

UTC Project Information	
Project Title	Spatial analysis of accessible seating area on the next generation passenger rail cars using 3-D modelling and virtual reality
University	Oregon State University
Principal Investigator	Katharine Hunter-Zaworski
PI Contact Information	Katharine.Hunter-Zaworski@oregonstate.edu
Funding Source(s) and Amounts Provided (by each agency or organization)	University of Washington PacTrans \$25,000 National Academies of Sciences, Engineering and Medicine \$25,000
Total Project Cost	\$50,000
Agency ID or Contract Number	69A3551747110
Start and End Dates	August 16, 2017 – August 15, 2019
Brief Description of Research Project	The proposed project extends work that was conducted for the US Access Board and the Federal Railroad Administration. The previous project conducted a preliminary spatial analysis to determine if two or more wheeled mobility devices (WhMD) could be accommodated in the seating compartment on the next generation passenger trains. The previous project identified that it is possible to spatially accommodate two WhMD. Additional analysis is necessary to develop detailed layouts for the accessible seating area to accommodate two WhMD and also provide for containment of both occupied and unoccupied WhMD to optimize occupant protection of people who use WhMD and other passengers.

<p>Describe Implementation of Research Outcomes (or why not implemented)</p> <p>Place Any Photos Here</p>	<p>Results of the project are being considered in a larger multi-agency project. The large project is studying occupant protection or vulnerability of people in wheeled mobility devices on trains. Most seated passengers are contained by the seat in front or the table. Passengers in wheeled mobility devices are not contained. The large project will be conducting crash tests of locomotives and will investigate the efficacy of orientation and securement of wheeled mobility devices.</p>
<p>Impacts/Benefits of Implementation (actual, or anticipated)</p>	<p>The results of all the related projects will provide guidance to the US Access Board and the FRA on safe orientation and securement of wheeled mobility devices on passenger rail.</p>
<p>Web Links</p> <ul style="list-style-type: none"> • Reports • Project Website 	