The Zoo Interchange in Milwaukee is a freeway interchange on the west side of the city, southeast of the 200 acre Milwaukee County Zoo. It was built in 1963, as one of the first Interstate Highway projects in Wisconsin. Forming the junction of I-94, I-894, and US 45, it is the busiest interchange in the state. Deterioration, obsolete design of the roadway and bridges, capacity needs, and high crash rates all prompted the Wisconsin Department of Transportation (WisDOT) to redesign and reconstruct the interchange to increase efficiency, reduce accidents and add capacity.

Construction on the interchange began in 2014 with plans for completion in 2018. Two years into the construction, WisDOT officials were impressed with the work the contractors were doing. To recognize the contractors, WisDOT awarded them at the Annual Contractor-engineer Conference held in Madison on January 26-27, 2017. The three contractors, Lunda Construction of Black River Falls, Wis.; Michels Corporation of Brownsville, Wis.; and Edgerton Contractors of Oak Creek, Wis. received a Special Merit Award for their efforts in innovation, shortening construction time, saving money, and overall quality.

Reconstruction of the interchange required 57,000 feet of reinforced concrete pipe. County Materials Corporation supplied a wide range of reinforced concrete pipe ranging in size from 12-inch to 96-inch diameter in Classes III to V. In addition, there were nearly 600 feet of Class HE III 58-inch x 91-inch and 77-inch x 121-inch horizontal elliptical pipe along with nearly 1000 structures including inlets, catch basins and manholes ranging in diameter from 3-foot to 12-foot. County materials shipped the concrete pipe and structures from the company’s various manufacturing locations throughout Wisconsin.

The first three years of the project focused on upgrading arterial streets to handle the additional traffic they would see when closures on the interstate would take place. In addition to the new storm sewers, the project included contracts for 21 bridges, 30 walls, 11 noise barriers, concrete pavement, 20 million lbs. of structural steel, steel tub flyovers bridges with stainless steel concrete deck reinforcement, pre-stressed concrete girder bridges, earthwork, structure and pavement demolition, intelligent transportation systems, large diameter drilled shafts, MSE walls with precast panel, utility relocations and pile support foundations.
The Zoo Interchange is a major transportation link in Wisconsin, and a significant component of America's Interstate Highway network. The core materials for the interchange are concrete and steel. It is designed to be a resilient asset for the city and state for generations. Large quantities of reinforced concrete storm sewer pipelines and culverts are critical infrastructure that will function as long as the design life of the intersection. Designers followed good engineering practices by specifying different classes of standard engineered pipe with varying strengths and shapes to save costs of installation, while accommodating earth and live loads of traffic.

Project Background

Products Used: 12” to 96” diameter Class III to V Round Concrete Pipe, Class III Horizontal Elliptical Concrete Pipe, inlets, catch basins and manholes.
Location: I-94, I-894, US 45, Milwaukee, WI
Contractors: Lunda Construction, Michels Corporation, Edgerton Contractors