



Solicitation Information

6/7/17

RFI# 7553496

TITLE: Connected and Autonomous Vehicles and Other Innovative Transport System Technologies Framework for Implementation and Integration

Submission Deadline: 7/12/17

Questions concerning this solicitation must be received by the RIDOT portal, <http://www.dot.ri.gov/contracting/bids> no later than **July 4, 2017 at 12:00 p.m. (noon)**. Questions received, if any, will be posted on the Internet as an addendum to this solicitation. It is the responsibility of all interested parties to download this information.

SURETY REQUIRED: No

BOND REQUIRED: No

Lisa Hill

Chief Buyer

Applicants must register on-line at the State Purchasing Website at www.purchasing.ri.gov

Note to Applicants:

Offers received without the entire completed three-page RIVIP Generated Bidder Certification Form attached may result in disqualification.

THIS PAGE IS NOT A BIDDER CERTIFICATION FORM

REQUEST FOR INFORMATION (RFI)

RFI# 7553496 - Connected and Autonomous Vehicles and Other Innovative Transport System Technologies Framework for Implementation and Integration

1.0 INTRODUCTION

The Rhode Island Department of Administration/Division of Purchases, on behalf of the Rhode Island Department of Transportation, is soliciting informational proposals from qualified parties with planning, legislative, administrative, and/or technological experience with Connected and Autonomous Vehicles and/or other innovative transport systems, in accordance with the terms of this Request for Information and the State's General Conditions of Purchase, which may be obtained at the Rhode Island Division of Purchases' website at www.purchasing.ri.gov

With this RFI, the State of Rhode Island seeks information and suggestions from qualified entities regarding their experiences with Connected and Autonomous Vehicles (CAVs) and/or other innovative and revolutionary technologies in order to better enable the State to facilitate and expedite the adoption of CAV and other transport system technology. Following the RFI, the State of Rhode Island may issue a Request(s) for Proposals to implement solutions that will facilitate the implementation and integration of CAVs and other innovative transport technologies in Rhode Island.

The RFI method is not intended to result in a contract award but is designed to allow for the collection of industry information that may be used to determine an appropriate solicitation method.

This is a Request for Information (RFI). No award will be made as a result of this solicitation.

A. Instructions and Notifications to Offerors:

- Potential vendors are advised to review all sections of this RFI carefully and to follow instructions completely, as failure to make a complete submission as described elsewhere herein may result in rejection of the proposal.
- The State invites feedback from the community on any questions posed in this RFI. Please note it is not a requirement to answer all questions.
- Alternative approaches and/or methodologies to accomplish the desired or intended results of this RFI are solicited.
- This is a Request for Information (RFI), and as such no award will be made as a result of this solicitation.
- All costs associated with developing or submitting responses to this RFI, or to provide oral or written clarification of its content shall be borne by the vendor. The State assumes no responsibility for any costs.

- Responses misdirected to other state locations, or which are otherwise not present in the Division at the time of opening for any cause will be determined to be late and will not be considered. For the purposes of this requirement, the official time and date shall be that of the time clock in the reception area of the Division of Purchases.
- Respondents are advised that all materials submitted to the State for consideration in response to this RFI shall not be considered to be public records as defined in Title 38, Chapter 2 of the General Laws of Rhode Island. The responses may only be released for public inspection if and when there is an award from a subsequent and directly related solicitation. Any proprietary information submitted as part of a response to this RFI must be clearly marked as such. Responses to the RFI shall not be returned. Interested parties are instructed to peruse the Division of Purchases website on a regular basis, as additional information relating to this solicitation may be released in the form of an addendum to this RFI.
- Equal Employment Opportunity (G.L. 1956 § 28-5.1-1, et seq.) – § 28-5.1-1 Declaration of policy – (a) Equal opportunity and affirmative action toward its achievement is the policy of all units of Rhode Island state government, including all public and quasi-public agencies, commissions, boards and authorities, and in the classified, unclassified, and non-classified services of state employment. This policy applies to all areas where State dollars are spent, in employment, public services, grants and financial assistance, and in state licensing and regulation. For further information, contact the Rhode Island Equal Opportunity Office at (401) 222-3090.
- In accordance with R. I. Gen. Laws § 7-1.2-1, *et seq.*, no foreign corporation, a corporation without a Rhode Island business address, shall have the right to transact business in the State until it shall have procured a Certificate of Authority to do so from the Rhode Island Department of State (401-222-3040). This is a requirement only of the successful vendor(s).
- The Vendor should be aware of the State’s Minority Business Enterprise (MBE) requirements, which address the State’s goal of **TEN PERCENT (10%)** participation by MBEs in all State procurements. For further information visit the website www.mbe.ri.gov

B. Non-Mandatory Pre-Proposal Meeting:

The Rhode Island Department of Transportation will offer a *non-mandatory* Pre-Proposal Meeting for all interested Vendors on **MONDAY, JUNE 19, 2017 @ 10:00 A.M.** to be held at the RI Department of Administration, One Capitol Hill, 2nd Floor, Conference Room “B”, Providence, RI 02903.

A summary of the Pre-Proposal Meeting will be posted on the Internet as an ADDENDUM to this solicitation. It is the responsibility of all interested parties to download this information.

C. On-line Communications with RIDOT:

There will be no point of contact at RIDOT who will directly answer questions either in person, through email, or by telephone.

Any pertinent questions subsequent to this solicitation shall be posted on-line at RIDOT'S "Bidding Opportunities" web page accessible at: <http://www.dot.ri.gov/contracting/bids> and follow the link to "?" to submit questions relative to this solicitation. Responses to questions submitted for the subject project will also be posted under the same questions menu. This Q & A Forum will disable seven (7) FULL CALENDAR DAYS prior to the due date for this project. ***Therefore, questions will not be accepted after NOON on JULY 4, 2017.*** Responses to the submitted questions will also be posted under this link and posted as a formal ADDENDUM on the RIVIP as appropriate. Phone calls will not be accepted during this RFI solicitation.

2.0 PURPOSE and OBJECTIVES

This RFI outlines the type of information being solicited and response structure requested from potential respondents.

A. Background

Connected and autonomous vehicle (CAV) technologies have begun to and will continue to drastically alter the landscape of how people travel, how they view mobility, how freight moves, and even have the potential of redefining what constitutes our transportation network. In addition to CAV technologies, other innovative ideas related to the transportation of people and goods, such as on-demand ride sharing services, high speed intercity and inter-suburb transporter technology, and others, offer promise to revolutionize the transportation network as we know it.

The purpose of this RFI is to solicit information and suggestions from experienced industry sources, academia, contractors, and other qualified entities on CAV and other innovative transport system technologies such as on-demand ride sharing services, high speed intercity and inter-suburb transporter technology, and others. This is a request issued solely for information and planning purposes and does not constitute a Request for Proposal (RFP). The State of Rhode Island reserves the right to use or not use the information collected from responses of interested participants to this RFI.

At present the State of Rhode Island is in the scoping phase, looking to define how Rhode Island, given its specific assets, could most productively define an initiative in this area. Rhode Island's geography, size, and the opportunity for close and efficient collaboration between different government jurisdictions as well as private-sector partners and local universities with strength in technical disciplines, make the area well-situated for such an effort. However, while Rhode Island looks forward to engaging stakeholders in preliminary discussions, it should be stressed that this is not a request for proposals, and that no funding is available and no contract awards will be made as a result of this solicitation.

B. Scope and Objectives

The State of Rhode Island seeks to better understand the ways in which it can help test, deploy, and evaluate CAV technology and applications, as well as other innovative transport system technologies such as on-demand ride sharing services, high speed intercity and inter-suburb transporter technology, and others. As a densely populated and developed state with significant personal and commercial/freight travel needs that is subject to a wide range of environmental conditions, Rhode Island anticipates that it can leverage its' resources and travel-related infrastructure in such a way that

it can and will become a leader in CAV business opportunity, testing, and implementation.

To that end, the State of Rhode Island is issuing this RFI to gather ideas and recommendations on how to proceed with future efforts. Examples of topics where RIDOT seeks feedback include, but are not limited to:

1. **Opportunities for Partnership:** Exploring how the state might effectively partner with both private sector and/or other public sector entities to test and then evaluate a specific subset of new technologies;
 - ❖ Are there different types of industry driven pilots seeking a “home” that might find one in Rhode Island? If so, what are their needs (e.g. real-estate needs, regulatory environment, workforce, etc.)?
 - ❖ Are there other state or local government initiatives – either in nearby jurisdictions or in other regions that could benefit from a complementary environment – which Rhode Island might consider as partners?
 - ❖ Are there city and municipal governments within Rhode Island that have particular interest in partnership?
 - ❖ What can be done with the data that will be available that will provide value to both public and private entities?
 - ❖ How could Rhode Island’s diversity of academic institutions, such as the University of Rhode Island, Brown University, the Rhode Island School of Design, and the technical schools that provide training to many of the transportation professionals within the region, partner with RIDOT?
 - ❖ How can the application of CAV and other innovative transport system technologies create and enhance opportunities for RI to be more inclusive of typically underserved populations?

2. **The State's capital planning and execution process:** Integrating long-range capital planning discussions with preparation for CAVs and other innovative transport system technologies to learn how the state might adjust its infrastructure planning processes to accommodate changing technology. For example:
 - ❖ What are the expected implications of the proposed technology to capital project planning and the TIP process?
 - ❖ What are the infrastructure needs for the proposed technology? RIDOT is particularly interested in roadside, communication and data infrastructure needs as a minimum.
 - ❖ What are the lead times for capital projects and the development and acquisition of needed technology?
 - ❖ What do we invest in now that will still provide a full lifecycle value?
 - ❖ What is the anticipated public and private investment?

3. **Regional safety programs (including law enforcement and security)**
 - ❖ How do we ensure that integration of new technology will reduce vehicular, non-motorized, and pedestrian crashes?
 - ❖ What are the interaction implications of the proposed technology with law enforcement (local and state)?

- ❖ Does law enforcement have the authority to intercept and remotely stop self-driving vehicles and what tools would they need to do so?
- ❖ What are the infrastructure security issues that we are going to face relative to vehicle hacking or interference with the normal operation of a CAV?
- ❖ Are there current safety standards and regulations that must be adapted in order to allow testing of autonomous vehicles on public roads?

4. Environmental conditions

- ❖ How could a deployment initiative in RI evaluate and measure possible emissions and other environment impacts of autonomy in ways that would produce useful data for industry and government regulators?
- ❖ How does the proposed technology differ under various environmental conditions, such as day/night, fog, rain, sleet, snow, ice, flooding, etc.?

5. State laws and regulation: Identifying legislative and regulatory gaps, and discussing how such policies could be structured to balance the needs of emerging technology with RIDOT's core mission for providing improved travelers safety and mobility as well as private enterprise opportunity and prosperity. Specifically:

- ❖ Are there universal rules or regulations in which autonomous vehicles can operate?
- ❖ What are the potential legal issues surrounding autonomous vehicles that need to be defined?
- ❖ What are the regulatory and legal challenges that must be addressed before autonomous vehicles can be purchased and used by consumers.
- ❖ What specific elements of legislation/regulations are required for the successful implementation of the proposed technology?
- ❖ What specific processes might be needed?
- ❖ What are the liability issues that courts will face in accidents involving autonomous vehicles?
- ❖ Are there existing laws that will deal with the civil and criminal cases in the event of a cyberattack, vehicle hacking or deliberate interference with an automated vehicle?

6. Workforce and professional training needs within the State

- ❖ What is the anticipated impact of the proposed technology on the existing workforce, for example: bus drivers, taxi drivers, truck drivers, mechanics, technicians and others?
- ❖ What are the new jobs that are expected to be created as a result of the proposed technology?
- ❖ What are the social and economic implications of the proposed technology to the transportation/transit workforce?
- ❖ How can Rhode Island best prepare to train its workforce to be competitive with the integration of CAV technology?

The State is also looking to solicit input on the testing, verification, validation, and new innovation relative to Connected and Autonomous Vehicles and other innovative transport system technologies, and on how to incorporate such technologies in a mobility as a service application, particularly in areas that are currently not served by transit, for example first/last mile.

The State welcomes ideas and recommendations from interested or potentially interested parties, including organizations with a commercial interest in CAVs and/or other innovative transport system technologies related to the transportation of people and goods, such as on-demand ride sharing services, high speed intercity and inter-suburb transporter technology, and others. Potential respondents are encouraged to collaborate in offering ideas and recommendations. Respondents are not required to submit responses pertaining to all of the requested information herein. The Issuer encourages interested parties to respond to any and all aspects of this RFI relevant to their interests and expertise.

For respondents who offer innovative transport system technologies such as CAV technology, on-demand ride sharing services, high speed intercity and inter-suburb transporter technology, and other technological, research, or administrative products or services: You are encouraged to conceptually propose how you envision a proof-of-concept or pilot CAV or on demand ride sharing service deployment in any of the following locations or elsewhere in Rhode Island would serve to support and/or resolve issues noted in Topics 1 thru 6 above:

1. City of Providence Smart Transportation Corridors, especially encompassing the new LINK District and intermodal transit hubs at the Providence Amtrak/MBTA station and the Hospital District.
2. City of Pawtucket with potential connectivity to the upcoming Pawtucket/Central Falls Transit Center, a potential new baseball stadium, and/or the intercity bus terminal in Providence.
3. Quonset Business Park employee transportation options to and within the Park district as well as business/manufacturing applications relating to nearly 200 companies and the Port of Davisville, with potential connectivity to the Wickford Junction Commuter Rail Train Station
4. University of Rhode Island Kingston Campus roadway network, with potential connectivity to the AMTRAK Kingston Train Station and the Wickford Junction Commuter Rail Train Station. The Kingston Campus serves as a resource for learning, research and partnerships in a statewide and regional context as a generator of economic consequence and as a destination in a transit based system. The campus is connected to a network of satellite campuses and land holdings from the Narragansett Bay Campus to the Feinstein Providence Campus, the new Nursing Education Center in Providence, as well as the W. Alton Jones Campus, and Peckham Farm. The University is also engaged with partners in local industries beyond the campus where growing connectivity is key;
5. Potential use of shoulders in interstate corridors throughout Rhode Island as a dedicated lane for Autonomous Transit vehicles.

3.0 SUBMISSION REQUIREMENTS AND DUE DATE

Respondents are asked to provide, by the stated deadline, written responses to the questions posed above in a concise, single spaced summarized format, on 8 ½" by 11" paper with 1" margins using Calibri or Times New Roman 12 font.

Respondents may be invited to an exploratory interview to discuss the submitted responses in more detail. Contact to schedule the selected exploratory interviews will be made following the closing date for submissions under this RFI.

Requested documentation "**ONE (1) ORIGINAL plus FIVE (5) COMPLETE COPIES**" is to be either mailed or hand-delivered in a sealed envelope clearly marked "*RFI #7553496: Connected and Autonomous Vehicles*"

and Other Innovative Transport System Technologies: Framework for Implementation and Integration" by **JULY 12, 2017 no later than 11:30 AM** to:

BY COURIER OR MAIL:
RI Department of Administration
Division of Purchases (2nd fl)
One Capitol Hill
Providence, RI 02908-5855

NOTE: Proposals received after the above referenced due date and time will not be considered. (SEE GENERAL NOTIFICATIONS)

RIDOT requires that the RFI submission be submitted not only in hard copy form but also on CD-ROM. Clearly labeled CD ROM should be attached to the inside cover of each RFI submission. Microsoft Word/Excel or PDF format is preferable. RIDOT requires that the electronic version of said Proposals be submitted in Adobe PDF format.

4.0 EXPO and DEMONSTRATION OPPORTUNITY

Responders will be invited to participate in an Expo to be held at a time and location to be determined later. There is no formal requirement for responders to participate and present their technology at the Expo, however to allow RIDOT sufficient time for planning the event, responders to this RFI are requested to disclose their interest to participate in stated Expo as part of their response to this RFI.

There will be no cost associated with the Expo and the State of Rhode Island will not reimburse participating responders for their attendance and participation at the Expo.

5.0 GENERAL INSTRUCTIONS AND NOTIFICATIONS TO RESPONDENTS

The State of Rhode Island is still in the scoping phase and formulation of CAV legislation, policy, and pilot projects and as a result is interested in soliciting initial conversations and ideas on the subject. However, it should be stressed that this is not a request for proposals, and that no funding is available and no contract awards will be made as a result of this solicitation.

6.0 COSTS

Responders must not include any pricing elements or costs as part of their submission. The inclusion of cost or pricing may cause the RFI to be considered as non-responsive.

Disclaimer

This Request for Information is solely for information and planning purposes and does not constitute a Request for Proposal. All information received in response to the RFI and marked as "Proprietary" will be handled accordingly. Responses to the RFI cannot be accepted by the Government to form a binding contract. No award will be made as a result of this solicitation, and because no award will be made, proposals WILL NOT be in the public domain. Responses to the RFI will not be returned. Respondents are solely responsible for all expenses associated with replying to this RFI.

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