PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:
   1. Adhered felt-back membrane roofing system over substrate board and insulation.
   2. Roof insulation.

1.2 PERFORMANCE REQUIREMENTS

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 the 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. FMG Listing: Provide roofing membrane, base flashings, and component materials that comply with requirements in FMG 4450 and FMG 4470 as part of a membrane roofing system and that are listed in FMG's "Approval Guide" for Class 1 or noncombustible construction, as applicable. Identify materials with FMG markings.

D. Energy Performance: Provide roofing system with Solar Reflectance Index not less than 78 when calculated according to ASTM E 1980 based on testing identical products by a qualified testing agency. Roofing shall comply with California Energy Code.

1.3 QUALITY ASSURANCE

A. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's warranty.

B. Manufacturer Qualifications: A qualified manufacturer that has UL listing and FMG approval for membrane roofing system identical to that used for this Project. Membrane manufacturer shall provide a roof membrane that has no formulation change in the last fifteen years.

C. Source Limitations: Obtain components for roofing system from roofing membrane manufacturer.

D. Fire-Test-Response Characteristics: Provide membrane roofing materials with the fire-test-response characteristics indicated as determined by testing identical products per test method below by UL, FMG, or another testing and inspection agency acceptable to authorities having jurisdiction. Materials shall be identified with appropriate markings of applicable testing and inspection agency.
   1. Special warranty includes roofing membrane, base flashings, roofing membrane accessories, roof insulation, all sheet metal-related details, and termination details.
   2. Fire-Resistance Ratings: ASTM E 119, for fire-resistance-rated roof assemblies of which roofing system is a part.

1.4 WARRANTY

A. Special Warranty: Manufacturer's standard form, without monetary limitation, in which manufacturer agrees to repair or replace components of membrane roofing system that fail in materials or workmanship within specified warranty period. Failure includes roof leaks.
   1. Special warranty includes Design/Builder labor, roofing membrane, base flashings, and all other components of membrane roofing system that are supplied by the membrane manufacturer. Special warranty shall be non pro-rated and shall not exclude ponding water and that no time limit shall be assigned to any such ponding water during the warranty period.
   2. Warranty Period: 20 years from date of Substantial Completion.

B. Special Project Warranty: Submit roofing Installer's warranty, on warranty form at end of this Section, signed by Installer, covering Work of this Section, including all components of roofing system such as roofing membrane, base flashing, roof insulation, fasteners, cover boards, substrate boards, vapor retarders, roof pavers, and walkway products, for the following warranty period:
   1. Warranty Period: Two years from date of Acceptance of Work.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. The following requirements apply for product selection:
   1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the products specified.
   2. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the manufacturers specified.

2.2 PVC ROOFING MEMBRANE

A. PVC Sheet: ASTM D 4434, Type II, Grade 1, fiber reinforced with a factory applied 9oz polyester fleece backing as follows:
   1. Available Product: Subject to compliance with requirements, provide “Sarnafil G410-15FB” by Sika Sarnafil Inc or equal.
      a. Available Manufacturers:
         1) Sarnafil Inc.
         2) Duro-Last Roofing, Inc.
         3) Fibertite.
   2. Thickness: 60 mils, nominal.
   3. Exposed Face Color: EnergySmart White with an initial reflectivity of 0.83, initial emissivity 0.92, and solar reflective index (SRI) of > 104.

2.3 WALKWAYS

A. Walkway: Polyester reinforced 96 mils thick, light gray, weldable membrane with surface embossment. Use as a protection layer from rooftop traffic at mechanical units.
   1. Material: Sarnafil, SarnaTred or equal by same manufacturer as roofing system.

PART 3 - EXECUTION

A. GENERAL

B. As required by manufacturer to maintain warranty.

END OF SECTION