CP² Center

California Pavement Preservation Center Newsletter
No. 78 **June 2026**

Transverse Profile Measurements

Continued Study on Polyester Polymer Inlays on I-80

Interstate 80 (I-80) in California experiences severe concrete pavement wear from heavy truck traffic and winter tire chain use. In 2023, Caltrans launched a pilot project near Donner Summit to evaluate polyester polymer concrete (PPC) inlays as a durable rehabilitation solution. Final conclusions await third-year performance data, with the evaluation focusing on wear progression, failure modes, edge performance, and long-term durability.

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Western Regional Association for Pavement Preservation

WRAPP Update

The April 14, 2026, WRAPP–Caltrans leadership meeting emphasized ongoing collaboration on pavement preservation, workforce development, sustainability, and specification improvements across California. One of the major topics was the success of the 2026 WRAPP Workshop in Fresno, which attracted about 200 attendees from Caltrans and industry. Participants gave positive feedback on the technical presentations, networking opportunities, and training sessions. Planning for the 2027 workshop is already underway.

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CalAPA Asphalt Spring Conference & Equipment Expo

The California Spring Asphalt Conference & Equipment Expo was held March 10–11 in Pomona, bringing together industry, agency, and academic professionals. The event featured technical sessions, networking opportunities, and exhibits showcasing the latest equipment, vehicles, and technologies. Attendees participated in sessions on technical and environmental topics and discussed current issues facing the asphalt industry.

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California Concrete Pavement Conference Highlights

The Second Annual California Concrete Pavement Conference (CCPC), hosted by the Southwest Concrete Pavement Association (SWCPA), was held April 22–23 at UC Davis and attracted more than 200 industry professionals. The conference featured technical presentations, networking opportunities, and hands-on demonstrations highlighting the latest advancements in concrete pavement technology and industry collaboration.

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FPMTAG 3rd Edition Published

The CP2 Center has been assigned the task, from Caltrans, of drafting initial revisions for Volume 1 (asphalt pavement). All of the MTAG Chapter updates were submitted to Caltrans for final review & acceptance in May 2026. Caltrans published FPMTAG 3rd Edition in June 2026. The updated MTAG stands out as an excellent resource for pavement engineers, not just within Caltrans, but also for those across the industry.

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The County of San Diego's "Road to 70"

In the early 2000s, San Diego County's nearly 2,000-mile roadway network began to deteriorate significantly, reaching a Pavement Condition Index (PCI) of 60 by 2016, with nearly one-third of roads rated Poor or Very Poor. Following the passage of SB1 in 2017, the County received additional funding and launched a long-term program to restore the network and achieve a sustainable PCI target of 70.

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2026 Pavement Preservation Academy

A major achievement of the CP2 Center has been the development and delivery of the Pavement Preservation Academy (PPA), funded through SB-1 as a workforce training resource. The 2026 online Academy will be self-paced and feature instruction from Roger Smith, Gary Hicks, Lerose Lane, Ding Cheng, and Erik Updike, covering key pavement preservation treatments and practices.

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Sacramento Fills 7,700 Potholes!

The City of Sacramento repaired 7,761 potholes in 49 days as part of a Citywide "pothole blitz" directed by City Manager Maraskeshia Smith and carried out by the Department of Public Works. The effort began after City officials asked City Council offices on March 4 to identify streets and intersections in need of repair.

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UPCOMING EVENTS

Berkeley Tech Transfer / CCPIC Pavement Classes

CCPIC Pavement Classes	Self Paced	Online

CalAPA Classes

"Asphalt Pavement 101"	Various Dates	Various Locations

Newsletter of the California Pavement Preservation Center
No. 78 June 2026

Disclaimer: Caltrans does not endorse any industry products or services, and the contents of newsletter articles reflect the views of the authors and do not necessarily reflect the official views or policies of Caltrans, the CP2 Center, or the State of California.

Caltrans established the California Pavement Preservation (CP² Center) at CSU, Chico in July 2006, and fully funded the Center in January 2007. Dr. DingXin Cheng is the current Director of the Center. Mr. Rukesh Maharjan is the current Contract Manager of Caltrans.

The purpose of the Center is to provide pavement preservation support services to Caltrans and other public agencies, and to industry. Unique services include developing educational programs in pavement preservation, providing training and staff development opportunities, providing needed technical assistance to public agencies and industry, and managing/conducting research and outreach services, such as this newsletter.

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Continued Study on Polyester Polymer Inlays on I-80

by Andre Totari – Senior Transportation Engineer, Caltrans

Interstate 80 (I-80) in California faces severe concrete pavement wear due to heavy truck traffic and winter tire chain use, especially through the Sierra Nevada mountain range. This damage, called "wear depth," differs from typical asphalt rutting, and has been difficult to control with previous repair methods.

In 2023, Caltrans initiated a pilot project near Donner Summit to evaluate polyester polymer concrete (PPC) inlays as a more durable pavement solution for high-wear conditions. These resin-based materials offer high strength, rapid curing, and strong resistance to cracking and extreme weather, making them well-suited for extending concrete pavement life without full reconstruction.

The project consists of multiple test sections, including control sections built with standard materials and experimental sections incorporating alternative formulations. The experimental approaches included the use of bauxite aggregate (selected for its superior hardness and finer aggregate size) blended with standard polyester resin, as well as an epoxy-based material known as Fastrac HPC. Data collection measured pavement wear depth using Face Dipstick Profiler (Figure 1). All sections are being monitored over a three-year period to identify the most effective mix and construction approach to reduce chain-related wear, improve durability, and guide future maintenance strategies for concrete pavement in harsh winter conditions.

Figure 1. Transverse Profile Measurements using a Dipstick

Figure 2. Wear Depth of Control Section

The control sections were constructed using standard polyester concrete (PPC) inlay materials in accordance with Caltrans 41-1.02C Standard Specifications. Over time, these sections showed progressive surface wear, with conditions significantly worsening by 2025. In several areas, the wear became severe enough to expose the underlying concrete pavement (Figure 2). Measured wear depths increased from less than 0.5 inches in 2024 to approximately 0.7–0.8 inches in 2025, indicating substantial material loss. Given that the original PPC inlay thickness was 0.75 inches, these measurements confirm that the polyester concrete layer has been completely worn away in some locations, leaving the older concrete pavement vulnerable to further deterioration.

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The bauxite experimental material was produced by combining an extremely hard bauxite aggregate with a conventional polyester polymer concrete (PPC) resin binder. This approach was based on the premise that the superior hardness of bauxite would improve resistance to chain-induced abrasion, while its smaller aggregate size would enhance bonding to the existing concrete surface, even in non-inlay sections where surface pre-grinding was omitted. Results from the second year of monitoring indicate that the material delivered moderate performance improvements compared to the control. However, it did not fully prevent deterioration. Certain sections exhibited advanced wear, including localized areas where the underlying concrete pavement became exposed (Figure 3). These findings suggest that while increased aggregate hardness contributes to improved durability, it may not be sufficient on its own to fully withstand the severe wear conditions present along this corridor.

Figure 3. Experimental Bauxite Material with Underlying Concrete Visible

The epoxy-based material evaluated in this study was Fastrac Hybrid Polymer Concrete (HPC). This system initially demonstrated strong performance overall, with only minimal signs of wear observed in 2024. However, by 2025, more noticeable surface wear had developed. The measured increase in wear depth from the 2024 to 2025 winter season was approximately 0.20 inches, indicating that abrasion is still occurring under sustained chain traffic. Despite this progression, the material continued to perform well, as no area showed exposure of the underlying concrete pavement. This suggests that while the epoxy system is not immune to wear, it provides significantly improved durability and material retention under harsh conditions.

At the time of this report, third-year performance data has not been collected yet, and as such, no final conclusions will be drawn until the full dataset is available and thoroughly analyzed. The completed evaluation will focus on several key factors, including the rate of wear progression over time, the predominant failure modes observed in each test section, edge performance—particularly in non-inlay areas constructed without surface pre-grinding —and the balance between constructability and long-term performance. Additional considerations may include inlay material consistency, maintenance implications, and overall cost-effectiveness.

A comprehensive assessment of these criteria will be necessary to identify the most suitable material and construction approach for mitigating chain-related wear on concrete pavement in high-demand mountain corridor environments.

For more information contact Andre Totari at: Andre.Totari@dot.ca.gov

WRAPP Update

by Sue Sasse, WRAPP President

General

The Western Region Association for Pavement Preservation (WRAPP) and Caltrans continue to strengthen collaboration through training, innovation, and preservation initiatives.

The April 14, 2026, **WRAPP–Caltrans leadership meeting** highlighted continued collaboration between industry and agency leaders focusing on pavement preservation, workforce development, sustainability, and specification advancement across California.

Led by Cory Binns, Chief Deputy Director at Caltrans, the meeting brought together Caltrans leadership and WRAPP representatives to discuss current initiatives, training priorities, and emerging pavement technologies shaping the future of roadway maintenance.

One of the major topics was the success of the **2026 WRAPP Workshop**, held in the Fresno area, which drew approximately 200 attendees from both Caltrans and industry. Participants praised the workshop's strong technical sessions, networking opportunities, and practical training value. Planning is already underway for the 2027 workshop, with Caltrans and industry leaders encouraged to help shape future topics.

Training and workforce development remained a central focus throughout the meeting. With Caltrans experiencing nearly 50 percent workforce turnover in recent years, both organizations emphasized the importance of onboarding experience, knowledge transfer, and practical, field-based education for newer engineers. Upcoming training sessions will include topics such as crack sealing, safety, pre-construction preparation, and updates to new specifications and construction methods.

Industry and Caltrans leaders also discussed several new and evolving pavement preservation **specifications**, including fiber-reinforced slurry and micro-surfacing systems, hi-modified binders, pre-coated chips, scrub seals, and crack seal and mastic specifications. Pilot projects using 100 percent reclaimed asphalt pavement (RAP) in slurry seals, micro-surfacing, and chip seals continue to advance, supporting both sustainability goals and long-term material supply strategies in California (See more below).

A key theme throughout the meeting was the importance of proactive pavement preservation. Treatments such as fog seals, micro-surfacing, chip seals, and cape seals continue to demonstrate value by extending pavement life and reducing costly reconstruction needs. As several attendees noted, the goal remains simple: Keep good roads good!

The meeting also included significant updates on Caltrans' growing **Job Order Contracting (JOC)** program. Since its pilot phase, the program has expanded from approximately $5–6 million in projects to more than $24 million statewide. Caltrans anticipates additional growth as districts increase utilization, particularly ahead of transportation improvements connected to the 2028 Los Angeles Olympics.

WRAPP members are encouraged to stay engaged through upcoming trainings, workshops, and technical resources available through the association website. Additional information on Caltrans Job Order Contracting resources is available through the Caltrans Pavement Recycling and Job Order Contracting web page.

Current **WRAPP officers** continue to support the association's mission of education, collaboration, and advancement of pavement preservation practices throughout the western region. WRAPP officers include Sue Sasse (President), Steve Wyrick (Vice President), Scott Metcalf (Secretary), Ted Maxwell (Treasurer), Matt Ferguson (Chairman of the Board), Tim Schmid (Past President) and Matthew Conarroe (Past President).

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The next WRAPP–Caltrans leadership meeting is tentatively scheduled for July 2026, and a WRAPP summer golf outing is scheduled for September 2026.

RAP Use in Surface Treatments Advances

Caltrans is continuing to expand sustainable pavement preservation practices through new pilot projects and specification development focused on the use of Reclaimed Asphalt Pavement (RAP) in seal coat applications.

Presentations at the 2026 WRAPP Workshop highlighted how 100% RAP materials are being evaluated for chip seals, slurry seals, and micro-surfacing applications as agencies seek to reduce costs, conserve virgin aggregates, and lower greenhouse gas emissions.

RAP-based preservation treatments offer several advantages, including reduced material costs, decreased landfill waste, and improved long-term surface color retention. Unlike virgin aggregate systems, RAP materials also contain residual asphalt binder, which can improve chip retention and reduce the need for aggregate precoating.

Caltrans and industry partners began formally developing RAP seal specifications in 2023 through the Pavement & Materials Partnering Committee (PMPC). The effort has resulted in draft Non-Standard Special Provisions (NSSP) for RAP chip seals and RAP slurry/micro-surfacing systems, marking a significant step toward broader implementation across the state.

Several pilot projects are now underway in California, including a RAP slurry cape seal project on State Route 46 in San Luis Obispo County and RAP micro-surfacing test sections on State Route 78 in San Diego County. These projects are intended to evaluate constructability, durability, aggregate retention, and long-term field performance under traffic conditions.

The presentation also outlined several technical challenges associated with RAP seal applications. Excess fines, moisture retention, and residual asphalt content can create issues such as aggregate loss, poor adhesion, or bleeding if materials are not carefully processed and designed. To address these concerns, Caltrans recommends tighter RAP screening requirements, dry aggregate handling, polymer-modified emulsions, and reduced virgin emulsion application rates.

Looking ahead, the agency plans to continue evaluating blended RAP and virgin aggregate systems, explore larger (Type III) RAP gradations for higher-demand roadways, and pursue additional pilot projects aimed at supporting eventual statewide standard specifications for RAP use.

As transportation agencies increasingly prioritize sustainability and material recycling, RAP seal technologies may become an important component of future pavement preservation strategies nationwide.

'Hi-Mod' Slurry Seal Technology Gains Momentum

A WRAPP Workshop presentation on high polymer modification (hi-mod) slurry seal technology highlighted growing interest in advanced polymer-modified emulsions designed to improve durability, reduce early surface damage, and extend pavement life in slurry seal and micro-surfacing applications.

The presentation, by Scott Metcalf (Ergon), showcased the performance benefits of highly modified (hi-mod) binders, such as CSS-1EP and CQS-1EP, compared to conventional polymer-modified systems. Using identical aggregates, gradations, and total binder contents, side-by-side field demonstrations showed significantly improved resistance to power steering tears, raveling, and early distress when hi-mod binders were used.

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Certain testing also demonstrated substantial durability improvements with hi-mod emulsions. According to the presentation, the primary difference in performance came from the binder technology itself, underscoring the role advanced polymer modification can play in preservation treatment longevity.

Field projects cited during the presentation included installations in California's High Sierra region that have reportedly endured multiple winters and heavy snow exposure while maintaining strong surface performance years after placement.

Beyond product performance, the presentation emphasized five critical factors for successful adoption of new pavement preservation technologies: clearly defined goals, strong specifications, agency leadership support, contractor collaboration, and comprehensive testing and evaluation.

Final

As agencies continue searching for longer-lasting and more resilient preservation strategies, hi-mod slurry seal systems appear positioned to become an increasingly important option for extending pavement service life while minimizing maintenance-related disruptions.

WRAPP is always open to new members and will continue to be an informed voice in the pavement preservation industry. To get more information, please reach out to Julie Ackman, WRAPP Executive Director, at www.wrapp.org

CalAPA Asphalt Spring Conference & Equipment Expo

Special to the CP2 Center

The **California Spring Asphalt Conference & Equipment Expo**, held March 10-11 in Pomona, boasted the most content-rich program in the event's history at a new venue that afforded attendees plenty of educational options and an up-close look at the latest vehicles, equipment and technology.

The event, at the sprawling events center at the Los Angeles County "Fairplex" venue, brought industry, agency and academia together under one roof, and the concurrent sessions featured lively interactions between attendees on a host of topics, including technical, environmental and, as one presenter put it, "situational awareness" of a dynamic time for the industry. The agenda of topics and speakers can be found HERE.

A national perspective was presented by Mitch Baldwin, Director of Governmental Affairs for the **National Asphalt Pavement Association (NAPA)**, a CalAPA partner. "This year is critical for our industry," he said, noting that the federal surface transportation act funding is set to expire on Sept 30. NAPA and other coalition partners are working to keep up the pressure on elected officials to take action on road funding before it is too late. The issue of assessing electric vehicles (EV) for their road use is also a big issue nationally. More information on NAPA's federal advocacy activities can be found HERE. A description of CalAPA's complementary state advocacy program is HERE.

Mark Buncher, (Asphalt Institute) speaks at the CalAPA Conference

Another national perspective was provided by Mark Buncher with the **Asphalt Institute (AI)** (or "the original A.I" as it recently has come to be known). He outlined the Institute's research and deployment mission, noting, "Everything we do is rooted in quality." He also highlighted some recent resources deployed by the Institute, including a new edition of their iconic "Asphalt Handbook", a report on asphalt supply nationwide and some resources about odor management. Those odor management resources can be found HERE. He also reported that about 17% of HMA nationwide involves polymer modified asphalt.

Mike Skinner, executive director of the CalAPA-supported **Asphalt Pavement Alliance (APA),** kicked off Day 2 of the Conference and spoke about innovations in pavements that are occurring in various states. He noted that 94% of pavement nationwide is asphalt (95% in California), and that in Florida, the use of 60% RAP in HMA is common. He also highlighted the benefits of the new 'textured screed' technology as an aid in achieving proper HMA compaction. He said the industry is striving for "progress, not perfection" in deploying innovations, and it takes courage to implement a new specification or technology.

One promising new approach that is gathering momentum, Skinner said, is the use of a highly modified asphalt mixture on truck-heavy interstates in Utah and elsewhere. Some resources, including a recording of an educational webinar on the topic that features Utah DOT officials and covers performance, construction, hauling, milling and field results can be found on the Utah Asphalt Pavement Association website HERE.

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Training sessions attached to the conference were filled to capacity, including "*Asphalt Pavement 101*," taught by Roger Smith, a former Caltrans senior materials engineer, and a new offering, "*Optimization of Your Pavement Investment*," taught by CalAPA member Scott Dmytrow with PavementACES, a consulting firm. He was assisted by firm co-owner Cathrina Dmytrow, former chief of the Caltrans Office of Asphalt Pavements.

Adam Hand (UNR), John Harvey (UC_RC) and Erik Updyke (CCPIC) speakers at the CalAPA Conference

Other topics covered during the event included pavement preservation best practices, longitudinal joint construction, Balanced Mix Design (BMD) strategies, recycling, and Percent Within Limits (PWL) and lessons learned, featuring Adam Hand with the University of Nevada Reno and Hadi Nabizadeh with Caltrans. Expert panel discussions featured Dr. John Harvey with the University of California Pavement Research Center, Scott Metcalf with Ergon Asphalt & Emulsions, Phil Reader with the Reed Family Companies and Reimond Garcia of Caltrans, moderated by CalAPA Technical Director Brandon Milar. Erik Updyke, formerly with the Los Angeles County Public Works Department and now attached to the UCPRC's City & County Pavement Improvement Center (CCPIC), shared various resources created for the benefit of local agencies. The CCPIC website is HERE.

One of the Conference attendees, Shoreh Boustany with NOVA Services, a technical consultant, said the Conference experience was "the greatest thing that can happen to my career" and "I'm leaving here much smarter." Her brief video testimonial, as well as others from the show, can be viewed on CalAPA's YouTube channel HERE. Additional photos from the event are posted on CalAPA's various social media feeds, including on CalAPA's Facebook page HERE.

Reprinted with permission from the March 16, 2026, issue of the "California Asphalt Insider," a publication of the California Asphalt Pavement Association (CalAPA).

For more information go to: http://www.calapa.net

California Concrete Pavement Conference Highlights

By DingXin Cheng, Director, CP2 Center

The Second Annual California Concrete Pavement Conference (CCPC), hosted by the Southwest Concrete Pavement Association (SWCPA), brought together more than 200 industry professionals in Davis, California, for two days of knowledge sharing, networking, and hands-on demonstrations. Held on April 22–23 at UC Davis, the event showcased the latest advancements in concrete pavement technology while strengthening collaboration across the industry.

Attendees represented a broad cross-section of the industry, including public agencies, contractors, engineers, manufacturers, and material suppliers. Presentations throughout the day emphasized innovation, sustainability, and improving long-term pavement performance.

The conference opened with insights from Dr. John Harvey of the UC Pavement Research Center (UCPRC), who outlined ongoing research initiatives.

Tigi Thomas, Caltrans State Pavement Engineer

Key speakers included Caltrans State Pavement Engineer Tigi Thomas, who discussed the current state of California's pavement program, and Brandon Hays of the Contra Costa Transportation Authority, who highlighted strategies for maximizing pavement network value through rehabilitation. Eric Ferrebee of the American Concrete Pavement Association (ACPA) provided historical context on paving practices and challenged common assumptions about pavement lifespan.

Panel discussions focused on emerging concrete technologies and quality assurance. Experts explored new mix designs that offer reduced carbon emissions, faster construction timelines, and enhanced durability. Additional sessions emphasized quality control across all stages of paving operations, not just material composition.

Sustainability was a recurring theme, with industry leaders highlighting efforts to reduce carbon footprints through blended cements and innovative materials. Educational opportunities were also emphasized, including training programs and certifications available through organizations such as SWCPA, the CP Tech Center, and Caltrans.

A major highlight of the event was the presentation of the SWCPA EPIC Awards (Excellence in Paving & Infrastructure Concrete), which recognized six outstanding projects. Among them was the North Coast Corridor project, a large-scale, multi-decade initiative involving highway expansion, environmental restoration, and rail improvements.

The conference also introduced the Greg Bartholomew Memorial Scholarship, which will provide financial support to students pursuing careers in concrete paving, reinforcing the industry's commitment to workforce development.

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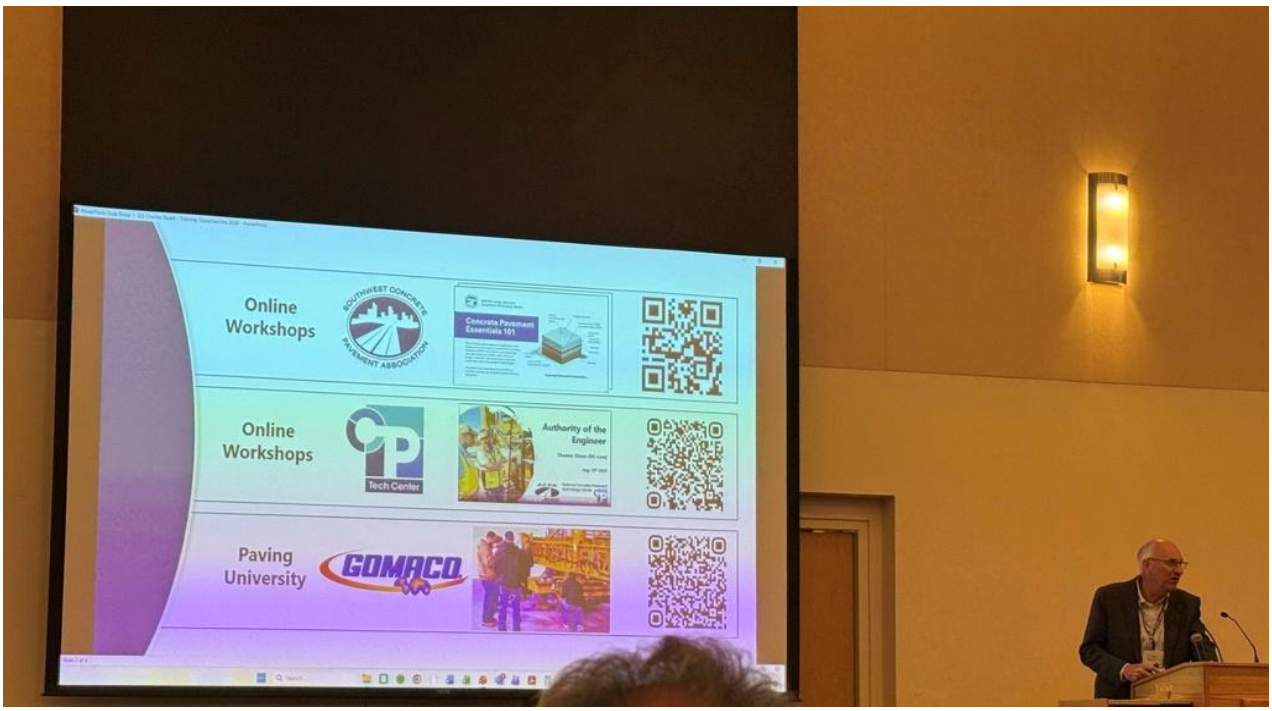

Charles Stuart, Executive Director, SWCPA, addresses Conference

On the second day, attendees participated in an Open House at the UC Pavement Research Center (UCPRC). The event featured live test cell placements and demonstrations of advanced materials, including a carbon-negative supplementary cementitious material. These hands-on activities provided valuable insight into ongoing research and real-world applications. Below are photos from the Open House.

The UC Pavement Research Center Open House featured three test cell placements and a diamond grinding demonstration by ABSL Construction.

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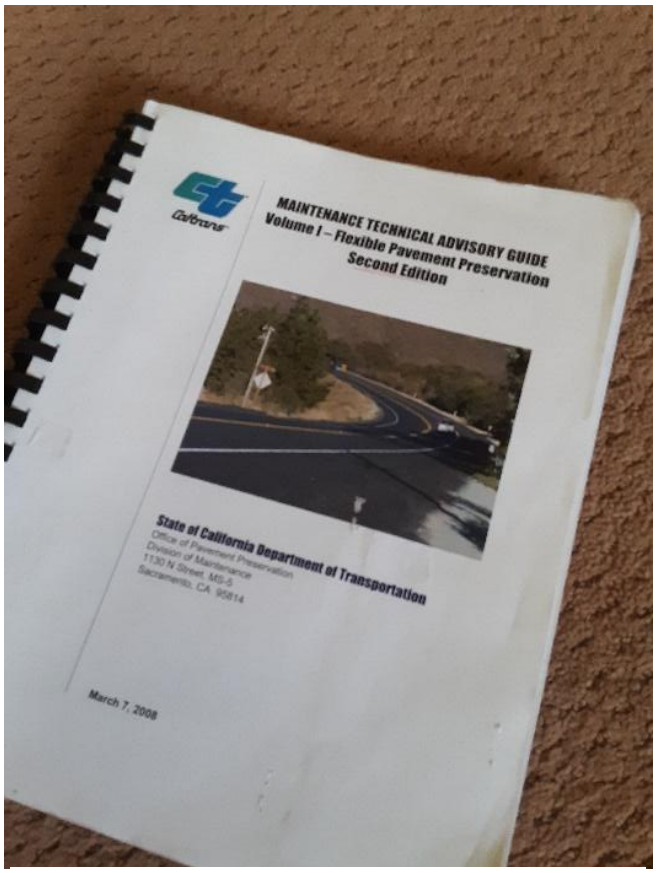
Jagan Gudimettla, with the FHWA's Mobile Concrete Technology Center, explains the testing taking place at the MCTC

Overall, the CCPC highlighted the concrete pavement industry's focus on innovation, sustainability, and collaboration, positioning it to meet future infrastructure challenges while continuing to improve performance and environmental outcomes.

For more information visit: www.swcpa.org

FPMTAG 3rd Edition Published

by Roger Smith, CP2 Center



MTAG in Print Form

Since its first publication in 2003, the Caltrans **Maintenance Technical Advisory Guide (MTAG)** has been a go-to reference for all aspects of pavement maintenance. The 'MTAG' is often referred to as the pavement maintenance 'Bible'! But updates are needed. Its last update was in 2009. So, an updating effort is in progress, with the CP2 Center playing a major role as part of our support work for Caltrans.

The MTAG has been a 2-Volume reference - Volume 1 is for Flexible (Asphalt) Pavement Preservation, and Volume 2 addresses Rigid (PCC) Pavement Preservation. The Guides cover a lot. The full Caltrans Guides can be found at: https://dot.ca.gov/programs/maintenance/pavement/mtag.

The CP2 Center was assigned the task, from Caltrans, of drafting initial revisions for Volume 1 (asphalt pavement). The Center's staff including Ding Cheng, Roger Smith, Gary Hicks, Lerose Lane, Erik Updyke, and Thai Son Tran worked on this, and work is completed. Committees of Subject Matter Experts (SME) from both Caltrans and Industry, have worked under the CP2 Center's lead to update each chapter.

Volume 1 (asphalt) currently has 14 Chapters, addressing topics including: Pavement Preservation Concepts, Materials, Strategy Selection, Crack Sealing, Patching, Fog Seals, Chip Seals, Slurry Seals, Microsurfacing, Multilayer Systems, Thin Overlays, Bonded Wearing Courses, Interlayers, and In-Place Recycling. It's a very comprehensive Guide!!

All of the MTAG Chapter updates were submitted to Caltrans for final review & acceptance in May 2026. Caltrans published FPMTAG 3rd Edition in June 2026. As said by Caltrans State Pavement Engineer, Tigi Thomas, "It's wonderful to see the result of so much collaboration and hard work. The updated MTAG stands out as an excellent resource for pavement engineers, not just within Caltrans, but also for those across the industry. Kudos to everyone involved, including all our industry partners, Chico Preservation Center, and Caltrans. Your commitment and contributions have made this possible, and the impact will be felt for years to come. Thanks again for the great effort and for supporting this important project!".

For more information, please contact CP2 Center director, Dr. Ding Cheng at dxcheng@csuchico.edu

The County of San Diego's 'Road to 70'

by San Diego County DPW

In the early 2000's, the County of San Diego Department of Public Works (DPW) faced a clear but significant challenge. The condition of its nearly 2,000 miles of roadway was declining rapidly. By 2016, the County's Pavement Condition Index (PCI) had dropped to 60, with nearly one third of all roads rated "Poor" or "Very Poor." In 2017, that trajectory changed.

With direction from the Board of Supervisors and the approval of California Senate Bill 1, the Road Repair and Accountability Act of 2017 (SB1), the County began to receive much needed funding. With those resources now available, the County committed to a long-term strategy to improve and stabilize its roadway system.

The goal was clear: restore the network to a 70 PCI and build an infrastructure program capable of sustaining that level of performance.

This was not a short-term effort. It required consistent execution and coordination over many years, supported by stable SB1 funding, disciplined planning, and a strong shared vision across department teams.

From 2017 through 2025, DPW delivered one of the largest and most consistent roadway improvement programs in California, this included resurfacing 778 miles of roadway and investing approximately $500 million dollars in transportation infrastructure. Crews improved drainage through hundreds of culvert projects, upgraded intersections and signals, installed thousands of ADA compliant curb ramps, and restriped hundreds of miles of bike lanes.

These improvements were not isolated projects. They were part of a coordinated system designed to extend pavement life, improve safety, and reduce long term road maintenance costs.

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The results were steady and measurable. DPW's diligent efforts improved San Diego County's PCI by roughly two points per year. By 2025, DPW reached the Board's goal of a PCI of 70 (Figure 1). Just as important, DPW reduced the share of roads in poor condition and stabilized the system for the long term, laying the foundation for the future.

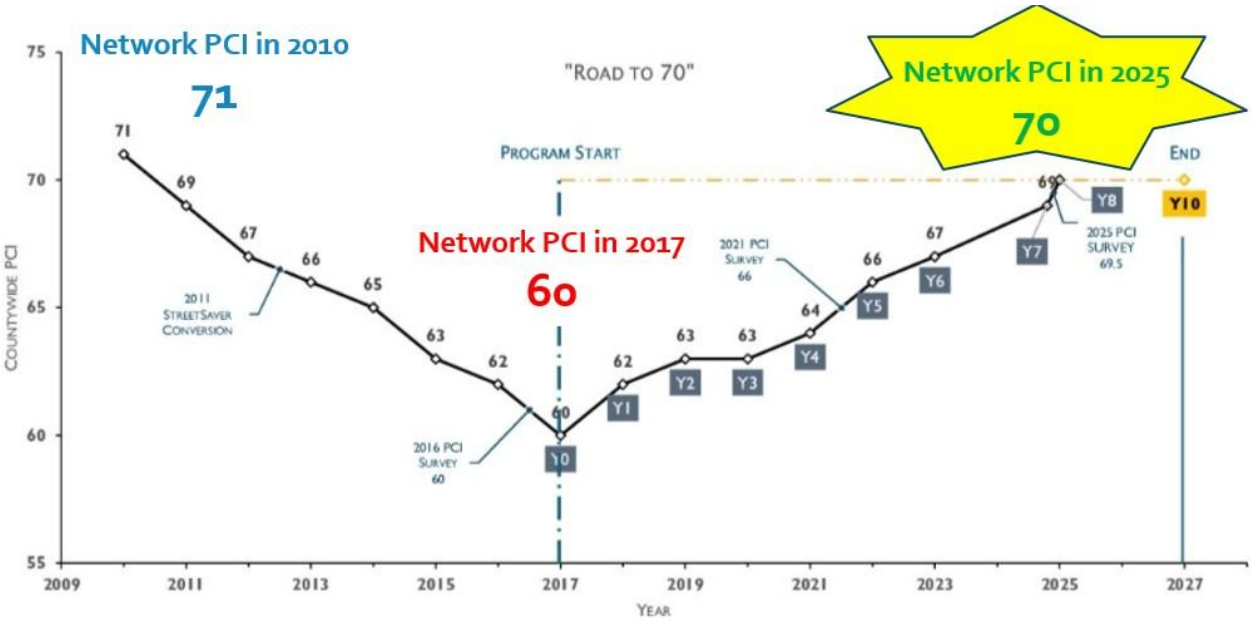

Figure 1. PCI Trend Over the Years

This progress was not driven by funding alone. It required a shift in how DPW manages infrastructure, moving away from reactive repairs and toward a proactive, data driven approach. Investments were guided by pavement management systems, GIS based tools, and improved asset data. SB1 funds were strategically allocated to maximize long term benefits, with a focus on resurfacing roads before they failed. This approach allowed DPW to stretch every dollar further and avoid more costly reconstruction in the future.

Reaching PCI 70 represents more than a technical milestone. It reflects a consistent commitment to delivering a core government service to residents at a high level.

In 2026, these efforts were recognized by the California State Association of Counties, the League of California Cities, and the County Engineers Association of California, which named San Diego County's Pavement Management Program the best in the state. The recognition reflects both the scale of the work and the consistency of delivery over time.

Maintaining this level of performance requires a culture of excellence, as well as discipline and ingenuity. Even today, DPW will continue to prioritize resurfacing as the most cost-effective strategy, while investing in drainage, signals, sidewalks, and other assets that protect and extend the life of the roadway system and improve quality of life for residents.

For engineers, the takeaway is straightforward: systems perform best when they are managed proactively, informed by data, and maintained with the right treatment at the right point in their lifecycle.

For more information contact Keith Kezer at Keith.Kezer@sdcounty.ca.gov

2026 Pavement Preservation Academy

by Roger Smith, CP2 Center

A big achievement of our CP2 Center has been the development and delivery of the *Pavement Preservation Academy* (PPA) developed using SB-1 'fuel tax' funds, as a resource for Workforce Training.

The 2026 offering of this online Academy will be 'self-paced', with videos by the instructors: Roger Smith, Gary Hicks, Lerose Lane, Ding Cheng and Erik Updike.

Topics include Introduction to PP; Preparation Repairs (Crack Sealing & Patching); Chip Seals; Slurry Seals & Micro-surfacing; Multilayer Systems and Thin Asphalt Overlays.

The registration site for the Academy is open at the CP2 Center's website:
https://www.csuchico.edu/cp2c/educational-opportunities/pp-academy.shtml.

If you need more information regarding the CP2 Center, please contact Dr. Ding Cheng at dxcheng@csuchico.edu or got to: https://www.csuchico.edu/cp2c/.

The Academy's 5 segments are based on **manuals** that have been developed by the CP2 Center and are published on the MTI website. In addition to being used in the Academy, these manuals are always free to the public and downloadable using the following links:

- Asphalt Pavement Repair and Resurfacing Preparation: https://scholarworks.sjsu.edu/mti_publications/414/
- Chip seals: https://transweb.sjsu.edu/sites/default/files/1845A-Chip-Seal-Manual.pdf
- Slurry surfacing: https://transweb.sjsu.edu/sites/default/files/1845B-Cheng-Manual-Slurry-Surfacing.pdf
- Cape seals: https://transweb.sjsu.edu/sites/default/files/1845C-Cheng-Cape-Seal-Manual.pdf
- Thin asphalt overlays: https://transweb.sjsu.edu/sites/default/files/1906-RB-Cheng-Manual-Thin-Asphalt-Overlay.pdf

For more information regarding the CP2 Center go to: https://www.csuchico.edu/cp2c/.

Sacramento Fills 7,700 Potholes!

The City of Sacramento repaired 7,761 potholes in 49 days as part of a Citywide "pothole blitz" directed by City Manager Maraskeshia Smith and carried out by the Department of Public Works.

The effort began after City officials asked City Council offices on March 4 to identify streets and intersections in need of repair.

"Potholes have been one of the most consistent things I've heard about on my ride-alongs and interactions with residents," Smith said. "I'm proud of the work our Public Works crews accomplished through this blitz and appreciative of the collaboration between council offices, staff and community members who helped identify priority locations across the city."

Officials said all requests submitted by council offices, along with locations identified through field inspections, were addressed during the blitz. Crews prioritized repairs using pavement condition data, resident service requests and district surveys. The City also assigned two employees to help identify potholes and pavement hazards throughout Sacramento's 8 Council Districts.

Work initially relied on overtime to accelerate repairs and included weekend operations to reduce traffic impacts and avoid conflicts with scheduled overlay projects.

City officials said roadway maintenance efforts will continue as part of Sacramento's ongoing infrastructure improvement program. To report a pothole, people can dial 311 (within the city limits), use the 311 app, or submit a service request via email.

(Excerpt from City of Sacramento News Release)

Coming Events

by Roger Smith, CP2 Center

Here's a summary of pavement conferences, training opportunities and other events coming up in 2026…

CCPIC Pavement Classes / UC Berkeley Tech Transfer (Various Dates/Sites)
Several training classes have been developed in partnership with the City and County Pavement Improvement Center (CCPIC), funded by California Senate Bill 1, The Road Repair and Accountability Act of 2017.

Class delivery is supported by the Caltrans Division of Local Assistance, which offers reduced registration fees to employees of California's city, county, regional, and other public agencies.

For a complete list of classes available for enrollment, go to https://registration.techtransfer.berkeley.edu/wconnect/.

Further information about both the self-paced and online classes and enrollment is available on the Berkeley Tech Transfer website, https://www.techtransfer.berkeley.edu/home.

Further information about the CCPIC and the PEM Certificate Program, along with technical references and resources, is available on the newly updated CCPIC website, https:/ccpic.ucdavis.edu.

"Asphalt Pavement 101" (Various Dates & Locations)
This popular CalAPA class is a good review of the basics of asphalt pavement technology, including materials, design, construction and acceptance testing. It's an ideal class for new employees, or for updating experienced ones. In addition to frequent 'in person' training sessions, it is also available by special request.

For more information on this class and other CalAPA events go to: www.calapa.net.