

TRANSPORTATION ACHIEVEMENT AWARD — TRAFFIC ENGINEERING

Missouri State Department of Transportation, Millstone Weber, Parsons, and CBB for the I-270 North Design-Build Project in St. Louis



ITE—A Community of Transportation Professionals is pleased to announce that the **Missouri Department of Transportation (MoDOT), Millstone Weber, Parsons, and CBB** have received a 2024 Transportation Achievement Award in the Traffic Engineering category for the **I-270 North Design-Build Project**, in St. Louis, MO, which significantly enhanced safety, mobility, and accessibility in

North St. Louis County. The [Transportation Achievement Awards](#) recognize excellence in the advancement of transportation to meet human needs, by entities concerned with transportation, such as governmental agencies, Tribes, legislative bodies, consulting firms, industry partners, and other organizations. Awards are presented in five categories: Complete Streets, TSMO, Safety, Planning, and Traffic Engineering.

Project Scope and Description. The I-270 North Design-Build Project is a comprehensive initiative aimed at improving the safety, reliability, and mobility of one of Missouri’s busiest interstates. With over 140,000 vehicles, including 18% heavy trucks, traveling this corridor daily, the project addresses critical issues such as aging infrastructure, congestion, and minimal accessibility for pedestrians and cyclists. The project’s scope included reconstructing and rehabilitating deteriorated pavement, bridges, and interchanges, improving traffic operations and safety, and enhancing accessibility for all users.

Application of Innovative Concepts. The project stands out for its innovative use of Intelligent Transportation Systems (ITS) and Transportation System Maintenance & Operations (TSMO). These technologies include full-color, full-matrix Dynamic Message System (DMS) boards, high-definition CCTV cameras, a Road Weather Information System (RWIS), freeway and arterial data collection devices, new traffic signals with Automated Traffic Signal Performance Measures (ATSPM), and an innovative Dynamic Trailblazer System. This system provides real-time traffic management capabilities, guiding drivers around incidents and improving overall traffic flow and safety.

Implementation of a Challenging Transportation Program. The I-270 North project faced numerous challenges, including the COVID-19 pandemic, which required the project team to adapt quickly to new protocols for virtual meetings and collaboration tools like Zoom, Teams, and Bluebeam. Despite these challenges, the project was completed on schedule by December 1, 2023. The project involved collaboration among various agencies and stakeholders, including local governments and Tribal Nations, ensuring a comprehensive and inclusive approach to transportation planning and implementation.

Significant Effect on Transportation. The project has had a transformative impact on the community by improving safety, reducing congestion, and enhancing accessibility. Key highlights include the elimination of crossover slip ramps, mitigation of bottlenecks through widening and innovative interchange designs, and the construction of a new 10-mile multi-use path for pedestrians and cyclists. Additionally, a new counterflow bus-only lane was introduced to improve transit operations, reducing Metro Transit’s operating costs significantly.

Multi-Faceted Transportation Program. The I-270 North project is a multi-faceted initiative that combines various innovative and well-applied concepts. It includes upgrades to existing infrastructure, the addition of new lanes, and enhancements to pedestrian and bicycle facilities. The project also focused on sustainable public transportation operations, providing a dedicated bus-only lane to ensure reliable transit service.

Promoting Major Advances in Efficiency and Economy. By leveraging advanced technology and intelligent design, the project has achieved significant cost savings and improved efficiency. The Dynamic Trailblazer System and other ITS elements have enhanced MoDOT’s traffic incident management capabilities, reducing delays and improving mobility. Additionally, the project has fostered economic growth by improving access to opportunities and enhancing the quality of life for residents and visitors in North St. Louis County.

Community Impact and Workforce Development. One of the standout features of the I-270 North project is Project PAVE (Providing Avenues for Vocational Experience), a program designed to mentor and expose local high school students to careers in transportation, engineering, and construction. This program has inspired students to pursue STEM-based careers, providing them with valuable skills and opportunities. Project PAVE has engaged over 100 students, offering internships, scholarships, and hands-on experience in the field. The program’s success was recognized with a National Diversity Excellence Award by the Associated General Contractors of America in 2022.

Missouri Governor Mike Parson praised the project, stating, “The completion of I-270 North means better roads and bridges for Missourians to travel to work, get their kids to school, and take their goods and services to market. Project PAVE created opportunities for our youth and the workforce of tomorrow, exemplifying the best of their community and the future of engineering and construction.”

Acknowledgments: **David Simmons**, MoDOT Design-Build Coordinator and Design Liaison, Missouri Department of Transportation; **Robert Leingang**, Executive Vice President and Chief Engineer, Millstone Weber; **Chris Watts**, Principal Project Manager, Parsons; and **Shawn Leight**, Principal Traffic Engineer, CBB.



Visit [here](#) for more information on ITE’s Awards Program. Visit [here](#) for information on the I-270 North Project.