



Pervious Concrete Research & Resources

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RMC Research & Education Foundation

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The Foundation's Work

- Concrete Applications & Quality; Sustainability
- Environment, Health and Safety
- Prescriptive to Performance (P2P)
- Education & Training



The Foundation's Work

- Work with Allied Organizations to Cooperate and Avoid Duplication of Effort
 - International, National & State Associations
 - Foundations Within and Outside Industry
 - Government Agencies Like FHWA and EPA; State DOT's
 - Universities and Coalitions

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Concrete Applications & Quality – Pervious Concrete

- Pervious Concrete Research Compilation
 - Revised Version Released June 2008
 - All Existing and Underway Pervious Concrete Research; Other Resources for Information
 - Abstracts and Links to Research Reports





Concrete Applications & Quality

– Pervious Concrete

- Hydraulic Performance Assessment of Pervious Concrete – University of Central Florida
 - Co-Funded with Florida DOT and Rinker Materials
 - Quantifies Stormwater Management Benefits of Pervious Concrete



Concrete Applications & Quality – Pervious Concrete

- Construction & Maintenance Assessment of Pervious Concrete – University of Central Florida
 - Co-Funded with Florida DOT and Rinker Materials
 - Long Term Maintenance Guideline for Owners



Concrete Applications & Quality – Pervious Concrete

- Long-Term Field Performance Investigation of Pervious Pavements – Cleveland State University
 - Performance Evaluation of In-Situ Pervious Concrete Pavements in Cold Weather Climates
 - Guidance for Design for Freeze-Thaw Environments



Concrete Applications & Quality – Pervious Concrete

- Pervious Concrete & Porous Asphalt – Villanova University - *Underway*
 - Co-Funded with EPA Region III and Prince George’s County, MD
 - Evaluating Water Quality and Durability Issues with Pervious Concrete & Porous Asphalt



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Concrete Applications & Quality

– Pervious Concrete

- Wearing Course Applications for Pervious – Concrete Pavement Technology Center and MnROAD – *Underway*
 - Co-Funded by FHWA; State DOT Pooled Resources Fund; ACPA
 - Taking Pervious to the Next Level – Highway Applications



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Education & Training – Pervious Concrete

- Pervious Concrete Contractor Certification
 - Idea Came Out of ACI 522 Committee
 - Text Funded by the RMCREF
 - Training Coordinated by Local Partner Organizations
 - National Ready Mixed Concrete Association Administers the Certification



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Environmental/Sustainability Research of Interest

- *Ready Mixed Concrete Industry LEED Reference Guide* with NRMCA & PCA
- Use of Crushed Returned Concrete as Aggregates in Fresh Concrete
- Coal Ash Study - *Underway*
- Pavement Type Fuel Consumption Study – University of Texas at Arlington - *Underway*





Other Resources

- www.perviouspavement.org
 - Benefits
 - Applications
 - Performance
 - Engineering Properties
 - Mix Design & Materials
 - Design
 - Construction
 - Inspection & Maintenance
 - Resources





Prescriptive to Performance (P2P)

- Lab Experimental Case Study Demonstrating the Advantages of Performance-Based Specs
- Development of a Model Performance-Based Spec
- Quality Management System Guide
- Performance-Based Alternatives to the Durability Provisions of ACI 318 Building Code
- ACI Report on Development and Proper Use of Performance Criteria





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Thank You!



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