

NOV 16 2020

SHERRY MURRAY
COUNTY CLERK

200732

SA&I 1-4040 (2000)

Canadian _____ County, Oklahoma
COUNTY PURCHASING OFFICE
Canadian _____ County Court House
El Reno _____, Oklahoma
Phone: (405) 295-6125 _____

INVITATION TO BID

PLEASE REVIEW TERMS AND CONDITIONS ON REVERSE
SIDE RELATING TO SUBMISSION OF THIS BID.

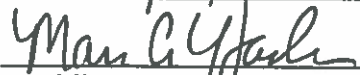
Notarized Affidavit completions and signature required on reverse side.

DATE ISSUED 11-16-2020
Page 1 of 2

BID NUMBER #2021-#15 Roofing Repairs Health Department - Commissioners	BID CLOSING DATE AND HOUR 12-14-2020 9:00am	REQUIRED DELIVERY DATE SEE SPECIFICATIONS ____ Days after award of Purchase Order
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TERMS Start accepting bids on 12-08-2020 at 9:00am
Net, FOB this bid will open 12-14-2020 during Commissioner's Meeting that begins at 9:00am

DATE OF DELIVERY:
SEE SPECIFICATIONS

ITEM	QUANTITY	UNIT OF ISSUE	DESCRIPTION	UNIT PRICE	TOTAL
	1 or more		<p>Canadian County Commissioners office is seeing bids for Roofing Repairs for the Canadian County Health Department building.</p> <p>See Specifications attached.</p> <p>The Board of Canadian County Commissioners reserves the right to reject any and all bids or to award all or any portion of the items bid. All data will be considered in the awarding of the bid including the delivery time.</p> <p><u>The terms & conditions of this document must be completed and returned or the bid will be rejected.</u></p> <p>Contact person: Chris Jackson Maintenance Supervisor Phone: 405-637-6826 Mon-Fri 8:00am-4 30pm</p> <p style="text-align: center;">APPROVED Date: <u>11/12/2020</u>  _____ Officer or Department Head</p>		\$ _____

TERMS AND CONDITIONS

1. Sealed bids will be opened in the Commissioner's Conference Room, Canadian County Courthouse, 201 N. Choctaw Avenue, El Reno, Oklahoma, at the time and date shown on the invitation to bid form.
2. Late bids will not be considered. Bids must be received in sealed envelopes (one to an envelope) with bid number and closing date written on the outside of the envelope.
3. Unit prices will be guaranteed correct by the bidder.
4. Firm prices will be F.O.B. destination.
5. Purchases by Canadian County, Oklahoma, are not subject to state or federal taxes.
6. This bid is submitted as a legal offer and any bid when accepted by the County constitutes a firm contract.
7. Oklahoma laws require each bidder submitting a bid to a county for goods or services to furnish a notarized sworn statement of non-collusion. A form is supplied below.
8. Bids will be firm until 01/14/2021
(DATE)

AFFIDAVIT: I, the undersigned, of lawful age, being first duly sworn on oath say that he (she) is the agent authorized by the bidder to submit the above bid. Affiant further states that the bidder has not been a party to any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding; or with any state official or employee as to quantity; quality or price in the prospective contract or any other terms of said prospective contract; or in any discussions between bidders and any state official concerning exchange of money or other thing of value for special consideration in the letting of a contract; that the bidder/contractor has not paid, given or donated or agreed to pay, give or donate to any officer or employee of the State of Oklahoma (or other entity) any money or other thing of value, either directly or indirectly in the procuring of the award of a contract pursuant to this bid.

Subscribed and sworn before this _____ day

of _____, 20 _____

(SEAL)

Firm: _____

My commission expires _____

Signed by: _____ Title: _____
(Manual Signature of Undersigned)

NOTARY PUBLIC (CLERK OR JUDGE)

Address: _____ Phone: _____

City: _____ State: _____

Zip: _____

Please mail sealed bids to:
Canadian County Clerk's Office
Attn: Purchasing
PO Box 458
El Reno, OK 73036

Street Address:
201 N Choctaw Avenue
El Reno, OK 73036

NOTE: Other terms and conditions can be added at the discretion of the county officers.



**Canadian County
Purchasing**

Bid Specifications

Date Issued: November 16, 2020
Bid Number: 2021-#15
Closing Date: December 14, 2020 at 9:00am
PO Box 458, 201 N. Choctaw Ave., El Reno, OK 73036
Opening Date: December 14, 2020 during the Commissioner's Meeting that begins at 9:00am
Commissioner's Meeting Room, 201 N. Choctaw Ave., El Reno, OK 73036

~ SPECIFICATIONS ~

Roofing Repairs / Health Department / Commissioners

Canadian County Commissioner's office is seeking bids for Roofing Repairs for the Canadian County Health Department building.

Specifications:

See attached specifications. For an onsite visit please contact Chris Jackson at 405-637-6826.

Bids will be received beginning at 9:00am on Tuesday, December 8, 2020 until 9:00am on Monday, December 14, 2020.

Bids shall be accompanied by:

- Singed and Notarized Invitation to Bid
- A certified check, cashier's check or bid bond equal to five percent (5%) of the bid, which shall be deposited with the awarding public agency as a guaranty; or

An irrevocable letter of credit terms the Construction and Properties Division of the Office of Management and Enterprise Services prescribes, issued by a financial institution insured by the Federal Deposit Insurance Corporation or the Federal Savings and Loan Insurance Corporation for the benefit of the state, on behalf of the awarding public agency, in an amount equal to five percent (5%) of the bid. The awarding public agency shall deposit the irrevocable letter of credit with Division.

- Business Relationships Affidavit
- Non-Collusion Bidding Certification

(Please review Title 61 O.S. § 101-138 for full disclosure)

Note

Terms for Payment:

- A purchase order will be issued to the awarded vendor. Once the original itemized invoice is received by the receiving officer it will be processed for payment.

For Information Contact:
Chris Jackson
Maintenance Supervisor
Phone: 405-637-6826
Mon-Fri 8:00am-4:30pm

If you have any questions or need additional information, please contact:
Krissi Jensen, Purchasing Agent, 405.295.6125
kjensen@okcana.cogov.net

The Canadian County Health Department is seeking bids for the following project.

Please note that Roofing Material will have to be above or equivalent to Duro-Last Roofing System. It will be the Contractors responsibility to prove said request.

The Building is a 2 story building with limited access from all sides. Viewing the site is recommended and an onsite visit can be scheduled through Chris Jackson at 405-637-6826.

Scope of work for replacement building located at 100 South Rock Island, El Reno, OK 73036:

- 141 sq
- 5-2" Pipe Boot
- 41-4" Pipe Boot
- 5-5-1/2" Drill Point
- 3-Insulation Plates
- 3-Poly Plates
- 13-2-Way Vents
- 15-Term Bar
- 8-4" Drain with CDR
- 25.15 sq Corners
- 25.15 sq Parapet Install
- 6-Pitch Pan
- 120sq 1.5 ISO
- 4 Scupper
- 400LF – 2 Piece Compression Metal
- 400 LF Metal Instal
- 3 Custom Curb
- 2 Cleaner

General Guidelines:

Purchases by Canadian County are not subject to sales tax.

Contractor must review project with Maintenance Supervisor Chris Jackson at 405-637-6826.

3-Part Specification
Division 07 54 19 - Polyvinyl-Chloride Roofing

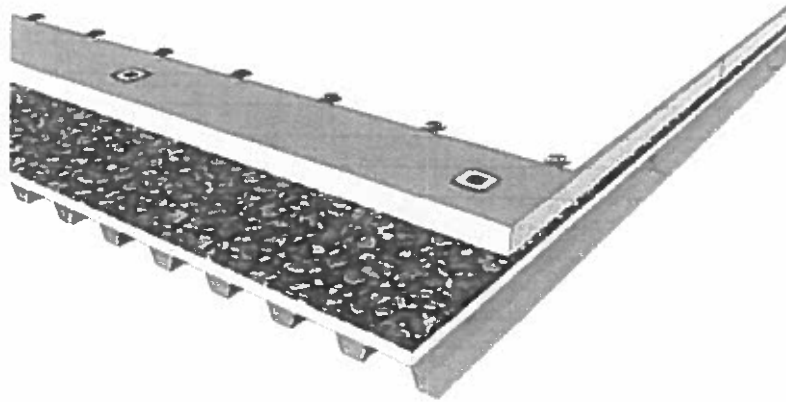
Canadian County Health Dept

100 S Rock Island Ave.
El Reno, OK 73036

Entire

Prepared For: Chris Jackson
Canadian County Health Dept.

Prepared By: Randy Kayle Young
Duro-Last



Duro-Last Roof Assembly Description

- **Duro-Last® Duro-Tuff™ membrane**
Membrane Thickness: 50 mil, nominal
Color: White
Attachment: Attached with mechanical fasteners
- **Duro-Guard® ISO II (flat)**
Attachment: Attached with mechanical fasteners
- **BUR: Gravel-Surfaced**
- **Steel Roof Deck**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Overlay BUR: Gravel-Surfaced.
- B. Duro-Last® Duro-Tuff™ membrane attached with mechanical fasteners.
- C. Duro-Guard® ISO II (flat), attached with mechanical fasteners.
- D. Prefabricated flashings, corners, parapets, stacks, vents, and related details.
- E. Fasteners, adhesives, and other accessories required for a complete roofing installation.
- F. Traffic Protection.

1.2 REFERENCES

- A. NRCA - The NRCA Roofing and Waterproofing Manual.
- B. ASCE 7 - Minimum Design Loads For Buildings And Other Structures.
- C. UL - Roofing Materials and Systems Directory, Roofing Systems (TGFU.R10128).
- D. ASTM C 1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board.
- E. ASTM D 751 - Standard Test Methods for Coated Fabrics.
- F. ASTM D 4434 - Standard Specification for Poly(Vinyl Chloride) Sheet Roofing.
- G. ASTM E 108 - Standard Test Methods for Fire Tests of Roof Coverings.
- H. ASTM E 119 - Standard Test Methods for Fire Tests of Building Construction and Materials.

1.3 SYSTEM DESCRIPTION

- A. **General:** Provide installed roofing membrane and base flashings that remain watertight; do not permit the passage of water; and resist specified uplift pressures, thermally induced movement, and exposure to weather without failure.
- B. **Material Compatibility:** Provide roofing materials that are compatible with one another under conditions of service and application required, as demonstrated by roofing membrane manufacturer based on testing and field experience.
- C. **Physical Properties:**
 - 1. Roof product must meet the requirements of Type III PVC sheet roofing as defined by ASTM D 4434 and must meet or exceed the following physical properties.
 - 2. Thickness: 50 mil, nominal, in accordance with ASTM D 751.
 - 3. Thickness Over Scrim: ≥ 26 mil in accordance with ASTM D 751.
 - 4. Breaking Strengths: ≥ 423 lbf. (MD) and ≥ 278 lbf. (XMD) in accordance with ASTM D 751, Grab Method.
 - 5. Elongation at Break: $\geq 31\%$ (MD) and $\geq 30\%$ (XMD) in accordance with ASTM D 751, Grab Method.
 - 6. Heat Aging in accordance with ASTM D 3045: 176 °F for 56 days. No sign of cracking, chipping or crazing. (In accordance with ASTM D 4434).

7. Factory Seam Strength: ≥ 423 lbf. in accordance with ASTM D 751, Grab Method.
8. Tearing Strength: ≥ 90 lbf. (MD) and ≥ 143 lbf. (XMD) in accordance with ASTM D 751, Procedure B.
9. Low Temperature Bend (Flexibility): Pass at -40 °F in accordance with ASTM D 2136.
10. Accelerated Weathering: No cracking, checking, crazing, erosion or chalking after 5,000 hours in accordance with ASTM G 154.
11. Linear Dimensional Change: $< 0.20\%$ (MD) and 0.10% (XMD) in accordance with ASTM D 1204 at 176 ± 2 °F for 6 hours.
12. Water Absorption: $< 2.60\%$ in accordance with ASTM D 570 at 158 °F for 166 hours.
13. Static Puncture Resistance: ≥ 33 lbs. in accordance with ASTM D 5602.
14. Dynamic Puncture Resistance: ≥ 14.7 ft-lbf. in accordance with ASTM D 5635.

D. Cool Roof Rating Council (CRRC):

1. Membrane must be listed on CRRC website.
 - a. Initial Solar Reflectance: $\geq 85\%$
 - b. Initial Solar Reflective Index (SRI): ≥ 108

E. Insulation

1. Provide overall thermal resistance for roofing system as follows:
 - a. Minimum Thickness: 1.5 inch.
2. Install using a minimum of two layers.
3. Configuration as indicated on the Drawings.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Duro-Last data sheets on each product to be used, including:
 1. Preparation instructions and recommendations.
 2. Storage and handling requirements and recommendations.
 3. Installation methods.
 4. Maintenance requirements.
- C. Shop Drawings: Indicate insulation pattern, overall membrane layout, field seam locations, joint or termination detail conditions, and location of fasteners.
- D. Verification Samples: For each product specified, two samples, representing actual product, color, and finish.
 1. 4 inch by 6 inch sample of roofing membrane, of color specified.
 2. 4 inch by 6 inch sample of walkway pad.

3. Termination bar, fascia bar with cover, drip edge and gravel stop if to be used.
 4. Each fastener type to be used for installing membrane, insulation/recover board, termination bar and edge details.
- E. Installer Certification: Certification from the roofing system manufacturer that Installer is approved, authorized, or licensed by manufacturer to install roofing system.
- F. Manufacturer's warranties.

1.5 QUALITY ASSURANCE

- A. Perform work in accordance with manufacturer's installation instructions.
- B. Manufacturer Qualifications: A manufacturer specializing in the production of PVC membranes systems and utilizing a Quality Control Manual during the production of the membrane roofing system that has been approved by and is inspected by Underwriters Laboratories.
- C. Installer Qualifications: Company specializing in installation of roofing systems similar to those specified in this project and approved by the roofing system manufacturer.
- D. Source Limitations: Obtain components for membrane roofing system from roofing membrane manufacturer.
- E. There shall be no deviations from the roof membrane manufacturer's specifications or the approved shop drawings without the prior written approval of the manufacturer.

1.6 REGULATORY REQUIREMENTS

- A. Conform to applicable code for roof assembly wind uplift and fire hazard requirements.
- B. Fire Exposure: Provide membrane roofing materials with the following fire-test-response characteristics. Materials shall be identified with appropriate markings of applicable testing and inspecting agency.
 1. Exterior Fire-Test Exposure:
 - a. Class A; ASTM E 108, for application and roof slopes indicated.
 2. Fire-Resistance Ratings: Comply with ASTM E 119 for fire-resistance-rated roof assemblies of which roofing system is a part.
 3. Conform to applicable code for roof assembly fire hazard requirements.
- C. Wind Uplift:
 1. Roofing System Design: Provide a roofing system designed to resist uplift pressures calculated according to the current edition of the ASCE-7 Specification *Minimum Design Loads for Buildings And Other Structures*.

1.7 PRE-INSTALLATION MEETING

- A. Convene meeting not less than one week before starting work of this section.
- B. Review methods and procedures related to roof deck construction and roofing system including, but not limited to, the following.

3-Part Specification
Division 07 54 19 - Polyvinyl-Chloride Roofing

1. Meet with Owner, Architect, Owner's insurer if applicable, testing and inspecting agency representative, roofing installer, roofing system manufacturer's representative, deck installer, and installers whose work interfaces with or affects roofing including installers of roof accessories and roof-mounted equipment.
2. Review and finalize construction schedule and verify availability of materials, installer's personnel, equipment, and facilities needed to make progress and avoid delays.
3. Examine deck substrate conditions and finishes for compliance with requirements, including flatness and fastening.
4. Review structural loading limitations of roof deck during and after roofing.
5. Review base flashings, special roofing details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that will affect roofing system.
6. Review governing regulations and requirements for insurance and certificates if applicable.
7. Review temporary protection requirements for roofing system during and after installation.
8. Review roof observation and repair procedures after roofing installation.

1.8 DELIVERY, STORAGE AND HANDLING

- A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, and directions for storing and mixing with other components.
- B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid material from direct sunlight.
- C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Store in a dry location. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.
- D. Store roof materials and place equipment in a manner to avoid permanent deflection of deck.
- E. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.9 WARRANTY

- A. Contractor's Warranty: The contractor shall warrant the roof application with respect to workmanship and proper application for two (2) years from the effective date of the warranty issued by the manufacturer.
- B. Manufacturer's Warranty: Must be no-dollar limit type and provide for completion of repairs, replacement of membrane or total replacement of the roofing system at the then-current material and labor prices throughout the life of the warranty. In addition the warranty must meet the following criteria:
 1. Warranty Period: 15 years from date issued by the manufacturer.
 2. No exclusion for damage caused by ponding water.
 3. Issued direct from and serviced by the roof membrane manufacturer.
 4. Transferable for the full term of the warranty.
 5. No additional charge for the warranty.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. **Manufacturer:** Duro-Last Roofing, Inc., which is located at: 525 Morley Drive, Saginaw, MI 48601. Telephone: 800-248-0280.
- B. All roofing system components to be provided or approved by Duro-Last Roofing, Inc.
- C. **Substitutions:** Not permitted.

2.2 ROOFING SYSTEM COMPONENTS

- A. **Roofing Membrane:** Duro-Last® Duro-Tuff™ membrane conforming to ASTM D 4434, type III, fabric-reinforced, PVC, NSF/ANSI 347 Gold or Platinum Certification, and a product-specific third-party verified Environmental Product Declaration. Membrane properties as follows:
 - 1. **Thickness:**
 - a. 50 mil, nominal.
 - 2. **Exposed Face Color:**
 - a. White.
 - 3. **Minimum recycle content** 7% post-industrial and 0% post-consumer.
 - 4. **Recycled at end of life** into resilient flooring or concrete expansion joints.
- B. **Accessory Materials:** Provide accessory materials supplied by or approved for use by Duro-Last Roofing, Inc.
 - 1. **Sheet Flashing:** Manufacturer's standard reinforced PVC sheet flashing.
 - 2. **Duro-Last Factory Prefabricated Flashings:** manufactured using Manufacturer's standard reinforced PVC membrane.
 - a. Stack Flashings.
 - b. Curb Flashings.
 - c. Inside and Outside Corners.
 - d. Drain Boots, Composite Drain Rings (CDR) and Dome Strainers.
 - e. Vinyl Coated Metal Scupper Inserts.
 - f. Vinyl Coated Pitch Pans.
 - 3. **Sealants and Adhesives:** Compatible with roofing system and supplied by Duro-Last Roofing, Inc.
 - a. Duro-Caulk® Plus.
 - b. Strip Mastic.
 - 4. **Slip Sheet:** Compatible with roofing system and supplied by Duro-Last Roofing, Inc.
 - 5. **Fasteners and Plates:** Factory-coated steel fasteners and metal or plastic plates meeting corrosion-resistance provisions in FMG 4470, designed for fastening membrane and insulation to substrate. Supplied by Duro-Last Roofing, Inc.
 - a. #14 Heavy Duty Fasteners.
 - b. Cleat Plates.

- c. 3 inch Metal Plates.
 - 6. PV Anchors
 - 7. Termination and Edge Details: Supplied by Duro-Last Roofing, Inc.
 - a. Termination Bar.
 - b. Universal 2-Piece Compression Metal System.
 - 8. Vinyl Coated Metal: Supplied by Duro-Last Roofing, Inc. 24 gauge, hot-dipped galvanized, grade 90 metal with a minimum of 17 mil of Duro-Last membrane laminated to one side.
 - 9. Two-Way Roof Vents: Supplied by Duro-Last Roofing, Inc. Install a minimum of 1 vent for each 1,000 ft² (93 m²) of roof area.
- C. Walkways:
- 1. Provide non-skid, maintenance-free walkway pads in areas of heavy foot traffic and around mechanical equipment.
 - a. Duro-Last Roof Trak® III Walkway Pad.

2.3 ROOF INSULATION

- A. General:
- 1. Provide preformed roof insulation boards that comply with requirements and referenced standards, as selected from manufacturer's standard sizes.
 - 2. Provide preformed saddles, crickets, and other insulation shapes where indicated for sloping to drain. Fabricate to slopes indicated.
- B. Polyisocyanurate Board Insulation: Complying with ASTM C 1289, Type II, felt or glass-fiber mat facer on both major surfaces. Material as supplied by Duro-Last.
- 1. Duro-Guard® ISO II (flat).

2.4 ROOF INSULATION ACCESSORIES

- A. General: Provide roof insulation accessories approved by the roof membrane manufacturer and as recommended by insulation manufacturer for the intended use.
- B. Fasteners: Provide Duro-Last factory-coated steel fasteners and metal or plastic plates meeting corrosion-resistance provisions in FMG 4470, designed for fastening insulation and/or insulation cover boards in conformance to specified design requirements.
- 1.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that the surfaces and site conditions are ready to receive work.
- B. Verify that the deck is supported and secured.
- C. Verify that the deck is clean and smooth, free of depressions, waves, or projections, and properly sloped to drains, valleys, eaves, scuppers or gutters.
- D. Verify that the deck surfaces are dry and free of standing water, ice or snow.
- E. Verify that all roof openings or penetrations through the roof are solidly set.

- F. If substrate preparation is the responsibility of another contractor, notify Architect of unsatisfactory preparation before proceeding.
- G. Prior to re-covering an existing roofing system, conduct an inspection of the roof system accompanied by a representative of the membrane manufacturer or an authorized contractor.
 - 1. Determine required fastener type, length, and spacing.
 - 2. Verify that moisture content of existing roofing is within acceptable limits.
 - 3. Identify damaged areas requiring repair before installation of new roofing.
 - 4. Conduct core cuts as required to verify information required.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Surfaces shall be clean, smooth, free of fins, sharp edges, loose and foreign material, oil, grease, and bitumen.
- D. Re-Roofing Over Existing Single-Ply System:
 - 1. Remove all loose or high fasteners.
 - 2. Membrane contaminated with bitumen must be immediately cleaned. If cleaning does not remove the bitumen, the contaminated membrane must be replaced, or covered with both a slip sheet and new membrane.
 - 3. Blisters, buckles and other surface irregularities must be repaired or removed. If the damage is extensive, an approved rigid board insulation or a cover board must be installed.
 - 4. When the system is smooth or granular-surfaced, any approved slip sheet, insulation or cover board may be used to provide separation of the roof system and new membrane. Duro-Guard fan folds may be used if the surface is pea gravel or crushed stone which is ¼ to 3/8 inch in size and has been leveled and maintained at 4 psf. For larger rock/gravel, utilize an approved rigid insulation or cover board.
 - 5. If rock/gravel surfacing is removed, an approved fan fold, rigid insulation or cover board must be used. If embedded rock/gravel remains that protrudes out of the deck more than ¼ inch, do not use fan fold board. Instead, use an approved cover board or rigid insulation.
 - 6. When installing polystyrene insulation over coal tar pitch or asphalt-based roof systems, a slip sheet must be used between the insulation and existing roof.

3.3 INSTALLATION

- A. Install insulation in accordance with the roof manufacturer's requirements.
- B. Insulation: Duro-Guard® ISO II (flat).
 - 1. Install insulation in accordance with the roof manufacturer's requirements.
 - 2. Insulation shall be adequately supported to sustain normal foot traffic without damage.
 - 3. Where field trimmed, insulation shall be fitted tightly around roof protrusions with no gaps greater than ¼ inch.
 - 4. No more insulation shall be applied than can be covered with the roof membrane by the end of the day or the onset of inclement weather.

3-Part Specification
Division 07 54 19 - Polyvinyl-Chloride Roofing

5. If more than one layer of insulation is used, all joints between subsequent layers shall be offset by at least 6 inches.
 6. **Mechanical Attachment:** Use only fasteners, stress plates and fastening patterns accepted for use by the roof manufacturer. Fastening patterns must meet applicable design requirements.
 - a. Install fasteners in accordance with the roof manufacturer's requirements. Fasteners that are improperly installed must be replaced or corrected.
 7. Mechanically attach Duro-Guard® ISO II (flat) insulation boards in parallel courses with end joints staggered 50% and adjacent boards butted together with no gaps greater than ¼ inch.
- C. **Roof Membrane:** 50 mil, nominal, Duro-Last® Duro-Tuff™ membrane.
1. Use only fasteners, stress plates and fastening patterns accepted for use by the roof manufacturer. Fastening patterns must meet the applicable design requirements.
 2. Install fasteners in accordance with the roof manufacturer's requirements. Fasteners that are improperly installed shall be replaced or corrected.
 3. Mechanically fasten membrane to the structural deck utilizing fasteners and fastening patterns that in accordance with the roof manufacturer's requirements.
 4. Cut membrane to fit neatly around all penetrations and roof projections.
 5. Unroll roofing membrane and positioned with a minimum 6 inch overlap.
- D. **Seaming:**
1. Weld overlapping sheets together using hot air. Minimum weld width is 1-1/2 inches.
 2. Check field welded seams for continuity and integrity and repair all imperfections by the end of each work day.
- E. **Membrane Termination/Securement:** All membrane terminations shall be completed in accordance with the membrane manufacturer's requirements.
1. Provide securement at all membrane terminations at the perimeter of each roof level, roof section, curb flashing, skylight, expansion joint, interior wall, penthouse, and other similar condition.
 2. Provide securement at any angle change where the slope or combined slopes exceeds two inches in one horizontal foot.
- F. **Flashings:** Complete all flashings and terminations as indicated on the drawings and in accordance with the membrane manufacturer's requirements.
1. Provide securement at all membrane terminations at the perimeter of each roof level, roof section, curb flashing, skylight, expansion joint, interior wall, penthouse, and other similar condition.
 - a. Do not apply flashing over existing thru-wall flashings or weep holes.
 - b. Secure flashing on a vertical surface before the seam between the flashing and the main roof sheet is completed.
 - c. Extend flashing membrane a minimum of 6 inches (152 mm) onto the main roof sheet beyond the mechanical securement.
 - d. Use care to ensure that the flashing does not bridge locations where there is a change in direction (e.g. where the parapet meets the roof deck).
 2. **Penetrations:**
 - a. Flash all pipes, supports, soil stacks, cold vents, and other penetrations passing through

- the roofing membrane as indicated on the Drawings and in accordance with the membrane manufacturer's requirements.
- b. Utilize custom prefabricated flashings supplied by the membrane manufacturer.
 - c. Existing Flashings: Remove when necessary to allow new flashing to terminate directly to the penetration.
3. Pipe Clusters and Unusual Shapes:
- a. Clusters of pipes or other penetrations which cannot be sealed with prefabricated membrane flashings shall be sealed by surrounding them with a prefabricated vinyl-coated metal pitch pan and sealant supplied by the membrane manufacturer.
 - b. Vinyl-coated metal pitch pans shall be installed, flashed and filled with sealant in accordance with the membrane manufacturer's requirements.
 - c. Pitch pans shall not be used where prefabricated or field fabricated flashings are possible.
- G. Roof Drains:
1. Coordinate installation of roof drains and vents specified in Section 15146 - Plumbing Specialties.
 2. Remove existing flashing and asphalt at existing drains in preparation for sealant and membrane.
 3. Provide a smooth clean surface on the mating surface between the clamping ring and the drain base.
- H. Edge Details:
1. Provide edge details as indicated on the Drawings. Install in accordance with the membrane manufacturer's requirements.
 2. Join individual sections in accordance with the membrane manufacturer's requirements.
 3. Coordinate installation of metal flashing and counter flashing specified in Section 07620.
 4. Manufactured Roof Specialties: Coordinate installation of copings, counter flashing systems, gutters, downspouts, and roof expansion assemblies specified in Section 07710.
- I. Walkways:
1. Install walkways in accordance with the membrane manufacturer's requirements.
 2. Provide walkways where indicated on the Drawings.
 3. Install walkway pads at roof hatches, access doors, rooftop ladders and all other traffic concentration points regardless of traffic frequency. Provided in areas receiving regular traffic to service rooftop units or where a passageway over the surface is required.
 4. Do not install walkways over flashings or field seams until manufacturer's warranty inspection has been completed.
- J. Water cut-offs:
1. Provide water cut-offs on a daily basis at the completion of work and at the onset of inclement weather.
 2. Provide water cut-offs to ensure that water does not flow beneath the completed sections of the new roofing system.
 3. Remove water cut-offs prior to the resumption of work.
 4. The integrity of the water cut-off is the sole responsibility of the roofing contractor.

3-Part Specification
Division 07 54 19 - Polyvinyl-Chloride Roofing

5. Any membrane contaminated by the cut-off material shall be cleaned or removed.

3.4 FIELD QUALITY CONTROL

- A. The membrane manufacturer's representative shall provide a comprehensive final inspection after completion of the roof system. All application errors shall be addressed and final punch list completed.

3.5 PROTECTION

- A. Protect installed roofing products from construction operations until completion of project.
- B. Where traffic is anticipated over completed roofing membrane, protect from damage using durable materials that are compatible with membrane.
- C. Repair or replace damaged products after work is completed.

END OF SECTION

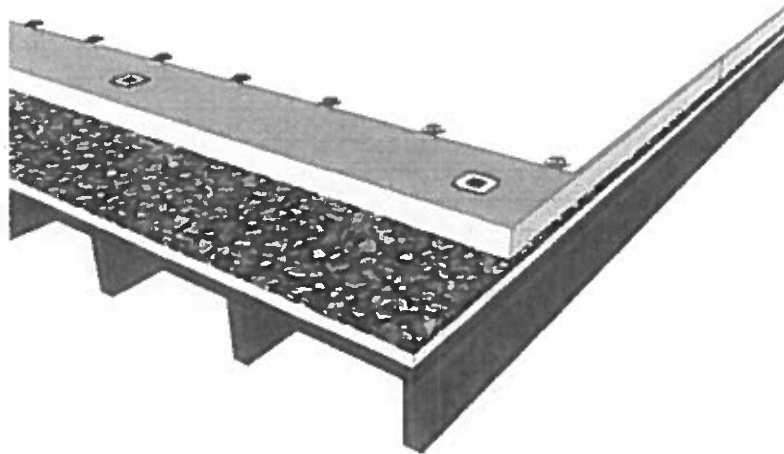
Canadian County Health Dept

100 S Rock Island Ave.
El Reno, OK 73036

Entire

Prepared For: Chris Jackson
Canadian County Health Dept.

Prepared By: Randy Kayle Young
Duro-Last



Duro-Last Roof Assembly Description

- **Duro-Last® Duro-Tuff™ membrane**
Membrane Thickness: 50 mil, nominal
Color: White
Attachment: Attached with mechanical fasteners
- **Duro-Guard® ISO II (flat)**
Attachment: Attached with mechanical fasteners
- **BUR: Gravel-Surfaced**
- **5/8 inch Plywood Roof Deck**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Overlay BUR: Gravel-Surfaced.
- B. Duro-Last® Duro-Tuff™ membrane attached with mechanical fasteners.
- C. Duro-Guard® ISO II (flat), attached with mechanical fasteners.
- D. Prefabricated flashings, corners, parapets, stacks, vents, and related details.
- E. Fasteners, adhesives, and other accessories required for a complete roofing installation.
- F. Traffic Protection.

1.2 REFERENCES

- A. NRCA - The NRCA Roofing and Waterproofing Manual.
- B. ASCE 7 - Minimum Design Loads For Buildings And Other Structures.
- C. UL - Roofing Materials and Systems Directory, Roofing Systems (TGFU.R10128).
- D. ASTM C 1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board.
- E. ASTM D 751 - Standard Test Methods for Coated Fabrics.
- F. ASTM D 4434 - Standard Specification for Poly(Vinyl Chloride) Sheet Roofing.
- G. ASTM E 108 - Standard Test Methods for Fire Tests of Roof Coverings.
- H. ASTM E 119 - Standard Test Methods for Fire Tests of Building Construction and Materials.

1.3 SYSTEM DESCRIPTION

- A. **General:** Provide installed roofing membrane and base flashings that remain watertight; do not permit the passage of water; and resist specified uplift pressures, thermally induced movement, and exposure to weather without failure.
- B. **Material Compatibility:** Provide roofing materials that are compatible with one another under conditions of service and application required, as demonstrated by roofing membrane manufacturer based on testing and field experience.
- C. **Physical Properties:**
 - 1. Roof product must meet the requirements of Type III PVC sheet roofing as defined by ASTM D 4434 and must meet or exceed the following physical properties.
 - 2. Thickness: 50 mil, nominal, in accordance with ASTM D 751.
 - 3. Thickness Over Scrim: ≥ 26 mil in accordance with ASTM D 751.
 - 4. Breaking Strengths: ≥ 423 lbf. (MD) and ≥ 278 lbf. (XMD) in accordance with ASTM D 751, Grab Method.
 - 5. Elongation at Break: $\geq 31\%$ (MD) and $\geq 30\%$ (XMD) in accordance with ASTM D 751, Grab Method.
 - 6. Heat Aging in accordance with ASTM D 3045: 176 °F for 56 days. No sign of cracking, chipping or crazing. (In accordance with ASTM D 4434).

3-Part Specification
Division 07 54 19 - Polyvinyl-Chloride Roofing

7. **Factory Seam Strength:** ≥ 423 lbf. in accordance with ASTM D 751, Grab Method.
8. **Tearing Strength:** ≥ 90 lbf. (MD) and ≥ 143 lbf. (XMD) in accordance with ASTM D 751, Procedure B.
9. **Low Temperature Bend (Flexibility):** Pass at -40 °F in accordance with ASTM D 2136.
10. **Accelerated Weathering:** No cracking, checking, crazing, erosion or chalking after 5,000 hours in accordance with ASTM G 154.
11. **Linear Dimensional Change:** $< 0.20\%$ (MD) and 0.10% (XMD) in accordance with ASTM D 1204 at 176 ± 2 °F for 6 hours.
12. **Water Absorption:** $< 2.60\%$ in accordance with ASTM D 570 at 158 °F for 166 hours.
13. **Static Puncture Resistance:** ≥ 33 lbs. in accordance with ASTM D 5602.
14. **Dynamic Puncture Resistance:** ≥ 14.7 ft-lbf. in accordance with ASTM D 5635.

D. Cool Roof Rating Council (CRRC):

1. Membrane must be listed on CRRC website.
 - a. Initial Solar Reflectance: $\geq 85\%$
 - b. Initial Solar Reflective Index (SRI): ≥ 108

E. Insulation

1. Provide overall thermal resistance for roofing system as follows:
 - a. Minimum Thickness: 1.5 inch.
2. Install using a minimum of two layers.
3. Configuration as indicated on the Drawings.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Duro-Last data sheets on each product to be used, including:
 1. Preparation instructions and recommendations.
 2. Storage and handling requirements and recommendations.
 3. Installation methods.
 4. Maintenance requirements.
- C. Shop Drawings: Indicate insulation pattern, overall membrane layout, field seam locations, joint or termination detail conditions, and location of fasteners.
- D. Verification Samples: For each product specified, two samples, representing actual product, color, and finish.
 1. 4 inch by 6 inch sample of roofing membrane, of color specified.
 2. 4 inch by 6 inch sample of walkway pad.

3. Termination bar, fascia bar with cover, drip edge and gravel stop if to be used.
4. Each fastener type to be used for installing membrane, insulation/recover board, termination bar and edge details.
- E. Installer Certification: Certification from the roofing system manufacturer that Installer is approved, authorized, or licensed by manufacturer to install roofing system.
- F. Manufacturer's warranties.

1.5 QUALITY ASSURANCE

- A. Perform work in accordance with manufacturer's installation instructions.
- B. Manufacturer Qualifications: A manufacturer specializing in the production of PVC membranes systems and utilizing a Quality Control Manual during the production of the membrane roofing system that has been approved by and is inspected by Underwriters Laboratories.
- C. Installer Qualifications: Company specializing in installation of roofing systems similar to those specified in this project and approved by the roofing system manufacturer.
- D. Source Limitations: Obtain components for membrane roofing system from roofing membrane manufacturer.
- E. There shall be no deviations from the roof membrane manufacturer's specifications or the approved shop drawings without the prior written approval of the manufacturer.

1.6 REGULATORY REQUIREMENTS

- A. Conform to applicable code for roof assembly wind uplift and fire hazard requirements.
- B. Fire Exposure: Provide membrane roofing materials with the following fire-test-response characteristics. Materials shall be identified with appropriate markings of applicable testing and inspecting agency.
 1. Exterior Fire-Test Exposure:
 - a. Class A; ASTM E 108, for application and roof slopes indicated.
 2. Fire-Resistance Ratings: Comply with ASTM E 119 for fire-resistance-rated roof assemblies of which roofing system is a part.
 3. Conform to applicable code for roof assembly fire hazard requirements.
- C. Wind Uplift:
 1. Roofing System Design: Provide a roofing system designed to resist uplift pressures calculated according to the current edition of the ASCE-7 Specification *Minimum Design Loads for Buildings And Other Structures*.

1.7 PRE-INSTALLATION MEETING

- A. Convene meeting not less than one week before starting work of this section.
- B. Review methods and procedures related to roof deck construction and roofing system including, but not limited to, the following.

1. Meet with Owner, Architect, Owner's insurer if applicable, testing and inspecting agency representative, roofing installer, roofing system manufacturer's representative, deck installer, and installers whose work interfaces with or affects roofing including installers of roof accessories and roof-mounted equipment.
2. Review and finalize construction schedule and verify availability of materials, installer's personnel, equipment, and facilities needed to make progress and avoid delays.
3. Examine deck substrate conditions and finishes for compliance with requirements, including flatness and fastening.
4. Review structural loading limitations of roof deck during and after roofing.
5. Review base flashings, special roofing details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that will affect roofing system.
6. Review governing regulations and requirements for insurance and certificates if applicable.
7. Review temporary protection requirements for roofing system during and after installation.
8. Review roof observation and repair procedures after roofing installation.

1.8 DELIVERY, STORAGE AND HANDLING

- A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, and directions for storing and mixing with other components.
- B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid material from direct sunlight.
- C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Store in a dry location. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.
- D. Store roof materials and place equipment in a manner to avoid permanent deflection of deck.
- E. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.9 WARRANTY

- A. Contractor's Warranty: The contractor shall warrant the roof application with respect to workmanship and proper application for two (2) years from the effective date of the warranty issued by the manufacturer.
- B. Manufacturer's Warranty: Must be no-dollar limit type and provide for completion of repairs, replacement of membrane or total replacement of the roofing system at the then-current material and labor prices throughout the life of the warranty. In addition the warranty must meet the following criteria:
 1. Warranty Period: 15 years from date issued by the manufacturer.
 2. No exclusion for damage caused by ponding water.
 3. Issued direct from and serviced by the roof membrane manufacturer.
 4. Transferable for the full term of the warranty.
 5. No additional charge for the warranty.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. **Manufacturer:** Duro-Last Roofing, Inc., which is located at: 525 Morley Drive, Saginaw, MI 48601. Telephone: 800-248-0280.
- B. All roofing system components to be provided or approved by Duro-Last Roofing, Inc.
- C. Substitutions: Not permitted.

2.2 ROOFING SYSTEM COMPONENTS

- A. **Roofing Membrane:** Duro-Last® Duro-Tuff™ membrane conforming to ASTM D 4434, type III, fabric-reinforced, PVC, NSF/ANSI 347 Gold or Platinum Certification, and a product-specific third-party verified Environmental Product Declaration. Membrane properties as follows:
 - 1. **Thickness:**
 - a. 50 mil, nominal.
 - 2. **Exposed Face Color:**
 - a. White.
 - 3. **Minimum recycle content 7% post-industrial and 0% post-consumer.**
 - 4. **Recycled at end of life into resilient flooring or concrete expansion joints.**
- B. **Accessory Materials:** Provide accessory materials supplied by or approved for use by Duro-Last Roofing, Inc.
 - 1. **Sheet Flashing:** Manufacturer's standard reinforced PVC sheet flashing.
 - 2. **Duro-Last Factory Prefabricated Flashings:** manufactured using Manufacturer's standard reinforced PVC membrane.
 - a. Stack Flashings.
 - b. Curb Flashings.
 - c. Inside and Outside Corners.
 - d. Drain Boots, Composite Drain Rings (CDR) and Dome Strainers.
 - e. Vinyl Coated Metal Scupper Inserts.
 - f. Vinyl Coated Pitch Pans.
 - 3. **Sealants and Adhesives:** Compatible with roofing system and supplied by Duro-Last Roofing, Inc.
 - a. Duro-Caulk® Plus.
 - b. Strip Mastic.
 - 4. **Slip Sheet:** Compatible with roofing system and supplied by Duro-Last Roofing, Inc.
 - 5. **Fasteners and Plates:** Factory-coated steel fasteners and metal or plastic plates meeting corrosion-resistance provisions in FMG 4470, designed for fastening membrane and insulation to substrate. Supplied by Duro-Last Roofing, Inc.
 - a. #14 Heavy Duty Fasteners.
 - b. Cleat Plates.

- c. 3 inch Metal Plates.
 - 6. PV Anchors
 - 7. Termination and Edge Details: Supplied by Duro-Last Roofing, Inc.
 - a. Termination Bar.
 - b. Universal 2-Piece Compression Metal System.
 - 8. Vinyl Coated Metal: Supplied by Duro-Last Roofing, Inc. 24 gauge, hot-dipped galvanized, grade 90 metal with a minimum of 17 mil of Duro-Last membrane laminated to one side.
 - 9. Two-Way Roof Vents: Supplied by Duro-Last Roofing, Inc. Install a minimum of 1 vent for each 1,000 ft² (93 m²) of roof area.
- C. Walkways:
- 1. Provide non-skid, maintenance-free walkway pads in areas of heavy foot traffic and around mechanical equipment.
 - a. Duro-Last Roof Trak® III Walkway Pad.

2.3 ROOF INSULATION

- A. General:
- 1. Provide preformed roof insulation boards that comply with requirements and referenced standards, as selected from manufacturer's standard sizes.
 - 2. Provide preformed saddles, crickets, and other insulation shapes where indicated for sloping to drain. Fabricate to slopes indicated.
- B. Polyisocyanurate Board Insulation: Complying with ASTM C 1289, Type II, felt or glass-fiber mat facer on both major surfaces. Material as supplied by Duro-Last.
- 1. Duro-Guard® ISO II (flat).

2.4 ROOF INSULATION ACCESSORIES

- A. General: Provide roof insulation accessories approved by the roof membrane manufacturer and as recommended by insulation manufacturer for the intended use.
- B. Fasteners: Provide Duro-Last factory-coated steel fasteners and metal or plastic plates meeting corrosion-resistance provisions in FMG 4470, designed for fastening insulation and/or insulation cover boards in conformance to specified design requirements.
- 1.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that the surfaces and site conditions are ready to receive work.
- B. Verify that the deck is supported and secured.
- C. Verify that the deck is clean and smooth, free of depressions, waves, or projections, and properly sloped to drains, valleys, eaves, scuppers or gutters.
- D. Verify that the deck surfaces are dry and free of standing water, ice or snow.
- E. Verify that all roof openings or penetrations through the roof are solidly set.

- F. If substrate preparation is the responsibility of another contractor, notify Architect of unsatisfactory preparation before proceeding.
- G. Prior to re-covering an existing roofing system, conduct an inspection of the roof system accompanied by a representative of the membrane manufacturer or an authorized contractor.
 - 1. Determine required fastener type, length, and spacing.
 - 2. Verify that moisture content of existing roofing is within acceptable limits.
 - 3. Identify damaged areas requiring repair before installation of new roofing.
 - 4. Conduct core cuts as required to verify information required.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Surfaces shall be clean, smooth, free of fins, sharp edges, loose and foreign material, oil, grease, and bitumen.
- D. Re-Roofing Over Existing Single-Ply System:
 - 1. Remove all loose or high fasteners.
 - 2. Membrane contaminated with bitumen must be immediately cleaned. If cleaning does not remove the bitumen, the contaminated membrane must be replaced, or covered with both a slip sheet and new membrane.
 - 3. Blisters, buckles and other surface irregularities must be repaired or removed. If the damage is extensive, an approved rigid board insulation or a cover board must be installed.
 - 4. When the system is smooth or granular-surfaced, any approved slip sheet, insulation or cover board may be used to provide separation of the roof system and new membrane. Duro-Guard fan folds may be used if the surface is pea gravel or crushed stone which is ¼ to 3/8 inch in size and has been leveled and maintained at 4 psf. For larger rock/gravel, utilize an approved rigid insulation or cover board.
 - 5. If rock/gravel surfacing is removed, an approved fan fold, rigid insulation or cover board must be used. If embedded rock/gravel remains that protrudes out of the deck more than ¼ inch, do not use fan fold board. Instead, use an approved cover board or rigid insulation.
 - 6. When installing polystyrene insulation over coal tar pitch or asphalt-based roof systems, a slip sheet must be used between the insulation and existing roof.

3.3 INSTALLATION

- A. Install insulation in accordance with the roof manufacturer's requirements.
- B. Insulation: Duro-Guard® ISO II (flat).
 - 1. Install insulation in accordance with the roof manufacturer's requirements.
 - 2. Insulation shall be adequately supported to sustain normal foot traffic without damage.
 - 3. Where field trimmed, insulation shall be fitted tightly around roof protrusions with no gaps greater than ¼ inch.
 - 4. No more insulation shall be applied than can be covered with the roof membrane by the end of the day or the onset of inclement weather.

5. If more than one layer of insulation is used, all joints between subsequent layers shall be offset by at least 6 inches.
 6. **Mechanical Attachment:** Use only fasteners, stress plates and fastening patterns accepted for use by the roof manufacturer. Fastening patterns must meet applicable design requirements.
 - a. Install fasteners in accordance with the roof manufacturer's requirements. Fasteners that are improperly installed must be replaced or corrected.
 7. Mechanically attach Duro-Guard® ISO II (flat) insulation boards in parallel courses with end joints staggered 50% and adjacent boards butted together with no gaps greater than ¼ inch.
- C. **Roof Membrane:** 50 mil, nominal, Duro-Last® Duro-Tuff™ membrane.
1. Use only fasteners, stress plates and fastening patterns accepted for use by the roof manufacturer. Fastening patterns must meet the applicable design requirements.
 2. Install fasteners in accordance with the roof manufacturer's requirements. Fasteners that are improperly installed shall be replaced or corrected.
 3. Mechanically fasten membrane to the structural deck utilizing fasteners and fastening patterns that in accordance with the roof manufacturer's requirements.
 4. Cut membrane to fit neatly around all penetrations and roof projections.
 5. Unroll roofing membrane and positioned with a minimum 6 inch overlap.
- D. **Seaming:**
1. Weld overlapping sheets together using hot air. Minimum weld width is 1-1/2 inches.
 2. Check field welded seams for continuity and integrity and repair all imperfections by the end of each work day.
- E. **Membrane Termination/Securement:** All membrane terminations shall be completed in accordance with the membrane manufacturer's requirements.
1. Provide securement at all membrane terminations at the perimeter of each roof level, roof section, curb flashing, skylight, expansion joint, interior wall, penthouse, and other similar condition.
 2. Provide securement at any angle change where the slope or combined slopes exceeds two inches in one horizontal foot.
- F. **Flashings:** Complete all flashings and terminations as indicated on the drawings and in accordance with the membrane manufacturer's requirements.
1. Provide securement at all membrane terminations at the perimeter of each roof level, roof section, curb flashing, skylight, expansion joint, interior wall, penthouse, and other similar condition.
 - a. Do not apply flashing over existing thru-wall flashings or weep holes.
 - b. Secure flashing on a vertical surface before the seam between the flashing and the main roof sheet is completed.
 - c. Extend flashing membrane a minimum of 6 inches (152 mm) onto the main roof sheet beyond the mechanical securement.
 - d. Use care to ensure that the flashing does not bridge locations where there is a change in direction (e.g. where the parapet meets the roof deck).
 2. **Penetrations:**
 - a. Flash all pipes, supports, soil stacks, cold vents, and other penetrations passing through

the roofing membrane as indicated on the Drawings and in accordance with the membrane manufacturer's requirements.

- b. Utilize custom prefabricated flashings supplied by the membrane manufacturer.
 - c. Existing Flashings: Remove when necessary to allow new flashing to terminate directly to the penetration.
3. Pipe Clusters and Unusual Shapes:
- a. Clusters of pipes or other penetrations which cannot be sealed with prefabricated membrane flashings shall be sealed by surrounding them with a prefabricated vinyl-coated metal pitch pan and sealant supplied by the membrane manufacturer.
 - b. Vinyl-coated metal pitch pans shall be installed, flashed and filled with sealant in accordance with the membrane manufacturer's requirements.
 - c. Pitch pans shall not be used where prefabricated or field fabricated flashings are possible.
- G. Roof Drains:
1. Coordinate installation of roof drains and vents specified in Section 15146 - Plumbing Specialties.
 2. Remove existing flashing and asphalt at existing drains in preparation for sealant and membrane.
 3. Provide a smooth clean surface on the mating surface between the clamping ring and the drain base.
- H. Edge Details:
1. Provide edge details as indicated on the Drawings. Install in accordance with the membrane manufacturer's requirements.
 2. Join individual sections in accordance with the membrane manufacturer's requirements.
 3. Coordinate installation of metal flashing and counter flashing specified in Section 07620.
 4. Manufactured Roof Specialties: Coordinate installation of copings, counter flashing systems, gutters, downspouts, and roof expansion assemblies specified in Section 07710.
- I. Walkways:
1. Install walkways in accordance with the membrane manufacturer's requirements.
 2. Provide walkways where indicated on the Drawings.
 3. Install walkway pads at roof hatches, access doors, rooftop ladders and all other traffic concentration points regardless of traffic frequency. Provided in areas receiving regular traffic to service rooftop units or where a passageway over the surface is required.
 4. Do not install walkways over flashings or field seams until manufacturer's warranty inspection has been completed.
- J. Water cut-offs:
1. Provide water cut-offs on a daily basis at the completion of work and at the onset of inclement weather.
 2. Provide water cut-offs to ensure that water does not flow beneath the completed sections of the new roofing system.
 3. Remove water cut-offs prior to the resumption of work.
 4. The integrity of the water cut-off is the sole responsibility of the roofing contractor.

5. Any membrane contaminated by the cut-off material shall be cleaned or removed.

3.4 FIELD QUALITY CONTROL

- A. The membrane manufacturer's representative shall provide a comprehensive final inspection after completion of the roof system. All application errors shall be addressed and final punch list completed.

3.5 PROTECTION

- A. Protect installed roofing products from construction operations until completion of project.
- B. Where traffic is anticipated over completed roofing membrane, protect from damage using durable materials that are compatible with membrane.
- C. Repair or replace damaged products after work is completed.

END OF SECTION



**Canadian County
Purchasing**

BID CHECKLIST

Date Issued: November 16, 2020
Bid Number: 2021-#15
Closing Date: December 14, 2020 at 9:00am
PO Box 458, 201 N. Choctaw Ave., El Reno, OK 73036
Opening Date: December 14, 2020 during the Commissioner's Meeting that begins at 9:00am
Commissioner's Meeting Room, 201 N. Choctaw Ave., El Reno, OK 73036

**TO HELP PREVENT BIDS FROM BEING REJECTED FOR LACK OF COMPLETION
PLEASE CHECK FOR THE FOLLOWING:**

- Is the Invitation to Bid Signed and Notarized? _____
- Is the bid bond or cashier's check enclosed? _____
- Is the Business Relationships Affidavit enclosed? _____
- Is the Non-Collusion Bidding Certificate enclosed? _____
- Are all applicable spaces filled in? _____
- Are all necessary papers enclosed? _____
- Is the Bid # and Opening Date on outside of return envelope? _____

**Bids will be received beginning 9:00am Tuesday December 8, 2020 until 9:00am Monday December 14, 2020
(Do not turn bid in before Tuesday December 8, 2020 @ 9:00am – bid will not be opened or considered)**

Thank You,

Krissi Jensen, Purchasing Agent



**Canadian County
Purchasing**

Affidavit / Proof of Mailing

Date Issued: November 16, 2020

Bid Number: 2021-#15

Closing Date: December 14, 2020 at 9:00am

PO Box 458, 201 N. Choctaw Ave., El Reno, OK 73036

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Commissioner's Meeting Room, 201 N. Choctaw Ave., El Reno, OK 73036

~ AFFIDAVIT ~

Roofing Repairs / Health Department / Commissioners

State of Oklahoma)
County of Canadian) §

I, Krissi Jensen, Purchasing Agent, in and for said County and State, do hereby certify that "Invitations to Bid" were sent to the following:

Bid Clerk
projects@bidclerk.com

Bid News
projects@isqft.com

ePlan
1400 Forum Blvd. Ste 7B
Columbia, MO 65203

Francis Tuttle Vo-Tech
Attn: Bid Assistance – Judy Robbins
12777 N. Rockwell
Oklahoma City, OK 73142

Online Data Services
5425 Peachtree Parkway
Peachtree Corners, GA 30092

Reed Construction Data
30 Tech. Pkwy South, Ste 100
Norcross, GA 30092

Drake Roofing
406 Maple Street, Suite #3
Yukon, OK 73099

Midtown Construction Services
C/O Dean Baker
1376 Fretz Drive
Suite #206
Edmond, OK 73003

Action Roofing & Contracting, LLC
PO Box 50558
Midwest City, OK 73140

Priority One National, Inc.
14001 NW 150th St.
Piedmont, OK 73078

Coontz Roofing, Inc.
8100 Harryman Rd.
Newcastle, OK 73065

Nurnberg Roofing Company
109 W. Main
Corn, OK 73024

Target Roofing & Construction, LLC
5830 NW Expressway Suite #215
Oklahoma City, OK 73132

Witness my hand and seal this 16th day of November, 2020.

Krissi Jensen, Purchasing Agent

(SEAL)

NON-COLLUSION BIDDING CERTIFICATION

_____ (PROJECT NAME)

STATE OF OKLAHOMA)
)SS
COUNTY _____)

A. For purposes of competitive bids, I certify:

1. I am the duly authorized agent of _____, the bidder submitting the competitive bid which is attached to this statement, for the purpose of certifying the facts pertaining to the existence of collusion among bidders and between bidders and state officials or employees, as well as facts pertaining to the giving or offering of things of value to government personnel in return for special consideration in the letting of any contract pursuant to the bid to which this statement is attached;
2. I am fully aware of the facts and circumstances surrounding the making of the bid to which this statement is attached and has been personally and directly involved in the proceedings leading to the submission of such bid; and
3. Neither the bidder nor anyone subject to the bidder's direction or control has been a party to the following:
 - a. Any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding;
 - b. Any collusion with any state official or employee as to quantity, quality or price in the prospective contract, or as to any other terms of such prospective contract; and
 - c. Any discussions between bidders and any state official concerning exchange of money or other thing of value for special consideration in the letting of a contract.

B. I certify, if awarded the contract, whether competitively bid or not, that neither the Contractor nor anyone subject to the Contractor's direction or control has paid, given, or donated or agreed to pay, give, or donate to any officer or employee of the State of Oklahoma any money or other thing of value, either directly or indirectly, in procuring the contract to which this statement is attached.

Certified this _____ day of _____, 20__.

(Signature)

(Print Name)

(Position in the Company)

BUSINESS RELATIONSHIPS AFFIDAVIT

_____ (PROJECT NAME)

STATE OF OKLAHOMA)
)SS
COUNTY OF _____)

_____, of lawful age, being duly sworn, on oath says that he or she is the agent authorized by the bidder to submit the attached bid. Affiant further states that the nature of any partnership, or other business relationship presently in effect, of which existed within one (1) year prior to the date of this statement with the architect, engineer, or other party to the project is as follows:

Affiant further states that any such business relationship presently in effect of which existed within one (1) year prior to the date of this statement between any officer or director of the bidding company and any officer or director of the architectural or engineering firm or other party to the project is as follows:

Affiant further states that the names of all persons having any such business relationships and the positions they hold with their respective companies or firms are as follows:

(If none of the business relationships herein above mentioned exist, affiant should so state.)

(Signature of Affiant)

Subscribed and sworn to before me this _____ day of _____, 20__

Notary Public _____

My Commission Expires _____