

SECTION B3000**ROOFING SYSTEMS****06/02****PART 1 - GENERAL****1.1 SYSTEM DESCRIPTION**

Provide a [sloped [metal][or][shingle]][or][membrane] roofing system [with a finish of low albedo color compatible with existing local colors] and in compliance with the Base Exterior Architecture Plan (BEAP), [to meet sustainable design goals][to match the existing adjacent roofing system of the [__]].

1.2 SYSTEM REQUIREMENTS

a. Provide a vapor barrier system that will insure prevention of moisture intrusion.

b. Avoid barrel vault (curved panel) roofs unless absolutely necessary to maintain compatibility with existing base features; when incorporation of this type of roof is unavoidable, seek a solution where the curved roof is used over entrance canopies, sunshading devices, carports, covered walkways, etc., i.e., areas other than over habitable spaces, to provide required contextual elements. Avoid excessive surface intersections to minimize risk of potential leakage and difficult repair work. Ridge and valley conditions along with other intersections shall be carefully detailed to prevent moisture intrusion. [Exterior design must be of same material and compatible with the existing adjacent roof of the [_____]].]

[c. Sufficient insulation to meet energy savings requirement. The energy requirement is [_____]].]

d. Roofing surface shall not lap down over the vertical face of the fascia.

e. Roof pitch [shall be 2.5:12 minimum for shingle or metal][or][shall be 0.5:12 minimum for membrane][and][shall match existing [_____]].]

1.3 CRITERIA

Comply with SWDIV Roofing Systems Technical Guide, which may be viewed at the following Internet website:

[SWDIV Roofing Systems Technical Guide](#)

1.4 COMPLIANCE VERIFICATION

Compliance with the requirements will be determined during an over-the-shoulder presentation by the Design-Build Contractor's Architect/Engineer Designer of Record and by field inspection. See Document 00911, Design Requirements, for submittal requirements. See Section 01330, Submittal Procedures, for Submittal Requirements.

1.5 DESIGN PRESENTATIONS

1.5.1 Design Analyses and Drawings

Shop Drawings

Wall sections (1:20 scale, minimum)

Isometric flashing details (1:5 scale, minimum)

Roof plan (1:200 scale, minimum)

Penetrations, intersecting surfaces, eave, edge and scupper details (1:5 scale, minimum)

Design Data

Submit a basis of design and calculations for the following in accordance with the publications or methods referenced herein or standard industry practice:

Gutter and downspout sizing analysis performed by a registered architect or roof consultant.

Vapor Barrier: Calculations shall indicate indoor and outdoor temperature expectations, humidity and location of dew point. Conclusions shall indicate the need for and type of vapor barrier selected.

Drainage: Calculations shall indicate adequate capacity to drain the expected rainfall intensity in the project area.

["U" Value: Calculations shall indicate "U" value of the roof assembly.]

[Design calculations for metal roofing prepared by a professional engineer specializing in structural engineering verifying that system supplied and any additional framing meets specified design load criteria. Coordinate calculations with manufacturer's test results.]

Manufacturer's Instructions

Manufacturer's printed installation manuals, instructions, and details.

1.5.2 Design Specifications

Submit specifications in accordance with Document 00911, "Project Kick-off and Design Completion" to specify the quality, characteristics, performance factors, efficiency, installation procedures, testing, and certification requirements for all items of the Roofing System(s).

Product Data

Metal roofing systems including material, underlayment, color, coating, gage, and profile.

Shingle roof data including type, weight, class, UL labels, and special types of underlayment and eave flashing.

1.6 CONSTRUCTION SUBMITTALS

Closeout Submittals

Information Card (see "Form 1" at the end of this section) and Warranty. Provide a typewritten card, laminated in plastic and framed in a weather-tight frame, or a photoengraved [0.81mm] [0.032-inch] thick aluminum card for the roof. This card shall be a minimum size of [216 x 280mm][8 1/2 x 11 inch] and contain information listed in the attached Form 1. Install the card where directed. Furnish framed card and a duplicate card to the Contracting Officer.

PART 2 - PRODUCTS

2.1 ROOFING (B3010)

[2.1.1 Provide Manufactured Sheet Metal Roofing System.]

[2.1.2 Provide Manufactured Shingle Roofing System.]

[2.1.3 Manufactured Membrane Roofing System.]

2.1.4 Flashing and Sheet Metal

a. Provide all metal fabrications with coil coated finish color coating suitable to resist degradation and compatible with adjacent facade.

b. Provide gutters [and downspouts] compatible with roofing material and finish. [Concealed gutters and downspouts are prohibited.][Design to allow free flow of snow and ice from roof and to divert water, snow, and ice flow away from path of pedestrians.]

2.1.5 Roofing Insulation

Provide R-[_____], minimum.

PART 3

Not Used.

--END OF SECTION--

FORM 1

ROOFING SYSTEM COMPONENTS

1. Contract Number: _____

2. Building Number and Location: _____

3. NAVFAC Specification Number: _____

4. Deck Type: _____

5. Slope of Deck: _____

6. Insulation Type and Thickness: _____

7. Insulation Manufacturer: _____

8. Vapor Retarder (_____) Yes (_____) No

9. Vapor Retarder Type: _____

10. Roofing Description: _____

Manufacturer (Name, address, and phone no.): _____

Type: _____

Method of attachment: _____

11. Statement of Compliance or Exception: _____

12. Date Roof Completed: _____

13. Warranty Period: _____

14. Roofing Contractor (Name and Address):

15. Prime Contractor (Name and Address):

Contractor's Signature _____ Date: _____

Inspector's Signature _____ Date: _____