MOBILITY ON DEMAND (MOD) SANDBOX

PIERCE COUNTY PUBLIC TRANSPORTATION BENEFIT AREA CORPORATION (Pierce Transit) (TACOMA, WA)

Limited Access Connections

TEAM, BUDGET, AND WAIVERS

Key Partners: Rideshare partner, Pierce College Puyallup, and Sound Transit

Other Partners: None

Budget Summary: The budget from the applicant is summarized below:

MOD Sandbox Demonstration Federal Amount ($)	MOD Sandbox Cost Share ($)	Total Cost
$205,922	$51,481	**$257,403**

INNOVATION: PROJECT APPROACH

Pierce Transit (PT) proposes a three-pronged approach to provide riders access to transit through first/last mile solutions via rideshare partners, guaranteed ride home when traditional service is unavailable; and rides to and from Park & Ride lots. Based on an average trip cost of $11, trips will be offered in the following ways:

- The first approach is a first/last mile solution, and refers to those riders needing transportation to or from transit because their start or end point lies beyond a half-mile from nearest transit access. PT will collaborate with a rideshare partner to provide first/last mile service in and between select zones. Riders will request their connecting ride via a rideshare app. These rides will be fully subsidized using grant funds through the grant period. The subsidized rides will be provided only within and between designated zones and to specific bus stops, a transit center or a Sound Transit station (during peak commute hours).
- The second approach is a guaranteed ride home which refers to those riders travelling home after transit service has stopped for the night. These rides will be provided at a cost to the rider equal to standard transit fare with remaining trip cost (rideshare partner trip cost minus standard fare) covered by grant funds.
- The third approach will provide trips to and from Park & Ride lots and Sounder Transit stations to reduce crowding at the lots. These rides must begin or end within 5 miles of the Park & Ride/station, and occur during peak commute hours on weekdays. These trips will be fully subsidized by grant funds for the grant period, and these riders will be using transit to continue their journey.

These services will increase throughput at stations served by parking-constrained Park & Ride lots, provide connections to existing bus routes, and provide rides home outside of regular service hours. At $11/trip on average, these rides are more cost effective than fixed route demonstration projects previously executed to meet many of the same needs. This pilot will test another mode to provide transportation services to underserved groups using the latest technology available.

CHALLENGES PROJECT IS DESIGNED TO ADDRESS

Limited Access Connections: Like many agencies, the recession caused budget reductions at Pierce Transit. For PT the impact was significant: a reduction of 220,000 service hours, or 29% of all service. After some restorations, Pierce Transit is 19% below 2008 levels. Given budget limits and land use some medium density areas lack robust access to transportation. Early service termination, wait times in excess of one hour, and geographic gaps in service affect significant numbers of customers. PT has mapped areas of the PTBA which are beyond a half-mile walk from a fixed route bus stop with medium to high population density.

Some Park & Ride lots are at capacity early in each morning's commute. With current demand, increasing numbers of customers divert to single occupancy vehicle use for commutes; with resurfacing of lots scheduled in 2017, it is anticipated that this number will grow. P&R expansion options are capital-intensive. PT recently introduced Vanshare in which riders vanpool to reserved parking spots at a transit center or Park & Ride, but this option is not expected to fully meet demand.

Implementation Challenges: Riders who do not have access to a smartphone or without credit cards or bank accounts may be challenged accessing current ride-scheduling technology. As an alternative to app access and credit card payment, rideshare offers account access via a website and payment through PayPal. However, if the rideshare partner develops tools that allow Pierce Transit to request rides on behalf of riders during this pilot, then this problem may be resolved. Pierce Transit recognizes this is a concern and if awarded funding, will work to identify an approach to provide access to these riders.

ANTICIPATED OUTCOMES, BENEFITS, IMPACTS

It is anticipated that users will experience a higher quality of service and will have a higher quality selection of transit service offerings. In most cases, customers will have less than a 20 minute wait for service. The quality of options will cause riders to return to transit and will inspire new riders. As a result, ridership on connected bus routes will increase. Community and rider support for then Pierce Transit brand will increase as consequential, innovative solutions impact their daily lives

The riders will also have a more seamless transit experience. Broad segments of riders will be able to request rides through an app with which they are already familiar. Visitors will be able to use the pilot system without downloading a new app. Robust R&D and continuous support of rideshare app development will produce a higher-reliability product tested by more users. This will result in a better user experience than an internally developed app. By using on-demand tools and algorithms to make efficient real-time decisions, the system becomes more resilient to situational changes such as disabled transit vehicles, delays, or other changes in circumstance.

The accessibility of transit options will also increase. Transit use and rider satisfaction will increase among the following groups due to increased access: riders beyond the walkshed of a service corridor; riders that must drive to a Park & Ride lot that is usually full; paratransit users that do not always know their schedule 24 hours in advance; and college students and other riders within zones that did not previously have a dependable ride home. Enrollment in night classes at Pierce College may increase during this project. Based upon anticipated response, providing service to make limited access connections could result in 12,420 trips over the duration of the pilot. Many of these would connect to existing transit services, thereby increasing ridership on fixed route service.