PROGRESSIVE MATERIALS

ENGINEERING SUSTAINABLE ROOFING SOLUTIONS

WITH THE PRECISION OF SURGERY...
VA MEDICAL CENTER GETS NEW ROOF
Indianapolis, Indiana

Project Profile

HISTORY
The Richard L. Roudebush Indianapolis VA Medical Center, located 2 miles northwest of downtown Indianapolis, has been serving Indiana Veterans since 1932. The center receives referrals from VA facilities in Ft. Wayne and Marion, Indiana, and Danville, Illinois. Each year, more than 500,000 patients pass through the facility. Millions of dollars of high-tech medical equipment and critical care units are housed at the Roudebush Center.

PROBLEM
Poor roof drainage and aging systems took a toll on the facility's roof. But, with such an immense structure, serving such large numbers of veterans, coordinating a new roofing system was no simple task.

SOLUTION
No Down-Time: Understandably, the facility could not experience any down-time during the re-roofing process. This necessitated massive coordination efforts and constant communication between construction crews and facility management. E-mails were sent daily to project engineers, doctors, staff and clinic heads to ensure the project would not disrupt any special procedures. Schedules and progress was discussed at a weekly production meeting. All work was scheduled a week in advance.

The tear off process, on small sections of roof, would begin early each morning and proceed until noon. After lunch, installation of the new roof would begin. Roofing was only removed that could be replaced the same day. All areas remained watertight at the end of each day.

Safety for Everyone: The VA Federal OSHA representative inspected the project on a weekly basis. Chain link fencing was used to barricade production areas, full body harnesses were used when working on leading edge.

Several roof sections that were replaced are over critical care areas such as the Dialysis Clinic and the Emergency Room, and special care was consistently taken to reduce internal impact. Each day, the air handling unit within the immediate vicinity of spray application had to be shut down or covered to keep fumes from entering the hospital.

SCOPE OF WORK
There were 15 different roof sections scattered throughout the campus. The various roof areas ranged in age of 12 to 25 years old and were all well past their life expectancy.

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Project Profile (continued)

One of the most difficult aspects of this roofing project was the drainage. On top of requiring new slope, the roof had over 150 penetrations, most of these in the form of roof drains. Foam was the best tool available with regard to guiding water to the drains, and then creating a smooth, water-tight seal at the drains.

Removed:

- *55,000 square feet of ballast covered EPDM, 2" ISO board over concrete deck*
- *20,000 square feet of gravel surfaced BUR over perlite insulation with concrete or metal deck*
- *10,000 square feet of ballast over 2" ISO board adhered over a concrete deck*

New System's Specifications:

- *Atlas ACfoam III tapered Iso board*
- *1.5 inches of Progressive Materials SF 4228 Series Spray Polyurethane, ProPoly Foam*
- *2 coats of Progressive Materials LS 2200 Series Silicone roof coating, ProPoly Sil, to achieve 20 mils thickness*
- *Sesco Snow White granules were embedded in the top coat as the final step*
- *The entire system was installed to achieve an average R-value=40*

Because of past issues with drainage, the slope in the tapered roof system was added to facilitate run off. In addition, the roof has more than 150 penetrations which in the past proved hard to seal. The SPF system solved this problem and was also successfully used up all parapet walls to seal failing wall flashings.

BENEFITS

The VA Center now has a complete roofing system that is state of the art, sustainable and easily maintained. With end of the project inspections, a full system warranty was issued. Facility managers can rest assured that weather will not impact the state-of-the-art medical equipment or patients within the Roudebush Center.