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# Fall 2018 VOL. 32, NO. 2

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Summer is here! The weather is hot and best I can tell all of us are busy. Being busy is a great thing (much better than the alternative!) but busyness can sometimes lead us to focus more on what’s urgent (or seems to be) and not enough on what’s important.

One big challenge that most ready mix producers face is keeping up with training for their people. Erratic work schedules, a backlog of business along with demanding customers, not enough mixer operators—it makes carving out consistent time for training very difficult.

What are the costs of NOT training? The list is long but here are just a few costs associated with lack of consistent training:

- Retention—people leave for jobs that invest in them—and the cost of replacing people is higher than you think.
- Mistakes that result in rejected loads or worse.
- Wear and tear on equipment
- Dissatisfied customers who often tell others about their bad experience

Our Tennessee Concrete Association (TCA) is working to help us by making training and education more accessible for our employees. TCA just launched our TCA Online Academy to provide affordable, quality training related to our product to all of our employees. If you haven’t checked out the new learning system I encourage you to visit the TCA website (tnconcrete.org) and see what’s it all about. There are courses already developed with your employees in mind and more are being developed as we speak.

The TCA Online Academy is just one way TCA is helping members improve. I encourage you to take advantage of all that TCA offers and to make time in your organization to train your most important assets—your people.

-Cole Dodds
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EMPLOYEE SCARCITY

Workforce Development—it’s the phrase that everyone is using and its not just the construction industry who is consumed with the difficulty of finding and keeping good people. All sectors of the economy are faced with the same burning issue—where can we find qualified people to recruit and how do we keep them once we find them?

All indications are that this is not just a blip or a temporary condition of a robust economy. This condition of employee scarcity is the new normal across our economy and it may even be worse for construction and manufacturing than it is for other sectors. Statistics reveal that in the manufacturing sector there are far more people (Baby-boomers) retiring than can be replaced, let alone hiring enough talent to grow capacity. Add to this the fact that most new work-force entrants (that’s code for young people like Millennials and Gen Z) don’t even consider careers in the traditional blue-collar realms and you have a perfect storm of persistent employee scarcity. All of this has a number of important implications for the concrete industry to consider, including the three listed below:

FIRST, You are competing for employees with all types of jobs not just concrete or construction opportunities. There is only one manufacturing company in Fortune’s Top 100 Best Companies to work for list (Mars Wrigley Confectionery). So not only are you competing across the full spectrum of the economy, your concrete or construction business is at the very bottom of the list for most folks looking for their first opportunity. The standard image of a construction job for new job seekers is not ‘cool’ and seems more like a last-resort job rather than a first-choice career. Some of that disdain isn’t deserved and the truth is that many concrete/construction positions have a lot to offer—the task for us is to do a much better job communicating the ‘cool’ opportunities and benefits that a construction career offers.

SECOND, the balance of power has shifted—dramatically. Employees, not employers have the upper hand in today’s economy. Employees, not jobs, are the scarce commodity so employers have nowhere near the leverage they once had. In today’s world employees are doing you a favor by just considering your open position. Add to this the fact that there is dramatically more transparency today about what various jobs pay and what they offer as benefits. Job seekers can get publicly available information about the culture of your workplace, your safety record (especially true for companies that operate trucks), and your environmental record before they even apply for
your position. In most cases it’s easy for potential employees to know more about your organization than you know about them, even after reviewing their job application. All of this leads to…

THIRD, what people want and expect from a job—any job (including yours)—has changed. Work/life balance, opportunities to build skills, prospects for advancement, connection to purpose and passion are all important and part of the decision-making process for many potential employees. In case some of these terms are not familiar, let me translate. Work/life balance means regular schedules and limited overtime that provides the ability for your employees to attend their children’s school activities or participate in their own softball league (even during the summer). Skill building means regular training that builds the employee’s personal resume and expands their capabilities. And yes, that means they are more valuable not only to you but other employers so the competition to keep them with your organization DOES NOT END after you hire them. Those new skills also need to provide a path for advancement within your organization that should include higher compensation as well as new challenges and opportunities. Finally, potential employees today care a lot about whether or not your organization is making your local community a better place to live. Allowing employees to pursue a personal cause or passion as part of their work (or while on the clock) can be a powerful motivator for both recruitment and retention.

This landscape for employment seems completely alien to many of us who started our careers in the last century but the time for looking backward is long over. Focus your energy forward and think in terms of making your organization the very best place to work, period. Who knows — you might even find yourself on a Best Place to Work list with the other cool kids in the room!

—Alan Sparkman
Determining Concrete Chloride Permeability More Efficiently

Part 3: Possible TDOT Surface Resistivity Specifications and Mixture Design Suggestions

OVERVIEW

The Tennessee Department of Transportation (TDOT) is considering two new technologies to determine concrete chloride permeability more efficiently:

A. Surface Resistivity AASHTO TP 95-11 [1]
B. Accelerated Curing as per AASHTO TP 95-11 [1] and ASTM C 1202-12 [2]

This paper is the final installment in a three part series of technology transfer articles. We hope that you find the information presented helpful in mixture design and evaluation. Part 3 presents possibilities for a TDOT surface resistivity specification and mixture design suggestions.

56-DAY SURFACE RESISTIVITY SPECIFICATION POSSIBILITIES

Table 1 shows the American Association of State Highway and Transportation Officials (AASHTO) category limits for surface resistivity (SR) and rapid chloride permeability (RCP). The chloride ion penetration categories, as listed in Table 1, would make reasonable standards for a SR specification for a TDOT Class D, bridge deck, mixture. TDOT recently considered establishing a new Class D-LP (lower permeability) portland cement concrete (PCC) mixture specification [3]. Prior to investigating SR, a limit of 1,200-coulombs at 56 days determined with the RCP test as per AASHTO T 277-07 [4], was under consideration. Table 2 shows possible TDOT specification limits for SR. Even if TDOT sets a different specification limit, the information presented should still be helpful.

The American Concrete Institute (ACI) recommends a statistically-based overdesign factor, known as margin, when designing concrete mixtures for compressive strength (see Figure 1). The authors recommend a similar procedure for designing concrete to meet a possible TDOT SR specification. The equation recommended is shown below:

\[
\text{[Target} - (\text{Multiplier}) \times (\text{Multi-lab COV from AASHTO TP 95-11}) \times \text{(Target)}] = \text{Specification Limit}
\]

Selecting an SR Target Value

Table 3 shows AASHTO coefficients of variation (COV) for SR. The multi-laboratory COV will be used herein for two reasons. It is recommended by AASHTO if the cylinders were prepared by more than one technician, and it is also more conservative. The multiplier for the COV is a measure of how conservative the mixture designer wants to be. A higher probability of meeting the specification requires a larger multiplier which would correspond to a greater mixture cost. Table 4 shows the corresponding multipliers for various probabilities which range from extremely conservative to a 50-50 chance of meeting the specification. Table 4 also shows target design values for the five possible TDOT SR specifications at all five probabilities.

What SR Values Can Be Expected from a TDOT Class D Mixture at 56 Days?

Tables 5 and 6 display the mean 56-day SR results of several portland cement and supplementary cementing material (PC-SCM) combinations from four different Tennessee Technological University (TTU) projects. The number of SR replicates for each project is shown in row 1 of each table under the corresponding project title. The last column in each table shows a weighted (by number of replicates) average for each PC-SCM combination. The PC-SCM combinations selected are all permitted by TDOT specification 604.03 [5]. All PC-SCM combination mixtures met
### TABLE 1. CATEGORIES FOR SURFACE RESISTIVITY AND RAPID CHLORIDE PERMEABILITY

<table>
<thead>
<tr>
<th>CHLORIDE ION PENETRATION</th>
<th>SURFACE RESISTIVITY TEST (4X8-INCH CYLINDERS WITH a=1.5 INCHES IN KΩ-CM)</th>
<th>AASHTO T 277-07 CHARGE PASSED IN COULOMBS</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>&lt; 12</td>
<td>&gt; 4000</td>
</tr>
<tr>
<td>Moderate</td>
<td>12 – 21</td>
<td>&gt; 2000 – 4000</td>
</tr>
<tr>
<td>Low</td>
<td>21 – 37</td>
<td>&gt; 1000 – 2000</td>
</tr>
<tr>
<td>Very Low</td>
<td>37 – 254</td>
<td>100 – 1000</td>
</tr>
<tr>
<td>Negligible</td>
<td>&gt; 254</td>
<td>&lt; 100</td>
</tr>
</tbody>
</table>

### TABLE 2. POSSIBLE 56-DAY SURFACE RESISTIVITY SPECIFICATIONS

<table>
<thead>
<tr>
<th>POSSIBLE 56-DAY RAPID CHLORIDE PERMEABILITY SPECIFICATION LIMITS (COULOMBS)</th>
<th>AASHTO CATEGORY LIMITS</th>
<th>CORRELATION EQUATION</th>
<th>ROUNDED EQUIVALENT 56-DAY SURFACE RESISTIVITY SPECIFICATION LIMIT (KΩ-CM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4000</td>
<td>Moderate Limit</td>
<td>SR = 11494(RCP)^0.829</td>
<td>12</td>
</tr>
<tr>
<td>3000</td>
<td>–</td>
<td>SR = 11494(RCP)^0.829</td>
<td>18</td>
</tr>
<tr>
<td>2000</td>
<td>Low Limit</td>
<td>–</td>
<td>21</td>
</tr>
<tr>
<td>1200</td>
<td>–</td>
<td>SR = 11494(RCP)^0.829</td>
<td>32</td>
</tr>
<tr>
<td>1000</td>
<td>Very Low Limit</td>
<td>–</td>
<td>37</td>
</tr>
</tbody>
</table>

### TABLE 3. AASHTO ALLOWABLE COEFFICIENTS OF VARIATION FOR SURFACE RESISTIVITY

<table>
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<tr>
<th>STATISTICAL PARAMETER</th>
<th>AASHTO TP 95-11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Operator COV (%)</td>
<td>6.3</td>
</tr>
<tr>
<td>Multi-laboratory COV (%)</td>
<td>12.5</td>
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</tbody>
</table>

### TABLE 4. TARGET VALUES FOR SELECTED PROBABILITY OF MEETING 56-DAY SURFACE RESISTIVITY SPECIFICATIONS

<table>
<thead>
<tr>
<th>PROBABILITY OF MEETING SPECIFICATION</th>
<th>MULTIPLIER FOR COV</th>
<th>SR TARGET FOR 56-DAY</th>
<th>SR TARGET FOR 56-DAY</th>
<th>SR TARGET FOR 56-DAY</th>
<th>SR TARGET FOR 56-DAY</th>
<th>SR TARGET FOR 56-DAY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>12 (KΩ-CM)</td>
<td>18 (KΩ-CM)</td>
<td>21 (KΩ-CM)</td>
<td>32 (KΩ-CM)</td>
<td>37 (KΩ-CM)</td>
</tr>
<tr>
<td>&gt; 99%</td>
<td>3.00</td>
<td>19.2</td>
<td>28.8</td>
<td>33.6</td>
<td>51.2</td>
<td>59.2</td>
</tr>
<tr>
<td>90%</td>
<td>1.65</td>
<td>15.1</td>
<td>22.7</td>
<td>26.5</td>
<td>40.3</td>
<td>46.6</td>
</tr>
<tr>
<td>80%</td>
<td>1.30</td>
<td>14.3</td>
<td>21.5</td>
<td>25.1</td>
<td>38.2</td>
<td>44.2</td>
</tr>
<tr>
<td>70%</td>
<td>0.85</td>
<td>13.4</td>
<td>20.1</td>
<td>23.5</td>
<td>35.8</td>
<td>41.4</td>
</tr>
<tr>
<td>50%</td>
<td>0.0</td>
<td>12</td>
<td>18</td>
<td>21</td>
<td>32</td>
<td>37</td>
</tr>
</tbody>
</table>

*100 PC is grey, 20F & 25F is red, 25C is orange, 35SL is green, 30SL20F & 35SL15F are blue
TDOT 604.03 plastic and hardened property requirements. For comparison, all PC-SCM combination mixtures had a water-to-cementing materials ratio (w/cm) of 0.37, and the fine aggregate was 38% of the total aggregate by volume. The SR results presented are not necessarily the results that will be obtained but rather a good estimate of what to expect.

Tables 4, 5, and 6 are color coded to show what PC-SCM combination could be expected to produce the desired results. TTU researchers do not have extensive data on a PC-SCM combination mixture that is in compliance with TDOT 604.03 SCM requirements and has a mean SR result greater than 47 kΩ-cm at 56 days. TTU researchers do have data on several PC-SCM combination mixtures that meet the plastic and hardened property requirements of TDOT 604.03 but fail to meet the SCM requirements while having a mean SR well in excess of 47 kΩ-cm at 56 days. However, that is a story for another day.

**Hit the SR Target Value**

When an SR target value for mixture design has been selected, consult Tables 5 and 6 to determine the most economical (or available) PC-SCM combination that has a good chance of hitting the target SR value. Next, produce at least three small batches of various mixture designs; however, more batches would be preferable. These batches should meet TDOT 604.03 specifications while varying either the SCM dosage rate or the w/cm but not both. Conduct SR at 56 days and plot the results (y-axis) versus the variable (x-axis). Locate the SR target value on the y-axis and proceed horizontally to the curve. Afterward, proceed vertically to the x-axis and read the variable corresponding to the SR target value. It is important to note that the target value is interpolated along the curve which should never be used to extrapolate outside of the data set to determine the variable amount to use for a final trial mixture. A few batches of the final trial mixture should then be produced to confirm the SR result.

Figure 2 shows an example of the procedure. The hypothetical mixture designer wants greater than a 99% chance of meeting a 32 kΩ-cm 56-day SR specification. Table 4 indicates a target SR value of 51.2 kΩ-cm. The mixture designer decides to try a 50% PC, 35% slag, and 15% Class F fly ash mixture meeting TDOT 604.03 specifications. The variable chosen is w/cm. Four batches of each of four different w/cm ratio mixtures (all meeting TDOT 604.03 plastic and hardened property requirements) are produced and tested for SR at 56 days. Using the plotted results, the w/cm ratio (0.363) corresponding to the SR target value (51.2 kΩ-cm) is determined as shown in Figure 2.

**28-DAY SR SPECIFICATION POSSIBILITIES**

If concrete chloride permeability could be determined more rapidly, bridge deck mixture design development, mixture design submittals, quality control, and quality assurance testing could all be streamlined. Therefore, a 28-day SR specification would be preferable to a 56-day SR specification. However, accuracy should not be sacrificed for speed. The second article in this series showed that 28-day normal curing was slightly better than 28-day accelerated curing at predicting later age SR results and vastly superior to accelerated curing in logistics. Figure 3 shows 28-day SR results as a function of 56-day SR results. There is no doubt that this seems backwards, but the regression equation is needed to determine what 28-day SR result corresponds to a certain 56-day SR result. Table 7 shows the 28-day SR results equivalent to the possible TDOT SR specification limits from Table 2.
### TABLE 5. 56-DAY MEAN SURFACE RESISTIVITY RESULTS FOR PC AND FLY ASH MIXTURES

<table>
<thead>
<tr>
<th>MIXTURE</th>
<th>C ASH (%)</th>
<th>F ASH (%)</th>
<th>TTU EFFECT OF SCMs (3X)</th>
<th>TDOT SR (20X)</th>
<th>TTU TDOT CLASS D MIXTURES (6X)</th>
<th>TTU APPROVED AGGREGATES (6X)</th>
<th>WEIGHTED MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 PC</td>
<td>0</td>
<td>0</td>
<td>14.0</td>
<td>-</td>
<td>14.3</td>
<td>-</td>
<td>14.2</td>
</tr>
<tr>
<td>20F</td>
<td>0</td>
<td>20</td>
<td>17.9</td>
<td>18.8</td>
<td>17.4</td>
<td>16.5</td>
<td>18.1</td>
</tr>
<tr>
<td>25F</td>
<td>0</td>
<td>25</td>
<td>22.2</td>
<td>-</td>
<td>19.7</td>
<td>-</td>
<td>20.5</td>
</tr>
<tr>
<td>25C</td>
<td>25</td>
<td>0</td>
<td>18.0</td>
<td>-</td>
<td>16.0</td>
<td>-</td>
<td>16.7</td>
</tr>
</tbody>
</table>

### TABLE 6. 56-DAY MEAN SURFACE RESISTIVITY RESULTS FOR MIXTURES CONTAINING SLAG

<table>
<thead>
<tr>
<th>MIXTURE</th>
<th>SLAG (%)</th>
<th>F ASH (%)</th>
<th>TTU EFFECT OF SCMs (3X)</th>
<th>TDOT SR (20X)</th>
<th>TTU TDOT CLASS D MIXTURES (6X)</th>
<th>TTU APPROVED AGGREGATES (6X)</th>
<th>WEIGHTED MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>35SL</td>
<td>35</td>
<td>0</td>
<td>-</td>
<td>-</td>
<td>33.2</td>
<td>-</td>
<td>33.2</td>
</tr>
<tr>
<td>30SL20F</td>
<td>30</td>
<td>20</td>
<td>-</td>
<td>-</td>
<td>47.0</td>
<td>-</td>
<td>47.0</td>
</tr>
<tr>
<td>35SL15F</td>
<td>35</td>
<td>15</td>
<td>44.8</td>
<td>43.0</td>
<td>46.3</td>
<td>41.0</td>
<td>43.4</td>
</tr>
</tbody>
</table>

### TABLE 7. POSSIBLE 28-DAY SURFACE RESISTIVITY SPECIFICATIONS

<table>
<thead>
<tr>
<th>POSSIBLE 56-DAY SURFACE RESISTIVITY SPECIFICATION LIMIT (K(\Omega)-CM)</th>
<th>CORRELATION</th>
<th>EQUATION</th>
<th>EQUIVALENT 28-DAY NORMALLY-CURED SURFACE RESISTIVITY SPECIFICATION LIMIT (K(\Omega)-CM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>TDOT SR Project Data</td>
<td>(\text{SR}<em>{28} = 0.7153(\text{SR}</em>{56}) + 0.5558)</td>
<td>9.1</td>
</tr>
<tr>
<td>18</td>
<td></td>
<td></td>
<td>13.4</td>
</tr>
<tr>
<td>21</td>
<td></td>
<td></td>
<td>15.0</td>
</tr>
<tr>
<td>32</td>
<td></td>
<td></td>
<td>23.4</td>
</tr>
<tr>
<td>37</td>
<td></td>
<td></td>
<td>27.0</td>
</tr>
</tbody>
</table>

### TABLE 8. TARGET VALUES FOR SELECTED PROBABILITY OF MEETING 28-DAY SURFACE RESISTIVITY SPECIFICATIONS

<table>
<thead>
<tr>
<th>PROBABILITY OF MEETING SPECIFICATION</th>
<th>MULTIPLIER FOR COV</th>
<th>SR TARGET FOR 28-DAY 9.1 (K(\Omega)-CM)</th>
<th>SR TARGET FOR 28-DAY 13.4 (K(\Omega)-CM)</th>
<th>SR TARGET FOR 28-DAY 15.0 (K(\Omega)-CM)</th>
<th>SR TARGET FOR 28-DAY 23.4 (K(\Omega)-CM)</th>
<th>SR TARGET FOR 28-DAY 27.0 (K(\Omega)-CM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 99%</td>
<td>3.00</td>
<td>14.6</td>
<td>21.4</td>
<td>24.0</td>
<td>37.4</td>
<td>43.2</td>
</tr>
<tr>
<td>90%</td>
<td>1.65</td>
<td>11.5</td>
<td>16.9</td>
<td>18.9</td>
<td>29.5</td>
<td>34.0</td>
</tr>
<tr>
<td>80%</td>
<td>1.30</td>
<td>10.9</td>
<td>16.0</td>
<td>17.9</td>
<td>27.9</td>
<td>32.2</td>
</tr>
<tr>
<td>70%</td>
<td>0.85</td>
<td>10.2</td>
<td>15.0</td>
<td>16.8</td>
<td>26.2</td>
<td>30.2</td>
</tr>
<tr>
<td>50%</td>
<td>0.0</td>
<td>9.1</td>
<td>13.4</td>
<td>15.0</td>
<td>23.4</td>
<td>27.0</td>
</tr>
</tbody>
</table>

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Determining Concrete Chloride Permeability More Efficiently

Part 3: Possible TDOT Surface Resistivity Specifications and Mixture Design Suggestions

Figure 3: Plot for Determining w/cm Corresponding to SR Target Value

Selecting an SR Target Value

Table 8 shows various probabilities and the corresponding multipliers. Table 8 also shows target design values for the five possible 28-day TDOT SR specifications at all five probabilities.

What SR Values Can Be Expected from a TDOT Class D Mixture at 28 Days?

Tables 9 and 10 display the mean 28-day SR results of several PC-SCM combinations from four different TTU projects. The number of SR replicates for each project is shown in row 1 of each table under the corresponding project title. The last column in each table shows a weighted (by number of replicates) average for each PC-SCM combination. The PC-SCM combinations selected are all permitted by TDOT Specification 604.03. All PC-SCM combination mixtures met TDOT 604.03 plastic and hardened property requirements. For comparison, all PC-SCM combination mixtures had a w/cm of 0.37 and the fine aggregate was 38% of the total aggregate by volume. The SR results presented are not necessarily the results that will be obtained but rather a good estimate of what to expect.

Tables 8, 9, and 10 are color coded to show what PC-SCM combination could be expected to produce the desired results. TTU researchers do not have extensive data on a PC-SCM combination mixture that is in compliance with TDOT 604.03 SCM requirements and has a mean SR result greater than 33 kΩ-cm at 28 days. TTU researchers do have data on several PC-SCM combination mixtures that meet the plastic and hardened property requirements of TDOT 604.03 but fail to meet the SCM requirements while having a mean SR well in excess of 33 kΩ-cm at 28 days. Again, that is a story for another day.

Hitting the SR Target Value

The graphical procedure is identical to that used for determining the 56-day variable (SCM dosage or w/cm) corresponding to the SR target value except 28-day data is used.

WHAT IS NEXT?

The next planned article, although not part of the current series, is closely related: Going Past Current TDOT 604.03 SCM Specifications to Further Reduce Chloride Permeability.

DISCLAIMER

The opinions expressed herein are those of the authors and not necessarily the opinions of the Federal Highway Administration (FHWA), TDOT, or the Tennessee Concrete Association.

REFERENCES


3. “Lowering the Chloride Permeability of a TDOT Class D PCC Mixture, Part 2: Expanding the Informational Catalog,” Crouch, Rogers, Dillon, Crowley, Hall and Badoe in Tennessee Concrete Winter 2013/14, Vol. 27, No. 3.


5. Tennessee Department of Transportation, Standard Specifications for Road and Bridge Construction (Section 604.03), January 1, 2015.
TABLE 9. 28-DAY MEAN SURFACE RESISTIVITY FOR PC AND FLY ASH MIXTURES

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<th>MIXTURE</th>
<th>C ASH (%)</th>
<th>F ASH (%)</th>
<th>TTU EFFECT OF SCMs (3X)</th>
<th>TDOT SR (20X)</th>
<th>TTU TDOT CLASS D MIXTURES (6X)</th>
<th>TTU APPROVED AGGREGATES (6X)</th>
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TABLE 10. 28-DAY MEAN SURFACE RESISTIVITY FOR MIXTURES CONTAINING SLAG

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<th>TDOT SR (20X)</th>
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<td>30.2</td>
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ACKNOWLEDGEMENTS

The authors wish to gratefully acknowledge the support of TDOT and FHWA. Special thanks to Gary Head, Jamie Waller, and Bill Trolinger.

We also wish to thank Frank Lennox of Buzzi-Unicem, Meagan Dangle of Lafarge North America, and Denny Lind of BASF for their extensive donations of portland cement, slag, chemical admixtures and silica fume to the project. The authors appreciate the procurement help provided by Alan Sparkman and the Tennessee Concrete Association.

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www.basf-admixtures.com
Products/Services: Glelenium
Series of Admixtures, Green Sense Concrete, MasterFiber, x-seed Accelerator, MasterLife
3000 Waterproofing
Additional Information: Denny Lind (615) 390-4899
Drag Yarbro (901) 484-9190
Rickey Swancey (205) 966-3115
Jason Ford (423) 609-0235

EdenCrete Industries Inc.
7072 Parkbrook Lane
Cordova, TN 38018
Primary Contact: Brent Sanders
Phone: (303) 468-1705
www.edencrete.com
Products/Services: Liquid Admixtures
Additional Information: Brent Sanders Southern Region Sales Rep (470) 316-8114

Eulid Chemical Company
19215 Redwood Rd
Cleveland, OH 44110
Primary Contact: Kyle Norwood
Phone: (216) 531-9222
www.eulidchemical.com
Products/Services: We provide concrete products such as fibers, sealers & chemical admixtures & integral colors.

GCP Applied Technologies
1722 Lake Egret Dr.
North Myrtle Beach, SC 29582
Primary Contact: Dan Meine
Phone: (678) 654-2035
www.gcp.com
Products/Services: Full Line of Chemical Admixtures for Precast, Masonry & Ready Mixed Concrete, Color & Fiber Products for Ready Mixed Concrete.
Additional Information: Zack Swanson - Technical Sales (410) 794-6973 zack.swanson@gcp.com
Dan Meine - daniel.j.meine@gcp.com

Sika Corporation
315 North Ebrite St
Mesquite, TX 75149
Primary Contact: Chuck Beaty
Phone: (501) 259-4317
Fax: (972) 289-5721
www.usa.sika.com
Products/Services: Admixture Products & Applications

AGGREGATE

Lafarge Aggregates
810 Crescent Centre Dr. #180
Franklin, TN 37067
Primary Contact: Jeremy Cole
Phone: (615) 771-1220
www.lafargeholcim.com
Products/Services: Aggregates
Additional Information: Joe Berlucci Area Sales Manager (215) 287-4899
Jeremy Cole Territory Manager (901) 896-4422
Bobby Ehrhardt Inside Sales (615) 955-3918

Pine Bluff Materials Co.
1030 Visco Drive
Nashville, TN 37210
Primary Contact: Mike Bohleber
Phone: (615) 254-1956
Fax: (615) 254-1960
www.pbmat.com
Products/Services: Specification Sand, Gravel & Stone

Rogers Group Inc.
PO Box 25250
Nashville, TN 37202
Primary Contact: Granville Grant
Phone: (615) 613-1115
www.rogersgroupinc.com
Products/Services: Crushes Stone and Natural Sand, & Construction Services

Vulcan Materials Co.
115 East Park Dr. Suite 100
Brentwood, TN 37027
Primary Contact: Jon Badgett
Phone: (615) 361-8550
Fax: (615) 399-0167
www.vulcanmaterials.com
Products/Services: Crushed Stone & Sand

CEMENT

Buzzi Unicem USA, Inc.
Primary Contact: Dan Rinke
Phone: (901) 682-8848
Fax: (901) 682-8852
www.buzzunicemusa.com
Products/Services: Portland and Masonry Cement
Additional Information: Ric Sutter, Sr. VP Sales Dan Rinke, Regional VP Sales (901) 409-3775
Heath Rogers, Technical Services Memphis & Nashville (901) 833-3647 Matt Wilbanks, Technical Services Chatt & Knoxville (901) 413-9545

Cemex
PO Box 100813
Birmingham, AL 35210
Primary Contact: Lynn Rasco
Phone: (205) 967-5211
Fax: (205) 967-5266
www.cemexusa.com
Products/Services: Portland Cement
Additional Information: Portland

Continental Cement Co.
370 Cobalt Bay Loop #101
Memphis, TN 38103
Primary Contact: Jon Harrell
Phone: (901) 569-4645
www.continentalcement.com
Products/Services: Cement Manufacturer
Additional Information: Mike Gordan, VP Sales & Marketing (800) 625-1144
Terry Martin Terminal Mgr. (901) 525-0311

LafargeHolcim
810 Crescent Centre Dr. Suite 180
Franklin, TN 37067
Primary Contact: Benoit Cotnoir
Phone: (615) 771-1220
Fax: (615) 771-1230
www.lafargeholcim.com
Products/Services: Portland Cement, Slag, Masonry & Oilwell Cement
Additional Information: Tim Langelier (615) 330-1776
Ward Poston (615) 202-5696
Joey Deroe (870) 215-3420
**Associate Members**

**Lehigh Cement Co.**
400 Riverhills Business Park
Suite 437
Birmingham, AL 35242
*Primary Contact*: Phil Detwiler
*Phone*: (205) 968-5803
*Fax*: (205) 969-1794
*Website*: www.lehighcement.com
*Products/Services*: Cement sales
*Additional Information*: Tray Breitbarth (770)605-0854
Middle & East TN, Grady Gunn (205) 901-6105 West TN

**National Cement Co. of Alabama**
2000 Southbridge Pkwy.St600
Birmingham, AL 35209
*Primary Contact*: Scott East
*Phone*: (205) 423-2600
*Fax*: (205) 870-5777
*Website*: www.nationalcement.com
*Products/Services*: Cement Producer & Masonry Cement Products
*Additional Information*: Stephen Snipes- VP Sales (205) 532-2368

**FIBER**

**Durafiber, Inc.**
714 West Main St. Suite 205
Murfreesboro, TN 37129
*Primary Contact*: Mike Deaton
*Phone*: (615) 333-9883
*Fax*: (615) 333-9882
*Website*: www.durafiber.com
*Products/Services*: Ultrafiber 500, Polypropylene Fiber, Steel Fiber, Fritz Pak Products

**Fibermesh**
4019 Industry Dr.
Chattanooga, TN 37421
*Primary Contact*: James Dowland
*Phone*: (423) 855-1466
*Website*: www.fibermesh.com
*Products/Services*: Manufacturer of Synthetic Concrete Reinforcement Fibers

**FLYASH**

**Boral Material Technologies**
904 Raven Point
Canton, GA 30114
*Primary Contact*: Randy Butcher
*Phone*: (470) 991-0885
*Website*: http://boralamerica.com
*Products/Services*: Fly Ash Marketer
*Additional Information*: Bryan Strevel (615) 828-7332
East & Middle TN
Greg Thomas (501) 844-6607 West TN

**The SEFA Group**
217 Cedar Rd.
Lexington, SC 29073
*Primary Contact*: Bert Nunn
*Phone*: (803) 520-9000
*Fax*: (803) 520-9001
*Website*: http://sefagroup.com
*Products/Services*: Class F Fly Ash, Technical Services & Engineering
*Additional Information*: Mark Casey Technical Sales & Service (865) 806-6950
Clark Gates Technical Sales & Service (615) 202-1001

**Waste Management/Fly Ash Direct**
5128 Grand Oak Way
Brentwood, TN 37027
*Primary Contact*: Bill Hunt
*Phone*: (615) 419-9151
*Fax*: (513) 871-1974
*Website*: www.flyashdirect.com
*Products/Services*: Dry Bulk Fly Ash, TDOT Approved Class C Fly Ash
*Additional Information*: Bill Hunt, Business Development Mgr. (615) 419-9151

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**Commitment is in everything we do**

At Lafarge, our commitment goes far beyond the raw materials we produce. We bring together the best solutions and materials to build more durable, compact and connected cities. And when you build better cities you get buildings, roads and infrastructure that truly reflect the changing needs of today’s communities.

It’s this kind of ongoing dedication that’s an integral part of the Lafarge culture. And it shows. Whether it’s our focus on safety, the well-being of our employees, or the satisfaction of our customers – it’s all about ensuring a better quality of life for everyone involved.

To learn more about Lafarge solutions and products, including cement, concrete and aggregates, contact:

Tim Langelier, Middle TN
*Phone*: (615) 330-1776
*Email*: Tim.Langelier@LaFargeHolcim.com

Benoit Cotnoir
Area Sales Mgr. Southern Region

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## ARCHITECTS

**Bauer-Askew Architects**  
1615 16th Ave. South  
Nashville, TN 37212  
**Phone:** (615) 467-2796  
www.baueraskewarchitecture.com  
**Products/Services:** Architectural Services

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## BATCH PLANTS & EQUIPMENT

**CEI Enterprises, Inc. An Astec Co.**  
245 Woodward Rd. SE  
Albuquerque, NM 87102  
**Primary Contact:** Jim Johnson  
**Phone:** (423) 443-0877  
www.ceienterprises.com  
**Products/Services:** Manufacture & Service Concrete & Asphalt Plants, RCC Mixers, Precast Plants & Mixers, Dust Control Equip.

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## COMMAND ALKEN

1800 International Park Dr.  
St. #400  
Birmingham, AL 35243  
**Primary Contact:** Ed Rusch  
**Phone:** (800) 624-1872  
Fax: (205) 870-1405  
www.commandalkon.com  
**Products/Services:** Batching Controls, Dispatching and Accounting Software, Production/Quality Control Software and Performance Management Software

---

## STEPHENS MFG CO. INC.

PO Box 488  
Tompkinsville, KY 42167  
**Primary Contact:** Greg High  
**Phone:** (270) 443-0877  
Fax: (270) 554-2615  
www.stephensmfg.com  
**Products/Services:** Concrete Plants, Dust Collectors, Reclaimers, Material Handling Systems & Mixers

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## SYSTEMS & CONTROLS

1850 Old Hwy 95  
Lenoir City, TN 37771  
**Primary Contact:** Mark McHenry  
**Phone:** (865) 988-8583  
Fax: (865) 988-0397  
www.systemsandcontrols.com  
**Products/Services:** Stephens Concrete Plants & Parts, Batch Computers & Dispatch Systems, Badger Water Meters, Hydronix Moisture Probes, Plant Scale Certifications & Service

---

## BUSINESS SERVICES

**Resource Management Associates**  
PO Box 512  
Forked River, NJ 08731  
**Primary Contact:** Doug Rhulm  
**Phone:** (888) 762-0230  
www.rmagreen.com  
**Products/Services:** Concrete Industry Specific Environmental Training, NPDES Stormwater Permitting, Phase 1 Env. Site Assessments, Environmental Audits, Env. Management Systems

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## CONCRETE PUMPING

**Concrete Pump Partners**  
1309 Brown St.  
Nashville, TN 37203  
**Primary Contact:** Jon Kemp  
**Phone:** (615) 299-9899  
Fax: (615) 219-2154  
www.pumppartners.com  
**Products/Services:** Concrete Pumping Services

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## CONSTRUCTION EQUIPMENT

**Multivibe, Inc.**  
3125 N. Friendship Rd.  
Paducah, KY 42001  
**Primary Contact:** Carl Ellis  
**Phone:** (270) 554-2615  
Fax: (270) 554-0631  
www.multivibe.com  
**Products/Services:** Vibratory Screeds (Gas & Electric), Wall Vibrators, Roller Screeds

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## POWER RENTAL & SALES

3653 A Trousdale Dr.  
Nashville, TN 37204  
**Primary Contact:** Brent Cornelius  
**Phone:** (615) 837-1450  
Fax: (615) 837-1452  
**Products/Services:** Vertical forms, Masonry Supplies, Power Tools & Grinders

---

## MATERIAL SUPPLIERS

**Butterfield Color Co.**  
625 W. Illinois Ave.  
Aurora, IL 60506  
**Primary Contact:** Marshall Hoskins  
**Phone:** (630) 906-1980  
Fax: (630) 906-1982  
www.butterfield.com  
**Products/Services:** Decorative Concrete Products, Integral Color, Stamping Tools, Training, Stains, Overlays

---

## CLEMONS CONCRETE COATINGS

505 Cave Rd.  
Nashville, TN 37210  
**Primary Contact:** Don Ware  
**Phone:** (615) 872-9099  
Fax: (615) 872-9052  
www.ccc-usa.com  
**Products/Services:** Sealers, Retarders, Curing Compounds, Stains, and Form Release

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## SICALCO, LTD.

522 Chestnut St. Suite GB  
Hinsdale, IL 60521  
**Primary Contact:** Kevin Casto  
**Phone:** (312) 404-9207  
www.sicalco.net  
**Products/Services:** Marketers of Liquidow(tm) Calcium Chloride

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## SOLOMON COLORS/ BRICKFORM

4050 Color Plant Rd  
Springfield, IL 62702  
**Primary Contact:** Todd Rose  
**Phone:** (217) 503-6126  
Fax: (615) 739-8007  
www.solomoncolors.com  
**Products/Services:** Colors for Concrete Liquid, Dry, & Granular, Decorative Concrete Stains, Stamps, Sealers, Ultrafiber

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## SPRAY-LOCK CONCRETE PROTECTION

5959 Shallowford Rd Suite 405  
Chattanooga, TN 37421  
**Primary Contact:** Lee Thrasher  
**Phone:** (423) 305-6151  
Fax: (423) 305-6150  
www.concreteprotection.com  
**Products/Services:** Spray Lock Concrete Protection strives to make concrete better by providing colloidal silica products that stabilize concrete PH & completely fill available pores & capillaries.
**Affiliate Members 2018**

**PRECAST**

**Bradley Tank & Pipe, LLC**  
PO Box 3146  
Cleveland, TN 37328  
**Primary Contact:** Eddie Johnson  
**Phone:** (423) 479-4482  
**Fax:** (423) 476-4527  
**Products/Services:** Redi-Rock Retaining Walls, Sanitary/Storm-Manholes, Utility Structures, Grease Interceptors & Water Quality Structures.

**C.R. Barger & Sons, Inc.**  
123 Pawnook Farm Rd  
Lenoir City, TN 37771  
**Primary Contact:** Eric Barger  
**Phone:** (865) 270-8080  
**Fax:** (865) 270-8079  
www.bargerandsons.com  
**Products/Services:** Retaining Wall Blocks, Manholes, Structures, Box Culverts, TDOT Certified & NPCA Certified Plant

**Foley Products Co.**  
3950 Cromwell Rd  
Chattanooga, TN 37421  
**Primary Contact:** David Clippinger  
**Phone:** (615) 724-6764  
www.foleyproducts.com  
**Products/Services:** Precast Box & Round Structures, Drainage Products, Specialty Items

**Gate Precast Co.**  
1 Bluegrass Drive  
Ashland City, TN 37015  
**Primary Contact:** Jim Pearson  
**Phone:** (615) 792-4871  
**Fax:** (615) 792-7608  
www.gateprecast.com  
**Products/Services:** Precast Concrete Systems, Wall Panel, Column Covers & Spandralls

**Jarrett Concrete Products Inc.**  
2012 Hwy 12 S  
Ashland City, TN 37015  
**Primary Contact:** Robert Jarrett  
**Phone:** (615) 792-9337  
**Fax:** (615) 792-9071  
www.jarrettconcreteproducts.com  
**Products/Services:** Precast Concrete Structures

**Ross Prestress Concrete, Inc.**  
PO Box 6299  
Knoxville, TN 37914  
**Primary Contact:** David Miller  
**Phone:** (865) 524-1485  
**Fax:** (865) 637-0831  
www.rossprestress.com  
**Products/Services:** Precast & Prestressed Concrete Members, Hollowcore Plank

**TRUCKING**

**Bulk First LLC**  
3515 Linda Lane  
Louisville, KY 40211  
**Primary Contact:** Dewell Gossett  
**Phone:** (502) 447-8700  
**Fax:** (502) 447-2555  
www.bulkfirst.com  
**Products/Services:** A Trucking Company Hauling Portland Cement & Flyash

**McNeilus Truck**  
PO Box 367  
Villa Rica, GA 30180  
**Primary Contact:** Brad Towler  
**Phone:** (770) 459-5151  
**Fax:** (770) 459-0068  
www.mcneiluscompanies.com  
**Products/Services:** Distributor for Trucks and Mixers, Designed for Production & Safety

**Terex Advance Mixer**  
7727 Freedom Way  
Fort Wayne, IN 46898  
**Primary Contact:** Scott Kutz  
**Phone:** (330) 204-1079  
**Fax:** (260) 969-4528  
www.terex.com  
**Products/Services:** Front Discharge Ready Mix Trucks, Complete Parts & Field Service Network

**TRUCKS & EQUIPMENT**

**Con-Tech Mfg., Inc.**  
67079 170th Ave.  
Dodge Center, MN 55927  
**Primary Contact:** Dean Bungum  
**Phone:** (507) 206-8998  
**Fax:** (507) 374-2548  
www.ctmmixers.com  
**Products/Services:** Manufacturing Concrete Truck Mixers Sales & Parts
ACOT Associates Group  
5796 Shelby Oaks Dr Suite 16A  
Memphis, TN 38134  
Primary Contact: Dan Akinduro  
Phone: (901) 266-1653  
Fax: (901) 373-8222  
www.acot.us.com  
Products/Services: Design, Build & Engineering Services

Anderson Engineering Consultants, Inc  
10205 Rockwood Rd.  
Little Rock, AR 72204  
Primary Contact: Tim Thomson  
Phone: (501) 546-6946  
Fax: (501) 522-2441  
www.aecigeo.com  
Products/Services: Construction Materials Testing

ATC Group Services  
2690 Memorial Dr. Suite D  
Murfreesboro, TN 37129  
Primary Contact: Tim Thomson  
Phone: (615) 546-6946  
Fax: (615) 331-1441  
www.atcgroupservices.com  
Products/Services: Construction Materials Testing

Bacon Farmer Workman Eng.&Testing  
PO Box 120  
Paducah, KY 42002  
Primary Contact: Mark Workman  
Phone: (270) 443-1995  
Fax: (270) 443-1904  
www.bfwengineers.com  
Products/Services: Construction Materials Testing, Inspections, Civil, Structural, Transportation & Surveying

Barge Design Solutions  
615 3rd Ave. South Suite 700  
Nashville, TN 37210  
Primary Contact: Raymond Canady  
Phone: (615) 254-1500  
Fax: (615) 255-6572  
www.bargedesign.com  
Products/Services: Architectural & Engineering Services, Surveying & Construction Inspection

Building & Earth Sciences, Inc.  
5545 Derby Dr.  
Birmingham, AL 35210  
Primary Contact: Trace Higgins  
Phone: (205) 836-6300  
Fax: (205) 836-9007  
www.buildingandearth.com  
Products/Services: Geotechnical Engineering Services, CMT & Special Inspections

Collier Engineering  
5560 Franklin Pike Circle  
Brentwood, TN 37027  
Primary Contact: Hayden Bilyeu  
Phone: (615) 331-1341  
Fax: (615) 331-1050  
www.collierengineering.com  
Products/Services: Geotechnical Engineering, Geotechnical Engineering & Materials Inspection

Construction Mat.Lab/DBA, Inc.  
PO Box 9449  
Knoxville, TN 37920  
Primary Contact: Scott Fitzgerald  
Phone: (865) 573-6122  
Fax: (865) 573-1817  
www.cmlabtechs.com  
Products/Services: Geotechnical Drilling & Rock Coring, Construction Materials Testing, Concrete Testing, QA/QC Fill Placement & Density Testing, AMRL Accredited

Earth Science Engineering, LLC  
201 W. Dunbar Cave Rd.  
Clarksville, TN 37040  
Primary Contact: Chris Casteel  
Phone: (931) 645-8008  
Fax: (931) 645-0180  
www.eseng.us  
Products/Services: Geotechnical Engineering Services, Drilling & Sampling, Testing, Special Inspections & Environmental Consulting

ECS Southeast, LLP  
318 Seaboard Lane Suite 208  
Franklin, TN 37067  
Primary Contact: Mark Luskin  
Phone: (615) 885-4983  
Fax: (615) 885-2311  
www.ecslimited.com  
Products/Services: Engineering Consulting and Testing for Construction Materials, Geotechnical & Environmental, Concrete Coring

Engineering & Testing Solutions  
PO Box 6212  
Seyievier, TN 37864  
Primary Contact: Michael Whaley  
Phone: (865) 428-4468  
Fax: (865) 932-3009  
www.ets-tn.com  
Products/Services: Geotechnical & Construction Materials Testing, Retaining Wall Design, Laboratory Testing & Drilling

GEOServices, LLC  
2561 Willow Point Way  
Knoxville, TN 37931  
Primary Contact: Josh Eslinger  
Phone: (865) 539-8242  
Fax: (865) 539-8252  
www.tennesseegeotechnicalengineering.com  
Products/Services: Geotechnical, Construction Materials, Natural Resources Engineering

Geotechnology Inc.  
3312 Winbrook Dr.  
Memphis, TN 38116  
Primary Contact: Justin Donovan  
Phone: (901) 353-1981  
Fax: (901) 353-3248  
www.geotechnology.com  
Products/Services: Engineering Services, Construction Materials Testing & Special Inspections

Geotek Engineering Co.  
2909 Elizabeth St.  
Nashville, TN 37211  
Primary Contact: Rami Mishu  
Phone: (615) 833-3800  
Fax: (615) 833-4097  
www.geotektn.com  
Products/Services: Geotechnical Engineering and Construction Materials Testing

Goodwyn, Mills & Cawood, Inc.  
3310 West End Ave. Suite 420  
Nashville, TN 37203  
Primary Contact: Patrick O’Leary  
Phone: (615) 333-7200  
Fax: (615) 333-0529  
www.gmcnetwork.com  
Products/Services: Geotechnical, Architecture, Engineering, Environmental, Transportation

Intertek-PSI Inc.  
751 South 5th St.  
Nashville, TN 37206  
Primary Contact: Ted Kisselovich  
Phone: (615) 244-8990  
Fax: (615) 242-1618  
www.psiusa.com  
Products/Services: ASHHTO Certified Laboratory, ARML (ASTM E329), ACI, ASNT, CWI

K.S. Ware & Associates LLC  
54 Lindsay Ave.  
Nashville, TN 37210  
Primary Contact: Julie Oliphant  
Phone: (615) 255-9702  
Fax: (615) 256-5873  
www.kswarellc.com  
Products/Services: Concrete, Asphalt, and Aggregate Testing
2018

Patriot Eng & Environmental, Inc.
6150 East 75th St
Indianapolis, IN 46250
Primary Contact: Andy Ferris
Phone: (615) 528-4441
Fax: (615) 528-5300
www.patrioteng.com
Products/Services: Construction Materials Testing, Geotechnical Engineering, Environmental, USACE Validated, AASHTO, AMRL, CCRL

Professional Engineers, Inc.
PO Box 31343
Knoxville, TN 37930
Primary Contact: David Berry
Phone: (865) 544-5959
Fax: (865) 544-5885
www.shieldengineering.com
Products/Services: Engineering Consulting & Materials Testing

S&ME, Inc.
1413 Topside Road
Louisville, TN 37777
Primary Contact: John Pearson
Phone: (865) 970-0003
Fax: (865) 970-2312
www.smeinc.com
Products/Services: Concrete Testing, Soil & Rock Testing, Aggregate Testing, Construction Monitoring Services, Geotechnical Engineering

Shield Engineering
300 Forestal Dr.
Knoxville, TN 37918
Primary Contact: Ray Tant
Phone: (865) 386-8469
Fax: (865) 386-8469
www.ssr-inc.com
Products/Services: Engineering Services to Private & Public Entities, Pervious Certified

Smith Seckman Reid, Inc.
2995 Sido Dr.
Nashville, TN 37204
Primary Contact: Steve Lane
Phone: (615) 331-7771
Fax: (615) 331-7771
www.ttlinc.com
Products/Services: Geotechnical Engineering, Construction and Material Testing, Environmental Testing, Civil Design & Surveying

Terracon Consultants, Inc.
5217 Linbar Drive Suite 309
Nashville, TN 37211
Primary Contact: Nick Fuller
Phone: (615) 333-6443
Fax: (615) 333-6443
www.terracon.com
Products/Services: Construction Materials, Environmental, Geo-technical Engineering, Engineering & Consulting Services

Thompson Engineering, Inc.
630 Chestnut St.
Chattanooga, TN 37402
Primary Contact: Randy Brown
Phone: (423) 756-7970
Fax: (423) 756-7950
www.thompsonengineering.com
Products/Services: Consulting, Inspection, Geotech, Materials Testing, Survey & Design

TTL, Inc.
5010 Linbar Drive Suite 153
Nashville, TN 37211
Primary Contact: Martin Medley
Phone: (615) 331-7770
Fax: (615) 331-7771
www.ttlinc.com
Products/Services: Geotechnical Engineering, Construction and Material Testing, Environmental Testing, Civil Design & Surveying

Wood Environmental & Infrastructure Solutions, Inc.
3800 Ezell Rd. Ste 100
Nashville, TN 37211
Primary Contact: Justin Farmer
Phone: (615) 333-0630
www.amecfw.com
Products/Services: Engineering Services

Volkert Inc.
1428 Chestnut St.
Chattanooga, TN 37402
Primary Contact: Jim Floyd
Phone: (423) 842-3335
Fax: (423) 842-8630
www.volkert.com
Products/Services: Engineering, Surveying and Construction Engineering and Inspection (CEI)
Advantage Const. Services
1208 Hwy 47 E
Dickson, TN 37055
Primary Contact: Trent Smith
Phone: (615) 740-8777
Fax: (615) 441-8776
www.advantageconst.net
Products/Services: Construction Services

American Constructors, Inc.
PO Box 120129
Nashville, TN 37212
Primary Contact: John Madole
Phone: (615) 329-0123
Fax: (615) 320-7966
www.amconst.com
Products/Services: Construction Manager/General Contractor

Aubrey Black Construction
232 Morgan Rd
Trenton, GA 30752
Primary Contact: Aubrey Black
Phone: (706) 398-3247
Fax: (706) 553-4609
www.baltzconcrete.com
Products/Services: Stamped Concrete, Spray-Deck, Stamped Concrete Overlay, Acid Staining, Increte Systems

Baker’s Construction Services, Inc.
PO Box 417
Piney Flats, TN 37686
Primary Contact: Kevin Buck
Phone: (423) 538-4400
Fax: (423) 536-1165
www.baltzconcrete.com
Products/Services: Site Construction, Utilities, Site Concrete, Curb & Gutter, Site Construction Oversight

Baltz & Sons Concrete
10505 US Hwy 64 Suite 1
Arlington, TN 38002
Primary Contact: Kevin Baltz
Phone: (901) 465-4337
www.baltzconcrete.com
Products/Services: Decorative & Stamped Concrete, Pervious Concrete, Patios, Driveways, Pool Decks

Beech Construction
541B Huntley Industrial Dr.
Smyrna, TN 37167
Primary Contact: Camden Griffin
Phone: (615) 220-5335
Fax: (615) 220-9775
www.beech-construction.com
Products/Services: General Contracting, Concrete Contracting, Structural Concrete & Pervious Concrete

Bell & Associates
PO Box 363
Brentwood, TN 37024
Primary Contact: Derek Bell
Phone: (615) 373-4343
Fax: (615) 370-9887
www.balp.com
Products/Services: Tilt-up, General Contracting, Bridges, Parking Garages

Black Construction, LLC.
PO Box 4051
Cleveland, TN 37320
Primary Contact: Sherrill Black
Phone: (423) 476-7278
Fax: (423) 339-0549
Products/Services: Industrial & Commercial Concrete, Excavate, Flatwork, TDOT Curbing, & Walls

Blount Contractors, Inc.
3025 Northpark Blvd.
Alcoa, TN 37701
Primary Contact: William Hall
Phone: (865) 981-9090
Fax: (865) 981-9090
www.blountcontractors.com
Products/Services: Full Service Concrete Contractor

Brindley Construction
PO Box 303
Pulaski, TN 38478
Primary Contact: Kathy Pigg
Phone: (931) 363-4544
Fax: (931) 363-1503
www.brindleyconst.com
Products/Services: Concrete Installer

BurWil Construction Co.
PO Box 637
Bristol, TN 37621
Primary Contact: Nick Self
Phone: (423) 968-4158
Fax: (423) 968-3199
www.burwil.com
Products/Services: Concrete Services

Charles Goar Concrete
1673 Newport Place
La Vergne, TN 37086
Primary Contact: Charles Goar
Phone: (615) 459-9003
Products/Services: Form carpentry, Pour in Place, Commercial & TDOT Roadwork

Charles Watkins & Co.
1706 Industrial Loop Rd
Pulaski, TN 38478
Primary Contact: Charles Z. Watkins
Phone: (931) 309-2039
Products/Services: ACI Certified, Retaining Walls, Box Culverts, Span Bridges, Pipe In Walls & Flatwork

Charter Construction Inc.
PO Box 90970
Nashville, TN 37209
Primary Contact: Turner Talley
Phone: (615) 383-8464
Fax: (615) 292-6575
www.charterconstruction.com
Products/Services: Concrete Subcontractor, Tilt-Up & Commercial

Dempster Poured Foundations
PO Box 11331
Knoxville, TN 37939
Primary Contact: Ross Dempster
Phone: (865) 755-0869
www.dempsterpouredfoundations.com
Products/Services: Poured In Place Walls

Dempster & Sons Concrete, LLC
2478 Greens Mill Rd.
Columbia, TN 38401
Primary Contact: Josh Cornwall
Phone: (615) 473-0123
www.dempsertonsonconcrete.com
Products/Services: Poured Concrete Walls, Stamping & Staining Decorative Concrete, Driveways, Slabs, Flatwork & Pervious

Fulks Concrete Contractors, Inc.
79 Bettye Lane
Tullahoma, TN 37388
Primary Contact: Donnie Fulks
Phone: (931) 455-1160
Fax: (931) 455-1174
Products/Services: Residential, Commercial & Industrial Concrete, Concrete Curbing

Fulmer Concrete Finishing Co. Inc.
4845 Geminus Dr.
Chattanooga, TN 37416
Primary Contact: Andrew Faw
Phone: (423) 855-1551
Fax: (423) 893-9949
www.fulmerconcrete.com
Products/Services: Commercial & Industrial Concrete Contractor, Elevated Structures, Concrete Walls, Foundations & Slabs

Glenn E. Mitchell & Co., Inc.
3583 Louisville Road
Louisville, TN 37777
Primary Contact: Andy Mitchell
Phone: (865) 588-5135
Fax: (865) 588-5013
www.gemitchellco.com
Products/Services: Foundations, Formed Walls, Fine Grading, Laser-Screening, Place & Finish Slabs, Structural Concrete, Pervious & Tilt Walls

Hawkins Asphalt Paving, LLC
PO Box 292
Wartrace, TN 37183
Primary Contact: Chris Hawkins
Phone: (931) 389-9671
Fax: (931) 389-9775
www.hawkinspaving.com
Products/Services: Paving of City Streets, Curbing, Excavation, Driveways & Pervious Concrete

HR Concrete Solutions, LLC
9213 Pine Brook Dr.
Knoxville, TN 37922
Primary Contact: Jimbo Reeves
Phone: (865) 335-2346
www.hrconcreteco.com
Products/Services: CIP Concrete, Decorative Concrete, Footings & Foundations, Flatwork, All Concrete Applications

JAY-TON Construction Co.
PO Box 142
Burlison, TN 38015
Primary Contact: Chase Sellers
Phone: (901) 476-1487
Fax: (901) 476-5629
www.jay-ton.com
Products/Services: Commercial Concrete Placement for Manufacturing, Energy Facilities, Distribution Centers & Warehouses

Jenkins & Jenkins, Inc.
162 West Swan
Centerville, TN 37033
Primary Contact: Michael Jenkins
Phone: (931) 215-9115
Fax: (931) 729-9320
Products/Services: Concrete Bridges, Bank Stabilization, Low Water Slabs, Box Culverts & Chert Delivered

Jinks Concrete Contractors Inc.
184 Roy Rd
Sweetwater, TN 37874
Primary Contact: JoAnna Jinks
Phone: (423) 337-0073
www.jinkscconcrete.com
Products/Services: Concrete Finishers, Pervious Concrete, Decorative Concrete, Curbs, Retaining Walls

L.E. Myers Co.
401 Chestnut Street Suite 120
Chattanooga, TN 37402
Primary Contact: Tod Cooper
Phone: (423) 265-4441
Fax: (423) 265-6649
www.lemyers.com
Products/Services: Place Foundations for Substations & Transmission Line Projects

Lamplsey Construction Inc.
PO Box 696
Fairview, TN 37062
Primary Contact: Leonard Lamplsey
Phone: (615) 799-2088
Fax: (615) 799-7930
Products/Services: Concrete Services, Commercial & Residential

Lithko Contracting Inc.
5207 Linbar Drive Suite 712
Nashville, TN 37211
Primary Contact: Chris Dittman
Phone: (615) 834-8773
Fax: (615) 837-9769
www.lithko.com
Products/Services: Total Package Concrete Contractor

MarCor Construction, Inc.
922 Harpeth Valley Place
Nashville, TN 37221
Primary Contact: Kyle Bowers
Phone: (615) 673-9995
Fax: (615) 673-9995
www.marcorconstruction.com
Products/Services: Concrete Curb & Gutters, Sidewalks, Pervious Concrete, & Misc Concrete Work

Mid-State Construction
9190 Bradford Hicks Dr.
Livingston, TN 38570
Primary Contact: Nick Davis
Phone: (931) 823-7646
Fax: (931) 823-7345
www.midstateconstruction.com
Products/Services: Bridge Construction, Bridge Repair, Geothermal & Quarry Drilling

My Sons Concrete, LLC
6239 Burnt Knob Rd
Murfreesboro, TN 37129
Primary Contact: Porfirio Alfaro
Phone: (615) 462-7050
Fax: (615) 462-7050
Products/Services: Concrete Installer, Flatwork, Pervious, Residential, Commercial & Industrial

Nsite, Inc.
PO Box 150
Milan, TN 38358
Primary Contact: Bill Smith
Phone: (731) 695-5663
Products/Services: Certified Pervious Installer, General Contractor, Specialize in Downtown Improvement Projects

Pavecoat, LLC
815 Cherokee Ave.
Nashville, TN 37207
Primary Contact: Rodney Jordan
Phone: (615) 401-7590
Fax: (615) 401-7592
www.pavecoatllc.com
Products/Services: Paving, Striping, Seal Coating & Line Striping, Excavation/Grading, Drainage & Placing Concrete

Salvador Vega Concrete
Lebanon, TN 37087
Primary Contact: Tony Vega
Phone: (615) 524-9159
Products/Services: Flatwork, Stamped, Curb & Gutter, Commercial & Residential Concrete

SMC Commercial LLC
810 E Gov. John Sevier Hwy
Knoxville, TN 37920
Primary Contact: Jason Dunaway
Phone: (865) 851-9236
Fax: (865) 622-6796
Products/Services: Concrete Services

Southern Constructors, Inc.
PO Box 9476
Knoxville, TN 37940
Primary Contact: Richard Huskey
Phone: (865) 579-5351
Fax: (865) 579-4328
www.southernconstructorsinc.com
Products/Services: General Contractor Specializing in Infrastructure- Water & Wastewater Plants, Pump Stations, Bridge Repairs, Commercial & Industrial Bldgs

Stansell Electric Co. Inc.
860 Visco Dr.
Nashville, TN 37210
Primary Contact: Brad Norris
Phone: (615) 329-4944
www.stansellelectric.com
Products/Services: Electrical Contractor, Street Lighting, Traffic Signals, ITS & Commercial Bldg. Work

Taylor’s Concrete Service, Inc.
354 Link Rd
Dover, TN 37058
Primary Contact: Samuel Taylor
Phone: (931) 206-2046
Products/Services: Contractor Services, Foundations, Walls & Slabs

Turner Construction Co.
624 Grassmere Park #4
Nashville, TN 37211
Primary Contact: Rob Binford
Phone: (615) 231-6300
Products/Services: International Commercial Construction Services,

Vintage Resurfacing
915 Dove Lane
Murfreesboro, TN 37128
Primary Contact: Larry Pippin
Phone: (615) 586-2790
Fax: (615) 329-4944
www.vintageconcreteservices.com
Products/Services: Decorative Concrete Services, Resurfacing, Polishing, Commercial & Residential

Walland Services, LLC
PO Box 295
Rockvale, TN 37153
Primary Contact: Tony Sutherland
Phone: (615) 772-8212
Products/Services: Construction Company Specializing In Water & Sewer Utilities & Concrete
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Pervious Concrete Allows Rainwater to seep into the ground. It is instrumental in recharging groundwater and reducing storm water runoff.

Pervious Is a Special Mix... It Requires Special Tools to Place It

The Wildcat Roller Screed is the easiest to use on the market and the most economical. It is also an ideal tool for concrete sidewalks, walking trails and golf cart paths.

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www.multivibe.com

The Wildcat Screed has become my preferred placement method because of it’s lightweight, easy to use, and produces a great finish.”

Sarah Egan
TN Concrete Association
NRMCA Certified Pervious Concrete Installer

Wildcat Roller Screed $2,195
Roller Tubes $30 per ft.
End Plugs $290 Weight #200

GROOVING ROLLER # PCRG $790

CROSS COMPACTION ROLLER # PCR $600

COMPLETE PERVERIOUS PACKAGE
INTERNSHIP SPEED INTERVIEWING DAY

Early in February, CIM majors at MTSU put on their suits and printed their resumes, ready to meet with 19 companies that attended the Internship Speed Interviewing Day on campus. This unique event focuses on connecting students with employers for summer opportunities in concrete and construction. CIM majors interviewed for six minutes each with 19 employers from a variety of areas of the industry including ready mix, materials, precast, and contracting.

A view from above of students in the School of Concrete and Construction Management interviewing with companies on February 9 on the Murphy Center Track.

MTSU junior Caroline Blackstone of Winston, GA, responds to questions about her MTSU Concrete Industry Management experience from company representatives of Whiting-Turner.

ALUMNI SPOTLIGHT

Mark McCommon, Owner, Woodford Construction, Nashville, TN

What positions have you held in the industry?

Worked for a global design build firm (Lend Lease) that focused on military construction from 2006-2016. During the last four years I worked there I started a local construction company with my business partner (Michael Bouldin) who also graduated from the CIM program.

What has been your biggest challenge since graduation?

Keeping up with technology. It seems every day some type of new technology comes for our industry that blows me away. I think just keeping up with that to ensure I make myself and our company as efficient as possible.

What is your best memory from attending the CIM Program?

My best memory were all the relationships made along the way. I still stay in contact with a lot of the graduates from the program and actually have worked with a lot of them in one way or another over the past twelve years.

Were you involved in any organizations while attending CIM?

I was not that involved in outside programs while I was in school. I wish I had been because I can see now how it would have helped with networking and marketing yourself as a professional.

What do you wish you had known before graduating and entering the “real world”?

I think the biggest thing is being humble, but also being confident in yourself in what you have taken away from the CIM program and your own experiences to date. You obviously have a lot more to learn, but you also have a lot to bring to the table.

I still remember my first week out of school at my previous employer. We had gone out of town for a project review and there were about forty executives that had flown in from all over the country and we were sitting in this large conference room at a hotel in Arizona. Having graduated two weeks before, I was the definitely greenest person in the room and had never sat in on a meeting like this before. It was pretty intimidating. They started discussing the project and reviewing what changes we should make going forward. I don’t remember the exact subject, but we were stuck on this one topic for about ten minutes. I remember thinking to myself why we would do it this way and not that. I never asked the question because I thought “there is no way I am asking that in front of all these people”, but then another ten minutes goes by and our CEO turns to me in front of everyone and asks what my thoughts were on it. I gave him what my thought were on it and he said that was the exact answer he was looking for and dint know why it had taken twenty minutes to come to a conclusion. I didn’t know anything else they were really talking about that day, but I learned everyone brings something to the table.

Is there anything else that you would like to add?

I would say just make yourself as valuable as possible by being open to learning as much as possible. Just like in every industry, the market is booming right now, but there will be slow times and it’s the individuals who set themselves apart during the good times that are still around during the slow times. This goes for working for a large company or working for yourself.
ALUMNI SPOTLIGHT

Richard Farmer,
Technical Sales Manager, Nashville Ready Mix

What positions have you held in the industry?
Sales Rep with Gerdau Ameristeel; Project Manager with Cantera Concrete, Lithko Contracting, Wright Construction; to current role with NRM.

What do you like most about your position?
That every day present a different opportunity to do something new.

What is your best memory from attending the CIM Program?
Working the Booth at the World of Concrete.

What do you wish you had known before graduating and entering the “real world”?
It would have been beneficial to have taken Spanish classes.

What advice can you give current students?
Take advantage of any opportunity to live in new places with work and use the CIM program to help build relationships with other alumni.

Richard has joined the MTSU CIM Patron’s Group and is giving back to the program. He plans to continue to help the growth of Nashville Ready Mix in the Middle Tennessee Region. In his personal life, he and his wife are raising their four year old daughter while promoting the benefits of working in construction and the roles of women in the industry.