

RD&T Technology Facilitation

Product Action Plan

Product - Performance Related Specific - for Pavements

Description of Product - HMA and PCC paving construction performance-related specifications (PRS) with guidelines for their development, including software (HMASpec 1.0 for HMA and PaveSpec 3.0 for PCC) to assist both during development and during use.

Intended User - Primarily Federal, State and local highway agencies that currently have specifications and paving contractors interested in what it takes (in terms of materials and construction quality) to achieve performance.

Distribution methods - Reports and CD-ROM's will be distributed appropriately. The technology (theory, concepts, application, etc) will be presented in training courses and seminars.

Delivery Date - Some reports have already been delivered. Other reports to be delivered upon printing. Some copies of CD's have already been delivered. CD's to be delivered to Federal, State and local highway agencies by August 31, 2000.

Future Actions Needed / Planned - (1) NCHRP research ongoing to finalize HMA PRS and Beta test HMASpec software, (2) Presentation of national coordinated 5-year strategic plan for implementing PRS to AASHTO, FHWA, and industry groups, and (3) execution of the strategic plan once buy-in of customers and partners has been obtained.

Program/Product Support -

R&D Contact(s) - Peter Kopac, Portland Cement Concrete Pavement Team (HRDI-12)
Terry Mitchell, Asphalt Pavement Team (HRDI-11)

CBU Contact(s) - Ken Jacoby (HIAM-20), John D'Angelo (HIPT-10), Don Tuggle (HOA-3), Gary Crawford (HIPT-20), Suneel Vanikar (HIPT-20), Roger Larson (HIPT-20), Ben Tang (HIBT-10), Jim Sorenson (HIAM-20)

Resource Center Contact(s) - Mike Smith (Southern)

Division Office Contact(s) - Lee Gallivan (IN), Gregg Schiess (FL), Bob Callan (Reg 3), Kathy Petros (Reg 9)

Other Contact(s) - Sam Miller (MDDOT), Bernie McCarthy (AI), Dave Newcombe (NAPA), Bob Betsold (IPRF), Haleem Tahir (AASHTO Mat), Ken Kobetsky (AASHTO), Ed Harrigan (NCHRP), Freddie Simmons (FDOT), Larry Cole (ACPA), Charlie Prior (NSA), Farood Zandi (INDOT), Bob Templeton (NQT)

Future Actions Needed / Planned - (1) The formation of a PRS Management Steering Committee with representation from AASHTO, FHWA, individual DOT's, and industry organizations, (2) National management focus to all FHWA field offices, (3) FHWA technical advisory on PRS.

Outreach -

Conference Presentations - (1) Presentation of national coordinated 5-year strategic plan for implementing PRS to AASHTO, FHWA, and industry groups, (2) TRB session on PRS, (3) Presentations at Regional Quality Assurance Conferences, (4) Presentations at NQI conferences, (5) Presentations at ACPA, NAA, AI, NAPA, AGC, etc. conferences and seminars.

Publications - (1) Several Transporter articles, (2) A Public Roads article that describes PRS, offers convincing logic for adopting PRS, and presents the national coordinated strategic plan for implementation, (3) a brochure that does the same, (4) FHWA R&D Report from staff study on PRS, and (5) articles in various publications

Other Outreach Activities - (1) PRS displays as part of PCC Pavements TRB booth, (2) Effort to make AASHTO QA specs performance-related, (3) Write new AASHTO recommended practice for developing, evaluating, and monitoring QA/PRS specifications, (4) Establish Technical assistance help desk, (5) Establish newsletter.

Future Actions Needed / Planned - (1) Website for PRS information will be established, (2) National Conference in 200(?) needed, (3) Regional Workshops (one per Resource Center) needed, (4) Concrete and asphalt trailers will provide shadow project and pilot project support and PRS technology understanding.

Training -

Materials Needed - (1) Training Manual containing PRS history, definitions, concepts, sample specs, steps for developing PRS, guidelines for using PRS, information systems, and case studies; (2) Updated PaveSpec and HMASpec software; (3) Audio/visuals aids.

Instructor Requirements - Instructors with expertise covering HMA and PCC paving construction, pavement design, statistics, life-cycle cost analysis, and computer technology. Currently, there are few available potential instructors having sufficient knowledge of PRS. Train the trainers-type course is appropriate.

Schedule of Training / Workshop / Briefing - (1) Training on PRS can initially be incorporated into current NHI Quality Assurance course and into Materials Engineers course; (2) Later, a course for PRS only will need to be developed; (3) Highway agencies will need individual training and assistance in order to develop PRS.

Intended Audience(s) - (1) Administrators who need to understand benefits/drawbacks of PRS and why use PRS, (2) specification writers who will develop PRS, (3) construction engineers, inspectors, and technicians who will use PRS (both highway agency and contractor), (4) suppliers and producers who will be impacted by PRS, (5) highway agency personnel who will be using data generated by PRS.

Future Actions Needed / Planned - (1) Determine agency level of understanding and training needs, (2) Form user/producer group to develop and manage education process, (3) Detailed planning of PRS course(s) to be developed and submission of RFP.

Program Integration -

CBU Contact(s) - (1) FHWA technical advisory needed to provide guidance for highway agency use of PRS, (2) PRS needs to be incorporated in SEP 14, (3) Need to maintain list of resources available to help achieve implementation, (4) Develop list of FAQ's on PRS, along with answers, (5) Maintain feedback from states, (6) Concrete and asphalt trailer will provide shadow and pilot project support, (7) Establish and maintain technical assistance help desk, (8) Establish and maintain PRS web site.

RC Contact - RC contact will (1) determine current practice of specifications, (2) identify key people at the agency and industry level, (3) promote use of PRS, identify agencies interested in adopting PRS, and work closely with those agencies to assure proper PRS development and application.

Research Contact - R&D will (1) continue PRS-related research, including PRS for applications other than HMA or PCC paving, (2) assist with implementation by providing advice and review during PRS development, (3) gather data to quantify life cycle cost savings from PRS.