

**Addendum No. 1**  
**November 15, 2016**

Project: Lake County Courthouse Reroof  
Madison, South Dakota  
0422.2671.16

Architect: Architecture Incorporated

Letting: Wednesday, November 23, 2016  
2 PM  
Lake County Auditor's Office

Scope of this Addendum:

To all bidders and all others to whom drawings and specifications have been issued by Architecture Incorporated.

Acknowledge receipt of this addendum by listing its number and date in the bidders Form of Proposal. Failure to do so may subject bidder to disqualification. This Addendum forms a part of the Contract Documents. It modifies them as follows:

**GENERAL ITEMS:**

- 1) GENERAL INFORMATION – PRE-BID MEETING MINUTES
  - a) The Pre-Bid Meeting Minutes are attached and become part of the construction documents.
- 2) SPECIFICATION – INVITATION FOR BID
  - a) Page 1 – Add CADD Engineering Supply (CES) email address and phone number:
    - i) Email address [joe@repro360.com](mailto:joe@repro360.com), Phone number (605) 332-2550.
- 3) SPECIFICATION SECTION – FORM OF PROPOSAL
  - a) Form of Proposal – See attached REVISED FORM OF PROPOSAL revised date NOVEMBER 15, 2016. Revisions include added Unit Price #1 and Add Alternate #2.
- 4) SPECIFICATION SECTION 012200 – UNIT PRICES
  - a) See attached Specification Section 012200 - UNIT PRICES, pages 1-2, for Unit Prices.
- 5) SPECIFICATION SECTION 012300 – ALTERNATES
  - a) Page 2, add to the Schedule of Alternates
    - i) Add Alternate No. 2 – Repoint Elevator Walls
      - (1) Under Add Alternate No. 2, State the amount to be added to the Base Bid to repoint the exterior walls of the elevator.
- 6) SPECIFICATION SECTION 041200 – MAINTENANCE OF UNIT MASONRY

- a) See attached Specification Section 041200 – MAINTENANCE OF UNIT MASONRY, pages 1-10, for Repairing Unit Masonry, Repointing Joints and Cleaning Exposed Unit Masonry Surfaces.

7) DRAWING 5.1 – BUILDING ENCLOSURE

- a) BASE BID ROOF PLAN
  - i) Not all VTR are shown on the Roof Plans. The roofing subcontractor shall verify locations of all VTR and provide new molded pipe boot flashings at all VTR.
  - ii) Under the base bid, all roof drains shall be replaced.
    - (1) The roofing subcontractor shall verify locations of all roof drains.
    - (2) Remove and reinstall lay-in ceilings as necessary to replace roof drains.
    - (3) Neatly cut and remove portion of gypsum board or plaster ceiling as required to replace roof drains. Gypsum board or plaster ceilings above lay-in ceilings do not need to be patched.
- b) ADD ALT. #1 PARTIAL ROOF PLAN
  - i) Under Add Alternate #1, all roof drains shall be replaced. In addition, two roof drains will be relocated.
    - (1) Remove and reinstall lay-in ceilings as necessary to replace roof drains and associated piping.
    - (2) Neatly cut and remove portion of gypsum board or plaster ceiling as required to replace roof drains and associated piping. Gypsum board or plaster ceilings above lay-in ceilings do not need to be patched.

8) DRAWING 5.2 – BUILDING ENCLOSURE

- a) See Drawing SD-1, dated 11-15-2016, for revised detail of the new coping at 3/5.1.

**MECHANICAL ITEMS:**

9) DRAWING 8.1 – MECH/ELEC

- a) PARTIAL SECOND FLOOR PLAN – PLUMBING (ADD ALT #1) – This should be entitled “PARTIAL **THIRD** FLOOR PLAN – PLUMBING (ADD ALT #1).”
- b) Not all VTR are shown on the Plumbing Plans. The roofing subcontractor shall verify locations of all VTR and provide new molded pipe boot flashings at all VTR.



## **Lake County Courthouse Reroof**

### **Pre-Bid Meeting**

November 10, 2016 9 AM to 9:45 AM

#### Present:

Dave Hare, Lake County Facility Maintenance

Jordan Lardy, Peska Construction

Marcus Andre, The Roofing and Construction Company

Jon Ziebarth, ARS

Elizabeth Squyer, Architecture Incorporated

1. Elizabeth Squyer reminded the bidders that liquidated damages are included in the project.
2. Dave Hare stated that there is a Jury Trial scheduled to be held in the Courthouse the first week in April 2017. Contractor shall coordinate work with the Owner and adjust work schedule as needed if Court requests a period of no work.
3. The high and low roofs were reviewed.
  - a. Remove steel beams.
  - b. Remove roof top unit and all associated connections and cap/terminate at mains.
  - c. Remove abandoned fasteners, pipe hangers, piping, etc. at walls.
  - d. The elevator shaft roof is included in the reroofing project.
4. The Owner will replace the existing storm door if necessary.
5. The Third Floor areas impacted by relocating roof drains were reviewed.
  - a. Remove and reinstall lay-in ceilings as necessary to replace roof drain piping.
  - b. Neatly cut and remove portion of gypsum board or plaster ceiling as required to replace roof drain piping. Gypsum board or plaster ceilings above lay-in ceilings do not need to be patched.

Respectfully Submitted,

Elizabeth Squyer, AIA

**REVISED FORM OF PROPOSAL**  
**Revised date: November 15, 2016**

PROJECT: LAKE COUNTY COURTHOUSE REROOF  
Madison, South Dakota

TO: Lake County Auditor  
200 Center Street East  
Madison, South Dakota 57042

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

The undersigned, having familiarized (itself) (himself) with the local conditions affecting the cost of the Work at the place where the Work is to be done and with the Plans and Specifications and other Contract Documents, and having examined the location of the proposed Work, and having received Addenda Nos. \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, dated \_\_/\_\_/\_\_, \_\_/\_\_/\_\_, \_\_/\_\_/\_\_, \_\_/\_\_/\_\_, and having included their provisions in this proposal, hereby proposes and agrees to perform any and all labor and to provide all materials, tools, and equipment necessary to complete in a workmanlike manner all the work for the **Lake County Courthouse Reroof** Project, located at 200 Center Street East, Madison, South Dakota, all in strict conformance with the plans and specifications prepared by Architecture Incorporated, dated October 28, 2016:

For the following Base Bid:

\_\_\_\_\_ (\$ \_\_\_\_\_ )

Unit Price No. 1: Repointing Unit Masonry.

ADD \_\_\_\_\_ (\$ \_\_\_\_\_ ) per Square Foot

Add Alternate No. 1: Remove and Relocate Roof Drains.

ADD \_\_\_\_\_ (\$ \_\_\_\_\_ )

Add Alternate No. 2: Repoint Elevator Walls.

ADD \_\_\_\_\_ (\$ \_\_\_\_\_ )

The undersigned agrees that his bid may not be withdrawn for a period of 60 days from the time set for opening of bids and that is notified of acceptance of his Proposal within that stated time, or at any time thereafter before the bid is withdrawn, he will within ten (10) days of such notification, execute and deliver an Owner - Contractor Agreement herein specified to be AIA Document A101 and to furnish and deliver the Performance Bond and the Labor and Material Payment Bond, each in an amount equal to 100 percent of the Contract Sum.

By submitting a bid, the Contractor acknowledges the Project Schedule as noted in Section 011000, Summary of Work. The Contractor shall commence work immediately following Contract Award and

shall complete the entire project for substantial completion by no later than Friday, June 2, 2017. The time stated for completion shall include allowances for inspections, completion of items requiring further attention and final clean-up of premises. Final completion of the entire Project shall be no later than Friday, June 16, 2017.

The Contractor acknowledges Supplementary Conditions provisions regarding liquidated damages for work not completed by the date of substantial completion and another for work not completed by the final completion.

BID SECURITY:

The undersigned has attached to the Proposal the following:

1. Bid Security in the form of \_\_\_\_\_ and in the amount of \$\_\_\_\_\_ as outlined in the Invitation to Bid.

In submitting this bid, the undersigned understands that the right is reserved by the Owner to reject any and all bids and to waive all informalities.

BIDDER: \_\_\_\_\_

BY: \_\_\_\_\_

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

BUSINESS ADDRESS: \_\_\_\_\_

STATE OF INCORPORATION: \_\_\_\_\_  
(SEAL)

If Bid is by a Corporation:

## SECTION 012200 - UNIT PRICES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for unit prices.
- B. Related Requirements:
  - 1. Section 012600 "Contract Modification Procedures" for procedures for submitting and handling Change Orders.
  - 2. Section 014000 "Quality Requirements" for general testing and inspecting requirements.

#### 1.3 DEFINITIONS

- A. Unit price is [**an amount incorporated in the Agreement, applicable during the duration of the Work as**] a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are increased or decreased.

#### 1.4 PROCEDURES

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, [**applicable taxes,**] overhead, and profit.
- B. Measurement and Payment: See individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.
- C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.
- D. List of Unit Prices: A schedule of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

SCHEDULE OF UNIT PRICES

Unit Price No. 1: Add for Repointing Unit Masonry.

1. Description: The Contractor shall include a unit price (per square foot) for Repointing Unit Masonry. See Section 041200 – Maintenance of Unit Masonry.

END OF SECTION 012200

## SECTION 041200 - MAINTENANCE OF UNIT MASONRY

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes maintenance of unit masonry consisting of brick and stone masonry restoration and cleaning as follows:
  - 1. Repairing unit masonry.
  - 2. Repointing joints.
  - 3. Cleaning exposed unit masonry surfaces.
- B. Related Sections:
  - 1. Division 1 Section "Alternates."
  - 2. Division 1 Section "Unit Prices."

#### 1.3 UNIT PRICES

- A. Some of the work of this Section is affected by unit prices specified in Division 1 Section "Unit Prices."
  - 1. Unit prices apply to additions to and deletions from Work as authorized by Change Orders.

#### 1.4 DEFINITIONS

- A. Low-Pressure Spray: 100 to 400 psi (690 to 2750 kPa); 4 to 6 gpm (0.25 to 0.4 L/s).
- B. Medium-Pressure Spray: 400 to 800 psi (2750 to 5510 kPa); 4 to 6 gpm (0.25 to 0.4 L/s).

#### 1.5 SUBMITTALS

- A. Product Data: For each type of product indicated. Include recommendations for application and use. Include test data substantiating that products comply with requirements.
- B. Samples for Initial Selection: For the following:



1. Pointing Mortar: Submit sets of mortar for pointing in the form of sample mortar strips, 6 inches (150 mm) long by 1/2 inch (13 mm) wide, set in aluminum or plastic channels.
    - a. Have each set contain a close color range of at least three Samples of different mixes of colored sands and cements that produce a mortar matching the cleaned masonry when cured and dry.
    - b. Submit with precise measurements on ingredients, proportions, gradations, and sources of colored sands from which each Sample was made.
  2. Patching Compound: Submit sets of patching compound Samples in the form of plugs (patches in drilled holes) in sample units of masonry representative of the range of masonry colors on the building.
    - a. Have each set contain a close color range of at least three Samples of different mixes of patching compound that matches the variations in existing masonry when cured and dry.
  3. Crack Repair: Submit sets of repair compound Samples on sample units of masonry representative of the range of masonry colors on the building.
    - a. Have each set contain a close color range of at least three Samples of different mixes of repair compound that matches the variations in existing masonry when cured and dry.
  4. Sealant Materials: See Division 07 Section "Joint Sealants."
  5. Include similar Samples of accessories involving color selection.
- C. Samples for Verification: For the following:
1. Each type, color, and texture of pointing mortar in the form of sample mortar strips, 6 inches (150 mm) long by 1/2 inch (13 mm) wide, set in aluminum or plastic channels.
    - a. Include with each Sample a list of ingredients with proportions of each. Identify sources, both supplier and quarry, of each type of sand and brand names of cementitious materials and pigments if any.
  2. Each type of masonry patching compound in the form of briquettes, at least 3 inches (75 mm) long by 1-1/2 inches (38 mm) wide. Document each Sample with manufacturer and stock number or other information necessary to order additional material.
  3. Sealant Materials: See Division 07 Section "Joint Sealants."
  4. Accessories: Each type of anchor, accessory, and miscellaneous support.
- D. Qualification Data: For restoration specialists including field supervisors and restoration workers.
- E. Quality-Control Program.
- F. Restoration Program.
- G. Cleaning Program.

## 1.6 QUALITY ASSURANCE

- A. Restoration Specialist Qualifications: An experienced masonry restoration and cleaning firm shall perform work of this Section. Firm shall have completed at least five projects in the past three years which are similar in material, design, and extent to that indicated for this Project with a record of successful in-service performance. Experience installing standard unit masonry is not sufficient experience for masonry restoration work.
- B. Quality-Control Program: Prepare a written quality-control program for this Project to systematically demonstrate the ability of personnel to properly follow methods and use materials and tools without damaging masonry. Include provisions for supervising performance and preventing damage due to worker fatigue.
- C. Restoration Program: Prepare a written, detailed description of materials, methods, equipment, and sequence of operations to be used for each phase of restoration work including protection of surrounding materials and Project site.
- D. Mockups: Prepare mockups of restoration and cleaning to demonstrate aesthetic effects and set quality standards for materials and execution and for fabrication and installation.
  - 1. Masonry Repair: Prepare sample areas for each type of masonry material indicated to have repair work performed. If not otherwise indicated, size each mockup not smaller than 2 adjacent whole units or approximately 48 inches (1200 mm) in least dimension. Erect sample areas in existing walls unless otherwise indicated, to demonstrate quality of materials, workmanship, and blending with existing work. Include the following as a minimum:
    - a. Patching: Three small holes at least 1 inch (25 mm) in diameter for each type of masonry material indicated to be patched, so as to leave no evidence of repair.
    - b. Crack repair: Three areas of approximately 6 inches (130 mm) long for each type of masonry material indicated to be repaired, so as to leave no evidence of repair.
  - 2. Repointing: Rake out joints in 2 separate areas, each approximately 36 inches (900 mm) high by 48 inches (1200 mm) wide for each type of repointing required and repoint one of the areas.
  - 3. Cleaning: Clean an area approximately 25 sq. ft. (2.3 sq. m) for each type of masonry and surface condition.
    - a. Test cleaners and methods on samples of adjacent materials for possible adverse reactions. Do not use cleaners and methods known to have deleterious effect.
    - b. Allow a waiting period of not less than seven days after completion of sample cleaning to permit a study of sample panels for negative reactions.
  - 4. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
  - 5. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

## 1.7 PROJECT CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit masonry restoration and cleaning work to be performed according to manufacturers' written instructions and specified requirements.
- B. Repair masonry units and repoint mortar joints only when air temperature is between 40 and 90 deg F (4 and 32 deg C) and is predicted to remain so for at least 7 days after completion of the Work unless otherwise indicated.
- C. Hot-Weather Requirements: Protect masonry repair and mortar-joint pointing when temperature and humidity conditions produce excessive evaporation of water from mortar and repair materials. Provide artificial shade and wind breaks and use cooled materials as required to minimize evaporation. Do not apply mortar to substrates with temperatures of 90 deg F (32 deg C) and above unless otherwise indicated.
- D. For manufactured repair materials, perform work within the environmental limits set by each manufacturer.
- E. Clean masonry surfaces only when air temperature is 40 deg F (4 deg C) and above and is predicted to remain so for at least 7 days after completion of cleaning.

## 1.8 COORDINATION

- A. Coordinate masonry restoration and cleaning with public circulation patterns at Project site. Some work is near public circulation patterns. Public circulation patterns cannot be closed off entirely, and in places can be only temporarily redirected around small areas of work. Plan and execute the Work accordingly.
- B. Coordinate the Work with the Roof Replacement Contractor.

## 1.9 SEQUENCING AND SCHEDULING

- A. Order replacement materials at earliest possible date to avoid delaying completion of the Work.
- B. Perform masonry restoration work in the following sequence:
  - 1. Inspect for open mortar joints and repair before cleaning to prevent the intrusion of water and other cleaning materials into the wall.
  - 2. Clean masonry surfaces.
  - 3. Rake out mortar from joints to be repointed.
  - 4. Point mortar joints.
  - 5. After repairs and repointing have been completed and cured, perform a final cleaning to remove residues from this work.
  - 6. Inspect for open mortar joints and repair before cleaning to prevent the intrusion of water and other cleaning materials into the wall.
  - 7. Clean masonry surfaces.

- C. As scaffolding is removed, patch anchor holes used to attach scaffolding. Patch holes in masonry units to comply with "Masonry Unit Patching" Article. Patch holes in mortar joints to comply with "Repointing Masonry" Article.

## PART 2 - PRODUCTS

### 2.1 MORTAR MATERIALS

- A. Match the original mortar in composition and proportions as well as color and texture as closely as possible to ensure that old and new mortars have the same physical characteristics. If matching composition is impractical or impossible, materials used in the new mortar should at least produce mortar with a compressive strength that is significantly less than the existing masonry units and equal to or less than original mortar and that matches the original mortar in color and texture.
- B. Portland Cement: ASTM C 150, Type I or Type II.
  - 1. Provide cement containing not more than 0.60 percent total alkali when tested according to ASTM C 114.
  - 2. Hydrated Lime: ASTM C 207, Type N or S. Masonry Restoration Subcontractor shall review the existing face brick and advise mortar composition.
- C. Mortar Sand: ASTM C 144 unless otherwise indicated.
  - 1. Color: Provide natural sand of color necessary to produce required mortar color.
  - 2. For pointing mortar, provide sand with rounded edges.
  - 3. Match size, texture, and gradation of existing mortar sand as closely as possible. Blend several sands if necessary to achieve suitable match.
- D. Mortar Pigments: Natural and synthetic iron oxides, compounded for mortar mixes. Use only pigments with a record of satisfactory performance in masonry mortars. Match existing mortar color.
- E. Water: Potable.

### 2.2 MANUFACTURED REPAIR MATERIALS

- A. Masonry Patching Compound: Factory-mixed cementitious product that is custom manufactured for patching masonry.
  - 1. Products: Subject to compliance with requirements, provide the following:
    - a. Edison Coatings, Inc.; Custom System 45.
    - b. Other products will be considered provided approval is requested from Architect at least five days prior to receipt of bids.

2. Use formulation that is vapor- and water permeable (equal to or more than the masonry unit), exhibits low shrinkage, has lower modulus of elasticity than the masonry units being repaired, and develops high bond strength to all types of masonry.
  3. Use formulation having working qualities and retardation control to permit forming and sculpturing where necessary.
  4. Formulate patching compound used for patching terra cotta in colors and textures to match each masonry unit being patched. Provide sufficient number of colors to enable matching the color, texture, and variation of each unit.
- B. Masonry Crack Repair Compound: Factory-mixed cementitious product that is custom manufactured for patching masonry.
1. Products: Subject to compliance with requirements, provide the following:
    - a. Edison Coatings, Inc.; Flexi-Seal 510.
    - b. Other products will be considered provided approval is requested from Architect at least five days prior to receipt of bids.
  2. Use formulation that is vapor- and water permeable (equal to or more than the masonry unit), exhibits low shrinkage, has lower modulus of elasticity than the masonry units being repaired, and develops high bond strength to all types of masonry.
  3. Use formulation having working qualities and retardation control to permit forming and sculpturing where necessary.
  4. Formulate patching compound used for patching terra cotta in colors and textures to match each masonry unit being patched. Provide sufficient number of colors to enable matching the color, texture, and variation of each unit.

## 2.3 CLEANING MATERIALS

- A. Water: Potable.
- B. Hot Water: Water heated to a temperature of 140 to 160 deg F (60 to 71 deg C).
- C. Job-Mixed Detergent Solution: Solution prepared by mixing 2 cups (0.5 L) of tetrasodium polyphosphate, 1/2 cup (125 mL) of laundry detergent, and 20 quarts (20 L) of hot water for every 5 gal. (20 L) of solution required.
- D. Job-Mixed Mold, Mildew, and Algae Remover: Solution prepared by mixing 2 cups (0.5 L) of tetrasodium polyphosphate, 5 quarts (5 L) of 5 percent sodium hypochlorite (bleach), and 15 quarts (15 L) of hot water for every 5 gal. (20 L) of solution required.

## 2.4 ACCESSORY MATERIALS

- A. Sealant Materials:
  1. Provide manufacturer's standard chemically curing, elastomeric sealant(s) of base polymer and characteristics indicated below that comply with applicable requirements in Division 7 Section "Joint Sealants."

- a. Single-component, silicone sealant.
  2. Colors: Provide colors of exposed sealants to match colors of masonry adjoining installed sealant unless otherwise indicated.
- B. Miscellaneous Products: Select materials and methods of use based on the following, subject to approval of a mockup:
1. Previous effectiveness in performing the work involved.
  2. Little possibility of damaging exposed surfaces.
  3. Consistency of each application.
  4. Uniformity of the resulting overall appearance.
  5. Do not use products or tools that could do the following:
    - a. Remove, alter, or in any way harm the present condition or future preservation of existing surfaces, including surrounding surfaces not in contract.
    - b. Leave a residue on surfaces.

## 2.5 MORTAR MIXES

- A. Measurement and Mixing: Measure cementitious materials and sand in a dry condition by volume or equivalent weight. Do not measure by shovel; use known measure. Mix materials in a clean, mechanical batch mixer.
1. Mixing Pointing Mortar: Thoroughly mix cementitious materials and sand together before adding any water. Then mix again adding only enough water to produce a damp, unworkable mix that will retain its form when pressed into a ball. Mix for 3 to 7 minutes. Maintain mortar in this dampened condition for 60 to 90 minutes. Add remaining water in small portions until mortar reaches desired consistency. Use mortar within one hour of final mixing; do not re-temper or use partially hardened material.
- B. Colored Mortar: Produce mortar of color required by using specified ingredients. Do not alter specified proportions without Architect's approval.
1. Mortar Pigments: Where mortar pigments are indicated, do not exceed a pigment-to-cement ratio of 1:10 by weight.
- C. Do not use admixtures in mortar unless otherwise indicated.
- D. Mortar Proportions: Mix mortar materials in the following proportions:
1. Pointing Mortar for Brick: 1 part portland cement, 2 parts lime, and 6 parts sand. Verify with existing face brick.
    - a. Add mortar pigments to produce mortar colors required.

## PART 3 - EXECUTION

### 3.1 PROTECTION

- A. Protect persons, motor vehicles, surrounding surfaces of building being restored, building site, plants, and surrounding buildings from harm resulting from masonry restoration work.
  - 1. Erect temporary protective covers over walkways and at points of pedestrian and vehicular entrance and exit that must remain in service during course of restoration and cleaning work.
- B. Comply with chemical-cleaner manufacturer's written instructions for protecting building and other surfaces against damage from exposure to its products. Prevent chemical-cleaning solutions from coming into contact with people, motor vehicles, landscaping, buildings, and other surfaces that could be harmed by such contact.
  - 1. Cover adjacent surfaces with materials that are proven to resist chemical cleaners used unless chemical cleaners being used will not damage adjacent surfaces. Use materials that contain only waterproof, UV-resistant adhesives. Apply masking agents to comply with manufacturer's written instructions. Do not apply liquid masking agent to painted or porous surfaces. When no longer needed, promptly remove masking to prevent adhesive staining.
  - 2. Keep wall wet below area being cleaned to prevent streaking from runoff.
  - 3. Do not clean masonry during winds of sufficient force to spread cleaning solutions to unprotected surfaces.
  - 4. Neutralize and collect alkaline and acid wastes for disposal off Owner's property.
  - 5. Dispose of runoff from cleaning operations by legal means and in a manner that prevents soil erosion, undermining of paving and foundations, damage to landscaping, and water penetration into building interiors.
- C. Prevent mortar from staining face of surrounding masonry and other surfaces.
  - 1. Cover sills, ledges, and projections to protect from mortar droppings.
  - 2. Keep wall area wet below rebuilding and pointing work to discourage mortar from adhering.
  - 3. Immediately remove mortar in contact with exposed masonry and other surfaces.
  - 4. Clean mortar splatters from scaffolding at end of each day.

### 3.2 GENERAL INSPECTION

- A. Assist Architect with close-up inspection of the underside of the cornice and parapets. Inspection to be conducted during sealant work at sheet metal roof, spot repointing, or other work in the area to be inspected.

### 3.3 MASONRY UNIT PATCHING

- A. Patch the following masonry units unless another type of replacement or repair is indicated:

1. Units indicated to be patched.
2. Units with holes.
3. Units with chipped edges or corners.
4. Units with small areas of deep deterioration.

B. Remove and replace existing patches unless otherwise indicated or approved by Architect.

C. Remove sealant and patches in existing cracks unless otherwise indicated or approved by Architect.

### 3.4 REPOINTING MASONRY

A. Rake out and repoint joints to the following extent:

1. All joints in areas indicated.

B. Do not rake out and repoint joints where not required.

C. Rake out joints as follows, according to procedures demonstrated in approved mockup:

1. Remove mortar from joints to depth of 2-1/2 times joint width, but not less than 1/2 inch (13 mm) or not less than that required to expose sound, unweathered mortar.
2. Remove mortar from masonry surfaces within raked-out joints to provide reveals with square backs and to expose masonry for contact with pointing mortar. Brush, vacuum, or flush joints to remove dirt and loose debris.
3. Do not spall edges of masonry units or widen joints. Replace or patch damaged masonry units as directed by Architect.
  - a. Cut out center of mortar bed joints using angle grinders with diamond-impregnated metal blades. Remove remaining mortar by hand with chisel and resilient mallet. Strictly adhere to approved quality-control program.

D. Notify Architect of unforeseen detrimental conditions including voids in mortar joints, cracks, loose masonry units, rotted wood, rusted metal, and other deteriorated items.

E. Pointing with Mortar:

1. Rinse joint surfaces with water to remove dust and mortar particles. Time rinsing application so that at time of pointing, joint surfaces are damp but free of standing water. If rinse water dries, dampen joint surfaces before pointing.
2. Apply pointing mortar first to areas where existing mortar was removed to depths greater than surrounding areas. Apply in layers not greater than 3/8 inch (9 mm) until a uniform depth is formed. Fully compact each layer thoroughly and allow it to become thumbprint hard before applying next layer. Where existing masonry units have worn or rounded edges, slightly recess finished mortar surface below face of masonry to avoid widened joint faces. Take care not to spread mortar beyond joint edges onto exposed masonry surfaces or to featheredge the mortar.
3. When mortar is thumbprint hard, tool joints to match original appearance of joints as demonstrated in approved mockup. Remove excess mortar from edge of joint by brushing.

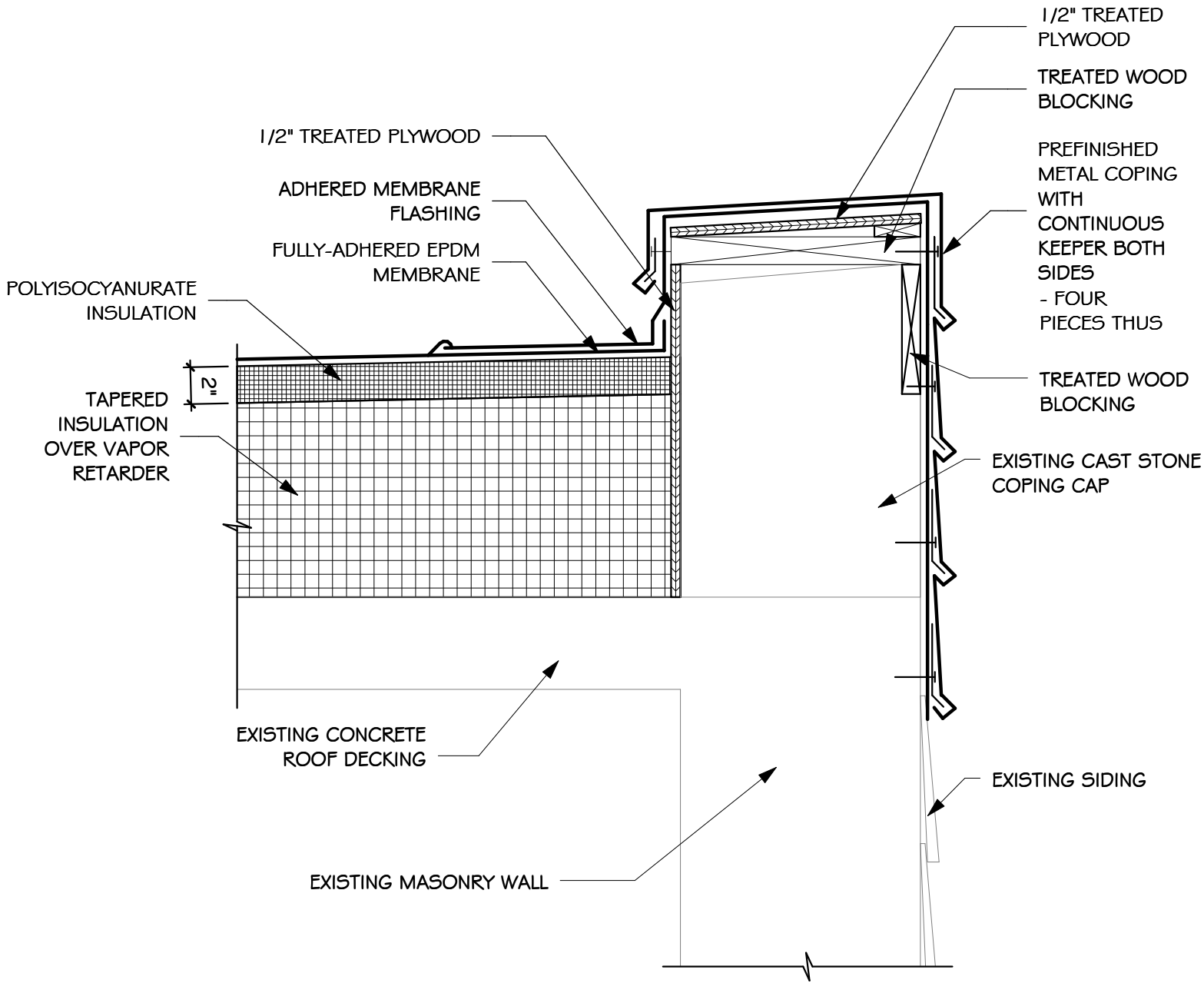


4. Cure mortar by maintaining in thoroughly damp condition for at least 72 consecutive hours including weekends and holidays.
  - a. Acceptable curing methods include covering with wet burlap and plastic sheeting, periodic hand misting, and periodic mist spraying using system of pipes, mist heads, and timers.
  - b. Adjust curing methods to ensure that pointing mortar is damp throughout its depth without eroding surface mortar.
5. Hairline cracking within the mortar or mortar separation at edge of a joint is unacceptable. Completely remove such mortar and repoint.
- F. Where repointing work precedes cleaning of existing masonry, allow mortar to harden at least 30 days before beginning cleaning work.
- G. Install other joint-pointing materials such as lead wool or lead T-cap if acceptable and required.

### 3.5 FINAL CLEANING

- A. After mortar has fully hardened, thoroughly clean exposed masonry surfaces of excess mortar and foreign matter; use wood scrapers, stiff-nylon or -fiber brushes, and clean water, spray applied at low pressure.
  1. Do not use metal scrapers or brushes.
  2. Do not use acidic or alkaline cleaners.
- B. Wash adjacent woodwork and other non-masonry surfaces. Use detergent and soft brushes or cloths.
- C. Clean mortar and debris from roof; remove debris from gutters and downspouts. Rinse off roof and flush gutters and downspouts.
- D. Sweep and rake adjacent pavement and grounds to remove mortar and debris. Where necessary, pressure wash pavement surfaces to remove mortar, dust, dirt, and stains.

END OF SECTION 041200



NEW

1  
SD-1

## SEC THRU PENTHOUSE SD-1

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



project LAKE COUNTY COURTHOUSE REROOF  
 number 0422.2671.16 drawn KCP checked ESS  
 date 11-15-16 revision

**Architecture Incorporated**  
 sioux falls and rapid city, south dakota

DRAWING

**SD-1**