

# Cherokee Nation

[www.cherokee.org](http://www.cherokee.org)

## REQUEST FOR BIDS

HOUSING REPAIR FOR CHEROKEE CO.



**Bid Due Date: Tuesday January 17, 2023 by 5 pm**

**CHEROKEE NATION**

P.O. Box 948  
Tahlequah, OK 74465  
(918) 453-5000

**CHEROKEE NATION  
BID REQUEST  
HOUSING REPAIR FOR CHEROKEE CO.**

The Cherokee Nation is accepting bids from interested parties to replace roof and other repairs as stated in the scope of work for speaker home located in Cherokee, County. The scope of work and specifications are included in this bid packet.

Interested parties are to provide a bid to furnish all labor, quality control, materials, supplies and supervision to complete the entire project. Interested bidders must follow all directions outlined in this bid packet including the utilization of mandatory bid response sheet to be considered fully responsive.

The lowest most responsive, responsible bid will be the determining factor in awarding this bid taking Indian Preference into consideration. The successful bidder will be issued an agreement and a purchase order incorporating the bid response.

**Bids are due Tuesday January 17, 2023 by 5:00 p.m.**

**MANDATORY SUBMITTAL INFORMATION:** Bid submittal requirements must be followed. Each bid must be submitted on the prescribed, required form with all areas completed. If forwarded by mail, the envelope containing the bid and all other required, completed documents must be received on or before due date listed. Bids may be mailed to Cherokee Nation Acquisition Management, Attn: **Georgette Smith**, P.O. Box 948, Tahlequah, OK 74465. Bids may be faxed to the attention of **Georgette Smith** at (918) 458-4493 or (918) 458-7695 or e-mailed to **georgette-smith@cherokee.org**. It is the bidder's responsibility to ensure delivery of bids by **Tuesday January 17, 2023 by 5:00 p.m.** Any bids received after the designated date and time will be ineligible for award.

**Interpretation of the Bid Documents:** All questions or requests for interpretation of the bid must be submitted in written format to Cherokee Nation Acquisition Management. Requests may be e-mailed to **georgette-smith@cherokee.org** . Requests may also be faxed to (918) 458-4493 or (918) 458-7695, **Attention: Georgette Smith.**

- a) To be given consideration, questions and interpretation requests must be received no later than **Wednesday January 11, 2023 by 11:00 a.m.**
- b) Any and all such answers and interpretations and any supplemental instructions will be in the form of written addenda to the bid which, if issued, will be communicated in written format to all prospective bidders not later via a posting on the NATION'S website, [www.cherokeebids.org](http://www.cherokeebids.org) with bid announcement. Due date for interpretations for this bid shall be **Thursday January 12, 2023 by 5:00 p.m.**
- c) No answers or interpretation of the bid documents will be made to any bidder orally.
- d) Failure of any bidder to receive any such addendum or interpretation shall not relieve such bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the contract documents.

**Bid Acceptance:** Bids will be accepted from Indian and Non-Indian bidders. Cherokee Nation reserves the right to reject any and all bids. Cherokee Nation reserves the right to determine if a bid meets stated requirements, and to award a purchase order for the bid that is in the best interest of the Cherokee Nation including but not limited to the total cost and capability of the bidder. Bidders are responsible for any and all costs associated with the preparation and submission of bids. To be considered, bids must be received by the specified date and time; any bid received after stipulated date and time will be returned unopened. No bidder may withdraw their bid within 30 days after proposal due date.

**TERO Certification:** Indian preference will be given only to bidders who provide proof of current certification from the Cherokee Nation Tribal Employments Office (TERO) located in Tahlequah, Oklahoma, telephone number (918) 453-5000. Proof of TERO certification must accompany and be included in bid submittal.

**TERO Requirements:** Cherokee Nation TERO Office requirements apply to award of agreement; including fee of ½ of 1% of contract award. Successful bidder must complete required TERO paperwork and pay all applicable fees in accordance with the current Legislative Act for this project. Please contact Cherokee Nation Tribal Employment Rights Office (T.E.R.O.) at (918) 453-5000 with any questions. The successful bidder must have fees and all paperwork submitted to TERO for agreement to be considered fully executed.

**Wage Rate Requirements:** All laborers and mechanics employed by contractors and subcontractors shall be paid wages at rates not less than those prevailing on projects of character similar in the locality as determined by the Secretary of Labor in accordance with the Davis-Bacon Act.

For this project Wage Rate **OK20220005** applies.

**Buy American – Recovery Act provisions:** The buy American provisions direct that all of the iron, steel, and manufactured goods used in the project are produced or manufactured in the United States for a project for the construction, alteration, maintenance or repair of a public building or public work. This Buy American provision is applicable only to iron, steel, and manufactured good brought to the construction site for incorporation into a public building or public work. Products that do not fit the definition of manufactured goods are not covered.

**Laws and Regulations:** The bidder's attention is directed to the fact that all applicable State Laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though written out in full.

**Conflict of Interest and Restrictions:** If any contractor, contractor's employee, subcontractor, or any individual working on the proposed contract may have a possible conflict of interest that may affect the objectivity, analysis, and/or performance of the contract, it shall be declared in writing and submitted to Cherokee Acquisition Management (Attn: **Georgette Smith**) no later than on or before **Wednesday January**

**11, 2023 by 5:00 p.m.** The NATION will determine in writing if the conflict is significant and material and if so, may eliminate the contractor from submitting a proposal.

**Verbal Instructions:** Interested parties shall not initiate or execute any negotiation, decision, or action arising from any verbal discussion with any Cherokee Nation employee. Only written communications from the designated Contact Person at Cherokee Nation may be considered a duly authorized expression on behalf of the NATION regarding this RFP. Additionally, only written communications from interested parties are recognized as duly authorized expressions on behalf of the vendor. The same instructions shall apply to any subsequent award and agreement communications.

**Qualifications of Bidder:** The NATION may make such investigations as deemed necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the NATION all such information and data for this purpose as the NATION may request. The NATION reserves the right to reject any bid if the evidence submitted by, or investigation of, such bidder fails to satisfy the NATION such bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein. Conditional bids will not be accepted.

**Subcontracts:** The successful bidder is specifically advised that any person, firm, or other party to whom it is proposed to award a subcontract under this contract must also be acceptable to NATION. Any proposed subcontracts must be approved by the NATION, and the TERO office must be consulted prior to subcontractor being on site to ensure all appropriate forms, paperwork, and approvals are in place. Successful bidder will be required to complete the Request for Acceptance of Subcontractor at time of contract signing if subcontractor to be utilized. All sums due to any suppliers or subcontractors must be paid or will be paid within ten (10) days of receipt of any money received from the Cherokee Nation under any executed Agreement.

**Method of Award – Lowest Bid That Contains Lowest Most Responsive/Reasonable Offer From Qualified Bidder:** After consideration of price and other factors, the project will be awarded to the bidder whose bid is determined to be the lowest most responsive/reasonable offer taking Indian Preference into consideration and in the best interest of the Nation to accept. Award shall be made under unrestricted solicitations to the lowest, most responsive/reasonable bid from a qualified economic enterprise or organization within the maximum total budget price established for the specific project or activity being solicited in accordance with Cherokee Nation Acquisition Management Policy & Procedures. Indian/TERO Preference will be given only to bidders who provide proof of current TERO certification from the Cherokee Nation Tribal Employments Office (TERO) in accordance with current Cherokee Nation Policy. Proof of TERO certification must accompany and be included in sealed bid submittal.

**Debarment, Suspension, Proposed Debarment, and Other Responsibility Matters:** The responding party certifies to the best of its knowledge and belief that the person, the firm, or any of its principals are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency or

Indian tribe. The bidder will also certify they have not, within a three-year period preceding this Request for Proposal, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, Local or Tribal) contract or subcontract; violation of Federal or State antitrust statutes relating to the submission of offers; or commissions of embezzlement, theft, forgery, bribery, falsifications or destruction of records, making false statements, and are not presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in this provision. The responding party certifies they have not, within a three-year period preceding this Request for Proposal, had one or more contracts terminated for default by a Federal, State, Local or Tribal agency. The responding party shall provide immediate written notice to the Cherokee Nation if, at any time prior to contract award, the person learns its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

**General Information:** Cherokee Nation reserves the right to waive any informalities or to reject any and all bids. Award will be to the lowest most responsible responsive bidder and will be subject to availability of funds. Indian preference will be given to Contractors certified as an Indian-Owned firm by the Cherokee Nation Tribal Employment Rights Office (T.E.R.O.). Proof of certification must accompany all bids. No bidder may withdraw their bid within thirty (30) days after bid opening date.

A prospective contractor seeking to receive Indian Preference under this contract must be certified as an Indian-owned firm by the Cherokee Nation Tribal Employment Rights Office (TERO) and submit proof of that certification with their bid.

**Drug Free Workplace and Tobacco Free Workplace:** Any Contractor performing work for the Cherokee Nation agrees to publish a statement notifying all employees, subcontractors, and other workers that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the Contractor's workplace and specifying the actions that will be taken against violators of such prohibition. The NATION will consider lack of enforcement or lax enforcement of the statement by Contractor a default of the contract. The Contractor further agrees to provide all persons engaged in performance of the contract with a copy of the statement. A copy of bidder's Drug Free Workplace statement shall be included with the proposal or else the successful bidder will be deemed to accept and agree to use the statement provided by NATION. The Contractor understands and recognizes that all Cherokee Nation buildings, whether leased or owned, and the grounds surrounding those facilities are considered by the Nation to be a tobacco free workplace. The Contractor will ensure all employees, subcontractors, and other workers will abide by this policy.

**Contractor's Insurance Requirements:** Before performing contractual services on the behalf of or for the Cherokee Nation, compliance with the following insurance requirements must be verified:

\*\* Provide an original Certificate of insurance naming the Cherokee Nation as a certificate holder and additional insured with respect to general liability, automobile liability, and builders risk policies, as their interest may appear with respect to the operations defined in this bid packet. The certificate shall reflect that coverage has been placed with an AM Best Rated Carrier of at least A IX and will contain the following information for each required coverage:

- 1) Type of insurance
- 2) Policy number
- 3) Effective date
- 4) Expiration date
- 5) Limits of Liability (this amount is usually stated in thousands)
- 6) Thirty day notice of cancellation, except ten-day cancellation clause will apply for nonpayment of premium.

\*\* Required Coverages:

- 1) Worker's Compensation and Employer's Liability:

Limits of Liability:

Bodily Injury by Accident: \$100,000 each accident

Bodily Injury by Disease: \$500,000 policy limit

Bodily Injury by Disease: \$100,000 each employee

Oklahoma Statute requires Worker's Compensation coverage for anyone with one (1) or more employees. Contractor's worker's compensation policy shall include a waiver of subrogation in favor of Cherokee Nation of Oklahoma.

- 2) General Liability:

Coverages:

Commercial (including products/completed operations) with specific reference made to coverage for lead abatement (as this is usually excluded under standard commercial general liability policies). In addition to the additional insured endorsement, the commercial general liability policy shall also include a waiver of subrogation in favor of Cherokee Nation of Oklahoma.

Limits of Liability:

Bodily Injury and Property Damage Combined: \$1,000,000  
(each occurrence)

- 3) Automobile Coverage:

Vehicles Covered:

All Autos

Hired Autos

Non-owned Autos

Limits of Liability:

Bodily Injury and Property Damage Combined: \$300,000

NOTE: The Contractor shall either: (1) require each of his subcontractors to procure and to maintain during the life of his subcontract, Subcontractor's Public Liability and Property Damage for the type and in the same amounts

as specified above, or (2) insure the activities of this subcontractors in his own policy. Each subcontractor policy must also name Cherokee Nation as an additional insured with respect to general liability and auto liability.

## MANDATORY BID RESPONSE SHEET HOUSING REPAIR FOR CHEROKEE CO.

The General Contractor, as Bidder, agrees to perform all work as shown and called for in the scope of work and specifications for the Cherokee Nation, that is shown to be the Base Bid. The Work will be completed within the specified number of working days of acceptance of this bid, a fully executed contract, and receipt of a Notice to Proceed. The Bidder agrees to furnish all labor and materials for the Base Bid for the sum of:

M. LUETHJIE

<b>Product Description</b>	<b>TOTAL</b>
<b>UTILITY ROOM</b>	_____
<b>ROOF EXTERIOR</b>	_____
<b>MISCELLANEOUS</b>	_____
<b>GRAND TOTAL</b>	\$ _____

LEAD TIME ARO: \_\_\_\_\_

ALL SPECIFICATIONS FULLY MET:  YES  NO

PRODUCT SPECIFICATIONS INCLUDED:  YES  NO

NOTE TO BIDDERS REGARDING INDIAN PREFERENCE: (Check One)

TERO Certified Contractor:  Yes  No

(Proof of certification must accompany all bids)

Major Cherokee Employer:  Yes  No

(Bidder must contact TERO at 918-453-5000 for this preference)

SUBMITTED:

Company Name
Company Address
Company Address
Authorized Signature
Print Name & Title



**Scope of Work & Specifications**  
**Provided by: CN LANGUAGE DEPARTMENT**  
**Luethjie – Home Rehab**  
**Scope of Work**

Bidder/Contractor shall:

Include all materials, labor and equipment to perform all scopes of work within this specification. Furthermore, it is the responsibility of the Bidder/Contractor to understand and account for all conditions, whether specified or implied, within this specification. In the absence of written or implied direction, Bidder/Contractor shall account for and bid the higher/more costly of the interpretation of this specification.

All work described below shall be to industry standards. Cherokee Nation Planning and Development department will hold final discretion for performance of work and completion of contract. Contract shall be made whole with all punch items completed to satisfaction, prior to final billing.

**UTILITY ROOM**

1. Bidder/Contractor shall remove washing machine, dryer, racks, shelving and all other items within laundry room. Coordinate with home owner for exact location for storage. Prepare room for demolition and re-construction
2. Bidder/Contractor shall demo and remove the wet wall of the utility room, demo and remove the exit/side wall (where the existing discharge line exits laundry room)
3. All demolished materials shall be disposed in a contractor provided receptacle and hauled off the premise
4. Bidder/Contractor shall frame and install a new wet wall with 2x6 SPF limber. Bottom plate shall be "floor plate" material and have seal sealer installed. Wall shall be plumbed and ready for hot/cold water and discharge/grey water hook ups. Wet wall shall receive sounds batts and nail plates over all plumbing lines. Discharge line shall exit the room and tie into PVC in basement area. Ensure adequate fall for drainage and continuity.
5. Bidder/Contractor shall frame and install new exterior wall. New wall shall be 2x4 SPF with seal plate material and seal sealer. Wall shall receive R-19 batts.
6. Bidder/Contractor shall include all MEP in-wall rough in and finished wall trim out.
7. Bidder/contractor shall install new pre-hung exterior door. Color determined by Homeowner.
8. Bidder/Contractor shall install new ½" sheetrock to all new walls. Tape, bed, texture and final paint shall be included. Paint color determined by the Homeowner.
9. Bidder/Contractor shall include all new base, door and wall trim. Pattern to match existing as closely as possible.
10. Bidder/Contractor shall include new LVT flooring install in the utility room. Color and pattern to be determined by Homeowner. Bidder/Contractor shall assume 150-SF of flooring and carry an allowance of \$8 per foot installed.
11. Bidder/Contractor shall build and install new washer and dryer pedestal bases. Pedestals shall be 10" minimum height and full depth of machine bases. Materials shall be ¾" Stain grade plywood. Paint or stain color to be selected by Homeowner.
12. Bidder/Contractor shall re-install washing machine, Dryer, shelving and other utility room furnishings that were removed prior to demolition.
13. Bidder/Contractor shall ensure continuity and working order of machines, plumbing, discharge line, electrical switches and devices prior to demobilization

**ROOF - EXTERIOR**

1. Bidder/Contractor shall demo and remove existing damaged metal roof sheets, rafters, decking and stud walls.
2. Bidder/Contractor shall frame and install new bearing walls, rafters, decking, house wrap and metal roof sheets
3. Bidder/Contractor shall install new siding. Color and finish to match existing.
4. Bidder/Contractor shall install seamless new gutter, gutter guard, downspouts and splash blocks at entire roof perimeter

**MISCELLANEOUS**

1. Bidder/Contractor shall demolish and remove the existing cabinet base under the kitchen sink.
2. Bidder/Contractor shall install new cabinet base with a minimum of ¾" material. Stain to match existing cabinet finish
3. Bidder/Contractor shall remove any abandoned plumbing under the sink that is no longer in service
4. Bidder/Contractor shall re-glaze the broken window pane in the dining room
5. Bidder/Contractor shall assess and repair any/all plumbing breaks in the well house. Bidder shall assume a \$1000 allowance for these repairs
6. Bidder/Contractor shall include installing an electrical switch and heat bulb in the well house for winter heat
7. **Bidder/Contractor shall carry within their bid a \$2000 allowance to be used as directed by Cherokee Nation representatives. In the event this allowance is not used during construction, the balance shall be excluded from the final invoice.**

To schedule a site visit, please contact: **Sammy Eagle – 918.316.6564**

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**SECTION 074113  
METAL ROOF PANELS  
PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Standing Seam Metal Roof Panels.
  1. Architectural roofing system of preformed steel panels.
  2. Flashing and trim adjacent to or part of architectural preformed steel panel roofing system.
  3. Refer to locations shown on drawings.
- B. Accessories and underlayment as required for complete installation.
- C. Gutters and downspouts adjacent to or part of architectural preformed steel panel roofing system.

**1.02 SUBMITTALS**

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
  1. Storage and handling requirements and recommendations.
  2. Installation methods.
    - a. Include installation instructions.
    3. Specimen warranty.
- C. Shop Drawings: Include layouts of roof panels, details of edge and penetration conditions, spacing and type of connections, flashings, underlayments, and special conditions.
  1. Include accessories.
  2. Include project-specific details.
  3. Show work to be field-fabricated or field-assembled.
  4. Show interface with other work.
  5. Show all proposed seam and joint locations.
  6. Do not use architect's drawings as shop drawings.
  7. Scale of shop drawing details not less than 1-1/2" = 1'-0".
  8. Show drawings, text and dimensions in black and white at a clear legible scale and size.
    - a. Color drawings that are not clearly legible will be returned without review.
  9. Include structural analysis signed and sealed by qualified structural engineer, indicating compliance of roofing system to specified loading conditions.
  10. Show roof panel layout on shop drawings. Include full panels and dimensions of cut panels. Comply with layout as indicated on drawings or as specified.
- D. Selection Samples: For each roofing system specified, submit color chips representing manufacturer's full range of available colors and patterns.
- E. Verification Samples: For each roofing system specified, submit samples of minimum size 12 inches (305 mm) square, representing actual roofing metal, thickness, profile, color, and

texture.

1. Include typical panel joint in sample.
2. Include typical fastening detail.

F. Manufacturer Qualification Statement: Provide documentation showing metal roof panel fabricator is accredited under IAS AC472.

G. Qualification Data: For Installer.

H. Warranty: Submit specified manufacturer's warranty and ensure that forms have been completed in Owner's name and are registered with manufacturer.

### **1.03 QUALITY ASSURANCE**

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than twenty years of documented experience.

Construction Documents

Date

CN - Housing Specifications

Blue River 074113 - 2 Metal Roof Panels

11.08.2022

B. Installer Qualifications: Company specializing in performing work of the type specified and with at least ten years of documented experience .

### **1.04 DELIVERY, STORAGE, AND HANDLING**

A. Provide strippable plastic protection on prefinished roofing panels for removal after installation.

B. Store roofing panels on project site as recommended by manufacturer to minimize damage to panels prior to installation.

### **1.05 WARRANTY**

A. See Section 017800 - Closeout Submittals, for additional warranty requirements.

B. Finish Warranty: Provide manufacturer's special warranty covering failure of factory-applied exterior finish on metal roof panels and agreeing to repair or replace panels that show evidence of finish degradation, including significant fading, chalking, cracking, or peeling within specified warranty period of twenty years from Date of Substantial Completion.

C. Waterproofing Warranty: Provide manufacturer's warranty for weathertightness of roofing system, including agreement to repair or replace roofing that fails to keep out water within specified warranty period of twenty years from Date of Substantial Completion.

## **PART 2 PRODUCTS**

### **2.01 MANUFACTURERS**

A. Basis of Design:

1. Metal Roof Panels: R Panel manufactured by McElroy Metal Company, or equal .
2. Substitutions: See Section 016000-Product Requirements .

### **2.02 ARCHITECTURAL METAL ROOF PANELS**

A. Architectural Metal Roofing: Provide complete engineered system complying with specified requirements and capable of remaining weathertight while withstanding anticipated movement of substrate and thermally induced movement of roofing system.

B. Profile: Major longitudinal ribs 1 1/4" (32 mm) deep, spaced 12" (305 mm) on center; minor longitudinal ribs centered between major ribs, spaced 4" (102 mm) on center panel; normal-run where ribs protrude from panel plane, viewed from exterior, reverse-run where ribs recede from panel plane, viewed from exterior.

C. Size: 36" (914 mm) cover width, lengths indicated on drawings.

D. Metal Panels: Factory-formed panels with factory-applied finish.

1. Steel Panels:

a. Aluminum-zinc alloy-coated steel complying with ASTM A792/A792M; minimum AZ50 (AZM150) coating.

b. Steel Thickness: Minimum 24 gage.

2. Texture: Smooth .

3. Length: Full length of roof slope, without lapped horizontal joints.

### **2.03 SECONDARY FRAMING**

A. Miscellaneous Secondary Framing: Light gage steel framing incidental to structural supports; fabricated from steel sheet.

B. Framing Material: ASTM A 1011/A 1011M, Designation SS steel sheet.

1. Profile: Manufacturer's standard cee, zee, asymmetrical zee, hat channel, plain channel, single slope eave strut, double slope eave strut, and angle.
  2. Thickness: 12 gage, 0.1046 inch (2.657 mm).
  3. Finish: Galvanized per ASTM A653/A653M, G90.
- C. Framing Connectors: Factory-made formed steel sheet, ASTM A653/A653M SS Grade 50, with G60/Z180 hot dipped galvanized coating and factory punched holes.

#### **2.04 FABRICATION**

Construction Documents

Date

CN - Housing Specifications

Blue River 074113 - 3 Metal Roof Panels

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A. Panels: Provide factory or field fabricated panels with applied finish and accessory items, using manufacturer's standard processes as required to achieve specified appearance and performance requirements.

B. Joints: Provide captive gaskets, sealants, or separator strips at panel joints to ensure weathertight seals, eliminate metal-to-metal contact, and minimize noise from panel movements.

#### **2.05 FINISHES**

A. Fluoropolymer Coil Coating System: Manufacturer's standard multi-coat aluminum coil coating system complying with AAMA 2605, including at least 70 percent polyvinylidene fluoride (PVDF) resin, and at least 80 percent of coil coated aluminum surfaces having minimum total dry film thickness (DFT) of 0.9 mil, 0.0009 inch (0.023 mm) ; color and gloss as indicated on drawings .

B. Fluoropolymer Coil Coating System: Polyvinylidene fluoride (PVDF) multi-coat superior performing organic coatings system complying with AAMA 2605, including at least 70 percent PVDF resin, and at least 80 percent of coil coated aluminum surfaces having minimum total dry film thickness (DFT) of 0.9 mil, 0.0009 inch (0.023 mm) ; color and gloss as indicated on drawings .

#### **2.06 ACCESSORIES**

A. Miscellaneous Sheet Metal Items: Provide flashings, gutters, downspouts, trim, moldings, closure strips, preformed crickets, caps, as indicated or as required for project, and similar sheet metal items of the same material, thickness, and finish as used for the roofing panels. Items completely concealed after installation may optionally be made of stainless steel.

1. Flashing and Trim: Provide flashing and trim, formed from same material and manufacturers run as metal roof panels, required to seal against weather and provide finished appearance. Locations include, but are not limited to, eaves, rakes, corners, bases, framed openings, ridges, fasciae, and fillers. Finish flashing and trim with same finish system as adjacent metal panels.

2. Gutters: Formed from same material and manufacturer's run as roof panels, complete with end pieces, outlet tubes, and other special pieces as required. Fabricate in minimum 96-inch- long sections, of size and metal thickness according to SMACNA's "Architectural Sheet Metal Manual." Furnish gutter supports spaced a maximum of 36 inches on center, fabricated from same metal as gutters. Provide wire ball strainers of compatible metal at outlets. Finish gutters to match metal roof panels.

a. Gutter Profile: Square.

b. Provide continuous exterior-grade perforated gutter guard, concealed from view.

3. Downspouts: Formed from same material and manufacturer's run as roof panels unless indicated otherwise on drawings. Fabricate in 10-foot- long sections, complete with formed elbows and offsets, of size and metal thickness according to SMACNA's "Architectural Sheet Metal Manual." Finish downspouts to match gutters. Furnish gutter supports spaced a maximum of 36 inches on center, fabricated from same metal as gutters.

B. Rib and Ridge Closures: Provide prefabricated, close-fitting components of steel with corrosion resistant finish or combination steel and closed-cell foam.

C. Weatherseal: Manufacturer's standard as required for watertight warranty.

D. Sealants:

1. Exposed Sealant: Elastomeric; silicone, polyurethane, or silyl-terminated polyether/polyurethane.
2. Concealed Sealant: Non-curing butyl sealant or tape sealant.
3. Seam Sealant: Factory-applied, non-skinning, non-drying type.
- E. Underlayment: Self-adhering rubber-modified asphalt sheet complying with ASTM D1970/D1970M; 40 mil (1 mm) total thickness; with strippable release film and woven polyolefin top surface.
1. Minimum Requirements: Comply with requirements of ICC-ES AC188 for non-selfadhesive sheet.

#### Construction Documents

#### Date

CN - Housing Specifications

Blue River 074113 - 4 Metal Roof Panels

11.08.2022

2. Sheet Thickness: 40 mil, 0.040 inch (1.02 mm) minimum total thickness.
3. Self Sealability: Passing nail sealability test specified in ASTM D1970/D1970M.
4. Low Temperature Flexibility: Passing test specified in ASTM D1970/D1970M.
5. Water Vapor Permeance: 0.1 perm (5.72 ng/Pa s sq m), maximum, when tested in accordance with ASTM E96/E96M Procedure A (desiccant method).
6. Minimum Thermal Stability:
  - a. Thermal Stability: Stable after testing at 240 deg F (116 deg C); ASTM D 1970.
  - b. Low-Temperature Flexibility: Passes after testing at minus 20 deg F (29 deg C); ASTM D 1970.
7. Building paper or felt is not allowed.
8. Manufacturers:
  - a. Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
    - 1) Henry Company; Blueskin PE200HT: [www.henry.com/#sle](http://www.henry.com/#sle).
    - 2) Polyglass USA, Inc; Polystick MTS Self-Adhered High Temperature Roof Underlayment: [www.polyglass.us/#sle](http://www.polyglass.us/#sle).
    - 3) Soprema Lastobond Shield HT.
    - 4) Substitutions: See Section 016000 - Product Requirements.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Do not begin installation of preformed metal roof panels until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

#### **3.02 PREPARATION**

- A. Broom clean wood sheathing prior to installation of roofing system.
- B. Coordinate roofing work with provisions for roof drainage, flashing, trim, penetrations, and other adjoining work to assure that the completed roof will be free of leaks.
- C. Remove protective film from surface of roof panels immediately prior to installation. Strip film carefully, to avoid damage to prefinished surfaces.
- D. Separate dissimilar metals by applying a bituminous coating, self-adhering rubberized asphalt sheet, or other permanent method approved by roof panel manufacturer.
- E. Where metal will be in contact with wood or other absorbent material subject to wetting, seal joints with sealing compound and apply one coat of heavy-bodied bituminous paint.

#### **3.03 FABRICATION**

- A. General: Fabricate and finish metal panels and accessories at the factory, by manufacturer's standard procedures and processes, as necessary to fulfill indicated performance requirements demonstrated by laboratory testing. Comply with indicated profiles and with dimensional and structural requirements.

B. On-Site Fabrication: Subject to compliance with requirements of this Section, metal panels may be fabricated on-site using factory set, non-adjustable portable roll-forming equipment if panels are of same profile and warranted by manufacturer to be equal to factory-formed panels. Fabricate according to equipment manufacturer's written instructions and to comply with details shown.

C. Sheet Metal Flashing and Trim: Fabricate flashing and trim to comply with manufacturer's recommendations and recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of item indicated.

1. Form exposed sheet metal accessories that are without excessive oil canning, buckling, and tool marks and that are true to line and levels indicated, with exposed edges folded back to form hems.

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2. Sealed Joints: Form non-expansion, but movable, joints in metal to accommodate sealant and to comply with SMACNA standards.

3. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal recommended in writing by metal panel manufacturer.

a. Size: As recommended by SMACNA's "Architectural Sheet Metal Manual" or metal panel manufacturer for application, but not less than thickness of metal being secured.

### **3.04 INSTALLATION**

A. Overall: Install roofing system in accordance with approved shop drawings and panel manufacturer's instructions and recommendations, as applicable to specific project conditions. Anchor all components of roofing system securely in place while allowing for thermal and structural movement.

1. Install roofing system with concealed clips and fasteners, except as otherwise recommended by manufacturer for specific circumstances.

2. Minimize field cutting of panels. Where field cutting is absolutely required, use methods that will not distort panel profiles. Use of torches for field cutting is absolutely prohibited.

a. Install panels with alignment as indicated on drawings.

1) If layout is not indicated, center panels in area. Provide equally cut panels along perimeter as required for a centered layout. Do not use full panels at one side and work towards the other side resulting in a randomly cut panel.

B. Accessories: Install all components required for a complete roofing assembly, including flashings, trim, moldings, closure strips, preformed crickets, caps, rib closures, ridge closures, and similar roof accessory items .

C. Roof Panels: Install panels in strict accordance with manufacturer's instructions, minimizing transverse joints except at junction with penetrations.

1. Form weathertight standing seams incorporating concealed clips, using an automatic mechanical seaming device approved by the panel manufacturer.

2. Incorporate concealed clips at panel joints, and apply snap-on battens to provide weathertight joints.

3. Provide sealant tape or other approved joint sealer at lapped panel joints.

4. Install sealant or sealant tape, as recommended by panel manufacturer, at end laps and side joints.

### **3.05 CLEANING**

A. Clean exposed sheet metal work at completion of installation. Remove grease and oil films, excess joint sealer, handling marks, and debris from installation, leaving the work clean and unmarked, free from dents, creases, waves, scratch marks, or other damage to the finish.

### **3.06 PROTECTION**

A. Do not permit storage of materials or roof traffic on installed roof panels. Provide temporary

walkways or planks as necessary to avoid damage to completed work. Protect roofing until completion of project.

B. Touch-up, repair, or replace damaged roof panels or accessories before Date of Substantial Completion.

**END OF SECTION 074113**