Description of Technology Deployment Initiatives and Partnership Program (TDIPP)

Introduction

The Federal Highway Administration (FHWA) established the Technology Deployment Initiatives and Partnership Program in order to encourage innovations and technology transfer in highway design and construction. This program provides technology deployment to Federal Agencies, Tribal governments, state and local transportation agencies.

A technology feature is defined as:

> A material, process, method, equipment item, traffic operational device, or other feature that:
> 1) has not been sufficiently tested under actual service conditions to merit acceptance without reservation in normal highway construction, or
> 2) has been accepted but needs to be compared with alternative acceptable features for determining their relative merits and cost effectiveness.

This broad definition shows that a wide variety of things can qualify for the program. Technology features are often physical objects. One WFLHD project, for example, tried out a new type of pipe liner. Technology features, however, can also be a new technique for using conventional materials. On another WFLHD project, the "technology feature" was the development of a revegetation monitoring protocol. The equipment used was not technology at all.

There are only two criteria necessary for an initiative to qualify as a "technology feature".

- The first is that the initiative must have potential benefits to the transportation community or the public.
- The second is that the initiative must follow up the use or development with an evaluation of how well it worked.

The evaluation usually consists of documentation of measurements, inspections, or another type of analysis of the feature after construction, sometimes over a period of several years. For example, the evaluation of an technology traffic safety feature could consist of a comparison of accident statistics for several years before and after construction. Based on this comparison, the evaluator will make recommendations based on performance and cost in light of any problems.

TDIPP Process

The first step is to submit a preliminary proposal to the WFLHD Technology Deployment (TD). Preliminary proposals are submitted to the FLH Technology Coordinators on a simple one-page "Technology Deployment Needs Statement" form. Obtain copies of the "Technology Deployment Needs Statement" form from the WFLHD TD.

The WFLHD TD Coordinator funds these projects based on the FLH TD ranking. If a preliminary proposal ranks high enough for funding, it becomes part of the WFLHD TD work program for development as a TD initiative. The next step includes the WFLHD TD staff working with interested specialist to develop a more detailed workplan with budget and manpower estimates, work schedules, and other information.

TDIPP funds cover the costs of evaluation (instrumentation, measurements, data analysis etc.). Costs of evaluation work by project personnel are usually paid with construction engineering funds. Evaluation costs for work done after the construction is closed may be paid with TD overhead funds. The TD staff monitors the progress of the project and prints and distributes reports.

contracting

Technology projects require at least a final report. If the evaluation period lasts for more than a year, an annual report may be required. Any appropriately knowledgeable person may write the evaluation reports. The Safety Engineer/Specialist, for example, may be the appropriate people to evaluate a highway safety improvement.

Reports are submitted to TD, which will arrange for printing and distributing them to the FHWA and others. The TD Staff, however, does not normally perform the evaluations or write reports for Technology projects.