# ACEC Missouri

## 2023 Engineering Excellence Awards

## Grand Conceptor Award

### TranSystems, Kansas City

*PROJECT TITLE:*

**Merchants Bridge Main Span Trusses & East Approach Replacement**

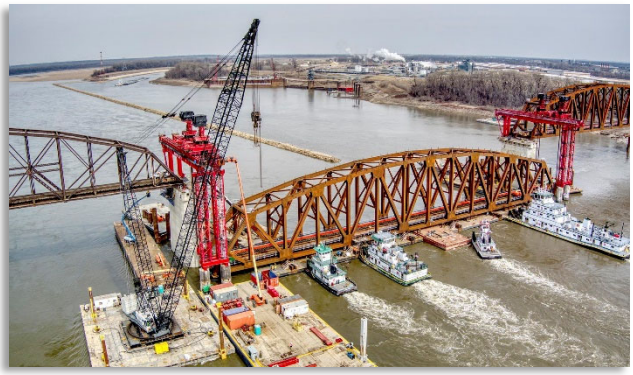
*CLIENT/OWNER:*

**Terminal Railroad Association of St. Louis**

Merchants Bridge – the second oldest bridge over the Mississippi River in the St. Louis region – had exceeded its design life. The main span truss members were built in 1890 and the girders and floor beams ranged in age from 116 to 132 years old. As a result, one of the nation's primary east-west rail corridors was operating under a variety of speed, clearance, and load restrictions. Crossings were limited to one six axle locomotive on a span at a time, train speeds were limited to 20 miles per hour, and the 12-foot spacing of the lines also restricted the number, type and weight of trains permitted to cross. The bridge was down to an average of 38 train crossings per day, and the operational limitations resulted in increased costs for the owner, Terminal Railroad Association of St. Louis (TRRA), as well as for the six Class I freight railroads that relied on the crossing. To bring the bridge back to an acceptable level of service, TranSystems led the design for reconstruction of the Merchants Bridge, providing engineering for components of the main span trusses, deck plate girder approaches and the east approach trestle encasement. The three main aspects included the removal and replacement of the three 520-foot river-span through trusses, seismically retrofitting the four existing river piers, and significantly improving the east approach.

Key aspects of the change-out included (1) strengthening of the existing truss chords for removal, (2) strengthening the existing piers, (3) placement of the gantry system for lifting and sliding the spans and (4) barge stability and maneuverability in the river while positioning the truss under the gantry system. Replacing each of the trusses had to happen within its designated 10-day track outage – and within two tightly focused, highly-coordinated 24-hour - navigation channel outages, the first one so workers could remove the old truss and the second to install the new one.

The four existing river piers were strengthened to address increased issues and to meet standards guarding the structure against Level-2 seismic events (as defined by the American Railway Engineering and Maintenance-of-Way Association) and vessel collisions (as defined by the American Association of State Highway and Transportation Officials). To meet these standards, the piers were encased in a three-foot minimum layer of new concrete supported on a new footing with micropiles. Dowel bars were drilled into the masonry to aid in the transfer of shear forces from the new concrete to existing stone.



The east approach steel girder trestle spans were encased by constructing culverts in between the steel towers to allow river water to move from one side to the other during high water events. Both the culverts and steel trestles were encased with lightweight cellular concrete using MSE walls to contain the new fill. This solution eliminates many of the maintenance issues seen in aging elevated steel structures. The existing

deck plate girder spans directly adjacent to the main river spans on each approach were lowered and widened to provide 15-foot track centers (an improvement over the previous 12-foot track centers) and, also for using ballasted steel decks. A major part of this project was shifting from an open-deck structure, where the track rails rested directly on ties and the ties rested directly on the beam, to a ballasted deck structure in which the ties rest on eight to 12 inches of ballast – rock aggregate – placed in new plate deck pans which rest on the beams. When it comes to environmental clearance documentation and approvals not many projects compare to this historic bi-state major river crossing. TranSystems provided the required environmental clearances (NEPA approvals) by serving as a liaison with the federal agencies – primarily the Federal Railroad Administration (FRA), U.S. Coast Guard (USCG), U.S. Army Corps of Engineers (USACE), and Federal Emergency Management (FEMA), and facilitating bi-state coordination with Missouri and Illinois state agencies and municipalities. In addition, TranSystems obtained the associated permitting for project implementation and provided compliance support throughout construction.

# Grand Awards

## Burns & McDonnell, Kansas City

*PROJECT TITLE:*

**South/Central Terminal Baggage Handling Program**

*CLIENT/OWNER:*

**Miami-Dade Aviation Department**

To facilitate growth and respond to increasing passenger volumes, MDAD planned major baggage handling and inspection optimization efforts that would respond to system inefficiencies. In 2013, the TSA provided MDAD $101 million of the $235 million construction budget of the proposed program. With funding granted, MDAD hired Burns & McDonnell to provide comprehensive A-E design and construction administration services.

In 2015, our team began designing the three critical components that would provide MIA with innovative baggage handling system efficiencies and improved passenger experiences. Design was completed in June 2016, and MDAD hired the Parson/Odebrecht Joint-Venture CMAR in 2016. Burns & McDonnell provided permitting, CMAR on-boarding, and full construction work package development, which allowed construction to begin in June 2017. Burns & McDonnell's efficient design and construction phasing provided the improvements MDAD needed by August 2019 when TSA staff began occupying the new spaces.

MDAD had identified that a 70,000 SF, three-story CBIS/CBRA terminal expansion was the first key component to achieving operational efficiencies. Burns & McDonnell's design team considered all of the dedicated space requirements. Baggage screening and checked bag resolution were key components. Due to site constraints, Burns & McDonnell provided innovative and sustainable solutions to relocate utilities in way that maximized the efficiency of the BHS rights-of-way within the renovated spaces. At completion, the CBIS/CBRA building was certified LEED Gold by the USBGC.

The second component was the replacement of the security screening space within the South Terminal BHS. The existing security screening system was demolished, and its functions replaced within the new CBIS/CBRA facility. The existing screening control room was demolished, and its functions were combined into a new control room within the newly renovated South Terminal.

The final component was the replacement of the Central Terminal's screening systems. Burns & McDonnell designed a new automated sortation system connected to the new operations within the CBIS/CBRA building. The improvements to these critical system components were spread over 400,000 SF of the airport. The completed system introduces baggage within the South and Central Terminals through over 300 ticket counter locations, conveyed by approximately nine miles of new or reconditioned conveyors, screened at a centralized location, and then conveyed to a combination of sort piers and carousels.

All three components of the South/Central Terminal Baggage Handling Program were substantially completed on the scheduled completion date of June 15, 2021. Additionally, the actual construction budget met the alloted $235 million construction budget.

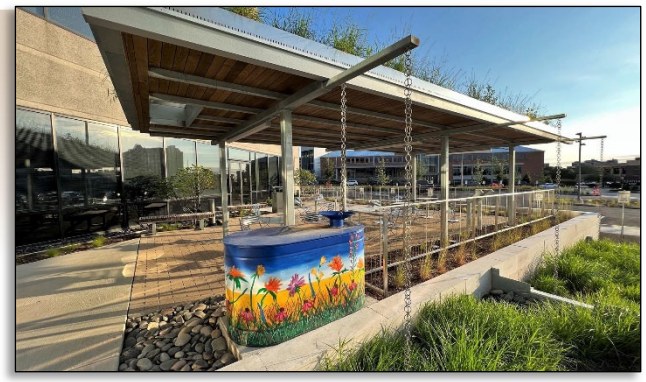
## EFK Moen, LLC, Ballwin

*PROJECT TITLE:*

**MSD HQ Sustainable Entrance Improvements**

*CLIENT/OWNER:*

**Metropolitan St. Louis Sewer District**



The Metropolitan St. Louis Sewer District (MSD) constructed major improvements to their Headquarters Office on Market Street in downtown St. Louis. MSD had multiple goals to improve their campus, with improved stormwater management, green infrastructure education, and ADA (Americans with Disabilities Act) compliant access. The design team was ultimately able to transform the site by using sound green infrastructure principles and applications, while stimulating public interest and education.

Construction on this rehabilitation project included enhancements to the front and rear entrances of the building, improved accessibility and pedestrian access from the adjacent streets and parking lots, additional green infrastructure for stormwater runoff reduction & treatment, new educational opportunities for the public, and new amenities for District staff.

The design was led by EFK♦Moen and DTLS. EFK♦Moen was responsible for the civil engineering effort and DTLS headed the landscape architecture work. Construction was performed by Kozeny-Wagner with construction management services performed by KAI Enterprises. The design team created an O&M manual to provide MSD with guidance on routine maintenance to ensure the facilities continue to function properly and maintain their beautiful appearance for years to come.

## Horner & Shifrin, Inc., O'Fallon

*PROJECT TITLE:*

**Oglesby Park**

*CLIENT/OWNER:*

**St. Charles County Parks & Recreation**

Horner & Shifrin, along with teaming partners Planning Design Studio and Shannon & Wilson, provided engineering design, surveying, and planning services for the development of a 199-acre park in St. Charles County, Missouri within a nearly unattainable project schedule. The previously undeveloped site would come to include a new park entrance, five parking areas, a destination playground, three pavilions, four composting restroom facilities, a reconstructed 8-acre lake and outfall, two fishing ponds, and approximately 3 miles of walking trails within approximately 100 acres of the park, named Oglesby Park by the St. Charles County Parks Department after the onetime owner of the property and former slave, Benjamin Oglesby.

When selected to lead the project in February 2022, the design team faced a tall order from the St. Charles County Parks Department: design the facilities with adequate time for bidding and construction, so the park could open in July 2022. Because the project schedule was the most important factor in the project, the H&S team provided innovative solutions for scheduling and bidding to allow more time for the contractor and discussed modifications to the project scope to minimize permitting delays. H&S sent out bid documents exactly one month following the initial site visit, and three weeks later submitting permit sets.

The contractor, Kuesel Excavating, overcame weather and construction challenges, and substantial completion occurred prior to the grand opening celebration on Saturday, July 30, 2022. The project came in under budget and ahead of schedule for both engineering and construction.

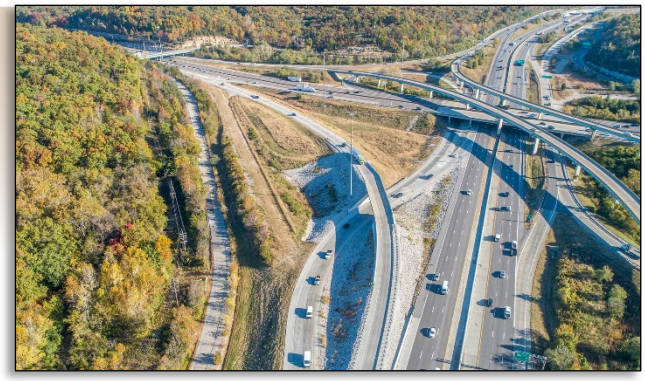
## Jacobs Engineering Group Inc., St. Louis

*PROJECT TITLE:*

**I-44 Over Meramec River and I-270 Interchange Improvements**

*CLIENT/OWNER:*

**Missouri Department of Transportation**



The I-44 Over the Meramec River and I-270 Interchange Improvements Project is worthy of special recognition due to the spectacular end result after the design challenges, construction hurdles, and engineering innovations that occurred during the project's life cycle. In addition to the inherent challenges of bridge replacements, the project required careful design and planning due to its heavy commuter traffic and function as a busy freight route. Late changes to design flows along the Meramec River forced a redesign, including developing an updated model resulting in roadway profile and bridge configuration changes. Our discovery of inconsistent soils throughout the project bounds required an innovative technical solution to stay within budget and schedule.

Finally, public comments resulted in a late scope change to add the multi-use bridge and path. Despite all of these challenges, strong teamwork and collaboration between Jacobs, MoDOT, and stakeholders resulted in a project that provides social, economic, and sustainable benefits to the local community while solving pressing challenges. The project's end result removed a major traffic bottleneck, increased traffic flow, created a safe bicycle and pedestrian river crossing, and eliminated the traffic disruptions due to frequent river bridge emergency repairs. Our team's innovative engineering and unique design provided a solution with substantial positive social impact that was delivered ahead of schedule despite flooding during construction and $13 million below the programmed amount.

The substantial construction was completed 100 days ahead of schedule with more than 227,000 hours worked with no lost time injuries.

## Walter P Moore and Associates, Inc., Kansas City

*PROJECT TITLE:*

**GEODIS Park**

*CLIENT/OWNER:*

**Nashville SC/Walsh Management, LLC**

GEODIS Park is the new home of Major League Soccer's (MLS) Nashville SC and is the largest purpose-built soccer stadium in the United States and Canada. Designed to capture the distinct architectural character of Nashville, the 30,000-seat stadium anchors a renewal of the city's historic but underutilized Nashville Fairgrounds, a well-loved destination known for its 50-year-old flea market, short-track speedway, and municipal fairs. GEODIS Park is the catalyst for investments of over $500 million in the historic, underserved neighborhood.

To express the Nashville architectural motif and the city's industrial roots, the stadium features carefully crafted exposed steel, timber, and brick throughout. Fans are welcomed by seven distinctive mass timber entry canopies—innovatively built of dowel laminated timber—that span 30 feet between steel support frames. This sleek, blended structural system echoes the industrial architecture prevalent throughout Nashville while improving sustainability and reducing overall construction costs.

To deliver this project on budget and on an accelerated schedule, the structural engineer utilized a proprietary integrated delivery process called ConnecTID,"Transformative Integrated Design for Buildings," that tightly integrated structural steel design detailing with connection design to develop high-fidelity fabrication-ready digital deliverables. ConnecTID provided tighter and more accurate steel bids, improved overall coordination, and greatly reduced the dollar amount of steel change orders that plague traditionally delivered accelerated steel projects. As a

result, the steel was erected four weeks ahead of schedule, enabling the stadium to open seven weeks earlier than anticipated.

Today, GEODIS Park provides a distinctly Nashville home field for the loyal and growing MLS fanbase and is rejuvenating the historic Nashville Fairground, benefitting the entire neighborhood. The innovative and client-responsive structural engineering of GEODIS Park exemplifies engineering excellence in a very visible way, meeting all client needs and creating a new asset for the city of Nashville.

# Honor Awards

## ABNA Engineering, Inc., St. Louis

*PROJECT TITLE:*
**Ameren Access Bridge Structure**

*CLIENT/OWNER:*
**Ameren Missouri**

Ameren Missouri required the renovation of one of its bridges that is pivotal to one of their critical facility's day-to-day operations. ABNA provided engineering design and construction management services to help Ameren update and repair this structure. The 580-footlong bridge required a full concrete deck slab replacement without the interruption of access to the connected facility. ABNA's design solution utilized Accelerated Bridge Construction (ABC) techniques that resolved this challenge.

The utilization of Full Depth Precast Concrete Panels placed over two construction stages allowed for continuous usage of the bridge. This technique provided Ameren the possibility of using the full width of the bridge at any time in case of emergency. ABNA coordinated with multiple Ameren departments including operations, engineering and security. Moreover, ABNA's coordination with the contractor during the entire construction period resulted in project delivery being on schedule and within budget, to the delight of Ameren and the daily bridge users.

Working through these challenges to achieve greater project efficiencies helped our team to provide the most effective communication. This presented an opportunity to incorporate pioneering design processes. This project provides Ameren with economic benefits, and its end-users (Ameren Staff) with an array of safety benefits. This project generated sparks for continued creative thinking, innovative engineering and technology to improve infrastructure used in business practices.

## Bartlett & West, Inc., Jefferson City

*PROJECT TITLE:*
**Bicentennial Bridge to Adrian's Island**

*CLIENT/OWNER:*
**City of Jefferson City, Missouri**

The Bicentennial Bridge to Adrian‘s Island is an achievement that residents in Jefferson City have been dreaming about since the 1960s. Adrian‘s Island, technically a peninsula, is a piece of land that was from river deposition due to wing dikes built by the U.S. Army Corps of Engineers along the Missouri River. The Union Pacific Railroad and a wetland area that parallels the railroad separated the 30-acre potential park land from the rest of Jefferson City.

For many years, plans to access Adrian‘s island had been discussed, but the ideas had always fallen short due to funding or opposition from the Union Pacific Railroad based on impacts on their rail traffic. In recent years, funding from a private donor reinvigorated the desire to build a crossing and have a park on the island. Bartlett & West, the

Jefferson City Area Chamber of Commerce, Jefferson City and other key stakeholders were engaged to help make this dream a reality.

The Bartlett & West team was engaged to evaluate multiple concepts and locations to create a connection from Jefferson City across the railroad to the island. After collaborating with the stakeholders, it became clear that the best option was to construct a bridge that started on the state capitol grounds and connected to the island.

With a concept in hand, the Bicentennial Bridge Committee, which included the Chamber, Bartlett & West and key stakeholders, was formed and began raising private donations to fund the chosen concept. Additional enhancements to the project, such as decorative display panels, a veteran's memorial, signage and a brick plaza were included in the design to promote donors and increase the committee's ability to raise funds.

After many years of planning and five years of dedication by the fundraising committee, the city and the design team, the bridge was finally opened in December 2021. The bridge is a 771-foot-long curved pedestrian structure. The bridge is 12 feet wide and supported by a steel girder superstructure and drilled shaft substructure units. The project also included enhancements on the state capitol grounds to create an entry to the bridge and construct a Goldstar Families Monument. On the island, the project included the construction of a park with site grading, trails, life-sized bicentennial-themed chess board, a hammock garden, restrooms, a pavilion and general park amenities.

Bartlett & West was the prime consultant for the project and carried the design from initial concepts through final plans and construction support. Services by Bartlett & West included field survey, structural design, trail design, landscape architecture, 3D renderings, permitting, project management and fundraising support.

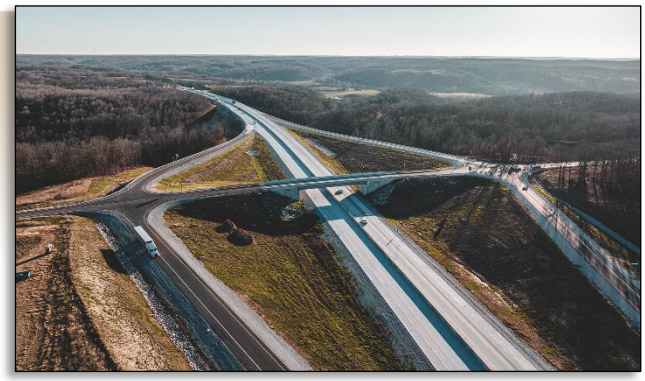
## Bartlett & West, Inc., Jefferson City

*PROJECT TITLE:*

**I-49 Missouri-Arkansas Connector (Bella Vista Bypass)**

*CLIENT/OWNER:*

**Missouri Department of Transportation**



In September 2019, MoDOT advertised the Bella Vista Bypass project in rural McDonald County, Missouri, to construction contractors providing the opportunity to engage in the discussion of ATCs. This was an attempt to not only lower the project cost but expedite the project construction due to political and funding commitments. Construction contractor ESS, known for their innovation and ability to deliver complex projects, approached like-minded Bartlett & West to provide design engineering services and assist them with the ATC process and negotiations.

The project needed to be trimmed to fit the restrictive budget and still be delivered in 18 months, due to the importance of finishing this segment which connected to the Arkansas segment at the State line. Through the ATC process, the Bartlett & West/ESS team was able to find over $6 million in savings and assisted ESS with winning the low bid for the project.

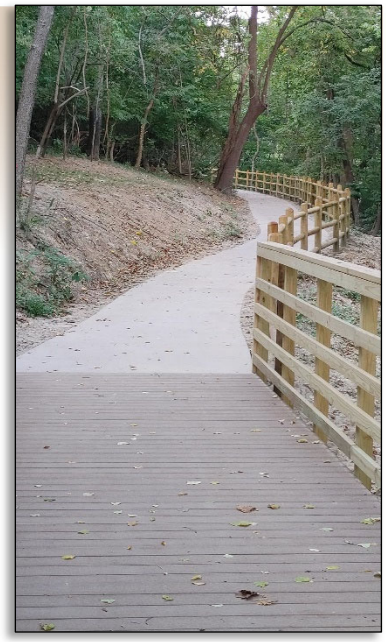
Bartlett & West went to work immediately after notification of the low bid to provide construction plans and specifications to ESS and their subcontractors. Bartlett & West delivered the complete redesigned set of construction plans in approximately four months. Several value engineering proposals totaling over $650,000 were discovered and approved during construction and subsequently incorporated into the design. One of these included the full redesign of the Route 90 Interchange Bridge from a two-span to a single-span structure significantly reducing construction time. Another reduced median storm drainage culvert by several thousand feet saving nearly $250,000.

The project was a great success, and the facility was opened to traffic on September 30, 2021, meeting all political commitments and requirements of the grant funding. The ribbon-cutting ceremony included Governors from both Missouri and Arkansas, all members of both Highway Commissions, and numerous State and Local politicians. The large turnout emphasized the importance of the project to surrounding communities and the States of Missouri and Arkansas. For MoDOT, the project provided valuable experience in how to successfully coordinate and deliver a project of this magnitude in a cost-effective and timely manner, while using creative thinking resources from private sector forces.

## CFS Engineers, Kansas City

*PROJECT TITLE:*
**Briarcliff Greenway Trail**

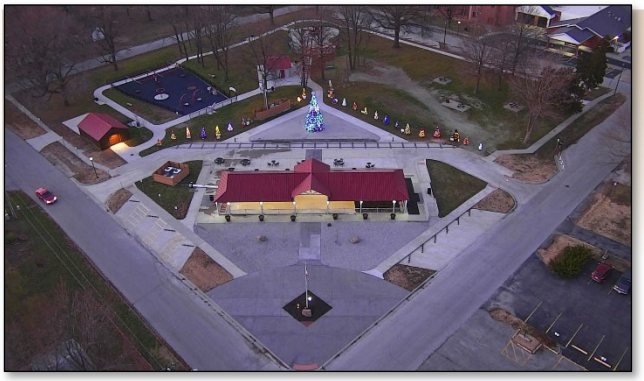
*CLIENT/OWNER:*
**City of Kansas City, Missouri Parks & Recreation**



Briarcliff Greenway Trail provides Northland Kansas City residents and visitors the opportunity to enjoy nature and the local environment while taking advantage of extensive recreational and fitness activities. CFS Engineers and MegaKC completed a design-build project for a half-mile section of the trail between NW 40th and NW 37th Streets that presented specific engineering and construction challenges.

The vital trail segment, encompassing both concrete pathway and wooden boardwalk, traversed more than 60 feet of vertical grade change and required navigating three ravines and one low-lying area. ADA compliance was critical in design and construction, as well as greenway conservation and preservation of the native landscape. With a contract value of $899,999, the project kicked off when ground was broken in March 2021, and the project was substantially complete in July 2021.

This linear approach was not only a new approach to trail design and construction for the Parks Department, it was also a project with numerous requirements and challenges. The CFS/MegaKC Design-Build teams “Preserve Nature” approach led to incredible success of this ADA compliant nature trail. The trail provides educational experiences for children, access to nature for everyone and multiple exercise opportunities that will be enjoyed by citizens of Kansas City for many generations to come.



## CFS Engineers, Kansas City

*PROJECT TITLE:*
**T.B. Hanna Station**

*CLIENT/OWNER:*
**City of Raymore, Missouri Parks & Recreation**

T.B. Hanna Station is a three-acre train-themed park that has transformed into one of Raymore’s greatest accomplishments. The transformation of Raymore’s Original Town continues to follow the plans set forth in the Original Town Master Plan and T.B. Hanna Station’s transformation into a historical park fits perfectly. In cooperation with CFS Engineers, a master plan was designed to maintain the character of Original Town
Raymore and the former train depot while reviving the underutilized space in the heart of the community.

Featuring the Variety KC Inclusive Playground and Inclusive Sprayground, T.B. Hanna Station is the first park in the United States with two universally accessible play spaces in the same location that are designed and built for people of all abilities. In addition, T.B. Hanna Station is the first park in the state to feature a sprayground specifically designed for people of all abilities. Providing access for individuals using wheelchair /mobility devices through the entire play space.

Both the playground and sprayground have ornamental fencing that wraps around the area of play. It is important for parents and caregivers to have a sense of protection during play. Specifically, “runners” are able to be kept safe which is an important aspect to all-inclusive design. Since the build out of the park, the project has been extremely successful as the residents continue to share enthusiasm for the park and all of its features and versatility throughout the year. The park allows residents to use the park in various capacities throughout the seasons.

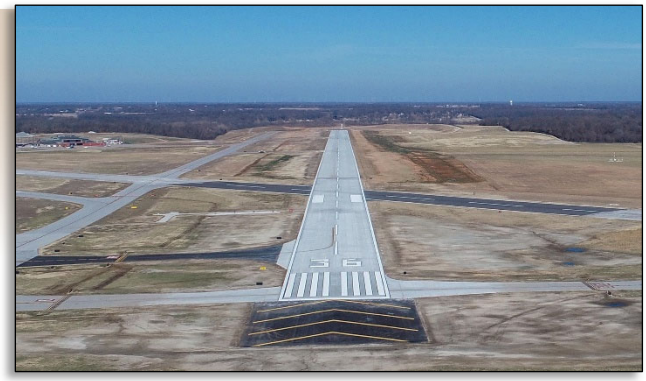
## Crawford, Murphy & Tilly, Inc., St. Louis

*PROJECT TITLE:*

**Joplin Regional Airport Runway 18/36 Reconstruction**

*CLIENT/OWNER:*

**City of Joplin, MO**



The Joplin Regional Airport Runway 18/36 Reconstruction project is a case study for engineers can serve their clients beyond providing sound design plans. Since 2000, CMT has partnered with the city in enhancing the airport through planning, design, and construction services. Having observed first-hand the airport's importance to the community and the city's investment in its future, the project team was committed to doing everything in its power to execute this project to the highest degree and with the minimal amount of impact to its many stakeholders.

This project included full reconstruction through the Runway 18-36/13-31 intersection, which was phased over an accelerated nine-day/10-night construction phase that closed the entire airport. CMT worked with the FAA Central Region to streamline the typical section to facilitate this faster construction schedule, that would have typically taken up to two months. Work included removal of the existing 24-inch asphalt/aggregate/PCC sandwich pavement and replacement with 18 in. of PCC pavement on 6 inches of P-209 crushed aggregate base, on 24 in. of a modified P-219 sub base. The previous Runway 18-36 profile had numerous criteria deficiencies that were corrected, including re-configuring the grades in the runway/runway intersection to favor 18-36 as the primary runway and the elimination of vertical curves in the
last quarter of the runway.

Successfully executing the construction of the runway intersection in just 10 days was a lofty goal, but achieving it was imperative for maintaining the airport's strong position in providing commercial air service to the region. The engineers also employed their fiscal ingenuity into getting the $12.3 M project fully funded and promoting a competitive bidding environment.

## Crawford, Murphy & Tilly, Inc., Springfield

*PROJECT TITLE:*

**Route 160 Safety & Capacity Improvements**

*CLIENT/OWNER:*

**Missouri Department of Transportation**

The Route 160 project included capacity and safety improvements along 6-miles of Route 160 mainline by widening the existing 2-lane highway to a 4-lane divided section, facilitating pedestrian-friendly access to the Frisco Highline Trail, and introduced innovative intersection geometric designs to significantly improve safety. A "turbo" multi-lane roundabout was designed for two intersections in the higher speed rural section of the corridor, pioneering the first use of this intersection design in Missouri.

As a first-of-its-kind design in Missouri, the multi-lane turbo roundabouts were designed to account for high approach speeds by providing multi-stage curvature and extended splitter islands to reduce speeds, extended exterior curbs to improve headlight reflectance and curve recognition, and "bail-out" areas to provide inattentive drivers a safer place to come to a stop in a wide flat grass area outside of the roadway. This type of roundabout is not widely used in the United States but has seen immense success in Europe and required many design translations to meet U.S. roadway design standards. The westernmost roundabout serves as a main access point to the City of Willard and the local high school. Special consideration was given to this roundabout to simplify the

design to tailor to newer drivers, improve intersection capacity, and provide safer intersection geometrics while accommodating access for existing and future development within the corridor.

The project team partnered with Missouri University of Science & Technology to facilitate a driving simulation research project to better understand the impacts of the new design and quantify how drivers would respond. Extensive public engagement efforts were put forth to earn valuable community and stakeholder buy-in. The project ultimately achieved the client's goals of delivering improved safety and reliability, while addressing local issues.

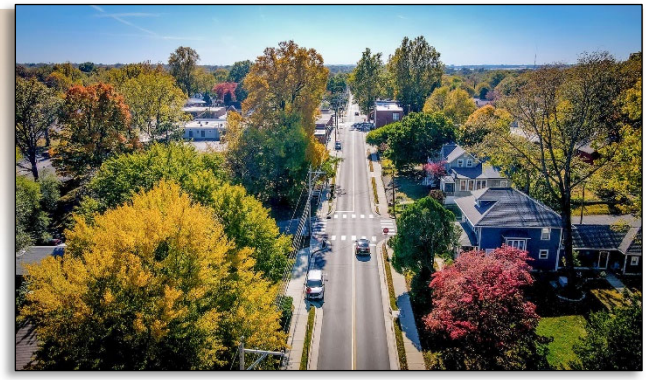
## Lochmueller Group, Inc., St. Louis

*PROJECT TITLE:*

**North Lafayette Street Reconstruction for the City of Florissant**

*CLIENT/OWNER:*

**City of Florissant**



The improvements involved 3,000 feet of roadway improvements in the historic downtown district. The scope of work included roadway resurfacing, new curb-and-gutter, new storm sewer system and stormwater BMPs, ADA-compliant curb ramps and sidewalks, decorative paver accents, improved access management in the commercial segments, and utility relocations. Due to the existing historic district and relatively narrow right-of-way, the design required careful consideration of the impacts to the adjacent parcels including design of retaining walls to reduce construction limits. Extensive coordination with property owners was performed to minimize impacts and obtain a final product that meets the needs of the citizens and visitors while maintaining the character of the area.

During the right-of-way acquisition phase, Lochmueller right-of-way and design staff met with each property owner to explain the scope of the project and address any concerns or questions they had prior to signing the acquisition documents. All parcels were acquired through negotiations without the need to file condemnation proceedings. The project was successfully bid under the allocated grant funding amount.

This project's success was significant enough to warrant being featured in an exclusive video interview by the Mayor of Florissant, Timothy Lowery, with Scott J. Smith, PE, Lochmueller's Missouri Regional Leader. The interview took place onsite at the corner of St. Francois Street and North Lafayette Street, one of the several new intersections the project successfully constructed.

Overall, the project's success comes down to the following: exceeding the City's goals of improving over 3,000 feet of roadway and several intersections while retaining its historic downtown aesthetic, fixing storm drainage issues, revitalizing the district to benefit local businesses, meeting the project's deadlines, and saving the City $133,774 by ensuring the final design would go into bidding at a time when contractors bid more competitively.

## Oates Associates, Inc., St. Louis

*PROJECT TITLE:*

**Lake Saint Louis Boulevard Roundabout**

*CLIENT/OWNER:*

**City of Lake St. Louis, Missouri**

A successful roundabout study completed in 2016 by Oates Associates and MTJ Engineering led to the continuation of designing a modern roundabout in the City of Lake Saint Louis. Converting a closely spaced traffic intersection to a single 6-legged roundabout fulfilled the City's goal of significantly reducing traffic and congestion while avoiding impacts on local businesses and enhancing the overall aesthetic in the area.

What makes this project stand out is our commitment to delivering the City and public's vision to this major improvement. Having a close relationship with the City and receiving informational feedback from the public set the foundation for designing a functional and visually appealing roundabout.

With safety being a high priority during the project, our team ensured that the roundabout would be constructed in a manner that avoided traffic disruptions to maintain efficiency during the projects process. Another aspect that made this project successful was the collaboration with experts to create an operational roundabout. Using a group effort ensured the project would be completed efficiently from the roundabout study to the construction phase.
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