Department of Public Works
Engineering Division
Robert F. Phillips, P.E., City Engineer

City-County Building, Room 115
210 Martin Luther King, Jr. Boulevard
Madison, Wisconsin 53703
Phone: (608) 266-4751
Fax: (608) 264-9275
engineering@cityofmadison.com
www.cityofmadison.com/engineering

Assistant City Engineer
Michael R. Dailey, P.E.

Principal Engineer 2
Gregory T. Fries, P.E.

Principal Engineer 1
Christina M. Bachmann, P.E.
Eric L. Dundee, P.E.
John S. Fahrney, P.E.
Christopher J. Petykowski, P.E.

Facilities & Sustainability
Jeanne E. Hoffman, Manager

Operations Manager
Kathleen M. Cryan

Mapping Section Manager
Eric T. Pederson, P.S.

Financial Manager
Steven B. Danner-Rivers

April 20, 2015

NOTICE OF ADDENDUM
ADDENDUM 1
FOREST HILL CEMETERY- JOHN CATLIN CHAPEL ROOF REPLACEMENT
CONTRACT NO. 7478

Revise and amend the contract document(s) for the above project as stated in this addendum, otherwise, the original document shall remain in effect.

The work for this contract necessitated a new prequalification category of 499 Historic Slate Roofing. The following contractors have been prequalified under this category:

Renaissance Roofing, Inc
2231 Hawkey Drive
Belvidere, Il 61008
(815) 547-1725
www.claytileroof.com

Millen Roofing Company
8747 North 107th Street
Milwaukee, WI 53224-2201
(414) 371-8850
www.millenroofing.com

The following questions were submitted by a Contractor:
1. Who is responsible for buying the stainless steel counter flashing on the roof side?
Answer: Roofer.
2. Who is installing the stainless flashing on the roof side?
Answer: Roofer.
3. Who is responsible for buying the stainless steel concealed drip under the stone and installing it?
Answer: Roofer.

Specifications:
1. Replace Specification section 07 31 26 – SLATE SHINGLES with revised section 07 31 26 – SLATE SHINGLES – ADDENDUM NO. 1, see attached.
2. Insert, in its entirety, Specification section 07 56 00 – FLUID-APPLIED ROOFING ADDENDUM NO. 1, see attached.
3. Replace Specification section 07 62 00 – SHEET METAL FLASHING AND TRIM with revised section 07 62 00 – SHEET METAL FLASHING AND TRIM – ADDENDUM NO. 1, see attached.

Drawings:
1. SHEET A6: Amend drawing sheet A6 as indicated on revised drawing sheet A6, see attached.
Please acknowledge this addendum on page E1 of the contract documents and/or in Section E: Bidder's

Please acknowledge this addendum on page E1 of the contract documents and/or in Section E: Bidder's Acknowledgement on Bid Express.

Electronic version of these documents can be found on the Bid Express web site at:

http://www.bidexpress.com

If you are unable to download plan revisions associated with the addendum, please contact the Engineering office at 608-266-4751 receive the material by another route.

Robert F. Phillips, P.E., City Engineer

PART 1 – GENERAL

1.1. INSTALLATION ASSURANCE

a. Slates shall be installed by skilled and experienced roofers who will fit and fasten each slate. Each roofer shall demonstrate relevant experience. Provide project portfolio with references per Section 102.1 Prequalification of Bidder.

1.2. CERTIFICATE

a. The roofing slate manufacturer shall furnish a certificate stating that materials used for the Project strictly adhere to the provisions of these specifications. The certificate shall also state that any required roof repairs resulting solely from defective materials or workmanship by the manufacturer furnished under this contract shall be made without cost to the Owner for a period of two (2) years.

1.3. PROJECT CONDITIONS

a. The roofer shall proceed with slate shingle installation only after all penetrating work has been completed correctly, the substrate is dry, and weather conditions are favorable.

PART 2 – PRODUCTS

2.1. ROOFING SLATE

a. Material
   i. Classification: Slate shall meet the requirements of Grade S1 per ASTM C-406-06.
   ii. Color: Shall be semi-weathering grey/green.
   iii. Roof Style: Shall be standard with uniform widths.
   iv. Size: Length: **16 x 10 inches**. ~~**Width: 12 inch, uniform width.**~~
   v. Shape: Slate shingles shall be rectangular, unless otherwise noted.
   vi. Exposure: 8 ½ inches.
   vii. Headlap: Varies by slope.
   viii. Thickness: Nominal thicknesses of ¼ inch.
   ix. Nail Holes: Each slate shall be punched for two nails located for proper headlap.

b. Physical Requirements
   i. Slates with a strong grain must be produced "on the grain", that is, the direction of the grain of the stone must be parallel to the long dimension of the shingle. Slates shall be randomly selected from each shipment and tested for grain direction to ensure proper fabrication.
   ii. Slates with broken corners on the exposed ends shall not be installed when either the base or leg of the right triangular piece broken off is greater than 1 ½ inches. Slates with broken corners are acceptable for cutting stock.
   iii. The curvature of shingles shall not exceed 1/16 inch in 12 inches. Curved slates shall be trimmed and holed to permit them to be laid with the convex side facing up.
   iv. "Knots" and "knurls" are rounded defects that affect the smoothness of split. They are acceptable on the exposed portion of the top face but on other parts will prevent close contact of shingles. Shingles having knots or knurls on the covered portions projecting in excess of 1/16 inch shall not be used.
   v. Slates shall be free from ribbons.
   vi. Not more than 1% of broken slates, including those having cracks materially precluding ringing when sounded, shall be accepted.
   vii. Face dimensions shall not differ from those specified by more than 1/8 inch.

c. Approved Slate Suppliers
   i. The slate shall be furnished by:
      1. Vermont Structural Slate Company (VSS)
         3 Prospect Street, Fair Haven, Vermont, USA
         Telephone: 1-800-343-1900 or 802-265-4933
         Fax: 802-265-3865
         Contact: Ben Champine
         Email: ben@vermontstructuralslate.com
         Website: www.vermontstructuralslate.com
      2. The New England Slate Company
         363 VT Route 30 South

Poultney, VT 05764
Telephone: 802-287-2295
Fax: 802-287-2296
Contact: Clay Heald
Email: clay@neslate.com
Website: www.neslate.com

3. **Greenstone Slate Company, Inc.**
325 Upper Road – PO Box 134
Poultney, VT 05764
Telephone: 802-287-4333, Ext: 11
Contact: Bob Geroux
Email: bob@greenstoneslate.com
Website: www.greenstoneslate.com

2.2. ROOFING UNDERLAYMENT

a. Underlayment: High tensile strength polypropylene woven core fabric, coated on both sides with a UV resistant polypropylene containing anti-oxidant additive and slip resistant surface, such as "Sharkskin Ultra" as manufactured by Kirsch Building Product. Substitutes will be allowed. Discuss with architect prior to submitting bid. Substitutions for this product will be allowed pre-bid only
b. Membrane Underlayment: 100% polypropylene-based self-adhering membrane underlayment, such as "Sharkskin Ultra SA" by Kirsch Building Products. Substitutes will be allowed. Discuss with architect prior to submitting bid. Substitutions for this product will be allowed pre-bid only.

2.3. NAILS

a. The roofer shall use large head slaters' solid copper nails, 1 ¾ inch (verify that nails do not penetrate fully through roof deck) and 2 inch for slates on hips and ridges. Nails should adequately penetrate the roof deck.

2.4. CAULKING

a. The roofer shall use approved waterproof elastic slaters' cement, color to match slate.

2.5. FLASHING

a. The roofer shall use terne coated copper flashing in accordance with Section 07 62 00.

PART 3 – EXECUTION

3.1. ROOFING UNDERLAYMENT INSTALLATION

a. The roofer shall lay the felt in horizontal layers, with joints lapped toward the eaves at least 2 inches. The felt shall be well secured along laps and at ends as necessary to properly hold the felt in place and protect the structure until the slate has been installed.
b. The roofer shall lap the felt over all hips and ridges at least 12 inches to form double thickness.
c. The roofer shall lap the felt 2 inches over the metal of any valleys.

3.2. MEMBRANE UNDERLAYMENT INSTALLATION

a. The roof decks shall be treated with a self-adhering membrane underlayment. Follow manufacturer's literature for membrane application. Areas to be sheeted with membrane are hips, eaves, low slope areas, all slope changes or tie-ins and protrusions through the roof. Refer to the roof plan.

3.3. SLATE INSTALLATION

a. Hips shall be mitred.
b. All ridges shall be laid to form "saddled" ridges. Nails of the combing slate shall pass through the joints of the slates beneath.
c. Valleys shall be open.
d. Slate shall project 2 inches at eaves and 1 inch at gable ends, and shall be laid in horizontal courses with 3 inch headlaps, and each course shall break vertical joints with a minimum of 3 inch

sidelap. Starter or "undereave" slates and slates at the ridge shall be canted ¼ inch by a wooden cant strip which shall be provided by the roofer.

e. Nails shall not be driven as to produce strain on slates. The slate shall be loose when fully nailed.

f. The roofer shall draw slates from several pallets at once (shuffle) so as to blend the material on the roof.

g. Exposed nails are only permissible at the top courses where unavoidable. Exposed nail heads shall be covered with elastic cement. Hip slates and ridge slates shall be laid in elastic cement spread thickly over unexposed surface of under courses, nailed securely in place, and pointed with elastic cement.

h. All penetrations such as pipes and ventilators shall have slate neatly fitted around them.

i. The roofer shall build in, and place, all flashing pieces. Each course of slate shall have copper step-flashing neatly woven into the slate.

j. Entire surfaces of all roofs, except as noted, shall be covered with slate in a proper and weatherproof manner. Upon completion, all slates must be sound, whole and clean. The roof must be left watertight and neat in every respect, and subject to the Architect's approval.

k. The Owner shall be furnished with a stock of 2% extra slates for future roof repairs.

END OF SECTION 07 31 26

PART 1: GENERAL

1.1. CONDITIONS OF THE CONTRACT

a. The conditions of the Contract (General, Supplementary and Other Conditions) and the requirements of Division 1 are hereby made a part of this Section. Applicable provisions of Division 1 shall govern Work under this Section.

1.2. WORK INCLUDED

a. This Section includes all labor, material, equipment and related services necessary to perform the following Work. All Work shall be installed as shown on the Drawings and as specified herein.
   i. Furnish and install new fluid-applied flashing membrane at gable parapets as shown on the drawings.

1.3. RELATED SECTIONS

a. Section 07 62 00 - Sheet Metal Flashing and Trim
b. Section 07 90 00 - Sealants

1.4. QUALITY ASSURANCE

a. The membrane Manufacturer shall have a minimum ten (10) years experience specializing in fluid-applied flashing membranes.
b. The applicator shall have a minimum five (5) years documented experience specializing in fluid-applied flashing membranes.
c. The flashing system must be applied by a roofing Subcontractor authorized by the roof system Manufacturer.
d. The membrane Manufacturer shall approve all components used in the system.
e. At start of new membrane installation, Manufacturer's Representative shall visit the job site to ensure that the installation begins correctly with all installation procedures and guidelines being followed and notify the Architect of his findings. Failure to notify constitutes acceptance of the work of his licensed applicator (the Subcontractor) by the Manufacturer.
f. Upon 50 percent completion of the project, the membrane Manufacturer's Representative shall inspect the installation for adherence to installation procedures and guidelines. The installation shall be inspected more frequently if deemed necessary by the Manufacturer, Architect, Owner or Contractor.
g. Upon completion of the installation, an inspection shall be made by the membrane Manufacturer's Representative to ascertain that the roof system has been installed according to the applicable membrane Manufacturer's specifications.
h. All the above indicated job visits shall be documented in writing by the membrane Manufacturer's Representative indicating all problems, concerns, recommendations and directives given to the roofing Subcontractor regarding membrane system installation. Copies shall be provided to the Architect within ten (10) days of the inspection date.
i. It is the Contractor's responsibility to arrange the Manufacturer's Representative's inspections.
j. There shall be no deviation made from this Specification without prior written approval by the Manufacturer and Architect.
k. Shop drawings of proposed alternate details shall be submitted to the Architect for approval prior to the start of construction.
l. Proposed alternate details and application procedures shall comply with the Specifications, Drawings and Manufacturer's recommendations.
m. The Contractor shall keep a copy of the membrane Manufacturer's installation instructions and these Specifications on site at all times.

1.5. REGULATORY REQUIREMENTS

a. Materials and construction shall meet the following:
   i. Underwriters Laboratories, Inc. (UL): Class A Fire Hazard Classification.
   ii. Factory Mutual Engineering Corporation (FM): Windstorm Resistance Classification, FM Data Sheets 1-28 and 1-49 (Class I-90 Construction); Fire Classification, Class 1 (FM Approval Standards).

iii. International Conference of Building Officials (ICBO)
iv. Regional, State and Local Building Codes and/or Ordinances.

1.6. REFERENCES

a. References shall refer to the most recent standard.
   i. American Society for Testing and Materials (ASTM)
   ii. Federal Specifications (FS)
   iii. Factory Mutual System (FM)

1.7. SPECIAL ROOFING CONTRACTOR REQUIREMENTS

a. The roofing Subcontractor shall provide a Project Foreman with a minimum of five (5) years documented experience in the supervision of the membrane system installation and shall be knowledgeable in the type of membrane system specified herein.
b. The Subcontractor shall not change Foreman or crew without prior approval of the Architect.
c. The Subcontractor's Foreman shall be present on the job site during the majority of work hours and shall be accessible at all times to ensure good Project coordination and communication.
d. During the workday, should the weather conditions appear to be changing adversely, the Foreman shall take preventative measures to allow the roof to be closed to a watertight condition to avoid exposure of buildings, equipment and materials.
e. All Work that requires saw cutting, vacuuming and other similar functions that create substantial noise and/or vibration shall be coordinated well in advance of the Work with the Owner and the Architect.
f. Take all necessary precautions to protect the Owner's property as well as adjacent property, including trees, shrubs, buildings, sanitary and storm sewers, water piping, gas piping, electric conduit or cable, etc. from any and all damage which may result due to work on this Project.
g. Repair any Work, damaged by failure to provide proper and adequate protection, to its original state to the satisfaction of the Owner or remove and replace with new Work at the Contractor's expense.

1.8. SUBMITTALS

a. Submit shop drawings as required. Drawings shall show roof edge condition details, roof penetration flashing details, standard roof section and all other details required for proper roof system installation that are not shown in, or that differ from, the Specifications and Drawings.
b. Submit product data for all materials for use in the Work, including installation temperature ranges.
c. Submit Manufacturer's Installation Instructions.
d. A total of three (3) copies of each submittal are required.

1.9. PRODUCT DELIVERY, STORAGE AND HANDLING

a. Deliver all materials in Manufacturer's original, unopened containers with Manufacturer's labels intact and legible.
b. Materials shall be stored so as to protect them completely from damage by the elements and temperatures. Storage of materials on ground and/or rooftop shall be protected with waterproof canvas covering and stored on raised platforms. The use of pallets or similar type equipment will be acceptable.
   i. Waterproof canvas covering shall be applied in a watertight manner and securely tied at the end of each workday or work period.
   ii. Use of Manufacturer's product protection wrapping is not acceptable for worksite type protection. Wrapping shall be side-punctured, end-punctured or slashed before covering with canvas.
   iii. No tears in the waterproof canvas covering will be allowed.
c. Material storage in warehouse, storage trailer, or tent is recommended.
d. Keep lids tightly sealed on all emulsions, solvent-based adhesives and cements to keep volatiles from escaping.
e. Handling Materials
   i. Do not store or transport materials on the roof in a manner that may exceed the live load capacity of the roof deck system or the structure. The Architect during routine observations may make recommendations as to loading.

ii. The Contractor's Foremen shall have a hand held thermometer on the roof to check application temperature.

1.10. ENVIRONMENTAL REQUIREMENTS

a. Do not apply flashing membrane during inclement weather or when air temperature is below (or is expected to be below) 40°F (5°C).
b. Do not start tear off of existing materials when inclement weather is expected.

1.11. GUARANTEES, WARRANTIES, CERTIFICATES

a. Furnish two copies of the following to the Architect:
   i. Contractor's Warranty: The Contractor shall warrant, in writing, that the roof system shall remain leak free for a period of two (2) years following completion and that the membrane system has been installed according to material Manufacturer's current specification. The warranty shall cover labor and materials. The MRCA printed guarantee shall be used as a standard.
   ii. Membrane Manufacturer's No Dollar Limit Warranty: The membrane system Manufacturer shall furnish a Cost of Repair/Replacement Manufacturer's Materials Roofing Guarantee. The guarantee shall include the cost of repairs or replacement of the roof membrane and flashing system damaged as a result of the roof membrane and flashing system failure or as a result of workmanship for a period of twenty (20) years from the date of completion. The guarantee shall cover both labor and materials.
   iii. Membrane Manufacturer's Owner Service Manual: Provide for the Owner an informational manual to include the Manufacturer's approved emergency repair procedures and materials, maintenance procedures and customer service information.

PART 2: PRODUCTS

The Contractor is responsible for furnishing the following materials in the amount required for completion of the entire Project specified herein.

2.1. ACCEPTABLE MANUFACTURERS

a. Provide products by Manufacturers specified herein, which meet or exceed standards as set forth in this Section.
b. **No material specified or approved shall contain asbestos.**
c. All materials shall be new unless noted otherwise.

2.2. MATERIALS

a. Fluid Applied Flashing Membrane: "Kemperol BR," is a two-component with catalyst, high performance seamless and self-terminating cold fluid applied reinforced unsaturated polyester membrane system, as manufactured by Kemper System, Inc., or approved equal.
b. Other Materials: All other materials not specifically described but required for a complete and proper installation of the work in this Section, shall be as selected by the Contractor subject to approval by the Architect.

PART 3: EXECUTION

3.1. DEFINITIONS

a. The term "phased construction" or "phased application" shall mean the roof system construction or application process in which all parts of cross-section of the roof membrane and flashing system are not completed for a particular roof area during one day or work period.

3.2. EXAMINATION

a. The Contractor and roofing Subcontractor shall have the sole responsibility for the accuracy of all measurements and for the estimate of material quantities required and necessary to satisfy the

requirements of these Specifications.

3.3. WORKMANSHIP

a. All roofing work shall be accomplished with a Foreman fully trained and knowledgeable in the application procedures of the specified materials. The Foreman shall oversee the work of all working personnel who are thoroughly skilled in the application of specified materials. All workmanship to be of the very best quality and shall be done in such a manner as to fulfill the intent of the Drawings and Specifications.
b. Weather Condition Limitations: Proceed with roofing work only when existing and forecasted weather conditions will permit Work to be performed in accordance with the requirements of this Specification.
c. After starting the Work, the Contractor shall be responsible for complete moisture integrity of the roof membrane and flashing system and for providing a properly applied roof membrane and flashing system. Therefore, the Contractor and roofing Subcontractor shall:
    i. Establish and follow application procedures to insure that adequate quantities of materials are used.
    ii. Maintain competent Foreman continuously supervising the Work with authority to discard unsuitable materials and remove unsatisfactory workmen from the Project.
    iii. Observe all fire precautions involving the storage and handling of roofing materials. Provide adequate quantity of fire extinguishers at the worksite.
    iv. Comply with current roofing safety standards at all times.
    v. Supervise installation of, and be responsible for, seeing that roof mechanical and electrical equipment, roof drains, etc. are properly set without damage to the roof. Make roof and flashing repairs as necessary and advise the Architect in writing of all potential leaks as may be caused by other trades not under the Contractor's control.
    vi. Under no conditions shall any roofing materials be applied before sunrise, or at anytime when there are indications of moisture present (rain, mist, dew, frost, and snow).
    vii. Install only as much roofing material as can be completed and covered in accordance with the requirements of this Specification in any one day or work period.
    viii. Apply roof membrane and flashing system as directed by the Manufacturer and in strict accordance with this Project Manual.
    ix. Insure that all wheeled equipment on the roof be equipped with pneumatic tires.
    x. Permit no traffic over, nor stack roofing equipment or materials on, completed new roofing surfaces without adequate protection with minimum 1/2" plywood.
    xi. Install flashings at openings, projections and walls adjoining new roofing every day or work period. If circumstances do not allow this, these areas shall be made watertight at the end of each day or work period.
    xii. Comply with other workmanship requirements as outlined in other Sections of this Specification.

3.4. FLUID-APPLIED FLASHING MEMBRANE APPLICATION

a. Install liquid-applied flashing membrane in strict conformance with the Manufacturers printed application instructions and as directed by the Manufacturers Representative.
b. Fluid-applied flashing membranes shall extend up all vertical surfaces a minimum of 8" high.
c. Fluid-applied flashing membrane is available in summer and winter grades. Care should be taken to ensure that the correct formulation is used for the application based upon the ambient temperatures.
d. Summer Grade: Apply when the ambient temperature is between 59°F (15°C) and 104°F (40°C) and the substrate temperature is between 59°F (15°C) and 122°F (50°C). Discontinue fluid-applied surface membrane application when the ambient temperature exceeds 104°F (40°C) and/or the substrate temperature exceeds the 122°F (50°C) maximum, or provide adequate shade to the substrate area for up to one hour prior to and during application as necessary to maintain surface temperature below the maximum.
e. Winter Grade: Can be applied when the ambient temperature is between 23°F (-5°C) and 68°F (20°C) and the substrate temperature is between 23°F (-5°C) and 77°F (25°C).
f. Storage: Shelf life is approximately 6 months from the ship date. Shelf life will be reduced if product is stored at temperatures above 77°F (25°C). Store indoors in a closed container in a well-ventilated, cool, dry area away from heat, open fire, any ignition source, direct sunlight, oxidizing agents, strong acids, and strong alkalis. Do not store in temperatures below 32°F (0°C). Product

may auto-polymerize at temperatures greater than 140°F (60°C). Materials stored on the jobsite during application should be kept on a pallet in a shaded, well-ventilated area. In unshaded area, materials should be covered with a white, reflective tarp in a manner that allows air circulation beneath the tarp.

g. Pot Life: Pot life is approximately 15 minutes at 68°F (20°C). Because pot life is in large part dependent on ambient temperature, which constantly changes, actual pot life must be determined in the field. Pot will be reduced at high temperatures.

h. Set Times: Minimum set times are approximate and may vary. The information provided is intended for use as a guideline only. Actual set times and cure times should be established in the field based on actual field conditions.

   i. Rain proof at 68°F (20°C): Approximately 30 minutes
   ii. Ready for next coat at 68°F (20°C): Approximately 45 minutes
   iii. Ready for foot traffic at 68°F (20°C): Approximately 2 hours

i. All fluid-applied flashing membrane materials shall be laid free from wrinkles, buckles and voids.

j. Fluid applied surface membrane construction shall not be "phased."

k. When terminating each day's work, install a temporary, watertight seal. When beginning the next day's work, remove and discard the temporary seal.

END OF SECTION 07 56 00

PART 1: GENERAL

1.1. SUMMARY OF WORK

a. This Section includes all labor, material, equipment and related services necessary to furnish and install the following Work.
   i. Sheet metal eave.
   ii. Sheet metal counterflashings and receivers.
   iii. Miscellaneous sheet metal and accessories associated with roofing.

1.2. QUALITY CONTROL

a. There shall be no deviation made from this Specification or the approved shop drawing without prior written approval by the Manufacturer and Architect.
b. Shop drawings of proposed alternate details shall be submitted to Architect for approval prior to start of construction.
c. Proposed alternate details and application procedures shall comply with the intent of these Specifications, Drawings and/or Manufacturer's recommendations.

1.3. REFERENCES

a. References shall refer to the most recent standard.
   i. American Society for Testing and Materials (ASTM).
   ii. Sheet Metal and Air Conditioning Contractor's National Association (SMACNA).

1.4. CONTRACTOR REQUIREMENTS

a. The Contractor shall not change the Project Foreman without prior approval of the Architect.
b. The Contractor shall not change the crew without 5 days notice to the Architect.
c. The Contractor's Foreman shall be present on the job site during work hours.
d. A competent Foreman shall oversee all roofing work. The Foreman shall have the authority to remove unfit workers from the project along with wet, damaged or unsuitable materials. All workers shall be skilled in the application of the materials and all workmanship shall be of the highest quality.
e. Roofing work shall not be performed when adverse weather conditions are existing, forecasted or when indications of moisture are present. Roofing materials shall not be applied before sunrise.
f. Roofing work shall not be performed when air temperatures are (or are expected to be) below 40°F.
g. All Work that requires saw cutting, vacuuming and other similar functions that create substantial noise and/or vibration shall be coordinated well in advance of the Work with the Owner and the Architect.
h. Prior to the start of the Project, and daily after the start, the Contractor shall review the type of space below the roof being worked on, and comply with all special requirements due to occupancy type.
i. Take all necessary precautions to protect the Owner's property as well as adjacent property, including trees, shrubs, buildings, sanitary and storm sewers, water piping, gas piping, electric conduit or cable, etc., from any and all damage which may result due to Work on this Project.
j. The Contractor shall provide a waterproof roof throughout the duration of this project. At the Contractor's expense, the Contractor shall repair or replace (as determined by the Architect) any Work or property damaged by failure to provide a waterproof roof.

1.5. SUBMITTALS

a. Submit shop drawings. Details required for roof system installation that are not shown or differ from the Specifications shall be submitted to the Architect. All dimensions and installation methods shall be detailed on shop drawings.
b. Submit a list of materials for use in the Work.
c. Submit standard samples for approval.
d. Submit shop drawing of eave.
e. Submit shop drawing of counterflashing and receiver.

f. A total of three (3) copies of each submittal are required.

1.6. MATERIAL HANDLING

a. Deliver all materials in Manufacturer's original, unopened packaging with Manufacturer's labels intact and legible and store as required by the Manufacturer.
b. All materials sensitive to moisture and UV radiation shall be covered with a properly secured, water-resistant, breathable covering, such as canvas tarps at the end of each work period and during adverse weather. The Manufacturers' shrink wrap covering shall be slashed. Materials shall be raised above the ground or roof and placed on pallets or platforms.
c. Do not overload the roof deck or structural assembly.
d. Do not transport roofing materials over or store materials on a finished roof section, without prior approval of the Architect.
e. The Contractor shall replace at his own expense all materials damaged due to improper handling.

1.7. WARRANTIES

a. Furnish two copies of the following to the Architect:
    i. Contractor's Warranty: The Contractor shall warrant, the workmanship in writing for a period of two (2) years following completion and that the Work has been installed according to material Manufacturer's current specifications and according to this Specification. The warranty shall cover labor and materials.

PART 2: PRODUCTS

The Contractor shall provide the following materials, as required.

2.2. MANUFACTURERS

a. Provide materials from the Manufacturers listed in this section.
b. Materials shall meet all specified standards.
c. All materials shall be new unless noted otherwise.
d. New materials shall not contain asbestos.

2.3. MATERIALS

a. **All Sheet Metal: Lead coated copper.**
b. Fasteners (Miscellaneous)
    i. Fasteners such as nails, screws, etc. shall be of same material as metal flashing on which they are used. They shall be of type and size as shown on the Drawings or specified herein.
    ii. Screws used to secure metal to blocking shall be #8 minimum, penetrate wood blocking minimum 1-1/2" and shall have metal washers and watertight neoprene washers under hex head. The installed withdrawal resistance shall be a minimum of 150 pounds per screw.
    iii. Fasteners used to secure metal to metal shall be hardened, self-tapping, sheet metal gimlet point type, with hex/washer head and be of compatible material.
    iv. Fasteners used to secure sheet metal to masonry or stone shall be 1/4" minimum diameter metal expansion stud anchors in pre-drilled holes such as "Kwik-Bolt II Stud Expansion Anchor" by Hilti, Inc. or approved equal. Space fasteners at 24" o.c. maximum spacing.
    v. Fasteners used to secure gutter spacers to hemmed edge shall be 3/8" diameter cadmium plated nut, bolt and washer assemblies.
c. Solder: FS QQ-S-571 or ASTM B32. Use 50/50 for all applicable work unless otherwise specified.
d. Soldering Flux: FS O-F-506, type best suited for specific material.
e. Other Materials: All other materials not specifically described but required for a complete and proper installation of the Work in this Section, shall be as selected by the Contractor subject to the approval by the Architect.

2.4. FABRICATION

a. Form sections square, true and accurate to size, free from distortion and other defects detrimental to appearance or performance.
b. Provide cross-break to top surface of coping metal and at all exposed surfaces of all metals which exceed 8" in cross dimension.
c. Fascia Panel Assembly
    ii. Fabricate side lap joints in male/female configuration for air and water tightness and structural integrity between adjacent panels.
    iii. Fabricate side lap joints to permit concealed fastening of panels to structure.
    iv. Fabricate panels with a flatness deviation not to exceed 0.030" in 18" in any direction when measured with a metal straight edge.
    v. Panels exhibiting rippling, waving or oil canning exceeding 0.030" in 18" in any direction when measured with a metal straight edge will be rejected.

PART 3: EXECUTION

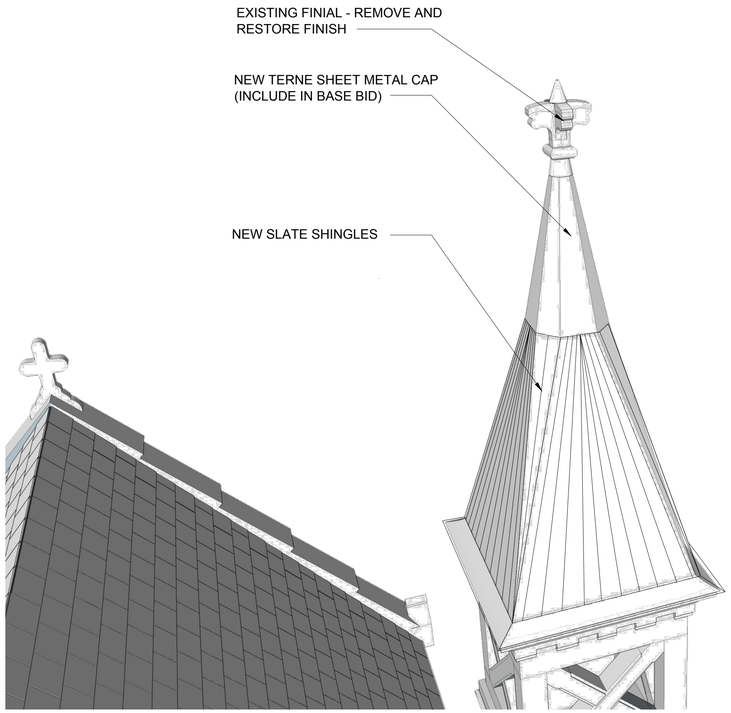
3.1. EXAMINATION

a. Examine supporting members and substrate for layout, alignment and soundness.
b. Verify that surfaces are free from debris and unnecessary protrusions.

3.2. INSTALLATION

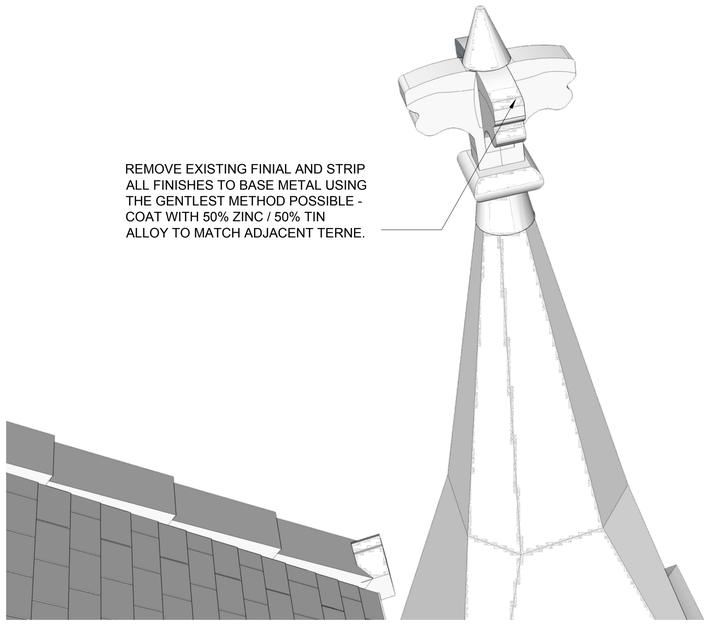
a. Counterflashing
    i. Saw-cut mortar joints to form new reglet approximately 1" minimum uniform depth at elevation of a minimum 10" above the surface of the roof membrane, as shown on the Drawings.
    ii. Secure spring locked reglet receivers in clean and sound saw cuts at mortar joint.
    iii. The reglet receiver shall be notched and lapped at all corners and joints.
    iv. Secure flashings to reglet receivers using specified type fasteners at 18" o.c. maximum and as noted on the Drawings.
    v. Fit flashing tight in place. Make corners square, surfaces true and straight in planes, and lines accurate to profiles.
    vi. The counterflashing shall be notched and lapped at inside corners and joints and seamed at outside corners.
    vii. Maintain lines of constant elevation around entire perimeter unless noted otherwise on the Drawings.
    viii. Apply continuous bead of sealant to masonry/metal intersection at top of reglet. Tool to smooth finish.
    ix. Where existing structural expansion joint intersects sheet metal work, provide "slip joint" in sheet metal work to accommodate movement of the structure.
b. Drip Edge
    i. Install Work with laps of 1-1/2" minimum dimension.
    ii. Install continuous cleat at location(s) as shown on the Drawings.
    iii. Secure in place using specified type fasteners as shown on the Drawings.
    iv. Section lengths shall be contained to 10' lengths or less. Permit movement of metal by allowing 1" between section lengths and securing each length twice at its mid-point through the top surface into the substrate beneath.
    v. The flashing shall be notched and lapped at inside corners and joints and seamed at outside corners.
    vi. Fit flashing tight in place. Make corners square, surfaces true and straight in planes, and lines accurate to profiles.
    vii. Maintain lines of constant elevation around entire perimeter.
    viii. Where existing structural expansion joint intersects sheet metal work at hand, discontinue fascia at intersection and bridge joint with slipcover to match new sheet metal section profile.

END OF SECTION 07 62 00



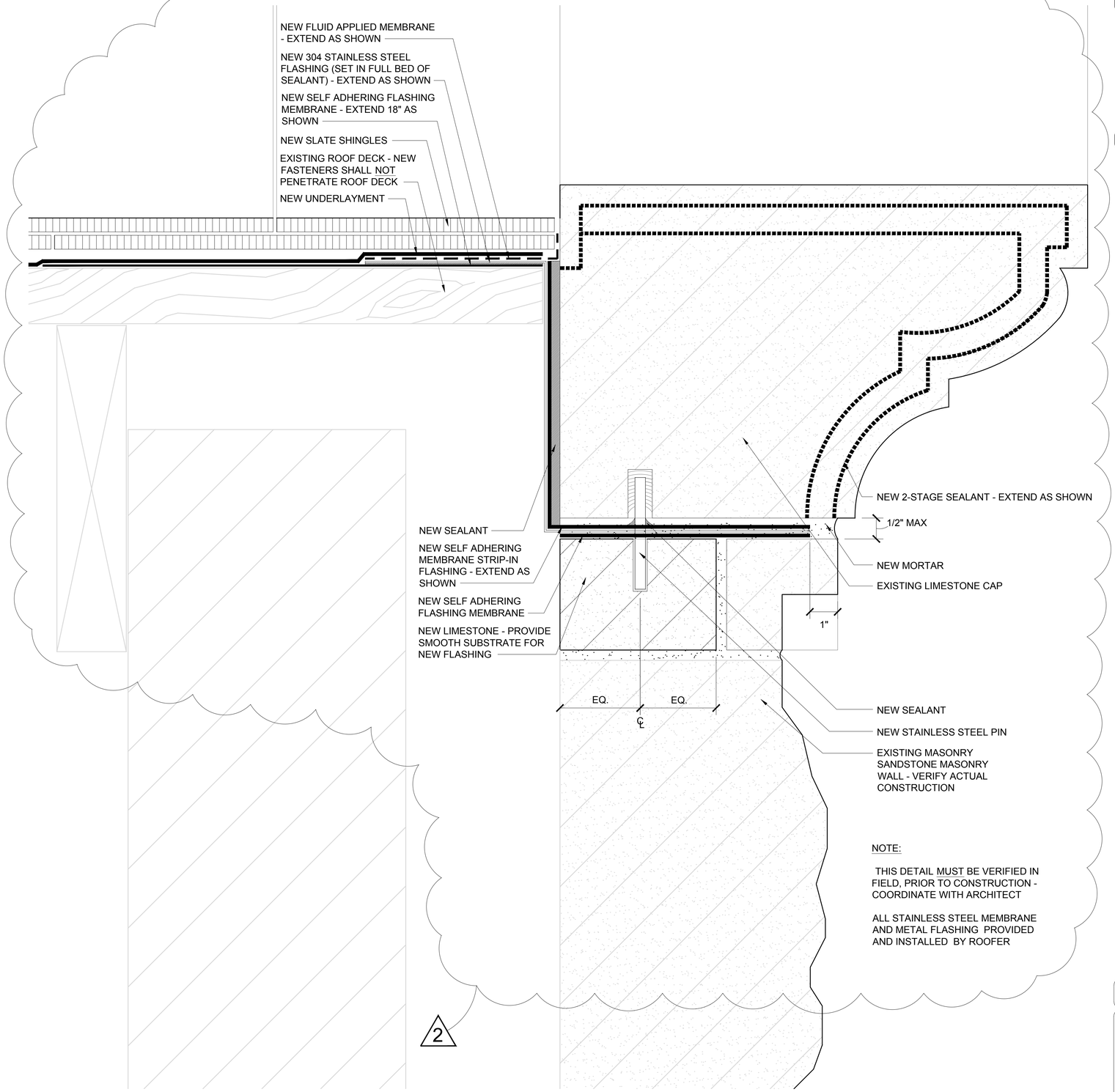
1 A6 TOWER VIEW

SCALE: N.T.S.



2 A6 TOP OF TOWER VIEW

SCALE: N.T.S.



NOTE:

THIS DETAIL MUST BE VERIFIED IN FIELD, PRIOR TO CONSTRUCTION - COORDINATE WITH ARCHITECT

ALL STAINLESS STEEL MEMBRANE AND METAL FLASHING PROVIDED AND INSTALLED BY ROOFER

2

3 A6 DETAIL AT GABLE / RAKE FLASHING

SCALE: 6" = 1'-0"

INSITE CONSULTING ARCHITECTS

InSite Consulting Architects
115 E. Main / STE 200
Madison, Wisconsin 53703
608-204-0825
866-297-1762 (fax)
info@icsarc.com

FOREST HILL CEMETERY - JOHN CATLIN CHAPEL
ROOF REPLACEMENT
CITY OF MADISON CONTRACT # 7478

1 SPEEDWAY ROAD
MADISON, WI 53705

ADDENDUM NO. 2 - 4/16/15

DETAILS

3/27/2015
ISSUE FOR BID

A6