Originally built in the early 1920’s, the historic Rose Bowl Stadium in Pasadena, CA is undergoing extensive improvements exceeding $20 million.

Early in the history of this stadium, the original wooden seats, were used as formwork to cast new reinforced concrete bleachers.

As the years have passed, carbonation of the cement paste, compounded by inadequate cover and compaction of the concrete, reduced the corrosion protection around the rebars, resulting in rusting of the rebars, cracking and spalling of the concrete bleachers.

**THE SIKA SOLUTION**

**Preparations**

The contractors removed all the defective concrete and primed the exposed rebar with Sika Armatec 110, an epoxy modified, cementitious slurry primer.

**Repair/Protection**

The repair and overlay of the complete one million square feet of concrete bleachers to an approved broom finish was carried out using SikaTop 122 PLUS, a two-component, polymer-modified, cementitious mortar with added corrosion inhibitor, Sika FerroGard 901.

Curing was critical with air temperatures during application over 90°F and great care was taken to presoak the concrete with fresh water before each application and protect each operation with presoaked Burleen.

Finally, new thin profile seating was fixed by Sikadur Injection Gel to ensure the 96,000 seater stadium opened for the UCLA Bruins game on September 12, 1998.
Anti-Corrosion Primer and Bonding Bridge
*Sika Armatec® 110 EpoCem®* - protects rebar in areas of inadequate cover.

High-Performance Repair Mortars
*SikaTop® PLUS* - two-component, polymer modified containing Sika FerroGard 901 corrosion-inhibitor.
Sikacem mortars are machine-applied by dry-spray equipment for large scale repairs.

Problem Joints/Cracks Sealing System
*Sikadur® Comiflex®* - a unique strip and seal system used to seal problem joints and cracks, even those undergoing extreme movement.

Crackbridging Deck Membrane
*Sikafloor® 450/455* is a single component polyurethane system used to provide a durable, abrasion resistant, waterproofing layer for stadiums, park decks, balconies and plaza decks.

Joint Sealing
*Sikaflex®, High Performance Sealants* - are premium-grade polyurethane joint sealants that are fully compatible with Sika’s concrete repair systems.

Anti-Carbonation Coatings
*Sikagard® 550W and 670W* - protect concrete facades from the damaging effects of carbon dioxide (carbonation), water and pollutants. Either crack-bridging (550W) or rigid (670W), both are high-performance protection coatings, available in a variety of decorative colors.

Epoxy Injection and Bonding
*Sikadur®* - epoxy resins help restore structural integrity by injection into cracks and voids. The most comprehensive range of epoxy products for structural bonding and grouting.

Structural Strengthening Systems CFRP
*Sika CarboDur®* - a proven system of external strengthening using epoxy-bonded Carbon Fiber Reinforced Plastic (CFRP) laminate strips. Stronger than steel, yet lightweight and non-corrosive, this system can solve unique strengthening problems in a variety of concrete structures.

Sika’s System Approach to Stadium Concrete Repair and Protection

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