

Innovation Pre-Proposal, Proposal and Final Report Format

Objective

The innovation requires a description on how the innovation can be utilized by Caltrans Maintenance in their strategies to maintain the flexible concrete pavements within their road system. The maintenance procedures are limited by the definition of surface treatments, up to 0.1 foot (1.2 inches) compacted. One exception is surface recycling which could include the top 4 inches of pavement.

The innovation can be a product, a process, an idea or other avenues, which can be used in a maintenance procedure that results in a benefit or improvement over existing procedures. Note, the format described below is meant to convey the necessary information (see below). As the pre-proposal moves to proposal stage and eventually to a final report stage, elements are simply added on per stage. This essentially starts the final report at the very beginning. Note that the pre-proposal, proposal and final report should all be submitted electronically (and eventually could be web-based).

Elements of the Innovation Pre-proposal

1. Title
2. Description
What is the innovation? Include patent information, if applicable
3. Benefits
What are the benefits of the innovation? How does this compare to similar innovations? Why is this innovation better?
4. Selection criteria
What is the appropriate pavement (e.g., age, location, distress, etc.) and application conditions of the innovation (e.g., pavement and air temperatures, day, night, humidity, etc)? Note that distress conditions must be consistent with Caltrans' Pavement Condition Survey Manual and/or the Maintenance Technical Advisory Guide, MTAG ([url: http://www.dot.ca.gov/hq/maint/MTA_Guide.htm](http://www.dot.ca.gov/hq/maint/MTA_Guide.htm)).
5. Specifications
Provide a specification. This includes other countries, states, industry or municipalities. Provide a copy with the report.
6. Background
Has the innovation been used in California or elsewhere? Does the innovation have any field performance data? Provide details.

Elements of the Innovation Proposal

Note that items 1-6 of the pre-proposal will be included as the first six items of the full proposal.

7. Potential Locations

Working with the Caltrans' champion identify potential sites for utilizing innovation. Provide Co-Route-Post Mile; job information (EA), if attached with a construction project; control sections; and construction season. Also, describe how each test section will be identified.

8. Estimated Costs

If Caltrans is paying for the innovation, the innovator will provide costs for pilot studies identified under item 7.

Separately, the innovator will estimate future unit costs for minimum and maximum project sizes. Note these unit costs are should be representative of production level costs and will be used in establishing life-cycle costs in the final report. Note, these estimates can be adjusted during the evaluation period.

9. Potential problems, impacts and remedies

Identify any potential performance problems and their remedies.

10. Warranties

Would you be willing to provide a warranty? Describe the terms of the warranty.

11. Safety

Attach any MSDS or safety forms received from the NPC, if applicable. Identify any additional safety issues that need to be addressed.

12. Evaluation Plan

Describe how you are going to evaluate the performance. Discuss the type of tests and/or evaluations that will be done, prior to innovation work, during the life of the project and the schedule. Criteria will be established to define success of the innovation. Identify who will be doing the testing and who will be responsible for the final report. A schedule of testing will be provided. A recommended reference is the "Guidelines for Maintenance Treatment Test Section Set-Up and Evaluation."

13. Definition of Success

Describe the performance and cost criteria that will define success. This should be compared to the current Caltrans practice.

14. Submitters

Names and contact information of both the innovator and the Caltrans champion.

Elements of the Innovation Final Report

Note that items 1-14 of the proposal will be included as the first part of the report.

15. **Evaluation Results**

Test results prior, during and after construction will be presented.

16. **Performance Analysis**

Results will be analyzed and the performance will be compared to current Caltrans practices.

17. **Life-Cycle Costs**

The performance and project costs will be examined for life-cycle costs. It is recommended that the life-cycle costs be compared to current Caltrans practice using the appropriate design lives and discount factors. Future anticipated production costs should be discussed here, also.

18. **Conclusions**

Discuss how the innovation compares to current Caltrans practice.

19. **Recommendations**

Successful innovations should be directed to the appropriate specification committee. Recommendations for improving innovations that “failed” (via the definition set up in step 13) should be described here.