The California Pavement Preservation Center (CP² Center)

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Prepared for Rocky Mountain West Pavement preservation Partnership Annual Meeting
Reno, NV
October 4-6, 2011
NEED FOR A PAVEMENTS CENTER

- Caltrans established the California Pavement Preservation Center on July 1, 2006
- Purpose is to accommodate the needs for pavement preservation for both governmental agencies and industry

http://www.cp2info.org/center
MISSION STATEMENT

To serve as a leader in a partnered effort between government, industry and academia participants to advance and improve pavement preservation practices through education, innovation, applied and practical research, technology transfer, and implementation.
CENTER OBJECTIVES

- Serve as a technical resource for pavement preservation activities within the state of California.
- Educate others about the benefits of pavement preservation in partnership with the Caltrans and industry. This would involve educational programs at the university as well as distant learning opportunities.
- Enhance pavement preservation knowledge through research and training.
- Advise and assist others to establish a pavement preservation program.
PPTG Advisory Board

DingXin Cheng
Director

R. Gary Hicks
Program Manager

Administrative Assistant

Training and Staff Development
Technical Assistance
Research and Innovation
Promotion of Pavement Preservation

Full staff roster on CP² website.
CENTER’S GOALS/SERVICES

- Become a credible 3rd party for Caltrans, local agencies and industry
- Experts in evaluation of new products and innovation in pavement preservation
- Partners in conducting pavement preservation research and implementing practical findings
- Promoting useable pavement preservation tool (seal coats, overlays, HIR, and CIR)
- Assist with forensic pavement studies
PARTNERSHIPS/RESOURCES

- Caltrans
- Pavement Preservation Task Group (PPTG)
- Rocky Mountain West Pavement Preservation Partnership (RMWPP)
- Federal Highway Administration (FHWA)
- National Center for Pavement Preservation (NCPP)
- American Association of State Highway Transportation Official (AASHTO)
- Foundation for Pavement Preservation (FP2)
- Provides the seed money for the center
- Provides direction on the operation of the center
- Identifies many of the work elements for the center
- Reviews the work of the center
- Partnership between Caltrans, other agencies, industry, and academia
- Provides advice and technical oversight for the center
- Assists in identifying work elements for the center
- Provides feedback on the center operations
INDUSTRY

- Assists the Center with instruction
- Provides grants for equipment and scholarships
- Facilitates practical research-lab and field
- Provides opportunities for internships
- Provides industry interns to work in the Center
Other Partners

- CalRecycle
  - City of Roseville
  - City of Stockton
  - Other counties and cities

- Local agencies (MSA, APWA, MTC)

- Other Agencies
  - Alaska DOT & PF
  - FHWA
INTERACTION WITH OTHER PAVEMENT CENTERS

- Partnered Pavement Research Program, University of California
- NCPP – Michigan State
- Texas PP Center – UT Austin
- NCAT - Auburn University
- Concrete Centers – Arizona State, CSU Chico, Iowa State, and others
Center is located near the University campus
Concrete labs in Langdon Hall are being updated using industry funds
Asphalt lab is being developed
Both labs will eventually co-exist in one facility

Managing our investments is important and big business
MEASURES OF SUCCESS OR FAILURE

- Quality of educational & outreach programs
- Technical assistance provided
- Implementation of research and new technologies
- Successful Internship program
- Improvements in the pavement preservation process
• Strategic planning meeting held August 29-30, 2006
• Identified the major issues/challenges facing the pavement preservation industry in California
• Developed a practical vision for the Center for the first 3 years
• Prioritized issues based on need and value added
• Charted a roadmap for the Center
Activities During the 2007-2010

- Five tasks
- Funded at $600,000 per year
- Project directed by Shakir Shatnawi
- Completed numerous deliverables
TASK 1: DETERMINE AND DEMONSTRATE BENEFITS OF PAVEMENT PRESERVATION

- **Actions**
  - Track performance of existing strategies
  - Determine/document benefits
  - Conduct LCCA

- **Deliverables**
  - White paper for decision makers
  - Report to document benefits of pavement preservation
TASK 2: PROVIDE TRAINING AND EDUCATION

- **Actions**
  - Develop training sessions & workshops on the importance of pavement preservation
  - Develop a training session on the MTAG
  - Assist Caltrans in planning & conducting an annual conference on pavement preservation

- **Deliverables**
  - Training sessions and workshops on the MTAG
  - Conduct Annual conferences
    - First International conference
      - [www.cp2info.org/conference](http://www.cp2info.org/conference)
TASK 3: IMPROVE PAVEMENT PRESERVATION PERFORMANCE

- **Actions**
  - Update the MTAG for asphalt and concrete pavements
  - Define industry standards for various treatments
  - Recommend updates for improved specifications

- **Deliverables**
  - Updated guides and associated training
  - Improved inspection procedures (guides and checklists)
  - Updated trigger values for selecting treatments
  - Updated specifications for improved quality with pavement treatments
TASK 4: ENCOURAGE INNOVATION AND TECHNOLOGY TRANSFER

- **Actions**
  - Streamline the process for implementing innovation and new products
  - Work with industry to evaluate new technologies and processes

- **Deliverables**
  - Improved process for innovation, Innovation Database, Pavement Preservation Database
  - Reports/memos/ research notes on new technologies, materials, processes and tests
  - Technology transfer through various media.
TASK 5: PROVIDE TECHNICAL ASSISTANCE

- **Actions**
  - Assist with forensic investigations
  - Conduct pavement reviews on new pavement technologies
  - Provide technical consultation on pavement preservation

- **Deliverables**
  - Reports on both successes and failures in our pavement reviews
  - Help desk on recommendations for pavement preservation
TASK 6: PROMOTE EFFECTIVE PAVEMENT PRESERVATION

**Actions**
- Development of fact sheets and brochures
- Participation at agency and industry meetings

**Deliverables**
- Participation at major agency and industry meetings
- Develop informational materials (newsletter, fact sheets, brochures, advisory guides)
- Development and delivery of presentations
- Maintaining the website
The Challenges

- New Programs Need Champions!
  - Caltrans
  - PPTG
  - CP² Center
  - Industry
- Keeping good roads in good condition
- Demonstrating Early Benefits
- Finding Dedicated Funding
Activities from 2010 to Present

- New contract issued in 2010
- Scope of work and budget reduced
- Efforts now contained in 4 tasks
- Project Directed by Peter Vacura

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Task 1. Training and Education

- Updating the MTAG
- Assisting with the annual conference
- Conducting workshops
Task 2 Monitoring Innovation Projects

- Warm mix RAC and chip seals
- DBR using polyester backfill
- In place pavement Recycling-hot and cold
- Others
Task 3 Technical Assistance

- PPTG support
- Fog and rejuvenating seal specs
- Rubberized chip seals in hot climates
Task 4. Promotion of Pavement Preservation

- Newsletters
- Tech briefs
- Fact sheets
- Website
  - PP Database
  - Innovation DB
- Experienced Staff
- Laboratory
- More
SUMMARY

- Caltrans established CP² Center on July 1, 2006
- Partnered process used to develop work plans
- Center task orders started January 2007 and renewed in 2010
- Challenges
Questions

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THANK YOU

Just the Beginning

Keeping good roads good

http://www.cp2info.org/center