



PRECAST BOX CULVERT FOR NEW PEDESTRIAN TUNNEL AT RICHMOND RACEWAY

Oldcastle Infrastructure provided an innovative pedestrian tunnel solution for International Speedway Corporation's Richmond Raceway Reimagined project. The \$30 million infield redevelopment will consist of modern attractions and amenities that complement the racing experience for which Richmond Raceway is known.

The new and improved design of the pedestrian tunnel is wider, providing fans with a more comfortable way to access the updated infield. The new tunnel also includes an elevator for added convenience and ADA accessibility.

Recognizing the benefits of precast, the project team selected precast concrete box culvert segments as the best solution to construct the pedestrian tunnel.

THE DESIGN

The General Contractor Barton Malow contracted Oldcastle Infrastructure's Fredericksburg, VA, location to design, engineer and manufacture the 49 precast concrete box culverts used to create the 415-foot tunnel. Of the box culvert segments produced, three were designed to elevate the walkway upward to get the tunnel back to the concourse level.

HIGHLIGHTS

Project Location

Richmond, Virginia

Owner

Richmond Raceway

General Contractor

Barton Malow

Site Contractor

Alpine Construction Corporation

Civil Engineer

Richmond-based HG Design Studio

Precast Manufacturer

Oldcastle Infrastructure - Fredericksburg, VA

Precast Box Culvert for New Pedestrian Tunnel at Richmond Raceway



"Precast concrete culverts can be used in countless applications. They install fast, provide the highest level of strength and durability, are less dependent on backfill, require little to no maintenance, can withstand more aggressive compacting and are manufactured locally," said Doug Bruhns Regional Manager at Oldcastle Infrastructure. "The use of precast tunnel segments provided Richmond Raceway an efficiently constructed tunnel that saved both time and money and was constructed in just five days. In addition, the structure will last and perform well for years to come."

THE SOLUTION

To construct the pedestrian tunnel, a portion of the racetrack was removed, the area was excavated, and the foundation was prepared for the installation of the precast concrete box culvert segments.

President of Alpine Construction Corporation Scot Hawthorne remarked, "All went very smoothly. We could have set all the box culverts in three days if we had to, it went that well. The Oldcastle Infrastructure dispatcher was fantastic and stayed on top of everything, calling every day to check progress."

The final assembly of the 10x10 precast box culvert segments is comprised of 6,506 cubic yards of concrete, 220,326 square feet of slab, and 256,000 pounds of rebar. It measures 415 linear feet and weighs 1,100 tons.

Construction continues at the Richmond Raceway, which is expected to be completed by September 2018, in time for playoff races for the Monster Energy NASCAR Cup and XFINITY Series.

Oldcastle Product(s)

49 Precast Concrete Box Culverts

- 10x10 segments
- 6,506 cubic yards of concrete
- 220,326 square feet of slab
- 256,000 pounds of rebar
- 415 linear feet
- 1,100 tons in weight
- 5 day installation

About Oldcastle Infrastructure

Oldcastle Infrastructure, A CRH Company, is the leading provider of building materials, products and services for infrastructure projects to several market sectors nationwide, including: Building Structures, Communications, Energy, Transportation and Water.

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