



**JERRY W. HERNDON • ARCHITECT**

ARCHITECTURE • CONSTRUCTION MANAGEMENT

# **Jessamine County Health Department**



**Jessamine County  
Health Department**

## **Re-roof**

**210 East Walnut Street  
Nicholasville, Kentucky**

**August 2, 2017**

**DOCUMENT 00 4100 - BID FORM**

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

**PROJECT:** Jessamine County Health Department Health Department Reroof

**PROPOSAL OF:** \_\_\_\_\_  
Hereinafter called "Bidder"

**TO: Jessamine County Health Department Attention: Randy Gooch** hereinafter called "Owner"

The undersigned, in compliance with your Advertisement for Bids, submits the following Bid:

**1.1 REPRESENTATIONS**

- A. Bidder will accept the provisions of the Bidding Documents.
- B. Bidder will enter into and execute a contract with the Owner within 10 days after notification of the acceptance of this Bid.
- C. Bidder will accomplish the Work in accordance with the Bidding Documents prepared by Jerry W Herndon Architect, 2437 Fortune Drive Lexington, Kentucky. Address all questions to Randall Barrett AIA 859.225.3010.

**1.2 TIME OF COMPLETION**

A. Bidder will achieve Substantial Completion of the Work within the following calendar days after a Notice to Proceed is issued: 60 Days

**1.3 BID AMOUNTS**

A. Base Bid Amount: Bidder proposes to construct this project for the guaranteed maximum cost of:

Metal Roof

\_\_\_\_\_  
\_\_\_\_\_ Dollars  
(\_\_\_\_\_)

Asphalt Shingle Roof

\_\_\_\_\_  
\_\_\_\_\_ Dollars  
(\_\_\_\_\_)

Bid Break out Metal Roof

<b>Item:</b>		<b>Cost / Fee</b>
General Conditions		
Demolition (remove old roof)		

Install new metal roof		
Flashing		
Caulking		
Contractors O & P		
Bid Bond, and Performance and Payment Bond		
Building Permit		
Total		

**Bid Break out Asphalt Shingle Roof**

<b>Item:</b>		<b>Cost / Fee</b>
General Conditions		
Demolition (remove old roof)		
Install new Asphalt		
Flashing		
Caulking		
Contractors O & P		
Bid Bond, and Performance and Payment Bond		
Building Permit		
Total		

B. Alternate Bids: If the Alternates listed below and further described in Section 01 2300 - Alternates are accepted, the Base Bid Amount stated above shall be modified by the following amounts:

1. Alternate No. 1: Replace Gutters and Downspouts to match existing size and profile. (Add)(Deduct) (Bidder strike one):

\_\_\_\_\_ Dollars  
 (\_\_\_\_\_)

C. Unit Prices: The unit prices listed below and described in Section 01 2200 - Unit Prices, will apply throughout the project for changing work upon written instructions of the Architect:

Description	Unit of Measure	Add per Unit	Deduct per Unit
Roof sheathing	S F	\$ _____	\$ _____

**1.4 ADDENDA**

A. Bidder acknowledges receipt of the following Addenda:

No. \_\_\_\_\_ Dated \_\_\_\_\_, 20\_\_

No. \_\_\_\_\_ Dated \_\_\_\_\_, 20\_\_

No. \_\_\_\_\_ Dated \_\_\_\_\_, 20\_\_

No. \_\_\_\_\_ Dated \_\_\_\_\_, 20\_\_

**ATTENTION:**

This Bid Form must be submitted by sealed envelope titled "Jessamine County Health Department Reroof Project Bid - Attention: Randy Gooch, 210 E Walnut Street, Nicholasville, KY 40356" by 4:00 p.m. EST on August 21, 2017 and will be opened on August 22, 2017 during the Jessamine County Board of Health meeting at 7:00 a.m. EST. at the same location.

Respectfully Submitted,

\_\_\_\_\_  
Firm Name

\_\_\_\_\_  
By

\_\_\_\_\_  
Street Address

\_\_\_\_\_  
Signature

\_\_\_\_\_  
City, State and Zip Code

\_\_\_\_\_  
Title

\_\_\_\_\_  
Telephone

Corporations: Affix Corporate Seal

---

State in which incorporated

END OF DOCUMENT – 00 4100

## SECTION 01 11 00 - SUMMARY OF WORK

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
  - 1. Project description.
  - 2. Owner occupancy.
  - 3. Contractor's use of site and premises.

#### 1.2 PROJECT DESCRIPTION

- A. Work of this Project consist of the removal of an existing asphalt shingle and installation of a new standing seam metal roof or Asphalt shingle roof as determined by owner. Project location: Jessamine County Health Department, 210 East Walnut Street, Nicholasville, Kentucky 40356.
- B. Contractor shall provide a 10% Bid Bond to be submitted with the bid and a Performance Bond for the project.
- C. Contractor shall provide Insurance throw-out the duration of the contract
  - 1. General Lability Insurance – \$ 1,000,000.00
  - 2. Workers Compensation Insurance
- D. Work includes complete removal of the existing asphalt shingle roof including roofing paper / felts. Replacement with new standing seam metal roof or asphalt shingles as determined by the owner with all accessories.
- E. The Project will be constructed under a single contract.

#### 1.3 OWNER OCCUPANCY

- A. The Owner will occupy the site and premises during the entire period of construction for conduct of normal operations.
- B. Cooperate with the Owner to minimize conflict, and to facilitate Owner's operations.

#### 1.4 CONTRACTOR'S USE OF SITE AND PREMISES

- A. Limit use of site and premises to allow for:
  - 1. Owner occupancy.
  - 2. Use of site and adjacent premises by the public.
- B. Assume full responsibility for protection and safekeeping of products under this Contract stored on site.
- C. Obtain and pay for use of any additional storage or work areas needed for operations.
- D. Coordinate use of site and premises with the Owner:
  - 1. Employee parking: In designated areas.
  - 2. Storage and staging areas: In designated areas.

- 3. Transport materials and equipment to and from construction area along routes approved by Owner.
- E. Conform to Building Rules and Regulations.
- F. If access to adjacent common or occupied spaces is required:
  - 1. Schedule operations with Owner in advance.
- G. Do not interrupt building fire or life safety systems.
- H. Do not close or obstruct exits.
- I. Do not use or store hazardous or flammable materials on premises without Owner's approval; follow requirements of governing authorities having jurisdiction over the work.
- J. Prohibit smoking within the construction site.

PART 2 PRODUCTS

Not used

PART 3 EXECUTION

Not used

END OF SECTION 011100

SECTION 01 2200 - UNIT PRICES

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
  - 1. Measurement.
  - 2. Payment.

1.2 UNIT PRICES

- A. Provide unit prices for items listed, for inclusion in Contract, guaranteed to apply for duration of Project as basis for additions to or deductions from Contract Sum.
- B. The Unit Price shall cover the cost for materials and installation of sheathing that needs to be replaced.
- C. Take measurements and compute quantities.
- D. Quantities and measurements indicated are for Contract purposes only. Actual quantities and measurements supplied or placed in the Work will determine payment.
- E. Payment includes full compensation for all required labor, Products, tools, equipment, plant, transportation, services, and incidentals, and for erection, application, or installation of an item of the Work.
- F. Adjustments to Contract Sum will be made by Change Order based on net cumulative change for each item of the Work.

PART 2 PRODUCTS

Not used

PART 3 EXECUTION

3.1 UNIT PRICE SCHEDULE

- A. Roof sheathing to match existing sheathing depth and structural capacity.

END OF SECTION – 01 22 00



## **SECTION 076200 - SHEET METAL FLASHING AND TRIM**

### **GENERAL**

#### **1.1 SUMMARY**

- A. Section Includes:
  - 1. Metal flashings and trim.
  - 2. Copings.
  - 3. Edge flashings.
  - 4. Counterflashings over membrane roof base flashings.
  - 5. Counterflashings at roof mounted equipment and utility penetrations.
  
- B. Related Sections:
  - 1. Section 07 9200 - Joint Sealers.

#### **1.2 REFERENCES**

- A. American Architectural Manufacturers Association (AAMA):
  - 1. 611 - Voluntary Specification for Anodized Architectural Aluminum.
  - 2. 621 - Voluntary Specifications for High Performance Organic Coatings on Coil Coated Architectural Hot Dipped Galvanized (HDG) and Zinc-Aluminum Coated Steel Substrates.
  - 3. 2604 - Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Architectural Extrusions and Panels.
  - 4. 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Architectural Extrusions and Panels.
  
- B. Sheet Metal and Air Conditioning Manufacturer's Association International (SMACNA) - Architectural Sheet Metal Manual.

#### **1.3 SUBMITTALS**

- A. Submittals for Review:
  - 1. Shop Drawings: Show locations, types and thicknesses of metal, profiles, dimensions, fastening methods, provisions for expansion and contraction, and joint details.

#### **1.4 QUALITY ASSURANCE**

- A. Fabricator and Installer Qualifications: Minimum 15 years documented experience in work of this Section.
  
- B. Design, fabricate, and install metal copings gravel stops edge flashings in accordance with ANSI/SPRI ES-1.

## **PART 2 PRODUCTS**

## 2.1 MATERIALS

- A. Aluminum Sheet:
  - 1. ASTM B209, alloy 3003, temper H14, 0.032 inch thick.
  - 2. Finish: AAMA 2604, fluoropolymer coating containing minimum 50 percent PVDF resins, three coat system, color to be selected from manufacturer's full color range.

## 2.2 ACCESSORIES

- A. Solder: ASTM B32.
- B. Fasteners: Same material and finish as sheet metal, with neoprene gasketed washers where exposed.
- C. Joint Sealers: Specified in Section 07 9200.

## 2.3 FABRICATION

- A. Fabricate components in accordance with SMACNA Manual.
- B. Fabricate corners in single units with minimum 18 inch long legs.
- C. Fabricate vertical faces with bottom edge formed outward 1/4 inch and hemmed to form drip.
- D. Form sections accurate to size and shape, square and free from distortion and defects.
- E. Provide for thermal expansion and contraction in sheet metal:
  - 1. Other sheet metal:
    - a. Provide expansion joints in sheet metal exceeding 15 feet in running length.
    - b. Place expansion joints at 10 feet on center maximum and maximum 2 feet from corners and intersections.
  - 2. Joint width: Consistent with types and sizes of materials, minimum width 1/4 inch.
- F. Fabricate expansion joints in metal copings edge flashings gravel stops with backing and cover plates formed to flashing profile, minimum 8 inches long.
- G. Unless otherwise indicated, provide minimum 3/4 \_\_\_ inch wide flat lock seams; lap in direction of water flow.
- H. Fabricate cleats and starter strips of same material as sheet metal.

## **PART 3 EXECUTION**

### 3.1 INSTALLATION

- A. Install flashing and sheet metal as indicated and in accordance with SMACNA Manual.

- B. Install cleats and starter strips before starting installation of sheet metal. Fasten at 6 inches on center maximum.
- C. Expansion Joints in Metal Copings: Edge Flashings:
  - 1. Center backing plate between flashing pieces at end joints.
  - 2. Apply two continuous beads of joint sealer between backing plate and flashing sections at each end.
  - 3. Install flashing pieces with 1/2 inch expansion space at abutting ends; apply sealer to expansion space.
  - 4. Apply two continuous beads of joint sealer between cover plate and flashing sections at each end.
- D. Secure flashings with concealed fasteners where possible.
- E. Apply plastic cement between metal and bituminous flashings.
- F. Fit flashings tight, with square corners and surfaces true and straight.
- G. Seam and seal field joints.
- H. Separate dissimilar metals with bituminous coating or non-absorptive gaskets.
- I. Apply joint sealers as specified in Section 07 9200.

### 3.2 CLEANING

- A. Clean sheet metal; remove slag, flux, stains, spots, and minor abrasions without etching surfaces.

END OF SECTION – 07 6200

## SECTION 073113 - ASPHALT SHINGLES

### PART 1 - GENERAL

#### 1.1 SECTION REQUIREMENTS

- A. Submittals: Product Data, Samples, and ICC-ES evaluation reports.
- B. Warranties: Provide standard manufacturer's written warranty, signed by manufacturer agreeing to promptly repair or replace asphalt shingles that fail in materials or workmanship within **25 years from date of Substantial Completion, prorated, with first 5 years nonprorated.**

### PART 2 - PRODUCTS

#### 2.1 ASPHALT SHINGLES

- A. Fire-Resistance Characteristics: ASTM E 108 or UL 790, Class A. Identify products with appropriate markings of testing and inspecting agency acceptable to authorities having jurisdiction.
- B. Organic-Felt Shingles: ASTM D 225, passing ASTM D 3161 for wind resistance, and as follows:
  - 1. Laminated-Strip Asphalt Shingles: Laminated, multi-ply overlay construction, mineral-granule surfaced, and self-sealing. Straight cut butt edge.
  - 2. No-Cutout-Strip Asphalt Shingles: Mineral-granule surfaced, self-sealing, square, and single tab. Stagger cut butt edge.

#### 2.2 ACCESSORIES

- A. Felts: ASTM D 226 or ASTM D 4869, Type I, asphalt-saturated organic felts.
- B. Self-Adhering Sheet Underlayment: ASTM D 1970, SBS-modified asphalt; mineral-granule or slip-resisting-polyethylene surfaced; with release paper backing; cold applied.
- C. Self-Adhering Sheet Underlayment, High Temperature: Butyl or SBS-modified asphalt; slip-resisting-polyethylene surfaced; with release paper backing; cold applied. Stable after testing at 240 deg F and passes after testing at minus 20 deg F; ASTM D 1970.
- D. Flexible Ridge Vent: Compression-resisting, three-dimensional, open-nylon or polyester-mat filter bonded to a nonwoven, nonwicking, geotextile fabric cover.
- E. Asphalt Roofing Cement: ASTM D 4586, Type II, asbestos free.

- F. Roofing Nails: Aluminum, stainless-steel, or hot-dip galvanized-steel shingle nails, minimum 0.120-inch diameter, of sufficient length to penetrate 3/4 inch into solid wood decking or extend at least 1/8 inch through OSB or plywood sheathing.
- G. Sheet Metal Flashing and Trim: Comply with requirements in Division 07 Section "Sheet Metal Flashing and Trim."
  - 1. Sheet Metal: Zinc-tin alloy-coated steel.
  - 2. Fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual."
  - 3. Drip Edge: Formed sheet metal with at least a 2-inch roof deck flange and a 1-1/2-inch fascia flange with a 3/8-inch drip at lower edge.
  - 4. Open-Valley Flashing: Fabricate with 1-inch- high, inverted-V profile at center of valley and equal flange widths of 10 inches.

### PART 3 - EXECUTION

#### 3.1 INSTALLATION

- A. Comply with recommendations in ARMA's "Residential Asphalt Roofing Manual" and with asphalt shingle recommendations in NRCA's "The NRCA Roofing and Waterproofing Manual."
- B. Apply self-adhering sheet underlayment at eaves and rakes from edges of roof to at least 24 inches inside exterior wall line.
- C. Apply self-adhering sheet underlayment at valleys extending 18 inches on each side.
- D. Install felt underlayment on roof deck not covered by self-adhering sheet underlayment.
- E. Install valleys complying with NRCA instructions. Construct woven valleys.
- F. Install metal flashings to comply with requirements in Division 07 Section "Sheet Metal Flashing and Trim" and according to recommendations in ARMA's "Residential Asphalt Roofing Manual" and asphalt shingle recommendations in NRCA's "The NRCA Roofing and Waterproofing Manual."
- G. Install first and remaining courses of asphalt shingles stair-stepping diagonally across roof deck with manufacturer's recommended offset pattern at succeeding courses, maintaining uniform exposure.
- H. Install first and remaining courses of asphalt shingles stair-stepping diagonally across roof deck with manufacturer's recommended offset pattern at succeeding courses, maintaining uniform exposure.

END OF SECTION 073113

## SECTION 074113 - METAL ROOF PANELS

### PART 1 - GENERAL

#### 1.1 SECTION REQUIREMENTS

- A. Summary: Factory-formed metal roof panels, fasciae, and trim.
- B. Submittals: Product Data, Shop Drawings, and color Samples.
- C. Warranties: Provide manufacturer's standard written warranty, without monetary limitation, signed by manufacturer agreeing to promptly repair or replace metal roof panels that fail to remain weathertight within 40 years from date of Substantial Completion.

### PART 2 - PRODUCTS

#### 2.1 METAL ROOF PANELS

- A. Wind-Uplift Resistance of Roof Assemblies: UL 580, Class 90.
- B. Energy Performance of Roof Panels: Initial solar reflectance not less than 0.70 and emissivity not less than 0.75 when tested according to CRRC-1.
- C. Roof Panel Type: standing-seam metal roof panels.
- D. Metallic-Coated Steel Roof Panels: Fabricated from galvanized structural-steel sheet, ASTM A 653/A 653M, G90, or aluminum-zinc alloy-coated structural-steel sheet, ASTM A 792/A 792M, Class AZ50 coating designation, Grade 40.
  - 1. Nominal Metal Thickness: 0.028 inch.
  - 2. Finish: Manufacturer's standard two-coat fluoropolymer system with color coat containing not less than 70 percent PVDF resin by weight.

#### 2.2 ACCESSORIES

- A. Provide components required for a complete roof panel assembly including trim, fasciae, clips, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items.
- B. Flashing and Trim: Formed from 0.025-inch nominal thickness, zinc-coated (galvanized) steel sheet or aluminum-zinc alloy-coated steel sheet. Provide flashing and trim as required to seal against weather and to provide finished appearance. Finish flashing and trim with same finish system as adjacent metal roof panels.

- C. Self-Adhering Sheet Underlayment, High Temperature: Butyl or SBS-modified asphalt; slip-resisting-polyethylene surfaced; with release paper backing; cold applied. Stable after testing at 240 deg F and passes after testing at minus 20 deg F; ASTM D 1970.
- D. Felt Underlayment: ASTM D 226, Type II (No. 30), asphalt-saturated organic felts, or approved synthetic underlayment.
- E. Slip Sheet: Manufacturer's recommended slip sheet, of type required for application.
- F. Thermal Spacer Blocks: Fabricated from extruded polystyrene, 1 inch thick.
- G. Bituminous Coating: Cold-applied asphalt mastic, SSPC-Paint 12, compounded for 15-mil dry film thickness per coat.

### PART 3 - EXECUTION

#### 3.1 INSTALLATION

- A. Apply self-adhering sheet underlayment at eaves and rakes from edges of roof to at least 24 inches inside exterior wall line.
- B. Apply self-adhering sheet underlayment at valleys extending 18 inches on each side.
- C. Install felt underlayment on roof deck not covered by self-adhering sheet underlayment.
- D. Apply slip sheet over underlayment before installing metal roof panels.
- E. Install flashings to cover underlayment to comply with requirements specified in Division 07 Section "Sheet Metal Flashing and Trim."
- F. Rigidly fasten metal roof panels to structure at one and only one location for each panel. Allow remainder of panel to move freely for thermal expansion and contraction. Predrill panels for fasteners.
  - 1. Steel Roof Panels: Use stainless-steel fasteners for surfaces exposed to the exterior and galvanized-steel fasteners for surfaces exposed to the interior.
  - 2. Aluminum Roof Panels: Use aluminum or stainless-steel fasteners for surfaces exposed to the exterior and aluminum or galvanized-steel fasteners for surfaces exposed to the interior.
  - 3. Provide metal closures at rake edges rake walls and each side of ridge and hip caps.
  - 4. Flash and seal metal roof panels with weather closures at eaves, rakes, and perimeter of all openings.
  - 5. Install ridge and hip caps as metal roof panel work proceeds.
- G. Install gaskets, joint fillers, and sealants where required for weatherproof performance of metal roof panel assemblies. Provide types of gaskets, fillers, and sealants recommended by metal roof panel manufacturer.

- H. Separate dissimilar metals with a bituminous coating or self-adhering sheet underlayment.
- I. Coat back side of aluminum panels with bituminous coating where they will contact wood, ferrous metal, or cementitious construction.

END OF SECTION 074113



## SECTION 076200 - SHEET METAL FLASHING AND TRIM

### PART 1 - GENERAL

#### 1.1 SECTION REQUIREMENTS

- A. Submittals: Product Data, Shop Drawings.
- B. Comply with SMACNA's "Architectural Sheet Metal Manual." Conform to dimensions and profiles shown unless more stringent requirements are indicated.
- C. Coordinate installation of sheet metal flashing and trim with interfacing and adjoining construction to provide a leakproof, secure, and noncorrosive installation.

### PART 2 - PRODUCTS

#### 2.1 SHEET METAL

- A. Metallic-Coated Steel Sheet: Galvanized structural-steel sheet, ASTM A 653/A 653M, G90, or aluminum-zinc alloy-coated structural-steel sheet, ASTM A 792/A 792M, Class AZ50 coating designation, Grade 40; 0.022-inch nominal thickness.
  - 1. Finish: Manufacturer's standard three-coat fluoropolymer system with color coat and clear coat containing not less than 70 percent PVDF resin by weight.
  - 2. Concealed Finish: Manufacturer's standard white or light-colored acrylic or polyester backer finish.

#### 2.2 ACCESSORIES

- A. Felt Underlayment: ASTM D 226, Type II (No. 30), asphalt-saturated organic felts.
- B. Self-Adhering Sheet Underlayment, High Temperature: Butyl or SBS-modified asphalt; slip-resisting-polyethylene surfaced; with release paper backing; cold applied. Stable after testing at 240 deg F and passes after testing at minus 20 deg F; ASTM D 1970.
- C. Slip Sheet: Building paper, 3-lb/100 sq. ft. minimum, rosin sized.
- D. Fasteners: Wood screws, annular-threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners.
  - 1. Exposed Fasteners: Heads matching color of sheet metal roofing using plastic caps or factory-applied coating.
  - 2. Spikes and Ferrules: Same material as gutter; with spike with ferrule matching internal gutter width.
  - 3. Fasteners for Copper: Copper, hardware bronze, or Series 300 stainless steel.
  - 4. Fasteners for Aluminum Sheet: Aluminum or Series 300 stainless steel.

5. Fasteners for Stainless-Steel Sheet: Series 300 stainless steel.
  6. Fasteners for Zinc-Tin Alloy-Coated Stainless-Steel Sheet: Series 300 stainless steel.
  7. Fasteners for Metallic-Coated Steel Sheet: Hot-dip galvanized steel or Series 300 stainless steel.
- E. Butyl Sealant: ASTM C 1311, solvent-release butyl rubber sealant.
- F. Bituminous Coating: Cold-applied asphalt emulsion complying with ASTM D 1187.

## 2.3 FABRICATION

- A. Fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to the design, dimensions, metal, and other characteristics of the item indicated.
- B. Expansion Provisions: Where lapped expansion provisions cannot be used, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with butyl sealant concealed within joints.
- C. Fabrication Tolerances: Fabricate sheet metal flashing and trim that is capable of installation to tolerances specified in MCA's "Guide Specification for Residential Metal Roofing."

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Comply with SMACNA's "Architectural Sheet Metal Manual." Allow for thermal expansion; set true to line and level. Install Work with laps, joints, and seams permanently watertight and weatherproof; conceal fasteners where possible.
- B. Sealed Joints: Form nonexpansion, but movable, joints in metal to accommodate elastomeric sealant to comply with SMACNA standards.
- C. Soldered Joints: Clean surfaces to be soldered, removing oils and foreign matter. Pre-tem edges of sheets to be soldered to a width of 1-1/2 inches, except where pre-temmed surface would show in finished Work.
1. Do not solder metallic-coated steel and aluminum sheet.
  2. Do not pre-tem zinc-tin alloy-coated stainless steel.
  3. Do not use torches for soldering. Heat surfaces to receive solder and flow solder into joint. Fill joint completely. Completely remove flux and spatter from exposed surfaces.
- D. Separate dissimilar metals with a bituminous coating or polymer-modified, bituminous sheet underlayment.

END OF SECTION 076200

SECTION 07 9200 - JOINT SEALERS

Part 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
  1. Joint backup materials.
  2. Joint sealers.

1.2 REFERENCES

- A. ASTM International (ASTM):
  1. C510 - Standard Test Method for Staining and Color Change of Single- or Multicomponent Joint Sealants.
  2. C719 - Standard Test Method for Adhesion and Cohesion of Elastomeric Joint Sealants Under Cyclic Movement (Hockman Cycle).
  3. C794 - Standard Test Method for Adhesion-In-Peel of Elastomeric Joint Sealants.
  4. C919 - Standard Practice for Use of Sealants in Acoustical Applications.
  5. C920 - Standard Specification for Elastomeric Joint Sealants.
  6. C1193 - Standard Guide for Use of Joint Sealants.
  7. C1248 - Standard Test Method for Staining of Porous Substrate by Joint Sealants.
  8. D2203 - Standard Test Method for Staining from Sealants.

1.3 SUBMITTALS

- A. Submittals for Review:
  1. Product Data: Indicate sealers, primers, backup materials, bond breakers, and accessories proposed for use.
  2. Warranty: Sample warranty form.

1.4 QUALITY ASSURANCE

- A. Applicator Qualifications: Minimum 15 years documented experience in work of this Section.
- B. Laboratory Pre-Construction Testing:
  1. Obtain representative samples of actual substrate materials.
  2. Test sealers and accessories for following:
    - a. Adhesion: Test to ASTM C794 and ASTM C719; determine surface preparation and required primer.
    - b. Compatibility: Test to ASTM C1087; determine that materials in contact with sealers do not adversely affect sealant materials or sealant color.
    - c. Staining: Test to ASTM D2203, ASTM C510, or ASTM C1248; determine that sealants will not stain joint substrates.
    - d. Pre-construction testing is not required when sealant manufacturer furnishes data acceptable to Architect based on previous testing for materials matching those of this Project.
- C. Field Pre-Construction Testing: Test each joint sealer and joint substrate before beginning work of this Section:

1. Install sealers in mockups using joint preparation methods and materials recommended by sealer manufacturer.
2. Install field-test joints in inconspicuous location approved by Owner.
3. Test sealers using manufacturer's standard field adhesion test; verify joint preparation and primer required to obtain optimum adhesion of sealants to joint substrate.
4. When test indicates sealant adhesion failure, modify joint preparation, primer, or both and retest until joint passes sealant adhesion test.

## 1.5 PROJECT CONDITIONS

- A. Do not apply sealers at temperatures below 40 degrees F unless approved by sealer manufacturer.

## 1.6 WARRANTIES

- A. Furnish manufacturer's 10 year warranty providing coverage for exterior sealers and accessories that fail to provide air and water tight seal, exhibit loss of adhesion or cohesion, or do not cure.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
  1. BASF Building Systems. ([www.buildingsystems.basf.com](http://www.buildingsystems.basf.com))
  2. Dow Corning Corp. ([www.dowcorning.com](http://www.dowcorning.com))
  3. GE Silicones. ([www.gesealants.com](http://www.gesealants.com))
  4. Pecora Corp. ([www.pecora.com](http://www.pecora.com))
  5. Sika Corp. ([www.sikausa.com](http://www.sikausa.com))
  6. Tremco, Inc. ([www.tremcosealants.com](http://www.tremcosealants.com))

### 2.2 MATERIALS

- A. Joint Sealer
  1. ASTM C920, Grade NS, single component silicone type, non sag.
  2. Movement capability: Plus or minus 50 percent.
  3. Color: To match color of adjacent building material

### 2.3 ACCESSORIES

- A. Primers, Bondbreakers, and Solvents: As recommended by sealer manufacturer.
- B. Joint Backing:
  1. ASTM C1330, closed cell polyethylene foam, preformed round joint filler, non absorbing, non staining, resilient, compatible with sealer and primer, recommended by sealer manufacturer for each sealer type.
  2. Size: Minimum 1.25 times joint width.

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Remove loose and foreign matter that could impair adhesion. If surface has been subject to chemical contamination, contact sealer manufacturer for recommendation.
- B. Clean and prime joints in accordance with manufacturer's instructions.
- C. Protect adjacent surfaces with masking tape or protective coverings.
- D. Sealer Dimensions:
  - 1. Minimum joint size: 1/4 x 1/4 inch.
  - 2. Joints 1/4 to 1/2 inch wide: Depth equal to width.
  - 3. Joints over 1/2 inch wide: Depth equal to one half of width.

### 3.2 APPLICATION

- A. Apply products in accordance with manufacturer's instructions.
- B. Install sealers and accessories in accordance with ASTM C1193.
- C. Install acoustical sealers and accessories in accordance with ASTM C919.
- D. Install joint backing to maintain required sealer dimensions. Compress backing approximately 25 percent without puncturing skin. Do not twist or stretch.
- E. Use bondbreaker tape where joint backing is not installed.
- F. Fill joints full without air pockets, embedded materials, ridges, and sags.
- G. Tool sealer to smooth profile.
- H. Apply sealer within manufacturer's recommended temperature range.

### 3.3 CLEANING

- A. Remove masking tape and protective coverings after sealer has cured.
- B. Clean adjacent surfaces.

END OF SECTION – 07 92 00