



## **Roof Replacement** **NAVFAC Mid-Atlantic**

The exterior enclosure is primarily constructed of brick, concrete and steel beams which support failing precast concrete decking. NAVFAC was in need of the deteriorated concrete deck to be removed and replaced with steel decking. Due to the height of the building, strict adherence to all fall protection requirements such as OSHA, NAVFAC, international, federal, state and local was required. The existing pre-cast concrete roof deck panels were spalling and degrading, and a number of panels had previously failed due to normal pedestrian roof traffic or minimal live loads. All areas of the roof with concrete decking was considered dangerous. The scope of work included the following:

- a. Provide a new roof system on the west side of building. The existing roof system shall be removed down to the existing failing precast concrete roof deck. Concrete shall be removed and replaced with structural steel decking. Provide new polyisocyanurate insulation with minimum thermal resistance. Roof system shall consist of 3 ply SBS modified bitumen roof with mineral granular surfacing.
- b. System shall meet wind uplift requirements of ASCE 7. Provide no dollar limit 20 year warranty.
- c. Removal of various mechanical units, two full roof length ventilators, vent piping, steam piping and supports, raised deck area, etc.
- d. Removal and replacement of existing perimeter safety railing.
- e. Removal of abandoned piping and equipment. Removal shall include all piping and supports including steel trestle, expansion joints, reducers, traps, valves, and all appurtenances related to and attached to these systems. Existing water tank and associated piping shall be removed.
- f. Replace existing roof drains with new roof drains (piping to remain).
- g. Provide new lightning protection system.



### **LOCATION**

Philadelphia Navy Yard,  
Pennsylvania

### **PROJECT HIGHLIGHTS**

- Value: \$3.57 M
- Year Completed: 2015
- NAICS Code: 238160
- Design/Build

### **KEY COMPONENTS**

- Roofing
- Structural Steel
- Plumbing
- Demolition
- Thermal and Moisture Protection
- Lightning Protection
- Quality Control
- Occupied Facility
- Access Control
- Daily Coordination

### **CONTACT**

Michelle Shoultz, P.E.

321.253.8131

[mshoultz@fraziereng.com](mailto:mshoultz@fraziereng.com)