BASIS OF DESIGN

Marine Corps Base Camp Lejeune
Contract: N40085-24-D-0011
Project No. 25-0004
IFC Submittal

GENERAL DESCRIPTION

This project involves the full replacement of the roofing system at Building 1860, MCB Camp Lejeune, to restore watertight integrity. The scope includes the demolition and abatement of the existing modified bitumen roof and insulation down to the structural steel deck. New construction consists of a multi-ply SBS-modified bitumen membrane system installed over a new vapor barrier and a polyisocyanurate insulation system. Additional work includes the removal and reinstallation of vertical metal wall panels, replacement of metal framing and wall insulation, installation of a new insulated roof hatch with safety rail, and the provision of new pre-finished metal flashings, copings, and gravel stops.

ARCHITECTURAL BASIS OF DESIGN

REFERENCE DOCUMENTS AND DESIGN CRITERIA

- General Building Requirements: UFC 1-200-01 DoD Building Code with Change 4, Dec 2024
- UFC 3-110-03: Roofing (with Change 5, June 2020)
- International Building Code (IBC), 2024 edition

DEMOLITION

The existing facility currently utilizes a modified bitumen roof system that will be completely removed down to the existing steel deck.

- **Roof Demolition**: All existing roofing, insulation, and vapor barriers must be removed to provide a clean substrate for the new assembly.

- **Wall Panels**: In order to properly remove and reinstall roof flashing the existing vertical metal wall panels, framing, and rigid insulation between the upper and lower roof levels will be removed and all substrates will be replaced. The wall panels will be stored for reinstallation.

- **Accessories**: The existing roof hatch, gravel stops, and parapet copings are slated for removal.

- **Items to Remain**: The existing roof ladder, exhaust fans, and equipment curbs are to remain and be protected during construction, though they will receive new flashing or paint as indicated in the drawings. The roof ladder will need to be temporarily removed for the removal and installation of the new wall panels.

NEW WORK

Roofing System

- A multi-ply SBS-modified bitumen membrane system will be installed with a cap sheet will feature a mineral granule top surface for UV protection and weatherability.

Insulation and Vapor Retarder

- R-25 Polyisocyanurate rigid board insulation will be used to meet thermal requirements. A new vapor barrier will be installed directly over the existing steel deck. Reviewing the original as-built drawings indicates that the existing steel structure and metal decks form a structural slope to the interior roof drains.

Metal Wall Panels

- Existing vertical metal wall panels will be reinstalled to match the existing locations between the upper roof and the lower roof section. This installation will occur after all roof flashing has been installed. The plans also indicate to provide new metal framing, rigid insulation, and fluid applied vapor barrier to the existing vertical cmu walls between the low roof and the high roof. This will ensure a complete watertight installation with overlapping vapor barriers from the upper and lower roof systems.

Roof Accessories

- A new factory-fabricated, insulated aluminum roof hatch with osha compliant safety rail and gate will replace the existing unit for better functionality. Also, pre-finished metal gravel stops, drip edges, and parapet caps will be installed to match existing conditions.

HAZARDOUS MATERIALS

Current asbestos and lead inspection revealed no asbestos containing materials, and trace amounts of lead in the paint found on the metal roof ladder. Base asbestos reports label the black and white flashing as asbestos from a report in 2006. These materials were sampled during the inspection on 02/10/26 and were found to not contain asbestos per laboratory analysis. Lead paint on the roof ladder will remain and be encapsulated with new paint.