Nestled in the foothills of the Appalachian Mountains sits Tennessee’s fourth largest city. Chattanooga has a population of 175,462, and also the most exposed Roller-Compacted Concrete (RCC) per capita than any other city east of the Mississippi. In a world full of concrete, that may not be shocking but in Chattanooga, the RCC market has been solely dominated by a single company.

Robert Smith Inc. (RSI) has been perfecting RCC since 2001 when they received their first shot at installing RCC at the new Buzzi Unicem USA cement plant in Chattanooga. “We wanted RCC paved all around our buildings and silos,” said Frank Lennox, former manager of technical services and promotion with Buzzi Unicem USA. RSI, being the second low bidder, was called when the low bidder decided they could not handle the project. With only a dump truck and a motor grader, RSI and their crew paved their first ever RCC road. “They told me they were nervous,” said Lennox, “but they apparently worked through those nerves because they have been placing RCC all over Chattanooga for the past 17 years.”

Since then, RSI’s craft has changed drastically and for the better. They have since upgraded to an ABG 7820 High Density Paver that is capable of paving widths from 10.5 feet to 29.5 feet. Also, with the help from Lennox, RSI has mastered the art of populating mix designs no matter the materials or ready mix plant. “When Buzzi wanted RCC at our plant site, we worked with Sequatchie Ready Mix to formulate a mix that they could produce and Robert Smith Inc. could install. It took several trial and error projects before we came up with the current mix,” said Lennox. RCC is easily produced in a central mix plant but through careful logistical planning, Robert Smith Inc. won’t shy away from producing it in a dry batch plant. “Many people in the industry say you can’t batch RCC out of a dry batched plant or are afraid to try it,” said Andrew Smith, co-owner of Robert Smith Inc., “but we have successfully batched 13,000 cubic yards on a single project at Shaw Industries.”

Andrew Smith, who contrary to popular belief is of no relation to Robert Smith, began working with RSI in 2004. Many would say he hit the ground running in promoting RCC and never looked back. Robert Sr. and Jr. already had an upstanding reputation in the asphalt paving industry and with the help from Andrew that reputation grew at an exponential rate in the RCC market.

RSI began paving asphalt in 1991 which was the bulk of their business until 2009 when RCC started to gain traction. “It was still a major part of our business until 2015,” said Smith. “Now RCC is 95% of our revenue.” Currently, RSI focuses their time on smaller, more detailed projects. “Mass quantities and large volume work isn’t our focus as much as detailed oriented sites that aren’t typically installed with RCC due to layout, size, and proximity to plant,” said Smith. However, they definitely don’t shy away from large work as Volkswagen has 55,000 cubic yards of RCC that RSI paved. In eight months, they built sixteen 4” thick parking lots at the training center and around 2 miles worth of 7” thick interior roads using RCC.

After a site visit to Volkswagen’s facilities, Terry Wilt with TAG Industries was sold on UTC Maclellan Gym chose RCC for its small parking lot.

Coca-Cola Bottling Company used RCC for its delivery entrance.

Mahindra RCC project during construction.

Mahindra RCC project completed.
“The reputation Robert Smith Inc. has built as a dominate force in RCC installation has quite literally changed people’s opinion of RCC,” said Costo.

The appeal of RCC and RSI’s perfected craft is shown by their laundry list of completed projects in the Chattanooga area alone. Owners such as, Gerdau, Shaw, ServPro, Chattanooga State Community College, Mahindra, Valley Oil, Komatsu, and Gestamp are just a few examples of those enjoying the benefits of the 300,000+ cubic yards they have paved.

It should be no surprise that their reputation has grown outside the city limits of Chattanooga. When Southwire in Carrollton, Georgia was tasked with a series of paving projects that had to be in accordance with its National Pollutant Discharge Elimination System, concrete pavement seem to be the best option. However, they had some requirements. “We needed something that was going to withstand the constant truck traffic and not crumble under the weight as we are continuously moving heavy loads of raw material and finished products between our plants,” said Southwire’s Corporate Environmental Manager, Paige Murphy. “With our two biggest concerns prior to paving being cost and durability, we ultimately chose RCC because of its strength and longevity.” RCC was able to provide their 10-acre lot and roadways with a higher strength in a shorter amount of time than conventional concrete thus reducing the overall time the trailers and trucks had to be kept off the area. “We also had a higher return on investment with RCC due to the longevity of the product,” said Murphy. “Working with the Robert Smith Inc. team was a positive experience. They respond well to the ever changing nature of construction and are able to adapt when the need arises.”

In a world full of pavement options, RCC is one of the last ones considered as it is still not at the forefront of the minds of design engineers. RSI’s team has changed that mindset in Chattanooga and works every day to expand their market into other cities in the southeast.

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