source Limitations for Slate: Obtain each variety of slate from one source with resources to provide materials of consistent quality in appearance and physical properties.
- B. All Slate shall be inspected before they are installed. No cracked or split slate nor ridges or raised areas in the location of the head laps will be accepted.
- C. Roofing work shall be applied in strict accordance with the provisions of the specification criteria. No deviations shall be permitted without written consent from the Owner's Representative. Should a conflict between this specification and the manufacturer's requirements arise, the most restrictive provision as determined by the Owner's Representative shall govern.
- D. Installer Qualifications: Engage an experienced installer who has successfully completed slate installations similar in design and extent to that indicated for Project. The installer shall have a minimum of 5 years experience in installation of slate shingles on comparable projects.
- E. Pre-Roofing Conference: Prior to the beginning of slate shingle and associated work, meet at a mutually agreed to location with Contractor, Roofing Subcontractor, Installers of related work, Owner's Representative, and Owner.

The purpose of the conference shall be to review the specification, details, application requirements, and other pertinent aspects of the Work. Record discussions and agreements and furnish copy to each participant. Provide at least 72 hours advance notice to participants prior to convening pre-roofing conference.

- F. Requirements of Regulatory Agencies: Install slate shingles to meet requirements of all applicable Federal (including OSHA), State, and local laws, codes, rules, and regulations.
- G. All slate ¼” thick and thicker shall be cut with a slater’s stake and hammer.
- H. Collate slate from every pallet once they are on-site. The contractor shall blend all shades and gradations to provide the best aesthetics possible. Evaluate the blend at the end of each workday and with the facilities team at regular intervals (not less than 3 times per elevation). Coordinate times with the owner’s representative.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver slate shingles to Project site and store as close as possible to the point of installation to minimize damage while handling.
- B. Store and handle roofing materials to prevent breakage and ensure dryness. Store in a dry, well-ventilated, weather-tight place. Store rolls of felt and other sheet materials on end on pallets or another raised surface.
- C. Handle and store materials and equipment in a manner to avoid significant or permanent deflection of deck.

1.5 WARRANTY

- A. General Warranty: The special warranty specified in this Article shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents.
- B. Upon completion of the work and prior to acceptance of the work, the Roofing Contractor shall submit a guarantee to the Owner. The Roofing Contractor's guarantee shall be for a one-year period and shall cover any defect in the shingle and flashing work.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide slate shingles by one of the following:
 - 1. Evergreen Slate Co., Inc.
 - 2. Glendyne Slate Company.

2.2 SHINGLES

- A. Slate Shingles: Hard, dense, sound rock, machine punched or drilled (and counter sunk) for two nails located for proper head lap. All slate nailing holes shall be punched from the opposite side of the slate from where the nails will be driven. No broken or cracked slates, no broken exposed corners, and no broken corners on covered ends that could sacrifice nailing strength or laying of a watertight roof. No ribbons in exposed portion of shingle, and curvature not to exceed 1/8 inch per 12 inches.
 - 1. Classification: ASTM C 406, Grade S1: Expected service life more than 75 years.
 - 2. Thickness: Verify in field.
 - 3. Length and Width: To match existing

-
4. Butt Shape: To match existing
 5. Weather-Exposure Color Change: Permanent or unfading.
 6. Impact Resistance: Meet or exceed UL 2218
 7. Thermal Requirements: Meet or exceed ASTM D1037
 8. Color: To match existing slate, approved by owner

2.3 UNDERLAYMENTS

- A. For large scale repairs (4 SQFT or larger) install the following:
1. Ice and Water shield - High Temp Modified Bituminous Underlayment: ASTM D 1970, self-adhering, polymer-modified, bituminous sheet; 40 mils thick. Provide primer when recommended by manufacturer.
 - a. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work to include, but are not limited to, the following:
 - i. Products: Subject to compliance with requirements, provide one of the following:
 - (i) Non-reinforced: Polyethylene backed.
 1. CCW-707; Carlisle Coatings and Waterproofing.
 2. Grace Ice and Water Shield; W.R. Grace & Co.
 - (ii) Ice and water to be installed over 100% of the steep sloped roof area repairs greater than 4 SQFT.
 - ii. 15# felt Underlayment.
 - (i) Installed with a minimum of 6" over lap per the manufacturer's requirements.
 - (ii) To be installed over 100% of all steep slope roof area repairs including over the ice and water shield.
 - (iii) Utilize stainless steel cap nails or cap staples to install the felt. Staples without caps are not acceptable.

2.4 FASTENERS

- A. Roofing Nails: 0.1055-inch diameter-shank, hot-dip galvanized steel, Type ES, barbed-shank roofing nails; minimum 3/8-inch diameter head, and long enough to penetrate 3/4 inch into solid decking or to penetrate through plywood sheathing.
- B. Slating Nails: 0.135-inch, diamond-point, smooth-shaft, hard copper-wire slating nails with large head; minimum 5/16-inch diameter, and long enough to penetrate either completely through or at least 3/4 inch into sheathing.
1. Minimum Nail Length for Shingles 1/4 Inch Thick or Less:
 - a. For Shingles 18 inches or Less in Length: 1-1/2 inches long.
 - b. For Hip and Ridge Shingles: 2 inches long.
 2. Minimum Nail quantity for Slates:
 - a. (4) nails 3'-0" in from all gable ends.
 - b. (2) nails at all other slate locations

2.5 ACCESSORIES

-
- A. Plastic Cement: ASTM C 1085, one-part, non-sag, non-staining, solvent-release-curing, polymerized butyl sealant formulated with minimum of 75 percent solids; with a tack-free time of 24 hours or less.
 - 1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
 - a. The mastic color must be grey or green.
 - b. Products: Subject to compliance with requirements, provide one of the following:
 - i. Chem-Calk 300; Bostik Inc.
 - ii. PTI 757; H.B. Fuller Company.
 - iii. BC-158; Pecora Corporation.
 - iv. PSI 301; Polymeric Systems, Inc.
 - v. Sonneborn Multi-Purpose Sealant; Sonneborn Building Products, Div. of ChemRex, Inc.
 - B. Joint Sealant: One-part elastomeric polyurethane, polysulfide, or silicone-rubber sealant as recommended in writing by shingle manufacturer. Where sealant will be exposed, provide in color matching shingle.
 - C. Mastic: ASTM D 4586, non-asbestos, fibrated, asphalt cement designed for trowel application.
 - D. Bibs: Provide freedom grey copper bibs a minimum of 4” wide and 6” long at all slate repair or roof jack locations. Slate hooks are also acceptable. Installing copper “straps” to hold slate is not acceptable.
 - E. Slate shim: Provide and install scrap slate pieces to act as a shim under the cap slate to prevent rocking. These scrap slate pieces shall be not be less than 2” wide and nailed in place with 2 nails per scrap.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine substrate for compliance with requirements for substrates, installation tolerances, and other conditions affecting performance of slate shingles. Confirm that all surrounding and supporting work has been completed to the extent that slate shingles can be applied. Confirm that all surfaces to receive shingles are rigidly supported, even, and clean.
- B. Notify the Owner’s Representative in writing of unsatisfactory conditions. Proceed with slate shingle Work only after unsatisfactory conditions have been corrected.
- C. Cover or otherwise plug drains to prevent entrance of slate shingle trimmings and debris.
- D. All slate shall be inspected before installation. No cracked or split slate or slate with ridges or imperfections in the head lap area will be permitted to be installed.

3.2 PREPARATION

- A. Only install underlayment, slate and ice and water shield when all substrate materials are dry.
- B. Clean substrates of projections and substances detrimental to application.
- C. Collate slate from every pallet once they are on-site. The contractor shall blend all shades and gradations to provide the best aesthetics possible. Evaluate the blend at the end of each workday and with a representative from the facilities team at regular intervals (not less than 3 times per elevation). Coordinate times with the Owner’s Representative.

3.3 INSTALLATION

-
- A. Ice and water shield (for repairs 4 SQFT or larger): Apply waterproof underlayment over entire roof. Apply in accordance with manufacturer's written instructions. Side laps shall be not less than 3½" inches and end laps not less than 6 inches. At adjoining walls, dormers, and similar roof terminations and projections, carry underlayment up at least 12 inches, concealed behind, and applied before, sheet metal flashing. (Note: Bottom edges of membranes, which do not continue down to eave strips, must be lapped into shingle coursings for positive drainage.)
- B. 15# felt underlayment (for repairs 4 SQFT or larger): Apply underlayment over the ice and water shield and cover 100% of the steep slope roof areas. Apply in accordance with manufacturer's written instructions. Side laps shall be not less than 3½" inches and end laps not less than 6 inches. At adjoining walls, dormers, and similar roof terminations and projections, carry underlayment up at least 12 inches, concealed behind, and applied before, sheet metal flashing. (Note: Bottom edges of membranes, which do not continue down to eave strips, must be lapped into shingle coursings for positive drainage.)
- C. Slate Shingle Installation: Beginning at eaves, install slate shingles according to written recommendations of manufacturer and details and recommendations of NRCA's "Steep Roofing Manual." Unless otherwise indicated, provide at least a 3-inch head lap between succeeding courses of slate shingles and break (stagger) joints centered in alternate rows. Provide a 2-inch projection of slate at eaves and 1-inch projection at gables. Cut and fit slate neatly around roof vents, pipes, ventilators, and other projections through roof.
1. Slates at the eaves or cornice line shall be installed to exactly match the adjacent condition.
 2. The doubled starter and cornice courses of slate shall be turned sideway with the flat bottom side of the shingle installed up to provide a smooth surface for the first full shingle to sit. Add nail holes as required to ensure that each slate has 2 hanging locations at the within the standard head lap. The joints shall be no closer than 3" from any edge of the first standard course, trim horizontal slates as required.
 3. All slate shall have 3/8" gap between each adjacent slate.
 4. Nail slate shingles so nail heads just touch slate lightly. Do not drive nails home drawing slates downward or leave nail head protruding enough to interfere with overlapping shingle above.
 5. No uplift of butt edge from nailing pressure or installer holding pressure shall be permitted.
 6. Build in stepped sheet metal flashings as the Work progresses, in close coordination and cooperation with work of sheet metal trade.
 7. Slates overlapping sheet metal work shall have the nails so placed to avoid puncturing the sheet metal.
 8. Expose nails only where unavoidable in top course. Cover heads with bituminous plastic cement.
- D. Contractor shall maintain and monitor the roof for 12 months after the date of substantial completion. During this time the contractor shall be responsible for replacement of all broken or cracked roof slate, determined to be caused by improper application or mishandling during original installation.

3.4 ROOF JACKS

- A. Roof jacks shall be installed at standard increments. In traveling from any point to any point a "chicken ladder" must be used to provide adequate toe spacing while on the ladders. No walking, climbing, sliding, or otherwise applying pressure to the slates will be allowed.
- B. All roof jack locations must be kept watertight throughout the project with roofers felt or some other approved covering at nail locations.
- C. At all roof jack locations, the jack will be removed upon completion of the project. The nails used to support the jack will be driven through to slightly below the upper slate with a bolt or other nail set. These locations will be repaired with a freedom grey copper bib or slate hook as described in the most current edition of "Slate Bible."
- D. No straps will be allowed in the repair of the slate.**

3.5 SLATE REPAIRS

-
- A. Bibs: Provide freedom grey copper bibs a minimum of 4” wide and 6” long at all slate repair or roof jack locations. Slate hooks are also acceptable. **Installing copper “straps” to hold slate is not acceptable.**
 - B. All repair slate will be nailed with smooth shank copper nails as required by the Slate Roofing Contractors Association.
 - C. Provide slater’s cement behind all repairs.
 - D. Provide new 15# felt over new high temperature ice and water shield under large (areas over 4 square feet) of replacement slate.
 - E. Remove all existing damaged slate and other roofing materials at the end of the project. No slate shall be left in the attic space.

3.6 ADJUSTING AND CLEANING

- A. Remove and replace damaged or broken slates.
- B. Remove excess slate and debris from Project site.

END OF SECTION 07 31 26



ARM Consultants
PO Box 4, Chester NH 03036
603-234-6030

Roof Condition Report



Portsmouth City Hall

1 Junkins Avenue Portsmouth, NH 03801

Prepared For: Portsmouth City Hall

Prepared By: Brian Toner

Date: November 16, 2022



INTRODUCTION

On October 20th, 2022, ARM Consultants LLC (ARM) performed a condition survey on the existing slate roof assembly at the Portsmouth City Hall (PCH) buildings, located at 1 Junkins Avenue in Portsmouth, New Hampshire 03801. The purpose of the inspection was to determine the current condition of the slate roof assembly and evaluate the remaining service life.

GENERAL

Based on our observations, the PCH buildings is constructed with red brick exterior walls and heavy timber structure supporting roof decking. The frame roof deck is covered with what appears to be Vermont quarried roof slate, in the semi-weathering gray/green or semi-weathering gray color and is likely original to the structure. Slate installation methods include metal ridge cap at all ridge locations, and mitered hips installed throughout both roofs A and B. ARM observed installation of both open (see photo #11) and closed (see photo #7) valleys at Roof A, and only closed valleys were installed at Roof B. The attic areas were not accessible during this investigation but should be inspected prior to any future construction. The PCH complex is made up of two buildings having multiple roof areas consisting of slate, EPDM membrane of varying age and lead coated copper. The scope of this investigation was focused solely on the slate roof areas.

The total square footage of slate roofing for this building, taking into account the approximate 6:12 roof slope, is **10,110 SQFT +/-** (Roof A = 6,080 SQFT and Roof B = 4,030 SQFT).

CONDITIONS

The slate roof areas of the PCH buildings appear to be in fair and serviceable condition, despite approaching the end of their lifespan. The slate roof review of the exterior conditions shows broken or missing slate along with deteriorated valleys and hips in most locations. Water infiltration likely occurs at these locations due to the relatively poor condition. As previously stated, the underside of the deck was not accessible during this investigation but should be examined for water damages prior to slate repair or replacement.

Many contributing factors can lead to slate degradation which include walking on installed slate, an impact from falling debris, leaning ladders against eave slave (see photo #20 and #21), heavy snow and ice loads, etc.. It is important to note that snow guards were not observed at either roof location. Sliding snow can cause significant damages depending on the volume. Please refer to the photos included in this report for further examples.

The following is a summary of our field observations. See appendix for photos and key plan.
Photo Legend:

The approximate total number of slate is **20,220 +/-**.

The **RED** dots indicate a slate that is missing or in danger of falling off of the building. **101 identified (+/- 0.5%)**

The **YELLOW** dots indicate slate that is damaged and in need of repair. **272 +/- identified (+/- 1.4%)**

The **BLUE** dots indicate a slate that is cracked along the drip line of the lower level of slate which could be a waterproofing issue. **751 +/- identified (+/- 3.7%)**



Example of a typical **RED** dot condition. Missing or in danged of falling off the building.



Example of a typical **YELLOW** dot condition. Damaged and/or in need or repair.



Example of a typical **BLUE** dot condition. Cracked slate typically along the drip line and potentially causing a waterproofing issue.

Additional notes: Arrows in photos indicated areas of additional concern beyond slate conditions. See the following for descriptions:

PHOTO 2: Copper hip cap not installed and deteriorated transition at slated to ballasted EPDM roofs.

PHOTO 4: Deteriorated closed valley. Typical throughout.

PHOTO 9: Copper hip cap not installed.



PHOTO 11: Example of proper open valley installation.

PHOTO 13: Copper hip cap not installed.

PHOTO 18: Copper hip cap not installed.

PHOTO 21 and 22: Deteriorated closed valley. Typical throughout.

PHOTO 25: Copper hip cap not installed.

Consultants Remarks:

The 6:12 sloped slate roofs, in general, are in fair condition for their age. With proper repairs and maintenance ARM believe the lifespan of this roof can be extended 12-15 years. The remaining serviceable life span if not repairs are made is approximately 3-5 years based on the amount of missing/damaged slate. Repairs should include a coating at the deteriorated valleys and hips for best results. ARM also recommends installation of snow guards in strategic locations, where snow tends to accumulate most, while repairs are being conducted. The number of issues uncovered make it more economically feasible to conduct widescale repairs rather than full roof replacement. A preliminary budget estimate for the slate repairs is as follows:

	Cost per Slate	Number of Slate	Estimated Repair Cost
Red	\$120	101	\$12,120
Yellow	\$120	272	\$32,640
Blue	\$120	751	\$90,120
Total			\$134,880

Based on projects of similar size and in the same vicinity, the current estimated cost for total slate roof replacement is approximately \$860,000 +/- (or approximately \$85 per square foot).

Please call if you have any questions or would like to discuss any aspect of this report.

Brian Toner
Project Manager
Cell: 978-518-1968



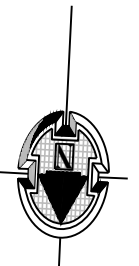
ARM Consultants

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Appendix: Field Condition Photos

ROOF #	APPROX SQ FT
ROOF A	6,080 SQFT ±
ROOF B	4,030 SQFT ±
TOTAL ROOF AREA:	10,110 SQFT ±



#	DATE	BY	DESCRIPTION

PROJECT NAME: **PORTSMOUTH CITY HALL**
 PROJECT LOCATION: **1 JUNKINS AVE, PORTSMOUTH, NH 03801**
 DRAWN BY: **BT** CHECKED BY: **TEA**
 DATE ISSUED: **10/20/2022**
 SCALE: **N.T.S.** SITE #: **22-1**
 DRAWING: **ISP-1**
 SHEET TITLE: **KEY PLAN**

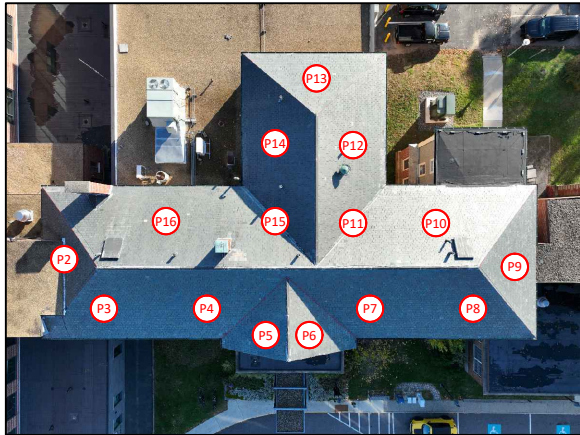


PHOTO #1

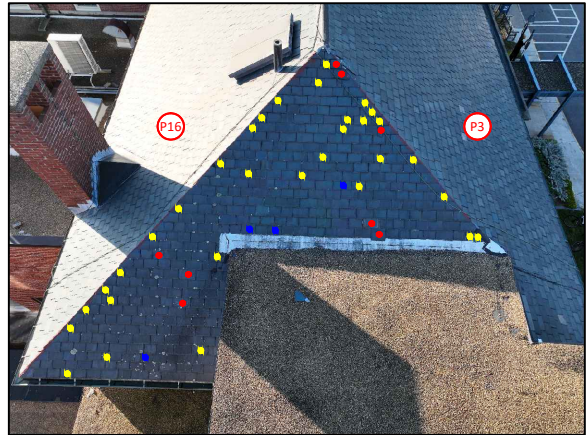


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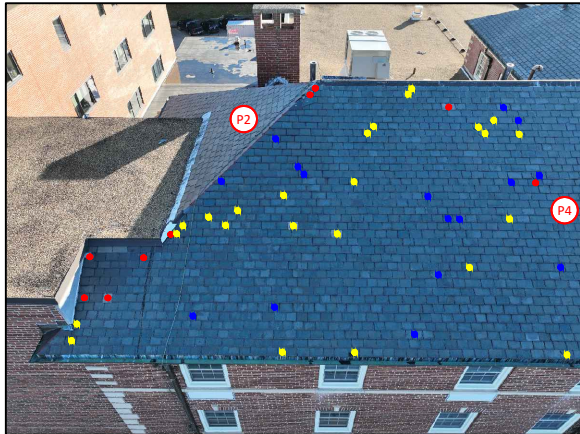


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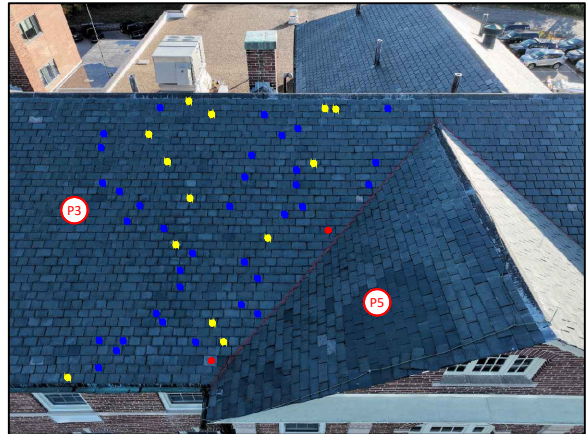


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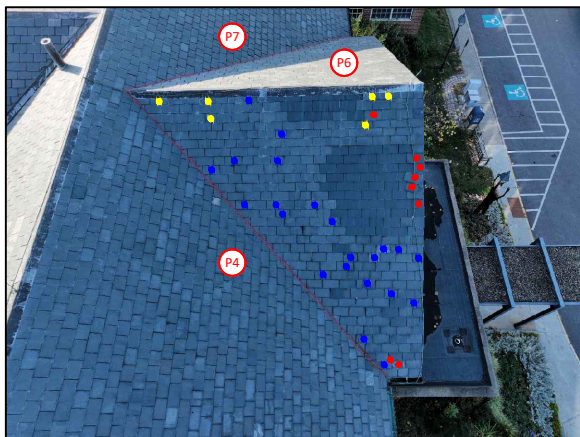


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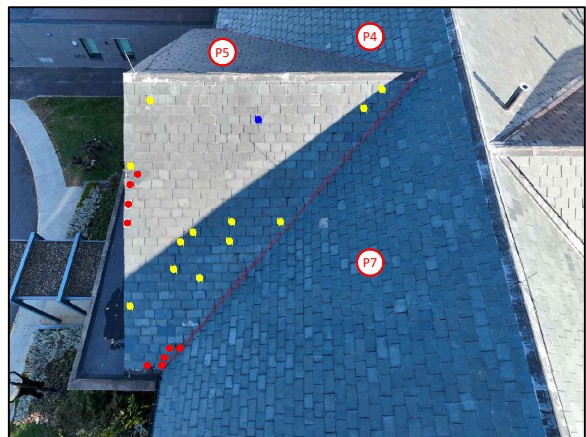


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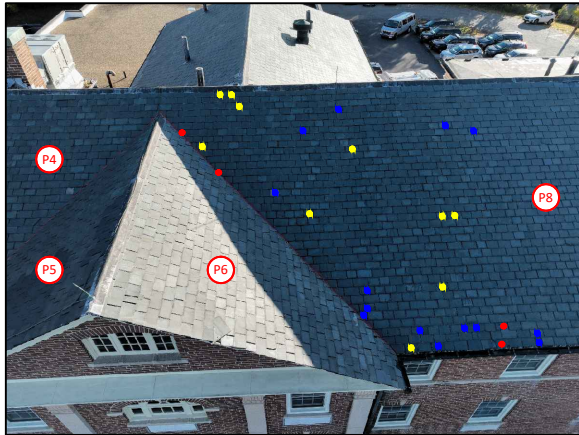


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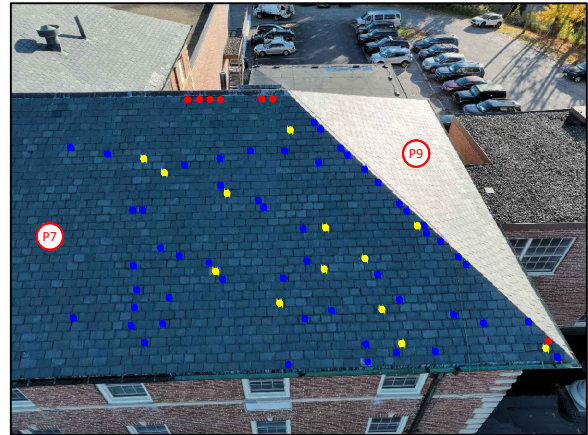


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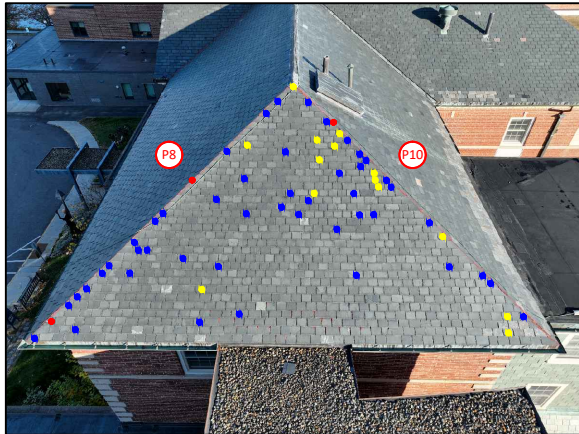


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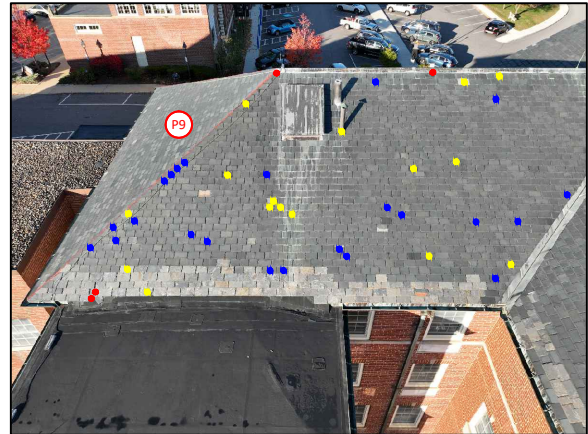


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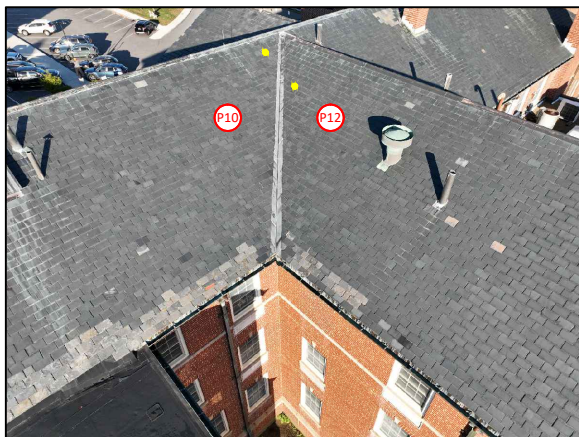


PHOTO #11



PHOTO #12

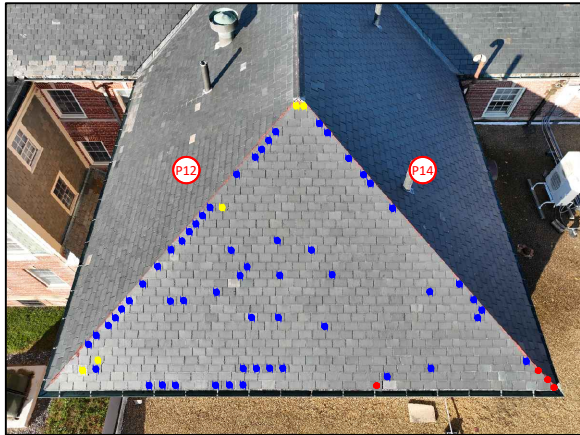


PHOTO #13



PHOTO #14



PHOTO #15



PHOTO #16

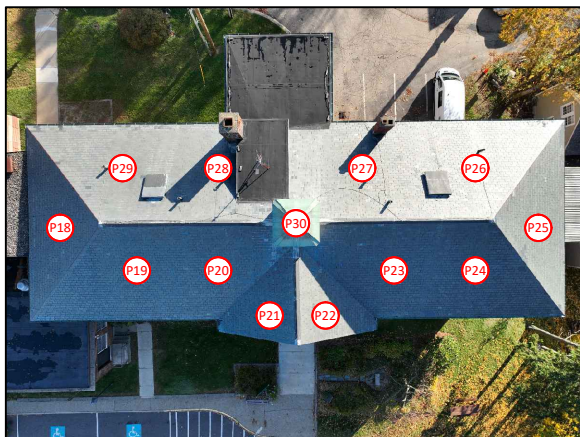


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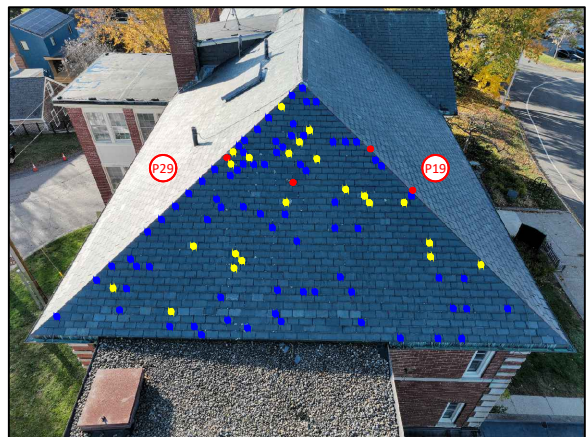


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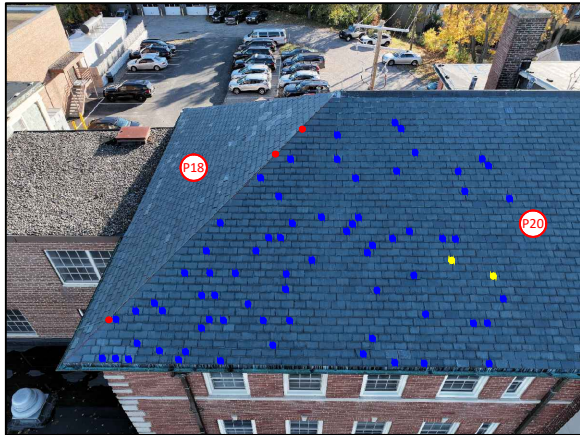


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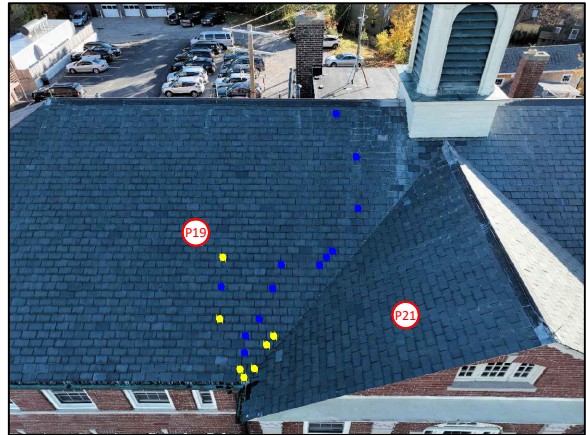


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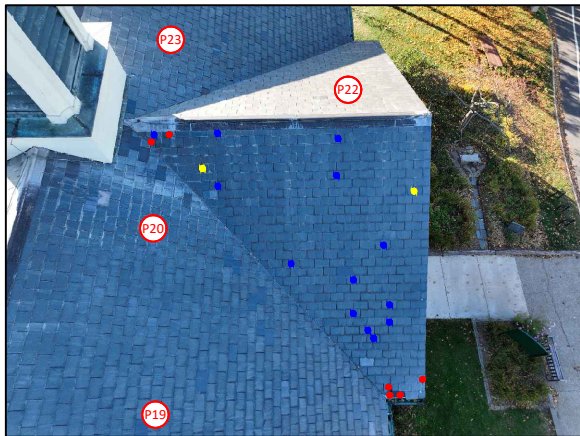


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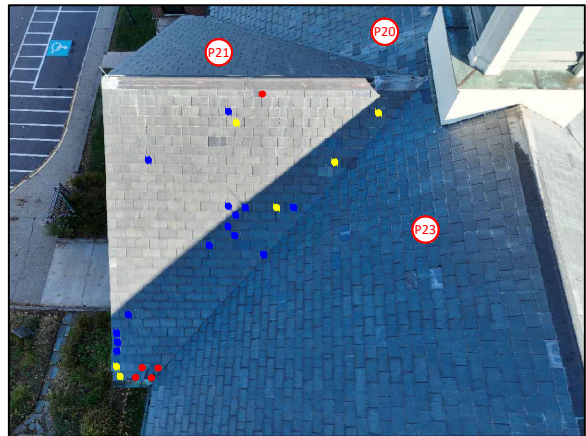


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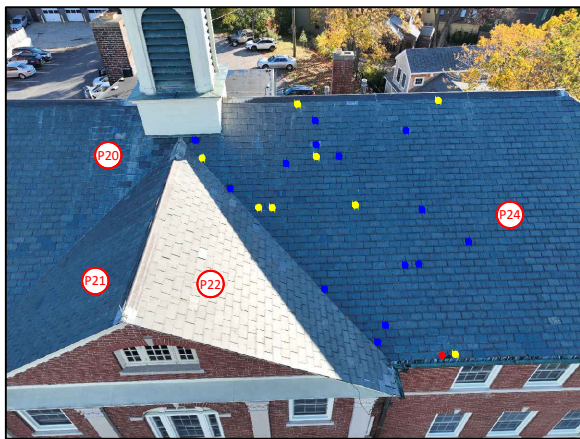


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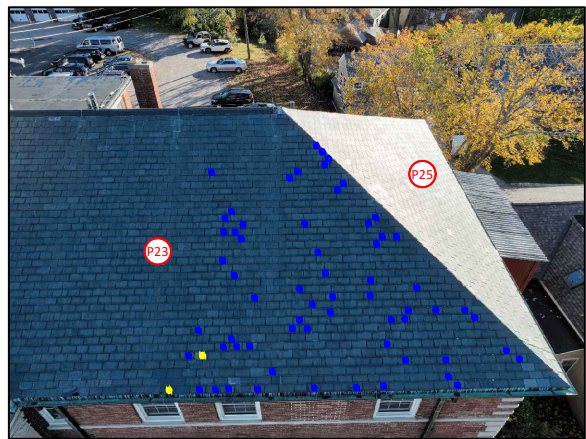


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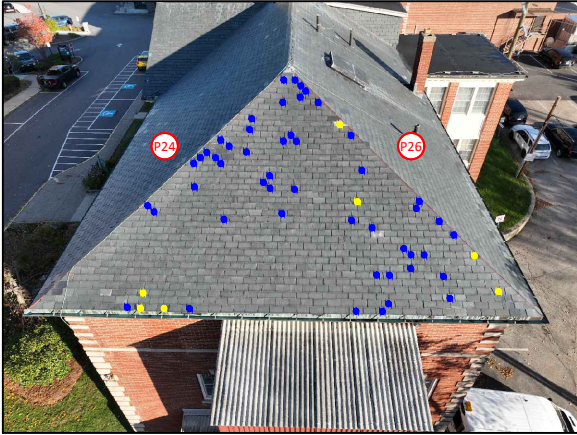


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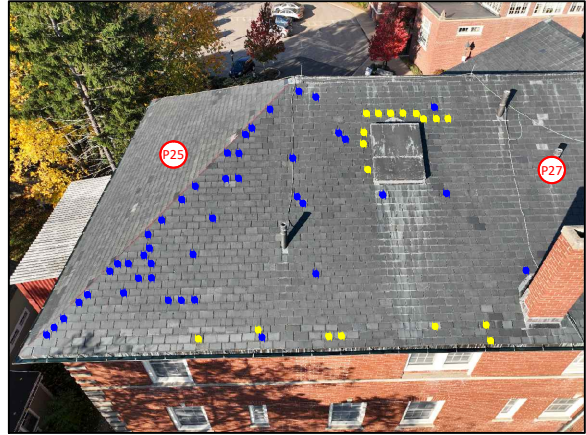


PHOTO #26



PHOTO #27

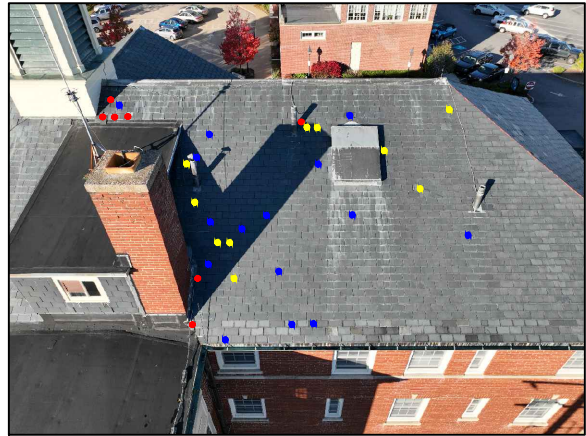


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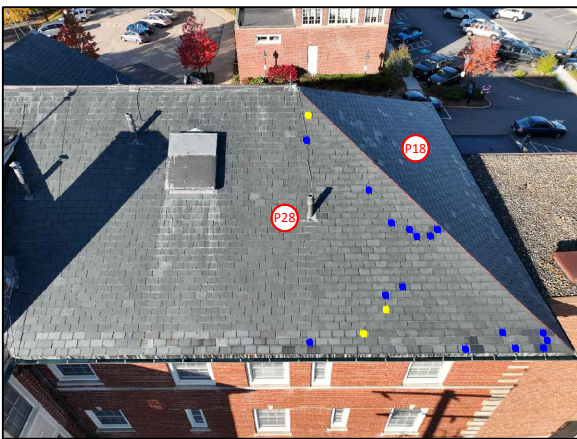


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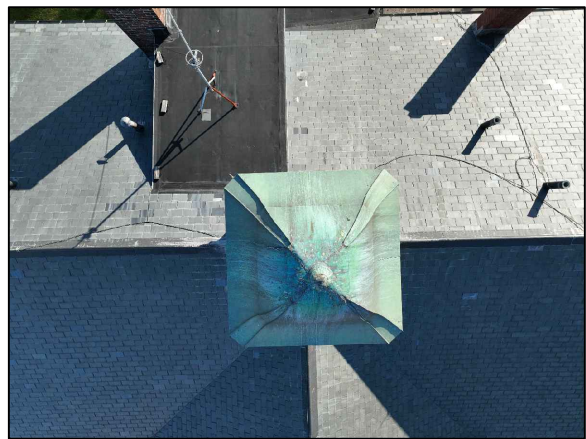


PHOTO #30