

## ***TERRA Active Projects***

- **The Effects of Implements of Husbandry “Farm Equipment” on Pavement Performance**  
Iowa DOT, Illinois DOT, Mn/DOT, Minnesota LRRB, Professional Nutrient Applicators Association of Wisconsin, Wisconsin DOT
- **Pervious Concrete Pavement Study**  
Minnesota LRRB, Mn/DOT
- **Permeable HMA Pavement Performance in Cold Regions**  
Minnesota LRRB, Mn/DOT
- **Investigation of Low Temperature Cracking in Asphalt Pavements—Phase II**  
Connecticut DOT, Iowa DOT, Mn/DOT, New York DOT, North Dakota DOT, Wisconsin DOT, Minnesota LRRB
- **Optimal Timing for Preventive Maintenance for Addressing Environmental Aging in HMA Pavements**  
Maryland DOT, Mn/DOT, Ohio DOT, Texas DOT, Minnesota LRRB
- **Asphalt Pavements with Higher RAP Content**  
Minnesota LRRB, Mn/DOT
- **HMA Surface Characteristics Related to Ride, Texture, Friction, Noise, Durability**  
Minnesota LRRB, Mn/DOT, Federal Highway Administration
- **Design and Construction Guidelines for Thermally Insulated Concrete Pavements\***  
California DOT, Mn/DOT, Washington DOT, Minnesota LRRB, Federal Highway Administration
- **Composite Pavements Systems**  
Strategic Highway Research Program 2, Applied Research Associates, Inc., University of Minnesota, University of California Davis, Mn/DOT
- **Concrete Pavement Optimization—Determining the Lower Threshold of Slab Thickness for High-Volume Roads**  
Mn/DOT
- **Development of Design Guide for Thin and Ultrathin Concrete Overlays of Existing Asphalt Pavements**  
Mn/DOT, Mississippi DOT, Missouri DOT, New York DOT, Pennsylvania DOT, Texas DOT
- **Field Investigation of Highway Base Material Stabilized with High Carbon Fly Ash**  
Bloom Consulting, University of Wisconsin, U.S. Department of Energy
- **Stabilized Full-Depth Reclamation Study**  
Road Science, Mn/DOT
- **MnROAD Field Investigation of Polyphosphoric Acid Modified Asphalt**  
Mn/DOT, Ergon Inc., ICL Performance Products, Innophos, Inc., Federal Highway Administration, MTE Services
- **PCC Surface Characteristics—Construction**  
Mn/DOT, Federal Highway Administration
- **PCC Surface Characteristics—Rehabilitation**  
Mn/DOT, Texas DOT, International Grooving and Grinding Association, American Concrete Pavement Association, Federal Highway Administration
- **Performance of Thin Unbonded Concrete Overlays on High-Volume Roads**  
Concrete Paving Association of Minnesota, American Concrete Pavement Association, Mn/DOT

- **Pervious Concrete Mix Design for Wearing Course Applications**  
Center for Transportation Research and Education, Mn/DOT
- **Recycled Unbound Pavement Materials**  
California DOT, Michigan DOT, Mn/DOT, Ohio DOT, Texas DOT, Wisconsin DOT
- **Long-Life Concrete Pavement—Performance Model Development**  
Mn/DOT
- **Use of Taconite Aggregates in Pavement Applications**  
Natural Resources Research Institute, Mn/DOT