Pavement Recycling and Reclaiming Center



Western States Regional In-Place Recycling Conference

September 11-13, 2012

Pavement Recycling Center Team Members



Dr. Stephen A. Cross, PE Executive Director steve.cross@okstate.edu



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PRRC Mission



To advance the state of the art and state of practice in pavement recycling and reclaiming and to provide public agencies with the tools and knowledge necessary to complete successful pavement recycling and reclaiming projects. We will serve both agencies and industry by providing an independent and objective forum for discussion, development, and advancement.



- California Department of Transportation Caltrans
- Asphalt Recycling & Reclaiming Association <u>www.ARRA.org</u>
- Founders Circle Members



Cold Planing

Hot In-Place Recycling



Cold Recycling





Full Depth Reclamation



PRRC Resources

Education and Outreach

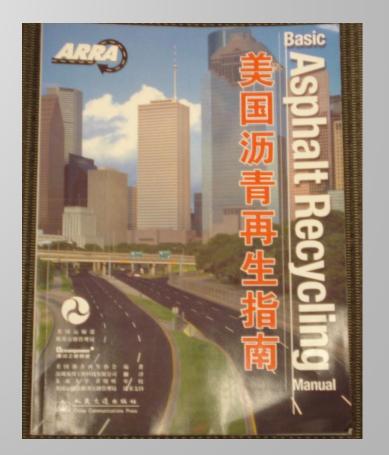
Sustainable Pavements Toolbox

Innovation and Research



- ARRA's Basic Asphalt Recycling Manual (BARM)
 - > Published 2002
 - Translated into Chinese and Spanish
 - Covers 4 disciplines CP, HIR, CR and FDR
 - Project selection, design, construction





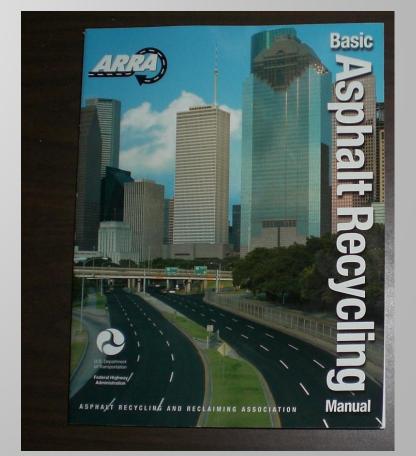
> Update ARRA's Basic Asphalt Recycling Manual (BARM)

- Contract FHWA to assist with revision of BARM
- > Published early 2013

> Virtual BARM

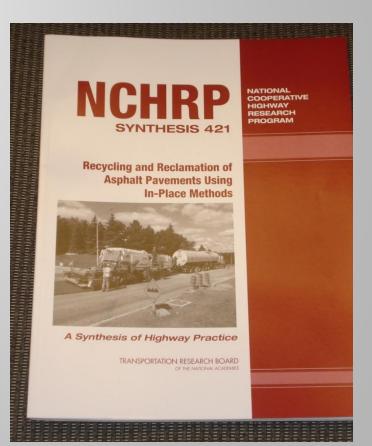
 Contract with Oklahoma Transportation Center for funds to make portion of BARM interactive





- NCHRP Synthesis 421
 Recycling and Reclamation of Asphalt Pavements Using
 In-Place Methods, A
 Synthesis of Highway
 Practice.
- http://onlinepubs.trb.org/ onlinepubs/nchrp/nchrp_ syn_421.pdf





PRRC Newsletter

Roadmap \triangleright

- Issued quarterly
- > Update of PRRC activities
- Articles of interest to inplace recycling industry
- Research update
- Spotlight Founders Circle member
- List of upcoming events/meetings



ISSUE NEWSLETTER OF THE PAVEMENT RECYCLING & ROAD Map 05 July 2012 Inside This Issue Founders Circle Spotlight P. Golden Leaf Award Winner P. FDR Design Guide P. ARRA Seminar Update P.6 Stay FHWA Update P.7 connected with the **Director's Update of PRRC Activities** PRRC by Stephen A. Cross, Executive Director that this project will lay the groundwork for a frequently asked questions section on our April and May mark a turning point in activities 909.979.6650 web page as well as hosting videos of cold at the Pavement Recycling & Reclaiming planing, HIR, CIR and FDR construction. Center (PRRC). Dragos and I both hold acainfo@PRRCenter.org Work will pick up on this project now that the demic appointments along with our duties at www.PRRCenter.org BARM is nearing completion. the PRRC. April-May sees an increase in our academic activities, as the end of the aca-We are continuing to work on several of the demic year approaches, and a decrease in PRRC's initiatives. We are gathering inforconferences/seminars as the construction mation and literature on the environmental/ season gears up. Even though the last quar-@prrcenter.org sustainability aspects of in-place recycling ter has seen a slight downturn in PRRC activiand developing a database to catalog in-place ties, we are still moving forward with our cenrecycling projects. More information on these ter objectives. A draft version of the Basic Asin efforts should be available in the near future. Linkedin phalt Recycling Manual or BARM made it out The center continues to assist the ARRA of ARRA's CORE Committee reviews and a CORE Committees on the development and copy has been sent to FHWA. There should revisions to specifications, best practices and be one more final review before the BARM is project selection guides and assists with resent to the publisher. Thanks to all who assponses to questions submitted to the ARRA sisted with revisions and with submittal of Technical Response team photographs. Although not a part of my official duties as Progress is being made on the two PRRC Executive Director of the PRRC, I was able to active research contracts, one with Caltrans travel to Chengdu, China in May to present a and the other is with the Oklahoma Transportwo week short course to graduate students at tation Center. The Caltrans study is a compre-Southwest Jiaotong University (SWJU). hensive review of their CIR program and we are in the final stages of making recommen-Continued on Page 2



dations to Caltrans on specifications, mix design and project selection practices. The Oklahoma Transportation Center project provides funds to assist with making a portion of the BARM interactive online. It is anticipated

Help Desk



- E-mail questions:
 - From ARRA web page (www.ARRA.org)
 - Directly to me: (steve.cross@okstate.edu)
 - PRRC web page: (www.prrcenter.org)
- Try to respond within 48 hours.... sometimes takes little research
- Frequently Asked Questions

Guide Documents Pavement Recycling



- Recommended Construction Guidelines
- Recommended Preconstruction Sampling & Mix Design Procedures
- Recommended Quality Assurance Sampling & Testing Guideline
 Project Selection Guideline





- FHWA/ARRA In-Place Recycling Seminars
- Rocky Mountain Asphalt User Producer Group
- ➢NCAT Professor Training Course
- >WYCA/WYDOT Training Conference
- Municipal Roads Technologies Conference, Ontario, Canada
- Southwest Jiaotong University, Chengdu, China
- 2012 National Pavement Preservation Conference, Nashville, TN
- ➤TRB Annual Meetings

Research



 Cold In-Place Recycling in New York State. Final Summary Report, SPR Research Project No. C-06-21, NYSERDA-TORC Contract No. 6764F-2, New York State Department of Transportation, Albany, NY, July 2010, 248 pp. Chesner Engineering & S. A. Cross.
 Cold In-Place Recycling (CIR) Study. Central Federal Lands Highway Division. Sept. 2012, 203 pp.

➢PRRC (Caltrans)

≻High RAP Study

≻CIR Study

Education and Outreach



Certification/Training Class

- Preconstruction Personnel Trainer (PPT) Certification
- ➢QA Technician Certification
- >Agency Inspection Training
- ➢ Just in Time Trainer Certification

Sustainability Toolbox



Project Registration Database

- Agency documentation of benefits of utilizing recycling and reclaiming technologies
- Sustainability calculator
 - Numerous LCA computer programs being reviewed
 - Equal comparisons?

Visit us @ www.PRRCenter.org

- News, information, help desk
- Guide Specifications, Best Practices
- For more information please contact:

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