

DIVISION OF RESEARCH, INNOVATION & SYSTEM INFORMATION

Research Initial Scope of Work SUBMITTAL FORM - FY 2022/23

- I. **Project Number:** 1743
Project Title: Performance Measures for the Caltrans Strategic Investment Strategy
- II. **Task Number:** 4169
Task Title: Quantitative Performance Measures for the Caltrans Strategic Investment Strategy
- III. **Project Problem Statement:** More research is needed to establish criteria and measurement methodologies for programs identified in the Caltrans Strategic Investment Strategy (CSIS). The CSIS will align project scoring criteria for project nominations with the key actions of the Climate Action Plan for Transportation Infrastructure (CAPTI), developed by the California State Transportation Agency (CalSTA). The purpose of this research request is to identify and establish quantitative performance measures and associated data/methodologies for the following criteria, which illustrates alignment of Caltrans Scoring Criteria with CAPTI:
1. Mode shift (active transportation, transit, and rail elements)
 2. Vehicle Miles Travelled
 3. Zero Emission Charging & Fueling Infrastructure
 4. Safety
 5. Climate Adaptation and Resiliency
 6. Natural Resources and Ecosystems
 7. Infill Development
 8. Freight Benefits
 9. Congestion Relief
- IV. **Objective:** The anticipated outcome of this project is the development of a robust set of quantitative performance metrics & measures and methodologies to assess project alignment with the Climate Action Plan for Transportation Infrastructure (CAPTI). This will result in a data- and performance-driven approach to project evaluation and nomination that will be documented in the final CSIS document and implemented for State and Federal competitive programs and the 10-Year Non-SHOPP Investment Plan.
- V. **Task Description of Work and Expected Deliverables:** The Office of Strategic Investment Planning (OSIP) requests research be conducted to identify comprehensive sets of quantitative performance metrics, descriptions, data sources, and methodologies to assess project alignment with each scoring criterion. OSIP requests identification of multiple quantitative performance measures per criterion to ensure applicability to various project types (highway, rail, active transportation, freight, etc.) and geographies (urban vs. rural).

For each performance metric/measure identified, OSIP requests:

- a) Description/definition of quantitative performance metric/measure
- b) Data Sources
- c) Methodology/Calculation, including well-supported justifications for the recommended methodology
- d) Applicable mode(s) of transportation
- e) Applicable geographical areas

VI. Background: The Climate Action Plan for Transportation Infrastructure (CAPTI), developed by the California State Transportation Agency (CalSTA), identifies key actions necessary for implementation of the CalSTA sections of EO N-19-19 and EO N-79-20. Under CAPTI Strategy 4.1, Caltrans is directed to, “Develop and Implement the Caltrans Strategic Investment Strategy (CSIS) to Align Caltrans Project Nominations with the CAPTI Investment Framework”. The Office of Strategic Investment Planning (OSIP) has commenced work on the Interim CSIS, which defines a qualitative assessment of project alignment with the CAPTI Investment Framework.

VII. Estimate of Duration: 6-8 months

VIII. Related Research:

IX. Deployment Potential: This research will develop and implement the Caltrans Strategic Investment Strategy (CSIS) to align Caltrans project nominations with the CAPTI investment framework. The development of an objective, performance-based approach to project planning, which will increase the effectiveness of our investments, advance state goals and priorities, and ensure that taxpayer dollars are funding the most equitable, sustainable, and safest transportation projects throughout California.

Upon receipt of the research results, OSIP will consult with Subject Matter Experts within the Division of Transportation Planning to determine final performance metrics/measures and data/methodologies to be utilized in the CSIS. OSIP will incorporate the measures and data/methodologies into the CSIS document. The final draft CSIS will be reviewed by Caltrans Executive Management and CalSTA in advance of release for public comment. Revisions will be made, resulting in the final CSIS, which will be utilized during project nomination evaluation for various funding programs and serve as guidance for future project development and prioritization of projects in the 10-Year Non-SHOPP Investment Plan.