

FIRM PROFILE

ABOUT US

-  Founded in **1966** in Kansas City, Missouri
-  More than **1,500 employees**
-  More than **50 offices**, including Kansas City and St. Louis
-  **Dedicated** to the entire life cycle of transportation and infrastructure by providing a full set of services

TranSystems 2022 **ENR** Rankings

#77	Top 500 Design Firm
#18	Transportation
#9	Top Bridge Design
#23	Top Highway Design
#23	Top Mass Transit & Rail Design

CLIENTS INCLUDE

- 37 State Departments of Transportation, 15 toll agencies and 250 municipalities
- 30 ports, airports and marine authorities
- 6 Class I Railroads and 74 passenger rail and transit agencies and divisions
- 10 Federal agencies including FHWA, FRA, NAVFAC and USACE



CELEBRATING OVER 56 YEARS OF SERVICE

In 1966, Herbert Johnson, Gerald Brickell, and Edward Mulcahy formed JBM Associates Engineers and Planners as traffic experts to help Missouri communities adapt to its growing transportation demands. 27 years ago we re-branded the firm under the name of TranSystems. This name change was done to underscore our focus as a firm on transportation. By having all of our focus on transportation – we do it better.

Since then, TranSystems has expanded to offer transportation services encompassing the entire multi-modal range, from roadway networks and passenger rail expansion to freight rail intermodal facilities and airport connections. This growth can be largely attributed to the outstanding engineering and planning services TranSystems has provided to Missouri communities, MoDOT and Midwest departments of transportations.

Today, TranSystems is a full service multi-modal transportation consultant comprised of nearly 1,500 professionals in 50 offices across the nation. After 56 years of service, we are still proud to say our company is – and always has been – based in Missouri.

DIVERSITY, EQUITY & INCLUSION

We believe to be our best, we need to represent the communities we serve to provide the best, most innovative work. Our Diversity Action Council is a focused team aimed at helping us improve the ways in which we recruit, retain and develop minority and female staff members in a multitude of ways. Supported by the entire firm, these efforts strive to do what's both best for business and what's best for our people.

INSURANCE

We are committed to maintaining the insurance requirements as stated on page 7 of the RFP.

QUALITY

At TranSystems, we have established and continue to nurture a culture that is committed to providing quality services for our clients. Through the services we provide, we are directly contributing to the success of our clients. We also recognize that providing quality services is essential to TranSystems' reputation and our success as a company. We develop a tailored quality plan for every project. We have not had a major change order caused by a TranSystems plan error in the last 20 years.



SAFETY

We are committed to performing all services in a manner that is both safe and in compliance with all applicable regulatory and client requirements. Through our commitment to Safety First – Excellence Every Day, we affirm to all our employees, clients, and the public, that we will continuously improve our practices in light of advances in technology and new understandings in safety, health and environmental science. All field staff are OSHA 30 trained and office staff are OSHA 10 trained.



RELATIONSHIPS

TranSystems has developed many deep relationships with the communities, government agencies and transportation stakeholders in Missouri. Our relationships with key individuals and our knowledge of transportation organizations in Missouri will help you reach your goals. For example, we have worked with every Class I railroad in Missouri as well as every environmental review agency in the state. Our 50 years of experience has taken us to every corner of Missouri and provided staff the opportunity to work with more than 100 communities. These relationships and knowledge are available for your on-call assignments.

SERVICES

TranSystems provides a wide range of transportation related services, including:

Bridge/Structural

- Highway and Rail Bridge Design
- Inspection
- Emergency Response
- Asset Management
- Construction Inspection
- Historic Bridges
- Movable Bridges
- Load Rating
- Hydraulic Studies



Construction Inspection and Materials Testing Services

- Daily Construction Observation and Documentation
- Constructability Reviews
- Review and Approval of Construction Submittals
- Material Inspection
- eConstruction
- Project Controls / Document Management
- Scheduling
- Cost Estimating and Cost Control
- Risk Mitigation/Claim Resolution
- Project Coordination including Utilities
- Project Close-Out and Post Design Services



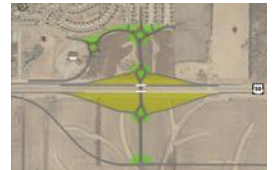
Environmental

- NEPA (National Environmental Policy Act)
- Environmental Document Preparation - EA/EIS
- Environmental Document Preparation - CE
- Environmental Document Preparation - Section 4(f)
- Ecological Surveys
- Endangered Species
- Stream and Wetland Mitigation
- Waterway Permits
- Air Quality Analyses
- Noise Analyses and Abatement Design
- Archaeological Investigations
- History/Architectural Investigations
- ESA Screening, Phase I and Phase II ESA
- ESA Remedial Design Land Use and Corridor Planning
- Archaeology and Cultural Resources Management
- Stream/Wetlands Delineation, Permitting and Mitigation Design
- Environmental Site Assessments and Remediation
- Federal Agency Coordination Including, FHWA, FAA, FTA and FRA
- Public Involvement and Project Visualization

Roadway

- General Roadway Engineering
- Freeways and Expressways
- Urban and Rural Arterials
- Low/high Volume Local Streets
- Interchange and Intersection

- Feasibility Studies and Design
- Modern Roundabout Feasibility Studies and Design
- Utility Accommodation and Coordination
- Traffic Calming Improvements
- Americans with Disabilities Act (ADA) Compliance and Audits
- Toll Road Facilities
- Drainage and Hydraulics
- Maintenance of Traffic
- Signing and Pavement Marking
- Noise Barrier Design
- Lighting Design
- Pedestrian and Bicycle Facilities



Traffic

- Arterial and Freeway Corridor Studies and Planning
- Safety Data Analysis
- Interchange and Intersection Concept Development and Studies
- Access Management Studies
- Transportation Plans
- Traffic Impact Studies
- Travel Demand and Simulation Modeling
- Road Safety Studies and Audits
- Traffic and Signaling Systems Planning and Design
- Highway Guide Signing
- Maintenance of Traffic Plans
- Roadway and Highway Lighting
- Parking Studies



PAST PERFORMANCE

I-35 and Hwy 152, Liberty, MO



Route 152 over I-35, Kansas Street, and Route 291 and Kansas Street are critical junctions for the City of Liberty. The project included a traffic study, preliminary and final design plans for the I-35 and Route 152 displaced left interchange, additional through lanes and turn lanes along Kansas Street and Route 291, pedestrian improvements along Kansas Street, and a new intersection at Kansas Street and Route 291. The project's goal was to accommodate development, improve traffic flow and safety, and reduce congestion. The project is in a highly developed commercial corridor that constrained the ability to add lanes to handle the growing traffic volumes as well as pedestrians and bicyclists.

TranSystems' team performed a detailed traffic projection and traffic modeling analysis and provided alternatives with cost estimates for improving the overall corridor traffic operations. TranSystems also modeled and compared several types of alternate interchanges. Due to the capacity constraints, high left-turn volumes, and elevated through volumes, a displaced-left was determined to be the best alternative - **the first of its type in the nation.**

Major components included the bridge replacement, construction of a second bridge, replacement of I-35 shoulders, widening/extending ramps, three additional through lanes along Kansas Street, a 10-foot-wide shared use path along the south side of 152/Kansas Street that ties Liberty to Shoal Creek, additional sidewalk along the north side of Kansas, multiple MSE and retaining walls, added turn lanes throughout intersections of Kansas Street (including upgrading all facilities for ADA compliance) and storm water and waterline improvements throughout the corridor.

The reconstructed interchange and roadway improvements **met the goal of reducing congestion, improving safety, and providing better traffic flow** for travelers.



I-35 and 19th Street, Kearney, MO

To handle growth in Clay County, TranSystems performed the design of a new DDI on I-35 and adjacent roadways in Kearney, MO. Services included a cultural resource survey and noise study for the proposed improvements. This project involved a Categorical Exclusion 2 (CE2) under direction of MoDOT Coordination with the Mo SHPO was integral in completing this fast tracked project and clearance was completed in Fall of 2019. The TranSystems team performed traffic analysis to determine the best interchange for this location, led the full design of the interchange and the preparation of construction plans.

TranSystems was responsible for design criteria, coordination with subconsultants for the collection of survey and right-of-way information and base mapping, roadway geometric design, 3D modeling, quantities, erosion control, right-of-way layouts, concrete joint layouts, guardrail & barrier design layout, plan preparation, construction cost estimate, utility coordination, sanitary sewer relocation design, coordination of roadway drainage design and cross road structures, bridge layouts, MSE wall design, attended public meeting, workday study. **This project included a new DDI interchange design and new roadway over I-35 along with two roundabout intersections at adjacent roadways.**



I-29 and Tiffany Springs Parkway, Kansas City, MO

To address growth in the I-29 (KCI) corridor, TranSystems was retained by MD Management to prepare design plans, specifications, and estimates for innovative and cost-effective improvements and to assist with the bidding of the project. The project included converting a diamond interchange into a DDI, ramp and outer roadway relocation, a split off ramp extending acceleration and deceleration lanes, and the relocation of water mains.

Final plans were turned in ahead of MoDOT's schedule.

Route 41 over the Lamine River, Cooper Couny, MO

TranSystems completed the design services for this bridge replacement project located approximately 1.5 miles north of I-70. The Route 41 bridge over the Lamine River was replaced with a three-span (148 feet, 152 feet, and 148 feet spans) NU-type prestressed concrete girder bridge. TranSystems services for MoDOT included the preparation of signed and sealed bridge plans, specials provisions and estimates, as well as a design layout complete with geotechnical recommendations.

The bridge details: Reinforced neoprene fixed and expansion bearings; Reinforced concrete, two column piers; Pile supported abutments with drilled shaft supported piers. **After letting MoDOT requested that a wider bridge deck be designed to accommodate farm equipment. TranSystems responded with a quick analysis and deck redesign.**



Big Bend Road over I-44, St. Louis, MO

TranSystems was selected by MoDOT's St Louis District to be the lead inspector for this complex bridge replacement project at the interchange of I-44 and Big Bend Road. The project included the replacement of an existing bridge due to it's age and deterioration and roadway approach improvements. The new bridge was a skewed two span structure using prestressed concrete beams, a center pier in the median and for the end bents steel "H" piles behind MSE walls. The approach roadways were raised to match the new bridge elevation and the new intersections with the ramps were made to be fully compliant with ADA regulations. Project challenges included traffic control on I-44 as well as the full closure of Big Bend Road for the bridge replacement, but not the interchange ramps.



Our full-time inspectors used MoDOT's version of AASHTOWare and reported to MoDOT's RE on a daily and weekly basis.

Turner Diagonal Interchange Design Build, Kansas City, KS

The previous interchange had large, winding on and off-ramps, was reconfigured into a Diverging Diamond Interchange (DDI). The improvements opened up 300 acres of previously unused land for economic development and job creation while providing better access to business and improving safety for motorists and pedestrians. The Turner Diagonal interchange sits at the country's crossroads - about a two-day drive from 85 percent of the US population and serves 65,000 vehicles per day.

In addition to these improvements, the project added a new shared-use-path and sidewalk from Riverview Avenue through the new DDI that connects to existing sidewalks at State Avenue. The project also addressed freight parking at the truck staging facilities west of the interchange.

The Turner Diagonal Project was awarded a federal BUILD grant for \$13 million, which made up 46 percent of the project funding. The remainder of the project costs were funded by commitments from UG, KDOT, and North Point Development.

Using a design-build approach streamlines project delivery through a single contract between the owner and the design-build team. Combining designer and contractor skills allowed for positive collaboration, which resulted in fast project delivery, more efficient use of materials, and lower labor costs. Ultimately, the **Turner Diagonal Interchange was reconfigured in six months**. This very aggressive schedule reduced the impact of closures on commuters, residents, and business.

