Exhibit D

Research Project Requirement Template

Measuring the Impact of Transformative Transportation Technologies on Local Government Revenues Linked to Transportation Infrastructure

Recipient/Grant (Contract) Number: The University of Texas at Austin; Arizona State University / Grant # 69A3552344815 and 69A3552348320

Center Name: Center for Understanding Future Travel Behavior and Demand (TBD)

Research Priority: Improving Mobility of People and Goods

Principal Investigator(s): David Swindell

Project Partners: N/A

Research Project Funding: $150,000 (Federal + non-Federal funding)

Project Start and End Date: 9/1/2023 - 5/31/2025

Project Description: While significant planning and financing for major transportation infrastructure occurs at the federal and state levels, counties and municipalities also play a significant role and are most often the level of government citizens turn to when issues with transportation infrastructure arise. These governments often have responsibility for a range of roads, bridges, and other related infrastructure. Local governments rely on a range of revenue and financing tools to meet the capital and maintenance costs tied to the array of transportation options available in their jurisdictions. Given these costs, forecasting revenues is an important element in planning for changes in a community's transportation options. New and emerging technologies in electric vehicles, autonomous vehicles, and changing commute patterns tied to alternative work arrangements are contributing to volatility in revenue forecasting when revenues are tied to tools reliant on traditional transportation modes and patterns (e.g., parking revenues, retail sales taxes, gasoline taxes, etc.). This research will examine the reliance of local governments on these different revenue tools and build a set of implications for those tools tied to new and emerging transportation technologies that may impact these traditional revenue streams that local governments have utilized to cover their transportation capital and maintenance costs. The research will also highlight alternative revenue mechanisms that will be adaptive to these new realities to help local governments adjust to coming changes in how citizens employ transportation options.

US DOT Priorities: This project aligns with two of the US DOT's research priorities: transformation research and equity. In the transformation space, the project will contribute to the Data-Driven Insight priority. Utilizing a new combined dataset of publicly available data sources will help generate actionable recommendations for local governments to adapt to changing transportation innovations in ways that enhance a stable revenue stream to support their operations, maintenance, and integration of new technologies (e.g., street-embedded wireless charging systems) (p. 58). This approach facilitates the strategic foresight aspect by supporting "scenario planning and robust decision-making" (p. 59). The project contributes to the area of Equity and Accessibility Assessment, focusing on the equitable taxation across community members from different socio-economic backgrounds, while insuring sufficient revenues. This ties to several of the desired outcomes under this priority, including insuring that "transportation infrastructure and mobility services are accessible to people with disabilities and low-income households" (p. 36).

Outputs: The anticipated outputs of this project include a unique dataset, academic papers, and articles targeting professional practitioners. The dataset will be distinctive because it is generated by integrating

elements from two publicly available data sources. These two sources provide the array of transportation-related characteristics define a range of different types of communities, which will facilitate varying sets of recommendations better related to the specific needs of these communities (superior to "one-size-fits-all" recommendations). The resulting profiles database and code will be share publicly for other researchers to utilize. Our research team will conduct our analysis of this dataset and produce an academic paper highlighting the array of transportation needs facing different kinds of communities along with the array of funding and financial approaches communities use in addressing these needs, as well as identify the role better financial approaches to transportation infrastructure play in determining community fiscal health. This paper will be shared at academic conferences and submitted as a peer-reviewed journal article. Additionally, the analysis will generate a set of recommendations appropriate to different kinds of communities to be shared through professional practitioner articles aimed at decision makers.

Outcomes/Impacts: First, the study captures the array of transportation infrastructure financing practices. This will help local transportation and budgeting officials understand the range of situations and tools currently in use as a foundation upon which adaptations can be made to address new infrastructure needs. Second, the recommendations from this analysis will help communities identify effective, efficient, and equitable financing tools to help prepare them for the revenue and expenditure changes transportation innovations will bring. These recommendations will help protect the fiscal health of the communities and allow them to continue to deliver high quality operations and maintenance of their transportation infrastructure.

By profiling an array of community types and different financing tools used to support their infrastructure and mapping the potential impacts of new transportation innovations coming online, this project will help transportation and local government finance decision makers adapt their policies and practices to protect their ability to meet their infrastructure obligations while increasing the efficacy, efficiency, and equity of their revenue generation. Furthermore, the project's investigation of these trends at a more nuanced community level will identify how different kinds of communities may need different revenue policies in place to adapt to the new demands of emerging transportation innovations.

Final Research Report: A URL link to the final report will be provided upon completion of the project.