

Merit Awards

Firm: Clark Dietz

Project: 10 MGD Biological Aerated Filter Project, Evansville

Owner: Evansville Water and Sewer Utility

In 2005, the City of Evansville retained Clark Dietz to evaluate multiple alternatives to increase capacity at their Westside Wastewater Treatment Facility from 20.6 mgd to 30.6 mgd. After a comprehensive review, Clark Dietz recommended that the City install a 10 mgd biological aerated filter treatment system.

The biological aerated filter system construction started in the summer of 2007 and was completed in the summer of 2009. The contractor for this project was required to place concrete to very tight tolerances; was required to install over 70 nozzle decks to precise locations; installed and locked into place over 25,000 plastic nozzles; and assisted the vendor in installing over 4 billion media beads in the treatment cells.

Installation of this system saved the City over \$40 million dollars in construction costs and has resulted in the City's Westside WWTP being able to treat 39 mgd during wet weather events.



Firm: Butler, Fairman & Seufert

Project: B-Line Trail, Phase 1

Owner: City of Bloomington, Indiana

The B-Line Trail is an exciting new amenity in the heart of a pedestrian-friendly downtown. This development changed a 0.7-mile stretch of the old Monon rail corridor from a divisive barrier through the middle of town into an alternative transportation corridor and linear park



that unites the city. The Trail provides safe and secure non-motorized access to housing, retail shops, government offices, eateries, the convention center, and various commercial developments from Second Street to Rogers Street. Plans are already underway for further economic development and expansion projects along the corridor. The project also remediated the contaminated soils along the corridor, further improving the environmental conditions in this urban setting.

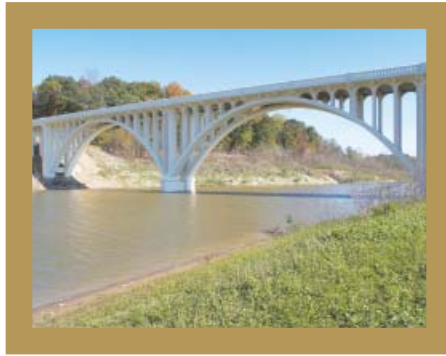
Merit Awards

Firm: Butler, Fairman & Seufert

Project: Bridge Rehabilitation of State Road 42 over Cataract Lake

Owner: Indiana Department of Transportation

State Road 42 Bridge over Cataract Lake is a reinforced concrete, open spandrel arch bridge in addition to being a historically significant structure. A major rehabilitation was performed on the structure due to considerable deterioration of all nine bents. Galvanic anodes, self-consolidating concrete and fiberglass mesh were installed to repair the bents along with the removal of the joints at these locations. The columns and transverse beams at various locations along the arches were reconstructed and new expansion joints were installed. A variable depth, thickened concrete overlay was installed over the entire bridge deck as well as additional chloride ion protection for the existing slab. The repairs done to this structure maintained the historical appearance and will preserve another icon for future generations.



Firm: Wessler Engineering

Project: Digester Renovation with Alternate Power Sources

Owner: City of West Lafayette

For its digester improvements, the City of West Lafayette took a proactive approach to “going green.” The project incorporated a co-generation system and a Fats, Oils, & Grease receiving facility. Utilizing digester gas fueled micro-turbines, renewable electricity now supplies approximately 25 percent of the plant’s power needs, including electric car



charging stations. Adding waste grease to the digesters further increased the production of biogas and renewable power; thus, generating additional revenue through tipping fees. The City was recognized as a Green Power Partner by the United States Environmental Protection Agency for generating electricity from an environmentally preferable renewable resource.

A true example of “waste to energy,” this green project was both environmentally and economically beneficial.

Merit Awards

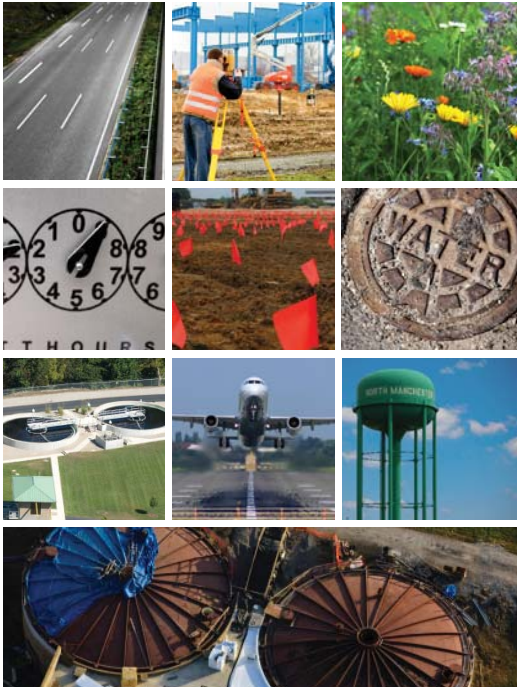
Firms: RQAW Corporation, American Structurepoint

Project: Hamilton County Adult Detention Master Plan Design and Construction

Owner: Hamilton County Board of Commissioners

In 2005, Hamilton County asked the question, “Can our current Corrections Campus site accommodate our 50 year needs?” RQAW began with a Master Plan for Hamilton County that analyzed and forecasted the County’s general/criminal justice demographics. The final design included additional support functions to the jail: intake and booking, video visitation, food service, laundry service, classroom space, office space for administrative, patrol and detective functions; 200-bed new community corrections facility, expandable to 400 beds; renovation of the “old” jail; and space for future expansions.

All of this was done without adding a single maximum security bed. Hamilton County now has a Corrections Campus that meets their 30-year needs and provides expansion for the next 50 years.



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Merit Awards

Firms: Midwestern Engineers, American Structurepoint

Project: Holiday World & Splashin' Safari Pilgrims Plunge

Owner: Holiday World & Splashin' Safari Koch Development Corporation

Standing 165 feet tall with a drop of 131 feet, Pilgrims Plunge is the tallest “shoot the chute” water ride in the world. The first-of-its-kind vertical lift tower elevates the boat and riders to the top of the flume, before plunging down a 45-degree chute into the splash pool, reaching speeds of 50 miles per hour. Constructing this towering attraction required close coordination between Holiday World, the Swiss ride manufacturer, and the design team led by Midwestern Engineers and American Structurepoint. This project included site design of the area surrounding the ride. Team members worked together to achieve the fast-track schedule in order to unveil this highly publicized ride on the park’s opening day.



Firm: RQAW Corporation

Project: Kalamazoo County Juvenile Home

Owner: Kalamazoo County Building Authority

Kalamazoo County, Michigan was faced with an outdated, inefficient Juvenile Home that was built in the early 1900s. The existing facility could no longer meet their current mission and support the resident programs and operational philosophy.

The site for the new Juvenile Home was constructed between the existing Juvenile Home and the Family Courts Facility and down a 37-foot drop in elevation behind these two buildings. During construction, the existing facilities remained in operation at all times.

The Kalamazoo County Juvenile Home provides a normative, inspiring environment for the treatment of today’s troubled youth. The facility incorporates secure interior courtyards, allowing large amounts of natural light into facility. Daylight harvesting areas were provided with digital controls of artificial lighting thereby reducing energy costs.



Merit Awards

Firm: Biagi, Chance, Cummins, London, Titzer, Inc.

Project: Lincoln Heritage Public Library- Chrisney Branch

Owner: Lincoln Heritage Public Library

The “NetZero” Energy Library project was awarded a National Association of Development Organization’s Innovation Award in the Environmental category. The project also received an award from the Indiana Association of Cities and Towns for community efforts in building the environmentally-friendly project.

Ground geothermal energy is used to satisfy 100 percent of the cooling and heating demand of the Library. Photovoltaic panels collect solar energy and provide electric power for the Library. Excess electrical energy is fed into the public utility’s electric grid system. To date, excess energy has been produced and the Library has a ‘credit’ on its electric bill.

The Lincoln Heritage Public Library, Chrisney Branch, is not only a sustainable facility, but one that offers an excellent educational setting for a greater environment tomorrow.



Firm: Greeley and Hansen

Project: Mishawaka Utilities Wastewater Treatment Plant Upgrade

Owner: City of Mishawaka

A major upgrade and expansion of the Mishawaka, Indiana, wastewater treatment plant achieved multiple goals for this rapidly growing community. The upgrade, designed by Greeley and Hansen, included forward-thinking applications of advanced technologies that provide sustainable solutions for the future.



Increasing the plant treatment capacity from 12 to 20 million gallons per day (mgd), while also meeting the equally important goal of reducing combined sewer overflows (CSOs), provides flexibility to meet future, potentially more stringent permitting requirements. Community involvement throughout the upgrade resulted in a quality project that serves as a model of “good neighbor” design.

Merit Awards

Firms: Malcolm Pirnie, Midwestern Engineers

Project: Patoka Lake Taste & Odor Bench Scale Testing

Owner: Patoka Lake Regional Water & Sewer District

When the District decided to expand their water treatment plants, they faced a major problem – customer complaints about taste and odor (T&O) in drinking water, reflecting seasonal occurrences of algae-produced compound MIB in the water supply. To identify the most cost effective T&O removal technology that would yield water quality improvements perceptible to consumers, the project team conducted bench-scale testing and a detailed cost analysis of these advanced technologies: ultraviolet light advanced oxidation process (UV/AOP); ozone, with and without hydrogen peroxide; carbon-based technologies (PAC and GAC); combinations of these technologies.

The UV/AOP technology proved highly efficient at removing T&O compounds while simultaneously providing an additional microbial barrier to emerging contaminants, helping the District meet upcoming drinking water regulations.



Firm: Crawford, Murphy & Tilly

Project: U.S. 40 Road Rehabilitation

Owner: Indiana Department of Transportation

Crawford, Murphy & Tilly (CMT) worked with the Indiana Department of Transportation - along with the cities of Dublin, Mt. Auburn and Cambridge City - to rehabilitate a four-mile stretch of U.S. 40. The project corridor included diverse and rotating topography that provided unique challenges with respect to hydraulic modeling and analysis. In order to better characterize and analyze the drainage, CMT employed a hybrid approach using multiple modeling applications. The roadway design also incorporated streetscape features requested by stakeholders to provide a context-sensitive solution that ensures the integrity of this section of the historic National Road. Throughout the project CMT, worked with INDOT to ensure that the final construction project would adhere to funding limitations.

