Cameron David Murray

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EDUCATION

Ph.D. Civil Engineering, University of Oklahoma, Emphasis: Structural Engineering — Summer 2017
Dissertation Title: "Understanding ultimate shear behavior of prestressed concrete girder bridges as a system through experimental testing and analytical methods"
Advisor: Dr. Royce Floyd, P.E.

M.S. Civil Engineering, University of Arkansas, Emphasis: Structural Engineering — Summer 2014
Thesis: "Durability of a silane sealer in a highly alkaline environment"
Advisor: Dr. Micah Hale, P.E.

B.S. Civil Engineering, University of Arkansas — Fall 2012
Cum Laude, Minored in History, Mathematics
Honors Thesis: "Effect of mortar strength on the Standard Test for Strand Bond"

ACADEMIC APPOINTMENTS

Associate Professor — Fall 2023-Present
University of Arkansas Department of Civil Engineering
- Instructor for CVEG 4303: Reinforced Concrete Design I, CVEG 5363: Reinforced Concrete Design II, CVEG 5353: Prestressed Concrete Design, CVEG 2013: Mechanics I

Assistant Professor — Fall 2017-Fall 2023
University of Arkansas Department of Civil Engineering

Graduate Research/Teaching Assistant — Fall 2014-Summer 2017
University of Oklahoma School of Civil Engineering and Environmental Science

Graduate Research Assistant — Spring 2013-Summer 2014
University of Arkansas Department of Civil Engineering

Undergraduate Research Assistant — Summer 2011-Fall 2012
University of Arkansas Department of Civil Engineering

PUBLICATIONS/PRESENTATIONS

Refereed Journal Articles

* Indicates in preparation or review
† Indicates paper written with advisee(s)

23. †*Puttbach, C., Prinz, G.S., and **Murray, C.D.**, "Strength and Stiffness Characterization of Ultra High-Performance Concrete (UHPC) Cement Paste Phases Through In-Situ Micro-Mechanical Testing." Submitted to *Cement and Concrete Research*.
22. †*Johnson, G.R., Poblete, E.S., and **Murray, C.D.**, "Stress-Strain Response of Concrete Made With Belitic Calcium Sulfoaluminate Cement." Submitted to *ACI Structural Journal*
21. †Aguilar, I., Soriano, E.O., and **Murray, C.D.** "Effect of Citric Acid on Slump, Compressive Strength, and Setting Time of Belitic Calcium Sulfoaluminate Concrete." *Magazine of Concrete Research*.
20. †Puttbach, C., Prinz, G.S., **Murray, C.D.** "A Review of Existing Equations for Estimating Elastic Modulus in Specialty Concretes" *ASCE Journal of Materials in Civil Engineering* 35, no.6 (2023).
19. †Chesnut, C.W. and Murray, C.D. "Shear Capacity of Reinforced Concrete made with BCSA Cement." *ACI Structural Journal* 120, no. 1 (2023).

18. †Almohammedi, A., Dang, C.N., **Murray, C.D**., and Hale, W.M., "Enhanced Camber and Deflection Estimation for AASHTO Prestressed Concrete Girders." *PCI Journal* 67, no. 6 (2022).
17. †Ortega Gonzalez, A.J., Barry, M.L., **Murray, C.D**. "Development of Underwater Mortar Using Belitic Calcium Sulfoaluminate Cement." *Advances in Civil Engineering Materials* 11, no. 1 (2022).
16. †Dillard, R.J., Deschenes, R.A., **Murray, C.D**. "Belitic calcium sulfoaluminate cement subjected to sulfate attack and sulfuric acid." *Construction and Building Materials* 343, (2022).
15. †Almohammedi, A., **Murray, C.D**., Dang, C.N., and Hale, W.M., "Practical ultra-high-strength concrete for precast concrete applications." *PCI Journal* 67, no.3 (2022).
14. †Poblete, E.S., Messadi, T., **Murray, C.D.**, and Zelinka, S. "Moisture Monitoring of a CLT Structure in a Southern Climate." *ASCE Journal of Architectural Engineering* 28, no. 3 (2022)
13. †Almohammedi, A., Dang, C.N., **Murray, C.D**., and Hale, W.M., "Investigation of measured prestress losses compared with design prestress losses in AASHTO Types II, III, IV, and VI bridge girders." *PCI Journal* 66, no. 3 (2021).
12. Prinz, G.S., **Murray, C.D.**, "On the Pullout Strength of Human Nasal Hair." *Materialia* 16 (2021).
11. Khandel, O., Soliman, M., Floyd, R.W., and **Murray, C.D.**, "Performance Assessment of Prestressed Concrete Bridge Girders using Fiber Optic Sensors and Artificial Neural Networks." *Structure and Infrastructure Engineering* 7, no. 5 (2021): 605-619.
10. †Cook, G.W., **Murray, C.D.**, "Behavior of Reinforced Concrete Made with Belitic Calcium Sulfoaluminate Cement at Early Ages." *ACI Materials Journal* 117, no. 01 (2020).
9. Bowser, T.M., **Murray, C.D.**, Floyd, R.W., "Behavior of 0.6 in. (15.2 mm) Prestressing Strands in CSA Cement Concrete Beams." *ACI Structural Journal* 117, no. 01 (2020).
8. **Murray, C.D.**, Arancibia, M.D., Okumus, P., Floyd, R.W., "Destructive Testing and Computer Modeling of a Scale Prestressed Concrete I-Girder Bridge." *Engineering Structures* 183C (2019): 195-205.
7. **Murray, C.D.**, Floyd, R.W., Ramseyer, C.E., "Using Belitic Calcium Sulfoaluminate Cement for Prestressed, Precast Concrete Beams." *PCI Journal* 64, no. 2 (2019).
6. **Murray, C.D.**, Cranor, B.N., Floyd, R.W., Pei, J.S., "Experimental Testing of Older AASHTO Type-II Bridge Girders with Corrosion Damage at the Ends." *PCI Journal* 64, no. 1 (2019).
5. Deschenes, R.A., **Murray, C.D.**, Hale, W.M., "Mitigation of Alkali-Silica Reaction (ASR) and Freezing and Thawing in a Median Barrier Through Surface Treatment." *ACI Materials Journal* 114, no. 02 (2017).
4. **Murray, C.D.**, Deschenes, R.A., Hale, W.M., "Durability of Silane Sealer in a Highly Alkaline Environment." *ACI Materials Journal* 113, no. 04 (2016).
3. Dang, C., Floyd, R.W., **Murray, C.D.**, Hale, W.M., Martí-Vargas, J., "Bond Stress-Slip Model for 0.6 in. (15.2 mm) Diameter Strand." *ACI Structural Journal* 112, no. 05 (2015).
2. Dang, C., **Murray, C.D.**, Floyd, R.W., Hale, W.M., Martí-Vargas, J., "A Correlation of Strand Surface Quality to Transfer Length." *ACI Structural Journal* 111, no. 05 (2014).
1. Dang, C., **Murray, C.D.**, Floyd, R.W., Hale, W.M., and Vargas, J., "Analysis of bond stress distribution for prestressing strand by Standard Test for Strand Bond." *Engineering Structures* 72 (2014): 152-159.

Peer Reviewed Conference Papers

7. †Deschenes, A., **Murray, C.D.**, "CSCSBC Layer Coefficient Recommendations for ARDOT Pavement Design," *The 2021 Tran-SET Conference*, Jonesboro, AR (Virtual), June, 2021.
6. Mayhorn, D.T., **Murray, C.D.**, Floyd, R.W., and Prinz, G.S., "Effect of Corrosion on End Region Behavior of Pretensioned, Prestressed Bridge Girders," *PCI Convention and National Bridge Conference*, Denver, CO, February, 2018.
5. **Murray, C.D.**, Cranor, B.N., Floyd, R.W., and Pei, J.S., "Shear Behavior of 45-Year-Old AASHTO Type II Bridge Girders." *PCI Convention and National Bridge Conference* No. 57. Cleveland, OH. March, 2017.
4. Deschenes, R. A., Jr., **Murray, C.D.**, and Hale, W.M., "Prevention and Mitigation of ASR in Median Barriers with Varying Degrees of Damage." *Tc&DI Congress 2014*, pp. 111-120. Orlando, FL. June, 2014.
3. Dang, C., **Murray, C.D.**, Floyd, R.W., and Hale, W.M., "A Correlation of Transfer Length and Strand End Slip." *10th fib International PhD Symposium in Civil Engineering.* Quebec, Canada. July, 2014.
2. Dang, C., **Murray, C.D.**, Floyd, R.W., Hale, W.M., and Vargas, J., "A Review of Factors Influencing Strand Bond." *PCI Convention and National Bridge Conference,* Paper No. 91. Grapevine, TX. September, 2013.
1. **Murray, C.D.**, Deschenes, Jr., R.W., Floyd, R.W., and Hale, W.M., "The Effect of Mortar Strength on the Standard Test for Strand Bond." *PCI Convention and National Bridge Conference*, Paper No. 105. September, 2012. Nashville, TN.

Other Conference Papers

1. **Murray, C.D**., Floyd, R.W., "Shear and Anchorage Failure of Scale Prestressed Concrete I-Girders and Scale Bridge Section." *Structural Faults and Repair/European Bridge Conference*. May 2018. Edinburgh, UK.

Technical Presentations & Posters

30. **Murray, C.D.**, et al. "Using Rapid Setting BCSA Cement for Structural Concrete." Joint Tran-SET Seminar Series. December 2023 (Virtual).
29. **Murray, C.D.**, et al., "Using BCSA Cement for Structural Concrete." 2nd International Workshop on Calcium Sulfoaluminate Cements." Rome, Italy. October 2023.
28. **Murray, C.D.** "University of Arkansas Concrete Research Update." *Arkansas/Oklahoma ACPA Annual Meeting*. Hot Springs, AR. August 2023.
27. **Murray, C.D.** (presenter) Poblete, E.S., Farivar, B., et al. "Using BCSA Cement for Structural Concrete." *CSA Cements Seminar*. Los Angeles, CA. June 2023.
26. **Murray, C.D.** (presenter) Poblete, E.S., Farivar, B., et al. "Using BCSA Cement for Structural Concrete." *ACI Concrete Convention*. San Francisco, CA. April 2023.
25. **Murrray, C.D.** (presenter), Cook, G.W., Aguilar, I., Soriano, E.O, and Chesnut, C.W. "Using Alternative Cements for Structural Concrete." 2022 *Structural Engineers Association of Arkansas Annual Conference*. Little Rock, AR. November 2022.
24. **Murrray, C.D.** (presenter), "Using Alternative Cements for Structural Concrete." 2022 *ASCE Arkansas Section Conference*. Cabot, AR. October 2022.
23. **Murrray, C.D.** (presenter), Cook, G.W., Aguilar, I., Soriano, E.O, and Chesnut, C.W. "Reinforced Concrete Made with Belitic Calcium Sulfoaluminate Cement." *ACI Concrete Convention* (virtual). October 2021.
22. Deschenes, A., **Murray, C.D.** (presenter). "CSCSBC Layer Coefficient Recommendations for ARDOT Pavement Design." *The 2021 Tran-SET Conference*. Jonesboro, AR. (Virtual), June, 2021.
21. Spann, S.W., **Murray, C.D.** (presenter), "TRC1902: Capillary Pressure Sensor Testing to Identify Curing Regimen in Freshly Placed Bridge Decks," 2021 ARDOT TRC Virtual Conference & NSBA Steel Bridge Forum. May 2021.
20. **Murray, C.D.**, "The Use of Belitic Calcium Sulfoaluminate (BCSA) Cement in Structural Concrete." Clarkson University Department of Civil and Environmental Engineering Seminar. April 2021. Potsdam, NY (Virtual).
19. **Murray, C.D.**, "The Use of Belitic Calcium Sulfoaluminate (BCSA) Cement in Prestressed Concrete Members." Austin ASCE SEI Chapter. November 2020. Austin, TX (Virtual).
18. **Murray, C.D.**, Bowser, T.M., Floyd, R.W., and Ramseyer, C.E. "Prestressed Concrete Using Calcium Sulfoaluminate Cement." ACI Concrete Convention and Exposition. October 2019. Cincinnati, OH.
17. **Murray, C.D.**, Deschenes, A. "Cement Stabilized Crush Stone Base Course (CSCSBC) Strength and Stiffness Analysis." Southeastern States Pavement Association Conference. October 2019. Louisville, KY.
16. Ortega, A.J. (presenter), **Murray, C.D.**, "Using Calcium Sulfoaluminate Cement to Repair Waterway Transportation Structures," SPTC Summer Symposium. August 2019. Oklahoma City, OK. (Poster)
15. **Murray, C.D.**, Deschenes, R.A., Jr., Hale, W.M. "Performance and Use of Sealants: UofA Research Since 2013." 2019 Arkansas Pavement Conference. August 2019. Little Rock, AR.
14. **Murray, C.D.** Spann, S.W., Hale, W.M., "Measuring Plastic Shrinkage with Capillary Pressure Sensors." 2019 ARDOT TRC Transportation Conference and Equipment Expo. August 2019. Hot Springs, AR.
13. **Murray, C.D.**, "Recent structural engineering research at UA: Rapid setting cement and cross laminated timber." ASCE – Northwest Arkansas Chapter. June 2019. Fayetteville, AR.
12. **Murray, C.D.**, "Rapid Setting Cement and Other Concrete Research." Visit to Missouri School of Science and Technology. November 2018. Rolla, MO.
11. Cook, G.W. (presenter), **Murray, C.D.**, "Using Rapid setting cement in reinforced concrete beams." SPTC Summer Symposium. August 2018. Oklahoma City, OK.
10. **Murray, C.D.** (presenter), Floyd, R.W., Ramseyer, C.E., "Performance of Precast Prestressed Beams Cast with Calcium Sulfoaluminate-Belite Cement Concrete." ACI Concrete Convention and Exposition. October 2018. Las Vegas, NV.

9. **Murray, C.D.** (presenter), Floyd, R.W., "Shear and Anchorage Failure of Scale Prestressed Concrete I-Girders and Scale Bridge Section." Structural Faults and Repair/European Bridge Conference. May 2018. Edinburgh, UK.
8. **Murray, C.D.** (presenter), Bella-Canet, E., Floyd, R.W., "Bond performance of top strands cast in lightweight self-consolidating concrete." ACI Fall 2016 Convention. October 2016. Philadelphia, PA.
7. **Murray, C.D.** (presenter), Floyd, R.W., and Pei, J.S. "Construction of a half-scale bridge to examine load transfer and shear behavior of composite bridge-slab system." Oklahoma Transportation Research Day. October 2016. Moore, OK. (Poster)
6. **Murray, C.D.** (presenter), Cranor, B., Floyd, R.W., and Pei, J.S. "Shear Behavior of 45-Year-Old AASHTO Type-II Bridge Girders." SPTC Summer Symposium. August 2016. Oklahoma City, OK.
5. **Murray, C.D.** (presenter), Cranor, B., Floyd, R.W., and Pei, J.S. "Understanding the Behavior of Prestressed Concrete Girders After Years of Service." Oklahoma Transportation Research Day. October 2015. Moore, OK. (Poster)
4. **Murray, C.D.** (presenter), Deschenes, R.A., Jr., and Hale, W.M. "Treatment of an Unusual Case of Alkali Silica Reaction." Oklahoma Transportation Research Day. October, 2014. Oklahoma City, OK. (Poster)
3. **Murray, C.D.** (presenter), Deschenes, R.A., Jr., and Hale, W.M. "Treatment of an Unusual Case of Alkali Silica Reaction." Arkansas Chapter ACI Membership Meeting and Awards Ceremony. January 16, 2014. Little Rock, AR.
2. **Murray, C.D.** (presenter), Deschenes, R.A., Jr., and Hale, W.M. "Treatment of an Unusual Case of Alkali Silica Reaction." University of Arkansas Department of Civil Engineering, Seminar Series. October 3, 2013. Fayetteville, AR.
1. **Murray, C.D.** (presenter), Deschenes, R.A., Jr., and Hale, W. "The Effect of Mortar Strength on the Standard Test for Strand Bond." PCI Convention and National Bridge Conference. October 2, 2012. Nashville, TN.

Reports

1. Floyd, R.W., Pei, J.S., **Murray, C.D.**, Cranor, B.N., and Tang, P. "FHWA-OK-16-03: Understanding the behavior of prestressed girders after years of service (Final Report)." *Oklahoma Department of Transportation*. Oklahoma City, OK. Dec. 2016.
2. Floyd, R.W., Pei, J.S., **Murray, C.D**., Toshima, J., Afnan, A., Roswurm, S. "FHWA-OK-20-01: Development of a Rating tool for Prestressed Concrete Bridges Vulnerable to Shear (Final Report)." *Oklahoma Department of Transportation.* Oklahoma City, OK. Jan. 2020.
3. †**Murray, C.D**., Spann, S.W. "FHWA-AR-18-1902: Capillary Pressure Sensor Testing to Identify Curing Regimen in Freshly Placed Bridge Decks (Final Report)." *Arkansas Department of Transportation.* Little Rock, AR. Submitted Feb. 2021.
4. †**Murray, C.D.**, Barry, M.L., Ortega Gonzalez, A.J. "MarTREC 6006: Using CSA Cement for Novel Waterway Repair Materials." *Maritime Transportation Research and Education Center (MarTREC).* Fayetteville, AR. Submitted Sept. 2021.

RESEARCH PROJECTS

Funded Research

"BAA 22-0013 Rapidly Constructible Bridge"
Murray, C.D., Prinz, G.S.
Engineer Research and Development Center (ERDC) - US Army Corps of Engineers
$500,000
2022-2024

"Low Shrinkage Concrete Mixtures for Arkansas"
Murray, C.D., Hale, W.M.
ARDOT FY 2022 TRC 2203
$292,234
2022-2025

"Materials and Testing Specifications for Drilled Shaft Concrete"
Coffman, R.A., **Murray, C.D.**
ARDOT FY 2022 TRC 2204
$211,796
2022-2024

"MarTREC 6017: Development of Rapid Setting Soil-Cement Mixture Designs and Performance Testing"
Murray, C.D., Barry, M.L.
MarTREC 2021
$210,408
2021-2023

"BAA 20—124: Advanced Concrete Research and Development for Military Applications"
Murray, C.D., Coffman, R.A., Prinz, G.S., Hale, W.M.
Engineer Research and Development Center (ERDC) - US Army Corps of Engineers
$3,000,000
2021-2023

"Stress-Strain Analysis of BCSA Cement for Structural Applications"
Murray, C.D.
American Concrete Institute – Concrete Research Council. Sponsored by ACI Committee 242: Alternative Cements
$56,229
2021-2023

2019 Dwight D. Eisenhower Transportation Fellowship – Anazaria Ortega
Ortega, A., **Murray, C.D.**
$5,000
2019-2020

2019 Dwight D. Eisenhower Transportation Fellowship – Fernando Benitez
Benitez, F., **Murray, C.D.**
$5,000
2019-2020

"Alternative Concrete Mixtures to Prevent Microbially Induced Corrosion"
Murray, C.D.
City of Fayetteville, AR
$19,920
2019-2020

"Monitoring moisture in CLT panels in a dormitory structure"
Messadi, T., **Murray, C.D.**
US Endowment for Forestry and Communities
$100,000 ($50,000 personal credit)
2019-2023

"MarTREC 6006: Using CSA Cement for Novel Waterway Repair Materials"
Murray, C.D., Bernhardt-Barry, Michelle
MarTREC 2018
$145,247
2018-2020

"Investigating Concrete Deck Cracking in Continuous Steel Bridges"
Heymsfield, E., **Murray, C.D.**
ARDOT FY 2019 TRC 1903
$206,286 ($100,763 personal credit)
2018-2020

"Capillary Pressure Sensor Testing to Identify Curing Regimen in Freshly Placed Bridge Decks."
Murray, C.D., Hale, W.M.
ARDOT FY 2019 TRC 1902
$124,861
2018-2020

"Development of Rating Tool for Prestressed Concrete Bridges Vulnerable to Shear."
Floyd, R.W., Pei, J.S., **Murray, C.D.**
ODOT FFY 2018 SPR Item Number 2280
$160,853 ($6,740 personal credit)
2017-19

"Understanding shear behavior of older prestressed concrete girders and of prestressed concrete bridges"
Murray, C.D.
Dwight D. Eisenhower Transportation Fellowship Program
$35,500
2016-2017

Sum of research support: $5,073,334 ($4,647,800 personal credit)

GIFTS

Gifts to support CSA cement studies at the University of Arkansas Concrete Research Laboratory
$120,000
Various Donors
2019-2022

Gift to support concrete pavement initiatives at the University of Arkansas
$500,000 pledged ($100,000/year - $300,000 as of Spring 2021)
Arkansas/Oklahoma Chapter of the American Concrete Pavement Association
2018-2023

UNIVERSITY GRANTS

Honors College Travel Grant
$1,250
To support travel to Quebec City for ACI Convention in 2019 - Edgar Soriano (undergraduate advisee)

Sum of all Support: $ 5,544,584 (as of September 2022)

PROFESSIONAL INVOLVEMENT AND SERVICE

- Arkansas Professional Engineer (License #19944)
- Associate Member of ACI Committee 342: Evaluation of Concrete Bridges and Bridge Elements
- Voting Member of ACI Committee 242: Alternative Cements and 423: Prestressed Concrete
- Member of Chi Epsilon – National Civil Engineering Honor Society
- Member of ACPA
- Member of PCI
- Reviewer for *Engineering Structures*
- Reviewer for *PCI Journal*
- Reviewer for *Applied Sciences*
- Reviewer for *Cement and Concrete Research*
- Reviewer for *Transportation Research Record*
- Reviewer for *ASCE Journal of Materials in Civil Engineering*
- Reviewer for *Structure and Infrastructure Engineering*
- Reviewer for *Advances in Civil Engineering Materials (ASTM)*
- Reviewer for *ASCE Journal of Structural Engineering*
- Reviewer for *ASCE Journal of Bridge Engineering*

AWARDS AND RECOGNITION

- College of Engineering Dean's Award of Excellence - Rising Teacher Award — 2022-2023
- University of Arkansas Department of Civil Engineering Outstanding Researcher — 2022-2023
- ACI Walter P. Moore Junior Faculty Achievement Award — 2022
- University of Arkansas Department of Civil Engineering Outstanding Teacher — 2020-2021, 2021-2022
- 2019 ASCE ExCEEd Teaching Fellow (West Point, NY) — 2019
- Southern Plains Transportation Center Student of the Year — 2016-2017
- Oklahoma Transportation Research Day Poster Award (1st Place) — 2016
- Dwight David Eisenhower Transportation Fellowship ($35,500) — 2016-2017
- Oklahoma Transportation Research Day Poster Award (2nd Place) — 2014
- University of Oklahoma Boggs Graduate Fellowship ($12,000) — 2014-2015
- Arkansas Chapter ACI Student Research Award ($500) — 2014
- ACI Baker Student Fellowship ($5,000) — 2012-2013
- PCI/NBC Student Travel Award ($600) — 2012
- University of Arkansas Dean's and Chancellor's Lists — Spring 2011, Fall 2012
- University of Arkansas Chancellor's Scholarship — 2008-2012
- Arkansas Governor's Scholarship — 2008-2012

TEACHING EXPERIENCE

Instructor for CVEG 2013: Civil Engineering Mechanics I (Statics) — Spring 2020, Fall 2020, Spring 2021, Fall 2021, Spring 2022, Fall 2022, Spring 2023

- Topics include vector math, moments, force equilibrium, trusses
- Mean Purdue Rating: 4.75/5.0 (30 students average)

Instructor for CVEG 5363: Advanced Topics in Reinforced Concrete Fall 2018, Fall 2020, Spring 2023

- Topics include: two-way slabs, biaxial bending, strut and tie model
- Mean Purdue Rating: 4.81/5.0 (17 students average)

Instructor for CVEG 4303: Reinforced Concrete I Spring 2018, Spring 2019

- Topics include: stress design, strength design, moment and shear analysis, short columns
- Mean Purdue Rating: 4.58/5.0 (57 students average)

Instructor for CVEG 5353: Prestressed Concrete Fall 2017, Fall 2019, Fall 2021

- Topics include: prestress losses, flexural strength, shear strength, stress analysis
- Mean Purdue Rating: 4.87/5.0 (16 students average)

Teaching Assistant for CEES 3403: Materials (as graduate student) Spring 2015

Teaching Assistant for CEES 3763: Concrete I (as graduate student) Fall 2014

STUDENT ADVISING

Current Advisees

Ph.D. Students

6) Gabe Johnson. Topic: Flexural stress-strain response of BCSA cement concrete (2025 expected graduation)
5) Shuyah Ouoba. Topic: TBD, 2025 Expected graduation
4) Rilye Dillard. Topic: Mixture design for magnesium phosphate cement concrete (2024 Expected Graduation)
3) Behzad Farivar. Topic: Using CSA cements in extreme hot and cold temperatures. (2025 Expected Graduation)
2) Charissa Puttbach (Co-Advised with Dr. Gary Prinz). Topic: Nano-mechanical characterization of UHPC stiffness mechanisms: Towards a better understanding of the 'E' in concrete (Dec. 2023 Expected Graduation)
1) Elizabeth Poblete. Topic: Rapid structural concrete repairs with fast-setting alternative cements (2024 Expected Graduation)

Master of Science Students

7) Alexander Cook. Topic: New methods for testing workability of pavement concrete. (2024 expected graduation)
6) Jacob Ortlieb.
5) Mariel Mayori. Topic: Development and testing of rapid-setting soil cements for underwater uses. (2024 Expected Graduation)
4) Swikar Pyakurel. Topic: Development of a rapidly deployable bridge (2024 Expected Graduation)
3) Micaiah Rivers. Topic: Size effects on setting time of BCSA cement concrete (2024 Expected Graduation)
2) Gabe Johnson. Topic: TBD (2023 Expected Graduation)
1) Grady Caton (Co-Advised with Dr Rick Coffman) (2023 Expected Graduation)

Undergraduate Honors

1) Autumn Broglen. Topic: Effects of fly ash addition to magnesium phosphate cements (May 2024 Expected)

Previous Advisees

Ph.D. Dissertation

1) Ahmed Almohammedi (Co-Advised with Micah Hale). Dissertation Title: Improving the Prediction of Camber, Deflection, and Prestress Losses in Precast, Prestressed Bridge Girders. May 2021.

Master's Thesis

12) Andres Calzacorta. Thesis title: Bond breaker properties of different media for pavement concrete design (May 2023)
11) Wesley Keys. Thesis Title: Investigation of the flexural strength and toughness of hybrid plain and fiber reinforced concrete for pavement applications (Dec. 2021)
10) Caleb Chesnut. Thesis Title: Shear strength of concrete beams made with Belitic Calcium Sulfoaluminate Cement (Dec. 2021)
9) Rilye Dillard. Thesis Title: Comparison of the Resistance of Belitic Calcium Sulfoaluminate Cement and Portland Cement to Sulfate Attack and Sulfuric Acid (May 2021)
8) Yancy Schrader. Thesis Title: An Investigation into the Effects of Fly Ash on Freeze-Thaw Durability Prediction. Dec. 2020.
7) Anazaria Ortega Gonzales. Thesis Title: Using BCSA Cement to Repair Waterway Transportation Structures. Dec. 2020.
6) Andrew Deschenes. Thesis Title: Cement Stabilized Crushed Stone Base Course Strength and Stiffness Analysis. Dec. 2020.
5) Elizabeth Poblete. Thesis Title: Moisture Monitoring of a CLT Structure in a Southern Climate. Dec. 2020.
4) Israel Gerardo Aguilar. Thesis Title: Effect of Citric Acid on Slump, Compressive Strength, and Setting Time of Belitic Calcium Sulfoaluminate Concrete. Dec. 2020.
3) Samuel Spann. Thesis Title: Evaluation of Concrete Deck Curing Regimens Using Capillary Pressure Sensing System. Dec. 2019.
2) Fernando Benitez Ortiz. Thesis Title: Study of Internal Strains Developed in Concrete Decks at Early Ages in Steel Continuous Bridges. Dec. 2019.
1) Gabriel Cook. Thesis Title: Early Life Flexural Performance and Behavior of Reinforced BCSA Concrete Beams. Dec. 2018.

Undergraduate Honors Thesis

6) Brenden Simmons. Thesis Title: Understanding the bond strength of BCSA cement repair concrete to portland cement concrete. May 2023.
5) Hannah Allen. Thesis Title: Evaluating the Effects of Curing Methods on BCSA Cement Concrete. March 2022
4) Mariel Mayori. Thesis Title: Preliminary Investigation of Required BSCA Amount for Soil Cement Mixtures. May 2020.
3) Caleb Chesnut. Thesis Title: Understanding Workability in Belitic Calcium Sulfoaluminate Concrete Mixtures. May 2020.
2) Andrew Deschenes. Thesis Title: Tension Splitting Strength of BCSA Concrete Cylinders. May 2019.
1) Edgar Soriano Somarriba. Thesis Title: The Influence of Citric Acid on Setting Time and Temperature Behavior of Calcium Sulfoaluminate-Belite Cement. May 2019.

Student Recognition:

Dwight D. Eisenhower Transportation Research Fellowship: Anazaria Ortega Gonzales (2019), Fernando Benitez Ortiz (2019)
Structural Engineers Foundation Research Grant: Elizabeth Poblete (2019)
University of Arkansas Distinguished Doctoral Fellowship: Elizabeth Poblete (2021)
University of Arkansas Doctoral Academy Fellowship: Rilye Dillard (2021)
ACI Foundation Scholarship: Gabe Johnson (2022-2023)
2nd Place Poster Award, 2nd International Conference on Alternative Cements: Elizabeth Poblete (2023)