

ROBERT ALAN BUGG

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**Assistant Professor
McWhorter School of Building Science
Auburn University**

EDUCATION

MASTER OF BUILDING CONSTRUCTION
Auburn University, 2011

MASTER OF BUSINESS ADMINISTRATION
Auburn University, 2003

BS – AGRICULTURAL ENGINEERING
Auburn University, 1983

CAREER HISTORY

ASSISTANT PROFESSOR **2016-Present**
MCWHORTER SCHOOL OF BUILDING SCIENCE
AUBURN UNIVERSITY

Serve as an Assistant Professor in the McWhorter School of Building Science teaching undergraduate and graduate courses in construction management courses and performing research on a variety of construction related topics.

Subjects Taught: See Teaching Experience

AREA ENGINEER, FORT BENNING AREA OFFICE **2008-2016**
US ARMY CORPS OF ENGINEERS, SAVANNAH DISTRICT

Responsible for the construction of the \$400 million replacement of Martin Army Hospital at Fort Benning, Georgia. Also responsible for the construction of numerous smaller military, medical and infrastructure projects on Fort Benning.

CHIEF OF CONSTRUCTION AND OPERATIONS **2004-2008**
US ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT

Responsible for managing and directing the construction, operations, and maintenance programs totaling over \$300 million per year for the Jacksonville District, US Army Corps of Engineers. The area covered by the Jacksonville District includes the peninsula of the State of Florida, Puerto Rico, and the US Virgin Islands.

AREA ENGINEER, DIBIS AREA OFFICE **2004-2004**
US ARMY CORPS OF ENGINEERS, NORTHERN DISTRICT, IRAQ

Responsible for managing and executing several large design-build projects designed to restore electricity to a large area of Northern Iraq including Dibis, Kirkuk, Mosul and Erbil.

AREA ENGINEER, SOUTH ALABAMA AREA OFFICE **2000-2004**
US ARMY CORPS OF ENGINEERS, MOBILE DISTRICT

Responsible for managing and directing the civil works and military construction program in the southern half of Alabama through subordinate Resident Offices at Fort Rucker, Maxwell Air Force Base and Lake Eufaula.

**CHIEF OF CONTRACT ADMINISTRATION
US ARMY CORPS OF ENGINEERS, MOBILE DISTRICT**

1998-2000

Responsible for the formulation and enforcement of construction contract administration policies and procedures for the Construction Division of the Mobile District, US Army Corps of Engineers.

**RESIDENT ENGINEER, COLUMBUS AIR FORCE BASE RESIDENT OFFICE
US ARMY CORPS OF ENGINEERS, MOBILE DISTRICT**

1996-1998

Responsible for managing and directing the civil works construction program in Northeast Mississippi and West Alabama and the military construction program at Columbus Air Force Base.

**ASSISTANT RESIDENT ENGINEER, COLUMBUS RESIDENT OFFICE
US ARMY CORPS OF ENGINEERS, MOBILE DISTRICT**

1994-1996

Serve as the Assistant Resident Engineer and Chief of Quality Assurance for the Columbus Resident Office. The Resident Office is responsible for managing and directing the civil works construction program in Northeast Mississippi and West Alabama and the military construction program at Columbus Air Force Base, Mississippi.

**CHIEF OF OFFICE ENGINEERING BRANCH, OLIVER LOCK & DAM AREA OFFICE
US ARMY CORPS OF ENGINEERS, MOBILE DISTRICT**

1987-1994

Responsible for performing all office engineering functions at the Oliver Lock & Dam Area Office. The area office was responsible for the \$100 million replacement of Oliver Lock & Dam in Tuscaloosa, Alabama.

**PROJECT ENGINEER, TENN-TOM WATERWAY AREA OFFICE
US ARMY CORPS OF ENGINEERS, MOBILE DISTRICT**

1983-1987

Responsible for managing a wide variety of construction projects on the Tennessee-Tombigbee Waterway and on Columbus Air Force Base in Columbus, Mississippi.

TEACHING EXPERIENCE

INSTRUCTED COURSES

- Construction Safety (BSCI 3700)
- Special Problems in Construction – Heavy Civil (BSCI 4960)
- Construction Field Lab (BSCI 4360)
- Construction Communication (BSCI 3200)
- Construction Project Analysis (BSCI 4350)
- Special Problems in Construction – Service Learning Quito (BSCI 4960)
- Structure of Buildings I (BSCI 2400)

STUDENT DEVELOPMENT

- Serve as the Faculty Sponsor for the Auburn Student Chapter of the Design-Build Institute of America (DBIA)
- Professional Engineer Mentor for the Auburn University Student Chapter of Engineers Without Borders (EWB)
- Mentor for the Auburn University Veterans Success Program
- The following table contains a listing of student competition teams that I have coached:

Competition Name	Location	Competition Discipline	Year	# of Students	Result
ASC Region 5 Student Competition ¹	Dallas	Design-Build	2022	6	1 st Place
ASC Region 8 Student Competition ²	Dallas, TX	Design-Build	2021	4	2 nd Place
ASC Region 2 Student Competition ¹	On-line	Design-Build	2021	5	1 st Place
ASC Region 8 Student Competition ²	Manchester, UK	Design-Build	2019	5	1 st Place
ASC Region 5 Student Competition ²	Dallas, TX	Design-Build	2019	5	1 st Place
American Concrete Institute National Student Competition ²	On-line	Concrete Estimating	2018	5	3 rd Place
ASC Region 2 Student Competition	Peachtree City, GA	Heavy Civil	2018	7	3 rd Place
Design-Build Institute of America National Student Competition ¹	On-line	Design-Build	2017	8	DNP
ASC Region 2 Student Competition ¹	Peachtree City, GA	Design-Build	2017	7	1 st Place
ASC Region 2 Student Competition	Peachtree City, GA	Heavy Civil	2017	7	DNP
ASC Region 2 Student Competition	Peachtree City, GA	Heavy Civil	2016	7	1 st Place

Notes: 1. These competitions were joint competitions between Building Science and Architecture.

2. These competitions were joint competitions between Auburn University and Birmingham City University, UK

3. This competition was a joint competition between Building Science and Civil Engineering.

Special Undergraduate Thesis

Name	Semester	Year	Project
Nicholas Russell	Fall	2018	Cusseta Road Bridge At Fort Benning, Georgia
Kelsey Baker	Spring	2019	Rehabilitation of NRCS Mountain Run Dam No. 50
Maci Poskey	Fall	2019	Alabama Power Company Northside District Substation Expansion
Robert Milford	Fall	2019	Attalla Lagoon Site Work for the City of Attalla, Alabama
Martin Heffren	Fall	2019	Saint Elizabeth Water Tower
McFoster Ballard	Fall	2019	Taxiway Bravo Extension and Airfield Lighting Controls at the Montgomery Regional Airport
Adam Pridgeon	Spring	2020	FDOT 23rd Street Flyover Project
Alejandro Marthe	Spring	2020	Herbert Hoover Dike S-288 Rehabilitation Project
Donald Harp	Fall	2020	Emerald Lake Dam Rehabilitation

PUBLICATIONS

Academic Journals

Bugg, R. [60%], Donald, W., Zech, W., and Perez, M., (2017), "Improvements in Standardized Testing for Evaluating Sediment Barrier Performance: Design of a Full-Scale Testing Apparatus." *American Society of Civil Engineering Journal of Irrigation and Drainage Engineering*, Vol. 143, Issue 8 (August 2017), [https://doi.org/10.1061/\(ASCE\)IR.1943-4774.0001194](https://doi.org/10.1061/(ASCE)IR.1943-4774.0001194).

Bugg, R. [60%], Donald, W., Zech, W., and Perez, M., (2017), "Performance Evaluations of Three Silt Fence Practices Using a Full-Scale Testing Apparatus." *MDPI Water Journal*, 9(7),502; <https://doi.org/10.3390/w9070502>.

Redden, L. & **Bugg, R. [50%]**, (2022), "Efficacy and Benefits of a Required Service-Learning Course in Construction Management Education", *International Journal of Construction Education and Research*.
<https://doi.org/10.1080/15578771.2022.2100018>

Refereed Conference Proceedings

Bugg, R. [50%] & Redden, L. Assessment and Improvement of a Required Construction Management Service-Learning Course. In Scott, L. & Neilson, C.J. (Eds) *Proceedings of the 36th Annual ARCOM Conference*, 7-8 September 2020, UK, Association of Researchers in Construction Management, 696-705.

Redden, L., & **Bugg, R. [50%]** (2020). Development of a Required Service-Learning Course: Stakeholders' Perceptions and Lessons Learned. In *Proceedings of the 56th Annual Associated Schools of Construction International Conference. EPiC Series in Built Environment*, v1, 90-98.

Bugg, R. [60%], Donald, W., & Zech, W. (2019), "Performance Evaluation of Five Sediment Barriers Using Full-Scale Testing Techniques." *International SEEDS Conference 2019: Sustainable Ecological Engineering Design for Society*, Ipswich, United Kingdom, 11-12 September 2019, In: Scott L., Dastbaz M., Gorse C. (eds) *Sustainable Ecological Engineering Design*. Springer, Cham. https://doi.org/10.1007/978-3-030-44381-8_35.

Bugg, R. [100%] (2019), "An Innovative Approach to Teaching and Assessing Student Learning Outcomes Related to Construction Means and Methods." In *Proceedings of the 55th Annual Associated Schools of Construction Annual Conference Associated Schools of Construction Annual Conference*, Denver, Colorado, 10-13 April 2019.

Bugg, R. [40%], Collins, W., and Gilbert, C. (2018) "Applying Radio Frequency Identification Tags to Improve Personnel Safety in Dredging Construction." *Proceedings of the 34th Annual Conference of the Association of Researchers in Construction Management Annual Conference*, Belfast, Northern Ireland 3-5 September 2018, 557-566.

Bugg, R. [60%], and Collins, W. (2018), "Safety Training for Students Engaged in Service Learning." In *Proceedings of the American Society of Engineering Education 2018 Annual Conference*, Salt Lake City, Utah, 24-27 June 2018.

Williams, K., Sattineni, A., and **Bugg, R. [30%]**, (2018), "Correlation Between Contract Type Selection and Cost Growth in U.S. Army Corps Construction Projects." In *the Proceedings Creative Construction Conference (2018)*, Ljubljana, Slovenia, 30 June-3 July 2018, DOI 10.3311/CCC2018-052

Bugg, R. [50%], and Holley, P. (2017), "Sloped Roof Fall Protection: A Case Study of the Development of a Portable Fall Protection Anchor Device." In *the Proceedings of the 53rd Annual Associated Schools of Construction Annual Conference Associated Schools of Construction Annual Conference*, Seattle, Washington, 5-8 April 2017.

Bugg, R. [50%], and Collins, W. (2017), "A Case Study in the Use of Building Information Technology in Hospital Construction." *Proceedings of the 2017 Industrial and Systems Engineering Annual Conference*, Pittsburgh, Pennsylvania, 1703-1708.

Bugg, R. [40%], Collins, W., and Kramer, S. (2017), "Evolution of Short-Term International Service-Learning Class in Quito, Ecuador." *In the Proceedings of the American Society of Engineering Education 2017 Annual Conference, Columbus, Ohio, 25-28 June 2017.*

Bugg, R. [80%] and Liu, J. (2012), "The US Army Corps of Engineers Celebrate Safety Program's Effect on Construction Jobsite Safety." *In Proceedings of the 46th Annual Associated Schools of Construction Annual Conference, Birmingham, United Kingdom, 11-14 April 2012.*

Cho, M., **Bugg, R. [30%]**, Sattineni, A. & Redden, L. Wood Waste Minimization Practices in Residential Construction. *Proceedings of the 37th Annual ARCOM Conference, 6-8 September 2021, UK, Association of Researchers in Construction Management.*

Schiffer, R., Redden, L., Sattineni, A., & **Bugg, R. [10%]** Mental Health and Suicide Prevention Programs in the US Construction Industry. *Proceedings of the 37th Annual ARCOM Conference, 6-8 September 2021, UK, Association of Researchers in Construction Management.*

GRANTS

Name of Grant	Funding Source	Amount	Funding Year	Investigators (Percentage)	Status
A Performance Evaluation of LiDAR vs Total Station to Measure Sediment Retention of Sediment Barriers in a Full-Scale Setting	Center for Construction Innovation and Collaboration	\$5,000	2021	Alan Bugg 100%	50% Complete
Design and Construction of Training Apparatuses for the Auburn University Canine Performance Laboratory ^{1,2}	2019 McWhorter Fund for Excellence Grant	\$5,000	2019	Alan Bugg (75%) David Smith (25%)	25% Complete
Design-Build Project for Rooftop Learning Center, Atucucho, Ecuador ¹	2018 McWhorter Fund for Excellence Grant	\$7,500	2018	Alan Bugg (75%) David Smith (25%)	Complete
Identity, Wayfinding and Construction for an Underserved Population in Ecuador ¹	College of Architecture, Design, and Construction 2018 Seed Grant	\$5,000	2018	David Smith (75%) Alan Bugg (25%)	Complete
Applying Real-Time Locations Systems to Improve Safety in Dredging Construction	Center for Construction Innovation and Collaboration	\$13,451	2016	Alan Bugg (100%)	Complete

Notes: 1. This research grant is a joint effort between researchers from Building Science and the School of Industrial and Graphic Design
 2. The implementation of the project associated with this grant was delayed by Covid-19

PROFESSIONAL REGISTRATIONS

PROFESSIONAL ENGINEER - STATE OF ALABAMA
License Number 20965

PROJECT MANAGEMENT PROFESSIONAL - PROJECT MANAGEMENT INSTITUTE
PMP Number 1596965

CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL – ENVIROCERT
CPESC Number 8194

DESIGNATED DESIGN-BUILD PROFESSIONAL – DESIGN-BUILD INSTITUTE OF AMERICA

TEACHING HONORS AND AWARDS

Honor or Award	Year Received
The Benning Fund for Excellence Faculty Teaching Award	2021-2022
Atlanta Alumni Fund Outstanding Teaching Award	2020-2021
The Benning Fund for Excellence Faculty Teaching Award	2020-2021
Atlanta Alumni Fund Outstanding Teaching Award	2019
The Benning Fund for Excellence Faculty Teaching Award	2017-2018
McWhorter School of Building Science Faculty Excellence Teaching Award	2016-2017
Department of the Army Meritorious Civilian Service Award	2016
McWhorter School of Building Science Distinguished Service Award	2011-2012
Outstanding Army Corps Engineers Master of Building Science Student Award	2010-2011

PROFESSIONAL AFFILIATIONS

Design Build Institute of America

International Erosion Control Association

Professional Engineer Mentor for the Auburn University Chapter of Engineers Without Borders

Society of American Military Engineers

The Army Engineer Association

MILITARY AND CIVILIAN AWARDS

Bronze Star Medal

Bronze Order of the de Fleury Medal

USACE, Savannah District Supervisor of the Year Award – 2013

Superior Civilian Service Award

Commander's Award for Civilian Service

Meritorious Service Medal

Army Commendation Medal with 5 Oak Leaf Clusters

Army Achievement Medal