

**RHODE ISLAND DEPARTMENT OF TRANSPORTATION
TWO CAPITOL HILL
Providence, RI 02903**

Call for Community Survey Proposals

Proposals are being solicited by the Rhode Island Department of Transportation (RIDOT) for **higher education institutions and government research entities** to support evaluation efforts within the:

**RI TRANSPORTATION INNOVATION PARTNERSHIP (TRIP)
AUTOMOMOUS VEHICLE MOBILITY CHALLENGE
Proposals Due: February 11, 2019 at 5pm EST**

Submit to Julia.Gold@dot.ri.gov

PURPOSE

The purpose of this **Call for Community Survey Proposals** is to seek a qualified research partner to develop and administer surveys for the Autonomous Vehicle Mobility Challenge (Mobility Challenge). The goal of the research is to gather rider, non-rider, and general community feedback on the project through surveys and observational research. The analysis of the community and user experience and feedback are critical in the overall evaluation of the Mobility Challenge. The results should provide quantitative and qualitative data to help to inform future policy and planning decisions related to autonomous technology and its applications in Rhode Island.

At a minimum, the surveys should facilitate evaluation of the following areas: user/non-user satisfaction and trends, origin/destination, mode shift, modal connections, reason for using this service, demographic info, technology adoption, and potential impacts on local businesses, the workforce, the environment, and the greater community.

Respondent entities must demonstrate their expertise citing examples of past studies and data collection of similar nature.

BACKGROUND

[The Rhode Island Transportation Innovation Partnership \(TRIP\)](#), a collaboration of state and local partners, sees transportation and mobility as a critical part of an integrated and comprehensive system of communities, infrastructure, land use planning, technology, and the natural environment.

This is a time of disruption and fast-paced change within the transportation sector. Autonomous vehicles offer us the potential to grow partnerships, improve mobility, build our economy, reduce negative environmental impacts, and benefit the health and well-being of Rhode Islanders. While the new technologies could bring dramatic changes to the transportation system as we know it, integration of these technologies should be carefully planned and well executed to avoid unintended consequences and to yield the most benefits.

In line with this vision, and in conjunction with ongoing investments in smart transit and innovation districts, the Mobility Challenge will leverage autonomous vehicles to position Rhode Island at the

forefront of mobility testing and fill a gap in the state's transportation network. The intent of the Mobility Challenge is to provide the opportunity to test multi-passenger vehicle(s) of SAE Level 4 of automation under real operating conditions within the context of one district in the City of Providence.

RIDOT and its partners (the City of Providence and the Rhode Island Public Transit Authority) have identified Providence's Woonasquatucket Corridor, that links the densely populated, historic neighborhoods of Valley, Olneyville, and Smith Hill, as the location for the introduction of the Mobility Challenge. RIDOT, in conjunction with the project partners and the selected vendor ([May Mobility](#)) will be offering a pilot mobility service utilizing autonomous vehicles to connect Providence's Downtown to Olneyville Square. The pilot mobility service, named **Little Roady**, is expected to fill a transportation gap in an area of burgeoning development.

The associated strategies of the TRIP Autonomous Vehicle Mobility Challenge are to:

- (a) Introduce autonomous vehicle technology to Rhode Island's capital city in a way that provides a safe and accessible environment for Rhode Islanders to experience a new technology and mobility service;
- (b) Provide first/last mile linkages with other existing transportation modes and points of interest, such as the Providence Station, existing RIPTA bus services, bike and pedestrian routes, the Woonasquatucket Corridor, and Downtown;
- (c) Provide a sustainable and equitable mobility solution that will connect residents to job opportunities and leisure activities in the service area;
- (d) Gauge public user acceptance of and experience with using (or being exposed to) the mobility service.
- (e) Evaluate and demonstrate, via qualitative survey and quantitative data collection efforts, the performance of the pilot within a dense urban area that is open to public travel and under all-weather conditions;
- (f) Open and create new economic opportunities across skill levels, including training for new career pathways that will help offset any disruptions from new technologies and foster new investment opportunities in the Corridor;
- (g) Promote development opportunities and accelerate innovation in Rhode Island;

THE LITTLE ROADY PILOT PROJECT

- Starting in May 2019, the Little Roady service will offer free rides to the public seven days a week, from approx. 7am- 7pm.
- The route will include 11 stops, round trip, starting at Providence Station and heading into Olneyville Sq. via Valley Street.
- Based on demand, between 3 and 6 vehicles will operate at a time.
- Each vehicle will have a safety operator (whom can manually drive the vehicle if needed) and 5 seats available to the public.

May Mobility will collect and provide the following data to support the research:

- Number of passengers getting on and off the vehicles at each stop
- Number of passengers waiting at a stop if the vehicle is full
- Wait time between stops
- Public comments/complaints to customer service

METHODOLOGY

RIDOT anticipates that as a minimum the following distinct groups will be included in the surveys.

Survey Populations

- Riders
- Non-Riders/Bikers/Pedestrians
- RIPTA Drivers (who are observing the service)
- Local Businesses

RIDOT anticipates that, as a minimum, the following survey methods will be used for the collection of the necessary data. Additional methods can be proposed.

Survey Methods

- In-Vehicle
- In-person (electronic reporting)
- Cell Phone
- E-mail
- Online (ie. QR codes at stop locations)

*** All communication and survey instruments must be made available in both English and Spanish.**

The following phases are anticipated for this project.

Phases

- Phase I, Preparation of Work Plan
- Phase II, Surveys to Establish Baseline Conditions
- Phase III, On-going surveys (established in Work Plan)
- Phase IV, Final Reporting and Outcomes

TASKS AND DELIVERABLES

Phase I – Preparation of a Work Plan

The work plan must describe in detail the specific methods, tasks, and activities proposed. Any anticipated theoretical or practical problems associated with the completion of the project must be discussed. Solutions, alternatives, or contingency plans related to these problems must also be proposed as appropriate.

Additionally, the work plan must include research tasks and completion schedules. The work plan should encompass all the needs and deliverables in the timeframe set forth in this document.

As a part of the work plan, draft surveys should be prepared and tested. The research team will coordinate with RIDOT staff to develop the required surveys. After consultation and input, final drafts of the surveys should be approved by the RIDOT staff.

Develop Sampling Plan. A mechanism will be in place by the research team to evaluate the sample population (at any time during data collection) to ensure that the participant base is representative of the larger population under investigation. The number of interviews conducted with participants should reflect sample sizes with enough power to detect significance at a 95% confidence level.

- **Phase II – Survey to Establish Baseline Conditions**

Conduct surveys in April and May to establish baseline conditions prior to the beginning of the Service in **May 2019**. A plan will be developed and successfully implemented to ensure that the information collected from community stakeholders is accurate.

- **Phase III – On-Going Surveys**

Rider Survey: Conduct on-board, in-person interviews of **Little Roady** passengers utilizing survey questions established in consultation with RIDOT staff. The survey interviews must reflect the diversity of the population within the project corridor. The entire TRIP Mobility Challenge route should be targeted for surveying on both weekdays and weekends in a random fashion based proportionally on identified ridership patterns.

Non-Rider Survey: Conduct interviews of residents or people in the neighborhood who do not use the TRIP Mobility Challenge service. Individuals surveyed should be selected randomly throughout the service area and must include both English and Spanish interviews.

RIPTA Drivers Survey: Conduct interviews of participating RIPTA drivers to gather their observations, feedback, concerns and establish the overall view towards the new technology.

Local Businesses Survey: Conduct interviews of local businesses along the route to gather their opinions and assess potential consumer/economic impacts of new service.

* Justification of statistically significant sample sizes must be submitted to RIDOT for all surveys conducted.

- **Phase IV – Final Reporting and Outcomes**

Report of survey findings, including executive summary, research objectives, methodology, review of results, conclusions, basic data tabulation, cross-tabulation input, and the appropriate graphs, charts and diagrams to effectively communicate the results of the survey.

The lead researcher shall make one presentation of the survey results to RIDOT, the project partners, and relevant community stakeholders. This presentation shall include one power-point slide deck highlighting the results of the surveys and including recommendations related to transportation planning, policy development, further data collection, etc.

REQUIREMENTS

- Collaborate with RIDOT on questionnaire development for each survey.
- Provide valid and reliable data on a periodic basis for each survey.
- Provide RIDOT raw survey data files on a periodic basis for each survey.
- Provide simple, easy-to-understand trending reports of survey results.
- Translate data into meaningful, actionable information for RIDOT staff and management.

PROPOSAL FORMAT

Proposals should include the following:

- **Cover Page**
 - Name of Primary Researcher
 - School/Institution
 - Occupation Title
 - Work Address
 - Work Phone
 - Work E-mail
 - Other Members of Your Research Team: Name(s) and Institution(s)

- **Project Narrative** (maximum 15 pages)
 - **Topic:** What are the primary questions will you address for each stakeholder group? What are the key issues and concerns?
 - **Research Design/Description of the Study:** How will you conduct the surveys/research? In this section include the conceptual/theoretical framework, methods, data collection, and analysis procedures, as well as measures of reliability and validity. Include communication and outreach strategies to be employed to garner participation that matches the diversity of the community and riding population.
 - **Statement of Significance:** How will this project contribute to the larger knowledge base? How will it contribute to the goals of the TRIP Mobility Challenge? How will it benefit the public and other key stakeholders?
 - **Consent:** What kinds of consent (e.g., verbal, written) will you require? How will you obtain consent from participants?
 - **Statement of Ethics:** How you will account for the ethical demands that may arise during the inquiry process, including issues of consent, confidentiality, and privacy?
 - **Dissemination Plan:** In addition to providing a final report to RIDOT (which is required), explain how you plan to disseminate and share your findings with stakeholders and the public.
 - **Previous Research and Experience:** Provide examples of related work you have completed.

- **Additional Attachments** (not included in the 15-page maximum)
 - **Staffing structure-** individual roles and responsibilities, resumes, qualifications, and examples of previous related research
 - **Timeline-** (based on 18 months, starting March 2019) schedule for completion of research, including field activities, deliverables, and reports
 - **Detailed Budget**

Scoring will be based on the following:

- Strength of the research and methodology proposed, i.e., design, implementation, and benefits provided to overall Mobility Challenge
- Feasibility of the project (in terms of scope, time, budget, qualifications of the applicant)
- Respondent's previous related research and experience
- Evidence of familiarity with current scholarship supporting the inquiry

COST AND REIMBURSEMENT

The term of this contract is for eighteen (18) months. At RIDOT'S discretion, this Contract may be extended annually for TWO (2) additional years pending availability of applicable funding and the State's satisfaction with the selected researcher's performance.

Scheduled payments will be triggered by the successful completion and formal acceptance of the **defined critical deliverables and activity milestones** as defined in the selected Respondent's accepted Proposal. RIDOT will not increase the contract or any Purchase Order (either dollar amount or time) for items not included in the submitted proposal documents. RIDOT reserves the right to purchase part of the proposal or the entire proposal.

Detailed invoices indicating the submission of deliverables and completion of activity milestones are to be accompanied by: (1) a listing of administrative and operating costs incurred to-date with appropriate back up; (2) monthly progress report outlining work accomplished, hours and costs expended as well as any outstanding questions which require resolution. Payment invoices will be processed only if the required progress reports are current.

RIDOT will review and accept invoices for payment processing in a timely manner conditional upon satisfactory completion and acceptance of: (1) all contract requirements and; (2) complete and accurate submission of scheduled deliverables.

The successful Respondent will be compensated after invoices have been submitted and accepted by RIDOT following the completion of each deliverable.

Miscellaneous charges such as copies, faxes, telephone and postage should be included in the cost proposal.

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