



Research Problem Statement

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Before starting this form please read the Research Problem Statement Guidance document online at:
http://www.oregon.gov/ODOT/TD/TP_RES/docs/Research_ProblemStatement_Guidance.pdf

I. TITLE

17-005 The Last 20 miles: Regional Passenger Rail connections and Emerging Public Transportation Modes

II. PROBLEM

Traditionally, transportation in the United States has been designed for automobile access, but transportation trends in the United States show a decline in people obtaining driver licenses and an increase in people selecting car free transportation options including intercity trips. Research and studies in completing intercity trips without a personal vehicle focus on completing the first and last mile in trips, but Oregon and several other regions are faced with the challenge of completing trips of up to 20 miles to access intercity transportation options such as rail and bus services. An example of this is for residents of the surrounding communities of the Amtrak Cascades service in the Willamette Valley.

Goal two of the Oregon Rail Plan states that we must integrate Oregon rail into the multimodal transportation system, but many of the communities are not located adjacent to the stations on the corridor. Throughout the Oregon Passenger Rail Corridor the problem is not the last mile but the last 20 miles and this research will focus on implementing effective transportation solutions to access and complete these trips without the use of a personal vehicle. An example of this is the Albany, OR Amtrak station. This station provides north/south intercity service to the east/west communities from Sweet Home to Philomath within a 20-mile travel distance. These communities are home to several trip generators including higher education institutions, low-income families, low personal vehicle populations, and public transit dependent populations. Often these communities and institutions struggle to provide transportation solutions for all users that end up lacking regional integration. This research is a feasibility study to explore the use of adaptable and accessible modes of public transportation such as formal demand responsive, flexible shuttles and informal ride and car sharing such as Uber and Lyft that can be used to interface with the north/south Amtrak service. The study area will focus on the Mid-Willamette Valley and the US 20 and OR 34 corridors between Sweet Home and Philomath with the goal of identifying trends and solutions of completing trips without a personal vehicle that can be applied throughout the Cascades corridor and guidance in developing solutions in other corridors of up to 20 miles.

III. PROPOSED RESEARCH, DEVELOPMENT, OR TECHNICAL TRANSFER ACTIVITY

The feasibility study will include a study of emerging and alternative modes of public transportation including formal and informal ride sharing. The study will examine the feasibility of developing these transport services in communities that should be linked with stations on the existing rail corridor. The proposed project will leverage research that is part of a Ph.D. thesis that focuses on completing trips via bicycles and walking, and expand on it to complete longer distance trips via other modes of non-personal vehicle transportation. The results of this study will be used to develop a design decision matrix of potential solutions weighted by the applicable user groups (millennials, senior citizens that are technology challenged, wheelchair, etc.). The project will validate planning tools that are under development to assist local surface public transportation providers develop innovative, integrated, accessible and responsive public transport options to interface with the Oregon Cascades Amtrak service. Final recommendations will be established through evaluation of a matrix of options for a particular user group and also include a cost benefit analysis of the alternatives. For example a wheelchair users will require a very different set of options than a university student who wants to travel with a bicycle.

IV. POTENTIAL BENEFITS

The study of emerging public transportation options in the Mid-Willamette Valley will directly benefit passenger rail and associated bus service by increasing ridership at the Albany Station and also increase the mobility options for people who do not have access to personal vehicles throughout the Willamette Valley. Increasing mobility options for all throughout the region produces economic benefits and at the same time produces environmental benefits. Environmental benefits will be gained by using emerging ride and car sharing modes. Safety benefits will be derived from ensuring and providing safe and reliable transportation options for all passengers including those who use wheeled mobility devices. The interconnectivity of Oregon communities is vital for the success of all Oregonians and this research will evaluate and provide recommendations for implementing non-personal vehicle transportation for all users for distances of up to 20 miles.

V. IMPLEMENTATION

Connecting the Amtrak Cascades service to other forms public transportation is an express goal in the Oregon Rail Plan and this research will move this goal closer to completion. The study will produce a feasibility study of new and innovative modes of public transportation including car and ride sharing. It will also create a framework of a cost benefit analysis for planning of future services to connect communities to the rail corridor. The results of this study would be used by staff in the Rail and Public Transit Division, and the results will directly support the long range vision of the division to support development of the Cascades corridor and develop recommendations for other intercity corridors. The results of the study will assist local communities in other rail corridors as well with grant applications to programs such as Connect Oregon.

VI. LIST OF REFERENCES *(optional)*

Mueller, Jon, Dissertation under preparation, "Bicycle and Pedestrian Connectivity in Passengers Rail Development"

http://www.oregon.gov/ODOT/TD/TP/RailPlan/SRP_ExecSumm.pdf

VII. CONTACT INFORMATION

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