Note that this form is to be kept up to date regularly (at least every quarter**). Safe-D administrators may access your form on your Project Site at any time and pull for information reported to USDOT OST-R, use information for internal or external reports or presentations, etc.

Date of Last Update (edit each time): **12/21/2017**

UTC Project Information	
Project Title	External Communication for SAE L4 Vehicles
University	Virginia Tech
Principal Investigator	Charlie Klauer
PI Contact Information	cklauer@vtti.vt.edu
Funding Source(s) and Amounts Provided (by each agency or organization)	Safe-D (Federal): $107,832 Toyota CSRC (Non-Federal): 99,912
Total Project Cost	$207,744
Agency ID or Contract Number	Grant No: 69A3551747115 Project: 06-007
Start and End Dates	Start: 11/01/2021 End: 10/29/2022
Brief Description of Research Project	With the integration of SAE Level 4 or Highly Automated Vehicle's (Level 4 Vehicle) into our environment, the development of external communication systems is underway by numerous stakeholders across the globe. Mixed fleets, comprised of both human drivers and automated vehicles, must be able to effectively communicate with each other. Most research on level 4 vehicle external communication has been conducted using simulator or virtual reality platforms to assess driver/road user knowledge, opinions, and attitudes via survey metrics evaluating a single level 4 vehicle. However, it is vital to understand how the external communication is perceived in real world conditions (e.g., bright sunny day, nighttime) and with multiple level 4 vehicles present. Additionally, it will be important to understand other road users' decision making based upon these external communication devices. Thus, we are proposing to conduct research on the VTTI Smart Road Surface Street to assess pedestrian and driver decision making in the presence of level 4 vehicles with external communication displays.

Describe Implementation of Research Outcomes (or why not implemented) Place Any Photos Here	This project will provide evidence for the effectiveness of external communication on L4 automated vehicles that will be some of the initial and key research in this area to help policy makers shape how external communication on L4 vehicles may be provided.
Impacts/Benefits of Implementation (actual, not anticipated)	This project will provide evidence for the effectiveness of external communication on L4 automated vehicles that will be some of the initial and key research in this area to help policy makers shape how external communication on L4 vehicles may be provided.
Web Links • Reports • Project website	