

The New York Aquarium

Background

Being the oldest continually operating aquarium in the United States, the New York Aquarium resides on the boardwalk of Coney Island in Brooklyn. The highlight of the facility features a tensile fabric structure used as a canopy to cover a large salt water tank that is the home to several species of aquatic life. As part of the renovation of the tensile structure, the Prime Contractor solicited several companies to replace the membrane and expand the structure to incorporate an enclosed area to host events. Signature's experience with a range of frame, membrane and building designs made us the obvious choice.

Solution

Signature was contracted to design, manufacture, project manage and install the replacement membrane cover. A new membrane shape and cables were designed to allow for the addition of the new hosting area. The old fabric (with infill panels) was replaced with a single fabric panel; and all cables connecting to the fabric were replaced. Consequently, new membrane plates and attachment hardware was re-designed and integrated within the new termination system.

Details

The existing fabric removal and new membrane installation of over 15,000 square feet of coverage took 14 days to complete. Signature selected the 31 ounce architectural membrane Ferrari 1202 Fluotop T2 with PVDF topcoat and undercoat. The membrane meets loading requirements including NFPA 701 & CFM Title 19. All existing cables connecting the fabric were replaced with PVC coated catenary cables, sliding glass sidewalls were incorporated into the structure and HVAC penetrations and finish details were provided. The construction team worked within tight site conditions and were able to accommodate the client's events and public responsibilities while meeting the schedule and aesthetic requirements.

Customer Appreciation

When soliciting companies to work on the aquarium's tensile structure, we found Signature Structures to be the most thorough in their review, presentation and proposal. They offered a turnkey approach, let us work on other aspects of the project and minimized all fabric structure concerns. We felt we were in good hands from the first time we met with them to the award of the project. The Signature Team was able to overcome the obstacles surrounding the structure's expansion and work within our budget. We are happy with Signature's work and would recommend them on any fabric structure project, and specifically state that their work from design/engineering through implementation and project management on alternate structure types is best in the industry.

