



KITTELSON LLC

FORENSIC TRANSPORTATION ENGINEERING



CHRISTOPHER POE, PHD, PE
Senior Principal Engineer

EDUCATION

- PhD, Civil Engineering, Pennsylvania State University
- Master of Engineering, Civil Engineering, Texas A&M University
- BS, Civil Engineering, Texas A&M University

YEARS OF EXPERIENCE

39

LICENSES/CERTIFICATIONS

- Professional Engineer: TX #7035

AFFILIATIONS

- Transportation Research Board, Secretary, Joint Subcommittee on Work Zone Safety and Mobility Management (2024-Present)
- Member, ITS Committee, (2025-Present)
- Member, Freeway Operations Committee, (2012-2021)
- Secretary, Vehicle Highway Automation Committee (1995-1997)
- Institute of Transportation Engineers, Fellow

Dr. Christopher Poe is a transportation practitioner with a background in research, planning, design, operations, and construction. He specializes in connected and autonomous vehicle (CAV) strategies, intelligent transportation systems (ITS), transportation management and operations, and roadway design.

Throughout his career, Dr. Poe has significantly advanced the transportation profession. He has researched emerging transportation topics for state and national sponsors, held leadership roles with the Transportation Research Board (TRB) and the Institute of Transportation Engineers (ITE), and taught transportation engineering at Pennsylvania State University and the University of Texas at Arlington. Notably, he authored a chapter on ITS in "Emergencies and Disasters" for the ITE ePrimer.

Dr. Poe has served on TRB's standing committees for Operational Effects of Geometrics, Vehicle-Highway Automation, and Freeway Operations. Currently, he is the Secretary of the TRB Joint Subcommittee on Work Zone Safety and Mobility Management, a member of the TRB ITS Standing Committee, and an ITE Fellow.

PROJECT EXPERIENCE

281810.000 Austin Roundabout Guide; Austin, TX; Project Principal. Kittelson is providing citywide roundabout support to advance the City of Austin's goals for reducing serious crashes and managing speeds along corridors where enhanced bicycle facilities are being implemented. Chris is supporting efforts to complete the Austin Roundabout Guide, which is building upon the guidance in *NCHRP Research Report 1043: Roundabout Guide*, which Kittelson led the development of this guidance document.

258010.005 FHWA Improving Pedestrian Safety on Urban Arterials; Senior Advisor. The goal of this project is to support FHWA in its effort to reduce pedestrian fatalities and injuries and increase accessibility for all pedestrians. Kittelson is assisting with developing a roadmap for incorporating Road Safety Audits (RSAs) into all stages of a project. Chris is serving as a senior advisor to the project.

Prior Employment: Texas A&M Transportation Institute for Connected and Automated Transportation Strategy; Assistant Director. Dr. Poe worked on a variety of transportation research projects associated with connected autonomous while serving as Assistant Director at the Texas A&M Transportation Institute for Connected and Automated Transportation Strategy. This work included the Texas Connected Freight Corridors, truck platooning research, and leading the connected and automated transportation proving grounds. He also worked on the I-35 Mobility Coordination and Traveler Information Project, US 75 Integrated Corridor Management Simulation and Deployment, and High-Occupancy Lane Design and Operations Project.

Prior Employment: US75 Integrated Corridor Management, DART/USDOT. The Dallas US-75 Integrated Corridor Management (ICM) Demonstration Project was one of two national USDOT model deployments. The project goal was to optimize corridor travel when there was an event (construction or incidents) on the US-75 freeway. A

- President, Intelligent Transportation Society of Texas, 2000

AWARDS

- TTI/Trinity Herbert H. Richardson Team Award, Texas A&M Transportation Institute, 2016, 2015, 2012, and 2008.
- TTI/Trinity Senior Researcher Award, Texas A&M Transportation Institute, 2015.
- Transportation Engineer of the Year, Institute of Transportation Engineers, Texas District, 2011.
- Outstanding Student Award, Mid-Atlantic Universities Transportation Center, 1996.
- Dwight D. Eisenhower Graduate Transportation Fellowship, Federal Highway Administration, 1993.
- Eno Transportation Fellow, 1995.
- John B. Hawley Award, American Society of Civil Engineers, Texas Section, 1993.
- Student Paper Award, Institute of Transportation Engineers, 1987.

decision support system helped the state and local agencies implement alternate signal timing for arterials and traveler information to direct users to light-rail transit during those events. Chris led the analysis, modeling, and simulation phase to determine the potential benefits of ICM. Chris also led the design and deployment of the decision support system (DSS) when work zone or incidents occurred on any of the segments in the corridor.

Prior Employment: Dallas/Fort Worth Airport, DFW International Airport Capital Improvement Program; Dallas/Fort Worth, TX; Project Manager. Chris, prior to joining Kittelson, served as DFW International Airport's Project Manager on a \$20M complete resigning of the roadways and terminals in 2005. He managed the design consultant and contractor for the design, fabrication, and installation of all roadway signs and all terminal signs. The project created a consistent wayfinding and signing experience for customers from entry to DFW Airport to the arrival at their gate or final destination on the airport property. The project also comprehensively applied roadway sign standards from the USDOT Manual on Traffic Control Devices (MUTCD) for the first time.

Prior Employment: Dallas/Fort Worth Airport, DFW International Airport Traffic Control Services, Dallas/Fort Worth, TX; Project Manager. Prior to joining Kittelson, Chris led efforts to design traffic control plans for implementing road and lane closures for constructing capital improvement projects. This support involved meeting with Capital Improvement Program project managers to understand traffic control requirements and coordinating with the traffic control contractors to confirm proper implementation of traffic control plans. The traffic control to support constructing the \$5B capital improvement program needed to accommodate daytime and nighttime construction and continuous access to airport customers.

Prior Employment: North Central Texas Council of Governments, Work Zone Data Exchange; Dallas/Fort Worth, TX; Project Manager. Prior to joining Kittelson, Chris Poe, PE, PhD led efforts to design traffic control plans for implementing road and lane closures for constructing capital improvement projects. This support involved meeting with Capital Improvement Program project managers to understand traffic control requirements and coordinating with the traffic control contractors to confirm proper implementation of traffic control plans. The traffic control to support constructing the \$5B capital improvement program needed to accommodate daytime and nighttime construction and continuous access to airport customers.

Prior Employment: ITS in Emergencies and Disasters. Chris was lead author on the chapter on "ITS in Emergencies and Disasters," in the ITS ePrimer published by the Institute of Transportation Engineers. This guide discusses how to use ITS and operational strategies to support traffic incident management, emergency response, and transportation system operation and management in responding to natural and human-caused events.

Prior Employment: Michigan DOT Data Use, Analysis & Processing; Project Manager. DUAP is an integrated system enhancing data access and socialization across planning, design, construction, maintenance, and operations. It can be used to study connected vehicles; assess weather, manage pavement, traffic, integrated corridors, transit and fleets, assets, and construction and work zones; monitor system; and command and control devices. As Project Manager, Chris led the concept of operations, requirements gathering, deployment of applications, and

training. He worked on gaining situational awareness about the transportation network and system and sharing traveler information to improve safety and mobility. This involved using connected vehicle technology, including LIDAR surveys, DSRC and V2X Roadside Units, traffic signal controllers, road weather information systems, and vehicle fleet data to facilitate infrastructure to vehicle communication.

Prior Employment: Mound Road: I-696 to M-59 Reconstruction; Macomb County, TX; Project Manager. Macomb County expanded Mound Road from four lanes to 8 lanes, integrated CV technology to enhance mobility and safety by sending automated CV messages to vehicles. The project involved reconstructing approximately nine miles of roadway, installing curb and gutter and sidewalks, replacing a culvert, improving signing and pavement marking, and rehabilitating a bridge. Chris managed the software onboarding, integration, testing, operations, and maintenance of CV roadside units and traffic signals.

Prior Employment: Integrated Flood Response Pilot Project. This project integrated weather, stream, and pump station data together to give Michigan DOT operations staff greater insight into the likelihood of future flood events in Detroit. Chris served as project manager and led the concept of operation development, the decision support system design, and presentation of information through a graphical user interface and dashboard.

Prior Employment: I-35 Mobility Coordination and Traveler Information. Chris was the program manager for this project covering a 100-mile reconstruction of I-35 near Waco, Texas. The Mobility Coordination component worked with construction contractors, businesses, and public groups on access and construction phasing to reduce delay and impacts. One of the project goals was to limit travel delays to no more than 30 minutes of delay when traveling this corridor between Dallas/Fort Worth and Austin, Texas. The team modeled each day and nights construction activities to assess the cumulative delay and queuing caused by all planned construction activities. When long delays were anticipated, solutions were developed with the various contractors to reduce the overall delay by adjusting location, direction, and time of construction. After action analyses were also conducted to calculate the actual impact of deployed work zones. The traveler information component built a real-time website for the public to get traffic conditions.

Prior Employment: I-35 Connected Work Zone, TxDOT/USDOT. Dr. Poe served as the Co-PI on a USDOT grant to TxDOT to create a connected work zone for enhanced traveler information. The first phase of the connected work zone project provided selected freight operators with data on lane closure location, capacity reduction, and queue lengths, and delay. The work zone data was used by freight companies in the pre-trip and en-route planning. The second phase of this project transitioned to connected vehicle V2I infrastructure and DSRC 5.9 Ghz communication to warn of work zone locations, delays, and traffic queues.