



University of Kentucky[®]

Procurement Services

INVITATION FOR BIDS

CCK-2504.1-1-25

Mcvey Hall- Replace Copper Roof

Project # 2504.1

ADDENDUM # 1

2/4/25

IMPORTANT: BID AND ADDENDUM MUST BE RECEIVED BY 02-25-2025 @ 3:00 P.M. LEXINGTON, KY TIME

Bidder must acknowledge receipt of this and any addendum as stated in the Invitation for Bids.

ITEM #1: BIDDER NOTICES

- Tab 10 – Specifications with Pictures has been updated completely, please refer only to the new Tab 10 attached.

ITEM #2: Pre-Bid Attendance Sign-In

- Sign In sheet from the Pre-Bid is attached.

OFFICIAL APPROVAL
UNIVERSITY OF KENTUCKY

SIGNATURE

Brian Schwegman

Contracting Officer / (859) 257-9102

Typed or Printed Name

McVEY HALL COPPER ROOF - 2025



**McVey Building
155 Graham Avenue
Lexington, KY 40506**

The following specifications, drawings, and photos are intended to be complete as to specified items and descriptions given and required. Nevertheless, should there be conflicts and omissions in the specification, the Contractor is still responsible for completion of the specification construction, renovation, installation, etc. as to the intent of the project. That means that if is specified and a listed part of the project intent, the only allowance for a change order will be for a situation(s) that is hidden and could not be determined by a preliminary inspection during the bidding process. For corrections or questions as to the specification and/or bid documents, these must be submitted to the Purchasing Agent Brian Schwegman (859-257-9102 or brian.schwegman@uky.edu) at least seven days prior the bid opening. Otherwise, the Contractor may be responsible for such items and situations after the contract is signed. All such “hidden” situations discovered during construction will be reviewed for approval by the Project Manager.

THE McVEY BUILDING

The McVey Building was constructed in 1928 with two wings each having a ballasted coal-tar roof system on a concrete deck and a copper standing-seam roof system on the center-connecting main building. A urethane-coated foam roof system was applied over the existing coal-tar roofing in 2000 (15-year warranty).

THE PROJECT

The work to be performed includes but is not necessarily all nor in the proper sequence.

1. Applying a new copper roof on the soffit belt,
2. Installing a ladder for roof access,
3. Repairing the copper on the dormers,
4. Installing a new copper roof,
5. Installing new windows in the dormers, and
6. Attic Ventilation.

McVEY HALL COPPER ROOF - 2025

SPECIFICATIONS

SECTION I	GENERAL
SECTION II	PRODUCTS/MATERIALS
SECTION III	CONTACTOR REQUIREMENTS AND QUALITY ASSURANCE
SECTION IV	COPPER ROOF
SECTION V	SOFFIT ROOF
SECTION VI	DORMER WINDOWS

SECTION I - GENERAL

1.1 Protocol

- A. Campus Protocol (includes, but is not limited to):
1. If required, a staging site will be determined prior to the start of the project.
 2. Permission is for two contractor vehicles on site (a box truck can be added with permission).
 3. There can be no parking under trees in the dripline of the branches (see additional information following at Section I, paragraph 1.9.C).
 4. All turf damage shall be returned to pre-project condition unless not required by the Grounds Superintendent and/or Manager.
 5. Private vehicles parked outside the staging area must have parking permits obtained from the Parking Division office on Press Avenue and be parked at designated parking lots on campus. A private vehicle can be one of the two allowed in the staging area (preferably not a passenger car).
 6. Without permission, no sidewalk can be parked upon or blocked by contractor vehicles.
 7. The UK is a smoke-free campus; smoking is allowed on city streets.
 8. Vulgar language and/or behavior is not acceptable on campus.
 9. With approval, after-hours and weekend work is allowed.
 10. Projects can be stopped and rescheduled due to disrupting classroom work.
 11. Classroom finals-weeks (study-for-finals week and finals week) are Quiet Weeks on campus i.e., no noise generation by work.
 12. Depending on contractor equipment and job requirements, protective staging fencing may be required (See Special Conditions – Article 16; Construction Fencing).

1.2 Vendor Appearance and Conduct

- A. All contracted vendors performing work for the University of Kentucky must dress in a professional manner. A company uniform is preferred but, if not provided, workers should wear work-attire that is appropriate and not provocative or risqué. Casual sportswear such as shorts, sweat suits, or tank tops are not appropriate apparel (this includes inappropriate statements and/or images on clothing). The attire is intended to portray the image of well-groomed and neat-looking individuals.

McVEY HALL COPPER ROOF - 2025

- B. It shall be the Contractor's responsibility to control the conduct of all his employees while on the University's campus. Professional conduct must always be displayed. Loud and disruptive conduct will not be tolerated. Cursing and abusive language is prohibited. Further, offensive language, sexual or other types of harassment of University students, faculty, staff, or visitors may result in immediate and permanent dismissal of the offending person(s) from the campus. Courtesy to others must be exercised, displaying a good attitude and character. It must be understood that any worker using or under the influence of alcohol and/or controlled substances (other than prescription medications) will not be allowed on the campus of the University of Kentucky and will be permanently dismissed from working on campus.

1.3 Safety and OSHA Requirements

- A. For all work operations and activities on the job site, whether on the ground, in the building, on a roof or in elevated work situations, the contractor shall establish, train and/or instruct his/her workers and sub-contractors to comply with all safety requirements and/or implied by local, state, and federal regulations.
1. All work shall be done in a professional manner by experienced, qualified workers.
 2. Industry standards shall dictate acceptance of all equipment, application techniques, etc.
 3. As required for safety considerations, contractors should advise field personnel concerning the use of respirators, fresh air masks, protective clothing, hazardous materials, etc.
 4. The contractor and/or subcontractors are responsible for the security of their own materials, tools, and equipment on the project site. The owner is not responsible for theft or vandalism of any such tools, material, or equipment.

1.4 Performance Requirements

- A. The contractor is expected to provide competent and experienced workers on site during the entire project. There shall be on-site supervision for all phases of the project. Inferior work will be rejected, and any such work removed and redone to the satisfaction of the Project Manager. The Project Manager's decision shall be final.
- B. Any drawing, sketch, photo, or specification is intended to establish basic project details. The contractor will be expected to make modifications to meet field conditions and to ensure the fitting of components. Owner's approval of major modifications will be required.
- C. Installation shall be done so by a firm having ten (10) years' experience in work such as that included in this specification.

McVEY HALL COPPER ROOF - 2025

1.5 Coordination

- A. Coordinate work of this section with interfacing work operations for proper sequencing and building interior protection. Contractor to ensure weather resistance of the building during the project and protection of interior materials and finishes.

1.6 Delivery, Storage, and Handling

- A. Packing, Shipping, Handling, and Unloading: Contractor shall protect all products from damage during these processes.
- B. Acceptance at Site: Owner and contractor shall examine each component and accessory as delivered and confirm that material and finish is undamaged. Damaged material shall be rejected.
- C. Storage and Protection: Contractor is responsible for the storage and protection of all materials during project duration.

1.7 Hazardous Materials

- A. Lead Paint
 - 1. Abatement completed by UK Environmental Health and Safety. Should any question arise concerning this abatement, please contact Tommy Taylor (859-257-5295).
- B. PCB's
 - 1. Abatement completed by UK Environmental Health and Safety. Should any question arise concerning this abatement, please contact Tommy Taylor (859-257-5295).
- C. Asbestos
 - 1. Abatement completed by UK Environmental Health and Safety. Should any question arise concerning this abatement, please contact Tommy Taylor (859-257-5295).

1.8 Demolition and Disposal

- A. Unless directed by this specification or instructions given on-site at the time of removal, the Contractor shall be responsible for the removal and disposal of all items associated with the removal of existing materials or equipment. For hazardous waste information see Section I paragraphs A.1.7.A, B, and C.
- B. Should the Contractor encounter hazardous materials at any given location other than those listed or described in Section I paragraphs A.1.7.A, B, and/or C, he shall cease work at that location, notify the Project Manager of the hazard, and mutually agree on a solution to the problem. The Owner shall be responsible for the abatement/removal of the material.

McVEY HALL COPPER ROOF - 2025

- C. Should there be building defects encountered (other than normal and visual) in the process of the execution of the work in this project, the contractor will notify the Project Manager and discontinue work until the Project Manager and contractor mutually agree on a solution to the unexpected problem/situation.

1.9 Collateral Damages

Note: Collateral damage applies to buildings, trees, plantings, brick pavers, walkways, turf, shrubs, ground improvements, utilities, etc.

A. Building Damages

The contractor is responsible for the repair and/or replacement of building elements damaged during the project and not included in the scope of the project (exterior and/or interior). This means to return all identified damages minimally to the existing condition prior to the start of the construction process. This damage must be repaired prior to final payment.

B. Underground Utilities Damages

Underground utility damages will be the responsibility of the Contractor. If he has used the services of 811, he can escape liability damages.

C. Pre-existing Grounds, tree, and landscape Conditions (See also Special Conditions Article 56)

1. Prior to site access and set-up in the staging area, the Contractor, the Project Manager, and the Manager of Grounds shall jointly inspect the construction site for existing pre-construction damage to trees, landscape, turf, and hardscape. The inspection shall identify:
 - a. All campus trees that might be impacted by grading, trenching, demolition, site access, building access, power washing, chemical treatments, construction parking, materials storage, and other activities.
 - b. All landscape, turf, and landscape in the construction zone and access zone that may be expendable. The Contractor will be responsibility for the replacement and restoration of damaged protected plantings, landscaping, and hardscape.
 - c. The Contractor will be responsibility for the replacement and restoration of damaged identified and protected landscaping and hardscape.
2. **Tree Protection: The Manager of Grounds or his representative will provide a plan by which the Contractor is to apply tree protection. Contact Grounds Manager (859-257-5574).**
 - a. The Manager of Grounds or his representative(s) will identify specimen trees of exceptional value because of their size, species, official designation, or role in the campus landscape will be identified.
 - b. Designated trees in the work area are to be fenced off by the Contractor to prevent undue damage to the trunks and root systems. Planting that are to (or may) be removed and not replaced as part of the project will be identified.

McVEY HALL COPPER ROOF - 2025

- c. Prior to the start of demolition work and clearing and grubbing operations, tree protection fencing shall be installed in accordance with a tree protection plan provided by the Manager of Grounds.
 - d. Contractor will be responsible for damage to the remaining plants unless prior agreement as to removal and/or trimming plantings being in the way of the project.
 - e. **All damages for which prior agreement has not been obtained will be considered collateral damages.**
3. Fencing for Tree Protection
- a. The fence required is a 6' chain-link fence with posts set in the ground.
 - For the protection of the tree(s) and its/their root system fencing shall be located outside the drip line of trees to be protected (unless otherwise approved by the Manager of Grounds).
 - Signage shall be placed on the fence stating, "FENCE SHALL NOT BE RELOCATED WITHOUT THE PERMISSION OF THE MANAGER OF GROUNDS."
 - If approved activity must take place with a designated tree protection zone.
 - Use soil compaction mitigation options of alturnamats, 1" plywood over 8"-12" woodchips, steel plates, geogrid, etc., and
 - Trunk protection (2 x 4's) strapped to trunk to prevent physical impact).
 - Trees outside the area of construction, by default, are designated as protected and, under the drip line of any tree, there shall be no activity, material storage, staging activities, or truck/equipment parking by the Contractor.
4. Root and Root Zone Pruning
- a. Root pruning of tree roots to minimize root damage, promote healing, and root regeneration.
 - Where construction will be in close proximity to existing trees designated to remain, roots shall be pruned in advance of construction.
 - Root prune lines shall be determined by the Manager of the Grounds or his representative(s).
 - Suitable means for root pruning includes compressed air or air spade excavation followed by hand pruning.
 - **Mechanical trenching is NOT an acceptable means of root pruning.**
 - It is unacceptable to excessively dislocate and tear roots or disturb the soil beyond the grading limit.
 - b. Construction Period Irrigation
 - During construction and based on specific site conditions, root pruning, and/or root disturbance, the Manager of Grounds may require irrigation of the root system.
 - The Contractor, having created the issue of the need of watering, will be responsible for the irrigation.
 - The Owner will provide the water.

McVEY HALL COPPER ROOF - 2025

5. **Careless work and activities that create damage to trees (items 1 through 3) can bring monetary penalties to the Contractor. Refer to the University Tree Protection Standard for additional information**
(<https://www.uky.edu/cpmd/design-standards/division-01---general-requirements-subgroup>) **or request copy from the Project Manager.**

1.10 Work site Access

- A. For elevating the workers, scaffolding and/or other means are acceptable to access the exterior of the building. It is expected that cleanliness and care will be exercised to protect the surrounding sidewalks, turf, and areas not affected by the construction, as well as fencing and signage redirecting/diverting pedestrian traffic around the work area(s). **Work and directional signs shall be professional signage.**

1.11 Water Pit Cautions

- A. For any work requiring materials to be brought by vehicle (i.e., truck/lifts), the contractor shall be aware of any existing water pit covers along the chosen path to and from the work site. The contractor is to proceed with caution and avoid driving over any pit covers. Water pit covers located on the sidewalks can be rated specifically for pedestrian traffic and will fracture under pressure from heavy machinery.

1.12 Quality Assurance

- A. Drawings, sketches, photos, and/or specifications are intended to establish basic project details. The contractor will be expected to make modifications to meet field conditions and insure proper fitting of components.
- B. Hidden and major modifications not specified must be approved by the Project Manager with any extra costs to be negotiated.
- C. General contractor is to insure that the building is weather tight at all times and that no damage occurs to the interior of the building during this project. In cases of negligence, the Contractor will be held liable.

SECTION II PRODUCTS/MATERIALS

2.1 Materials

- A. Copper
1. Roof copper: 16 oz. per sq. ft. (0.0216-inch thick) 24 gauge except as otherwise indicated.
 2. Solder: ASTM B 32: Provide 50/50 tin/lead or lead-free alternative of similar or greater strength.
 3. Flux: Stay Clean liquid flux or approved alternative brand.

McVEY HALL COPPER ROOF - 2025

4. Fasteners: Same metal as flashing/sheet metal or other non-corrosive metal.
5. Joint Sealant: One-part, copper compatible elastomeric polyurethane as evaluated by sealant manufacturer or copper substrates.
6. Pop Rivets: 1/8" to 3/16" diameter with solid brass mandrels. Provide solid copper rivets (tinner's rivets) where structural integrity of seam is required.
7. Sheet Copper Accessories: provide copper straps, anchoring devices, and similar accessory units as required for installation of work, matching or compatible with material being installed, noncorrosive, size and gauge required for performance.
8. Install Titanium UDL 30 Synthetic roofing felt on all roof areas min thickness: 60 mil.

B. Self-adhering Membranes

1. Titanium UDL 30 Ice Dam: For ice and water shield at all eaves, roof to wall transitions, valleys, and all penetrations.
2. Titanium PSU 30 Roof Underlayment; thickness 45-mils.
3. Hyload Self-adhering membrane: Misc. applications.
4. Butyl Tape: Tacky Tape, 1" wide by 1/4" thick

2.2 Products

A. Safety Anchors

1. Steel safety anchors shall be isolated from copper materials.



McVEY HALL COPPER ROOF - 2025

B. Snow and Ice Protection for standing seam roof

1. Snow rail system with center-pan clips/spoons
2. Single rail and two rail systems are required.
3. Center-pan snow/ice stops
4. Copper or brass
5. Suggested source:
Fine Metal roof Tech
5066 West Amelia Earhart Drive
Salt Lake City, UT 84116
Office phone: 801-462-5264



C. Caulking

1. Caulking shall be *Sherwin Williams Loxon HI One Component Low-Modulus Hybrid Class 35* or approved substitute. Substitutes shall be urethane Class 35 or Class 50.

D. Coatings

Paint shall be as supplied by Porter Paint

1. Primer shall be *PPG Seal Grip Universal Sealer/Primer* that is a low odor alkyd/oil base that will block wood tannin stains.
2. Finish shall be *Porter Paint Advantage 900 Acrylic Enamel (Semi-Gloss)* which is a waterborne, low odor, non-yellowing, and fast drying product.
3. Colors to be supplied by the University of Kentucky.

E. Ladders

1. Ladders shall be manufactured by O'Keeffe or approved substitute. Ladders shall have platforms at the top with safety rails.

SECTION III CONTACTOR REQUIREMENTS AND QUALITY ASSURANCE

3.1 General

- A. Section Includes: Copper roofing panels, specialties and accessories of shop or factory manufactured components. Includes accessories installed on and in roofing other than mechanical and structural items, such as:
1. Shop or factory manufactured miscellaneous sheet copper fascia, trim and accessories,
 2. Standing-seam copper roofing, and
 3. Specified items.

McVEY HALL

COPPER ROOF - 2025

3.2 Performance Requirements

A. Installation Requirements:

1. Contractor/Sub-Contractor is responsible for installing the entire roof system, including anchorage to substrate and necessary modifications to meet specified and drawn requirements and maintain visual design concepts in accordance with Contract Documents and following installation methods as stipulated in the "Copper in Architecture" handbook published by the Copper Development Association Inc. (CDA).
2. Contractor/Sub-Contractor is responsible to meet specified visual design concepts in accordance with contract documents and following installation methods as stipulated in the *Copper in Architecture* handbook published by the *Copper Development Association, Inc. (CDA)*.

B. Workmanship and Standards: All work to be done in a good workmanship manner and according to N.R.C.A. specifications.

1. Install new 16 oz. 0.0216" 24-gauge copper standing seam roof system.
 - a. The installation shall prevent nesting of birds, roosting of bats, and insect infestation anywhere on or in the roof system.
 - b. Install copper roofing pans with copper cleats and stainless-steel ring-shank nails.

Note: Extra cleats shall be installed at the safety anchors.
 - c. For maximum water protection, install roof with no exposed fasteners.
 - d. Copper panels shall match the existing, no striations.
 - e. Standing seam will be shop or factory-made panels with built in snap lock (profile SS4-450SLP – see following detail). All areas that are to be soldered will be pre-tinned to ensure a proper solder joint.

C. Drawings and/or photos are diagrammatic and are intended to establish basic dimensions of units, sight lines, and profiles of units. Make modifications only to meet field conditions and to ensure fitting of system components.

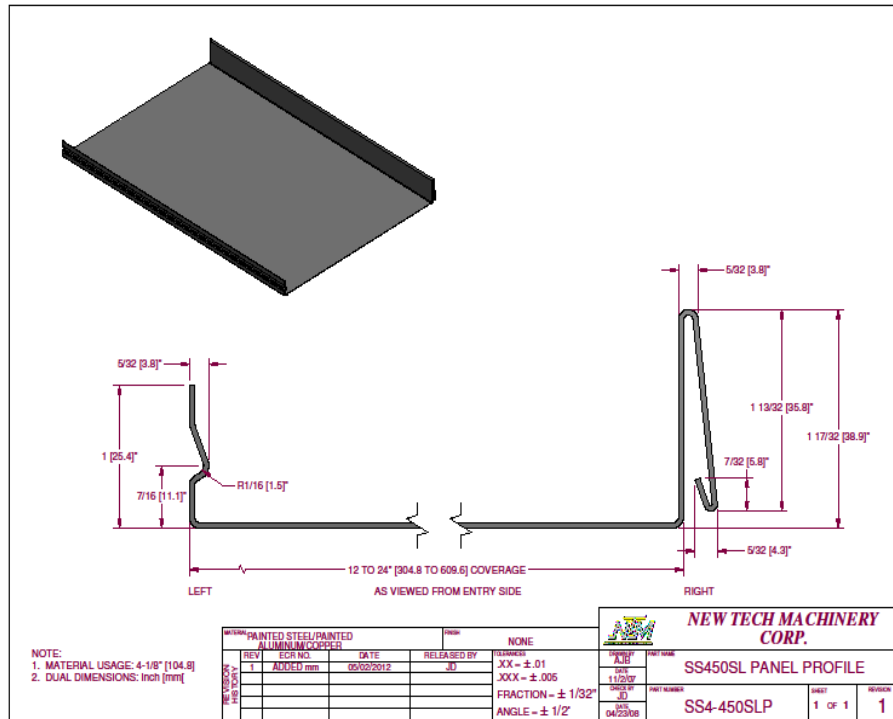
1. Obtain Owner's approval of modifications.
2. Provide concealed fastening wherever possible. Exposed fasteners shall have the Project Manager's approval.
3. Attachment considerations: Account for site peculiarities and expansion and contraction movements so there is no possibility of loosening, weakening and fracturing connection between units and building structure or between components themselves.
4. Obtain Owner's approval for connections to building elements at locations other than instructed by these specifications.
5. Accommodate building structure deflections in system connections to structure.

McVEY HALL COPPER ROOF - 2025

D. Sheet Copper Fabrication:

1. Comply with details shown and with applicable requirements of CDA “Copper in Architecture Handbook” and other recognized industry practices.
 - a. Fabricate for waterproof and weather-resistant performance, with expansion provisions for running work, sufficient to permanently prevent leakage, damage, or deterioration of the work.
 - b. Form work to fit substrates.
 - c. Form exposed sheet copper work without excessive oil-canning, buckling, and tool marks, true to line and levels indicated, with exposed edges folded back to form hems.
 - d. Fabricate to allow for adjustments in the field for proper anchoring and joining.
 - e. Roof is installed with no exposed fasteners for maximum water protection. Form sections true to shape, accurate in size, square, free from distortion and defects.
2. Seams: Fabricate nonmoving seams in sheet copper with flat-lock seams. Tin edges and cleats to be seamed, form seams, and solder. Use 1-inch-wide lapped rivet and soldered joints where required.
3. Cleats: Copper roofing pans shall be anchored allowing for longitudinal expansion and contraction using copper cleats and stainless-steel ring-shank nails.
4. Expansion provisions: Where lapped or bayonet-type expansion provisions in work cannot be used or would not be sufficiently water/weatherproof, form expansion joints of intermeshing hooked flanges, not less than 1-inch deep, filled with mastic sealant (concealed within joints).
5. Sealant Joints: Where movable, non-expansion type joints are indicated or required for proper performance of work, form copper to provide for proper installation of elastomeric sealant, in compliance with CDA standard details.
6. Separations: Provide for separation of metal from non-compatible metal or corrosive substrates by coating concealed surfaces at locations of contact, with bituminous coating or other permanent separation as recommended by manufacturer/fabricator.
7. Counter-flashing: Counter flashing shall be manufactured in conjunction with the existing foam-stop to waterproof the top edge of the new copper pans.
8. Fabrication
 - a. Form sections true to profiles indicated as to shape, accurate in size, square, and free from distortion and defects.
 - b. Shop fabricated intersections, inside corners, and outside corners with miters welded/soldered in shop prior to finishing.
 - c. Shop fabricate radius-curved corners.

McVEY HALL COPPER ROOF - 2025



E. Performance Requirements:

1. Copper roofing pans: should be anchored allowing for longitudinal expansion and contraction using stainless steel cleats and screws.
2. System shall accommodate movement of components without buckling, failure of joint seals, undue stress on fasteners, or other detrimental effects when subjected to seasonal temperature changes and live loads.
3. Design system capable of withstanding building code requirements for negative wind pressure.

3.3 Submittals

- A. As may be required, provide shop drawings or dimensioned sketches showing layout, profiles, methods of joining, and anchorage details, including major trim systems.

3.4 Quality Assurance

- A. Fabricator's Qualifications: Contractor/Sub-Contractor specializing in copper sheet metal roof specialties work with **5 years' experience** in similar size and type of installations.
- B. Installer: A firm with **10 years of successful experience** with installation of copper roof specialties of type and scope equivalent to Work of this Section.
- C. Work History: The Contractor/Sub-Contractor shall provide a list of 5 copper roofing projects within 50 miles of the University of Kentucky for inspection. The list must include the building owner and a phone number or other contact information.

McVEY HALL COPPER ROOF - 2025

- D. Industry Standard: Except as otherwise shown or specified, comply with applicable recommendations and details of the "Copper in Architecture" handbook published by the Copper Development Association Inc. (CDA). Conform to dimensions and profiles shown.

3.5 Delivery, Storage, and Handling

- A. Packing, Shipping, Handling, and Unloading: Contractor/Sub-Contractor shall protect finish metal faces.
- B. Acceptance at Site: Owner and Contractor/Sub-Contractor shall examine each component and accessory as delivered and confirm that material and finish is undamaged. Damaged material shall not be installed.
- C. Storage and Protection:
 - 1. Stack preformed material to prevent twisting, bending, and abrasions.
 - 2. Provide ventilation.
 - 3. Prevent contact with materials that may cause discoloration or staining.

SECTION IV COPPER ROOF

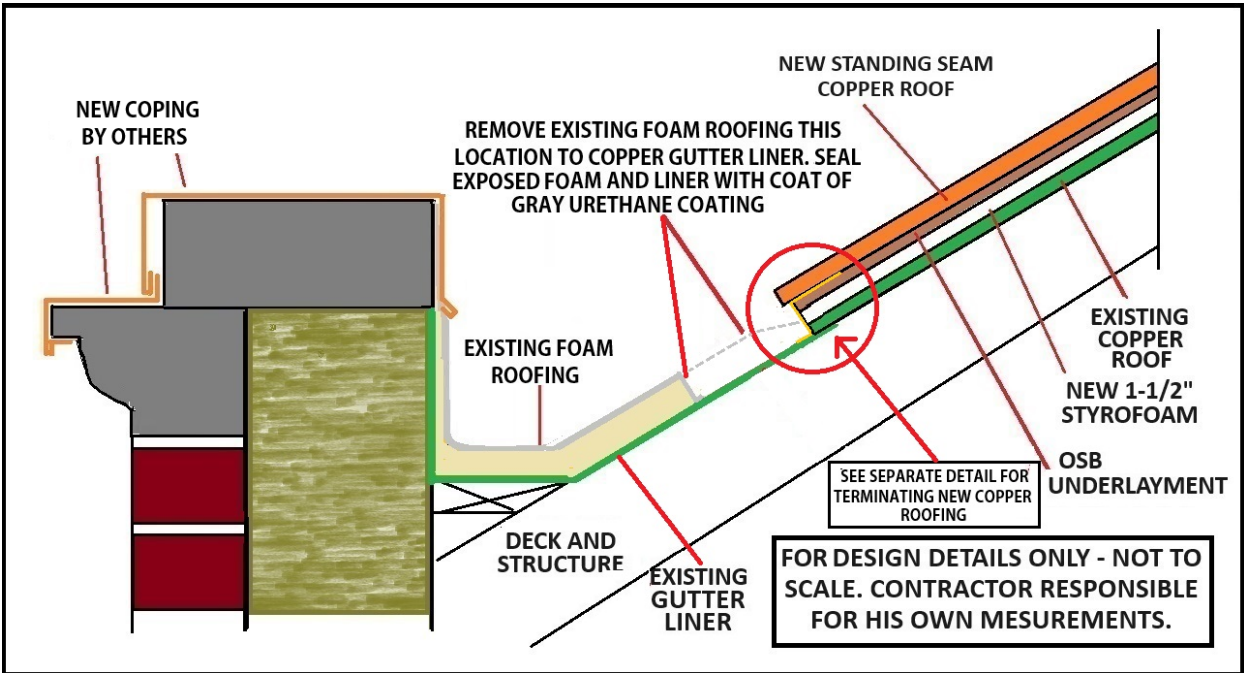
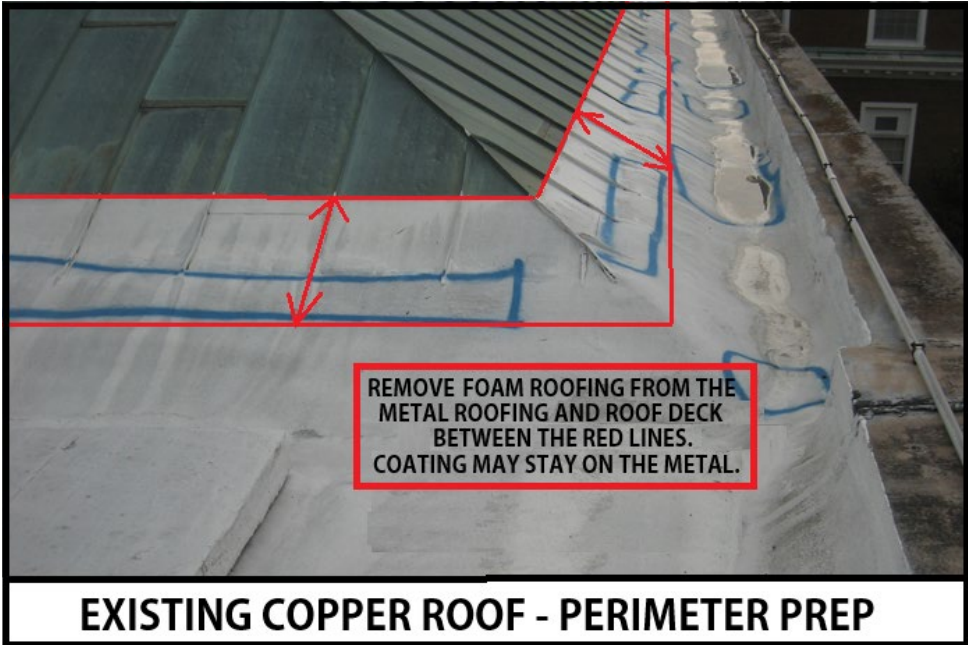
4.1 General

- A. Copper Roofing intent
 - 1. Install a new standing-seam copper roof.
 - a. Install roofing approved underlayment over the prepared deck.
 - b. Install approved ice dam underlayment around the drip edges and areas subject to ice buildup.
 - c. Roofing pans width shall match existing.
 - d. Install pans plumb, square, and free from warp or twist while maintaining dimensional tolerances and alignment with surrounding construction.
 - e. Securely anchor roof specialties to substrates with appropriate type fasteners.
 - f. Coordinate roof specialties with installation of roofing system and related flashings.
 - g. All roof joints shall be properly formed to be watertight and secure to the roof.
 - 2. Except as otherwise indicated, comply with installation instructions and recommendations of CDA "Copper in Architecture Handbook." Anchor units of work securely in place by methods indicated, providing for thermal expansion of copper units; conceal all fasteners where possible, and set units true to line and level as indicated. Install work with laps, joints and seams that will be permanently watertight and weatherproof.
 - 3. Install safety anchors at ridge locations shown elsewhere in this specification.
 - 4. Install a protective snow-rail system on the roof. See "Products/Materials" section of the specification for required snow-rail system.
 - 5. Install a life safety line along the east parapet wall.

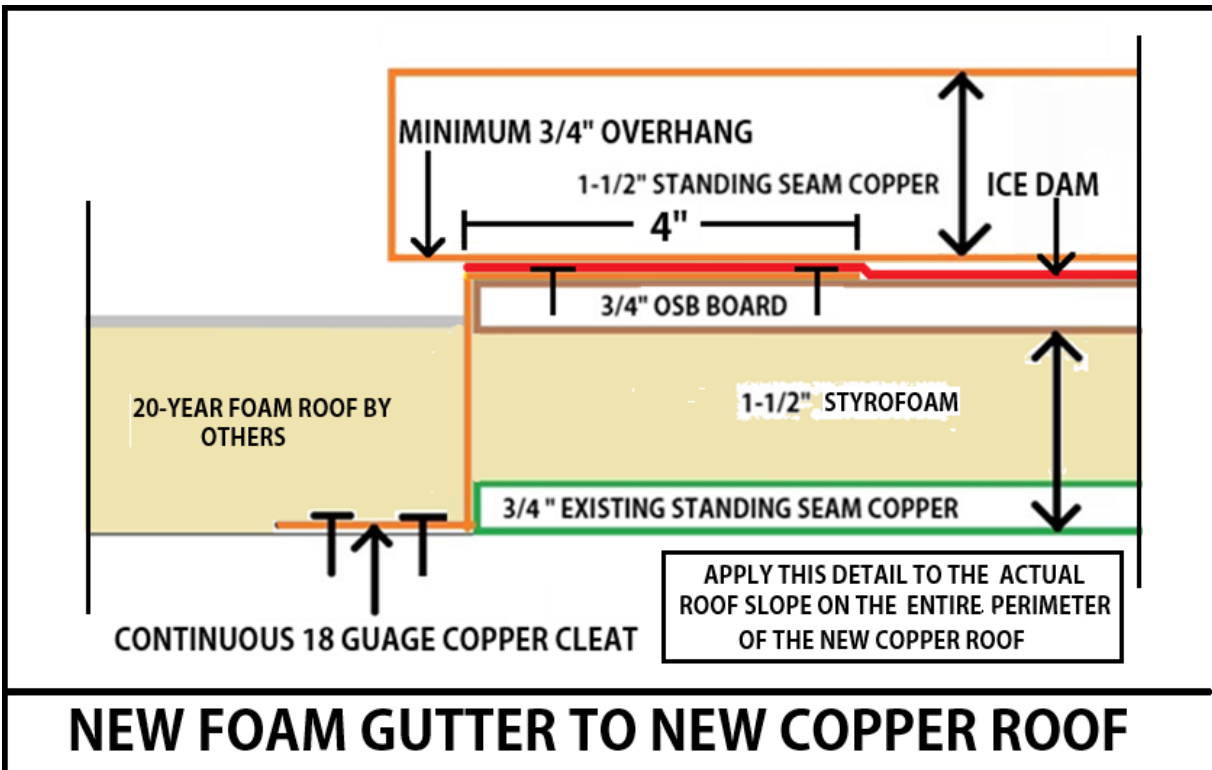
McVEY HALL COPPER ROOF - 2025

4.2 Standing Seam Copper Roof

- A. McVey copper roof specific construction details, including the following, but not necessarily all nor listed sequentially.
1. The existing copper roof with 3/4" standing seams is to remain in place,
 2. Remove all foam from the existing copper roofing – includes the hip roof portions also (see detail below),



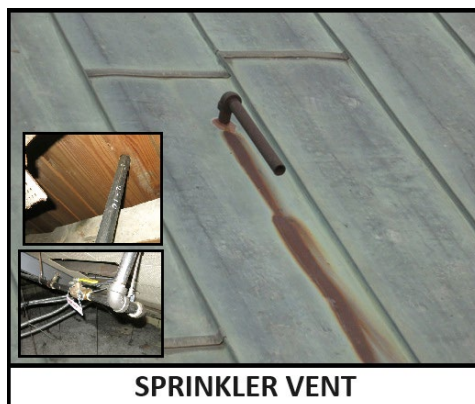
McVEY HALL COPPER ROOF - 2025



3. Install 1-1/2" Styrofoam insulation between the existing standing seams,
4. Install OSB and anchor to deck using I-90 standard,
5. Apply a self-adhering ice dam membrane minimum 2' upon the bottom portion of the OSB board,
6. Install underlayment and standing seam roofing.

4.3 Sprinkler Vent Pipe

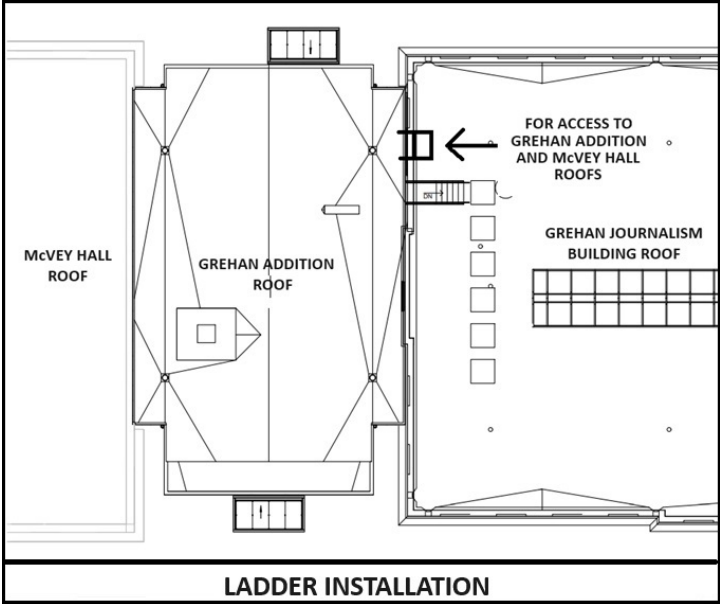
- A. Replace the steel sprinkler vent pipe through the copper roof with a stainless steel or copper pipe.



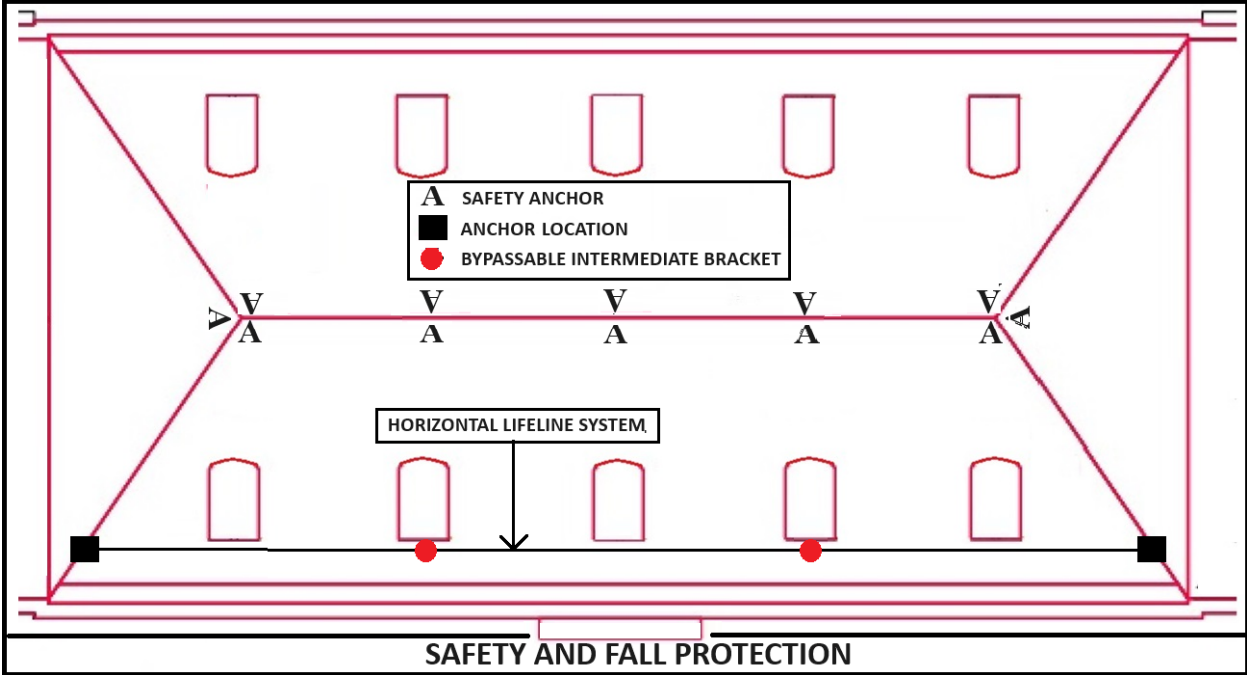
McVEY HALL COPPER ROOF - 2025

4.4 Rooftop Ladder

- A. Install a ladder on the roof of the Grehan Building for access for personnel only to the top roof of Grehan and McVey Hall.



4.5 Roof Safety



McVEY HALL COPPER ROOF - 2025

A. Fixed Safety Anchor



1. Install fall protection devices at the indicated locations.
2. Safety anchors must be placed on both sides of the ridge cap to prevent ridge cap damage due to “cross-over” attachments.

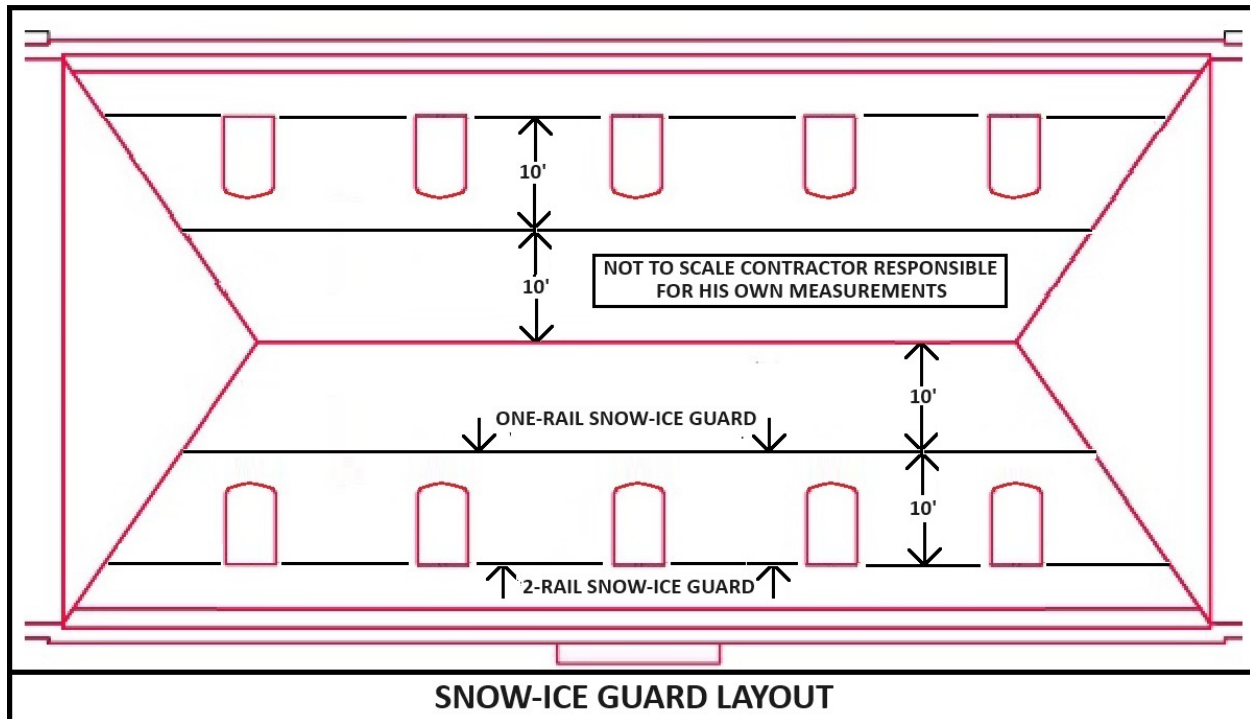
B. Lifeline System along and in front of the dormers on the east elevation of the new copper roof.

1. Install a 3M™ DBI-SALA® Permanent Multi-Span Horizontal Lifeline System
2. 80-foot length stainless-steel cable (Galvanized if stainless-steel not available).
3. Install anchors and intermediate brackets at locations shown in drawing.
4. Provide minimum four (4) cable sleeve tie-off units – two (2) at each end.



McVEY HALL COPPER ROOF - 2025

4.6 Snow/Ice Guards



A. Standing Seam Copper Roof Copper/Brass Snow/Ice Guards

Note: The foam valleys below the copper roofing must be protected from damaging ice-flow down the copper roof surfaces; therefore, snow/ice guards shall be installed on each side as follows:

1. A 2-rail guard shall be installed in-line and between the dormer faces and extend outward to the hip roofs on each end.
2. Above the two-rail snow/ice guard and half-way up each side, a second 1-rail snow/ice guard shall be installed and extend from hip roof to hip roof.
3. Dormers roofs will not require snow/ice guards.
4. Hip roofs will not require snow/ice guards.

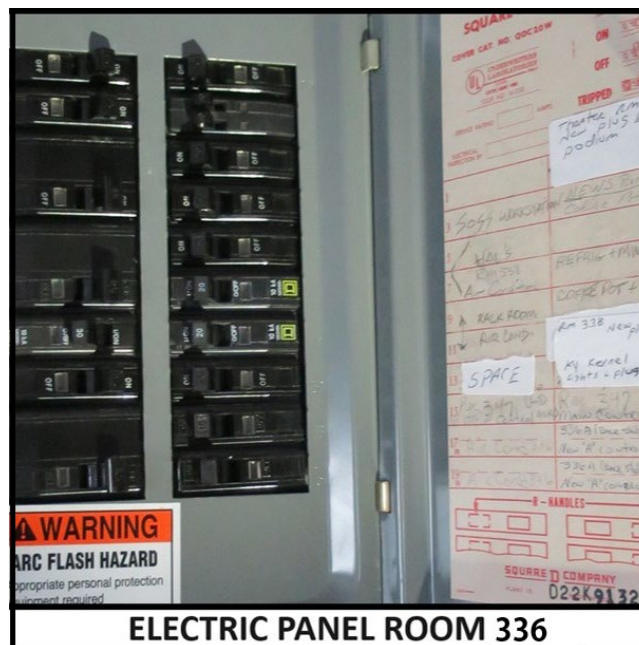
4.7 Attic Ventilation

A. Attic venting (10 air changes per hour)

1. The second and fourth west dormers windows shall be fitted as follows:
 - a. Intake (north) dormer shall match the other dormer window framing installations and shall be:
 - Fitted with a window frame to match the dormer windows (see SECTION VI-Dormer Windows),

McVEY HALL COPPER ROOF - 2025

- Fitted with a full-sized aluminum weatherproof aluminum louver in the window framing,
 - Louver finish shall be powder coated “Bone White”,
 - With two-inch opening between vanes being set at 45-degree angles, and
 - Have insect and bird screening.
 - (Contractor may submit an alternate louver layout for approval).
- b. Exhaust louver (south) dormer shall match the other dormer window framing installations and shall be:
 - Fitted with a full-sized aluminum weatherproof aluminum louver in the window framing,
 - Louver finish shall be powder coated “Bone White”,
 - With two-inch opening between vanes being set at 45-degree angles, and
 - Have insect and bird screening.
 - Install a foam utility panel on the inside of the louvre with a cutout for the exhaust fan diameter,
 - (Contractor may submit an alternate louver layout for approval).
 - Install a 350 CFM attic exhaust fan in the center of the utility panel,
 - Install a disconnect switch adjacent to the exhaust fan,
 - Install a 90-degree automatic switch eye-level in the center of the attic space,
 - Switch shall be placed on the walk plank level,
 - Extend fan electric circuit to the breaker panel in Room 336, and
 - Mount a sail switch on the fan and run a circuit and flush mount a pilot light beside the electric panel in 336 indicating when the exhaust fan is running.
 - (The Contractor is free to submit his own calculations and proposal for approval for an exhaust fan CFM).



McVEY HALL COPPER ROOF - 2025

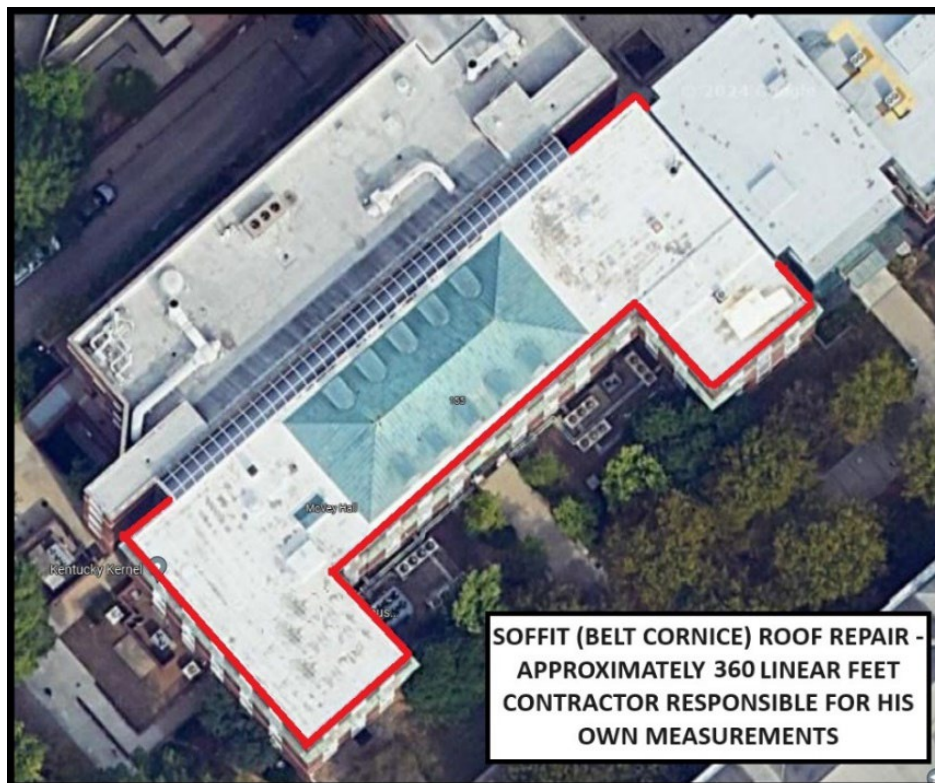
b. Electrical

All electrical work shall be installed by current National Electrical and local codes and the University of Kentucky electrical construction standards. All electrical work shall be inspected and approved by the Kentucky State Electrical Inspector. The Project Manager shall contact the Manager of Area 4, Steve Drury (859-333-2063), to provide the authorized representative for review of the Contractor's work as to the University's Electrical standards. As part of the electrical removals and additions, all electrical components (wiring, breakers, conduit, disconnects, etc.) are included to satisfy all codes. An Electrical Inspection Certificate will be required and provided to the Project Manager for all electrical work associated with the project.

SECTION V SOFFIT ROOF

5.1 Soffit Belt Cornice Reroof

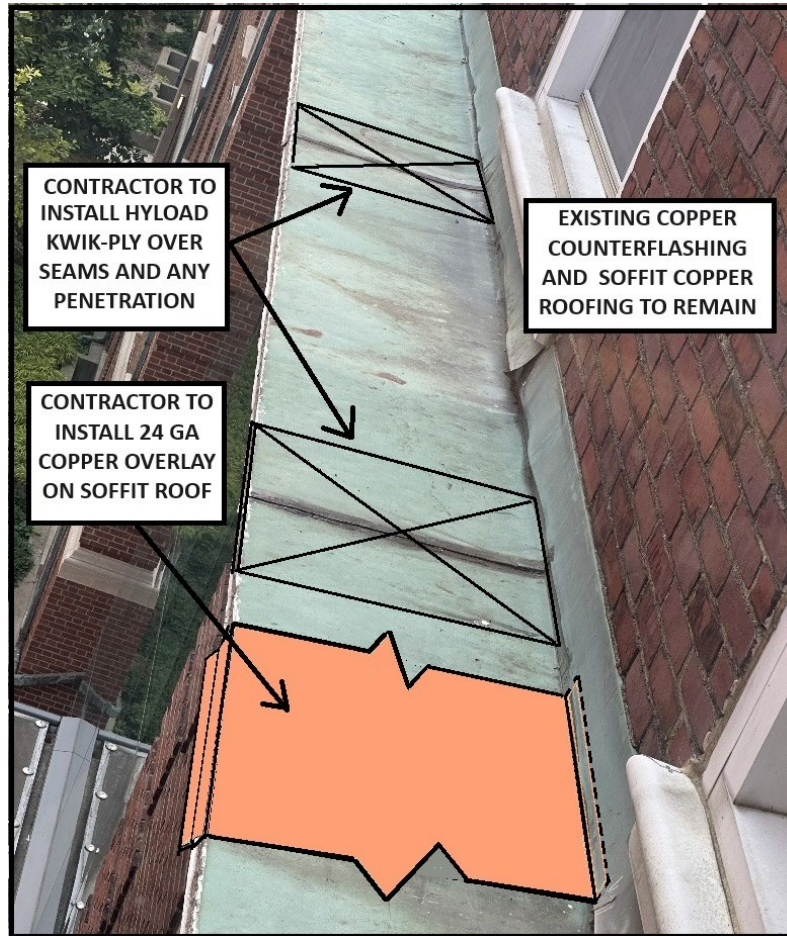
- A. McVey Hall's soffit belt extends around the building as shown in the photo below. The existing flashing and the existing roof/cover will remain in place.
1. The existing flashing shall have existing open or gaping overlaps pop-riveted closed.
 2. A new copper roof/cover is to be installed.
 3. Drip edge shall extend minimum ½" below the crown molding.



McVEY HALL
COPPER ROOF - 2025



McVEY HALL COPPER ROOF - 2025



B. Cleaning

1. Remove protective film (if any) from exposed surfaces of copper promptly upon installation and strip with care to avoid damage to finishes.
2. Clean exposed copper surfaces, removing substances that might cause corrosion of copper or deterioration of finishes.
3. Upon completion of each area of soldering, carefully remove flux and other residue from surfaces. Neutralize acid flux by washing with baking soda solution, and then flush clear water rinse. Use special care to neutralize and clean crevices.
4. Clean and expose metal surfaces of substances that would interfere with uniform oxidation and weathering.

C. Protection

1. Contractors shall be required to provide surveillance and protection of flashing and sheet copper work during construction to ensure that work will be without damage or deterioration other than natural weathering at time of substantial completion.

McVEY HALL COPPER ROOF - 2025

D. Warranty

1. The Contractor shall warrant the installed system and components to be free from defects in material, workmanship, and leaks for period of 5 years. Written warranty document shall be presented to the Owner upon completion and acceptance of the new roof system.

SECTION VI DORMER WINDOWS

6.1 Dormer Repairs

- A. With inspection and approval of the Project manager, side and facial dormer panels may remain in service with following exceptions:
 1. Side and facia panel must be approved to remain without required repairs.
 2. New windows are to be installed and the window framing (copper) shall be configured to the specifications of the new windows.
 3. New sill flashing shall be installed that serves as thru wall flashing for the new windows and proper functions with the new copper roofing.
 4. Extraneous waterproofing materials are to be removed from the dormers and proper copper repairs made.
 5. New sheet copper shall be applied to the tops of the dormers with proper underlayment.
 6. With the exception of the new dormer roofs, all exposed new copper on the dormers is to be treated for rapid production of patina.

6.2 Dormer Windows

- A. This project is for the replacing of the dormer windows in McVey Hall. The project includes but is not limited to.

Note: The photos shown in this specification have the original transite panels and hidden windows in place. When the project is either bid or ready for window installation, all hazardous materials will have been abated by others and a plywood panel or a waterproofing material in place.

1. Preparing the window openings to receive the new windows (see paragraph 6.1),
2. Installing new specified windows,
3. Completing all specified work,
4. Repairing all collateral damages interior and exterior, and
5. Site clean-up and inspection.

**McVEY HALL
COPPER ROOF - 2025**

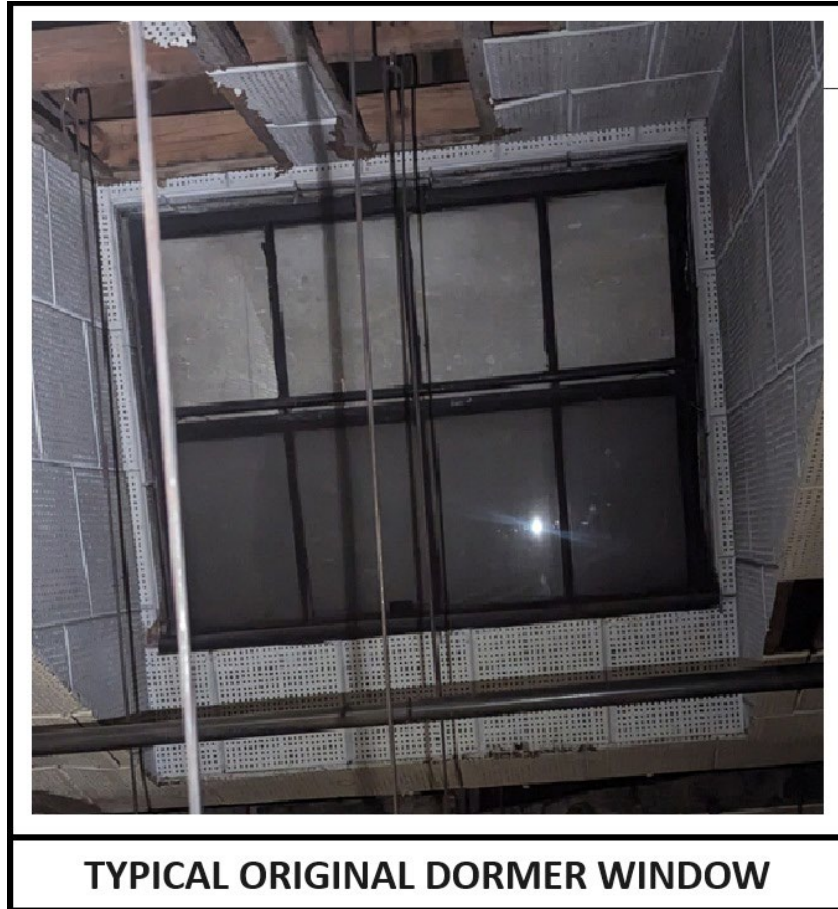


DORMER WINDOWS - TYPICAL EXISTING



TYPICAL PANEL OVER EXISTING DORMER WINDOW

McVEY HALL COPPER ROOF - 2025



6.3 Quality Assurance

- A. Provide test reports from an AAMA certified laboratory verifying performance as specified in Paragraph 6.4.
 - 1. Provide test reports and window manufacturer's letter of certification showing compliance with AAMA/WDMA/CSA 101/I.S.2/A440-08 and AAMA 910-93 for the appropriate window type.
 - 2. Test reports shall be no more than four years old.
 - 3. Any drawing, sketch, photo, or specification is intended to establish basic project details. The Contractor will be expected to make modifications to meet field conditions and to ensure the fitting of components or construction results. Owner's approval of major modifications will be required.

6.4 Aluminum Windows

- A. Materials
 - 1. Extruded aluminum shall be 6063-T5 or T6 alloy and tempered.
 - 2. Fasteners

McVEY HALL COPPER ROOF - 2025

- a. Fasteners shall be aluminum, non-magnetic stainless steel, or other materials warranted by the manufacturer to be non-corrosive and compatible with aluminum window members, trim, hardware, anchors, and other components of the window units.
- b. Exposed fasteners shall not be permitted on exterior except where unavoidable for the application of hardware.
3. Weather-strip
 - a. Provide double weather-stripping using silicone-coated woven pile with polypropylene fin center complying with AAMA 701.
4. Thermal Barrier
 - a. All exterior aluminum shall be separated from the interior aluminum by an integrally concealed, low-conductor structural thermal barrier in a manner that eliminates direct metal-to-metal contact.
 - b. Thermal barrier de-bridge space shall not be less than 3/16”.
 - c. Thermal barrier shall be poured-in-place two-part polyurethane that has been in use on similar units for a period of not less than two years and has been tested to demonstrate:
 - d. Resistance to thermal conductance and condensation.
 - e. Adequate strength and security of glass retention.
5. Hot Melt Silicone and Glazing Beads
 - a. Hot Melt Silicone shall conform to AAMA 800 specification.
 - b. Glazing beads shall be extruded aluminum and shall be of sufficient strength to retain the glass.
6. Sealant
 - a. Sealant shall be non-shrinking, non-migrating elastomeric type conforming to AAMA 803 and AAMA 808.

6.5 Fabrication

- A. General
 1. Units shall be able to be re-glazed without dismantling the master or sash frame.
 2. All aluminum frame and sash extrusions shall have a minimum wall thickness of 0.080.” Sill of master frame shall have a minimum wall thickness of 0.094.”
 3. Mechanical fasteners, welded components, and hardware items shall not bridge thermal barriers. Thermal barriers shall align at all frames and sash corners.
- B. Frame
 1. Master frame shall be 3 ¼” depth.
 2. Frame components shall be mechanically fastened.
- C. Sash
 1. Sash frame shall have a minimum wall thickness of 0.080.”
 2. Sash frame horizontal extrusions shall be of tubular design.
 3. Mitered sash corners shall be mechanically fastened.
- D. Screens (if specified)
 1. There will be no screens in this project.

McVEY HALL COPPER ROOF - 2025

Finish

1. Fluropon® (AAMA #2605)
 2. 10-year warranty
 3. Color “Bone White”
- E. Glass and Glazing
1. All units should be factory-glazed.
- F. Panning
1. There will be no panning in this project.

6.6 Testing and Window Performance Requirements

- A. Units shall comply with air, water and structural requirements as specified in AAMA/WDMA/CSA 101/I.S.2/A440-08 and AAMA 910-93 for type and classification of window units required.
- B. Windows shall conform to all AAMA/WDMA/CSA 101/I.S.2/A440-08 and AAMA 910-93 requirements for the type and classification of window units required. In addition, the following performance criteria must be met:
1. Air Infiltration Test
 - a. With the window sash closed and locked, test unit in accordance with ASTM E 283 at a static air pressure difference of **6.24** psf.
 - b. Air infiltration shall not exceed **<0.3** cfm per square foot of crack.
 2. Water Resistance Test
 - a. With window sash closed and locked, test unit in accordance with ASTM E 331 & ASTM E 547 at a static air pressure difference of **10** psf.
 - b. There shall be no uncontrolled water leakage.
 - c. Uniform Load Structural Test with window sash closed and locked, test unit in accordance with ASTM E 330 at a positive and negative static air pressure difference of **75** psf.
 - d. There shall be no glass breakage, permanent damage to fasteners, hardware parts, support arms, or actuating mechanisms, or any other damage that would cause the window to be inoperable.
 - e. There shall be no permanent deformation of any mainframe, sash, panel, or sash member in excess of L/175 of its span.
 3. U Value: **.355**

McVEY HALL COPPER ROOF - 2025

6.7 Warranties

A. Manufacturers Warranties

1. Submit written warranties from window manufacturer for the following:
 - a. Windows furnished are certified as fully warranted against any defects in material or workmanship under normal use and service for a period of **five (5) years** from date of fabrication.
 - b. The pigmented organic finishes on windows and component parts (such as panning, trim, mullions, and the like) are certified as complying fully with the requirements of the AAMA **260X** specification and fully warranted against chipping, peeling, cracking, or blistering for a period of **ten (10) years** from date of installation.
 - c. The insulation of glass units shall be warranted from visual obstruction due to internal moisture for a period of **ten (10) years**. The manufacturer shall furnish a test report and notice of product certification from an independent laboratory showing compliance per ASTM E 2190-02 as pass/fail.

6.8 Execution

A. Job Conditions

1. At locations designated, furnish, and install aluminum architectural windows complete with hardware and related components as shown on drawings and specified in this document.
2. Contractor is responsible to measure openings and verifying that openings are dimensionally within allowable tolerances, plumb, level, clean, provide a solid anchoring surface, and are in accordance with the approved shop drawings.

Note: Should there be building defects encountered (other than the normal and visual) in the process of installation of the new windows the Contractor shall notify the Project Manager and continue the installation of windows at other locations. The Project Manager and the Contractor shall mutually agree on a solution to the unexpected issue.

B. Installation

1. Work to be completed in accordance with the approved shop drawings and specifications by skilled tradesmen.
2. Set units plumb and level in a single plane for each wall plane without warp or rack of frames or sash. Adequately anchor units in place separating aluminum and other corrodible surfaces from sources of corrosion or electrolytic action.
3. Where panning is installed, it shall be of the same or similar design as the existing window framing contours it covers and shall be factory provided.
4. Contractor to install new interior-perimeter window opening trim if damaged in the installation and/or existing trim is damaged prior to window installation process.

McVEY HALL COPPER ROOF - 2025

5. All interior damages to framing, paint, and window stools shall be repaired to match existing,
6. Adjust window units for proper operation after installation.
7. Furnish and apply sealants to provide a tight installation.
8. Leave all exposed surfaces clean, smooth, and free of debris.

C. Anchorage

1. Adequately anchor to maintain permanent position when subjected to normal movement and loading.

D. Interior framing and trim

1. Other than perimeter stops installation and/or replacement, there will be no interior work required. Contractor created interior damage repairs excepted.

E. Cleaning and Protection

1. After completion of installation, units shall be inspected, adjusted, and promptly cleaned to prevent damage to finish or glazing.
2. Remove excess sealant, labels, dirt, and other substances.
3. Initiate all protection and other precautions required to ensure that units will be without damage or deterioration at time of acceptance.
4. Once the protective film is removed, apply a coating of WonderGlass to the outside surfaces of the glass. (http://wonderpaint.com/downloads/WP_WonderGlass-TechSheet.pdf).
5. Cleaning includes a final inspection and cleaning of the glass surfaces inside and out.

6.9 Submittals

- A. Prior to manufacture of the windows, submit shop drawings, finish samples, test reports, and warranties.
 1. Shop drawings to be supplied shall indicate, including, but not necessarily limited to, type of design, glazing, and window finish.
 2. Other samples may be requested if so directed by the Project Manager.

6.10 Window Design Specifications

- A. Fixed Window Type A (Dormer Window)
 1. Windows shall be a custom fixed window model Winco 3250 Historic Replica 3 ¼” depth. Fixed windows shall be manufactured as specified (see additional information in specs). Window shall remain as fixed and adhere to replacement information within this specification. Replacement windows shall maintain a minimum Thermal rating AW-PG80-H (design shall be UK Specific – no substitutes).
 2. Finish color shall be Bone White.
 3. Sash shall have 1” insulated Glass Units:
 - a. Internal glass 3/16” clear (See additional information elsewhere in specs)

**McVEY HALL
COPPER ROOF - 2025**

- b. External glass 3/16" Gray tint with PPG SolarBan 60 soft coat Low E on the #2 surface
- 4. Sash shall have **external putty grid only.**
 - a. Applied external-grid shall be Part #SR-12 (1" W x 1.25" D).
- 5. Sash shall have tamper-proof screws,
- 6. Sash shall have aluminum glazing beads,
- 7. Sash shall have Mill WE spacer,
- 8. No screens are required, and
- 9. Contractor should provide shop drawing/cut sheets/details prior to manufacturer.
- 10. Window Fixed Type
 - a. Eight (8) windows
 - b. Rough dimensions: 4'-2" x 3'-2 1/2 "

Note: "All rough dimensions" listed are given only for the Bidders information as to the general size of the opening and is not to be used as the actual size of any window or louver to be installed in the McVey Hall project. Contractor responsible for his own measurements and count.

END SPECIFICATION

PRE-BID MEETING AGENDA
McVey Hall Cooper Roof
CCK-2504.1-1-25

Template Updated: November 2024

Date/Time: 2/4/25

Location: McVey Hall

SIGN IN SHEET			
Name	Organization	Phone	E-mail address
DON TURNER	DURABLE RESTORATION	240 470 9136	TURNER@DURABLERESTORATION.COM
NORAH HUFFMAN	NRFC	710 863 0483	nhuffman@nwrble.net
HAN FRANKENBURGER	WHOLE DEMO	851-354-5731	matfe rde@VCS.COM
DORCH	CEI	859-541-0304	dorch@mis.net
Logan Shott	ARM	302-681-3745	lshott@americanroofingonline.com
Dick Freitag	The Tradesmen Group	614-406-9127	dfreitag@tradesmenroofing.com
Dustin Taylor	Graves Roofing	859-681-8146	dave@gravesroofing.net
BRIAN SCHNEGEMAN	UK PURCHASING		
SUANN REECE	UK PURCHASING		
Triston Fitzpatrick	Barrier Roofs	4592001489	triston@barrierroofs.com
DANIEL JUNK	UK FM		
DAN E. GUTER	CEI	859-388-0278	GUTERDAN@GMAIL.COM

