TIPS FOR SECURING HSIP FUNDING

OVERVIEW

Under the federal Fixing America's Surface Transportation (FAST) Act, the Highway Safety Improvement Program (HSIP) is a federal-aid program available to States for the purpose of achieving a significant reduction in fatalities and serious injuries on all public roads. Through a competitive grant process, California's HSIP program provides local jurisdictions funding of up to \$10 million for infrastructure projects with nationally recognized safety countermeasures.

Local jurisdictions may be interested in applying for HSIP funding for locations with a high frequency of collisions and/or severe and fatal collisions, or for systemic safety efforts. This grant source is also a good opportunity for funding complete streets implementation projects, particularly those focused on countermeasures with a Caltrans-approved Crash Reduction Factor (CRF) as outlined in the California Local Roadway Safety Manual. Projects are funded largely based on a benefit/cost ratio, which is derived from the crash history (with an emphasis on fatal and severe crashes), project cost estimate, and expected safety benefit (based on countermeasure CRFs). Low-cost, quick delivery projects perform well in this process.

SSARP & HSIP

State funding for the Systemic Safety Analysis Report Program (SSARP) is made available by exchanging local HSIP federal funds for State Highway Account (SHA) funds. The intent of this program is to assist local agencies in performing a collision analysis, identifying safety issues on their roadway networks, and developing a list of systemic lowcost countermeasures that can be used to prepare future HSIP and other safety program applications. Systemic safety improvements are encouraged in HSIP applications and there is an opportunity in the application to flag projects developed as part of an SSARP plan. OCTA has prepared a Systemic Safety Plan, which provides recommended projects for 15 common crash typologies in Orange County.

WHAT'S NEW IN CYCLE 9

Caltrans announced the HSIP Cycle 9 Call for Projects on April 30, 2018. The application due date is Friday, August 31, 2018. \$140-160 million in funding is available for this cycle.

Updates to the Cycle 9 process, compared with past cycles, include:

- A new required PDF-based HSIP Analyzer application tool for cost estimates, countermeasure evaluation, crash data, and benefit/cost ratios. This PDF tool replaces previous spreadsheet tools. Applications will now be submitted electronically only.
- Early submissions are encouraged. Applications will be reviewed on a rolling basis and Caltrans may provide feedback on early applications.
- A minimum 3.5 benefit/cost ratio is required for the bulk of funding. Consider including additional locations in applications with high B/C ratios (30+) to achieve systemic benefits.
- There are six funding categories:
 - Benefit/Cost Ratio-based funding (75% of all available funds, available for projects with a minimum benefit/cost ratio of 3.5)
 - Set-aside for High Friction Surface Treatment (\$5 million; also requires B/C ratio with a minimum of 2.5)
 - Set-aside for Guardrail Upgrades (\$20 million)
 - Set-aside for Horizontal Curve Signing (\$5 million)
 - Set-aside for Pedestrian Crossing Enhancements (\$8 million)
 - Set-aside for Tribes (\$2 million)



BENEFIT/COST CALCULATION PROCESS

SELECT SAFETY COUNTERMEASURES

Key Consideration: Only three countermeasures (CMs) count towards B/C ratio.

DETAILED COST ESTIMATE

Key Consideration: Each CM must account for at leat 15% of total cost or seek exemption.

FEDERAL REIMBURSEMENT RATE DETERMINED

Key Consideration: Non-safety costs are limited to 10% of total cost.

DETERMINE PROJECT & LOCATION GROUPS

Key Consideration: Groups must be split by signalized, nonsignalized, and roadway

OTHER PROJECT COST ESTIMATES

Key Considerations: Set FRR to apply to other project cost estimates in this step. Total HSIP funds requested must be greater than \$100k, but less than \$10M per jurisdiction.

SELECT COUNTERMEASURES FOR EACH GROUP

Key Consideration: Selected CMs must apply to all locations within a group.

INPUT CRASH DATA FOR EACH GROUP

Key Consideration: TIMS does not include "property-damage only" crashes. Look to SWITRS.

CALCULATE BENEFIT/ COST RATIO

Key Consideration: Iterate to improve your B/C ratio by swapping in low-cost CMs.

NON-ORANGE COUNTY EXAMPLE



Existing conditions photos with key issues highlighted.

HSIP TIP 1: TELL THE STORY

Successful applications include narrative, exhibits, and additional documentation that help tell the story behind the benefit/cost ratio. Use the opportunities available in each of these application components to illustrate existing safety issues, how selected countermeasures will address spot and systemic crash patterns, and how community members or other stakeholders have expressed their support for the project. Creative ways to tell this story include:

- Photos and description of community engagement and community support
- Photos of existing conditions with diagrams and narrative of existing safety issues (see above examples)
- Visual depiction of countermeasure safety benefit for specific historic crash types



Collision diagram with countermeasure connections.

HSIP TIP 2: HIGHLIGHT THE DATA

Preparation of an SSARP planning study provides a powerful new tool to develop a subsequent competitive HSIP application that is supported by collision data. In addition to the required collision diagrams and collision lists, jurisdictions may want to consider including graphics that show locationspecific crash trends over time, analysis that provides a complete picture of crash types (was the pedestrian crossing in the crosswalk? was the crash at night?), and demonstrating how proposed countermeasures have been successful at other locations.

While the HSIP application must be supported by collision history, the SSARP process lays the groundwork for local jurisdictions to include systemic countermeasures across several locations. By building on the SSARP crash type framework, local jurisdictions will have the tools to discuss potential crash types at locations where a proactive approach to safety intervention is warranted.



GETTING CREATIVE >>

Approved safety countermeasures can be applied creatively to secure funding for innovative projects, such as identifying median refuge islands as a countermeasure in installing separated bikeways with protected intersections. Work with your local Caltrans District Office to understand how innovative solutions may be used in your application.



KEY CONSTRAINTS

- The Federal Reimbursement Rate (FRR) for an application is constrained by the countermeasure with the lowest rate.
 Countermeasure S3 (Improve Signal Timing) has a low 50% reimbursement rate, necessitating a larger local match.
- Applicants with Delayed HSIP Projects from previous cycles must resolve delays prior to application submission.
- If non-safety project components comprise more than 10% of project costs, FRR will be reduced by the same percentage.
- Countermeasure NS3 (Install Signals) cannot be combined with other nonsignalized projects in the same CM group.
- High-cost countermeasures, such as shoulder widenings, must demonstrate that an incremental approach has been tried, but failed to improve safety.
- Low-cost countermeasures are encouraged, but the minimum application amount is \$100k. Apply for systemic countermeasures across several locations through one application.

Protected intersection sample project.



FINAL CHECKLIST

- Project location and project description
- Location map, plans, and photos of existing conditions
- Roadway characteristics (classification, speed, ADT)
- Share of benefit to motorized and nonmotorized travel
- Narrative (identification of need, potential to address safety issues, crash data evaluation, prior attempts)
- Project cross-section (if applicable)
- Collision diagrams and collision lists
- HSIP Analyzer (countermeasure selection, cost estimate, B/C calculation)
- Warrants (if applicable)
- Letters of support (required for state highways)
- Engineer's checklist