**NCHRP 20-44(26)**

**Implementing Guide Specifications for the Construction of Chip Seals and Micro**

**Surfacing**

**IMPLEMENTATION PLAN**

The NCPP intends to bridge the gap between research and practice by educating and

demonstrating the need for change to agency practitioners. The implementation plan is a multipronged approach with the goal of getting these national standards accepted and used by all state Departments of Transportation. The goal will be accomplished by a strong work effort in four phased tasks: messaging, outreach, training, and demonstration projects. Each task and its

associated activities will be fully coordinated with the Lead State (Minnesota DOT), the ETF

Messaging and Implementation (M&I) Steering Committee and conveyed to the NCHRP project

panel through monthly progress reports. The NCPP plans to work collaboratively with the ETF

M&I Steering Committee throughout the project to achieve this goal. Following award of the

project, the NCPP will submit an amplified work plan within 15 calendar days which will expand

upon the research approach identified in this proposal. The NCPP will also schedule a project

kickoff meeting immediately following submission of the amplified work plan.

**Task 1 - Information Dissemination**

An important first step is to assemble baseline data from an online survey. A questionnaire will

be developed and distributed through SurveyMonkey® that queries the knowledge of emulsion-based treatments, current specifications referenced by agency, their awareness and use of the

new guide specifications and the provisional design and material specifications. The NCPP will

administer the survey with input by the ETF M&I Steering Committee. The online survey will

be short to maximize responses.

The NCPP will work closely with the ETF M&I Steering Committee to develop clear and

concise messages that convey the benefits for implementing the new guide specifications and the

provisional design and material specifications. Although the NCPP and ETF are technically

strong, achieving the right message for the project is critical. The NCPP intends to enlist the

services of Paul Fournier, a recognized freelance technical writer who has written many articles

for preservation and construction publications. Mr. Fournier will draft several magazine articles

which are intended to heighten the visibility of the new AASHTO standards and specifications in

a relevant and meaningful way. Mr. Fournier will develop articles for publications such as the

Pavement Preservation Journal, Better Roads, and the FHWA Public Roads Magazine.

Once a series of messages has been developed, a speaker’s bureau will be assembled through the

ETF to ensure talking points are consistent, clearly articulated, and free of proprietary interest.

The NCPP will participate in the speaker’s bureau. Selected individuals must be knowledgeable

and be an effective speaker. Speaker’s bureau members will actively engage audiences about the

benefits of implementing the new AASHTO guide specifications and the provisional design and

material specifications.

Audio-visual tools will be used to raise awareness, enhance knowledge, and provoke thought and

discussion. Working closely with the ETF steering committee, the NCPP will develop a series of

PowerPoint presentations and short videos to be used in outreach activities, training sessions and

on selected electronic forums.

Products will be developed to disseminate the information through several electronic forums.

The use of social media as an outreach tool is an efficient means to reach a wide audience and

convey the need to use the new national specifications for pavement preservation treatments.

Information will also be posted on websites such as NCPP (www.pavementpreservation.org),

AASHTO TSP·2 (www.tsp2.org), Pavement Preservation & Recycling Alliance (PPRA)

(https://roadresource.org), and others. Linking NCHRP 14-37 research findings to preservation

websites will allow pavement practitioners to find the new construction guides. Web

conferencing will be used when a need arises to hold live meetings, presentations, and training

via the internet. The NCPP has access to all electronic media and plans to utilize these forums.

Brochures and flyers are also versatile and effective tools in reaching a wide audience.

Brochures will be professionally printed on high quality paper in a tri-fold layout giving the

benefits of using the construction guidance specifications, material standards and design

provisions. Flyers will be single sheets of printed material designed to raise awareness of

changing to national standard specifications. These materials will be used extensively at

conferences, meetings, and workshops.

Finally, with the assistance of the ETF, a training syllabus and short course will be developed by

NCPP that covers construction guidance and advancements in emulsion-based specifications.

The short course will be used in Task 3.

**Task 2 – Outreach**

The survey conducted in Task 1 will help determine who are the stakeholders and decisionmakers

within the agency. It is important that outreach activities address the right people who

are the actual stakeholders. These stakeholders include pavement practitioners from owner

agencies and the contracting community. Relevant and consistent message will be brought to

targeted events by members of the ETF speaker’s bureau.

At the national level, presentations will be given to state DOT stakeholders at two AASHTO

Committee annual meetings; the Committee on Materials and Pavements (COMP) and the

Committee on Maintenance (MAC). In addition, presentations directed to local agencies will be

made at annual meetings of the American Public Works Association (APWA) and National

Association of County Engineers (NACE). Industry sponsored events attended mainly by the

contracting community that comprise contractors and suppliers include the Pavement

Preservation & Recycling Alliance (PPRA) annual meeting and the annual ISSA Slurry Systems

Workshop.

Regional meetings are held annually by the four regional AASHTO TSP·2 pavement

preservation partnerships. These meeting are attended by state pavement practitioners engaged

in selection, design, and construction of pavement preservation treatments. Engagements with

the American Society of Civil Engineers (ASCE) and Asphalt User Producer Groups will also be

made at the regional level.

There are many events addressing highway issues held annually within every state. These events

are sponsored by either state DOTs, county, municipal or local technical assistance programs

(LTAP). Opportunities exist to share information to many people at these events, whether it is

speaking or distributing brochures and flyers about the need to embrace the construction guide

specifications and new AASHTO standards. All the events are appropriate venues to proclaim

that new construction guides and approved standards are necessary to improve treatment quality

and performance. In addition, as new AASHTO standards for emulsion-based treatments are

approved, they will be included in the outreach effort.

It is anticipated that as part of this project, a minimum of 18 events will be attended where

presentations will be made. The travel expenses for ETF agency and academic members are

allocated in the project budget for approximately half the events while travel made by ETF

industry members are to be provided pro bono to the project. Travel arrangements for ETF

agency and academic members will be made by NCPP.

**Task 3 – Training**

Many agencies and contractors alike are experiencing a rapid turnover of personnel. Often, new

personnel lack an understanding of the emulsion-based treatments used today. Training is

crucial to give employees a sound understanding of these treatments. Free online training is

available through NCPP and PPRA. People taking these training courses will acquire the

background knowledge necessary to grasp the importance of the new construction guides and

provisional specifications. Links to the training will be made available through electronic media

and printed materials as part of this project.

The NCPP and the ETF will utilize two training methods: (1) instructor-led classroom training

and (2) webinars. The short course developed in Task 1 will convey the importance of following

the new construction guides and provisional specifications. It will cover practices found in the

construction guide specification and describe essential features covered in the standards for

materials and design practice standards.

The targeted audiences include: (1) personnel responsible for implementing the specifications

and (2) pavement management personnel, project development staff, construction engineers,

field technicians, QA engineers, material engineers and inspectors, maintenance administrators,

engineers, and field crews at state and local agencies. The content of the training material will

be tailored to the needs of the course participants. Instructors will be members of the NCPP and

the ETF speaker’s bureau. Generally, two instructors will be present at most training sessions

and one instructor will have an agency background while the other will have an industry

background.

The AASHTO TSP·2 Regional Pavement Preservation Partnership meetings (administered by

NCPP) can provide an optional training program held after each of four annual regional

meetings. Overall, it is estimated that personnel from at least 30 state DOTs would attend the

four combined training programs.

Workshop sessions are often offered at various conferences and annual meetings. These are

excellent venues to bring awareness of the research findings of NCHRP 14-37 and the progress

made to deliver national standards to emulsion-based pavement preservation treatments.

Organizations that offer in-person training programs or webinars will have the opportunity to

utilize material from the Task 1 short course. These include the National Center for Pavement

Preservation (NCPP), the National Highway Institute (NHI), and the AASHTO Transportation

Curriculum Coordination Council (TC3). Brochures and flyers will be sent to Local Technical

Assistance Program (LTAP) offices which will invite individuals to participate in a NCPP and

ETF webinar that introduces the local agencies to the research findings of NCHRP 14-37 and

new AASHTO standards for materials and design.

Funds have been budgeted to cover the travel expenses for an ETF agency/academic instructor to

provide training. It is estimated that funds are available for 14 training sessions. Travel

arrangements for ETF agency and academic members will be made by NCPP. Travel made by

ETF industry instructors will be provided pro bono. Finally, on-site training and technical

assistance offered with each field demonstration is budgeted in Task 4.

**Task 4 – Demonstrations**

Demonstration projects are a valuable way to showcase construction using the NCHRP

construction guides and provisional standards to owner agencies. Many agencies regularly use

emulsion-based treatments as part of their pavement preservation program. Discussions will

begin immediately with those agencies having interest in scheduling a demonstration project. A

chip seal, micro surfacing, and fog seal project will be planned and scheduled in each of the four

AASHTO regions. In addition to the three treatments mentioned, other treatments may be

showcased using new AASHTO standard specifications as they become available.

Technical assistance will be offered prior to construction to prepare the contractor and agency’s

project team by highlighting the construction guides and provisional material standards. Every

effort will be made to visit the site during construction, but due to many unforeseen factors such

as weather, it is unlikely that coordination of travel will always correspond with construction

activities. However, despite coordination difficulties that may arise, an overview of the process

and a short on-site training session will be presented by NCPP and a member of the ETF speaker

bureau. The hosting agency project team will be invited to present their experience using the

new process.

Local agencies throughout the state will be invited to visit the project site and attend the on-site

training session. The NCPP will coordinate all notifications through the hosting agency and the

state LTAP office.

In addition, once all the regional demonstration requirements have been satisfied for chip seals,

micro surfacing, and fog seals, additional emulsion-based treatments may be demonstrated

provided the corresponding AASHTO standards are approved.

Depending on transportation costs, travel expenses will be available for approximately 16 DOT

attendees from adjoining states. Travel arrangements for agency and academic members will be

made by NCPP. Travel made by interested contractors and suppliers will be self-funded.

**Task 5 – Final Report**

Upon completion of the previous tasks, a final report will provide a critical assessment on

achieving the project goal of gaining acceptance and use of NCHRP Project 14-37 construction

guide specifications and the corresponding AASHTO standards by all state Departments of

Transportation. If insufficient information is received from agencies throughout the course of the

project as to how many more have adopted the AASHTO standards, a final survey will be

conducted. The final report will provide a detailed narrative describing activities taken to

accomplish the goal and the outcomes of those efforts. The activities will be measured by the

number of publications developed, speaking engagements at meetings, workshops, and

conferences. The report will also include outcomes of the demonstration projects and an

assessment of the practicality, pros, and impediments to implementing the standards. Finally, the

report will describe plans to sustain the effort to agencies beyond the end of the project.

In addition, the final report will compile the total costs spent on the project. They will include

both NCHRP expended funds and, to the extent provided, those expenditures contributed pro

bono by ETF member associations and companies for assisting with professional services,

expertise, and related travel.

**Time Requirements**

