

## **ADDENDUM NO. 1 TO BID FORMS**

### **CORONA-NORCO UNIFIED SCHOOL DISTRICT PURCHASING DEPARTMENT BID 2023/24-216 ROOFING VARIOUS SCHOOL SITES**

The following changes, additions, deletions, or corrections shall become part of this solicitation and the contract documents for the Bid named above.

#### **SCOPE OF WORK:**

##### **Roosevelt High School**

- Tear off only top roofing layer. Keep insulation and cover board in place.
- Install ½” densdeck on top of insulation and board – sent in either low-rise adhesive or hot asphalt
- Install roofing system as described in specification provided.
- Replace wood blocks with Dura-Blok

##### **Norco Intermediate**

- Skirt AC units
- Replace wood blocks with Dura-Blok

##### **Corona Ranch Elementary School**

- Tear off only top roofing layer. Keep insulation and cover board in place.
- Install ½” densdeck on top of insulation and board – sent in either low-rise adhesive or hot asphalt
- Install roofing system as described in specification provided.
- Replace wood blocks with Dura-Blok
- Re-seal Coping metal

##### **District Office**

- Change from a restoration spec to tear off and replace (please see the attached Specification)
- Remove gutters (replace)

##### **Centennial High School**

- Tear off only top roofing layer. Keep insulation and cover board in place.
- Install ½” densdeck on top of insulation and board – sent in either low-rise adhesive or hot asphalt
- Install roofing system as described in specification provided.
- Replace wood blocks with Dura-Blok
- Re-seal Coping metal

##### **Temescal Valley**

- Added roof(s) see new map from CNUSD

**Note for all schools:** wood blocks to be re-placed with Dura-Bloks

**RESPONSE TO BIDDING CONTRACTOR'S QUESTION**

**Question 1:** What is the Engineer's estimate?

Answer 1: The estimated project cost is \$5,000,000.00

**END OF ADDENDUM NO. 1**

BELOW, PLEASE ACKNOWLEDGE RECEIPT OF THIS ADDENDUM NO. 1 AND SUBMIT WITH YOUR BID OR BE DEEMED NONRESPONSIVE.

Signature: \_\_\_\_\_

Print Name and Title: \_\_\_\_\_

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

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Telephone Number: \_\_\_\_\_

Email Address: \_\_\_\_\_



**GUIDE: RE-ROOF SPECIFICATION**

**Tim Russell  
Manager, Support Services  
CORONA-NORCO UNIFIED SCHOOL DISTRICT  
2820 Clark Ave.  
Norco CA 92860**

**PROJECT SITES: District Office – Portables**

SECTION 07520 – COLD PROCESS MONOLITHIC BUILT-UP ROOFING

NAME OF SCHOOL: District Office – Portables  
ADDRESS: 2820 Clark Ave  
Norco CA

AREA TO BE RE-ROOFED: Roof as per drawing and/or jobwalk.

PART 1 – GENERAL

SUMMARY

- A. Furnish necessary material and labor to install a Henry Roof System Specification or approved equal following the requirements of this Master Specification and site specific Scope of Work
- B. Other work included: Furnish and install sheet metal, metal pan collar flashing, pipe flashings and counterflashing.

1.02 REFERENCES

- A. National Roofing Contractors Association (NRCA) Roofing and Waterproofing Manual
- B. Western States Roofing Contractors Association (WSRCA)
- C. SMACNA
- D. Underwriters Laboratories (UL)
- E. American Society of Testing & Materials (ASTM)
- F. Uniform Building Code (UBC)

1.03 DEFINITIONS

- A. UNDERLAYMENT, BUFFER or BASE PLY– #606 80# Base sheet – first ply installed over wood deck
- B. INTERPLY – 2, 3 or 4 layers of #604 25# Fiberglass Base Sheet installed over Insulation or Underlayment.

1.04 SYSTEM DESCRIPTIONS

- A. Henry Specification #H3-NGC-MR - (See 3.05)  
Over prepared deck surface mechanically fasten one layer #606 SBS 80# Inverted Cap and two ply #604 25# Fiberglass Base Sheet adhered in #902 Permanent Bond Adhesive. Surface with #197 Asphalt Emulsion reinforced with #189 Chopped Fiberglass. Finish with 294 Premium Elastomeric Base Coat and #280 White Elastomeric Roof Coating or other colors as specified.

Specification System & Weights per 100 Sq.ft.

	Dry Weights
½" DensDeck - Mechanically fastened	200 lbs.
#606 80# Inverted Cap - Mechanically fastened	80 lbs.
#902 Permanent Bond Adhesive – 2 gallons per 100 sq.ft.	11 lbs.
#604 Fiberglass Base Sheet	25 lbs.
#902 Permanent Bond Adhesive – 2 gallons per 100 sq.ft.	11 lbs.
#604 Fiberglass Base Sheet	25 lbs.
#197 Emulsion topcoat – 9 gallons per 100 sq.ft.	36 lbs.
#189 Chopped Fiberglass – 3 lbs. Per 100 sq.ft.	3 lbs.
#294 Premium Elastomeric Base Coat – 1 1/2 gallons per 100 sq. ft	5 lbs.
Broadcast 20 lbs Ceramic granules into wet #294 Base Coating over entire surface	20 lbs.
#280 White Elastomeric Finish Coat – 2 gallons per 100 sq. ft	7 lbs.
*Option: # 588 Emulsion Aluminum Reflective Coat- 1 ½ gallons per 100 sq.ft. (add 7 lbs.)	
Approximate Total Dry Weight	423 lbs.

\*To be used over non-airconditioned spaces only.

1.05 SUBMITTALS

- A. Fire Hazard Classification - Provide letter certifying that roof membrane assembly qualifies for UL Class A fire hazard classification for the type of substrate(s), slope(s), insulation(s) (when applicable) and membrane(s) specified for this installation. Include copy of the UL listing.
- B. Applicator approval - Provide letter from manufacturer of roofing materials stating that applicator is acceptable to manufacturer.
- C. Complete materials list of all items to be furnished and installed under this Section.
- D. Copy of latest edition of the Roofing System Manufacturer's material specifications and installation instructions.
- E. Two (2) 3" x 5" samples of roof membrane mock-up and flashing membrane.
- F. Copy of Manufacturers Warranty.

1.06 SUBMITTALS OF EQUALS

- A. Submittals shall be made not less than ten (10) days prior to bid date. Primary roof systems that have been reviewed and accepted as equals to the specified roof system will be listed in an addendum prior to bid date; only then will equals be accepted at bidding. All submittals which do not conform to the following requirements will be rejected.
- B. Furnish in triplicate:
  - 1. 8" x 10" mock up samples of the complete roof membrane and flashing membrane assemblies.
  - 2. Latest edition of the roofing system manufacturer's specifications and installation instructions.
  - 3. Detailed descriptive list of the materials proposed for use.
  - 4. Copy of UL approval of the proposed roofing system for the required assembly and slope. No other testing agency approvals will be accepted.
  - 5. Letter from the proposed primary roofing manufacturer confirming the number of years it has directly manufactured the proposed primary roofing system under the trade name and/or trademarks as proposed.
  - 6. List of ten (10) of the manufacturer's projects located within 25 miles of the project site of equal size and degree of difficulty which have been performing successfully for a period of at least ten (10) years. Include contact name and phone number.
  - 7. Complete list of material physical properties including solids. Owner reserves the right to request documentation from a nationally recognized independent lab certifying physical properties.
  - 8. Copy of manufacturer's inspection form.
  - 9. Qualifications of manufacturer's inspector(s)
  - 10. Proposal from manufacturer for site specific quality control program.
  - 11. Sample copy of the specified guarantee including terms and procedures for renewal.
  - 12. Documentation that manufacturer meets requirements of 1.06A.

1.07 QUALIFICATIONS

- A. Manufacturer Qualifications
  - 1. Manufacturer shall be a member in good standing with the Southern California Roofing Contractors Association, Western States Roofing Contractors Association, National Roofing Contractors Association, Construction Specifications Institute, and California Association of School Business Officials.
  - 2. Manufacturer must furnish as single source all primary roofing materials with manufacturer's labels and have current listing in Underwriters Laboratory Directory. Materials must bear UL Classification marking on bundle, package or container indicating that materials have been produced under UL's Classification and Follow-up Service.
  - 3. Manufacturer must provide list of 10 projects of equal size and difficulty within a 25 mile radius of the project site.
  - 4. Manufacturer shall employ a full-time field inspector available for periodic inspections (not less than twice weekly) and final inspections. Inspection reports to be available to the Owner Representative on request.

5. Manufacturer must employ a Registered Roof Consultant and Registered Roof Observer certified by the Roof Consultants Institute.
- B. Contractor Qualifications
  1. Contractor to be approved by the primary material manufacturer.
  2. Contractor must provide list of 3 projects of equal size and difficulty within a 50 mile radius using the specified roof system.
  3. Contractor must provide a supervisor that can communicate with Manufacturer's Inspector and Owner Representative.
  4. Contractor must provide knowledgeable foreman who understands all aspects of the specification.
  5. Contractor to be a member in good standing with the local Roofing Contractors Association.

1.08 QUALITY ASSURANCE

- A. Pre-Job Conference
  1. Prior to the beginning of work, a pre-job conference shall be held at the job site.
  2. Provide seven calendar days advance written notice ensuring the attendance by competent authorized representatives of the Henry Certified Contractor (HCC), a Henry Company representative, building owner, architect, consultant, and subcontractors including mechanical and electrical where such work penetrates the work of this Section.
  3. During the pre-job conference, attendees shall review the specifications to determine any potential problems, changes, etc. Scheduling, weather conditions, unique job site conditions, installation requirements and procedures and any other information pertinent to the roof system installation shall be discussed.
  4. The results of the conference shall be recorded with copies submitted to all participants
- B. Notify Henry Company Inspector 48 hours prior to job start, schedule changes and prior to application of surfacing and reflective coat.
- C. A copy of the specification is to be on the job site.

1.09 DELIVERY, STORAGE & HANDLING

- A. Delivery Requirements
  1. Deliver material in manufacturer's original sealed and labeled containers and in quantities required allowing continuity of application.
- B. Storage Requirements
  1. Store materials out of direct exposure to the elements. Store roll goods on a clean flat surface. Protect material against moisture. Store asphalt adhesives and cements in a heated area prior to use in cold weather.
  2. When ambient temperatures are below 40°F (4°C), rolled materials must be stored in protected or heated areas and brought to the roof as needed for application.
- C. Handling Requirements
  1. Handle material in such a manner as to preclude damage and contamination with moisture or foreign matters
  2. Materials that are found to be damaged or stored in any manner other than as stated above shall be automatically rejected and shall be removed and replaced at contractor's expense.

1.10 JOB CONDITIONS

- A. Protection Requirements.
  1. Protect building and grounds from overspray, staining and mechanical damage. Plank lawns, walks, etc. in traffic areas.
  2. Applicator will be held responsible for any damage caused to roof top equipment, roof penetrations, clogged drains (if not identified prior to starting the work) and damage to building and grounds resulting from the execution of his work.
  3. Lock valves on tankers when not attended.
  4. Cover or arrange air intakes to be turned off during application of solvent based materials.
- B. Environmental Requirements.
  1. Do not apply material during precipitation or when rain is a probability during or after application before material can set.

2. Never apply solvent-based adhesives or coatings to a wet surface.
3. Never apply water-based emulsions when the ambient temperature is below 60°F (16°C) or will fall below 40°F (4°C) before the emulsion has cured to a tack-free black surface. High humidity, fog and dew will greatly extend the time for emulsions to cure.
4. Protect adjacent surfaces from staining and mechanical damage during application of roofing.

1.11 WARRANTY

A. CONTRACTOR WARRANTY

1. Prior to acceptance of the roofing work, furnish certified written warranty signed by Roofing Contractor agreeing to make repairs and replacements required to maintain roof, including flashing, in watertight condition for two years from date of substantial completion.
2. Make repairs or replacements at no additional cost to Owner.
3. Warranty shall include temporary repair work under emergency condition as required to maintain water tightness of the building pending permanent repairs.

B. MANUFACTURER'S WARRANTY

1. Furnish Manufacturer's 10 + 10 -year Warranty for material and workmanship. No exceptions to ponding water. There is to be no additional warranty or inspection fees for the 10-year extension.
2. Manufacturer to make inspection in the 2<sup>nd</sup> and 10<sup>th</sup> year of the warranty period.

1.12 MAINTENANCE

- A. Furnish Owner with annual maintenance requirements to maintain contractor and manufacturer's warranties.

PART 2 – PRODUCTS

ACCEPTABLE MANUFACTURERS

- A. Materials manufactured or supplied by Henry Company, El Segundo, CA 902545. (323) 583-5000.
- B. Products by Tremco and Garland equal to the specified materials are also approved.
- C. Products by other manufacturers must be submitted 10 days prior for approval in accordance with Section 1.06 of these specifications.

PRODUCT DELIVERY

- A. Bulk delivery material shall be accompanied by a Henry Company bill of lading.

MATERIALS

- A. GENERAL: Refer to Project Scope of Work for applicable product references.
- B. Sheathing paper (wood decks only) -1 ply
- C. UNDERLAYMENT OR BUFFER PLY
  1. #606 80# Mineral Surface Underlayment, reverse rolled – ASTM D 3909-91
- D. INTERPLY (Select specified ply sheet)
  1. #604 Fiberglass Ply Sheet
    - a. nominal 25# asphalt coated base sheet
    - b. Tensile Strength: 65 lbs. MD – 55 lbs. XD
- E. INTERPLY ADHESIVE – 2 Gallons/Sq/Ply:
  1. #902 Permanent Bond Adhesive – low odor, modified and rubberized cold adhesive
- F. BASE FLASHING
  1. modifiedPlus NP180 s/s – SBS modified membrane, polyester reinforced.
- G. SURFACING (9 Gallons with 3 lbs. Glass/Square):
  1. #197 Asphalt Emulsion – ASTM D 1227-95 Type III, Class I
  2. and #189 Chopped Fiberglass
- H. REFLECTIVE SURFACING (as specified in Project Scope of Work)
  1. #588 Aluminum Emulsion- 1½ gal/Square (on canopies or shelters only)
  2. Premium Elastomeric Coating: #280 White at 2 Gal/Square and #294 Base Coat at 1 ½ Gal/square.
- I. MISCELLANEOUS PRODUCTS
  1. Primer #113 VOC Compliant Primer
  2. #600 Ruftac – 75 mil - SBS modified self-adhesive membrane



3. #167 Rubberized Flashing
4. #183 Reinforcing Glass – Yellow
5. #196 Polyester Fabric
6. #197 Asphalt Emulsion
7. Walk pads
8. Approved mechanical fasteners
9. Wolmanized wood nailers
10. Replacement metal to be 24 gauge galvanized sheet metal
  - a. Metal edging to have maximum ¼" rise.
  - b. All flanges to be 4 inches with full corners
  - c. Pitch pans to have soldered joints.
11. Lead Flashings to be minimum 4 oz. – factory or field soldered
12. Josam or Smith drains and overflows
13. Four inch cant strips ASTM C-208

### PART 3 – APPLICATION

#### GENERAL

- A. Henry Company's General Requirements and Product Data are a part of this specification.
- B. Do not tear-off or remove any more roofing than can be replaced the same day.
- C. Unless sheet metal components are specified for replacement carefully remove, clean, prime and set aside for reinstallation. Carefully turn up counterflashing.

#### EXAMINATION

- A. Inspect deck and advise Owner's Representative of any corrections required before proceeding with roofing. Report in writing any unsatisfactory conditions that cannot be guaranteed. Absence of such report constitutes acceptance of the surfaces and conditions.

#### PREPARATION

- A. Sweep or vacuum all surfaces prior to commencement of roofing. Allow surface to dry before proceeding.
- B. Cut ply sheets into 18 foot lengths. Allow plies to flatten before application.
- C. All surfaces shall be well-secured, firm, smooth and free from rough spots and sharp projections before roof application begins.
- D. Wood decks. Repair and/or renail roof sheathing where necessary. Cover gaps of ½" or more between sheathing board with flat sheet metal stock nailed. Contractor to replace deteriorated sheathing with new to match existing unless specified otherwise under Scope of Work.
- E. Test interior drains to confirm that they flow freely. Immediately notify Owner's Representative if correction is required. Protect drains from plugs of gravel and debris.
- F. If not scheduled for new metal, carefully lift or remove metal counterflashing, coping, and gravel stop. Clean metal and set aside for reinstallation.

#### GENERAL REQUIREMENTS

- A. Install roofing in accordance with roofing system manufacturer's instruction, scope of work for the site and these requirements.
- B. Valleys and waterways. Install extra layer of the specified glass base set in full width application of #902 Permanent Bond Adhesive in valleys, drains and waterways.
- C. Prime metal flanges (all jacks, edge metal, etc.), concrete and masonry surfaces with a uniform coating of asphalt primer.
- D. Thinning or alterations of adhesives, primer, emulsion, reflective coat and sealants is not permitted.
- E. Clean all drains and remove clamp rings, dried mastic and any other loose material. Prime with asphalt primer and allow to dry. Install minimum 30" square leads in drains set in #167 Rubberized Flashing. When lead is not permitted by Owner install Ruftac. Replace broken or missing clamp rings, bolts or fasteners and drain bonnets with new. Complete drains the same day.
- F. Scuppers/Outlets. Set scuppers in 1/8" troweling of #167 Rubberized Flashing. Three course flange with #167 Rubberized Flashing and glass fabric.

- G. Lift all supports for conduits and other pipes. Install new wood blocks or Dura-Blok under conduit or pipes. Reinforce under block with one layer of 80# Cap Sheet cut 6 inches larger in all directions of block, granules side up, set in generous application of specified mastic prior to Monolithic surfacing. Seal top of bolts, screws, etc., with #167 Rubberized Flashing. Loosen brackets so pipes can expand and contract freely.
- H. EQUIPMENT PADS. Install one layer of Ruftac over equipment pads before installing metal pans.
- I. PIPE PENETRATIONS, ELECTRICAL JACKS, VENT PIPES EQUIPMENT STANDS
  - 1. Set flange over base plies set in #167 Rubberized Flashing.
  - 2. Seal with 6" strip of reinforcing fabric sealed solidly with #167 Rubberized Flashing. Cut a collar of base sheet to fit around vents and overlap the flanges 6" on sides. Set in application of #167 Rubberized Flashing.
  - 3. Form a #167 Rubberized Flashing cant around base of vents prior to the application of the Monolithic surfacing.
  - 4. Ruftac is an acceptable alternative to I.2.
  - 5. When specified in project's Scope of Work, install storm collars on all pipe penetrations and jacks.
- J. 3-COURSING
  - 1. Prime wall surface at least 3" above termination edge of the base flashing.
  - 2. Over completed base flashing trowel a 5 inch wide layer of plastic cement 1/8" thick to completely cover nails and top edge of base flashing.
  - 3. Embed a 4" wide strip of Yellow Glass Fabric and apply another 1/8" troweling of plastic cement covering fabric completely. Bring to a feather edge and finish in a straight line.
  - 4. If not covered by metal counterflashing cover with Monolithic Emulsion system.
- K. CANT STRIPS. Install cant strip at all horizontal to vertical transitions. Nail or set in mastic. Set to provide smooth transition without gaps. Miter corners. At scuppers bevel cant strip starting 8" back from outlet.
- L. COPING JOINTS: Clean coping joints. Prime 3 inches on both sides of joint and seal joint with 6 inch minimum layer of Ruftac.
- M. WATER CUT-OFF. At end of day's work, or when precipitation is imminent, install a water cut-off at all open edges. Install alternating layers of plastic cement and roof felts. Construction is to withstand protracted periods of service. Remove cut-offs completely prior to the resumption of roofing.
- N...Roll the membrane with a 75 lb. (34kg) (minimum) weighted roller within 30 minutes to 4 hours of application during temperatures of less than 55-60 degrees. Provide waterstops and seal all terminations at the end of each day.
 

(Note): Broom over all applied membranes at the end of the day.
- N. Roll the membrane with a 75 lb. (34kg) (minimum) weighted roller within 30 minutes to 4 hours of application. Provide waterstops and seal all terminations at the end of each day.
- O. On slopes over 3" in 12" (250mm/m), install interplies parallel to slope blindnailing 4" (102mm) at end laps only, 6" (152mm) on center.
- P. WALKWAYS. Install walkways in 4' sections allowing 2" spacing between sheets. Cut and trim pieces as required to fit conditions. Set walkway in spot applications of #906 Plastic Cement.

Specification H3-NGC-MR (NAILABLE DECK – NO INSULATION)

- A. Over diagonal sheathing install one layer of rosin sheathing paper. Lap each sheet 2" (51mm) and nail sufficiently to hold in place.
- B. UNDERLAYMENT OR BUFFER Apply #606 inverted 80# base ply granule side down with 2" (51mm) side laps and 4" (102mm) end laps. Apply the first sheet of underlayment with a 12" (305mm) width and the remaining sheets full width.
- C. Nail underlayment through one inch tin disks at side laps 9" (229mm) on center and 18" (457mm) on center, staggered in two rows 12" (305mm) from each edge. Fasteners to be sufficient length to penetrate deck 1/2 inch.
- D. Specification H3-NGC-MR
  - 1. Over the underlayment, apply two (2) layers of #604 25# interply sheets set in a uniform application of #902 Permanent Bond Adhesive at a rate of 2 gallons per 100 sq.ft.

2. Apply the first sheet with an 18" (457mm) width then over that a full width piece. Install the remaining sheets full width overlapping preceding sheet 19". Stagger laps with the layer below. Run plies to top of cant.

**METAL EDGING**

- A. Extend top layer of base sheet over edge of roof approximately 1".
- B. Install metal flange over completed membrane but before application of surfacing. Set metal flange in trowel application of #167 Rubberized Flashing. Nail 3" (76mm) o.c. staggered.
- C. Over prepared surface install 12-inch wide Ruftac over metal flange and extending onto the field of the roof.
- D. Seal Gap at Ruftac and edge metal with #209 or #163 Rubberized Flashing. Add granules on top.

**FLASHINGS**

- A. General Requirements
  1. Prime concrete surfaces with specified primer and allow to dry.
  2. Complete first ply of flashing daily to assure watertight installation.
  3. Install Base Flashing to a maximum 24-inch height.
  4. Ruftac may be used in lieu of #606 Mineral Surfaced Cap Sheet, but requires that surface be primed and allowed to dry.
  5. Install flashings in two pieces when height exceeds 24 inches. Overlap bottom layer 3 inches.
  6. Reinforce and make watertight all angles with one layer of mineral surfaced cap to extend two (2) inches above cant and two (2) inches onto field. Coat substrate and back of sheet with 902 Permanent Bond Adhesive at rate of 1 gallon per 100 sq.ft. per side. Allow to tack. May require approximately 30 minutes air time to be tacky. Press in place. Lap sides 3 inches.
  7. Unless otherwise specified 3-course top edge with #209 Mastic and #183 Yellow Glass
- B. Install Flashing Specification Number #180
  1. Cut layer of mineral surfaced cap to extend not less than 4" (51mm) above cant strip. Coat back of cap ply and wall with #902 Permanent Bond Adhesive at rate of ¾ gallon/100 sq.ft. (.3 l/m<sup>2</sup>) each side. Allow sheets to set until tacky. Press sheet in place. Lap ends 4" (102mm).
  2. Nail top of completed base flashings 8" (204mm) o.c.
  3. Provide counterflashing with minimum 4" (102mm) face installed in reglet or surface mount.
  4. Apply compatible sealant.
- C. Wall Flashings
  1. Wood Walls. Nail #606 granule side out. Nail 12 inches on center in all directions and 6" on end laps. Extend wall flashing over base flashing three inches.
  2. Concrete Walls. Unless otherwise specified, cover the inside and tops of concrete parapet walls with one layer of Ruftac. Extend membrane over base flashing three (3) inches and to within 3 inches of outside wall. Rub in firmly by using a wallpaper roller bonding Ruftac without wrinkles or loose areas. Nail top edge through one inch tin disks eight (8) inches o.c.
  3. Masonry Block Walls. Unless otherwise specified cover the inside and tops of masonry block walls with one layer of polyester embedded in 4 gallons of 197 Asphalt Emulsion. Side laps to be three (3) inches. Extend over base flashing three (3) inches and to within 3 inches of outside wall. Polyester to be fully embedded and without wrinkles.

**SURFACING; Monolithic System**

- A. After the adhesive has thoroughly cured (no solvent odor is evident and laps cannot be pulled apart), but not less than five days, sweep or pressure blow dust and debris from the roof surface to provide a clean surface. Hose and/or scrub off with water any residue accumulation.
- B. Protect adjacent walls not scheduled for emulsion and reflective coating. Protect equipment, roof top units, valves, switches, coils or moveable parts etc. not scheduled to receive Monolithic application from overspray. Mask off identification plates on equipment.
- C. Clean gutters prior to surfacing.
- D. Cover prepared surfaces with not less than 9 gallons (34l) per 100 sq.ft of undiluted #197 Asphalt Emulsion. Evenly blend emulsion with 3 lbs. (1.4kg) of ¾" (19mm) long chopped glass reinforcing

sprayed with equipment approved by Henry Company. Tufting of the glass fibers is not acceptable. Spray emulsion in a pattern into laps of base sheet so that when system is dry, there are no voids or bridging of glass over any seam of the membrane.

- E. Unless otherwise specified, spray vents, ducts, and parapet walls. Spray parapet walls to within one inch of outside edge; above reglets and/or 5-course counter-flashing.
- F. Spray base flashings and other designated surfaces with the Monolithic System.

REFLECTIVE COATING:

- A. Let emulsion dry for (5) days. When emulsion surfacing has cured (tack-free and black), clean the surface of dust and debris. Before applying elastomeric base coat, lightly power wash roof surface and scrub out any pockets of residue surfactant materials that might have migrated to the surface. Allow roof to dry and then promptly apply the protective acrylic coating to avoid further surfactant migration. If entire roof was not able to be coated and uncoated surface has been exposed to rain or dew, re-hose off the section again to remove any residue prior to applying base coat.
- B. Apply #294 Elastomeric Base Coating at the rate of 1 1/2 gallons per 100 square feet (.6l/m<sup>2</sup>) in one coat.
- C. Broadcast 20 lbs Ceramic granules into wet 294 Base Coating over entire surface
- D. Apply #280 White Elastomeric Finish Coating at the rate of 2 gallons per 100 square feet in one (.6l/m<sup>2</sup>) coat.
- D. or apply #588 Aluminum Emulsion Coating at the rate 1 1/2 gallons per 100 square feet in one (.61/m<sup>2</sup>) coat. (non-air conditioned space only)
- E. Any areas that peel must be redone before the project will be considered complete.
- F. In arid climates when rain is unlikely within 30 days of application of the aluminum coat, hose roof surface 30 days after application.

CLEAN-UP

- A. Test all drains to confirm they are free flowing and clear of debris.
- B. Clean gutters and downspouts as needed of all debris.
- C. Any deficiencies found during final inspection will be corrected within 5 working days and will be re-inspected by a Manufacturer's Representative and Owner's Representative.
- D. Leave premises clean to complete satisfaction of the Owner.

END THIS SECTION

ROOF TO BE RE-ROOFED  
Scope of work

NAME OF SCHOOL: District Office – Portables  
ADDRESS: 2820 Clark Ave  
Norco CA

AREA TO BE RE-ROOFED: Roofs as per drawing and/or jobwalk.

ROOF PREPARATION

Complete tear-off and removal of existing roofs.

Remove any abandoned pipes, flashings, etc.

Abandoned platforms, skylights, curbs, raised sleeper shall be removed and sheathed over to match existing sheathing.

Contractor shall give a per square foot price for replacing broken or water damaged sheathing, matching existing type and thickness.

Contractor shall give a per square foot price for replacing bad insulation matching existing type and thickness.

**Note:** Contractor to give a separate price to install 3"x6" steel plates with pre-drilled holes (Simpson TP327 20-gauge), secured with flat headed screws over weak plywood joints without end blocking or "H" clips.

Jobs may be stopped if the Contractor doesn't provide a knowledgeable Foreman who understands all aspects of the specification for which his company has contracted to install and supervise the workmanship of his crews. A copy of the specification is to be on the jobsite at all times.

ROOF SYSTEM

H3-NGC-MR: 80# Buffer (#606), two layers of 25# Base Sheet (#604), Monolithic System. All Roof Substraights other than covered walkways, lunch shelters and open areas to receive PG280 White Elastomeric Reflective Coating over PG294 Elastomeric Base Coat. On all other Roof Substraights to receive Aluminum Reflective Coating, as specified in Master Specification.

- Note:**
1. Assemble interply sheets shingle fashion, the top finish sheet **MUST** be installed full width single ply.
  2. Broadcast 20 lbs granules per 100 sq. ft., into wet monolithic surfacing on entire roof surface.

Base Flashing: Install Base Flashing Specification #180 (Modified Plus NP180 S/S Polyester Reinforced Membrane.

Extra layer of base sheet in all base flashings and waterways.

**"Ten & Ten" Manufacturer's Roof Membrane Warranty.** The Contractor MUST notify the School District and the manufacturer at least 24 hours prior to commencing work to arrange for inspection of the roofing

application. Also, if the Contractor pulls off job for any reason, School District personnel and manufacturer's representative must be notified.

NOTE: Failure to inform the manufacturer prior to commencing work, project may be stopped and Contractor may be held responsible to make any corrections to fulfill contract obligations, without any extra cost being placed on the District or the manufacturer.

Manufacturer shall provide a qualified inspector with reroofing experience and knowledge (5 years plus). Manufacturer's inspector to make periodic inspections, as well as inspection reports. These reports can be provided to owner's representative at any time during progress of work.

#### SPECIAL CONDITIONS

Install new 24-gauge (low rise type) metal edging (1/4" maximum) set in 1/8" bed of #167 Rubberized Flashing. Install gravel stop on top of completed base sheet assembly as specified in master specifications. Prime roof flange and allow to dry. Install metal with 4" minimum end laps with #167 Rubberized Flashing between laps and up rise of metal joint. Nail 6" on center with suitable length galvanized nail which will penetrate wood nailer or sheathing in a minimum of 1/2". Then, over thoroughly dried primer, seal metal to base sheets with a 12 wide layer of Ruftac prior to Monolithic System.

Install all new 24-gauge galvanized metal flashings.

Install all new 4# lead flashings.

Clean gutters prior to Monolithic Spray System.

Furnish and Install new 24 Ga Sheet Metal Shim Stock with a 3" face and 1/4" drip edge. Fasten with 1 1/4" screws with rubber washers 2' on center at coping cap.

Install new Dura-Blok under conduit or pipes every 10 foot; also reinforce under block with extra layer of 80# Underlayment, 6" wider than blocks, mineral side down, set in generous application of #167 Rubberized Flashing.

#### Note:

1. Where there are large pipes or several pipes running across roof, in lieu of blocks, contractor shall install pipe hanger brackets every 12' and hang all pipes to bracket (will explain on jobwalk). Base of brackets shall be reinforced under with 18"x18" Deck-Top and base shall be set in a generous application of #167 Rubberized Flashing.

2. Set steel base of hangers in a generous application of #167 Rubberized Flashing on top of completed base sheets. Secure brackets to roof using four proper sized wood screws per bracket. Seal base with a 9" wide layer of polyester and a 12" wide layer of polyester. Both layers shall be embedded in four (4) gallons of emulsion per ply and top coated with four (4) gallons of emulsion.

On wood walls, cover with one layer of 80# Mineral Surface Cap Sheet from top of cant strip to within 3" of outside edges, Apply by back coating sheet and while wet apply to wall and nail 18" in all directions, 6" on end laps. Wall covering shall be sprayed with Monolithic Emulsion and Reflective Coating to within 1" of outside edge. After emulsion is dry, granules on cap sheet must be hidden.

Install #167 Rubberized Flashing to all parapet wall fasteners prior to installation of Monolithic System.

**Block Walls: Remove all reglet metal and install 5 course at roof to wall transition**

Contractor must water test internal drains, especially on coal tar recovers, and notify owner's representative before tear-off crew starts work or Contractor will be held responsible for plugged drains at completion of new roof.

- Note:
1. Contractor shall clean up any Josam type drain for reuse. Apply 3'x3' layer of Ruftac reinforcement on top of buffer down into drain. Any broken rings, missing bolts or clamps shall be replaced or new drains may be installed.
  2. When work is started at drains, the Contractor must complete the drain area with plies of base sheet and Ruftac or lead and install clamp rings the same day.

Contractor to replace any missing drain screens, with new metal screens to fit drain type.

Clean entire metal deck and spray roof surface with nine gallons emulsion, 3 lbs. Chopped glass (short glass), and cover with Reflective Coating.

HVAC Unit Equipment: Install decktop walkpads on top of completed roof system after acrylic coating is completely dry. Secure the 3'x4' units by applying five generous spots of #167 Rubberized Flashing on the back surface of each walkpad, turn over, in place, on top of Reflective Coating. Allow approximately 6" between each unit to allow for drainage. **(Around 2 – Sides Only)**

Install walk pad material 6" larger in all directions under all equipment support feet, set in generous amount of #167 Rubberized Flashing, mineral side up.

Remove existing Pitch Pans and install new split lead jacks as specified in master specifications to fit field conditions. Install clamp rings and seal with #167 Rubberized Flashing.

Double Canted Curbs: To be skirted around all sides of platform with minimum 15/31" CDX plywood as specified in Master Specification.

Prefabricated Metal Curbs & Cants: To be sheathed or skirted with a minimum 15/32" CDX plywood as specified in Master Specification.

It is necessary to get a smooth job, base sheets shall be cut and allowed to flatten in piles. Sheets should be broomed and cold process sheets shall be rolled with a weighted roller approximately 30 minutes or up to 4 hours after sheets are in place.

END OF SECTION