



RFP #836-19P Quigley Roof Replacement

**Addendum 001
Issued February 22, 2019**

1. Will a core sample be taken of the roof in order to determine the build up on the roof and what is being torn off?

CMC will take a core sample and, once results are in, will provide to the contractors at the Walkthrough. Anticipated date of receipt is February 25. At that time, the date to submit the proposal will be extended.

2. Will there be an addendum for the metal roof removal and reinstall?

See attached ADD ALTERNATE-836-19P for information on the removal and replacement of selected areas with high pitch metal roofing.

3. Some of the specs state 5" insulation, but the R-Value is 30, which is 5.2". Are you looking to stay at the 5" insulation or go for 5.2" for the R-30.

Provide depth of insulation required to achieve minimum R-value of 30 as required by IECC 2015.

4. Provide R value.

See response to question 3

5. Is the roof structurally tapered or will it require a full taper system?

It will require a full taper system.

6. If a full taper system is required then certain areas require more modifications, i.e. the wooden door on the lower roof will have to be sawed to accommodate the new height of the roof, the counter flashings will have to be raised in multiple areas, including the area near the large window on the west side of the building (between the two sloped metal roofs). Basically, clearance will be a concern where large taper will be added on top of the 5.2" flat insulation required.

Contractor shall provide full tapered system including necessary modifications. Refer to submittal requirements for Architect/ Owner review of submitted tapered insulation plan in Specifications. (07220-Roof Insulation 1.4)

7. Johns Manville, 60 mil EPDM NR, is shown in the specification as the Basis of Design with the color indicated as "Grey or White". Johns Manville does not manufacture EPDM membranes in Grey or White, JM only manufactures EPDM in Black.

Black EPDM is acceptable.

8. Is Carlisle "Sure-White" EPDM an acceptable alternate?

Based on what? No Substitution documentation was submitted prior to bid, per requirements, as clearly stated in Specification Section 01600.

9. Because snow was largely covering the roof areas at the time of the site visit, no cores were taken during the site visit to determine the roofing assembly. Please provide core data in order to accurately establish removal cost.

See response to Question 1.

10. There are no asbestos findings included in the RFP. Will CMC be providing asbestos testing and documentation prior to the bid due date?

CMC will test for asbestos and, once results are in, will provide to the contractors at that Walkthrough. At that time, the date to submit the proposal will be extended.

11. Detail 4/DR2 indicates very minimal clearance from roof surface to "shaped metal coping cap". It is unlikely that the membrane manufacturer will accept this minimal clearance. Additionally, Presto-Lock is unavailable in this configuration. Can this detail be altered to provide a standard, square parapet profile to meet the 8" manufacturer minimum and to maintain the ability to use Presto-Lock pre-manufactured coping?

Bid as is. In cases of potential conflict, Contractor shall bid assemblies approved by the warranting EDPM Manufacturer.

12. Are there any restrictions on site and / or building access for Roofing Contractor's employees?

No significant restrictions that CMC is aware of.

13. Will Background Checks or Badging by CMC be required?

No.

14. Please indicate access points for building and set aside area for material laydown. A Master Staging map for all Summer of 2019 projects will be provided to the selected bidder.

15. What are the available working hours for the roofing crew? Will work be permitted on weekends? Holidays?

Hours are 7:00 a.m. – 7:00 p.m. and work can take place on weekends and holidays.

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SECTION 07410- STANDING SEAM ROOF PANELS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Work described in this section includes pre-formed metal roofing system complete with clips, perimeter and penetration flashing, and closures.

1.2 RELATED SECTIONS

- A. Drawings and general provisions of the Contract, including Division 1 Specification Sections apply to this section.
- B. Related work:
 - 1. Preparation for Roofing.
 - 2. Roof and Deck Insulation.
 - 3. Flashing and Sheet Metal.
 - 4. Vapor Barrier.
 - 5. Roofing Membranes.

1.4 SUBMITTALS

- A. Any material submitted as equal to the specified material must be accompanied by a copy of the manufacturer's standard specification section. That specification section shall be signed and sealed by a professional engineer licensed in the state in which the installation is to take place. Substitution requests containing specifications without licensed engineer certification shall be rejected for non-conformance.

1.5 SUBMITTALS

- A. Shop Drawings
 - 1. Show roofing system with flashings and accessories in plan, sections and details. Include metal thickness' and finishes, panel lengths, joining details, anchorage details, flashings and special fabrication provisions for termination and penetrations; thermal expansion provisions and special supports.
 - 2. Indicate relationships with adjacent and interfacing work. Indicate fastener types and spacing; and provide fastener pullout values.
 - 3. Shop drawings must be completed by the metal panel manufacturer's engineering department.
- B. Product Data: Include manufacturer's detailed material and system description, sealant and closure installation instructions, engineering performance data and finish specifications. Indicate fastener types and spacing; and required fastener pullout values.
- C. Samples: Provide samples of the following materials and system components. Samples shall be of identical material type, thickness, panel width, and material grade/alloy/temper as the system specified for this project.

1.6 QUALITY ASSURANCE

- A. Manufacturer Approval: This specification is based on the performance characteristics of the system identified.
- B. Engage an experienced metal roofing contractor (erector) to install standing seam system who has a minimum of three (3) years experience specializing in the installation of structural standing seam metal roof systems.
- C. Contractor must be certified by manufacturer specified as supplier of structural standing seam system and obtain written certification from manufacturer that installer is approved for installation of specified system.
- E. Successful contractor must obtain all components of roof system from a single manufacturer.

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1.7 DELIVERY, STORAGE, AND HANDLING

- A. Manufacturer's responsibility:
 - 1. Protect components during fabrication and packing from mechanical abuse, stains, discoloration, and corrosion.
 - 2. Provide protective interleaving between contact areas of exposed surfaces to prevent abrasion during shipment, storage, and handling.
- B. Installer's responsibility:
 - 1. Store materials off ground providing for drainage; under cover providing for air circulation; and protected from wind movement, foreign material contamination, mechanical damage, cement, lime or other corrosive substances.
 - 2. Handle materials to prevent damage to surfaces, edges and ends of roofing sheets and sheet metal items. Damaged material shall be rejected and removed from the site.
 - 3. Protect panels from wind-related damages.
 - 4. Inspect materials upon delivery. Reject and remove physically damaged or marred material from project site.
 - 5. Protective film on roof panels must be removed in a period of time which allows for FULL removal of all film. If any film residue remains on panel(s), it is the installer's responsibility to properly clean and remove residue at owner's request. Note: Cure time may vary based on environmental conditions.

1.8 JOB CONDITIONS

- A. Determine that work of other trades will not hamper or conflict with necessary fabrication and storage requirements for pre-formed metal roofing system.
- B. Protection:
 - 1. Provide protection or avoid traffic on completed roof surfaces.
 - 2. Do not overload roof with stored materials.
 - 3. Support no roof-mounted equipment directly on roofing system.
- C. Ascertain that work of other trades which penetrates the roof or is to be made watertight by the roof is in place and approved prior to installation of roofing.

1.9 DESIGN AND PERFORMANCE CRITERIA

- A. Thermal Expansion and Contraction.
 - 1. Completed metal roofing and flashing system shall be capable of withstanding expansion and contraction of components caused by changes in temperature without buckling, producing excess stress on structure, anchors or fasteners, or reducing performance ability.
 - 2. The design temperature differential shall be not less than 200 degrees F.
 - 3. Interface between panel and clip shall provide for unlimited thermal movement in each direction along the longitudinal direction.
 - 4. Location of metal roofing rigid connector shall be at roof ridge unless otherwise approved by the Project Architect. Metal ridge connector may require design as per job conditions by specified manufacturer.

1.10 WARRANTIES

- A. Owner shall receive one (1) warranty from manufacturer of roof panels covering all of the following criteria. Multiple warranties are not acceptable.
 - 1. Manufacturer's 30 year watertight warranty, including coverage for all trim, flashings, and penetrations associated with the standing seam roof area.
 - 2. 20 year coverage on finish including checking, crazing, peeling, chalking, fading and/or adhesion.
 - 3. Warranty shall commence on date of substantial completion or final payment, whichever is agreed by contract.

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4. Installer shall provide manufacturer with 2 year warranty covering roofing system installation and watertightness.

PART 2 PRODUCTS

2.0 STANDING SEAM ROOFING SYSTEM

A. General.

Whenever a particular make of material, trade name and/or manufacturer's name is specified herein, it shall be regarded as being indicative of the minimum standard of quality required. A bidder who proposes to quote on the basis of an alternate material and/or system will only be considered if the proposed alternate is submitted on time and is documented as being equivalent or superior in quality to the specified system.

B. Materials.

1. Panel Material: 24.ga 18". Galvanized steel, G90, smooth as per ASTM A653-96.
2. Flashing and flat stock material: Fabricate in profiles to seal system

C. Finish on surfaces:

1. Exposed surfaces for coated panels:
 - a. Two coat coil applied, baked-on full-strength (70% resin) fluorocarbon coating system (polyvinylidene fluoride, PVF2), applied by manufacturer.
 - b. Color to be determined.

D. Characteristics:

1. Provide the same panel profile from a single manufacturer for all standing seam roof areas.
 2. Provide standing seam panels incorporating mechanically interlocked, concealed anchor clips allowing unlimited thermal movement, and of configuration which will prevent entrance or passage of water.
 3. Seam shall have anchor reveals to allow anchor clips to resist positive and negative loading and allow expansion and contraction of panels due to thermal changes.
2. Fasteners:

E. Concealed fasteners: Corrosion resistant steel fasteners (zinc plated, stainless steel or equal) designed to meet structural loading requirements. Provide #14 as the minimum fastener size.

F. Exposed fasteners: Series 410 stainless steel fasteners or one-eighth (1/8) inch diameter stainless steel waterproof rivets. All exposed fasteners shall be factory painted to match the color of the standing seam panels.

G. Closures: Factory precut closed cell foam meeting ASTM D1056 or ASTM D3575, enclosed in metal channel matching panels when used at hip, ridge, rake, and jamb.

H. Provide all miscellaneous accessories for complete installation.

2.1 ACCESSORY PRODUCTS

A. Sealant:

1. Acceptable product:
 - a. Concealed Application : Non-curing butyl sealant or equal.
 - b. Exposed Application : SS sealant or equal.
2. Colors: As selected by architect from sealant manufacturer's standard selection.

2.2 FABRICATION

- A. Shop fabricate metal roofing and flashing components to the maximum extent possible, forming metal work with clear, sharp, straight, and uniform bends and rises. Hem exposed edges of flashings.

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- B. Form flashing components from full single width sheet in minimum ten (10'-0") foot lengths. Provide mitered corners, joined using closed end pop rivets and joint sealant.
- C. Fabricate roofing and related sheet metal work in accord with approved shop drawings and applicable standards

PART 3 EXECUTION

3.1 PREPARATION

- A. Inspection: Examine the alignment and placement of the building structure and substrate. Correct any objectionable warp, waves or buckles in the substrate before proceeding with installation of the pre-formed metal roofing. The installed roof panels will follow the contour of the structure and may appear irregular if not corrected.
- B. Establish straight side and crosswise benchmarks.
- C. Use proper size and length fastener for strength requirements. Approximately five-sixteenths (5/16) inch, is allowable for maximum fastener head size beneath the panel.
- D. Rectangular shaped roofs shall be checked for square and straightness. Gable ends may require setting a true line for the gable clips and setting with string line.
- E. Measure the roof lengthwise to confirm panel lengths, overhangs, coverage of flashings at eaves and ridges and verify clearances for thermal movement.

3.3 ROOFING AND FLASHING INSTALLATION

- A. Install roofing materials and flashings in accordance with approved shop drawings and manufacturer's product data, within specified erection tolerances.
- B. Prepare roof for the installation of standing seam panels, including:
 - Install all decking, framing, and/or furring members
- C. Isolate dissimilar metals and masonry or concrete from metals with bituminous coating. Use gasketed fasteners where required to prevent corrosive action between fastener, substrate, and panels.
- D. Limit exposed fasteners to extent indicated on shop drawings.
- E. Anchorage shall allow for temperature expansion/contraction movement without stress or elongation of panels, clips, or anchors. Attach clips to structural substrate using fasteners of size and spacing as determined by manufacturer's design analysis to resist specified uplift and thermal movement forces.
- F. Seal laps and joints in accordance with roofing system manufacturer's product data.
- G. Coordinate flashing and sheet metal work to provide weathertight conditions at roof terminations. Fabricate and install in accordance with standards of SMACNA Manual.
- H. Provide for temperature expansion/contraction movement of panels at roof penetrations and roof mounted equipment in accordance with system manufacturer's product data and design calculations.
- I. Installed system shall be true to line and plane and free of dents, and physical defects. In light gauge panels with wide flat surfaces, some oil canning may be present. Oil canning does not affect the finish or structural integrity of the panel and is therefore not cause for rejection.
- J. Maximum variation from true planes or lines shall be one-fourth (1/4) inch in twenty (20) feet and three-eighth (3/8) inch in forty (40) feet or more.
- K. Form joints in linear sheet metal to allow for one-fourth (1/4) inch minimum expansion at twenty (20) feet on center maximum and eight (8) feet from corners.
- L. At joints in linear sheet metal items, set sheet metal items in two(2), one-fourth (1/4) inch beads of butyl sealant. Extend sealant over all metal surfaces. Mate components for positive seal. Allow no sealant to migrate onto exposed surfaces.

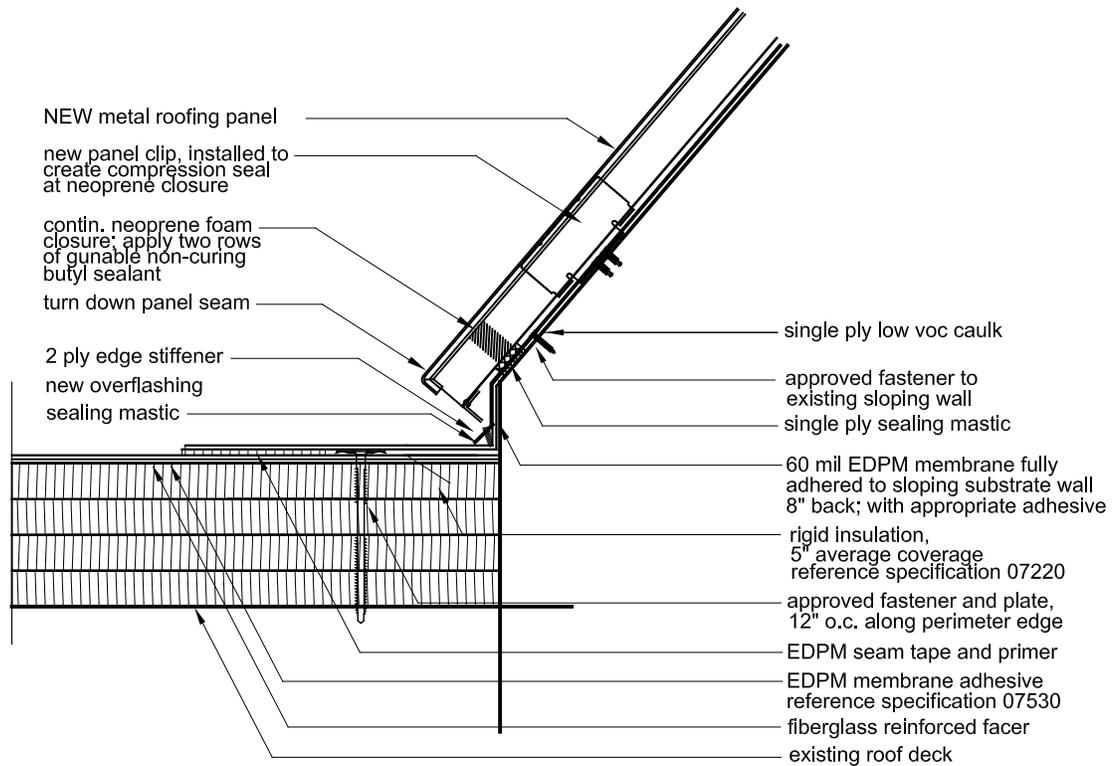
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- M. Remove damaged work and replace with new, undamaged components.
- N. Touch up exposed fasteners using paint furnished by roofing panel manufacturer and matching exposed panel surface finish.
- O. Clean exposed surfaces of roofing and accessories after completion of installation. Leave in clean condition at date of substantial completion. Touch up minor abrasions and scratches in finish.

END OF SECTION



1
ALT

Roof to Metal Shed Detail

scale: 1 1/2" = 1'-0"