# Pavement Recycling and Reclaiming Center

Cal Poly Pomona (CSU Pomona)



#### Southeastern States In-Place Recycling Conference

August 30 – September 1, 2011

# Pavement Recycling Center Team Members



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

Karvin Tran Office Manager karvintran@prrcenter.or g



Dr. Dragos Andrei, PE Technical Director dandrei@prrcenter.org

# **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.

# Sponsors

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



# **Founders Circle**



#### FOUNDING INDUSTRY PARTNERS

- Pavement Recycling Systems
- Garrity Asphalt Reclaiming
- Green Roads Recycling
- Rock Solid Stabilization & Reclamation
- Coughlin Construction
- Construction Materials Recycling

- ROADTEC
- CAT Paving Products
- Kennametal
- Ergon Asphalt & Emulsions
- Intermountain Slurry Seal
- The Barnhardt Group

# **Founders Circle**



## Note to ARRA Members

 ARRA has graciously decided to extend the deadline to join the Founders Circle to the end of the year!

# **ARRA Industry Segments**

- Cold Planing
- Cold Recycling
  - Cold In-Place
  - Cold Central Plant
- Full Depth Reclamation
- Hot In-Place Recycling
- Hot Recycling
- Soil Stabilization



## **Hot In-Place Recycling**



# **Cold Recycling**



# **Full Depth Reclamation**



## **PRRC Initiatives**

### Education and Outreach

### Sustainable Pavements Toolbox

### Innovation and Research



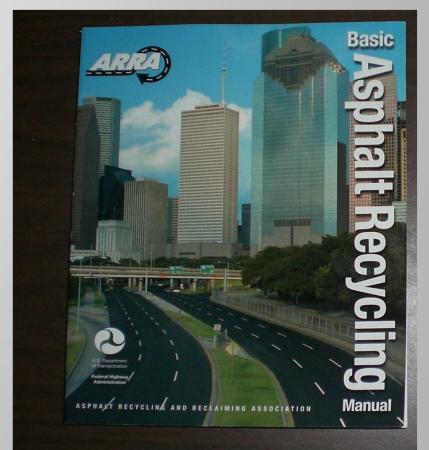
## **Education and Outreach**

- > Update ARRA's Basic
  Asphalt Recycling Manual (BARM)
  - Contract FHWA to assist with revision of BARM

#### > Virtual BARM

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





# Education and Outreach



### Comprehensive Recycling Courses

►2-Day Classes ► Hot In-Place Recycling Cold In-Place Recycling ► Full Depth Reclamation > Development will follow ARRA Core Committee progress on guide specifications >1<sup>st</sup> Class on CIR at PRRC in late fall 2011/winter 2012

# Education and Outreach



### Comprehensive Recycling Course Contents

- Project Selection
- Materials Selection & Mix Design
- Construction Methods & Specifications
- ➢Best Practices
- ► Quality Assurance Procedures
- Thickness Design Guidelines

# Education and Outreach



#### Training & Certification

Combining just-in-time trainer certification with comprehensive recycling courses

#### Outreach Activities

- Participation at Conferences and Trade Shows
  - Tucson Roads & Streets Conference
  - Atlanta In-Place Recycling Seminar
  - Rocky Mountain Asphalt User Producer Group
  - >NCAT Professor Training Course



- Help Desk and Frequently Asked Questions
- Sustainable Projects Database and Reports
- Sustainability Calculator
- Specification Designer and Database
- Technical Library



Project Registration Database

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

# Innovation and Research



Caltrans:

- High Percentage RAP Usage
- Comprehensive In-Place Recycling Review (Pending)
- PRRC personnel involved with:
  - Evaluation of CIR variability for FHWA
     Federal Lands Highways

## Visit us @ www.PRRCenter.org

- News, information, help desk
- Guide Specifications, Best Practices
- Register for training courses
- For more information please contact:

Dragos Andrei, Ph.D., P.E., Technical Director 909.979.6650 | <u>dandrei@prrcenter.org</u>

Steve Cross, Ph.D., P.E., Executive Director 405.744.7200 | <u>steve.cross@okstate.edu</u>