

**Specifications
and
Scope of Work**

**Roof Repairs and Air Handler Unit Demo
For
Red River Redevelopment Authority
Building 333**

Red River Redevelopment Authority

107 Chapel Lane

New Boston, Texas 75570

903-223-9841

June 5 2009

Instructions To Respondents

1. Proposal Delivery Time and Date

- 1.1 The Red River Redevelopment Authority (RRRA) will receive written and sealed quotations for roof repair and demolition of (5) Air Handler Units (AHU) on Building 333 in the Red River Commerce Park. Proposals will be clearly marked "Roof Coating and AHU Demo" and must be received at the address listed on the cover page of this request by 4:00 P.M. Monday, June 29, 2009. Any proposal received late or unmarked will not be accepted.
- 1.2 Submissions will be accepted by hand delivery, United States Postal Service or private delivery service. Electronic submissions will not be accepted.
- 1.3 Questions may be directed, via email to Randy Mansfield at randy.mansfield@rrcp.org. Questions submitted in advance of pre-bid meeting will be answered at the pre-bid meeting.

2. Administrative Information

- 2.1 A single copy of the bid proposal and any promotional material provided will be sufficient.
- 2.2 A pre-bid meeting will be held 10:00 A.M. June 19, 2009 at RRRA offices, 107 Chapel Lane, New Boston, Texas 75570
- 2.3 Proposals will be evaluated beginning Tuesday June 30, 2009 with an anticipated award date of July 14, 2009 pending RRRA Board of Directors approval. Consideration of price, capabilities and quality will be considered in selection of final award. The RRRA reserves the right to value engineer all submitted proposals and may form a merit list of respondents who will be invited to submit best and final submittals.
- 2.4 Submittal of two representative projects completed by bidder. Should be of comparable size and scope. Name, address, phone number of client shall be provided and may be contacted for reference.
- 2.5 Brevity and clarity will be appreciated in all responses.
- 2.6 RRRA reserves the right to reject any and all submissions.**

3. Essential Elements

- 3.1 The total price bid shall be listed on the first page of the proposal in the top half of the page. Price shall be in **Bold Type**. This will assist RRRR staff in the bid opening and log in process.
- 3.2 Provide within (10) ten calendar days after award of contract, payment and performance bonds in the amount of the firm fixed bid amount. Bonds must be provided prior to delivery of any materials or performance of any labor. Bonds must be provided in accordance with the requirements of Chapter 2253 of the Texas Government Code. Each prospective bidder will be furnished a copy of Red River Redevelopment Authority's Construction Contract for review of the terms and conditions. Submitting a bid proposal shall be construed as acceptance of these contract terms and conditions, unless alternative terms are proposed.
- 3.2 Successful bidder will provide proof of insurance with the following limits. General liability of \$1,000,000.00 bodily injury and \$300,000.00 property damage. Workers compensation and automobile insurance within the limits required by Texas law.
- 3.3 The construction time for this project shall be 120 calendar days from date of notice to proceed with reasonable allowances for weather or delays beyond the control of the contractor.
- 3.4 Successful bidder shall provide RRRR's representative a list of all subcontractors and vendors prior to performance of any work.
- 3.5 Successful bidder shall furnish a Ten Year Manufacturer's warranty.
- 3.6 Owner shall provide an area for material storage and staging during construction. Any additional security of material and tools shall be at contractor's expense.
- 3.7 All materials used on this project are Texas Sales Tax exempt.

Scope of Work

Task 1. Scope of work for demo of Air Handling Units:

Provide labor, materials, tools and supervision to remove five (5) existing Air Handling Units (AHU). This will include disconnecting the electrical at the roof penetration and back to the nearest junction. Mechanical services and piping will be removed to the first isolation valve. For the purpose of this bid it is assumed all isolation valves are in good condition and will hold. Demolished AHU units shall be removed from roof with a crane or any other OSHA acceptable manner. Existing AHU framework shall be removed, but stub columns through roof may remain. Existing ductwork and duct supports shall be removed, but supports through roof line may remain in place. All removed duct work, AHU units, supports or materials of any kind must be removed from worksite and disposed of in compliance with applicable law and regulations.

Task 2. Scope of work for existing foam roof section:

- 1 Power wash the entire existing roof surface
- 2 Cut back and down to solid and dry insulation in all areas where the coating has worn off completely
- 3 Apply ERSYSTEMS black foam primer to all exposed dry insulation
- 4 Apply ERSYSTEMS HER 1000 FG acrylic to all exposed areas (approximately ½" thick)
- 5 Apply ERSYSTEMS HER 202 flashing material to all gutter seams to achieve a water tight seal
- 6 Apply 2 coats of ERSYSTEMS Eraguard 1000 roof coating to a total of 18-22 dry mill thickness
- 7 See Exhibit A for more detailed project specifications

Task 3. Scope of Work for Metal Roof:

- 1 Power wash the existing metal roof decking
- 2 Apply 2 coats of ERSYSTEMS Eraguard 2000 acrylic primer
- 3 Apply ERSYSTEMS HER 2000 flashing material to all roof seams, penetrations and fastener heads
- 4 Apply 2 coats of ERSYSTEMS Eraguard metal roof coating for a total of 18-22 dry mill thickness
- 5 See exhibit B for more detailed project specifications

Note: All references to Manufacturer's Brand Name in specifications are for standards of acceptance and performance. Any brand may be proposed and used if it can be proved to be of equal quality.

Exhibit A

Specifications for Polyurethane Roof Coating

POLYURETHANE FOAM/COATING SAMPLE DESIGN GUIDELINES· ACRYLIC SYSTEM

PART 1 • GENERAL

This guide discusses the application of a seamless sprayed-in-place polyurethane foam system with an acrylic protective coating for use as an insulated roofing system.

1.01 SCOPE OF WORK

- A. Furnish all labor, materials, tools and equipment necessary for the application of a polyurethane spray foam/coating roofing system, including accessory items, subject to the general provisions of the contract and in accordance with specifications and details per this document.

1.02 QUALITY ASSURANCE

- A. Contractor Qualifications: The proposed contractor shall be licensed to perform commercial work in the State of Texas. All work to be completed must be done by an ERSystems or equal approved installer.
- B. Manufacturers Qualifications: ERSystems or other supplier declaring to be equal will furnish upon request, certification that the material meets the physical properties stated in this specification. References, sufficient project lists, warranties and code approvals shall be provided by ERSystems or others as requested.
- C. Inspections: The polyurethane foam and protective coating shall be monitored and inspected during the installation of the material.

1.03 SUBMITTALS

- A. Submittals shall be required if products to be used are declared to be as equal to listed specifications.

1.04 PRODUCT DELIVERY, STORAGE, & HANDLING

- A. Deliver material in original, unopened packages and containers.
- B. Containers are to be labeled with manufacturer's name, product name, description, & identification.
- C. Store materials in a dry area above 40° F and less than 80°F, and protect from water and direct sunlight.
- D. Any materials damaged in handling or storage must not be used.
- E. Deliver MSDS for each product specified. Consult MSDS and Product Data Specification for each product used before beginning work.

1.05 JOB & ENVIRONMENTAL CONDITIONS (CAUTIONS AND WARNINGS)

- A. The polyurethane foam and coatings applications shall not proceed during periods of inclement weather. Do not apply the polyurethane foam if the surface temperature of the substrate is less than 5° F above the dew point or if wind conditions exceed 25 mph.
- B. Mechanical units (blowers, HVAC) should be prevented from distributing chemical solvent fumes into the building.
- C. Coatings should be protected from traffic and other abuse until completely cured and installation is complete.
- D. Application of polyurethane foam and coatings with spray equipment may require some masking and possible erection of wind screens to prevent over-spray and drift damage. Protect surfaces of unrelated areas from coatings and over-spray possibility.
- E. Application shall proceed to dry, clean surfaces only. In planning work consider environment and weather related conditions such as frost, mist, dew, condensation, humidity, and temperature. Temperature shall be above 40° F, more than 5° F above the dew point and rising.
- F. Sufficient safety belts and lines should be provided. A wet surface or a surface that is not thoroughly cured can be very slippery. All work environments should comply with current OSHA regulations. All application shall be consistent MSDS and safe practices.

1.06 SAFETY

- A. Safety regulations as noted in OSHA Standards shall be followed.
- B. All personnel shall be trained on the hazards associated with the materials being used. Protective clothing, eye and face protection, and respiratory protective equipment all must be available and used.

1.07 WARRANTY

- A. ERSystems or equal vendor shall warrant that materials provided are free from defects in manufacturing and will replace any material found to be defective.
- B. A minimum (10) Ten year manufactures warranty shall be included in bid cost.

PART 2 – PRODUCTS

2.01 GENERAL

- A. The components of the coating system are to be products of ERSystems, 6900 Bleck Dr., Rockford, MN 55373, or products approved by ERSystems as compatible; or approved equal.

2.02 POLYURETHANE FOAM - ER FOAM 2.7

- A. The polyurethane foam to be applied shall be a two component spray-in-place system made by combining an isocyanate (A) component with a polyol (B) component.

PART 3· APPLICATION

3.01 POLYURETHANE FOAM APPLICATION

- A. Inspection:
 - 1. Prior to application of the foam, the surface shall be inspected to insure that the surface is free of loose dirt, oil or other contaminants and that it is stable and secure in all respects.
 - B. Surface Preparation:
 - 1. Built-up Roofs (BUR) Retrofit
 - a. All loose gravel, dust and debris shall be removed by Wet-Vac, power broom and vacuum or other suitable means of providing a clean dry substrate to produce a strong bond between the spray foam and the existing roof.
 - b. Cut out and repair all blisters, soft spots and major defects. Perimeter of all repairs shall be securely fastened. Securely fasten all loose base and counter flashings, gravel stops, drains and scuppers.
 - c. Minor defects such as splits or cracks, wrinkles or fishmouths shall be cut out or fastened securely.
 - d. Drain basins shall be cleaned of all obstructions, repaired as needed; compression rings shall be cleaned to bare metal.
 - e. Wet insulation shall be removed and replaced with compatible materials.
 - f. BUR, which are severely deteriorated, totally saturated, or which are composed of more than two complete BUR systems shall be removed down to the deck.
2. Metal Deck
- a. Metal shall be 22 gauge minimum.
 - b. Metal shall be clean, free of loose rust, scale, and debris. It may be cleaned by power washing at 2500-3000 psi. If grease, oil, or heavy dirt exists a cleaning solution, such as ERSystems Envirowash, or equal may be required.
 - c. Sand blasting may be required for ferrous metal and acid etching may be required on some non-ferrous metals. Adhesion tests of the foam should be done to determine the potential need of a primer.

- d. Fluted metal decks may require surface treatment prior to spraying foam. Flutes may be filled with spray foam or pre-cut board stock insulation or covered with open weave mesh fabric or a mechanically fastened board stock.

3. Concrete

- a. Concrete shall be clean, dry, and free of loose debris, old coating, etc. Oil, grease and other contaminants must be removed with ERSystems Envirowash or TSP substitute in water solution.
- b. Cracks and joints, which exceed 1/4 inch shall be caulked and repaired with Eraguard 1000 FG.
- c. Priming with an acrylic or epoxy primer is typically required on concrete. New concrete shall be allowed to cure a minimum of 28 days prior to application of primer.
- d. Lightweight and insulating concretes require an overlayment or base sheet to be installed prior to a foam application.

4. Wood

- a. Plywood shall be exterior grade of not less than 1/2 inch thickness, attached per Factory Mutual 1-90 Wind up-lift specifications.
- b. Plywood shall contain no more than 18% water by weight (ASTM 0-4444-84).
- c. Plywood joints approximately 1/4 inch shall be caulked and taped.
- d. Priming with Black Acrylic Foam Primer of untreated wood surfaces is typically required after the surface has been cleaned by vacuum or brooming. Do not wash untreated wood.

C. Foam Application - ER Foam 2.7

1. Conditions - Foam shall not be applied during inclement weather conditions. Surfaces to receive foam shall be clean, dry, and free of frost or dew. If wind velocity exceeds 15 mph, wind screens should be used and at 25 mph, operations should cease. Substrate temperature should be 60° F or higher and more than 5 degrees F in excess of dew point.
2. Foam Thickness - Minimum lift thickness shall be 3/4 inch and 1"-2" lift thickness is desired. Minimum total foam thickness shall be 1 inch. All foam in an area should be applied to finish thickness the same day. Foam should be applied uniformly over the entire surface with a tolerance of plus 1/4 inch of thickness.
3. Foam Surface Texture - Foam surface shall be smooth to "orange peel" texture as defined by SPI-PFCD. Pass line areas may be one degree higher in surface roughness. Roof perimeters shall be planed, filed, etc. as needed to prevent ponding at roof edges. Foam should terminate 6" above the field of the roof at parapet walls and 4" minimum at other roof penetrations. Foam application at walls, penetrations, perimeters shall provide a smooth transition from horizontal to vertical and allow positive drainage. Any foam "folds" or other irregularities shall be removed and repaired.

4. Drainage - Finished foam surface shall have sufficient slope to prevent ponding of water and create positive drainage. Foam installed for drainage correction shall be applied directly to the roof surface and beneath the final foam lift.

D. Coating Application - Acrylic Coating

1. The foam surface shall be free of moisture, frost, dust, debris, oils, tars, grease or other contaminants, which may impair adhesion of the coating to the foam. The surface shall be clean, dry, sound, smooth and free of voids, pinholes or blisters. Any damage or defects to the foam shall be repaired prior to coating application, with foam or Eraguard 1000 FG acrylic sealant.
2. The foam shall be allowed to cure a minimum of 2 hours. Eraguard 1000 - Gray base coat shall be applied the same day as the foam application when possible. If more than 24 hours elapse prior to applying the Eraguard 1000 base coat; the foam shall be inspected for UV degradation.
3. At roof penetrations, all vertical transitions, and at the roof perimeter an additional application of Eraguard 1000 base coat shall be made. Open cells in the foam created by planeing, filing or grinding shall be completely filled. Back rolling the Eraguard 1000 base coat will help eliminate pinholes. Additional base coat shall extend down into drains and scuppers to thoroughly coat the area. Coating shall terminate neatly a minimum of 3-4 inches above/beyond spray foam terminations.
4. Base coat application - Eraguard 1000 - Gray base coat shall be spray or roller applied at a rate of 2 gallons per square for a 5 or 10 year warranty. If foam surface texture is beyond "orange peel" more coating will be required to get uniform thickness applied. Multiple coats will also assist in getting uniform coating film thickness. Multiple coats shall be applied at right angles to each other. Two (2) gallon per square of Eraguard 1000 - Gray base coat produces 16.6 dry mil average on a smooth surface. Base coat application shall be a minimum of 13.3 dry mils as determined by slit samples and QC procedure. Initial cure of Eraguard 1000 - Gray base coat will be 2-6 hours. The base coat shall be thoroughly inspected for pinholes, defects, voids, and thinly coated areas prior to applying finish coat.
5. Finish Coat Application - Eraguard 1000 - White shall be applied at a minimum of 1 1/2 gallons per square for a 5 year warranty to 2 gallons per square in two coats for a 10 year warranty. Finish coat shall be rolled or sprayed at right angles to the Eraguard 1000 - base coat application. If surface texture is beyond "orange peel" back rolling and/or multiple coats may be required to achieve thickness uniformity. Finish coat shall be a minimum of 12.0 dry mils as determined by slit samples and QC procedure. 2 - 8 hours cure time is required prior to re-coat.
6. Granule application - Roofing granules shall be applied into a tack coat of Eraguard 1000. 35 - 40 pounds of No. 11 Roofing granules shall be immediately embedded into 0.5 - .75 gallons per SQ of Finish Coat. Granule application should occur within 2 to 3 minutes of coating application and should be evenly distributed over the horizontal surface. Excess granules may be removed after the system has cured.

E. Re-Coating Polyurethane Foam Insulation - See Restoration of Polyurethane Foam Insulation & Coating Specification for details.

1. Surface must be cleaned. Surface may be power washed at 2000 psi to remove dirt and any other contaminants which may impair the bond of the coating. Cleaning may be done with low pressure and low volume water with power floor-type scrubbers or with medium bristle broom as an alternative. Surface must be well rinsed, clean and dry prior to coating.
2. Adhesion tests are required for every re-coat application prior to making coating decisions.
3. Coating - follow coatings guidelines of 3.01 01-6 above. Varying amounts of coating may be specified depending on condition of the original system.

PROTECTION AND CLEAN-UP

PROTECTION

- A. The roof system and all components must be protected from all other trades at the job site.
- B. All damage to the system must be repaired to comply with ERSystems specifications prior to final inspection for warranty approval. The cost of all related repairs will be borne by the trades and/or subcontractors responsible for the damages.

CLEAN-UP

- A. Site clean-up is the responsibility of the contractor.
- B. All debris, containers, materials, equipment, and protection materials must be removed from the premises and properly disposed of. All work and storage areas must be in an undamaged and acceptable condition upon completion of clean-up.

Note: All references to Manufacturer's Brand Name in specifications are for standards of acceptance and performance. Any brand may be proposed and used if it can be proved to be of equal quality.

Exhibit B Metal Roof Restoration System

METAL ROOF RESTORATION SYSTEMS SAMPLE DESIGN GUIDELINES - ACRYLIC/URETHANE COMBINATION SYSTEM

PART 1 – GENERAL

1.01 DESCRIPTION

- A. This specification includes the installation of fluid applied acrylic roof coating to rustproof, restore, and waterproof metal roofs. The three-step process effectively protects the metal, seals seams & fasteners and renews the metal surface to extend the useful life of the roof. The system shall include waterproofing all metal roof panels, flashings, valleys, ridges, joints and junctions integrally related to the roof.
- B. Work included is labor, materials, equipment and accessories and related services to complete the application in accordance with specifications and details as approved by The Red River Redevelopment Authority.
- C. Work excluded is replacement of roof accessories such as gutters, drains, vents and other penetrations including structural roof repair.

1.02 QUALITY ASSURANCE

- A. Manufacturer Qualifications: ERSystems or equal vendor shall furnish upon request, certification the material meets the physical properties stated in this specification.
- B. Contractor Qualifications: All work to be completed must be done by an ERSystems or equal approved applicator.
- C. No deviation from this specification will be accepted without prior written approval of ERSystems, or vendor of equal quality and the Red River Redevelopment Authority.

1.03 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver material in original, unopened packages and containers.
- B. Containers are to be labeled with manufacturer's name, product name, description, and identification.
- C. Store materials in a dry area above 40° F. and protect from water and direct sunlight.
- D. Any materials damaged in handling or storage must not be used.
- E. Deliver MSDS for each product specified. Consult MSDS and Product Data Specification for each product used before beginning work.

1.04 JOB CONDITIONS (CAUTIONS AND WARNINGS)

- A. All mechanical equipment, vents, skylights, etc., should be in place before the roofing system is installed.
- B. Mechanical units (blowers, HVAC) should be prevented from distributing fumes into the building.

- C. Coatings should be protected from traffic and other abuse until completely cured and installation is complete.
- D. Application of coatings with spray equipment may require some masking and possible erection of wind screens to prevent over-spray and drift damage. Protect surfaces of unrelated areas from coatings and over-spray possibility.
- E. Application shall proceed to dry, clean surfaces only. In planning work consider environment and weather related conditions such as frost, mist, dew, condensation, humidity, and temperature. Temperature should be above 45° F., rising, and stay above 40° F. long enough for initial cure to occur. Moisture should not be imminent.
- F. Sufficient safety belts and lines should be provided. A wet surface or a surface that is not thoroughly cured can be very slippery. All work environments should comply with current OSHA regulations.

1.05 WARRANTY

- A. ERSsystems or other vendor must warrant that materials provided are free from defects in manufacturing and will replace any material found to be defective.
- B. Final product shall have a minimum (10) Ten year manufactures warranty.

PART 2 • PRODUCTS

2.01 GENERAL

- A. The components of the coating system are to be products of ERSsystems, 6900 Bleck Dr., Rockford, MN 55373 or products approved by ERSsystems as compatible; **or approved equal. Data sheets for materials in sections 2.02 through 2.05 are available at the address above.**

2.02 PRIMER: ERAGUARD 2000 - MODIFIED ACRYLIC PRIMER RUSTPROOFING

2.03 SEALER: HER 2000 - POLYURETHANE SEALER FOR SEAMS, FASTENERS, PENETRATIONS

2.04 FINISH COAT: ERAGUARD 1000 ACRYLIC COATING

2.05 FINISH COAT: ERAGUARD 1000

2.06 RELATED MATERIALS FROM ERSsystems

- A. Gap/Joint Sealant: Erathane Polyurethane Caulk
- B. Gap/Joint Fabric: PolySoft II Polyester Knit Fabric
- C. Fasteners: Self Drilling & SelfTapping Metal
- D. Fiberglass Skylight Conditioner: Eraguard 2500 Clear Acrylic Sealer
- E. Butyl Seam Tape: Insta-Seal Butyl Tape
- F. Colored Finish Coat: Eraguard 1000

PART 3- APPLICATION

3.01 SUBSTRATE INSPECTION

- A. A proper substrate shall be provided to receive ERSystems coatings. Metal surfaces must be clean, dry, and free of loose debris. Adhesion test of coating to the metal roof substrate is required where the bond to the metal may be questionable; such as with Kynar 500 based finishes.

3.02 SURFACE PREPARATION

- A. Walk the roof deck and tighten all loose fasteners. Replace missing fasteners and all fasteners that are stripped with oversized fasteners.
- B. Metal panels which no longer have integrity due to excessive rust and deterioration must be replaced.
- C. Panels with seam gaps of 1/8" or more must be stitched as tight as possible with additional screws. Any horizontal seams where the purling screws are more than 2" from the overlap must be stitched tight at the seam with a minimum of 6 per 3' panel. Light gauge metal panels may flex open at the horizontal lap seam when walked on. Additional stitch screws and/or fabric faced butyl tape reinforcement may be required in the pan of the panel to reduce deflection. Eraguard 1000 FG Acrylic Sealant may be used to seal gaps prior to stitching metal with appropriate fasteners. Erathane Polyurethane Caulk may be used to seal gaps prior to stitching metal with appropriate fasteners.
Note: Metal fasteners are available from ERSystems.

3.03 CLEANING

- A. Prepare the roof surface by high pressure washing, rinse well and let dry. Use ERSystems Envirowash or tri-sodium phosphate (TSP) substitute solution if the metal surface is especially dirty, oily, etc. Water pressure of 2000 psi to 3000 psi will be required to remove loose rust, dirt, paint and miscellaneous soils.
- B. Galvanized metal surfaces may require an acid etch to remove debris, which may interfere with proper bonding. The dilute acid solution must be thoroughly rinsed from the roof.
- C. If rust is a hard scale, it may require power brushing to remove and get down to a sound substrate.
- D. If silicone products have been used in attempts at waterproofing, they must be removed prior to coating applications.
- E. If asphalt based roof coatings have been previously used to repair roof seams and fastener heads, do not apply solvents to clean these areas. Remove asphalt coating with power washing, scraping or brushing.
- F. After pressure washing and cleaning, remove all loose coating, scale and other foreign matter with a putty knife or other appropriate tool. Brush clean and apply coating directly over the tightly bound coating which remains. Let dry completely before proceeding.

3.04 PRIMING

- A. Coat all rusty surfaces with ERSystems Eraguard 2000. Apply Eraguard 2000 at .5 gallon per SQ. for modest rust.
- B. Under normal drying conditions, Eraguard 2000 may be re-coated within 1 to 2 hours.
- C. Primer dry film thickness shall be 2.5 mils minimum, 3 mils average.

3.05 SEAMS, FASTENERS & PENETRATIONS

- A. Waterproof seams: Apply HER 2000 by pumping a bead 1" to 1.5" wide into place along the vertical seam. Fill the underside of the seam with HER 2000 by brushing perpendicular to the seam with a 3" wide brush and then feather the HER 2000 to a 3" width along the seam. HER 2000 shall be approximately 60 wet mils (1/16") thick directly over the area of the seam. Horizontal seams are sealed in the same manner as vertical seams. Two coats may be required in some areas to achieve DMT specified. Horizontal seams may be reinforced with PolySoft II polyester fabric embedded into the HER 2000 at areas where excessive movement of the panels is known to exist or where gaps between the panels exist even after additional fasteners are added.
- B. Fasteners: HER 2000 shall be applied at 60 wet mils over all fastener heads, extending 1.5" in all directions around the fastener head.
- C. Penetrations & Flashings: Seal with HER 2000 by applying a 60 wet mils thickness for 3" to 4" around the base of the penetration. PolySoft II fabric may be embedded in the HER 2000 to bridge gaps and reinforce the membrane.
- D. Gutters & valleys: Seal with HER 2000 by applying a 60 wet mils thickness over the area to be sealed and for 3"-4" up and beyond the area to be sealed. If necessary embed PolySoft II polyester fabric of the appropriate width, and brush or roll additional HER 2000 over the fabric, making certain all wrinkles are rolled out of the fabric. Let HER 2000 cure for 24 hours prior to applying Finish Coat.
- E. Skylights: Edges shall be sealed with HER 2000 as described above. Fiberglass skylight panels may be protected with 2 coats of 1 gallon per 100 square feet of Eraguard 2500 sealer.
- F. Typical roofs will require .4 to .5 gallons per SQ of HER 2000 to complete the waterproofing of seams and fasteners.
Waterproofing penetrations, valleys and repair areas will require additional HER 2000. Application of 60 wet mils requires approximately 4 gallons per 100 sf.
- G. Inspection of all HER 2000 application should be done to assure that work is satisfactory and complete, and that the sealing of gaps and bolt heads have been accomplished.
 - HER 2000 over seams, fasteners and penetrations and repair areas shall be 50 dry mils minimum.

3.06 FINISH COAT: ERAGUARD 1000

- A. Apply Eraguard 1000 (White) at the rate of 2 gallons per square for a 5 year warranty to 2.5 gallons per square for a 10 year warranty.
- B. Finish Coat shall be applied in two separate coats to achieve the film thickness desired.
- C. Initial Cure of Finish Coat will typically be 2 to 6 hours.
- D. Finish Coat OMT shall be 10 mils for a 5 year warranty to 14 mils for a 10 year warranty (minimum).

PROTECTION AND CLEAN-UP

PROTECTION

- A. The roof system and all components must be protected from all other trades at the job site.
- B. All damage to the system must be repaired to comply with ERSystems specifications prior to final inspection for warranty approval. The cost of all related repairs will be borne by the trades and/or subcontractors responsible for the damages. This shall be an internal function of the General Contractor and Red River Redevelopment Authority shall not be a party to these disputes/discussions.

CLEAN-UP

- A. Site clean-up is the responsibility of the contractor and shall be done to the satisfaction of a representative of the Red River Redevelopment Authority.
- B. All debris, containers, materials, equipment, and protection materials must be removed from the premises and properly disposed of. All work and storage areas must be in an undamaged and acceptable condition upon completion of clean-up.

Note: All references to Manufacturer's Brand Name in specifications are for standards of acceptance and performance. Any brand may be proposed and used if it can be proved to be of equal quality.