On behalf of citizens looking for efficient government and economical, well maintained roads, AND the concrete industry that employs 4,000 people and generates $1 billion for our state economy, we are seeking a... 

Competitive Paving Program for North Carolina

Today in our state more than 94% of roads are paved with asphalt. Without regular, expensive maintenance and substantial replacement every 8-11 years, these roads soon deteriorate, leading to dangerous ruts and potholes. With a petroleum product as a key ingredient, asphalt price increases have averaged 12% a year since 2005 with extreme price volatility. Our state is struggling to fund new roads and cannot afford proper maintenance of our existing roads.

Concrete roads require much less maintenance over their 45+ year life. Abundant concrete ingredients are obtained within the state, boosting local employment. Because the average price of concrete has increased only 4% per year since 2005, concrete is now competitive with asphalt on initial cost and will save taxpayers 25% or more over the life of the road as confirmed through Life Cycle Cost Analysis (LCCA) conducted by the Massachusetts Institute of Technology (MIT).

The concrete paving industry in North Carolina supports a balanced and competitive program—a mix of concrete and asphalt pavements—so that citizens receive increased value, safety and sustainability for fewer tax dollars. For all road projects, engineers should select pavements based on data-driven design and cost considerations utilizing life-cycle methodology.

Recommended Provisions for a Competitive Paving Program

• Provide Equal Opportunity for Concrete and Asphalt Project Bids – Concrete should be considered for all North Carolina road projects through an Alternate Design/Alternate Bidding (ADAB) program. Alternate concrete and asphalt designs should be based on “equivalent pavement performance.”

• Eliminate Escalator Clauses or Provide Equitable Treatment – Asphalt paving bids frequently include clauses which provide for price changes based on fluctuations in contractor costs for materials. From 2008 through 2010 these escalators boosted asphalt paving costs by $119 million in North Carolina. For maximum taxpayer value our state should account for these costs in the initial bidding process.

• Track Project Costs and Performance – To help agencies make the best pavement choices, states should adopt and utilize a systematic asset management program to maintain cost and performance information for physical assets, such as roadways and bridges.

• Require Life Cycle Cost Analysis (LCCA) – Choosing the most cost-effective pavement can save taxpayers millions of dollars over the life span of a single project. LCCA is an economic tool that considers initial cost as well as anticipated future costs for required maintenance.

• Publish a Concrete Road Design Guide – North Carolina should develop and publish concrete design, and construction guidelines for all roadway classifications from local roads to interstates.
Concrete for Sustainable Roads

Energy Savings
MIT research shows concrete pavements exhibit the lowest energy footprint associated with construction, delivery and maintenance.

Cool Pavements
Concrete’s lighter color reduces the amount of power necessary for illumination and mitigates the urban heat island effect.

Fuel Efficiency
MIT documentation confirms driving on concrete pavements is most fuel-efficient.

Recycling Industrial Waste
Using industrial byproducts such as fly ash in concrete reduces waste in landfills, improves pavement longevity, lowers energy usage, reduces greenhouse gases and saves money.

Pavement Recycling
Concrete can be 100% recycled at the end of its service life.

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Resources Available

- North Carolina Concrete Industry Fact Sheet
- Model State Legislation for LCCA Requirement, Darwin ME (“MEPDG”) and Street Pave for streets and local roads
- Recommended Concrete Road Design Guide
- MIT Research Results