

Kay Fitzpatrick

Texas A&M Transportation Institute

Early in her career, Kay Fitzpatrick discovered she wanted to identify improvements to the transportation network that could better serve society. Her diverse portfolio of projects includes meeting the needs of pedestrians, designing intersections, improving the safety of rural roads, and designing freeways and managed lane facilities. An internationally recognized expert in roadway geometric design, roadway safety, traffic control devices, and the design and operation of pedestrian facilities, Fitzpatrick has conducted research that is now part of the American Association of State Highway and Transportation Officials' (AASHTO's) *A Policy on Geometric Design of Highways and Streets* and the Federal Highway Administration's (FHWA's) *Manual on Uniform Traffic Control Devices* (MUTCD). She also developed design criteria for high-speed roadways for the Texas Department of

to update national documents to ensure widespread implementation of research findings. For example, the MUTCD is at the fingertips of most traffic engineers and any change to that document can ensure consideration of the treatment.”

Another successful example of published research implementation is the pedestrian hybrid beacon, Fitzpatrick adds. She led several studies examining the beacon's effectiveness, sponsored by the Transit Cooperative Research Program, the National Cooperative Highway Research Program, and FHWA. Her presentations to a national committee helped to bring the HAWK beacon—as it was then known—onto the national stage and influenced the development of text that was later included in the MUTCD. Before 2009, the pedestrian hybrid beacon could only be seen in Arizona. Now more than 43 states have installed the device.



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“There are many tools available within the transportation profession, and as a researcher I have been able to question and improve those tools. I have been able to ask the ‘why’ questions and have been able to identify answers,” Fitzpatrick observes.

Fitzpatrick joined the Standing Committee on Operational Effects of Geometrics in 1994. She currently chairs this committee and is a member of the Operations Section. Fitzpatrick also has served on the Operations and Preservation Group executive board. She is a friend to the standing committees on Geometric Design, on Pedestrians,

and on Managed Lanes and has helped to develop and review several TRB publications on roadway operating speed and sight distance. She also has played a major role in coordinating all four past Urban Street Symposia, which began in 1999, and is chair of the 2017 Urban Street Symposium.

Transportation. This research resulted in a new chapter of the agency's *Roadway Design Manual*.
 “Transportation touches everyone—moving from place to place or needing goods that are moved from place to place is an essential part of our everyday life,” Fitzpatrick muses. “The opportunity to have a positive effect—to help improve that fundamental part of society—always has interested me.” These improvements have included a left-turn lane that decreases crash risk and a pedestrian traffic control device treatment that efficiently provides a safe interval to cross the street on foot.

“Being open to new ideas and new approaches can allow us to look at a problem in a different way, perhaps in a way that will allow us to implement the changes needed to reach an acceptable solution,” Fitzpatrick notes. She advises other researchers to “develop a research approach that will result in a product that is usable and that will provide improved procedures or conditions.”

After graduating with bachelor's and master's degrees in civil engineering from Texas A&M University, Fitzpatrick worked for several years as a consultant. She received her PhD from Pennsylvania State University in 1989 and returned to Texas to work at Texas A&M Transportation Institute (TTI) as an assistant research engineer. She now is senior research engineer in TTI's Roadway Design Program.

Fitzpatrick has received many TRB paper awards for publications in the *Transportation Research Record: Journal of the Transportation Research Board*: the Fred Burggraf Award for outstanding paper by a young researcher in 1995; the Patricia Waller Award for best paper on safety and system users in 2010; and two D. Grant Mickle Awards for outstanding papers on operations and preservation, in 2012 and 2015. She received the Texas A&M Regents Fellow Service Award in 2015 for her commitment and contributions to the state of Texas.

Fitzpatrick encourages associates and students to ask how their research findings can or would be used. “Research reports certainly document the research methodology and the findings from a study,” she notes. “However, it is essential