WHEREAS, The TSP² program was originally established and approved on May 8, 2005 by the AASHTO Board of Directors as PR-10-05 to support a voluntary assessment of $6,000 per year to provide funding to support the Phase 1 functions of the Transportation System Preservation Technical Service Program and

WHEREAS, Phase 1 will continue the support of TSP² utilizing the current voluntary assessment of $6,000 per member department, and

WHEREAS, Based on the first years successful national program the need to continue to establish and operate regional pavement preservation partners and regional organizations that have been in place for the past few years utilizing pool funding it is desirable to bring all of these partners under on Technical Service Program; and

WHEREAS, To continue this support additional funding will be necessary; therefore be it

RESOLVED, To authorize an additional voluntary assessment by AASHTO of member departments in the amount of $3,500 for a total assessment of $9,500 to continue the national program and establish a pavement preservation partnerships in each region of the country on a continuing basis; and be it

RESOLVED, That, with full pool State concurrence, the remaining balances in the existing pool fund programs be transferred to the AASHTO Technical Service Program account; and be it

RESOLVED, That a report be provided by the TSP² Oversight Panel at the AASHTO 2008 spring meeting on the feasibility of expanding the TSP² to include Phase 3 goal on bridge preservation, however, this program will not be started until goal 1 and 2 has been successfully established; and be it

RESOLVED, That the Standing Committee on Highways approve the expansion of this much needed TSP² Program ahead; and finally be it

RESOLVED, That the final approval requires action by the AASHTO Board of Directors.
Mr. Neil J. Pedersen  
Vice Chair – Standing Committee On Highways  
State Highway Administrator  
Maryland Department of Transportation  
State Highway Administration  
707 North Calvert Street  
Baltimore, Maryland 21202

Dear Mr. Pedersen:

Subject: TSP² Program and AASHTO Voluntary Contributions for FY 07-08

The purpose of this correspondence is to report on our accomplishments to date for the (AASHTO) Transportation System Preservation Technical Services Program (TSP²) and to make you aware of future funding requests to support advancement of this program. You may recall, operation of the TSP² began in mid-2006 with the creation of the preservation "Help Desk" and website operated on behalf of AASHTO by the National Center for Pavement Preservation (NCPP).

Contributions of $6,000 per state were solicited to fund the initial development of the TSP² and to permit its operation for a period of one year. Thirty-four States responded to this initial request. The TSP² program has been utilized extensively by numerous state agency personnel to solicit expert assistance in many areas of pavement preservation such as specifications, project selection, construction practices, preservation concepts, network evaluation, asset management, and policy/strategy development.

Given the success achieved date (see the attached TSP² Annual Report), AASHTO will solicit follow-on request to each member agency for $6,000 in July 2007. These funds will permit continued operation of the TSP² Help Desk, website, and technical transfer programs through mid-2008.

In addition to establishing and providing the TSP² program services, we are initiating the second phase which will permit the creation of regional pavement preservation partnerships to facilitate technical cooperation, information sharing, and the discussion of preservation needs between agency practitioners and private industry. To date, partnerships which have been created include those in the Northeast, Midwest, and Southeast regions. Additional partnerships are planned for the Rocky Mountain and Pacific States regions in the coming year.

An additional $3,500 from each member state will be required to facilitate the creation of these new partnerships and continue those already established. This solicitation will go out in
October if approved at the fall AASHTO meeting. A few states previously committed funds to a Federal Highway Administration (FHWA) pooled-fund to create these regional pavement preservation groups back in 2004. However, due to difficulties in organizing this effort under the FHWA pooled fund process, only a portion of this money has been spent. FHWA will work with those States to de-obligate or transfer remaining funds to the AASHTO voluntary fund account. This move should reduce overlap and potential program redundancy.

I trust that this letter adequately explains the purpose of these upcoming funding requests. The positive response that we have received from the many agencies who have utilized the TSP² and the enthusiasm of those who have participated in the regional preservation groups, convinces us that these are efforts which warrant our full participation. I am attaching a copy of the FY 06-07 TSP² Annual Report for your review and consideration. If you have any questions, please do not hesitate to contact me or other members of the TSP Oversight Panel at your convenience.

Sincerely,

W. S. Varnedoe, P.E.
Chief Engineer – Operations
TSP² Panel Chair

Attachment

WSV/dra

cc: Ken Kobetsky, P.E., AASHTO
    Carlos Braceras, P.E., Deputy Director, UDOT
    Russ Yurek, P.E., Director of Maintenance, MDOT
    James Sorenson, P.E., FHWA
    Larry Galehouse, P.E., NCPP
    TSP² Oversight Panel Members
Mr. Steve Varnedoe, Chair TSP2 Panel
North Carolina Department of Transportation
1537 Mail Service Center
Raleigh, NC 27699

Subject: TSP2 Annual Report

Dear Steve,

The National Center for Pavement Preservation (NCPP) is pleased to present this first annual report on the progress and status of the Transportation System Preservation Technical Services Program (TSP2) to the American Association of State Highway Transportation Officials (AASHTO and program Oversight Panel. This report is to apprise you, the AASHTO executive board, and AASHTO members of the achievements and effectiveness of the program, and to present future concepts for providing enhanced services.

For clarity, I have broken down our discussion of the TSP2 program into 4 primary service areas as shown in the following sections.

**Help Desk Activities**

In the 10 months beginning June 2006 and ending March 2007, the TSP2 Help Desk handled nearly 200 requests for assistance from various state highway agencies and affiliated organizations. Practitioners requested assistance most commonly by telephone, although email requests and those handled via the website were also fairly common. Help requests during the period covered a wide range of transportation infrastructure preservation issues including:

- **Preservation Treatments** – requests included appropriate project selection, best practices, quality control, and construction methods for a diverse range of treatments such as microsurfacing, slurry seal, ultra thin overlays, crack sealing and filling, chip seals, fog seals, sand seals, armor coats, and NovaChip.

- **Application Conditions** – many inquiries focused on assessing the appropriate environmental and road base conditions for particular treatment applications, such as temperature extremes, mountainous geography, extremely arid environments, etc.
• **Materials** – many callers were interested in performance issues of certain materials or the selection of the proper type of materials for a particular treatment. Materials issues addressed included the use, storage and handling of polymer modifiers; aggregate quality, morphology, and retention issues; emulsion versus hot mix binders; the use of rubberized asphalt; and traffic loading conditions.

• **Cost Benefit and Life Cycle Issues** – several inquiries were fielded dealing with the economics, cost-benefit analysis, and life extending benefits of preservation methods in general, and of specific treatments.

• **Asset Management** – many calls to the Help Desk involved overall planning issues related to the integration of pavement preservation techniques into overall network management.

• **General Preservation** – several agency practitioners expressed general interest in receiving any information about the fundamental concepts and benefits of pavement preservation.

• **Literature and Documentation Requests** – the TSP\(^2\) Help Desk received many, many requests for informational literature such as the recently published “Quick Network Evaluation Guide,” documents and videos from the on-line or physical library collections, or other publications offered by NCPP through the TSP\(^2\) program.

**TSP\(^2\) Website and On-Line Services**

Since reliable statistical tracking data of the TSP\(^2\) website usage became available in August 2006, over 102,000 page views have been documented through the end of March 2007. As Figure 1 illustrates, monthly page “hits” have increased nearly 300% from 4,507 in August 2006, to 17,750 in March 2007.

The most popular features of the TSP\(^2\) website continue to be the on-line document collection, the recently implemented photo gallery of preservation treatments, and the event calendar. Since the TSP\(^2\) website went “live” in late June 2006, over 100 new documents have been added to the on-line library collection, many of which, are restricted to TSP\(^2\) member access only. The total current on-line document count consists of 662 technical papers, presentations, videos, and downloadable software titles.
Figure 1: TSP2 Website Activity Aug-06 to Mar-07

Figure 2: Preservation Treatment Screening Tool
In October 2006, a new user tool was added exclusively to the TSP² website – The Surface Treatment Screening Tool (Figure 2). Based upon the treatment selection matrix developed by CALTRANS and available in the Maintenance Technical Advisory Guide (MTAG), the screening tool allows users to input roadway condition, environmental, distress, temperature, and traffic volume conditions, which will then be used to develop a list of potential treatment alternatives, their respective costs, and life extending benefits. The NCPP currently has plans to add additional tools of this type in the coming year.

Technical Transfer

Over the last 10 months, the NCPP has engaged in several “Technical Transfer” activities directly related to the TSP². These activities included:

- Organized and participated in a meeting with representatives of the University of Kentucky, the Infrastructure Technology Institute at Northwestern, and FHWA officials, at Northwestern University in an effort to step-up efforts to integrate bridge preservation into the TSP² program.
- Attended and participated in the Annual Transportation Research Board (TRB) meeting held in January 2007 in Washington, DC. Participation included activities in preservation oriented committees, technical presentations discussing preservation and the TSP², and a booth through which technical brochures and information on the TSP² program were distributed.
- Development and distribution of the Quick Network Assessment Guide (aka, the “Little Red Book”) and its companion network evaluation worksheet via the TSP² website, conferences (including the fall 2006 AASHTO meeting), and through postal mail via telephone and email requests. This document promotes the concept of remaining service life (RSL) and use of available network level data to evaluate and balance program delivery based on needs and fiscal constraints. We would like to have this peer reviewed by the related AASHTO Committees for their consideration as an AASHTO Guide on RSL. We will be submitting this to the Asset Management, Maintenance, Structures and the Joint Taskforce on Pavements.

Regional Pavement Preservation Partnerships

Two regional Pavement Preservation Partnership Meetings were coordinated and facilitated in April 2007 to make them aware of what the technical services program has to offer and to determine their interest in establishing partnerships on a continuing basis. The proposed Northeast Pavement Preservation Partnership (NEPPPP) and Southeast Pavement Preservation Partnership (SEPPPP) meetings were coordinated through the lead states of the New York and North Carolina, respectively. These groups have closely aligned themselves to AASHTO Regions I and II. Reports for these meetings are under development at this time.
Highlights of these meetings include:

- NEPPP-Representatives of the 8 state agencies present at the meeting overwhelmingly recognized the benefit of the preservation partnership and unanimously approved continuing to fund future meetings with an additional annual contribution of $3,500 to AASHTO.

- SEPP-Participation in the SEPPP meeting included 10 state agencies. There was unanimous agreement to pursue continued meetings and funding of this group through the AASHTO program.

- Despite the fact that both the NEPPP and SEPPP meetings were arranged on relatively short notice, overall participation was enthusiastic and substantial.

- The April NEPPP meeting coordinated through TSP\textsuperscript{2}, was actually the third such meeting for that partnership group. The SEPPP meeting was the first such meeting for that group, although interest had been expressed previously in forming a partnership through a pooled fund. The first meeting of the SEPPP was held during the week of April 23\textsuperscript{rd} in Raleigh, North Carolina. Participant response to the meeting was overwhelmingly favorable, with the members voting to proceed forward with the partnership group.

- Participants in each regional meeting felt there was significant value in working toward common specifications for materials and treatments as well as development of technical training and certifications for preservation activities. Coordinating and communicating planned projects and projected workload among states in the region could also help establish a contractor base that might not currently exist for certain treatments.

**Status of Program Budget and Expenditures**

As of January 31, 2007, total expenditures on the TSP\textsuperscript{2} program amounted to $116,325.07 out of an original contract amount of $170,000. Contributions by AASHTO member states to the program as of April 17, 2007 totaled $198,000.

Please refer to Attachment “A” which provides a breakdown of invoiced labor and expense amounts and project balances as of January 31\textsuperscript{st}.

**Achievements**

Under the stewardship of the NCPP, the TSP\textsuperscript{2} program has realized a number of noteworthy achievements since its inauguration in June 2006. A few highlights of these accomplishments include:

- A 3-fold increase in the use of the TSP\textsuperscript{2} website.

- Substantial increases in the utilization of the Help Desk as word of the TSP\textsuperscript{2} program continues to spread through NCPP’s efforts at promoting the
program via journal and trade magazine articles, news items, conferences, brochures, etc.

- Notable increases in requests for access to, and information about the Help Desk and TSP² website.

- The program has successfully served as a major conduit through which useful preservation tools and technical information can be brought to the attention of, and distributed to, transportation infrastructure preservation practitioners.

- Participation and involvement in bridge preservation related meetings – a first step in realizing an important goal of the TSP², which is the integration of all technical areas of transportation-related asset preservation, not just pavements.

**Action Items**

The TSP² program is slated to be implemented in three distinct process phases. Phase I, which is already underway, involved the collection of $6,000 per state agency per annum for the purpose of establishing the TSP² Help Desk and website in 2006. Future program action items will include:

1. **Phase I Continuation** – continued operation of the TSP² Help Desk is contingent upon continued funding in subsequent years. Thus far, a tentative commitment has been made for up to two (2) additional years (3 total). As the utilization of the Help Desk continues to increase, a steady revenue stream will be of increasing importance.

2. **Phase II Implementation** – involves the collection of $3,500 per agency each year for the purposes of establishing and operating regional Pavement Preservation Partnership groups. Phase II has been partially implemented, with successful meetings being held for the Midwest, Northeast, and Southeast regions. Future efforts will be aimed minimally at establishing groups in the Mountain and Pacific regions. Continuation and expansion of funding is required to maintain the existing groups and establish new partnerships. Thus far, support for the fledgling partnership groups has been overwhelmingly positive.

3. **Phase III** – once Phase I and II have been successfully established, Phase III will be implemented. Phase III will consist of the collection of $5,500 per state agency per annum for the purposes of integrating Bridge and Road Side Appurtenance preservation and maintenance capabilities into the TSP² program. Efforts have already been undertaken by the NCPP to solicit broad based and representative participation by bridge practitioners and roadway maintenance specialists at the national level. Active participation of bridge and maintenance engineers is essential to ensure that the TSP² program effectively serves the needs for transportation infrastructure preservation in a comprehensive and integrated manner.
The NCPP looks forward to providing continued service to AASHTO on the TSP\textsuperscript{2} in
the coming year. We believe the future of the program is bright, and that many
exciting opportunities for expansion of the program to cover bridge and other highway
assets lies ahead. Based on the level enthusiasm of the participants in the
partnership meetings in the northeast and southeast and contacts from the other
regions of the country it appears there is significant support from the states to
continue to enhance this program.

If you have any questions, please do not hesitate to contact me at your convenience.
We look forward to our continuing relationship with AASHTO in our mutual mission of
spreading the message for Transportation System Preservation and improved Asset
Management applications.

Respectfully submitted,

Larry Galehouse, P.E., P.S.
Director

cc: Ken Koebetsky, AASHTO Program Director
    Tom Raught, New Mexico DOT
    Roy Rissky, Kansas DOT
    John Vance, Mississippi DOT
    Peter Weykamp, New York State DOT
    Russ Yurek, Maryland DOT
    Carlos Braceras, Utah DOT, Chair SOM
    James Sorenson, FHWA, Office of Asset Management, Secretary SOM