

# Honor Award

**Firm:** Stephen J. Christian and Associates

**Project:** Accelerate 465 Project

Bridge Replacement on 21st Street over I-465

**Owner:** Indiana Department of Transportation



The 21<sup>st</sup> Street Bridge over I-465 is the first bridge in Indiana to be constructed using Precast Prestressed Concrete U-Beams, a new technology. The advantages of the U-Beam compared to other Indiana standard beams are reduced structure depth, improved aesthetics, and more efficient use of materials. Other benefits include less interruption to traffic and ease of construction period, due to no exterior diaphragms and fewer number of beams to be erected. The 21<sup>st</sup> Street Bridge consists of two equal spans of 116 feet. The 51-foot-wide superstructure is supported by three 54-inch-deep prestressed concrete U-Beams spaced at 18'-6", and 7' overhangs. The precast beams were cast using high performance concrete with design strength of 10,000 psi.

# Honor Award

**Firm:** Clark Dietz

**Project:** Belmont North Relief Interceptor  
Advanced Facility Plan

**Owner:** City of Indianapolis Department of Public Works



In 2007, the Indianapolis Department of Public Works retained Clark Dietz to develop an Advanced Facility Plan for the Belmont North Relief Interceptor. This was one of the city's largest initiatives to improve public infrastructure, that will also create additional sewer capacity.

Through the Advanced Facility Plan and subsequent Value Engineering efforts, the Clark Dietz team developed a cost effective and environmentally acceptable plan that identified savings of approximately \$50 million in capital project costs.

The final plan included 10,300 feet of 48-inch to 72-inch gravity sewer, 28,400 feet of 42-inch force main, a 38 MGD lift station, a 35-foot tall standpipe structure, and several sustainable design elements. The total project cost is estimated at \$94.4 million.

# Honor Award

**Firm: BSA LifeStructures**

Project: Joseph E. Walther Hall School of Medicine

Owner: Indiana University



Joseph E. Walther Hall School of Medicine is the culmination of 16 continuous years of design and construction for the Indiana University School of Medicine. Connecting the existing medical research facilities of the Cancer Research Institute (1997) and Research Institute II, Walther Hall adds programs for discovery of lifesaving therapies and brings the total research complex to over 500,000 square-feet. Walther Hall, at seven stories tall and 254,000 square-feet, is the tallest and largest building to be built on the Indiana University campus in downtown Indianapolis. A pedestrian bridge at the second floor of the facility connects Walther Hall to the Clarian People Mover. This elevated train system gives researchers and other university staff direct access to nearby urban healthcare and research facilities.

# Honor Award

**Firm:** DLZ Indiana, LLC

**Project:** Main Street Underpass at  
Grand Trunk Western Railroad

**Owner:** City of Mishawaka, Indiana



For more than 30 years, Mishawaka has realized a need to provide an uninterrupted north-south route from downtown to the north side of the city. The need became more urgent after St. Joseph Regional Medical Center announced the closing of their downtown hospital and construction of a new \$355 million in-patient hospital on the City's north side. The new location requires all central and southern Mishawaka residents to cross the Grand Trunk Western Railroad (GTWRR) rail line to receive emergency medical services.

In order to build the underpass and provide the least interruption, the new roadway was shifted approximately 100 feet to the east. The street and existing underground utilities were lowered approximately 28 feet, and reconstruction of surrounding intersections was required. The two-span railroad structure and retaining walls were constructed within a one-year timeline required by GTWRR. In order to minimize impacts to the cemeteries and surrounding properties, decorative retaining walls were constructed.

# Honor Award

**Firm:** Janssen & Spaans Engineering, Inc.

**Project:** Ronald Reagan Memorial Tollway:  
Deerpath Road to Fox River

**Owner:** The Illinois State Toll Highway Authority



In March of 2007, the Illinois State Toll Highway Authority advertised for widening and reconstruction work on the Ronald Reagan Memorial Tollway, in Kane County, Illinois. The work included two state route bridges, connecting roadways, and a new Eastbound I-88 Bridge over Fox River. The Fox River Bridge was the central focus of the work.

A precast, concrete arch structure was successfully designed and built. The new bridge is 1,345 feet long, 75 feet wide and carries three lanes of traffic. There are ten spans, five comprised of two-segment, precast concrete arches, with precast IDOT girders used throughout all spans. The arch segments are box-shaped and use only mild reinforcement; the segments were precast off-site.

# Honor Award

**Firm:** Wessler Engineering

**Project:** Stormwater and Deicing Runoff Management for the New Indianapolis International Airport

**Owner:** Indianapolis Airport Authority



Due to an innovative Master Stormwater Model, the new Indianapolis International Airport was built without stormwater detention. The model coordinated drainage designs, established the locations and sizes of major drainage conveyances, and justified the project's "beat-the-peak" runoff volume control strategy. Deicing Runoff Controls and Airside Stormwater Water Quality Treatment facilities now provide: (a) total suspended solids (TSS) removal, and (b) separation of aircraft deicing fluid (ADF)-contaminated runoff from the receiving stream. This was accomplished through: 1.9 MG of underground storage; 8.0 MG of covered, lined, in-ground storage; a 12,000 gpm pump station; a 1,400 gpm pump station; 2 miles of force main; and the two largest Vortech hydrodynamic separators in the country.

# Honor Award

**Firm: American Structurepoint**

**Project: Whiting Lakefront Redevelopment Plan**

**Owner: City of Whiting**



American Structurepoint is creating a lakefront development plan and bringing to life a vision of connecting downtown Whiting with new opportunities for community growth and economic success. The redevelopment plan addresses developable space, public access, recreation, habitat restoration, and economic development between Lake Michigan and the 119<sup>th</sup> Street business district. Since support from local business owners and the community is crucial, a steering committee was coordinated and stakeholder meetings and charrettes were held to create a unified vision. The City's comprehensive plan and development regulations will be updated to harmonize the entire plan. Through these improvements, Whiting Lakefront Redevelopment will benefit the economy, health, and environment for the residents and business owners in this small, vibrant community.