

Spring 2011  
VOL. 25, NO. 1

# TENNESSEE CONCRETE MAGAZINE

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Champion**

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*See pages 8-18 for  
Concrete Design Awards*

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**Andrea J. Childress**  
2011 TCA President

The most rewarding part of my membership in TCA has been the opportunity to meet so many other industry professionals over the years.

# Find Your Niche by— Getting Involved

It was an honor to be elected and is my privilege to serve as the 22nd TCA President. I deeply appreciate the support and confidence of the Board, Staff, and Membership in allowing me this opportunity. I am humbled to be working with this incredible organization and am grateful to my predecessors for the energy and time they devoted to the growth of TCA. I hope that I will be able to lead the organization with the same wisdom, competence and enthusiasm displayed by this esteemed group over the last 25 years.

The most rewarding part of my membership in TCA has been the opportunity to meet so many other industry professionals over the years. As we all know, this industry, like so many others, has become more difficult during these economic times. However, in order to best survive this period of uncertainty we all must join together in order to provide mentorship, experience, and support for each other. One of the most valuable lessons that I learned early on is that you can only expect to get out of an organization exactly what you put into it. Therefore, I intend to promote membership awareness during my term and provide each of you the encouragement to find your niche in the association. Take a few minutes to explore the many different areas where you, too, can become involved in TCA. I know that with active and supportive membership, TCA can accomplish anything!

### ATTEND TCA MEETINGS

TCA has two membership meetings each year and the plans for the next meeting are well underway. The TCA 2011 Summer Meeting will be held on July 14-16 (17) at Guntersville State Park in Guntersville, Alabama. We are hopeful that with your attendance we can continue the successful tradition of this strategic planning for our association. The Annual TCA Convention will be held on February 17, 2012, in Nashville, Tennessee. I encourage everyone to begin making your plans to attend both of these meetings now,

as this is the perfect opportunity to contribute to decisions important to our future.

### JOIN A TCA COMMITTEE

TCA Committees are integral to set and help accomplish goals for the growth and development of our industry and the TCA. These committees generally meet quarterly via phone or email in order to work with TCA staff in areas of educational courses/demonstrations, information packages, promotional projects, membership involvement/growth & other concrete related programs. (See page 5)

### GIVE BACK TO THE COMMUNITY

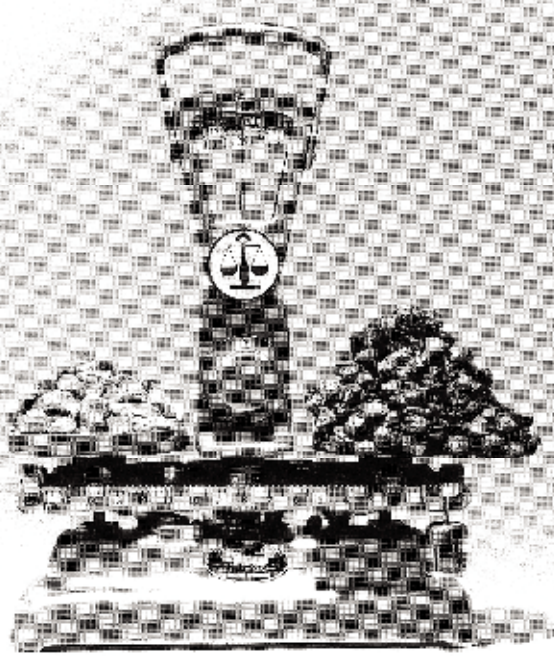
One of the most crucial philanthropic goals of the TCA is to provide assistance to the Tennessee Environmental Council by planting 1 million native trees by 2020. TCA has committed to working with its member companies to plant 10 percent of this total goal, or 100,000 trees. This program is an excellent opportunity to be environmentally responsible while promoting our industry and building a partnership with the community. You can volunteer to sponsor a tree planting or giveaway with Arbor Day, Customer Appreciation, Grand Openings, Earth Day, Training Workshops, Boy/Girl Scout Projects, Seminars, School Events or any local event involving your community and potential customers. Trees are three dollars each and proceeds go to the Tennessee Environmental Council. Contact the TCA staff to order your trees.


I look forward to meeting and working with the membership in order to ensure that 2011 is the strongest year of participation we have ever seen! I know that this is possible with you because WE ARE TCA! Please don't hesitate to contact me ([ajc@childressconcrete.com](mailto:ajc@childressconcrete.com)) if you have questions, concerns, comments or suggestions about TCA or how you can get involved. Again, I want to express my enormous gratitude for the trust each of you have instilled in me to lead the TCA into the next year.

Tennessee Concrete Association

# 2011 Tennessee Concrete Association Committee Directory

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Alan Sparkman  
Executive Director

# New Growth—

## Optimistic as We Begin a New Year

Just as Spring brings warmer weather and the beauty of new growth every year, our Spring issue always brings a recap of the most recent winners in TCA's Annual Concrete Design Awards. Plus, the spring issue also gives us a chance to feature the three winning essays from our annual Tennessee Concrete Essay competition. The projects and the essays should be an inspiration to each of us—enjoy!

Spring 2011 seems to not only be bringing new growth to the natural environment, but also to our industry. Several have related that 2010 was not worse than 2009, and some folks are even hiring again. Granted, it's not as if business is going to be anywhere close to what we saw in the middle of the last decade, but I hear a lot of our members talking about improvements in their business over the past few months, and a long-absent sense of optimism in their outlook for the future.

Placement rates at the CIM program at MTSU are back up to around 75 percent for first-time graduates, and the concrete industry at large is rightly concerned with where it will find talented people to enable companies of all sizes to move successfully into the future. To this end, the CIM program has announced the formation of a 'concrete-infused' MBA program to be offered through the College of Business

at MTSU, with the first cohort forming in late 2012.

As we enter the second decade of the new century, the concrete industry finds that the traditional strengths of our product are exactly what the construction industry is looking for as it seeks to produce more sustainable buildings and infrastructure. And the long-term price stability of concrete—or the volatility of competitive products—means that our material is more competitive than ever in terms of first cost, especially in the area of pavements.

Exciting and important research is being done at the recently established Concrete Hub located at the Massachusetts Institute of Technology to verify and validate concrete's advantages in sustainable building, as well as to improve concrete's basic performance as a construction material.

The concrete industry has much about which to be optimistic as we begin a new year. TCA looks forward to being part of this exciting future and to keeping our members updated and informed as the best building material on earth continues to get better. I invite each of you to increase your engagement in our industry through your involvement with TCA and other industry organizations as we all strive to make our industry and our individual organizations better in the decade ahead.

Our annual  
Tennessee  
Concrete Essay  
competition...  
The projects  
and the essays  
should be an  
inspiration to  
each of us—  
enjoy!

(See pages 20-21)

**Dennie Underwood**

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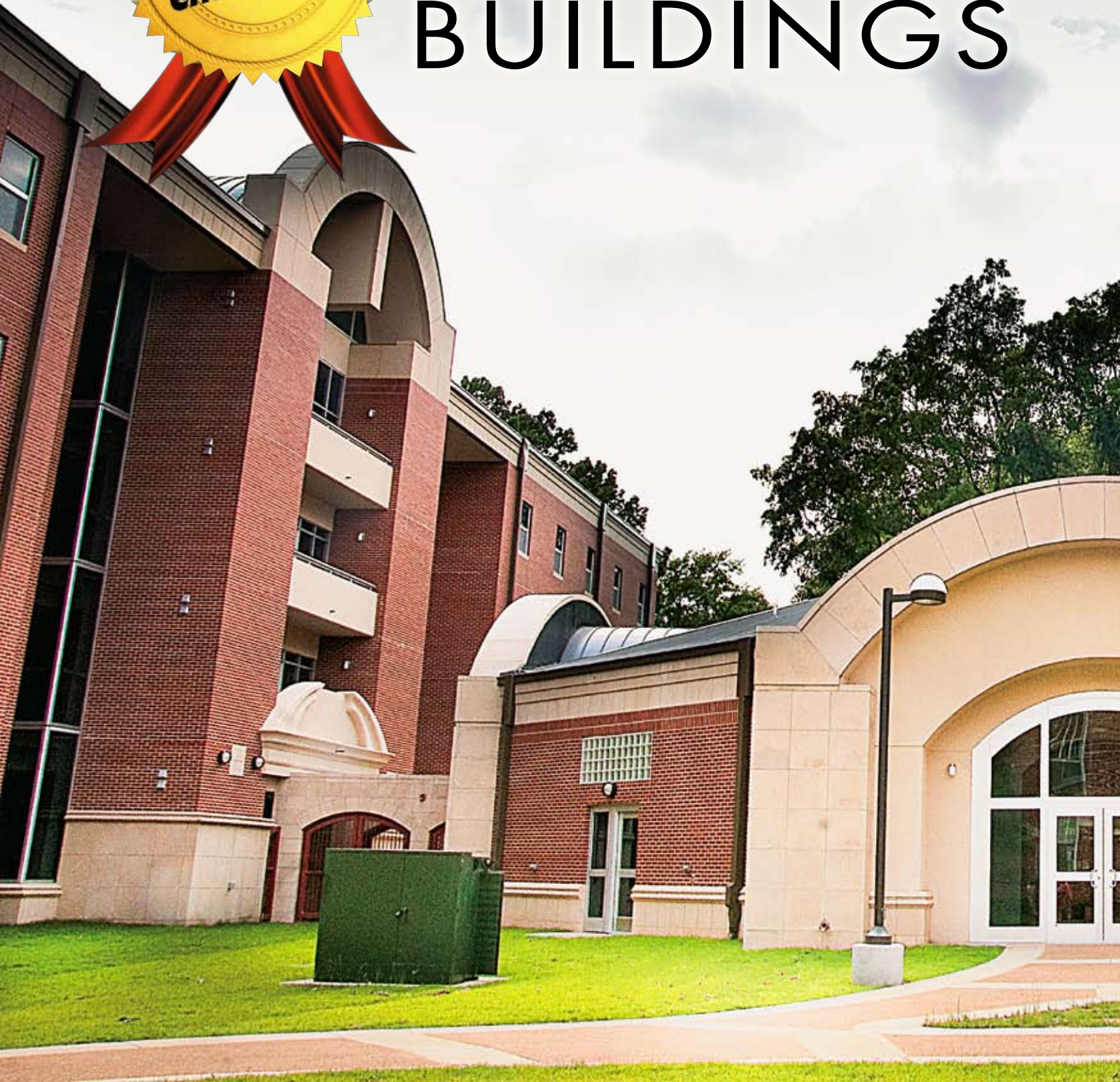
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# ARCHITECT/ENGINEER **COMMERCIAL** BUILDINGS









# 2011 CONCRETE AWARD WINNERS

## UNIVERSITY OF MEMPHIS WEST HALL HOUSING



### BEST COMMERCIAL BUILDINGS

#### ARCHITECT/ENGINEER – COMMERCIAL BUILDINGS

Project Name: University of Memphis West Hall Housing  
Ready Mix Producer: Memphis Ready Mix  
Concrete Contractor: Brooks and Mazzola Construction  
General Contractor: Flintco, LLC

The new Student Housing Dormitory and Learning Center at the University of Memphis is a strategic addition to one of America’s great metropolitan research universities.

The dormitory is designed with a community atmosphere. There are two four-story dorm buildings. Each floor has three wings with a common lounge and laundry. Each wing has a common kitchen, five individual private bathrooms and an open double vanity area. The exterior structural envelope utilized energy efficient ICF (Insulated Concrete Form) walls, VRF (Variable Refrigerant Flow) HVAC units, tankless water heaters, VRF system, and low E glass to compliment the University’s mission of Environmental and Energy Efficient considerations in campus construction.

This ICF system was utilized for the first time on the University of Memphis campus. Offering us the opportunity to be the first to explain and demonstrate to the owner the cost and scheduling benefits of using the insulated modular units as the exterior framing system for the facility. This forming system helped achieve and R value of 48 on the exterior walls.

The overall construction schedule was 16 months and the project team finished on time and in budget. According to Jim Hellims, University of Memphis Physical Plant Manager and Al Ross, Tennessee Board of Regents, Flintco provided the University with one of the smoothest construction projects in their recent history, a true representation of “Flintco Made.” Memphis Ready Mix supplied the ready mix concrete and the concrete contractor on the project was Brooks and Mazzola Construction. The Flintco project team consisted of Project Manager Greg Hnedak, Superintendents Ty Canaday, Terry Allen and Charles “Peanut” Smith, Assistant Project Manager Brian Baldwin.

.....  
**ARCHITECT/ENGINEER—NON-BUILDING STRUCTURE**

Project Name: CNH404 Lawrence County  
Ready Mix Company: imi  
Concrete Contractor: Lojac

In December 2009, Lojac was awarded the contract for the state highway project, known as CNH404 Lawrence County. This job had an alternate for 10” concrete paving. This brought on a lot of excitement for the concrete division of Lojac as they had recently purchased a new slipform concrete paver.

The project was located on US 64 (S.R. 15 Lawrenceburg Bypass) beginning at U.S. 43 and extending 0.5 mile west of the Giles County line. With their newly purchased Gomaco GP-2600 slipform paver, Lojac started the project in June 2010. This was the first TDOT concrete paving job in that area. Its uniqueness created a large swarm of onlookers, consisting of TDOT officials, Lojac management and imi staff. All were anxious to see the slipform paver in action.

# 2011 CONCRETE AWARD WINNERS



The concrete was all delivered on a 1½" - 2" slump from imi's front discharge mixers. Being batched from the Lawrenceburg facility, a dry batch plant, it was very challenging to deliver every load within the stringent TDOT specifications. A total of 1985 cubic yards of Class A concrete paving was complete after only three pours.



.....

## BEST CONCRETE ARTISAN

Project Name: High Plains Residences  
 Ready Mix Company: Memphis Ready Mix  
 Concrete Contractor: Baltz & Sons

**T**his was a rare opportunity in which Baltz and Sons was able to construct different decorative projects within a single community, each unique in character, but all adjacent



to the same common area. From design to implementation, this project provided an opportunity for Baltz and Sons to demonstrate a wide range of decorative techniques. this project has a little bit of everything:

—Continued on page 12

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# 2011 CONCRETE AWARD WINNERS

## BEST CONCRETE ARTISAN CONT.—



- Multiple finishing techniques: exposed aggregate, broom-finish, pattern stamping; seamless stamping; banding; cast-in-place countertop (including built-in trivets and cutting boards - with custom formed edges); border edge-roller (cobblestone soldier-course)
- Decorative abrasive-blade scoring: (compass roses, sunbursts and fire-pit ornamentation)
- Stamped icons (lizards, fossils, butterflies, sea-turtles, etc.)
- Multiple pigmentation techniques: (integral pigments; acid etch staining, metallic acrylic concrete stains, metal-based embossing; water-based surface pigments, and enhanced sealers)

Memphis Ready Mix supplied the various mixes used for these applications, including a specialty countertop mix. All the concrete was reinforced with Buckeye Ultrafiber.

## BEST CONCRETE HOME (TIE)

Project Name: Deer Valley Farms

Ready Mix Company: Mid South Concrete, Inc.

Concrete Contractor: New South Concrete



**M**r. Greg Lunn and Mr. Jeff Martin, owners of New South Concrete were pleased to get the job for the outside concrete work for a beautiful 32,000 square foot home for Mr. and Mrs. Fred Clark, owners of Deer Valley Farms in Lincoln County, Tennessee. The Clark's home is a breathtaking addition to Deer Valley Farms, a prestigious breeder and seller of angus cattle.

New South Concrete poured and finished the 1200 cubic yard driveway to the home with the concrete being supplied by Mid South Concrete, Inc. A charcoal integral color with a random stone stamped pattern border and

# 2011 CONCRETE AWARD WINNERS



design enhanced the landscaping around the house and buildings. Also, New South Concrete used flagstone to accentuate the gunite pool and adjoining sidewalk. With the high quality workmanship and professionalism of New South Concrete, no problems were encountered, and the project was completed in May 2010.

.....

## BEST CONCRETE HOME (TIE)

Project Name: North Lick Creek Road

Ready Mix Company: Williamson County Ready Mix

General Contractor: Grau General Contracting, LLC

Concrete Contractor: Dusty & Sons Concrete, LLC



**G**rau General Contracting, LLC was the general contractor on the job, and they brought in Dusty and Sons Concrete, LLC to perform all the concrete work. This job had to be changed to poured walls because of all the soft soil at the building area. Within the whole job, 300 yards of Williamson County Ready Mix concrete was placed between the footings, walls, flatwork, and concrete ceiling. Ten tons of rebar was used in the job. Footing widths varied from 6 foot to 2 foot 8 inches wide by over 12 inches thick. Engineers had to approve everything before concrete was poured.

We first had to come and put in the retaining wall and footing. Most of the footing was 6 feet wide with two mats

of rebar in it. We did this in extremely low temperature in the beginning of 2010. We were covering the bank to keep the dirt from sliding down, covering the ground so it would stay warmer, and covering the concrete to keep it warm.

Next, Dusty and Sons Concrete, LLC started working on the footings and walls for the cabin area and the outside raised porch area. These walls ranged from 10 inches thick to 16 inches thick. Then, the basement floors were poured in the cabin and porch area with a trowel finish.

Finally, the cap on the porch area was formed and poured 12 inches thick. Two mats of rebar were placed in this area. This porch deck spans about 18 feet wide. This area was built, so the owner could walk out of the cabin and step on grass without steps. Four inches of dirt was going on top of the concrete, so grass would grow. We also waterproofed the top of the concrete, so the water from the dirt would not get into the room below.

—Continued on page 14





# 2011 CONCRETE AWARD WINNERS

## **BEST CONCRETE HOME CONT.—**

Dusty and Sons Concrete, LLC also poured three other bridges on this property. Pump trucks were used four different times throughout the job. Everything worked out working with a contractor, home owner, designer, architect, and engineer.

.....

## **BEST CONCRETE HOME (TIE)**

Project Name: Ray Residence

Ready Mix Company: Williamson County Ready Mix

Foundation & Walls: Peterson & Sons

Driveway: M.A.Y. Construction

**W**ith its quiet wooded large lot, the yard of lot 121 Avalon appears to be out country. Actually this house is located in the gated community of Avalon nestled in the hills surround Cool Springs and only minutes from all the comforts middle Tennessee has to offer. It is a beautiful area, but several challenges were faced early on in construction. The culuvial soil of the area presented a challenge on getting a good foundation and on the retaining walls and footings. The depth and width required on the footings combined with the large size of the basement walls and retaining walls resulted in over 700 yards of concrete for those applications.

Mr. Ray is the owner of The Pressure's On hydro demolition service, and with the periodic trips home with some of his heavier equipment, he wanted to insure a little extra protection for this long, wide driveway. He requested that 4000 psi concrete be poured at a minimum of six inches. This long driveway resulted in over 300 yards of decoratively sawn concrete. The turnaround in front of the house includes a fountain, but the circle of concrete around the fountain is not round. Because of fire codes and the particular area involved, multiple radiuses were used to design a pattern oriented in a manner that a fire truck can maneuver around.

Trace Construction was the custom builder with Petersen & Sons performing the foundation work including the walls

while M.A.Y. Construction placed the driveway. Williamson County Ready Mix, Inc. provided the concrete.



.....

## **BEST CONCRETE PARKING LOT (TIE)**

Project Name: Berkley Springs Multifamily Housing Complex

Ready Mix Company: Mid South Concrete, LLC

Concrete Contractor: New South Concrete

**I**n 2009, New South Concrete completed work on the Berkley Springs multi-family housing complex in Lawrenceburg, Tenn. Mr. Greg Lunn, owner of New South Concrete, approached and informed the owner and developer of Berkley Springs, Mr. Mike Brant, of all the benefits of using concrete instead of asphalt. By informing the owner

# 2011 CONCRETE AWARD WINNERS



## BEST CONCRETE PARKING LOT (TIE), CONT.—

of the overall cost benefits and extended life of concrete over asphalt, the job was awarded to New South Concrete and the plans were changed to use concrete instead of asphalt. The curb and gutter was placed monolithically as the parking lot was poured five inches thick with 4000 psi concrete provided by Mid South Concrete, Inc. The job was completed in only four days, and all of the work was completed by hand. This project has also been recognized by the Concrete Paving Association of Tennessee, CPAT.



## BEST CONCRETE PARKING LOT (TIE)

Project Name: Bethel Church

Ready Mix Company: imi

General Contractor: Thomas Anderson

Concrete Contractor: Reese Enterprises

**B**ethel Church was a new construction facility that originally had plans on asphaltting the parking lot. The concrete finisher, Greg Reese of Reese Enterprises, had talked to them about concrete and discussed the advantages of using concrete and overall cost difference. The decision was made to concrete the parking lot. All the curbs were hand formed and the whole parking lot was put down by hand. Over 800 yards of imi concrete went into the parking lot and curbs with each pour consisting of around 150 yards a day until the parking lot was completed.





# 2011 CONCRETE AWARD WINNERS

## BEST FINISHING—COMMERCIAL DECORATIVE

Project Name: Creekside Three Rivers Assisted Living

Ready Mix Company: imi

General Contractor: TDK Construction

Concrete Contractor: Dusty & Sons Concrete, LLC



**T**his job is in Murfreesboro, Tenn., at Creekside Three Rivers Assisted Living Complex. TDK Construction hired Dusty and Sons Concrete, LLC to place all of the decorative concrete for this job. In total there was about 3,700 sq. ft. of imi-Tennessee stamped concrete, about 3,325 sq. ft. stain, and about another 2,000 plain broom finish concrete in between the decorative concrete.

All of the concrete was placed during the spring of 2010. Due to the extremely cold winter, the project got delayed a

little, so when the weather broke, we were constantly trying to stay out of the way of other trades and had to keep them off the concrete and poured in between rain showers. The areas cars were going to drive on were poured six inches thick. IMI of Murfreesboro supplied all of the concrete on the job.

All of the acid stained concrete was placed on broom finish concrete with a textured border. Tiles were cut into the broom finish concrete ranging in sizes from 16 inch to 3 feet square, and they were all cut on diagonal pattern. Most of the acid staining colors were padre brown in the middle with a dark walnut border, but a couple areas were antique amber in the middle with faded terra cotta on the border.

The stamped concrete was done in the entryway and around the courtyard planter area. It was stamped in an asher slate pattern with cream beige color hardener and a pecan tan release. These were wide areas to stamp, so we had to make sure the different pours matched in color and stamping pattern. We were excited with how everything finished out, and most of all so was TDK!

## BEST FINISHING—RESIDENTIAL DECORATIVE EXTERIOR

Project Name: Sweeney Residence

Ready Mix Company: Memphis Ready Mix

Concrete Contractor: Baltz and Sons Concrete



**T**his private residence pool and backyard project was entrusted to Baltz and Sons Concrete and held a lot



# 2011 CONCRETE AWARD WINNERS



## BEST FINISHING—RESIDENTIAL DECORATIVE EXTERIOR, CONT.—

of opportunity to install a variety of concrete mediums. The pool coping is a poured-in-place cantilever concrete that was stamped and textured to mimic Southwest Slate. The pool decking was similarly textured with randomly hand-tooled jointing and multi-layered pigmentation. Bands were installed to sub-divide portions of the deck, and a custom-made detailed colonial cobblestone stamp was used for the area beneath the custom-constructed gazebo, which was later pigmented by hand. The existing back porch was resurfaced and stamped in an ashlar cut tile pattern to compliment the exterior surfaces. Around the corner of the rear pool area, a second grill/patio was added and was similarly banded and stamped with an Arizona Flagstone pattern, meticulously pigmented by hand. Memphis Ready Mix provided a #4000 #8 aggregate specialty stamp mix, reinforced with Buckeye Ultrafiber.



## BEST PERVIOUS CONCRETE PARKING LOT

Project Name: LP Field for Tennessee Titans Fans

Ready Mix Company: Metro Ready Mix

Concrete Contractor: Roy T. Goodwin



**W**hen the Nashville Sports Council approved funds to add new pervious concrete parking spots to LP Field for Tennessee Titans fans and staff following the 2009 football season, Roy T. Goodwin Contractors was hired for the project. The newly planned lots were designed to not only help relieve the parking pressures around the stadium during events but would also be engineered to resolve a nagging storm water runoff issue at the facility. The plan originally called for the work to be quickly completed prior to the start of several summer events scheduled at LP Field, but with the unexpected interruption of the May flood in Nashville, the window to get the job completed was suddenly even tighter. Once the flood waters receded, Roy T. Goodwin's crew worked diligently with Metro Ready Mix to pour 2,233 cubic yards of pervious concrete onsite for the parking lots.

Working with pervious concrete is always challenging, but making this job especially difficult was trying to place and cure such a high volume of pervious concrete during the extreme heat that blistered Nashville during the summer in June and July. Despite the many obstacles Mother Nature threw at this project, the job was done on time and was a great success. The stadium now enjoys over 200 new pervious concrete parking spaces, and the facility has helped the environment by greatly reducing its storm water runoff problem.



# 2011 CONCRETE AWARD WINNERS

## BEST SPECIALTY PROJECT

Project Name: Historic Lincoln County Home  
Ready Mix Company: Childress Concrete Company  
General Contractor: Paul Braden Construction, LLC



This project was Linda Gentle PhD's restoration effort of the historic Lincoln County home located at 307 Mulberry Avenue Fayetteville, Tenn.

Paul Braden Construction, LLC was hired to head up this project. John Harris was hired as the project manager for the restoration. Mark Frazee was the superintendent of the project. Childress Concrete Company supplied the ready-mix concrete. Stuart Childress was the ready-mix plant operator and the mix design technician.

Concrete was used to make structural repairs and to reinforce the foundation of this 1909 historical home that was believed to have been built by Mr. and Mrs. W.G. Cowman. This couple's four children grew up in the house, and the home ownership stayed within their family until 2008. Dr. Linda Gentle chose to restore the house and preserve the historic integrity of the structure.

A substantial amount of concrete was poured in this restoration to fix and add reinforcement to the house with footings and fountain slabs under the house along with a concrete retaining wall and driveway that were added to support the old foundation and infrastructure. Concrete helped to stabilize this historical house to be restored to its true beauty. ❖

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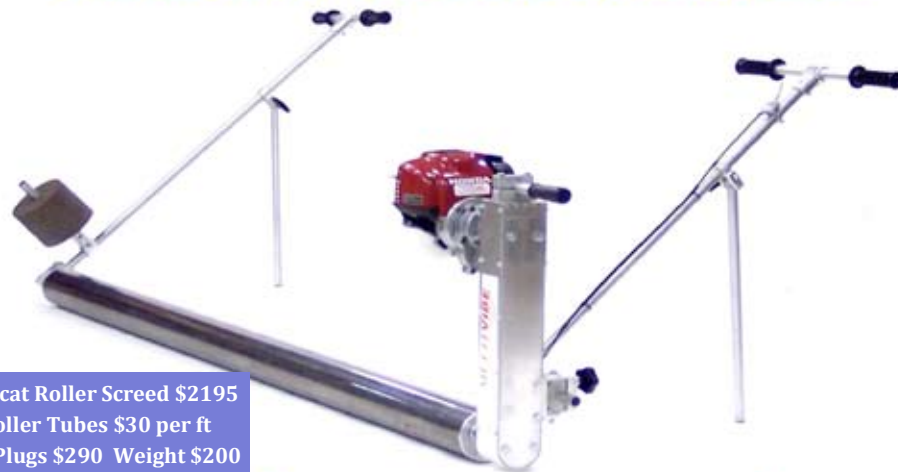
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# 2011 ESSAY CONTEST

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## *First Place*

### **A PERMANENT IMPRESSION** SARAH CROCKER

**T**wo bags of cement, three wheel barrels of rick, five wheel barrels of sane, and more buckets of water than I could count were what I soon knew as the ingredients to one of the many loads of concrete to come. Although this was a recipe far from precise, it somehow managed to turn into the foundation of a much needed house that someone would one day be able to call home. After one back-breaking week in Nassau, Bahamas, I found out what a huge difference a little bit of concrete can make.

My mission team's first day of work consisted of preparing the area where the foundation would lay and more importantly meeting the residents in the All Saints Aids community in great need of repairs and construction, showing me the big picture of what we were really there for. After seeing the conditions they lived in, we were determined to finish our task and decided to set the goal of beating the record of loads set by teams previously working at the camp, which meant we would need to complete nine loads in one day.

Since wheel barrels, buckets, and shovels were the most effective tools we had for the task at hand, the quickest and most effective way of mixing was only found by experimenting. Exhausted after the first day of mixing, we completed a solid four loads, and amount that seemed

impossible to surpass by much. Even though we worked hard to mix and spread as many loads as possible, our goal oriented team did not forget the purpose of the overall goal. The right amount of each ingredient could only be determined by adding more of each ingredient as needed which often resulted in the load growing twice its size.

Before the trip, I assumed that concrete was only made by fancy mixing machines and men in the construction business. Previously, I would have never guessed it possible that I would learn how to make concrete. Done by a machine, our task would have been completed in a small fraction of the time it would take us, but regardless of the amount of work and extra time it would take, it was needed just the same. Whether it's made by machines or by hand, by professionals or someone uneducated to even the basics of concrete, it is an essential part in building a sturdy building.

Mixing concrete took up most of our time, but we were also able to continue to visit the residents. Their poorly structured homes showed us how important it was to provide a safe foundation that would last. In the moment, while mixing the concrete, all we thought about was the heat and our exhaustion; but after talking to the residents, we were reassured that our work was worth the while. The concrete that we struggled through to mix and spread, we would soon forget about, but they would appreciate for a lifetime.

Although we never managed to do nine loads in one day, the day we completed the foundation we finally had the strategy down, mixing five loads to finish it up before half the day was even over. The blisters and sore muscles I brought back to America were only temporary, but the concrete I left behind made a permanent impression.



## *Second Place*

### **IS USING CONCRETE A CONCRETE IDEA?**

EMILY HAWKINS

**R**andy shut the front door behind him and headed toward the kitchen. He found his father sitting at the table with a puzzled look on his face. Randy grabbed a drink from the fridge and sat down beside him.

"What are you thinking about?" He sighed and after a moment replied, "I'm trying to decide how I want to fix the driveway."

Randy knew what he meant. It was nothing but gravel and traveling up and down it could be rough, especially if one wasn't use to it.

He asked, "What are your ideas?"

"I'm debating between concrete and asphalt." He explained. "I'm just not sure which one."

Randy shrugged his shoulders without hesitation and simply said, "Concrete."

His father's eyes widened, and asked how he could reply with such certainty. Randy took another swig and wiped his lips.

"Let's face it, Dad, concrete is the obvious explanation." Mr. Thomson waited for his reasoning. "I'm listening."

"Well Dad, we are in Palm Springs, and concrete does better in hotter climates; it withstands more," he said. "It's a little more expensive than asphalt, but

# 2011 ESSAY CONTEST

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it requires less maintenance,” he added. His father listened intently as Randy continued.

“Not to mention the fact that it can hold more weight. You, Mom, and Scotty all have vehicles that’ll be parking on it constantly.” He got up and threw away the empty bottle. He pulled out a Little Debbie cake from the cookie jar.

“Anything else I should know?” his Dad asked, impressed by his youngest son’s knowledge on the matter.

Randy swallowed, “This doesn’t pertain to driveways, but concrete is also good to use on walls of buildings. They require less construction and make great fire resistance, as well as higher amount of strength. Buildings with concrete walls have less probability of collapse.”

His dad nodded. “How is it on the environment?”

“I’ve been told it’s environmentally friendly and a good alternative for natural resources when used for construction.” He crinkled the wrapper up once he was done and set it in front of him.

“Where have you gotten all this information?”

“Jesse’s dad,” he admits. “The other day he was trying to figure out the materials for this new corporate building he’s designing. I asked what the big deal about concrete was, and he started spitting facts out a hundred miles an hour.”

“What else did he tell you?”

“He mentioned that other types of materials vary with their issues: wood prices change constantly, lumber companies are shortening, and logging can have numerous problems. He said concrete is the obvious choice and I’m sure it applies here.”

He stopped only to catch his breath. “Not to mention there’s more variety with it. You know how Mom is,” he

smirked. “She tries to be stylish with everything, and concrete has a wide selection of styles and colors.”

“Yeah, that’s true,” Mr. Thomson nodded, smiling at the thought of his wife.

Randy shrugged once more. “I mean once concrete has had it, it’s pretty much done, but it does last an awful long time,” he added quickly.

Mr. Thomson poked his head around Randy as the door opened. Randy’s older brother Scotty walked in twirling a basketball. He stopped as he caught Randy’s and his father’s eyes staring at him.

“What’s with you two?”

“Nothing,” his father grinned, “just talking about concrete.”



## *Third Place* **OUR FOUNDATION** LEXIE RANDOLPH

**W**hen I was a little girl my dad would let my brother and I tag along with him on the occasional trip to a customer’s house to pour some concrete for them, but I was mostly interested in going because my only other option was to stay at home and be bored. I usually observed as my dad and my brother watched the thick gray mud pour out of the truck and into the designated area. When that part was done, they would smooth it all out and carefully step away to admire their hard work while I begged to finally go back home.

At that time I did not understand or care for the importance concrete had and would continue to have in my life. One year for Christmas my dad promised my brother he would build him a basketball court in our backyard, and that we could help. This was the first time my dad actually let me help with the process since it was alright if I messed up because it was our basketball court. We did the usual process but right after we smoothed it all out and were getting ready to let it dry, my dad told us we could put our handprints in the wet concrete. I was so excited at the time, but never realized how long term that experience would be for me not only physically, but in my memories as well. We moved out of that house about four years ago, but those handprints and that basketball court where I spent my summers still remain in that backyard. Concrete was the foundation of my childhood in that old brick house and the foundation of our family since my father, grandfather, and five of my uncles have supported our family financially by laying a lot of concrete over the years.

Just like concrete was the foundation of our family as well as our basketball court, it also serves as the foundation of every beautiful building you pass on the street, every road you drive on, every bridge you see, and every sewerage system we are all so thankful for. It is easy to forget how thankful we should be for concrete, but realistically without it we would be suffering economically because of its affordability as well as socially because of its versatility and durability as a vital part of many important buildings in many towns and cities. The word foundation is defined as the basis or groundwork of anything, and based on that I think nothing fits the definition of a strong foundation quite as well as concrete.

## CIM UPDATE

by Dr. Heather J. Brown



# American Concrete Institute *Student Competitions*

**T**his has been a great spring semester with several national and regional awards being bestowed upon the CIM program at MTSU. A group of seniors recently competed and won in the annual ACI Concrete Construction Competition. Within the span of one week, teams were issued a real world problem statement and were expected to find a solution and submit it in memo form to the ACI Construction Liaison Committee. This year's problem focused on the prevention and mitigation of plastic shrinkage cracking in the proposed replacement and partial overlay the Dames Point Bridge concrete deck in Jacksonville, Florida. The team compiled numerous citations from FDOT specifications, ACI manual, NRMCA and ASCC guidelines and more. The submission by MTSU beat out 43 other entries from other construction management and engineering programs across the country and took top honors at this year's convention in Tampa, Florida. The team members include: Matt Petree (team leader), Greg Schamberg, Joseph

Evers, Brandon Cornwell, and Daniel Lozano. The team was present to receive ACI Excellent University of the Year which was awarded to 12 universities across the country for having the highest amount of ACI activity. A regional competition recently held at Tennessee Technological University was the ASCE Annual Convention. MTSU competed in concrete cubes and concrete horseshoes. The glory goes to the concrete horseshoe team which placed second out of 23 schools and the only team that didn't have a single horseshoe break in the multiple rounds of play. Team consisted of Bryan Fox, Kurt Goethert, Orion Fox, Darren Willbanks. James Hopper and Katie Horn constructed the horseshoes using a fiber-glass reinforced concrete mix. Lastly, MTSU held an Undergraduate Research Poster session on April 4 and one of the CIM students, Will Fultz, tied for first place out of 120 posters for outstanding research poster. We have a lot to be proud of this semester! ❖

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