Concrete: Asphalt's Rival?

By Jon Baggett

As a college football fan, it's hard not to get drawn into the hype surrounding heated rivalries every year – Ohio State vs. Michigan, Alabama vs. Auburn, Arizona vs. Arizona State. Billions are spent through the media in anticipation of these games to fan the flames of competitiveness.

The paving industry has a strong rivalry of its own…that between asphalt and concrete. Much of this rivalry stems from competition between contractors who specialize in each material, but also from the question of which to use for specific paving projects. In reality, both materials have characteristics that uniquely qualify them for various functions within road, parking lot, and other paved surface systems.

Tale of the Tape

Longevity:
Concrete is a 20-25 year product that requires minimal maintenance over its lifespan. Improved technology in concrete overlaying, or white topping, over the past five years has helped to extend the life of functionally sound concrete pavements in certain applications.

Asphalt is a 15-20 year product that requires proactive maintenance (such as seal coating and crack filling) over its lifespan. By creating a new wearing surface with an asphalt overlay, the longevity of asphalt pavements can be increased by more than 15 years, depending on the application.

Durability:
When paving with concrete on a standard aggregate base foundation, this material is typically placed 5-6 inches thick…7 inches for heavy load areas. It's a rigid surface that requires control joints to allow for flexibility and to minimize cracking. With asphalt, paving on a standard aggregate base foundation is typically performed from 2 to 3 inches thick…4 inches for specified conditions. Asphalt allows more "give" than concrete, and thus does not require control joints, but is more susceptible to deterioration through heavy traffic stress and oxidation.

Cost:
Concrete can cost twice as much on average to initially install than asphalt (considering material prices, labor costs, etc.). It is also more expensive to demolish and replace if underground utility work is required. Asphalt, while much less to install initially, requires routine maintenance and may require higher costs of necessary repairs if not properly maintained in order to achieve its maximum lifespan.

Application

The use of both concrete and asphalt within a typical parking lot system showcases the distinct strengths each material brings to various applications. This aerial photograph of a commercial site displays some of these uses. On this site, asphalt was chosen as the primary pavement surface to take advantage of the initial up-front cost savings, to minimize unattractive markings left by vehicle tires and oil leaks, and because it contrasts pavement striping and markings better to allow for greater traffic visibility. Concrete is utilized in the heavy traffic load areas such as loading ramps, dumpster pads, and access drives due to its durability. It is also used for sidewalks, ADA ramps, and landscape islands. Another important use is in the application of curbs and valley gutters as rigid structures to move water to retention areas, storm drains, or dry wells with precision.

All-in-One

One of the greatest advantages you can leverage is working with a contractor experienced in the application of both materials. An experienced specialist, like Ace Asphalt, understands the various tradeoffs in cost versus durability between asphalt and concrete and can give you the most objective advice on how to balance the time horizons, budgetary concerns, and long-term maintenance plans of your new or existing site. Working with a single contractor for asphalt and concrete eliminates the unnecessary cost and scheduling headaches associated with managing multiple contractors.

So the next time you hear rival chatter between asphalt and concrete, remember this: it's okay to root for your favorite, but don't underestimate the strengths of the other. There's a place for both on the playing field!

About Ace Asphalt

Family owned and operated since 1966, Ace Asphalt is one of the largest parking lot construction and maintenance companies in the U.S. and the largest in Arizona. For more information, visit our website at www.aceasphalt.com or contact us at 602-243-4100. *Lic. # ROC090990-A, ROC166913-C13*