Exhibit D

Research Project Requirement Template

The Differential Accessibility Effects of Work from Home: Travel Behavior Outcomes and Transportation Equity Implications

Recipient/Grant (Contract) Number: The University of Texas at Austin; University of Washington /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): Qing Shen

Project Partners: N/A

Research Project Funding: $75,000 (Federal + non-Federal funding)

Project Start and End Date: 1/1/2024 - 6/30/2025

Project Description: Researchers have long highlighted the potential effects of telework on the geography of opportunity in metropolitan areas. Telework, despite increasing accessibility to certain job markets, can further cause employment and population to decentralize, facilitating a spatially dispersed pattern of metropolitan growth. This could exacerbate existing disparities and inequities, making it harder for disadvantaged and transit-dependent groups to access important opportunities. Similarly, the central city's position in the geography of opportunity could continue to decline as jobs and services become more dispersed. Low-income and minority groups are likely disproportionately affected by the spatial reconfigurations caused by telecommunications. However, the lack of spatially disaggregated empirical data has made it difficult to predict the relative contributions of geographic locations, transportation modes, and telecommunications capabilities in determining accessibility differentials.

The proposed research will address the following questions:

> How does work-from-home differentially impact the geography of opportunity and accessibility of population groups for jobs and other services? How can accessibility measures be updated to reflect changes in work-from-home adoption, travel frequency, pattern, and mode choice? What are the impacts of differential accessibility on travel behavior outcomes of essential and non-essential workers? What are the desirable changes in public transit services and TDM policies to help the spatially disadvantaged, especially essential workers, to reduce the accessibility gaps?

US DOT Priorities: The proposed research addresses the following US DOT Research, Development, and Technology (RD&T) Strategic Plan goals:

> Equity and Accessibility Assessment: Develop data, tools, and research to evaluate and advance the equity and accessibility of transportation systems, projects, jobs, and policies (page 33).
>
> Mobility Innovation: Evaluate innovative mobility technologies and services to improve the accessibility, equity, and sustainability of transportation (page 34).

The proposed research addresses the following priorities of the U.S. DOT T2 program:

> Ensure research investments are fully leveraged through the demonstration and deployment of the resulting products and technologies (page 67).

Research Planning: Require that T2 performance measures be incorporated into the research project lifecycle planning at an early stage (page 67).

Early-Stage Identification: In partnership with the modes, identify potential research and lab efforts ripe for demonstration (page 67).

AMRP Linkage: Ensure that the deployment opportunities are connected with AMRPs (page 67).

Outputs: The research is expected to develop new tools and methods for measuring the accessibility for working and living activities in the new work-from-home era while informing policies and practices that could help improve accessibility and equity for essential workers and disadvantaged groups. The research aims to produce a number of tangible products, including (a) a project report that describes the research, summarizes the findings, and provides recommendations for policymakers and practitioners, (b) peer-reviewed journal article that disseminates the research findings to the academic community, and (c) conference presentations/webinars that share the research findings with a broader audience.

In addition to the tangible products listed above, the research is also expected to produce a number of intangible benefits, such as (a) a better understanding of the impacts of telework on travel behavior and equity, (b) increased awareness of the challenges and opportunities of telework for different groups of people, (c) improved capacity of policymakers and practitioners to plan and implement transportation systems that are equitable and accessible in the new normal, (d) new methodologies in measuring accessibility considering the fundamental changes in work models, travel options, and data sources.

Outcomes/Impacts:

Outcomes:

The research outputs can be used to inform new transportation planning processes that consider work-from-home impacts on accessibility and equity.

The research is expected to guide the development and implementation of more equitable transportation policies and programs, such as targeted subsidies for transportation-disadvantaged groups or investments in public transportation and active transportation services for communities with less access to telework options.

The research findings can stimulate more innovative mobility technologies and services for targeted disadvantaged groups, such as mobility-on-demand and shared mobility programs

Anticipated Impacts:

Developing new demand management strategies, such as telecommuting incentives or staggered work hours, which can help reduce traffic congestion and GHG emissions.

Developing and implementing transportation policies and programs that promote equitable and inclusive communities, such as innovative mobility programs for underserved communities.

Improve the transportation system for all users and create a more equitable society.

Increasing economic productivity by reducing traffic congestion and improving the accessibility of transportation.

Increasing social mobility by improving the accessibility of transportation and creating more opportunities for everyone.

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