

CSU Transportation Research & Workforce Development Request for Proposals

◆ Background

California's Road Repaid and Accountability Act of 2017 (SB 1) is a comprehensive transportation funding package designed to address a wide range of transportation-related needs across California. As part of SB 1, annual appropriations of up to \$2 million are made available to the California State University (CSU) for the purpose of conducting transportation research and transportation-related workforce education, training and development. The [Mineta Transportation Institute](#) (MTI) at San José State University (SJSU) leads the California State University Transportation Consortium (CSUTC). CSUTC comprises MTI/SJSU along with partners CSU Chico, CSU Fresno, and CSU Long Beach.

As part of the CSUTC comprehensive research portfolio, MTI/SJSU manages a CSU-wide competitive request for proposals to identify research projects aligned with SB 1 priorities.

◆ General Proposal Information

Who can apply? This research funding opportunity is available to faculty (permanent or temporary) at any California State University campus. Commercial organizations, non-profits, and other universities may not respond to this RFP. The Principal Investigator(s) must be CSU faculty; non-CSU personnel may participate on research teams but funding should be limited. Questions about budgets should be directed to Dr. Hilary Nixon (hilary.nixon@sjsu.edu). All proposals must include funding for CSU students. Proposals submitted by CSU campuses other than SJSU will be required to submit a subrecipient commitment form. **A researcher is limited to serving as PI or co-PI on one proposal and as a team member on two other proposals.** Prior on-time performance in a previously-funded CSUTC-project will be considered during the evaluation process.

Project funding. Proposal budgets, including indirect/F&A/overhead expenses (limited to 15%), must not exceed \$75,000. Applicants must use the budget template provided. The anticipated period of performance is 12 months. Approximately 10 awards will be issued through this competitive selection process.

Deadline. The deadline to apply to this funding opportunity is **11:59 p.m. (Pacific) on Monday, January 29, 2024**. All submissions must be submitted through Calstate InfoReady: <https://calstate.infoready4.com/> (search for CSU Transportation Research and Workforce Development RFP). For questions specifically about using InfoReady, please contact support@infoready.com.

UPDATED
Submittal Deadline:

January 29, 2024

RFP Guidelines,
Subrecipient
Commitment Form,
Proposal and Budget
Template available at:
<https://calstate.infoready4.com/>

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Issued: Dec. 7, 2023

ALL AWARDS ARE
SUBJECT TO THE
AVAILABILITY OF
APPROPRIATED
FUNDS

Proposal review. Proposals will be reviewed by an external, independent, third-party review committee using the evaluation criteria listed below. No CSU-affiliated faculty or staff will serve as reviewers. The committee will make the final decision regarding projects selected for funding.

Distribution of funds. The authorized contracting entity for SJSU, the SJSU Research Foundation, will award funds for approved proposals. The Principal Investigator will be required to submit monthly progress reports to MTI as a condition of payment.

◆ Targeted Research Needs and SBI High Priority Research Areas

CSUTC works with stakeholders to identify priority research needs that align with SB 1. Proposals must address one of the nine targeted research needs listed or fall within one of the SBI high priority research areas listed below after the targeted research needs on page 5. Proposals that respond to a targeted research need will receive a 10% scoring bonus during evaluation. See the full list of evaluation and scoring criteria at the end of this document.

Targeted Research Needs

For questions about targeted research needs or to obtain contact information to request the required stakeholder letter of support, please contact Dr. Hilary Nixon (hilary.nixon@sjsu.edu).

1. ***Adoption of Intelligent Speed-Assist Technology.*** Speed as a significant factor in fatal crashes and speed management as a primary tool to reduce serious injuries and fatalities. Intelligent speed-assist technology can help mitigate speeding and has already been mandate for new vehicles in the EU. Research is needed to better understand how this technology works, insight into the implementation and safety impacts of the technology, discussion of common concerns about the technology, and potential ways policymakers in California might consider its adoption.

Research need submitted by California State Senate Transportation Committee

2. ***Using Lessons Learned During and After the COVID 19 Pandemic to Improve Transit Operating Funding and High-road Employment Resiliency.*** While transit ridership has improved from a low of about 20 percent of pre-pandemic levels in April 2020, to about 75 percent in November 2023, recovery has not been equal across modes – with commuter rail lagging behind bus service – and that financial constraints from reduced farebox revenues have resulted in fare hikes and reduced service. Not only does this new fiscal environment for transit agencies impact service, but it also risks the king of high road employment model that ensures many transit. Research is needed to inform state, as well as local and national policies as it relates to transit operating funding and workforce development. Specific topics to consider include the following:

- o Some transit systems fared better during the pandemic than others because of a diversification of revenue streams away from farebox collections. What factors (e.g., local sales taxes) helped ensure greater financial resilience across a spectrum of small, medium, and large transit systems and how can this inform local, state, and federal policies that ensure similar resilience?
- o What proactive decisions and service initiatives by transit agencies have helped some transit systems recover at greater rates than others (e.g., adjusting service times and frequencies to match new commuter demands in mid-day, evening, and weekend service)? Are there specific tools transit systems have used (e.g., data platforms, others) that aided in those decisions, and

are there constraints that have prevented some transit systems from responding more nimbly to adapt to the post-covid ridership needs (e.g., budgetary constraints, management decisions, etc.)?

- o To what degree has meeting workforce demand impacted service on transit systems after the pandemic? Have some systems taken proactive steps that have made them more successful with workforce recruitment and retention while maintaining high road labor standards, without relying on low-road contracting schemes, and what lessons can be drawn from those for transit systems that continue to struggle to meet their employment needs?
- o Have federal transit policies that primarily fund capital expenses, paired with massive increases in the availability of funds in the Infrastructure Investment and Jobs Act impacted transit agency decisions to shift their budgets towards capital investments and away from operations? To what extent do factors identified in (1) impact those budgetary decisions?

Research need submitted by the Transportation Trades Department, AFL-CIO. Additional documentation is available upon request.

3. ***Understanding the Impact of a 5-Minute Transit Network in California.*** Research is needed through a comparative study of the San Francisco Bay Area, Los Angeles, San Diego, and Sacramento transit network to evaluate change in ridership if a 5-minute transit network was implemented across all high-quality transit areas (HQTA) in these regions.

Research need submitted by Transform

4. ***Transportation Project Delivery Methods.*** Projects sponsors in California (Caltrans, local governments, regional transportation planning agencies, transit agencies, etc.) have a variety of project delivery and procurement tools at their disposal. Many of these methods, such as Design-Build, have been available to agencies for years through enabling legislation approved by the State Legislature. However, these authorizations are varied among types of agencies and have often been pursued as “one-off” bills, sometimes agency by agency. As new methods become available, such as Progressive Design-Build or Job Order Contracting, it is difficult for project sponsors and lawmakers to navigate what are the pros and cons of these various methods, who has the authority to use each of them, and how do these methods may improve project delivery and provide a value to the public. Research is needed to look at the various project delivery methods available; discuss the pros and cons of each, including examples of projects or experiences utilizing the method; and determine which agencies have specific authorization for its use. Additionally, the research should examine any restrictions on the use of delivery methods, such as the total number or costs of projects; and any labor standards specifically required.

Research need submitted by the California State Senate Transportation Committee and the MTI Board of Trustees/CSUTC Advisory Board.

5. ***Assessing the Potential for Transit-Efficient Infill Housing Development.*** Infill development on vacant or underutilized lands is a critical strategy to reduce sprawl and advance the state’s housing and climate goals. While infill development is an increasingly important strategy as California seeks federal infrastructure dollars to meet housing and transportation needs, the state does not currently have a comprehensive inventory of infill sites or a data model to systematically identify and classify underutilized location-efficient parcels with housing potential. Research is needed to create a typology and spatial data model to assess vacant and underutilized land in California and recommendations to guide development in suitable transit-efficient infill locations.

Research need submitted by the State of California's Department of Housing and Community Development.

6. ***Transportation Equity and Housing: New Housing in Disadvantaged Communities.*** Currently in-progress CSUTC research on behalf of the California Air Resources Board is looking at the extent to which new housing is being planned in disadvantaged communities in the two most populous regions of California—the Southern California Region (SCAG) and the San Francisco Bay Area Region (ABAG-MTC). Preliminary findings suggest that Oakland, Fairfield, Pittsburg, and Unincorporated Contra Costa County in the San Francisco Bay Area Region; and the City of Los Angeles, and the unincorporated Los Angeles, San Bernardino, and Riverside counties in the Southern California region are the top-four jurisdictions in each region where a large proportion of new housing is being planned in disadvantaged communities. Additional research is needed that would conduct an in-depth study of these top impacted jurisdictions to identify a) the potential negative unintended consequences of high concentrations of new housing in these jurisdictions and b) the strategies being employed, or could be employed, to avoid the negative unintended consequences.

Research need submitted by the California Air Resources Board.

7. ***Transit-oriented Affordable Housing: Integrating Location Efficiency in Affordable Housing Siting.*** Access to reliable, high-quality transportation is a key consideration in affordable housing siting and funding decisions – however there is significant disagreement in the definitions, metrics, and requirements to define “access to transit” or “Transit-Oriented Development (TOD)” in statute and across funding programs. Further research is needed to help define metrics for applying 1) accessibility metrics to guide affordable housing location and funding decisions, and 2) TOD planning to promote the production and preservation of affordable housing. Such research can provide a comprehensive review of the approaches to assess transit access in affordable housing location decisions; evaluation criteria for the benefits of co-locating affordable housing and transit investments; and inform guidance for state agencies to consider in affordable housing policy and funding decisions.

Research need submitted by the State of California's Department of Housing and Community Development.

SBI High-priority Research Needs

Proposals are also welcome that fall within one or more of the following high-priority research areas. No scoring bonus is provided for projects that fall within this general list of research areas.

- Congestion relief, including traffic management systems
- Trade corridor enhancements
- Improved transit and rail
- Pedestrian and cyclist safety
- Maintenance/rehabilitation of road and bridge infrastructure

◆ Proposal Contents

Using the provided template, applicants must respond to the following questions:

1. **Project Goal.**

Briefly state the overall goal of this project in 1-2 sentences.

2. **Project Background.**

Describe (approx. 500-750 words) the background problem/issue the proposed project will address and provide a brief review of the academic and/or professional literature that demonstrates your knowledge of past work in the field. Include references (citations can be listed at the end of the section or at the end of the entire proposal – they do not count towards the overall word count).

Applicants are expected to clearly indicate how their project expands upon existing knowledge in the field. All applicants should carefully review academic databases and research sites such as [TRID \(Transportation Research Integrated Database, trid.trb.org\)](http://TRID) to ensure that the proposed project does not duplicate existing research but rather contributes to existing knowledge in the field.

3. **Research Question/Project Objective.**

Concisely state your proposed research question or project objective (1-2 sentences).

4. **Project Methods.**

Describe (<1000 words) how the project objectives will be accomplished. Provide a detailed description of your proposed methods in a manner that can be understood by a wide range of transportation experts. Applicants should describe data collection procedures, including any likely challenges associated with gathering the necessary data, and clearly describe the methods that will be used to analyze the data.

5. **Project Tasks/Timeline.**

List specific project tasks and anticipated timeline for completion (e.g. Task 2: Develop survey and submit to campus Institutional Review Board – Months 2-3). Project duration is a maximum of 12 months and the timeline should account for quarterly meetings with an external advisor. **The task list should end with the submittal of a draft report prepared according to MTI formatting guidelines due 30 days prior to the end of the award period. All project reports will be peer reviewed and authors will be expected to respond accordingly to peer review comments when submitting a final report to MTI for publication.**

6. **Technology Transfer Plan.**

Describe (<250 words) how the results of this project will be disseminated. Journal articles and conference presentations are valued, but also describe what efforts will be made to ensure that the results are made widely available beyond the academic community. **All authors will be required to participate in ongoing technology transfer tracking after completion of the project.**

7. **Benefits to Californians/External Support for Project.**

Describe (approx. 250-350 words) how the results of this project will benefit Californians and how practitioners might apply the anticipated results. Please describe what existing interest there is from transportation professionals in California for the proposed research. **All proposals must include a letter of support from an external agency/organization/professional that indicates interest in the project and willingness to serve as an informal advisor. The external advisor should be an industry professional and not an academic. For proposals responding to a targeted research**

need listed in this RFP, the letter of support must come from the organization who submitted the research need (please contact Dr. Hilary Nixon, hilary.nixon@sjsu.edu, MTI Deputy Executive Director, for more information). The advisor should be willing to informally review project progress once a quarter during the period of performance and offer advice to the research team as well as review the final draft report. Modest financial compensation for the informal advisor can be included in the project budget (<\$500).

8. **Research Team Qualification.**

Describe (approx. 250 words per team member) the research team's relevant skills and experiences that will help ensure success. Applicants should describe the role and responsibilities of each team member.

9. **Budget Justification.**

Provide a budget justification. No capital expenditures (>\$5,000) or international travel expenses are allowed. No computer equipment such as desktop computer, laptop, printer, tablets, etc. will be allowed. General attendance at conferences is not an allowable expense. Student involvement is a requirement and should be explained.

10. **Prior CSUTC-funded Project.**

If the PI or co-PI has received prior CSUTC funding, please provide the title of the project(s) and briefly summarize how that project (or projects) has led to improvements in the transportation system for Californians, if that work has been leveraged to obtain any additional external funding to support ongoing research, and how the research team disseminated the results of the research.

◆ **Items Required for Submission**

The following items will be required for submission to InfoReady

1. Proposal, using the template available at Calstate InfoReady
2. Project Budget using template available at Calstate InfoReady
3. Letter of support from external advisor documenting interest in the project and willingness to serve as an informal external advisor. This advisor should not be an academic, but rather an industry professional/representative who can speak to the broader usefulness or applicability of the proposed research. The letter should indicate the advisor's willingness to meet with the research team at least quarterly and to review the final draft report. **For proposals responding to a targeted research need listed in this RFP, the letter of support must come from the organization who submitted the research need.**
4. Subrecipient commitment form for all proposals submitted from non-SJSU campuses
5. Two-page CVs for research team members (not students).

◆ **Evaluation Criteria**

The criteria and process for evaluating proposals is as follows:

Criteria	Rating Scale	% of Final Score (Weighting)
1. Does the proposal address a specific targeted research need?	Yes/No	Proposals that meet a targeted research need will receive a 10% bonus on their total score.
2. Does the proposal present a clear and concise understanding of the problem and project objectives? Is the research question clearly stated?	0 to 10	25%
3. Are the research methods appropriate for the proposed research? Is the approach to data collection and data analysis clearly explained? Does the proposed methodology address the ability to collect and analyze the data according to sound methodological practices?	0 to 10	35%
4. Are the proposed tasks achievable in the proposed timeline and budget?	0 to 10	10%
5. Are the technology transfer activities likely to achieve broad and appropriate dissemination of the research results and are the benefits to Californians and transportation practitioners clearly described?	0 to 10	10%
6. Is the research meeting a specific need in the transportation industry that will benefit Californians? Does the proposal clearly articulate that need and is the project likely to be successful in meeting that need? Does the letter from the external advisor suggest a strong interest in this project?	0 to 10	10%
7. Are the experiences and qualifications of the research team sufficient to ensure project success? Have they successfully completed similar/relevant research projects?	0 to 10	10%

Review committee members will be asked to comment on the strengths and weaknesses of each proposal and rate each proposal using the criteria and process described above. **In addition, if the PI or co-PI received prior CSUTC funding, on-time performance with that project will be considered in the evaluation.**

◆ **MTI Contact**

For questions about this RFP, please contact:

Dr. Hilary Nixon

Deputy Executive Director

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