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Project Details

Project Title	Clemson Memorial Stadium Lower Bowl Renovation
Property Name	Clemson University
Location	Clemson South Carolina
Entry Classification	Waterproofing
Project Cost (dollar amt)	997 050.00
Duration (calendar days)	135
Start Date (mm/dd/yy)	3/22/2011
End Date (mm/dd/yy)	8/4/2011

Scope of Work

The Concrete Repair project limited to concrete repairs and restoration. A separate maintenance contract for coating and sealant work will follow this project. No major structural work is expected/included within this scope. Base Bid work included minor concrete repairs and maintenance. The extent and type of repairs are based on the color coded painting noted on drawings and existing in the field. 1. Poured-in-place epoxy repairs in accordance with Section 03701 Poured-In-Place (Gravity Feed) Epoxy Repairs. All non-moving hairline cracks (less than 1/16") are addressed in the coating/sealant project using filler materials prior to coating. 2. Polymer modified concrete restoration in accordance with Section 03900 Polymer Modified Concrete Restoration. The Waterproofing Maintenance Project included the following: Base Bid work included complete removal and replacement of all sealant joints installation of metal cover plates at double joint locations (specific locations indicated) and cleaning of all drains. The sequence of work by areas is defined on Sheet W104. The primary work included removal of the stadium seats minor preparation of concrete surfaces and application of a three-coat pedestrian traffic coating on all concrete surfaces. 1. Polymer modified concrete restoration in accordance with Section 03900 Polymer Modified Concrete Restoration (for building envelope). Quantities of 500 SF (1" depth) and 500 SF (2" depth) are included in the base bid. 2. All non-moving hairline cracks (1/16") to be prepared and filled per Detail 5/W203. Contract to include 400 LF of crack repairs per Detail 6/W203. 3. Pedestrian traffic coatings in accordance with Section 07570 Pedestrian Traffic Coatings. 4. Sheet metal cover plates in accordance with Section 07600 Sheet Metal Cover Plates. Replacement of sealant systems from the building envelope in accordance with Section 07921 Sealants for Building Envelope.

Abstract

This stadium restoration project is unique in that two separate projects were required by the Owner due to procurement and licensing issues. A construction project and a maintenance project. This required sequencing of the two projects concrete repairs (first) and the waterproof coating and sealants (second) during the bidding award and construction projects.

Unforeseen Conditions:

The scope of work for this project was based on a detailed building envelope survey and management. Thus unforeseen conditions were minor and minimized to largest degree. No change orders for unforeseen conditions occurred.

Problems/Challenges/Solutions:

In addition to the sequencing of the project noted above other challenges were identifying the extent and type of repairs to the concrete for Contractors to bid. Various concrete repairs were included within the base bid with quantities. To permit competitive bidding required on government projects these different repairs were

Community/Environmental Impact:

N/A

Technology/Innovation:

N/A

Site Constraints

N/A

Quality Control/Field Testing

The ongoing quality control efforts of the Contractor the quality assurance efforts of the design professional and site visits by the Manufacturer along with weekly meetings with all parties provided for quality work with minimal issues. The regular meetings and coordination between the Owner construction

and design team resulted in limited issues and quality work. Within this Contract the Contractor provided scheduling coordination and written responses to all quality assurance and third party inspection services.

Rigging Approach

N/A

Sustainment

The best definition of sustainability is “to endure”. To endure we must maintain. This project focused on maintaining the building envelope for a 100+ year old building so it will be there for the next 100 years.