



Finance and Administration Committee
March 17, 2026

Action Item

FAC - 1 Selection of Designer – North and South Spencer HVAC Replacement

Background Information

North Spencer was built in 1904, and the Fan Coil Units are over 20 years old. South Spencer was built in 1907; its Air Handling Units are over 30 years old, and the individual fan coil units are over 20 years old. The HVAC system is well past its expected useful life and will be updated by implementing energy-efficient units. The scope of the North and South Spencer HVAC Replacement project is to add redundancy to the HVAC system by replacing the mechanical systems, including fan coil units, AHUs, mechanical piping, and updating mechanical rooms to provide both chilled and hot water to HVAC units.

Per the September 9, 2025, BOT meeting, the Finance *and* Administration Committee approved **\$598,000** for **Advance Planning** (design and commissioning) for the North and South Spencer HVAC Replacement project.

Project Cost: 5,980,000

The University of North Carolina System website advertised the request for qualifications and letters of interest for design services for this project. Seventeen (17) firms submitted letters of interest, one (1) from Guilford County.

The Designer Selection Committee reviewed the letters of interest and invited three (3) firms to interview on January 16, 2026, to present their qualifications and recommend the following in ranking order.

1. Sigma Engineered Solutions, PC, Raleigh, NC
2. McKim & Creed, Inc., Raleigh, NC
3. Salas O'Brien, Raleigh, NC

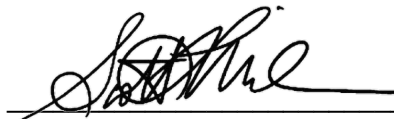
The firm of Sigma Engineered Solutions, PC, is recommended as the Designer for the following reasons:

1. Sigma Engineered Solutions demonstrated the greatest experience and most recent knowledge of mechanical systems utilized within residence halls at UNC Greensboro.

2. Of the three firms interviewed, Sigma demonstrated the most working knowledge and experience with the 3-pipe mechanical system that is currently installed in recently completed UNC Greensboro residence halls and is considered a preferred option by the Housing and Residence Life (HRL) team.
3. The Sigma team presented the most proactive process for risk management and evaluation for establishing a scope and schedule to meet the project's authorized budget.

Requested Action

Based on the above information, the Board of Trustees of the University of North Carolina at Greensboro approves Sigma Engineered Solutions, PC, Raleigh, NC, for the North and South Spencer HVAC Replacement project. If agreeable terms cannot be met with the recommended firm, then the Board authorizes the administration to negotiate terms with the other firms in ranking order.



Scott Milman

Interim Vice Chancellor for Finance *and* Facilities

Attachments:

- Sigma Engineered Solutions, PC Letter of Interest



**North and South Spencer
Residence Halls
HVAC Replacement**



Prepared for
UNC Greensboro

Prepared by
Sigma Engineered Solutions, PC



TAB 1-COMPLETED INFO SHEET



Information Sheet

Firm Name

HUB Certified If HUB, Specify Type Female American Indian Hispanic Socially & Economically Disadvantaged
 Disabled Asian-American Black

Point of Contact E-mail Address

Street Address

City State Zip Code County

Phone # Fax #

Type of Firm (e.g. Architectural, Civil Engineering, Surveying, Etc)

Consulting Firms

Architectural: <input type="text" value="Lambert Architecture + Interiors"/>	<input type="checkbox"/> Check If HUB	Mechanical: <input type="text"/>	<input type="checkbox"/> Check If HUB
Electrical: <input type="text"/>	<input type="checkbox"/> Check If HUB	Plumbing: <input type="text"/>	<input type="checkbox"/> Check If HUB
Structural: <input type="text"/>	<input type="checkbox"/> Check If HUB	Civil: <input type="text"/>	<input type="checkbox"/> Check If HUB
Landscape: <input type="text"/>	<input type="checkbox"/> Check If HUB	Interior Design: <input type="text"/>	<input type="checkbox"/> Check If HUB
Other (specify type): <input type="text"/>	<input type="checkbox"/> Check If HUB		
Other (specify type): <input type="text"/>	<input type="checkbox"/> Check If HUB		

TAB 2-LETTER OF INTEREST



December 5, 2025

Mr. Kurt Melvin
UNC Greensboro Facilities Design & Construction
Gray Home Management House
105 Gray Drive
Greensboro, NC 27412
(Via email: k_melvin@uncg.edu)

Re: **UNC Greensboro North and South Spencer Residence Halls - HVAC Replacement**

Dear Mr. Melvin,

I am pleased to offer this Letter of Interest and Statement of Qualifications for the HVAC Replacement at North and South Spencer Residence Halls at UNC Greensboro.

Sigma Engineered Solutions, PC (Sigma), a multi-discipline engineering office in Raleigh, opened in 2003. The design and renovation of North Carolina educational and institutional facilities are the heart of our practice. Many of our projects in the last twenty-two years have been renovation or combination renovation and new construction projects in the UNC system, and we've worked for nearly every major university in the UNC system, including:

- UNC Greensboro
- UNC Chapel Hill
- NC State University
- East Carolina University
- Duke University

We have formed ongoing relationships with these clients that continue to develop favorably and provide mutual benefit. The organization of our firm allows our principals to manage each project personally and to maintain close, constant involvement throughout the design and construction process.

Since 2013 we have been fortunate to have worked at UNCG and specifically with Tim Johnson and the HRL team. Each of these projects have had challenges related to changing SCO requirements, market escalations, and supply chain interruptions. We also know that all these obstacles are amplified by the rigid Housing deadlines. We understand this and Sigma has set the reputation, I believe, of being a constant partner to the University through all these projects and has ultimately navigated them all to successful completion.

We ask that you trust us again with North and South Spencer Halls.

In response to your Request for Qualifications, we offer the following:

Sigma Engineered Solutions, P.C. The Summation of Quality

5909 Falls of Neuse Road – Suite 101 – Raleigh, NC 27609
919.840.9300 – www.sigmaes.com

- ◆ Current and extensive experience in **HVAC, electrical, and plumbing** design for numerous institutional facilities; our principals and design team are currently working on the design and construction of over 2,000,000 square feet of significant renovations for HVAC, electrical, plumbing, and fire protection systems on facilities across the State of North Carolina.
- ◆ Our ability to continue to procure projects from past Clients is a good indicator of our performance - present and past. Over 98% of our Clients are Owners for whom we have completed two or more projects.
- ◆ We have a staff of fourteen full-time employees. Our current workload and staff allow us to respond to almost any Client need in a timely fashion.
- ◆ We continue to meet all design schedules in a timely fashion. In addition, our record of keeping a project on budget is exemplary. Our estimates are generally within 3-5% of awarded bids on State projects.
- ◆ We present new technologies and ideas if they are conducive to the project goals, and in fact the Fan-Coil-Unit standard now used in all dormitory renovation is one we presented to UNCG for our very first HRL project in 2013 –Reynolds Residence Hall.

We proposed to team up with **Lambert Architecture + Interiors** for the architectural needs of this project. We have a solid history of working with Lambert and have completed many successful projects with them, including university work such as the currently underway Spring Garden Apartments Renovations (in design phase), Moore-Strong Residence Hall Renovations (in construction phase), and the recently completed Phillips-Hawkins renovations at UNC Greensboro.

Please do not hesitate to contact me if I can answer any questions you have or if you would like additional information. I thank you for this opportunity to present our qualifications and look forward to continuing our relationship with you and the good folks at UNCG.

Sincerely,



Paul J. Romiti, PE,
Principal

promiti@sigmaes.com

TAB 3-PROJECT TEAM ORGANIZATION CHART

PROJECT TEAM ORGANIZATION CHART



UNC
GREENSBORO

SIGMA ENGINEERED SOLUTIONS, PC

NC C-2490



Paul Romiti, PE

Principal-in-Charge, Chief Mechanical Engineer

**Reginald Adams, PE,
LEED AP BD+C**

Chief Electrical Engineer

John Erickson, PE

*Mechanical Engineer, Project
Manager*

L A M B E R T
ARCHITECTURE + INTERIORS

Stuart McCormick, AIA, LEED AP, NCARB

Architectural Consultant



3.1 ADEQUATE STAFF AND PROPOSED DESIGN OR CONSULTANT TEAM FOR THE PROJECT

Sigma employs seven professional engineers, one graduate engineer, one senior designer, four CAD operators and two administrative personnel. We would propose two of our core members of our staff to work on this project. In addition, we are teamed with Lambert Architecture + Interiors for architectural needs. As you will see in the project summaries included in previous sections of this SF-330, we have partnered with Lambert on several University renovation projects and know how to partner to bring the best project experience to our client. These individuals are uniquely qualified for this project.

Paul J. Romiti, PE – Principal-in-Charge, and Chief Mechanical Engineer

Reginald D. Adams, PE – Chief Electrical Engineer

Lambert Architecture + Interiors – Architectural Consultants

Our design engineers will be involved in both the pre-construction design process for Mechanical, Electrical, Plumbing and Fire Protection engineering, as well as during the construction phase with construction administration of all MEP,FP building systems during the construction phase. We believe that the engineer who designed the work is the best person to ensure that the project is built according to design, so every member of our proposed design team will be involved with the project from kick-off through final completion.

Below are brief resumes of our proposed team members.



PAUL J. ROMITI, PE
PRINCIPAL – CHIEF MECHANICAL ENGINEER

Mr. Romiti has 29 years of experience in Mechanical Engineering and Automated controls. His background includes complete mechanical, plumbing, and fire-protection design in both renovated and new structures. Mr. Romiti applies his extensive controls knowledge to personally verify proper operation of his systems and commissioning. Specializing in tight budgets, and aggressive schedules, he remains client driven and delivers systems that meet project needs. Mr. Romiti has

been designing to LEED standards since 2002 and remains well versed in all strategies available to obtain maximum levels of LEED certification.

Education

*BSME Mechanical Engineering, 1996
North Carolina State University*

Registration

Registered Mechanical Engineer in the following States:

- North Carolina, #26581
- South Carolina
- Virginia
- Maryland

Professional Experience

29 Years



REGINALD D. ADAMS, PE, LEED AP BD+C
PRINCIPAL – CHIEF ELECTRICAL ENGINEER

Mr. Adams has 37 years of experience in the electrical engineering field, marketing, and project management. Mr. Adams has extensive management experience including the management of multiple individuals and project teams. He has managed projects with a construction value of \$100,000 up to \$50,000,000. These projects were often “fast-track” type efforts with project teams ranging from architects to civil engineers to building system engineers. His project management experience includes all phases from programming to project close out.

Education

*BSEE Electrical Engineering, 1988
North Carolina State University*

Registration

Registered Electrical Engineer in the following States:

- North Carolina, #19658
- South Carolina
- Virginia
- Maryland
- Tennessee
- Georgia

Professional Experience

37 Years

LEED Accredited Professional





JOHN R. ERICKSON, PE
MECHANICAL/PLUMBING ENGINEER

Mr. Erickson has 10 years of experience in Mechanical Engineering. His background includes mechanical, plumbing, and fire protection design and energy analysis for projects including education, retail, medical, institutional, fire & EMS, public assembly, residential, historic, and restaurant facilities. These facilities have included systems involving chilled water, high temperature hot water, steam, and natural gas. Design experience includes both new work and renovations. Mr. Erickson has experience designing to meet LEED standards and obtaining varying levels of LEED project certifications.

Education

*BSME Mechanical Engineering, 2015
The University of North Carolina at
Charlotte*

Registration

Registered Mechanical Engineer
in the following State:

- North Carolina, #50628

Professional Experience

10 Years



STUART M^cCORMICK, AIA, LEED AP, NCARB
ARCHITECTURAL CONSULTANT / PRINCIPAL ARCHITECT
LAMBERT Architecture + Interiors

Mr. McCormick holds a Masters of Architecture and a Bachelor of Science in Design, and has 43 years of experience in architectural design. His recent experience includes Spring Garden Apartments HVAC and Roof Renovation at UNC Greensboro (currently in design, Sigma is prime designer on this project); Phillips Hawkins HVAC Replacement at UNC Greensboro (completed 2025, Sigma was prime designer, and Lambert was Architectural Consultant), Ragsdale/Mendenhall Residence Hall Renovation at UNC Greensboro (completed in 2020, Lambert was prime designer, Sigma was Building Systems Engineer Consultant), and the Marteen Hall Renovations at NC A&T University (completed in 2025).



MATTHEW GEIGER
ARCHITECTURAL CONSULTANT / PROJECT DESIGNER / BIM TECHNICIAN
LAMBERT Architecture + Interiors

Mr. Geiger holds a Masters of Architecture and a Bachelor of Science in Architecture, and has 10 years of experience in architectural design. His recent experience includes Spring Garden Apartments HVAC and Roof Renovation at UNC Greensboro (currently in design); Phillips Hawkins HVAC Replacement at UNC Greensboro (completed in 2025), Ragsdale/Mendenhall Residence Hall Renovation at UNC Greensboro (completed in 2020), and the Marteen Hall Renovations at NC A&T University (completed in 2025).



Firm Profile



FIRM INFORMATION: Sigma Engineered Solutions, PC
5909 Falls of Neuse Rd., Suite 101
Raleigh, NC 27609
Phone: (919) 840-9300
www.sigmaes.com

Professional Corporation
NC Business License # C-2490

PRINCIPAL CONTACT: Paul J. Romiti, PE
O: (919) 840-9300, C: (919) 369-8221
E: promiti@sigmaes.com

COMPANY STRUCTURE AND HISTORY

Sigma Engineered Solutions, PC (Sigma) was established in 2003. Our firm is a partnership of professional engineers with over 100 years of combined experience in consulting engineering and construction administration services in North Carolina, South Carolina, Virginia and Maryland. Principals of the firm are Mr. Reginald Adams, PE, LEED AP, President and CEO; and Mr. Paul Romiti, PE, Vice-President and COO. Mr. Romiti has a vast knowledge of temperature control systems and commissioning. We currently have a staff of 15 full-time employees, comprised of seven (7) professional engineers, one (1) graduate engineer, one (1) senior designer, four (4) CAD operators, and two (2) administrative staff.

Since its inception, Sigma has completed designs in NC, VA, MD, OK, GA, LA and SC, established relationships with premier architectural design firms, and created strategic affiliations with other engineering and related firms. We have demonstrated a capacity to respond successfully to a broad range of design and client challenges. Building upon this experience, our goal is to be a premier and profitable service provider to leading design and construction projects around the United States.

DESCRIPTION OF BUSINESS SERVICES

Our objective is to provide superior consulting services for the design of mechanical (HVAC), plumbing, electrical, fire suppression, and telecommunications systems. Additionally, we provide feasibility studies, cost estimating, due diligence reports, master planning, and systems analysis. We perform life cycle cost analysis and energy modeling on most large projects, and offer temperature control system verification on all projects to ensure that all equipment is operating at design performance.

Sigma has a commitment to providing sustainable design for its clients. We are members of the U.S. Green Building Council, and have three LEED Accredited Professionals on staff. Even if the project is not targeted for LEED certification, we consistently bring many of the strategies of LEED to every project.

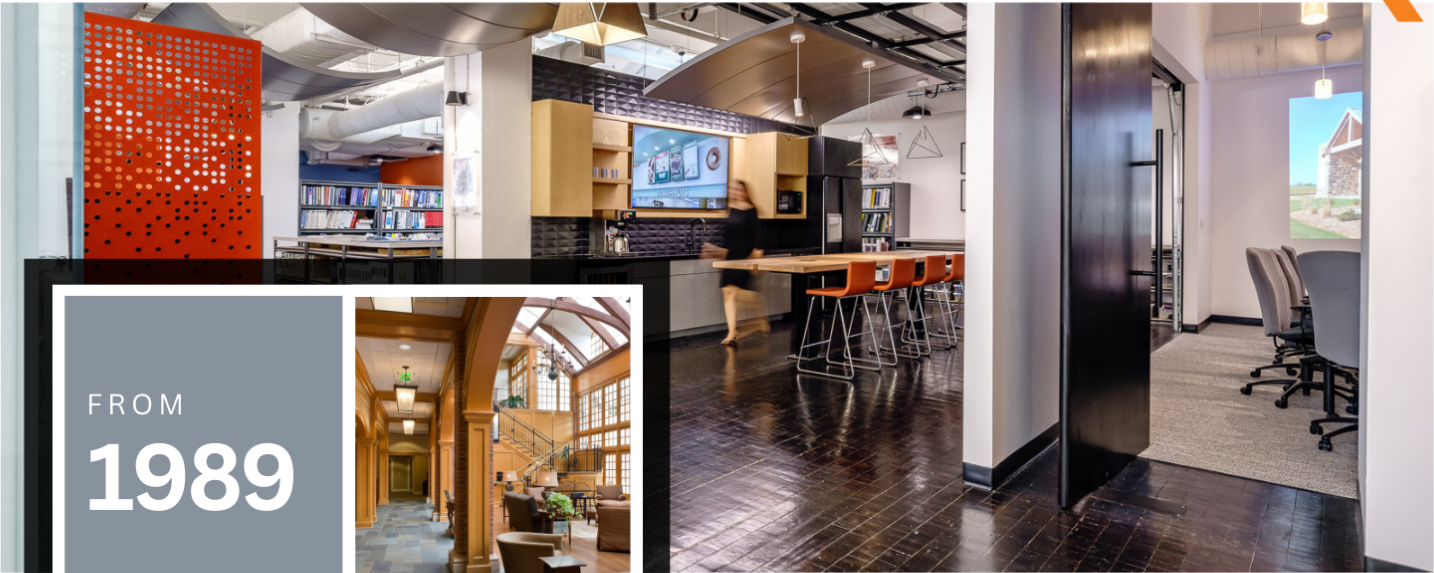
Sigma has successfully completed over one-thousand projects since its inception. Most of these projects have been renovations or combination renovation-and-new construction projects. Some of our major projects were done while the Owner fully occupied the building. Our principals and engineers are well versed in working on projects in the public sector and have vast experience working with plan reviewers to expedite the approval process on both new and renovation projects.

We are experienced with working directly for many large organizations such as:

- North Carolina State University
- University of North Carolina Chapel Hill
- University of North Carolina Greensboro
- Wake Technical Community College
- City of Raleigh
- City of Durham
- Town of Cary
- Wake County
- Durham County
- NC Dept. of Administration
- NC Dept. of Health and Human Services
- NC Dept. of Information and Technology
- NC Dept. of Natural and Cultural Resources



CRAFTING ENVIRONMENTS, CREATING EXPERIENCES.



FROM
1989



85% +
RENOVATION
PROJECTS

1500 +
PROJECTS
COMPLETED



Let us be the **narrator** of your **design story**.

Founded by Stuart McCormick in 1989, LAMBERT Architecture + Interiors has developed strong ties with North Carolina, the State Construction Office, and the higher education sector. Over three decades, we've earned a reputation for delivering exceptional results on university campuses. Our deep understanding of higher education design allows us to tailor each project to meet the unique needs of academic institutions, balancing functionality, long-term performance, and aesthetics.

Our expertise in managing complex campus environments—whether integrating new construction with historic buildings or executing renovations with minimal disruption—has made us a trusted partner for higher education projects. This foundation, combined with our focus on innovation and collaboration, ensures precise, successful outcomes.

Empowering Your Vision

- Architecture
- Interior Design
- Furniture, Fixtures & Equipment (FF&E)
- Brand Design
- Project Integration
- Sustainability & Wellness



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for more
about us



336-777-3657



408 N Marshall Street, Suite 300
Winston-Salem, NC

TAB 4-RELEVANT PROJECT EXPERIENCE
and OTHER IMPORTANT FACTORS

RELEVANT EXPERIENCE & OTHER IMPORTANT FACTORS

4.1 SPECIALIZED OR APPROPRIATE EXPERTISE IN THE TYPE OF PROJECT

Sigma's engineers are well versed in the North Carolina State Construction Office process, and have vast experience working with plan reviewers to expedite the approval process on both new and renovation projects. Our primary focus has been public projects with the State of North Carolina, local government, and various higher education facilities. To date, this includes over 1,000 projects totaling over \$550 million in MEP construction dollars.

Our campus design experience includes multiple renovations at UNC Chapel Hill, UNC Greensboro, NC State University, and Wake Technical Community College. Additionally, we have designed projects for East Carolina University, NC Central University, Elon University, Elizabeth State University, Surry Community College and Wesleyan College.

We currently hold open-ended design agreements with UNC Chapel Hill, NC State, the City of Raleigh, and Wake County, and welcome any design opportunity.

A few projects which we feel are similar in scope to the proposed HVAC Replacements at North and South Spencer Residence Halls and which reflect our past performance are detailed below.

PROJECT EXAMPLE #1: UNC Greensboro - Spring Garden Apartments – HVAC and Roofing Replacement

The Spring Gardens Apartments building on campus is a 175,000sf suite style-dormitory with split system heat pumps serving each suite. It was originally a "Foundation" Project with the state taking over ownership in 2008.

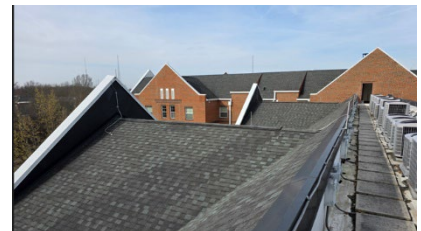
Currently in the final stages of design, the project scope of work involves replacing 135 split systems and corresponding roof mounted heat pumps. The project was complicated by the mandatory transition to A2L units. Sigma helped guide the university and the SCO through the transition process and worked closely with HRL and the SCO to keep it from ballooning out of budget.

At the time of this RFQ preparation, the project was still on-time for the desired construction period on Summer-Fall 2026.

The total construction budget is estimated at \$ 4.2M

Prime Designer: Sigma Engineered Solutions, PC

Architectural Consultant: Lambert Architecture + Interiors



PROJECT EXAMPLE #2: UNC Chapel Hill - Hamilton Hall HVAC Replacement

Currently in the final stages of design, the project scope of work includes the replacement of central mechanical systems within Hamilton Hall on Central Campus. The heavily utilized building was completed in 1972 and contains classroom, laboratory and office space for the departments of Archaeology, Sociology, History, Peace, War & Defense, and Political Science within the College of Arts & Sciences.

Specifically, the project will replace the dual-duct built-up AHU-1, located in the basement mechanical room and rated for 71,500 cfm, with a digitally controlled VAV unit. The project will also remove and replace the existing dual-duct ductwork with new VAV ductwork throughout, install digitally controlled VAV hot-water reheat terminal units and install a hot water piping system. The associated work requires



the removal and replacement of suspended ceilings and light fixtures in the affected areas. Hazardous materials testing, design and abatement is also a heavy component of the renovation design. Careful attention to project phasing and implementation will be required to limit the displacement time of building occupants.

Project Budget \$12,000,000

Prime Designer: *Sigma Engineered Solutions, PC*



PROJECT EXAMPLE #3: UNC Greensboro - Phillips Hawkins Moore Strong Residence Hall Renovations

These two buildings on central UNCG campus had failing dual-temp fan coil units and HVAC infrastructure. Both buildings are approximately 80,000sf each. Phillips Hawkins is 3 stories fully above grade (5 stories total) and Moore strong was also 3 stories above grade. Renovations included over 600 fan coil units, make-up air units, new steam converters, hot and chilled water pumping and distribution, and new DDC controls.

The projects are scheduled to take advantage of fall/summer semesters to allow for the maximum flexibility of beds available to UNCG Housing and Residence life. In addition, existing buildings were carefully surveyed so that Sigma could make recommendations to the owner as to what elements of the existing systems and structures could be reused to reduce construction costs.

The total construction budget is \$8,000,000 to do both buildings

Prime Designer: *Sigma Engineered Solutions, PC*

Architectural Consultant: *Lambert Architecture + Interiors*

PROJECT EXAMPLE #4: UNC Greensboro - Ragsdale Mendenhall Residence Hall Renovations

Sigma served as a subconsultant to Lambert Architecture + Interiors on the renovation project at Ragsdale Mendenhall Residence Hall at UNCG. The project included a comprehensive renovation that provided:

- New mechanical and electrical systems throughout the building to meet current code standards
- Replacement of exterior windows for improved energy efficiency
- ADA upgrades including the modernization of the existing elevator
- Interior finishes through the building.



Sigma provided the mechanical, electrical, plumbing and fire protection for this 90,000 SF project. Engineering scope of work included tying the building to the existing campus chilled-water loop (limited to 5 ft outside the building), providing new hydronic fan coil units, electrical upgrades, modernizing an existing elevator and renovating single occupancy toilets as well as fire alarm and sprinkler work in order to meet HVAC requirements.

Cost: \$10,000,000

Prime Designer: *Lambert Architecture + Interiors*

MEPF Consultant: *Sigma Engineered Solutions, PC*

PROJECT EXAMPLE #5: UNC Chapel Hill – Frank Porter Graham Student Union Renovations

Sigma provided engineering systems design for the renovation of this 160,000 SF, 3-story facility, including a 4000 SF auditorium. This project included bringing the entire building up to code compliance, and provisions to add a 2500 SF Commercial Kitchen and dining room to the ground floor and a full replacement of the existing 40 year old switchgear.

Additional scope included energy modeling and controls upgrades to HVAC systems funded by the UNC Renewable Energy Special Projects Committee (RESPEC) to reduce building energy consumption.

Other considerations in this project required Building to be occupied through all phases of construction, as well as uninterrupted service to critical Student-run programs such as Radio and TV stations and Yearbook. This facility was occupied during renovation.

Cost: \$5,000,000

MEPF Consultant: *Sigma Engineered Solutions, PC*



4.2 PAST PERFORMANCE ON SIMILAR PROJECTS

90% of our revenues come from repeat clients. We think that this speaks directly to our past performance. All of our projects with similar experience were completed on time, on budget and to the satisfaction of the client. We specialize in “messy” renovation projects that require thorough field investigations and careful planning. We are adept at routing projects through the SCO as the prime designer and managing bidding, contracts, and construction administration.

4.3 CURRENT WORKLOAD AND STATE PROJECTS AWARDED

Below is a list of the most significant projects currently in production at Sigma Engineered Solutions, PC. Projects that have been awarded through the State Construction Office are denoted with ‘SCO’.

Jobs in Design

UNCG – Spring Gardens HVAC Renovations	Deadline February 2026	SCO
Wake Tech Community College – Multiple Chiller Replacements	Deadline February 2026	
UNC – Hamilton Hall HVAC Renovations	Deadline Spring 2026	SCO
Town Creek Indian Mound Visitor Center	Deadline Spring 2026	SCO
NCSSM – Phase II Renovations	Deadline April 2026	
Gibsonville Library	Deadline May 2026	

Jobs under Construction

UNCG – Moore Strong HVAC Renovations	Completion January 2026	SCO
DPI – Eastern NC School for the Deaf Renovations	Completion March 2026	SCO
Longleaf Neuro-Medical Treatment Center – Scott Wing Renovations	Completion Summer 2026	SCO
Wake Tech Community College – Building SP Renovations	Completion Winter 2025	

4.4 PROPOSED DESIGN APPROACH FOR THE PROJECT

Sigma’s approach to design is to start with the Owner. We will first meet with all parties associated with the project scope and try to determine exactly what their goals are. We will then collect drawings and information on existing systems and then field verify all data. During this survey period, Sigma will help identify other deficiencies and inaccuracies in record drawings and discuss any deficiencies with the Owner, allowing the opportunity for refinement of the project scope and reconciliation with the available project budget. Once these issues are decided upon, we will provide a design schedule acceptable to the owner and project manager.



Commitment

Schedule and Communication mean nothing if your designer is not committed to them. We have never missed a deadline at Sigma because failure is never an option. Every project is personal to us, every client is our most important client. Our staff is totally committed to keep the promises that we make in scheduling, in design, and in construction.

4.5 RECENT EXPERIENCE WITH PROJECT COSTS AND SCHEDULES

Recent Project Cost Experience

The market is changing in the contractor's favor. Prices have been escalating 15-30% over expected costs only one year ago. We have personally bid a half of a dozen projects this past year, and each one has come in slightly above our prices, even on projects that we are not directly involved in.

Recent Schedule Keeping Experience

We have never missed a deadline. Ever. Sigma is small and flexible, and everyone on our staff shares a personal commitment to each of our clients and have, and always will do whatever it takes to make a client's deadline. We understand working within the higher education system that the semester starts when it starts and missing that deadline is not an option.

4.6 CONSTRUCTION ADMINISTRATION CAPABILITIES

Sigma Engineers always do their own construction administration. We feel that when the actual designer also oversees all aspects of their designs being installed, they are the most qualified to ensure adherence to the documents. We also feel that their institutional knowledge of the entire design process empowers them to make appropriate and timely decisions in the field. This attention to detail and quick response to changing field conditions can substantially decrease the potential for change orders and leads to a more successful project for all parties involved.

4.7 PROXIMITY AND FAMILIARITY WITH THE AREA WHERE THE PROJECT IS LOCATED

Sigma's office is 1 hr and 5 min from the Gray Home. We know this because our staff have made this trip regularly for nearly 10 years. The trip from Raleigh to Greensboro can literally take less time than getting to some jobsites even in the Raleigh area. Greensboro has become our second home and I do not think you can find an example where Sigma didn't present as a local firm.

4.8 RECORD OF SUCCESSFULLY COMPLETED PROJECTS WITHOUT MAJOR LEGAL OR TECHNICAL PROBLEMS

Sigma specializes in invasive renovation projects that require accurate filed surveying and detailed planning. Our proposed team has completed over 350 projects with the state construction office since 2003 with more than half of them being the prime design consultant. We understand the complexities of working at universities and the importance of public projects being designed to budget and on schedule. This is what we do.

4.9 ENERGY CONSERVATION / LEED EXPERIENCE

An existing structure offers more challenges to energy modeling than a new building because parameters like building orientation are set, and accurate data about the building envelope can be difficult to collect.

One of the most effective strategies we have used at UNCG is in bringing new technologies to the projects. Over the three seasoned projects that we've completed for UNCG housing, we understand that HRL has seen 30% or more decrease in annual energy operating costs because we implemented hyper-efficient and (at the time) cutting edge system technologies. Sigma is always on the lookout for new technologies that might fit the owner's needs and



budget. We will run multiple simulation with different design selection and present actionable data for you to decide how to proceed.

When it comes to energy modeling, We use Autodesk's Revit Insight, Trane's Tracer 3D, and the US Department of Energy's eQuest simulation software to generate accurate load profiles, project annual energy consumption, and provide life-cycle costing data used with the goal of maximizing the long term impact of initial investments.

Our energy modeling is an iterative process. We will update our energy model at every major design milestone and when significant changes are made to the building envelope, systems, or programming. We stand behind our predictions and have often times revisited completed projects at an owner's request to compare our projections with actual energy costs. We can then help to identify any operational anomalies that might be the cause of deviations from the mathematical predictions.



TAB 5-MINORITY BUSINESS PARTICIPATION PLAN

MINORITY BUSINESS PARTICIPATION PLAN

Sigma was founded by in 2003 with our Senior Partner, Massoud Eftekhari. We held HUB status for 11 years, until his passing in 2014. Sigma is no longer considered a HUB, however we intend to seek partnership with HUB firms should any additional sub-consulting services be required. On HUB sensitive projects, we found ourselves often selected with other HUB firms and so have enjoyed many working relationships with them.



TAB 6-CURRENT SF-330 FORM

ARCHITECT - ENGINEER QUALIFICATIONS

PART I - CONTRACT-SPECIFIC QUALIFICATIONS

A. CONTRACT INFORMATION

1. TITLE AND LOCATION *(City and State)*

The University of North Carolina at Greensboro
North and South Spencer Residence Halls - HVAC Replacement

2. PUBLIC NOTICE DATE

11/17/25

3. SOLICITATION OR PROJECT NUMBER

N/A

B. ARCHITECT-ENGINEER POINT OF CONTACT

4. NAME AND TITLE

Paul J. Romiti, PE, Principal-In-Charge / Mechanical Engineer

5. NAME OF FIRM

Sigma Engineered Solutions, PC

6. TELEPHONE NUMBER

919-840-9300

7. FAX NUMBER

8. E-MAIL ADDRESS

promiti@sigmaes.com

C. PROPOSED TEAM

(Complete this section for the prime contractor and all key subcontractors.)

	<i>(Check)</i>			9. FIRM NAME	10. ADDRESS	11. ROLE IN THIS CONTRACT
	PRIME	J-V PARTNER	SUBCON-TRACTOR			
a.	<input checked="" type="checkbox"/>			Sigma Engineered Solutions, PC <input type="checkbox"/> CHECK IF BRANCH OFFICE	5909 Falls of Neuse Rd. Suite 101 Raleigh, NC 27609	Prime Designer, MEPF Engineering Design Services
b.			<input checked="" type="checkbox"/>	Lambert Architecture + Interiors <input type="checkbox"/> CHECK IF BRANCH OFFICE	408 N Marshall Street Suite 300 Winston-Salem, NC 27101	Architectural Consultant
c.				<input type="checkbox"/> CHECK IF BRANCH OFFICE		
d.				<input type="checkbox"/> CHECK IF BRANCH OFFICE		
e.				<input type="checkbox"/> CHECK IF BRANCH OFFICE		

D. ORGANIZATIONAL CHART OF PROPOSED TEAM

(Attached)

SIGMA ENGINEERED SOLUTIONS, PC

NC Business License # C-2490

ORGANIZATIONAL CHART



Paul Romiti, PE
Chief Mechanical Engineer



Reggie Adams, PE, LEED AP BD+C
Chief Electrical Engineer



Brent Hanes, PE, LEED AP
Sr. Mechanical Engineer



Vic Bird, PE
QA/QC, Construction Manager

Engineers, Engineering Interns, and Sr. Designers



Elton Smith, PE, LEED AP
Mechanical Engineer



John Erickson, PE
Mechanical Engineer



Isaac Johnson, PE
Commissioning Director



Steve Richardson, EI
Sr. Electrical Designer



Michael Pallante
Sr. Electrical Designer



Todd Victor
Electrical Designer

Designers, Drafters, Administrative Personnel



Adam Romiti
Designer/Drafter



Art Alexander
Designer/Drafter



Carlos Strickland
Designer/Drafter



Jennifer Curro
Firm Administrator



Emily Langley
Administrator

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME Paul J. Romiti, PE	13. ROLE IN THIS CONTRACT Chief Mechanical Engineer	14. YEARS EXPERIENCE	
		a. TOTAL 29	b. WITH CURRENT FIRM 22
15. FIRM NAME AND LOCATION (City and State) Sigma Engineered Solutions, PC, Morrisville, NC			
16. EDUCATION (DEGREE AND SPECIALIZATION) BS Mechanical Engineering, 1996		17. CURRENT PROFESSIONAL REGISTRATION NC #026581; MD; SC Mechanical Engineer	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) Paul is the Vice-President and a Principal of Sigma Engineered Solutions, PC, and serves as senior mechanical engineer and project manager.			

19. RELEVANT PROJECTS			
	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
a.	Spring Garden Apartments – HVAC & Roofing Replacement (UNC-Greensboro), Greensboro, NC	Est. 2025 (currently at 95% CD Review)	CONSTRUCTION (if applicable) (Currently In Design)
	(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Renovations of 175,000 SF, suite-style dormitory with split system heat pumps serving each suite. Scope includes replacing 135 split systems and corresponding roof mounted heat pumps. Principal in Charge/Mechanical Engineer.		
b.	Phillips Hawkins/Moore Strong Residence Halls Renovations (UNC-Greensboro), Greensboro, NC	2023-2024	CONSTRUCTION (if applicable) (Under Construction)
	(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Renovations of two 80,000 SF, 3- story residential dormitories. Scope includes total HVAC replacement, including air handling and fan coil units; addition of DDC controls with infrared room sensor to turn off lights and air conditioning if the room is unoccupied; and renovation of the bathrooms for ADA compliance. Principal in Charge/Mechanical Engineer.		
c.	Ragsdale Mendenhall Residence Hall Renovations (UNC-Greensboro) Greensboro, NC	2018	CONSTRUCTION (if applicable) 2020
	(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Sigma provided the mechanical, electrical, plumbing and fire protection for this 90,000 SF project. Engineering scope included tying the building to the existing campus chilled-water loop limited to 5 ft outside the building, providing new hydronic fan coil units, electrical upgrades and life safety generator, modernizing an existing elevator and DDC controls. Principal in Charge and Mechanical Engineer of Record.		
d.	HVAC Obsolete Equipment Replacement (NC Department of Administration) Raleigh, NC	2022-2024	CONSTRUCTION (if applicable) 2025
	(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Engineering design and management of obsolete building controls for the North Carolina Department of Revenue, Old Revenue Building in downtown Raleigh. In this 6-story building, a mix of old pneumatic and electric controls were upgraded to new DDC controls, integrated with some existing DDC controls in the building and synchronized with DOA controls front-ends in the State Construction Office. Principal in Charge/Mechanical Engineer.		
e.	HVAC Upgrades at Fletcher Residence Hall (East Carolina University) Greenville, NC	2018	CONSTRUCTION (if applicable) 2019
	(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Sigma was the prime design contract to design a makeup air system for the 8-story Fletcher Residence Hall on ECU campus. Scope of work included Installation of 100% OA make up unit and glycol hot water system. Included the foundations of new DDC controls for future expansion. Principal in Charge/Mechanical Engineer.		
f.	Reynolds & Grogan Residential Halls Renovations (UNC-Greensboro) Greensboro, NC	2013	CONSTRUCTION (if applicable) 2015
	(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Renovations of two 80,000 SF, 8-story residential dormitories. Scope includes total HVAC replacement, including air handling and fan coil units; addition of DDC controls with infrared room sensor to turn off lights and air conditioning if the room is unoccupied; and renovation of the bathrooms for ADA compliance. Mechanical engineer of record.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME Reginald D. Adams, PE, LEED AP BD+C	13. ROLE IN THIS CONTRACT Chief Electrical Engineer	14. YEARS EXPERIENCE	
		a. TOTAL 37	b. WITH CURRENT FIRM 22
15. FIRM NAME AND LOCATION (City and State) Sigma Engineered Solutions, PC, Morrisville, NC			
16. EDUCATION (DEGREE AND SPECIALIZATION) BSEE Electrical Engineering, 1988		17. CURRENT PROFESSIONAL REGISTRATION NC #19658; MD, SC, VA, TN, GA Electrical Engineer	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) Reggie is a Principal of Sigma Engineered Solutions, PC; and serves as chief electrical engineer and project manager. He is a LEED Accredited Professional BD+C.			

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
a.	Spring Garden Apartments – HVAC & Roofing Replacement (UNC-Greensboro), Greensboro, NC (3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Renovations of 175,000 SF, suite-style dormitory with split system heat pumps serving each suite. Scope includes replacing 135 split systems and corresponding roof mounted heat pumps. Electrical scope of work to support HVAC. Electrical Engineer of Record.	PROFESSIONAL SERVICES Est. 2025 (currently at 95% CD Review)	CONSTRUCTION (if applicable) (Currently In Design)
b.	Phillips Hawkins/Moore Strong Residence Halls Renovations (UNC-Greensboro), Greensboro, NC (3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Renovations of two 80,000 SF, 3- story residential dormitories. Scope includes total HVAC replacement, including air handling and fan coil units; addition of DDC controls with infrared room sensor to turn off lights and air conditioning if the room is unoccupied; and renovation of the bathrooms for ADA compliance. Electrical Engineer of Record.	PROFESSIONAL SERVICES 2023-2024	CONSTRUCTION (if applicable) (Under Construction)
c.	HVAC Obsolete Equipment Replacement (NC Department of Administration) Raleigh, NC (3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Engineering design and management of obsolete building controls for the North Carolina Department of Revenue, Old Revenue Building in downtown Raleigh. In this 6-story building, a mix of old pneumatic and electric controls were upgraded to new DDC controls, integrated with some existing DDC controls in the building and synchronized with DOA controls front-ends in the State Construction Office. Electrical Engineer of Record.	PROFESSIONAL SERVICES 2022-2024	CONSTRUCTION (if applicable) 2025
c.	Ragsdale Mendenhall Residence Hall Renovations (UNC-Greensboro) Greensboro, NC (3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Sigma provided the mechanical, electrical, plumbing and fire protection for this 90,000 SF dormitory renovation project. Engineering scope included tying the building to the existing campus chilled-water loop limited to 5 ft outside the building, providing new hydronic fan coil units, electrical upgrades, modernizing an existing elevator and renovating single occupancy toilets, as well as fire alarm and sprinkler work in order to meet HVAC requirements. Electrical scope included power upgrades including a life safety generator. Chief Electrical Engineer.	PROFESSIONAL SERVICES 2018	CONSTRUCTION (if applicable) 2020
e.	Weil Winfield Fire Alarm and ADA Upgrades (UNC-Greensboro) Greensboro, NC (3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Electrical and fire protection engineering design services for this 284 bed, 75,000 SF residence hall. Project scope includes a new mass notification fire alarm system, and a new 500 kW generator to provide life safety and standby power for eight buildings on the UNCG Quad, security system enhancements, and replacement of an existing non-freeze wet-pipe sprinkler system in the attic with a dry-pipe sprinkler system. Principal in Charge/Electrical Engineer of Record.	PROFESSIONAL SERVICES 2018	CONSTRUCTION (if applicable) 2020

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete on Section E for each key person)

12. NAME Stuart McCormick	13. ROLE IN THIS CONTRACT Principal/Architect	14. YEARS OF EXPERIENCE	
		a. TOTAL 43	b. WITH CURRENT FIRM 32

15. FIRM NAME AND LOCATION (City and State) LAMBERT Architecture + Interiors 408 N. Marshall Street, Suite 300 Winston-Salem, NC 27101	
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16. EDUCATION (DEGREE AND SPECIALIZATION) Bachelor of Science in Design Master of Architecture	17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) Registered Architect - NC & SC
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18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) AIA, LEED AP, NCARB
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19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State) UNCG Spring Garden Apartments HVAC & Roof Renovation (SCO): Greensboro, NC	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2025	CONSTRUCTION (if applicable) Est. 2026

a. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE LAMBERT Principal in Charge for the HVAC and roof renovation of a five-story residence hall on the UNCG campus. Responsibilities include supporting SIGMA Engineered Solutions, the lead design firm, with architectural coordination related to major mechanical system upgrades, roof impacts, and exterior/structural penetrations. Scope involves reviewing and developing firestopping details, ensuring code-compliant integration of new HVAC infrastructure, and providing consulting services for building envelope implications associated with mechanical and roof work.	<input checked="" type="checkbox"/> Check if project performed with current firm
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(1) TITLE AND LOCATION (City and State) UNCG Philips/Hawkins HVAC Replacement (SCO): Greensboro, NC	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2022	CONSTRUCTION (if applicable) 2025

b. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE LAMBERT Principal in Charge assisting SIGMA Engineered Solutions, the lead design firm, of mechanical replacement by detailing the removal and replacement of several chases that house mechanical piping within door rooms and ceilings in corridors, as well as providing new soffits within bedrooms and new pipe chases within restrooms. Services also include providing add-alternates for replacing flooring and painting within dorm rooms.	<input checked="" type="checkbox"/> Check if project performed with current firm
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(1) TITLE AND LOCATION (City and State) NC A&T University Marteena Hall Renovation (SCO): Greensboro, NC	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2022 - 2023	CONSTRUCTION (if applicable) 2025

c. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Principal in Charge of 72,000 SF residence hall renovation starting with Pre-Design Services to assist the University in establishing a scope of work/budget. Renovation included replacement of mechanical, electrical, and plumbing systems; upgrade of fire alarm system; replacement of light fixtures and windows; stabilized floor/foundation, waterproofing, and laboratory upgrades. Project cost: \$9.1M	<input checked="" type="checkbox"/> Check if project performed with current firm
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(1) TITLE AND LOCATION (City and State) UNCG Ragsdale/Mendenhall Residence Hall Renovation (SCO): Greensboro, NC	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2016 - 2020	CONSTRUCTION (if applicable) 2019 - 2020

d. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Principal in Charge of 78,000 SF residence hall renovation providing new mechanical, electrical, and plumbing systems to meet current standards. Included new HVAC System connected to Campus Chilled Water System; Plumbing Fixtures and Rough Plumbing through the building; Electric Panels, wiring, and light fixtures; replacement/relocation of Fire Suppression Heads. Replaced exterior windows; ADA upgrades to new elevator and interior accessible ramps; new interior finishes throughout the building. Project cost: \$11.5M	<input checked="" type="checkbox"/> Check if project performed with current firm
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(1) TITLE AND LOCATION (City and State) Duke University Power House Building Renovation: Raleigh, NC	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2013	CONSTRUCTION (if applicable) 2014

e. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Principal in Charge of repurposing the 27,000 SF historic building for university's TIP program. Scope included integrating modern mechanical systems while maintaining the building's historic character. Exposed systems were incorporated to align with the industrial aesthetic, and new HVAC was designed to provide efficient climate control and ventilation without disrupting the existing structure. Project cost: \$4.3M	<input checked="" type="checkbox"/> Check if project performed with current firm
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E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete on Section E for each key person)

12. NAME Matthew Geiger	13. ROLE IN THIS CONTRACT Project Designer/BIM Technician	14. YEARS OF EXPERIENCE	
		a. TOTAL 10	b. WITH CURRENT FIRM 3

15. FIRM NAME AND LOCATION (City and State)
LAMBERT Architecture + Interiors
408 N. Marshall Street, Suite 300
Winston-Salem, NC 27101



16. EDUCATION (DEGREE AND SPECIALIZATION) Masters of Architecture, NC State University Bachelor of Science in Architecture, SUNY Buffalo	17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)
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18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)
Winston-Salem AIA Member

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
UNCG Spring Garden Apartments HVAC & Roof Renovation (SCO): Greensboro, NC	2025	Est. 2026
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm a. Project Designer for the HVAC and roof renovation of a five-story residence hall on the UNCG campus. Responsibilities include supporting SIGMA Engineered Solutions, the lead design firm, with architectural coordination related to major mechanical system upgrades, roof impacts, and exterior/structural penetrations. Scope involves reviewing and developing firestopping details, ensuring code-compliant integration of new HVAC infrastructure, and providing consulting services for building envelope implications associated with mechanical and roof work.		
NC A&T University Marteena Hall Renovation (SCO): Greensboro, NC	2022 - 2023	2025
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm b. Project Designer of 72,000 SF residence hall renovation starting with Pre-Design Services to assist the University in establishing a scope of work/budget. Renovation included replacement of mechanical, electrical, and plumbing systems; upgrade of fire alarm system; replacement of light fixtures and windows; stabilized floor/foundation, waterproofing, and laboratory upgrades. Project cost: \$9.1M		
UNCG Philips/Hawkins HVAC Replacement (SCO): Greensboro, NC	2022	2025
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm c. Designer assisting SIGMA Engineered Solutions, the lead design firm, of mechanical replacement by detailing the removal and replacement of several chases that house mechanical piping within door rooms and ceilings in corridors, as well as providing new soffits within bedrooms and new pipe chases within restrooms. Services also include providing add-alternates for replacing flooring and painting within dorm rooms.		
MacFarlane Building Adaptive Reuse: Charlotte, NC	2021 - 2022	2022 - Ongoing
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm d. Project Designer of 33,000 SF redevelopment of building to include exterior facade renovations, window and door replacement, extensive MEP system replacement, restrooms, interior renovations and finishes, sitework, new paving, and landscaping. Project cost: Ongoing		
Sentinel Commons Facade	2019 - 2020	2024 - Ongoing
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm e. Project Designer for the design of building facade, code review, exterior/site improvements, building entrances, and courtyard improvements which will include a new ramp, courtyard paving, landscaping, lighting, drainage, etc. Project cost: Ongoing		

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER

1

21. TITLE AND LOCATION *(City and State)*

Spring Garden Apartments – HVAC & Roofing Replacement (UNC-G)
Greensboro, NC

22. YEAR COMPLETED

PROFESSIONAL SERVICES
Est. 2025 *(currently at 95% CD Review)*

CONSTRUCTION *(If applicable)*
(Currently In Design)

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER
UNC – Greensboro

b. POINT OF CONTACT NAME
Mr. Bill Chatfield

c. POINT OF CONTACT TELEPHONE NUMBER
(336) 334-4317

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Spring Garden Apartments – HVAC & Roofing Replacement

The Spring Gardens Apartments building on campus is a 175,000sf suite style- dormitory with split system heat pumps serving each suite. It was originally a “Foundation” Project with the state taking over ownership in 2008.

This project involved replacing 135 split systems and corresponding roof mounted heat pumps. The project was complicated by the mandatory transition to A2L units. Sigma helped guide the university and the SCO through the transition process and worked closely with HRL and the SCO to keep it from ballooning out of budget.

At the time of this RFQ preparation, the project was still on-time for the desired construction period on Summer-Fall 2026.

The total construction budget is estimated at \$ 4.2M.



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

a.	(1) FIRM NAME SIGMA ENGINEERED SOLUTIONS, PC	(2) FIRM LOCATION <i>(City and State)</i> RALEIGH, NC	(3) ROLE MECHANICAL AND ELECTRICAL
b.	(1) FIRM NAME LAMBERT ARCHITECTURE + INTERIORS	(2) FIRM LOCATION <i>(City and State)</i> WINSTON SALEM, NC	(3) ROLE ARCHITECTURAL CONSULTANT

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT <i>(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)</i>		20. EXAMPLE PROJECT KEY NUMBER 2
21. TITLE AND LOCATION <i>(City and State)</i> Hamilton Hall – HVAC Replacement (UNC-Chapel Hill) Chapel Hill, NC		22. YEAR COMPLETED PROFESSIONAL SERVICES Est. 2025 <i>(currently at 95% CD Review)</i>
		CONSTRUCTION <i>(If applicable)</i> (Currently In Design)
23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER UNC Chapel Hill	b. POINT OF CONTACT NAME Mr. Chris Johnson, AIA – UNC CH Facilities Planning and Design	c. POINT OF CONTACT TELEPHONE NUMBER (919) 843-0849

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

**Hamilton Hall – HVAC Replacement
UNC Chapel Hill**

Currently in the final stages of design, the project scope of work includes the replacement of central mechanical systems within Hamilton Hall on Central Campus. The heavily utilized building was completed in 1972 and contains classroom, laboratory and office space for the departments of Archaeology, Sociology, History, Peace, War & Defense, and Political Science within the College of Arts & Sciences.

Specifically, the project will replace the dual-duct built-up AHU-1, located in the basement mechanical room and rated for 71,500 cfm, with a digitally controlled VAV unit. The project will also remove and replace the existing dual-duct ductwork with new VAV ductwork throughout, install digitally controlled VAV hot-water reheat terminal units and install a hot water piping system. The associated work requires the removal and replacement of suspended ceilings and light fixtures in the affected areas. Hazardous materials testing, design and abatement is also a heavy component of the renovation design. Careful attention to project phasing and implementation will be required to limit the displacement time of building occupants.

Project Budget \$12M



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

a.	(1) FIRM NAME SIGMA ENGINEERED SOLUTIONS PC	(2) FIRM LOCATION <i>(City and State)</i> RALEIGH, NC	(3) ROLE PRIME DESIGNER, MEPF ENGINEER, & CONSTRUCTION ADMINISTRATION
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F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER

3

21. TITLE AND LOCATION *(City and State)*

Phillips Hawkins Moore Strong Residence Hall Renovations
University of North Carolina at Greensboro
Greensboro, NC

22. YEAR COMPLETED

PROFESSIONAL SERVICES
2022-2024

CONSTRUCTION *(If applicable)*
2025 and ongoing
(Phillips Hawkins – completed 2025; & Moore Strong - currently in construction)

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER
UNC Greensboro

b. POINT OF CONTACT NAME
Mr. Tim Rouse, UCG HRL

c. POINT OF CONTACT TELEPHONE NUMBER
(336) 334-4317

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Phillips Hawkins Moore Strong Residence Hall Renovations

These two buildings on central UCG campus had failing dual-temp fan coil units and HVAC infrastructure. Both buildings were approximately 80,000sf each. Phillips Hawkins is 3 stories fully above grade (5 stories total) and Moore strong was also 3 stories above grade.

Renovations included over 600 fan coil units, make-up air units, new steam converters, hot and chilled water pumping and distribution, and new DDC controls.

The projects were scheduled to take advantage of fall/summer semesters to allow for the maximum flexibility of beds available to UCG Housing and Residence life. In addition, existing buildings were carefully surveyed so that Sigma could make recommendations to the owner as to what elements of the existing systems and structures could be reused to reduce construction costs.

The total construction budget was \$8M to do both buildings.



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

a.	(1) FIRM NAME SIGMA ENGINEERED SOLUTIONS, PC	(2) FIRM LOCATION <i>(City and State)</i> RALEIGH, NC	(3) ROLE PRIME DESIGNER, & MEPF ENGINEER
b.	(1) FIRM NAME LAMBERT ARCHITECTURE + INTERIORS	(2) FIRM LOCATION <i>(City and State)</i> WINSTON SALEM, NC	(3) ROLE ARCHITECTURAL CONSULTANT

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT <i>(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)</i>	20. EXAMPLE PROJECT KEY NUMBER 4
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21. TITLE AND LOCATION <i>(City and State)</i> Ragsdale Mendenhall Residence Hall Renovations (UNCG) Greensboro, NC	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES 2018	CONSTRUCTION <i>(If applicable)</i> 2020

23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER UNC Greensboro	b. POINT OF CONTACT NAME Mr. Stuart McCormick, AIA – Lambert Architecture	c. POINT OF CONTACT TELEPHONE NUMBER (336) 777-3657

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

**Ragsdale Mendenhall Residence Hall Renovations
UNC Greensboro**

Sigma served as a subconsultant to Lambert Architecture + Interiors on the renovation project at Ragsdale Mendenhall Residence Hall at UNCG. The project included a comprehensive renovation that provided:

- New mechanical and electrical systems throughout the building to meet current code standards
- Replacement of exterior windows for improved energy efficiency
- ADA upgrades including the modernization of the existing elevator
- Interior finishes through the building.

Sigma provided the mechanical, electrical, plumbing and fire protection for this 90,000 SF project. Engineering scope of work included tying the building to the existing campus chilled-water loop (limited to 5 ft outside the building), providing new hydronic fan coil units, electrical upgrades, modernizing an existing elevator and renovating single occupancy toilets as well as fire alarm and sprinkler work in order to meet HVAC requirements.

Cost: \$10,000,000



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT			
a.	(1) FIRM NAME SIGMA ENGINEERED SOLUTIONS PC	(2) FIRM LOCATION <i>(City and State)</i> RALEIGH, NC	(3) ROLE MEPF ENGINEER
b.	(1) FIRM NAME LAMBERT ARCHITECTURE + INTERIORS	(2) FIRM LOCATION <i>(City and State)</i> WINSTON SALEM, NC	(3) ROLE PRIME DESIGNER, & ARCHITECT

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT <i>(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)</i>		20. EXAMPLE PROJECT KEY NUMBER <p style="text-align: center;">5</p>		
21. TITLE AND LOCATION <i>(City and State)</i> Frank Porter Graham Student Union (UNC-Chapel Hill) Chapel Hill, NC		22. YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2011</td> <td>CONSTRUCTION <i>(If applicable)</i> 2012</td> </tr> </table>	PROFESSIONAL SERVICES 2011	CONSTRUCTION <i>(If applicable)</i> 2012
PROFESSIONAL SERVICES 2011	CONSTRUCTION <i>(If applicable)</i> 2012			
23. PROJECT OWNER'S INFORMATION				
a. PROJECT OWNER UNC Chapel Hill	b. POINT OF CONTACT NAME Ms. Brandy Thompson, AIA – Clearscapes, PA	c. POINT OF CONTACT TELEPHONE NUMBER (919) 821-2775		
24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT <i>(Include scope, size, and cost)</i>				

**Frank Porter Graham Student Union
UNC Chapel Hill**

Sigma provided engineering systems design for the renovation of this 160,000 SF, 3-story facility, including a 4000 SF auditorium. This project included bringing the entire building up to code compliance, and provisions to add a 2500 SF Commercial Kitchen and dining room to the ground floor and a full replacement of the existing 40 year old switchgear. Additional scope included energy modeling and controls upgrades to HVAC systems funded by the UNC Renewable Energy Special Projects Committee (RESPC) to reduce building energy consumption. Other considerations in this project required Building to be occupied through all phases of construction, as well as uninterrupted service to critical Student-run programs such as Radio and TV stations and Yearbook. This facility was occupied during renovation.

Cost: \$5,000,000



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT		
a. (1) FIRM NAME SIGMA ENGINEERED SOLUTIONS PC	(2) FIRM LOCATION <i>(City and State)</i> RALEIGH, NC	(3) ROLE MEPF ENGINEER, and CONSTRUCTION ADMINISTRATION

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT <i>(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)</i>		20. EXAMPLE PROJECT KEY NUMBER <p style="text-align: center;">6</p>				
21. TITLE AND LOCATION <i>(City and State)</i> Energy Improvements to Partners I and Research II (NCSU) Raleigh, NC		22. YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES</td> <td>CONSTRUCTION <i>(If applicable)</i></td> </tr> <tr> <td style="text-align: center;">2015</td> <td style="text-align: center;">2016</td> </tr> </table>	PROFESSIONAL SERVICES	CONSTRUCTION <i>(If applicable)</i>	2015	2016
PROFESSIONAL SERVICES	CONSTRUCTION <i>(If applicable)</i>					
2015	2016					
23. PROJECT OWNER'S INFORMATION						
a. PROJECT OWNER NC State University	b. POINT OF CONTACT NAME Mr. David Hammock – NCSU Project Manager	c. POINT OF CONTACT TELEPHONE NUMBER (919) 515-2030				

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Energy Improvements to Partners I and Research II, NC State University

Sigma provided mechanical and electrical engineering design, and construction administration for the replacement of existing mechanical systems in these two laboratory and office buildings to increase energy efficiency and tenant comfort.



The Partners I building is 78,500 SF and was built in 1992. The HVAC systems were all low-efficiency DX split and packaged systems. This project replaced all of the existing DX equipment with high-efficient, high-comfort hydronic air handlers and connected the building to nearby campus steam and chilled water. Sigma worked closely with NCSU facility ops and the Centennial Campus Development Office to completely convert the HVAC systems in this laboratory and office building with zero interruptions to existing tenants. The project was phased and remained fully occupied during all phases of construction.
 Cost: \$2,800,000

“This project was like performing a heart transplant on a patient without them knowing it.”
 – M. Michaelson, NCSU Construction Manager

The Research II building was another early 90’s laboratory/office building that originally housed the NCSU contributions to NASA Mars rover project. The systems were aging and inefficient and laboratory exhaust was twice what the building actually needed. This project combined multiple smaller air handlers into more efficient systems, and rebalanced exhaust air for current laboratory needs.

Cost: \$1,500,000



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT		
a. (1) FIRM NAME SIGMA ENGINEERED SOLUTIONS PC	(2) FIRM LOCATION <i>(City and State)</i> RALEIGH, NC	(3) ROLE PRIME DESIGNER, MECHANICAL & ELECTRICAL ENGINEER, and CONSTRUCTION ADMINISTRATION

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT <i>(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)</i>		20. EXAMPLE PROJECT KEY NUMBER 7
21. TITLE AND LOCATION <i>(City and State)</i> Fletcher Residence Hall Make-Up Air (ECU) Greenville, NC		22. YEAR COMPLETED PROFESSIONAL SERVICES 2017 CONSTRUCTION <i>(If applicable)</i> 2018
23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER East Carolina University	b. POINT OF CONTACT NAME L.L. Everett – ECU Project Manager	c. POINT OF CONTACT TELEPHONE NUMBER (252) 328-6858
24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT <i>(Include scope, size, and cost)</i>		

***Fletcher Residence Hall Make-Up Air
East Carolina University***

Sigma was retained as the prime designer on this renovation project at East Carolina University.

Fletcher Residence Hall is a 60,000 SF high rise dormitory on ECU main campus. It had been expressing signs of overall negative pressurization due to a progression of energy saving measures, code revisions, and a recent bathroom renovation project. This project corrected the building negative pressure by introducing an increased volume of conditioned outside air into the space. The mechanical scope included installing new 100% Outside Air, DX Packaged Make-Up Air units capable of providing requisite outside air to each floor to make up for bathroom and other exhausts and support for these units involved a new glycol hot water generation station. All new equipment was integrated into a new BAS.



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT		
a. (1) FIRM NAME SIGMA ENGINEERED SOLUTIONS PC	(2) FIRM LOCATION <i>(City and State)</i> RALEIGH, NC	(3) ROLE PRIME DESIGNER, MEPF ENGINEER, and CONSTRUCTION ADMINISTRATION

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT <i>(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)</i>		20. EXAMPLE PROJECT KEY NUMBER <p style="text-align: center;">8</p>		
21. TITLE AND LOCATION <i>(City and State)</i> Longleaf Neuro-Medical Treatment Center – Kitchen and HVAC Upgrades Wilson, NC		22. YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2018</td> <td>CONSTRUCTION <i>(If applicable)</i> 2025</td> </tr> </table>	PROFESSIONAL SERVICES 2018	CONSTRUCTION <i>(If applicable)</i> 2025
PROFESSIONAL SERVICES 2018	CONSTRUCTION <i>(If applicable)</i> 2025			
23. PROJECT OWNER'S INFORMATION				
a. PROJECT OWNER NC Dept. of Health and Human Services	b. POINT OF CONTACT NAME Mr. Peter Veit, PE	c. POINT OF CONTACT TELEPHONE NUMBER (919) 733-6829		
24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT <i>(Include scope, size, and cost)</i>				

***Kitchen Renovations and Service/Spruill Wings HVAC Upgrades
 Longleaf Neuro-Medical Treatment Center – Wilson, NC***

Sigma provided mechanical, electrical, plumbing and fire protection design and construction administration services for the complete replacement of the mechanical systems and plumbing water supply piping, along with faucet/flush valve replacement for the entire facility except the 7-story bed tower. The last phase of the project includes a complete kitchen renovation and increase in dining space for the facility. The project also included a replacement of the existing light fixture with new LED light fixtures along with modifications to the fire protection system as required.

This project was a 7-phase project that remained fully occupied and operational during the entire renovation. Sigma was the prime designer on the project while utilizing Huffman Architecture for the ADA bathroom renovations and space change renovation architectural components. This project also included temporary Kitchen renovations to the Eastern North Carolina School for the Deaf McAdams Kitchen to be utilized by the LLNMTC staff during the kitchen renovation phase.

Current Cost: \$7,816,000



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT		
a. (1) FIRM NAME SIGMA ENGINEERED SOLUTIONS PC	(2) FIRM LOCATION <i>(City and State)</i> RALEIGH, NC	(3) ROLE PRIME DESIGNER, MEPF ENGINEER, & CONSTRUCTION ADMINISTRATION

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT <i>(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)</i>		20. EXAMPLE PROJECT KEY NUMBER <p style="text-align: center;">9</p>		
21. TITLE AND LOCATION <i>(City and State)</i> Bureau of Mines Renovations (NCSU) Raleigh, NC		22. YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES 2019</td> <td>CONSTRUCTION <i>(If applicable)</i> 2021</td> </tr> </table>	PROFESSIONAL SERVICES 2019	CONSTRUCTION <i>(If applicable)</i> 2021
PROFESSIONAL SERVICES 2019	CONSTRUCTION <i>(If applicable)</i> 2021			
23. PROJECT OWNER'S INFORMATION				
a. PROJECT OWNER NC State University	b. POINT OF CONTACT NAME Ms. Brandy Thompson, AIA – Clearscapes, PA	c. POINT OF CONTACT TELEPHONE NUMBER (919) 821-2775		
24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT <i>(Include scope, size, and cost)</i>				

**Bureau of Mines Renovations
NC State University**

Sigma was retained to provide MEPF design services for the renovations of the Bureau of Mines building (15,000 SF, c. 1945) on the main campus at NCSU.

The engineering scope of this project consisted of the following:

- HVAC – complete removal and replacement
- Thermal imaging study
- New plumbing water and waste
- New fire protection system for previously unsprinklered building
- FA system – complete removal and replacement
- Electrical – New power and receptacles. New LED lighting and emergency/egress lighting throughout. Telecom system upgrades and new BDF room installed.

Cost: \$4,400,000



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT		
a. (1) FIRM NAME SIGMA ENGINEERED SOLUTIONS PC	(2) FIRM LOCATION <i>(City and State)</i> RALEIGH, NC	(3) ROLE MEPF ENGINEER, and CONSTRUCTION ADMINISTRATION

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT <i>(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)</i>		20. EXAMPLE PROJECT KEY NUMBER 10
21. TITLE AND LOCATION <i>(City and State)</i> 111 Lampe (Daniels) – First Floor Renovation Raleigh, NC		22. YEAR COMPLETED PROFESSIONAL SERVICES 2020 CONSTRUCTION <i>(If applicable)</i> 2021
23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER NC State University	b. POINT OF CONTACT NAME Ms. Katherine Hogan, AIA – Tonic Design	c. POINT OF CONTACT TELEPHONE NUMBER (919) 793-5063
24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT <i>(Include scope, size, and cost)</i>		

**111 Lampe Drive (formerly Daniels Hall) – First Floor Renovation
NC State University**

In conjunction with Tonic Design, Sigma was hired to provide the engineering design to completely renovate the ground floor (33,000 SF) of 111 Lampe Drive Hall to accommodate the relocation of the Industrial Design Department of the College of Design.

Sigma evaluated and made modifications to the existing HVAC to accommodate the changes, along with designing the replacement of 80% of the floors lighting with high-efficiency LED lights and providing new power at desk locations and to equipment as required.

Cost: \$750,000

111 Lampe Drive - 1st Floor Renovation, NC State University

EXISTING



PROPOSED



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT		
a. (1) FIRM NAME SIGMA ENGINEERED SOLUTIONS PC	(2) FIRM LOCATION <i>(City and State)</i> RALEIGH, NC	(3) ROLE MEPF ENGINEER

G. KEY PERSONNEL PARTICIPATION IN EXAMPLE PROJECTS

26. NAMES OF KEY PERSONNEL (From Section E, Block 12)	27. ROLE IN THIS CONTRACT (From Section E, Block 13)	28. EXAMPLE PROJECTS LISTED IN SECTION F (Fill in "Example Projects Key" section below before completing table. Place "X" under project key number for participation in same or similar role.)									
		1	2	3	4	5	6	7	8	9	10
Paul J. Romiti, PE	Chief Mechanical Engineer	X	X	X	X	X	X	X	X	X	X
Reggie Adams, PE	Chief Electrical Engineer	X	X	X	X	X	X	X	X	X	X
Stuart McCormick, AIA, LEED AP, NCARB	Architect	X		X	X						
Matthew Geiger	Architect / Project Designer	X		X							

29. EXAMPLE PROJECTS KEY

NO.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)	NO.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)
1	Spring Garden Apartments – HVAC & Roofing Replacement (UNCG)	6	Energy Improvements to Partners I and Research II (NCSU)
2	Hamilton Hall HVAC Renovations (UNC CH)	7	Fletcher Residence Hall Make-Up Air (ECU)
3	Phillips Hawkins Moore Strong Residence Hall Renovations (UNCG)	8	Kitchen Renovations and Service/Spruill Wings HVAC Upgrades (NC DHHS Longleaf Neuro-Medical Treatment Center)
4	Ragsdale Mendenhall Residence Hall Renovations (UNCG)	9	Bureau of Mines Renovations (NCSU)
5	Frank Porter Graham Student Union Renovations (UNC CH)	10	Lampe Hall– First Floor Renovations (NCSU)

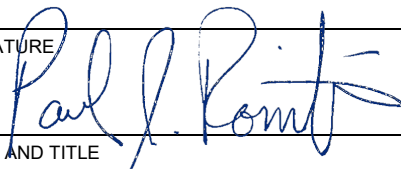
H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

I. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

31. SIGNATURE



32. DATE

12/05/25

33. NAME AND TITLE

PAUL J. ROMITI, PE, PRINCIPAL / CHIEF MECHANICAL ENGINEER



Finance and Administration Committee
March 17, 2026

Action Item

FAC – 2 Selection of Designer – Quad Electrical Duct Bank Emergency Generator Connection

Background Information

The project scope is to install the duct bank life safety and optional standby power systems from the Weil/Winfield generator to the seven (7) residence halls in the Quad (Jamison, Coit, Bailey, Cotten, Hinshaw, Gray, Shaw). The scope of work includes disconnects, transfer switches, panels, etc., at the buildings. The generator was installed in 2019 and sized to accommodate the additional load. The designer is to provide the least intrusive practical design. Construction completion is to be scheduled no later than July 23, 2027.

On November 11, 2025, the BOT Finance and Administration Committee approved the request to the Board of Governors for authorization of **\$2,655,000** for this capital improvement project. The authorization was approved at the Board of Governors' January 28-29, 2026, meeting, and the project was subsequently established.

Project Cost: \$2,655,000

The University of North Carolina System website advertised the request for qualifications and letters of interest for design services for this project. Three (3) firms submitted letters of interest, zero (0) from Guilford County.

The Designer Selection Committee reviewed the letters of interest and invited three (3) firms to interview on March 9, 2026, to present their qualifications and recommend the following in ranking order.

1. Wiley | Wilson, Raleigh, NC
2. DSA Engineering, PC, Durham, NC
3. Sigma Engineered Solutions, PC, Raleigh, NC

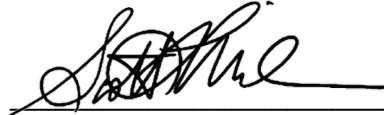
The firm of Wiley | Wilson is recommended as the Designer for the following reasons:

1. Wiley | Wilson demonstrated the most thorough preparation and expertise as it relates specifically to the project, existing conditions, and site constraints.

2. The team presented the most comprehensive approach to risk management and cost estimating throughout the design process.
3. Wiley | Wilson was the only team that presented options on the least intrusive design for consideration and weighed factors impacting schedule and budget based on the different approaches.

Requested Action

Based on the above information, the Board of Trustees of the University of North Carolina at Greensboro approves the firm of Wiley | Wilson for the Quad Electrical Duct Bank Emergency Generator Connection project. If agreeable terms cannot be met with the recommended firm, then the Board authorizes the administration to negotiate terms with the other firms in ranking order.



Scott Milman

Interim Vice Chancellor for Finance *and* Facilities

Attachments:

- Wiley | Wilson Letter of Interest



wileywilson.com

QUAD DUCT BANK EMERGENCY GENERATOR CONNECTION

FEBRUARY 24, 2026 | SOLICITATION #287-19663P-DS

5540 Centerview Drive, Suite 311 | Raleigh, NC 27606



TABLE OF CONTENTS

TAB	PAGE
1: Completed Information Sheet	3
2: Letter of Interest	5
3: Project Team Organization Chart	7
4: Relevant Experience & Other Important Factors	9
5: Minority Business Participation Plan	15
6: Current SF-330	17

Wiley|Wilson does not discriminate on the basis of race, color, religion, sex, pregnancy, national origin, ancestry, age, disability, veteran, or any other status or condition protected by applicable federal, state or local law, with respect to recruitment, hiring, training, compensation, promotion, and other terms and conditions of employment.



TAB 1: COMPLETED INFORMATION SHEET



Information Sheet

Firm Name

HUB Certified
 If HUB, Specify Type
 Female
 American Indian
 Hispanic
 Socially & Economically Disadvantaged
 Disabled
 Asian-American
 Black

Point of Contact E-mail Address

Street Address

City State Zip Code County

Phone # Fax #

Type of Firm (e.g. Architectural, Civil Engineering, Surveying, Etc)

Consulting Firms

Architectural:	<input type="text" value="N/A"/>	<input type="checkbox"/> Check If HUB	Mechanical:	<input type="text" value="N/A"/>	<input type="checkbox"/> Check If HUB
Electrical:	<input type="text" value="N/A"/>	<input type="checkbox"/> Check If HUB	Plumbing:	<input type="text" value="N/A"/>	<input type="checkbox"/> Check If HUB
Structural:	<input type="text" value="N/A"/>	<input type="checkbox"/> Check If HUB	Civil:	<input type="text" value="N/A"/>	<input type="checkbox"/> Check If HUB
Landscape:	<input type="text" value="N/A"/>	<input type="checkbox"/> Check If HUB	Interior Design:	<input type="text" value="N/A"/>	<input type="checkbox"/> Check If HUB
Other (specify type):	<input type="text"/>				<input type="checkbox"/> Check If HUB
Other (specify type):	<input type="text"/>				<input type="checkbox"/> Check If HUB



TAB 2: LETTER OF INTEREST

February 24, 2026

Bill Chatfield
UNC Greensboro
Facilities Design & Construction
Gray Home Management House
105 Gray Drive
Greensboro, NC 27412

Re: Quad Duct Bank - Emergency Generator Connection

Dear Mr. Chatfield,

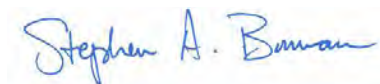
We appreciate the opportunity to present our qualifications to UNC Greensboro for the Quad Duct Bank - Emergency Generator Connection project. We are confident that the team we have assembled is well-suited for this project due to our expertise in emergency power.

Our team understands the critical nature of this project. Emergency power is crucial for the ongoing operation of your facilities and systems in the event of a blackout or campus-wide loss of power. Many of our clients require continuous power in order to function and meet the regulatory requirements within their industry. We have a strong background in completing this work for similar facilities and higher education projects and have experience with power systems projects such as generator and switchgear replacements and upgrades. We have provided professional services for a broad range of mission critical spaces, including educational buildings, fire facilities, rescue centers, sheriff/police stations, wastewater treatment plants, E-911 centers, and administrative offices.

In addition to our capable and knowledgeable team, Wiley|Wilson is a registered Professional Engineering firm in the State of North Carolina. We have been working with North Carolina clients for decades, and our design staff includes more than 30 professionals registered in the state.

We thank you for considering our qualifications and look forward to the opportunity to speak with you and the rest of the UNC Greensboro team. Should you need any additional information, please let me know.

Sincerely,



Stephen A. Bowman, PE
Raleigh Office Manager
sbowman@wileywilson.com | 919.746.8369



TAB 3: PROJECT TEAM ORGANIZATION CHART



PROJECT TEAM

To execute a project effectively requires a number of things, but of primary importance is the team selected and how well-suited its members are to the project at hand. We believe that choosing the right team and maintaining staff continuity throughout this project is a key strategy in successful completion. With that in mind, we have assembled a very capable and experienced team to collaborate with you on the project’s design and execution. Specifically, our lead personnel for this pursuit have worked on or are currently working on projects at higher education facilities. They will be available immediately upon award and will maintain consistent involvement throughout.





TAB 4: RELEVANT EXPERIENCE & OTHER IMPORTANT FACTORS



RELEVANT EXPERIENCE & OTHER IMPORTANT FACTORS

4.1 SPECIALIZED OR APPROPRIATE EXPERTISE IN THE TYPE OF PROJECT

Wiley|Wilson has built a broad portfolio of experience involving the design of standby power systems. Our power systems practice has grown over the past 15 years, and during that time, we have regularly designed sophisticated and complex electrical distribution systems that include switchgear automation, SCADA, and remote operation.

We have executed similar electrical distribution improvements at college campuses, Veterans Affairs Medical Center campuses, industrial campuses, and military bases. Each landscape has its own set of unique characteristics but all are situated in similar campus settings. The need for reliable and resilient electrical power is a requirement that we are very familiar with considering.

Furthermore, we also have experience working on State of North Carolina projects and understand the uniqueness of your project process as well as the specifics of managing SCO projects of this size and type.

4.2 PAST PERFORMANCE ON SIMILAR PROJECTS TO QUAD DUCT BANK

The Wiley|Wilson team is very capable of serving UNCG from both a technical standpoint and a deep understanding of how facility management teams approach projects. This is evident in the feedback that we receive from our clients. A testament to this success is our repeat client rate – *with more than 85% of our higher education business being from repeat clients* who enjoy working with us. Past performance covers many aspects of a project, including creating a technically correct design and adhering to a project’s schedule and budget. All are relevant and important to UNCG as you consider

choosing your design firm.

4.3 CURRENT WORKLOAD AND STATE PROJECTS AWARDED

UNCG’s proposed project aligns very well with our projected availability. The project team members that we have identified are expected to be available to execute the project successfully. We have several North Carolina projects underway through SCO and the University of North Carolina systems.

These projects include commissioning at NC State University for improvements to the automated electrical distribution system and an electrical upgrades design project at Gardner and Caldwell Halls. Our team is also working on three arc flash studies for the NC Department of Adult Correction along with a mechanical replacement project. Other projects are in the design stage for the NC Public Health Lab and the State Construction Office - both in Raleigh. Lastly, we are in the bid phase on a controls upgrade project at the Museum of History with the NC Department of Administration.

4.4 PROPOSED DESIGN APPROACH FOR THE PROJECT

The key to the successful execution of any project is to “plan the work, then work the plan.” You hear this simple phrase often, but it is the approach that allows us to continuously serve the clients we already have while accommodating new work and new clients.

The first step in the process is to assess all the tasks that will be required to execute the project and accurately predict the resources that will be required for each task – both skill levels and work effort levels. Once we have defined the project activities in detail (Work Breakdown Structure – WBS), we

RELEVANT EXPERIENCE & OTHER IMPORTANT FACTORS

know how much time each will take and who needs to be involved. Now that we have determined resource needs and set the WBS, it is time to coordinate the activities into a Critical Path Method (CPM) schedule. This allows us to evaluate the intersection of project needs and professional resources so that we can develop a labor plan. Each actionable project task will be planned into the CPM schedule including dependencies and available float to make a plan that meets UNCG's desired delivery path for the design process and approvals. All critical meetings (such as charrettes and workshops) will be planned in as well as research time, field investigations, design production times, deliverables, quality control activities, and State/Local agency reviews.

A good plan is the foundation of a successful project, and it's complemented by monitoring and measurement. The Work Breakdown will be translated into a schedule of values (SOV) that will be used both to invoice for work performed and judge progress against schedule. We will merge the SOV with the

CPM schedule to create a resource-loaded schedule that will allow us to predict labor "burn rates" and we will closely monitor this metric. If we are not completing work per schedule, (as evidenced by SOV items not being accomplished as they are scheduled) we will immediately investigate the cause to take corrective action. We will meet often with our internal team to discuss progress, identify roadblocks, and determine how to best support our team in delivering a quality project within the defined project schedule.

We will also meet with UNCG stakeholders on the same schedule and will share information about progress, any assistance we need from UNCG, and any actions that may be underway to mitigate deviations from plan, should they occur. We will execute the project transparently and will share information with the project's consultant team using collaboration software so that stakeholders remain well-informed and engaged.





RELEVANT EXPERIENCE & OTHER IMPORTANT FACTORS

4.5 RECENT EXPERIENCE WITH PROJECT COSTS AND SCHEDULES

Cost estimating and schedule adherence have been challenging tasks in recent years due to frequent supply chain disruptions. Wiley|Wilson’s approach involves several techniques that produce accurate estimates throughout the design phase that aid in understanding a realistic project cost which aids in decision making. We utilize third party cost estimators, contractors, vendors, and the experience of our staff in lieu of RSMeans, which can be outdated in terms of current market trends.

We have found that taking a comprehensive approach to cost is the surest way to find success. The largest impact is made in the planning portion of the project. At this point, high-level estimates will be developed to determine the overall phasing of the project based on UNCG’s budget constraints. Various design concepts and equipment options will also be proposed to define the project scope more formally. Lead-time of major equipment will be of particular concern since it is often the critical path in a schedule and the reason for delays. As we move into early design, we will be looking for potential bid alternates so that the project can be appropriately segmented if the budget could potentially be exceeded. Alternatively, if the budget is healthy, then an alternate scope could contain beneficial items that might not have been included in the initial project scope. During design, we will keep in contact with potential suppliers of major equipment to monitor both equipment costs and lead-time so that there are no unexpected surprises during the bid phase. As we develop the construction schedule and equipment specifications, we will keep a constant focus on competitive bidding without compromising on technical or owner requirements.

Our experience has shown that the best indicator of reliable cost estimates is the production of clear and concise bid documents. The more detail provided as part of the design process, the “tighter” the bids will be, leading to a greater likelihood they will be in line with the project budget. Wiley|Wilson has success in this area, and we take great pride in providing value to our clients. To us, value means maximizing benefit at an acceptable cost. We consider a client’s budget as if it were our own money and take seriously the charge to control costs related to both design and construction.

As an example of project cost control, the following chart shows a representative sample of recent projects with brief descriptions, the project budgets, the bid prices, and the differentials between the two values:

Client	Project Description	Project Budget	Bid Price	Differential
East Carolina University	Steam Decentralization - Minges, Murphy, & Ward Buildings	\$2.9M	\$2.7M	-7%
James Madison University	East Campus Power Plant Phase I	\$6.2M	\$5.8M	-6%
James Madison University	Chiller Replacement	\$1.1M	\$855,521	-25.8%

4.6 CONSTRUCTION ADMINISTRATION CAPABILITIES

Wiley|Wilson’s greatest visibility as a design firm often comes during the construction phase of the project. The firm views this phase as the one where the client can realize the full benefits of a well-designed project.



RELEVANT EXPERIENCE & OTHER IMPORTANT FACTORS

Overall, Wiley|Wilson provides experienced services in the following areas of Construction Contract Administration:

- **Bidding Phase** – The Project Manager will attend a pre-bid meeting, develop meeting minutes, and be responsible for being the liaison between the client and bidders. The Project Manager will also attend the bid openings and assist in negotiations.
- **Preconstruction** – The Contract Administrator will review the final contract documents in preparation of the preconstruction conference with the winning bidder. Technical support will be provided to clarify any ambiguities that might arise during bid preparation. The General Conditions, Supplementary Conditions, and General Requirements will be reviewed with the Contractor.
- **Construction** – The Construction Contract Administration team will verify that all shop drawings have been distributed to the correct technical departments within the firm. In addition to a log of visitation activities on the site, a photographic record is often compiled and made available to the client. Upon completion of the job, the record is stored in the closed project file. Change Orders, if any, are first verified with the contractor personnel. The order is then presented to the client, through the Project Manager for approval.
- **Construction Final Stages** – The Construction Contract Administrator will observe initial required testing of all installed systems, assessing test methods and performance. The Contract Administrator will then receive, if required, mechanical and electrical systems test reports, operating and maintenance manuals any guarantees, bonds, or similar documents from the contractor for eventual delivery to the Client.
- **Final Inspection** – The Project Manager, the contractor, and the client usually conduct the final inspection. A final “punch list” will be compiled at this time for the contractor to complete prior to

final approval. Following a successful inspection, the Project Manager will present a Notice of Substantial Completion to the contractor.

- **Post Construction** – Within 6 to 12 months following final payment to the contractor, the Project Manager will visit the job site and discuss the “pluses and minuses” of the facility with the client’s operating personnel. Issues such as how the facility is meeting its intended purpose and expected performance are discussed.

4.7 PROXIMITY TO AND FAMILIARITY WITH THE AREA WHERE PROJECT IS LOCATED

Work on this project will be directed from our Raleigh office. Our core electrical team has worked in the Triangle area for over 10 years and is familiar with the state codes and standards, the State Construction Manual, and the climate that drives your design conditions.

4.8 RECORD OF SUCCESSFULLY COMPLETED PROJECTS WITHOUT MAJOR LEGAL OR TECHNICAL PROBLEMS

Wiley|Wilson is committed to the success of our clients and their projects, which is why we have a long history of completing projects without legal or technical problems.



RELEVANT EXPERIENCE & OTHER IMPORTANT FACTORS

4.9 ENERGY CONSERVATION/LEED EXPERIENCE

Energy Conservation

Our recent experience with energy master planning has given us the opportunity to research and become familiar with the most recent thoughts regarding sustainable energy systems in the built environment. Our firm is also a supporting member of the International District Energy Association, a dynamic group of energy and facilities professionals who study and implement efficient means of providing energy for campuses and cities.

Our team keeps up-to-date with the newest technologies that show promise in academic campus environments. Our team members are deeply interested in moving our clients from an energy palette that depends heavily on fossil fuels toward a carbon-neutral and, eventually, fossil-fuel-free energy strategy. We are also excited about water savings and reuse strategies that can turn currently wasted water resources into commodities that can replace potable water use. Some examples of strategies that we have used with our higher education clients include:

- Thermal and electric energy storage
- Efficiency improvements
- Distribution medium optimization
- Controls modifications and temperature resets
- Water reuse – storm water capture and recycling
- Water reuse – black water capture and recycling
- Conversion from steam systems to low temperature hot water
- Heat recovery chillers
- Micro-turbines
- Chiller types and different refrigerants

- Boiler types, fuel options and emissions control equipment
- Cogeneration prime movers and various heat recovery types
- Ground-source heat sources / sinks for heat pump systems
- Renewables including solar PV, wind, alternative renewable fuels

LEED Experience

A member of the US Green Building Council (USGBC), Wiley|Wilson is familiar with LEED requirements. We work with clients to include sustainability and green concepts through an integrated design approach and to design the project to achieve the desired sustainability goal. Wiley|Wilson personnel have attended Green Building Council training sessions, and personnel in all design disciplines are knowledgeable of the Green Building Council concepts.

We currently have 20 LEED certified professionals on our team, and our LEED Certified portfolio consists of three projects that are Silver Certified.



TAB 5: **MINORITY BUSINESS PARTICIPATION PLAN**



MINORITY BUSINESS PARTICIPATION PLAN

Wiley|Wilson recognizes UNCG 's goals to encourage the participation of Historically Underutilized designers, contractors, and vendors and to assist in increasing their success rates. We consistently prioritize advancing small business objectives. As a small business, we recognize the importance of representation in the AEC industry regarding the utilization of HUBs including Women-Owned, Minority-Owned, and Veteran-Owned firms.

We have been making a conscious effort to build relationships with HUBs with the goal of fostering and maintaining long-term partnerships. When possible, we engage minority and women-owned subconsultant firms to support our project teams with specialty services on various projects. We are continually developing relationships with a more diverse group of vendors to support and advance our company's inclusive objectives as well.





TAB 6: CURRENT SF-330

ARCHITECT - ENGINEER QUALIFICATIONS

PART I - CONTRACT-SPECIFIC QUALIFICATIONS

A. CONTRACT INFORMATION

1. TITLE AND LOCATION *(City and State)*

**Quad Duct Bank - Emergency Generator Connection
Greensboro, NC**

2. PUBLIC NOTICE DATE

2/4/2026

3. SOLICITATION OR PROJECT NUMBER

287-19663P-DS

B. ARCHITECT-ENGINEER POINT OF CONTACT

4. NAME AND TITLE

Steve Bowman, PE, Raleigh Office Manager

5. NAME OF FIRM

Wiley|Wilson

6. TELEPHONE NUMBER

919.746.8369

7. FAX NUMBER

N/A

8. E-MAIL ADDRESS

sbowman@wileywilson.com

C. PROPOSED TEAM

(Complete this section for the prime contractor and all key subcontractors)

	<i>(Check)</i>			9. FIRM NAME	10. ADDRESS	11. ROLE IN THIS CONTRACT
	PRIME	J-V PARTNER	SUBCON-TRACTOR			
a.	X			Wiley Wilson <input checked="" type="checkbox"/> CHECK IF BRANCH OFFICE	5540 Centerview Drive Suite 311 Raleigh, NC 27606	Project Oversight Project Management Electrical Engineering
b.	X			Wiley Wilson <input checked="" type="checkbox"/> CHECK IF BRANCH OFFICE	6800 Paragon Place, Suite 600 Richmond, VA 23230	Electrical Engineering Civil Engineering
c.	X			Wiley Wilson <input type="checkbox"/> CHECK IF BRANCH OFFICE	127 Nationwide Drive Lynchburg, VA 24502	Electrical Engineering
d.				<input type="checkbox"/> CHECK IF BRANCH OFFICE		
e.				<input type="checkbox"/> CHECK IF BRANCH OFFICE		
f.				<input type="checkbox"/> CHECK IF BRANCH OFFICE		

D. ORGANIZATIONAL CHART OF PROPOSED TEAM



OFFICER-IN-CHARGE

Steve Bowman, PE

PROJECT MANAGER

Chuck Niedermayer, PE

Eric Gavlek, PE

Designer of Record

Andrew Fleenor, PE

Electrical Engineer

Dillon Ouimet, EIT

Electrical Designer

Brian Bullock, PE

Civil Engineer

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person)

12. NAME Steve Bowman, PE	13. ROLE IN THIS CONTRACT Officer-In-Charge	14. YEARS EXPERIENCE	
		a. TOTAL 33	b. WITH CURRENT FIRM 26

15. FIRM NAME AND LOCATION (City and State)
Wiley|Wilson | Raleigh, North Carolina

16. EDUCATION (Degree and Specialization)
BS | Electrical Engineering

17. CURRENT PROFESSIONAL REGISTRATION (State and Discipline)
NC,SC,GA,VA,MD,DC,PA,AL,AZ | Professional Engineer

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)
Steve is an accomplished engineer with direct experience analyzing, designing, protecting, and replacing medium voltage distribution systems. His oversight throughout the contract will be invaluable, given his expertise overseeing electrical systems projects for multiple colleges and universities. He has managed many tasks administered throughout term contracts over the years.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
North Carolina State University, Electrical Distribution Improvements Commissioning - Raleigh, NC	2025	2025
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
a. Officer-in-Charge: Provided oversight for commissioning services to support NC State's power systems team for a \$50M campus electrical distribution system upgrade. The project replaced most of the distribution infrastructure on the Central Campus and included 52 new pad-mounted S&C selector switches with SCADA monitoring and self-healing loop capabilities. Our team was tasked with commissioning and the overall verification of the operation of the SCADA functionality.		
North Carolina State University, Gardner & Caldwell Halls Electrical MDP Upgrades - Raleigh, NC	2024	2025
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
b. Officer-in-Charge: Provided oversight for electrical engineering services for the replacement of electrical service equipment in Gardner Hall and Caldwell Hall at NC State University due to the low voltage service equipment in these two buildings being sub-standard.		
East Carolina University, Electrical Switch Replacement Phase 1 Greenville, NC	2026 (Est.)	2028 (Est.)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
c. Officer-In-Charge: Replacement of existing air-insulated distribution switchgear with new SF6 gas-insulated switchgear and ductbank modifications and new cabling between existing and new switchgear.		
North Carolina State University, Centennial Campus Substation Commissioning - Raleigh, NC	2026	N/A
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
d. Officer-in-Charge: Commissioning services for a new 230kV:23kV substation including the entire substation train from 230kV Duke Energy tap to the existing 23kV NC State Distribution Switchgears. Commissioning included bus structures, disconnect switches, 230kV circuit breaker, power transformer, relaying/control, and SCADA.		
National Institutes of Health, Emergency Generators for Chilled Water Service - Research Triangle Park, NC	2024 - Present	2028 (Est.)
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm		
e. Officer-in-Charge: Improving the campus' 13kV electrical distribution system and adding medium voltage generation capacity to support the chilled water plant in order to safeguard lab operations.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person)

12. NAME Chuck Niedermayer, PE	13. ROLE IN THIS CONTRACT Project Manager	14. YEARS EXPERIENCE	
		a. TOTAL 17	b. WITH CURRENT FIRM 6

15. FIRM NAME AND LOCATION (City and State)
Wiley|Wilson | Raleigh, North Carolina

16. EDUCATION (Degree and Specialization)
BS | Electrical Engineering

17. CURRENT PROFESSIONAL REGISTRATION (State and Discipline)
NC, AL, VA | Professional Engineer

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)
Chuck performs project engineering for electrical systems and field supervision on a wide variety of projects including educational facilities, government facilities, historic buildings, museums, campus distribution systems, hospitals, office buildings, and laboratories. He has completed many electrical design projects involving highly reliable, redundant power and backup power systems.

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	National Institutes of Health, Emergency Generators for Chilled Water Service - Research Triangle Park, NC	2024 - Present	2028 (Est.)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm	
	Electrical Engineer: Improving the campus' 13kV electrical distribution system and adding medium voltage generation capacity to support the chilled water plant in order to safeguard lab operations.		
b.	East Carolina University, Minges Chiller Plant Cooling Tower Replacement - Greenville, NC	2026 (Est.)	2026 (Est.)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> CHECK IF PROJECT PERFORMED WITH CURRENT FIRM	
	Electrical Engineer: Minges Coliseum complex is served by three water-cooled chillers (1,400 tons total) and (2) 600T cooling towers nearing end of life. Replacement scope for this project includes two BAC 1500 Series two-cell towers, piping reroutes, and new equalizer lines. Makeup water will be routed from the existing outdoor domestic line, and new drains provided to existing hub drain.		
c.	NAVFAC Washington, PAX Secure Weapons Facility Patuxent River, MD	2022	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm	
	Electrical Engineer: Provided electrical design for the construction of a new, 6,800 SF secure weapons assembly facility at Naval Air Station Patuxent River. The space will have secure rated construction, and a roll-up door High bay area. The facility includes ordinance/blast design requirements.		
d.	NAVFAC Washington, Ward Hall Renovations Annapolis, MD	Ongoing	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm	
	Electrical Engineer: Electrical scope includes demolish abandoned not-in-service electrical wiring and devices within mechanical spaces or serving exiting to be demolished building equipment. Provide a new UPS system redundant to the existing which shall remain, replace the buildings diesel generator which will be sized for existing and predicted demand, new/reconfigured power for new/modified mechanical equipment and systems, all light fixtures to be LED and associated lighting controls and receptacles, reconfiguration of select interior branch circuitry to support space reconfiguration, andreconfiguration of interior data/communications to support changes.		
e.	NAVFAC Washington, NRL 28 Transformer Washington, DC	2020	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm	
	Electrical Engineer: Provided design services and an arc flash study to replace the existing exterior transformer and switch gear in Building 28 at the Naval Research Laboratory in Washington, D.C.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person)

12. NAME Eric Gavlek, PE	13. ROLE IN THIS CONTRACT Designer of Record	14. YEARS EXPERIENCE	
		a. TOTAL 13	b. WITH CURRENT FIRM 13

15. FIRM NAME AND LOCATION (City and State)
Wiley|Wilson | Lynchburg, Virginia

16. EDUCATION (Degree and Specialization) 17. CURRENT PROFESSIONAL REGISTRATION (State and Discipline)
BS | Electrical Engineering **GA, NC, VA | Professional Engineer**

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)
Eric will provide value to our team through his experience in power studies. He has been involved in many different projects ranging from new design and renovation to power systems analysis which includes field data collection, system modeling, protection device coordination, and system analysis.

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	University of Richmond, 4kV to 35kV Distribution System Replacement Richmond, VA	2020	2020
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm	
	Electrical Engineer: Comprehensive program to replace the University's aging 4kV distribution system with a new 35kV system. Wiley Wilson scope started with feasibility studies and progressed through construction documents and construction administration of a 5-phase rollout. The system included two five-way SF6 insulated pad mount switchgears that act as the main substation and two 35kV transformer loops. The substation included a complete SEL relaying package and primary source transfer logic.		
b.	Wake Forest University, Automation Phase 2 Winston-Salem, NC	2021	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm	
	Electrical Engineer: Phase II of the HVDS automation feasibility study including the rollout planning for a multi-year implementation of the automation program.		
c.	Clemson University, IHR Arc Flash Analyses Clemson, SC	2021	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm	
	Electrical Engineer: Performed field assessment of electrical systems at the ITC Computing Center, Rich Lab, and Harris buildings.		
d.	American University, Arc Flash Buildings Phase 3 Washington, D.C.	2020	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm	
	Electrical Engineer: Performed arc flash hazard analysis, protective device coordination study, equipment evaluation, and condition assessments for eleven existing buildings on AU's main campus.		
e.	Wake Forest University, Cherry St. Substation Replacement Winston-Salem, NC	2023	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm	
	Project Manager: Design services for the replacement of the Wake Forest Cherry Street Substation. The project involved replacing the individual switchgear units with a metal-clad vacuum circuit breaker lineup with main-tie-main functionality and provisions for SCADA connection and future automation as part of a self-healing loops scheme.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person)

12. NAME Andrew Fleenor, PE	13. ROLE IN THIS CONTRACT Electrical Engineer	14. YEARS EXPERIENCE	
		a. TOTAL 15	b. WITH CURRENT FIRM 7

15. FIRM NAME AND LOCATION (City and State)
Wiley|Wilson | Richmond, Virginia

16. EDUCATION (Degree and Specialization) 17. CURRENT PROFESSIONAL REGISTRATION (State and Discipline)
BS | Electrical and Computer Engineering NC, NY, VA | Professional Engineer

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)
Andrew is a professional engineer who combines a broad technical knowledge with strong interpersonal and teamwork skills to provide excellent service to clients. He has experience in both the consulting engineering and utility industries. Andrew's portfolio includes many projects completed in the higher education sector.

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	North Carolina Dept. of Administration, Museum of History HVAC Controls Upgrade - Raleigh, NC	2023	2024
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm	
	Electrical Engineer: Replacement of the 30-year-old obsolete Network 8000 building automation system serving the Museum of History with a new DDC control system that will seamlessly integrate with one of the building's current automation systems to allow for remote alarming, trending, monitoring, and controllability from one of DOA's existing automation platforms..		
b.	Marine Corps Base Camp Lejeune Electrical Distribution Phase 2 Design - Jacksonville, NC	2022	2022
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm	
	Electrical Engineer: Design to repair significant damage to the 12kV electrical distribution system at Marine Corps Base Camp Lejeune due to hurricane damage. Several areas of the base saw lengthy outages for multiple days that were a result of a lack of generator power at the base buildings.		
c.	East Carolina University, College Hill Steam Line Replacement Greenville, NC	2018	2019
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm	
	Electrical Engineer: Replacement of the underground steam and condensate piping at East Carolina University's main campus from Manhole CH30 to Tyler Hall.		
d.	Virginia Commonwealth University, Founders Hall Chiller Replacement - Richmond, VA	2023	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm	
	Electrical Engineer: Replacement of an air-cooled chiller at the Founders Hall building on campus. Performed field investigations to verify existing conditions and prepared design documents to replace the air-cooled chiller, associated piping and pipe stands, and associated chilled water equipment.		
e.	Virginia Commonwealth University, Bowe Street Deck Chiller Replacement - Richmond, VA	2024	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm	
	Electrical Engineer: Performed field investigations to verify existing conditions and prepared design documents to replace the air-cooled chiller, associated piping and pipe stands, and chilled water accessories. Roof repairs were performed where there were new pipe stands and to accommodate any chiller rail modifications.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
 (Complete one Section E for each key person)

12. NAME Dillon Ouimet, EIT	13. ROLE IN THIS CONTRACT Electrical Designer	14. YEARS EXPERIENCE	
		a. TOTAL 4	b. WITH CURRENT FIRM 2

15. FIRM NAME AND LOCATION (City and State)
Wiley|Wilson | Raleigh, North Carolina

16. EDUCATION (Degree and Specialization) BS Electrical Engineering MS Electrical Engineering	17. CURRENT PROFESSIONAL REGISTRATION (State and Discipline) Electrical Designer
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18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)
 Dillon is a skilled engineer-in-training with hands-on experience in power system analysis, arc flash studies, and the design and implementation of power and control systems.

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	North Carolina State University, Electrical Distribution Improvements Commissioning - Raleigh, NC	2025	2025
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm	
	Electrical Designer: Management for commissioning services to support NC State's power systems team for a \$50M campus electrical distribution system upgrade. The project replaced most of the distribution infrastructure on the Central Campus and included 52 new pad-mounted S&C selector switches with SCADA monitoring and self-healing loop capabilities. Our team was tasked with commissioning and the overall verification of the operation of the SCADA functionality.		
b.	National Institutes of Health, Emergency Generators for Chilled Water Service - Research Triangle Park, NC	2024 - Present	2028 (Est.)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm	
	Electrical Designer: Improving the campus' 13kV electrical distribution system and adding medium voltage generation capacity to support the chilled water plant in order to safeguard lab operations.		
c.	North Carolina State University, Gardner/Caldwell Halls Electrical MEP Upgrades - Raleigh, NC	2024	2025
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm	
	Electrical Designer: Replacement of electrical service equipment in Gardner Hall and Caldwell Hall. This project is tied to the schedule for the larger Electrical Distribution Upgrade project due to University concerns that the low voltage service equipment in these two buildings are sub-standard.		
d.	East Carolina University, Electrical Switch Replacement Phase 1 Greenville, NC	2026 (Est.)	2028 (Est.)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm	
	Electrical Designer: Replacement of existing air-insulated distribution switchgear with new SF6 gas-insulated switchgear and ductbank modifications and new cabling between existing and new switchgear.		
e.	Arc Flash Study for Anson Correctional Institution Polkton, NC	2024	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm	
	Electrical Designer: Completed quality control of SKM models to ensure that short circuit and coordination review of the Anson Correctional Institution was done accurately.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person)

12. NAME Brian Bullock, PE	13. ROLE IN THIS CONTRACT Civil Engineer	14. YEARS EXPERIENCE	
		a. TOTAL 13	b. WITH CURRENT FIRM 9

15. FIRM NAME AND LOCATION (City and State)
Wiley|Wilson | Richmond, Virginia

16. EDUCATION (Degree and Specialization)
BS | Civil Engineering

17. CURRENT PROFESSIONAL REGISTRATION (State and Discipline)
FL, MD, NC, VA, WY | Professional Engineer

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)
Brian's design experience includes site development, utility layout and profiling, erosion and sediment control, grading, stormwater management, LEED compliance, and cost estimating. His technical skills include AutoCAD Civil 3D, HydroCAD, GeoPak, CulvertSoft, SWMsoft, Microstation, TRANSPORT PES. He is experienced and knowledgeable in the regulatory requirements and permitting process, as well as the Unified Facilities Criteria standards for DoD facilities. Brian has been involved with numerous design/build projects requiring close collaboration with the construction team.

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	National Institutes of Health, Emergency Generators for Chilled Water Service - Research Triangle Park, NC	2024 - Present	2028 (Est.)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm	
	Civil Engineer: Improving the campus' 13kV electrical distribution system and adding medium voltage generation capacity to support the chilled water plant in order to safeguard lab operations.		
b.	NAVFAC Washington, P-001 Master Clock Facility Naval Observatory - Washington, DC	2019	Ongoing
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> CHECK IF PROJECT PERFORMED WITH CURRENT FIRM	
	Civil Engineer: Provided civil site layout and design, grading, drainage, erosion and sediment control, for the master clock facility, missions operations center, Earth Orientation Parameter Center, conversion of a 3-story facility into administration, data processing and lab space, conversion of a low-rise facility into an optics lab, and conversion of a 2-story facility into an optics lab and admin space.		
c.	NAVFAC Mid-Atlantic, Repair B127 HVAC, Electrical Dist. & Fire Protection Systems, NAS Oceana, Dam Neck Annex, VA	2021	2022
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> CHECK IF PROJECT PERFORMED WITH CURRENT FIRM	
	Civil Engineer: Provided civil site layout and design for the Design-build project for repairs and replacement of HVAC equipment and perform modifications to the electrical distribution and fire protection systems within the occupied building.		
d.	USACE Baltimore, RFP for the D/B Acquisition of Building 2234 Renovations, Fort Meade, MD	2024	Ongoing
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> CHECK IF PROJECT PERFORMED WITH CURRENT FIRM	
	Civil Engineer: Updated to the 2018 Design-Build RFP to align with the heightened security standards necessary for INSCOM's operations. The updated RFP reflects the latest in SCIF design standards, including physical, acoustic, visual controls, access control systems, intrusion detection systems, and TEMPEST security measures to ensure the integrity of sensitive information.		
e.	USACE Baltimore, Site C Security Upgrades Raven Rock Mountain Complex, PA	2019	2022
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> CHECK IF PROJECT PERFORMED WITH CURRENT FIRM	
	Civil Engineer: Constructed an access control point, upgrades to a driveway/service road to meet Maryland State Highway Administration standards within a 45-foot right-of-way, a 20 vehicle parking area, a fuel reception, and fuel storage facility that will support this remote site in accordance with the Department of Defense Uniform Facilities Criteria and Washington Headquarters Service regulations, and demolition and replacement of an existing visitor processing center including screening equipment.		

F. EXAMPLES OF PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NO.

1

21. TITLE AND LOCATION *(City and State)*

National Institutes of Health, Emergency Generators for Chilled Water Service - Research Triangle Park, North Carolina

22. YEAR COMPLETED

PROFESSIONAL SERVICES
2024 - Present

CONSTRUCTION *(If applicable)*
2028 (Est.)

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER

National Institutes of Health

b. POINT OF CONTACT NAME

Derek Grotheer

c. POINT OF CONTACT TELEPHONE NUMBER | EMAIL

984.287.4367 | derek.grotheer@nih.gov

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

The National Institutes of Health operates a number of institutes around the U.S. The National Institute of Environmental Health Sciences (NIEHS) is located in Research Triangle Park and their objective for this project is to safeguard their laboratory operations by improving the campus' 13kV electrical distribution system and adding medium voltage generation capacity to support their chilled water plant. Wiley|Wilson is providing design services for this project in conjunction with ECC in a design-build project delivery method. The overall project scope consists of the following:

- Construction of a new generator yard immediately adjacent to the chiller plant
- Addition of new 15kV class paralleling switchgear for generator interconnection
- Addition of two 2MW diesel generators
- Provision for an additional two 2MW diesel generators
- Coordination with Duke Energy to ensure parallel operations are permitted
- Replacement of existing 15kV class switchgear inside the chiller plant
- Design of electrical distribution protection, controls, & automation scheme

Because of the design-build delivery, we have worked closely with NIH and ECC to develop a project phasing approach that enables site work to begin as soon as possible and allows parts of the infrastructure to be constructed early to support NIH operations. Our phasing plan also had to accommodate the reality that some of our major equipment (including generators and paralleling switchgear) have lengthy lead times and will need to be interconnected later in the overall construction schedule. The phasing plan also had to take into account NIH's functional requirements to maintain chilled water production to critical laboratory operations at various times of the calendar year.



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
a.	Wiley Wilson	Raleigh, NC	Mechanical Engineering, Electrical Engineering, Structural Engineering, Survey, Telecommunications

F. EXAMPLES OF PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NO.

2

21. TITLE AND LOCATION <i>(City and State)</i> Sitter & Barfoot Veterans Care Centers Generator Replacement Richmond, Virginia	22. YEAR COMPLETED PROFESSIONAL SERVICES CONSTRUCTION <i>(If applicable)</i> 2019 2020	
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23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER Virginia Department of General Services	b. POINT OF CONTACT NAME Stan Kloss	c. POINT OF CONTACT TELEPHONE NUMBER EMAIL 804.786.3311 stan.kloss@dgs.virginia.gov
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24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Wiley|Wilson provided design and construction phase services for a whole-building, natural gas generator backup solution at the Sitter Barfoot Veteran Care Center facility located in Richmond VA. The existing facility was constructed in 2007, with a new wing added in 2015.

Backup power generation was being provided for a subset of the building loads via a 300kW diesel generator. This project demolished the existing generator and provided whole-building backup generation for the entire building with (2) two 500kW natural gas generators and new transfer and distribution equipment. Temporary connection equipment was provided to allow for the connection of a mobile generator set. This served as a third power source in the event that electrical and gas utility were lost simultaneously. Existing distribution equipment, wiring, pathways, and appurtenances were reused to the largest extent possible. Given the relatively new age of the facility, reusing portions of the building's electrical system was an effective component of this solution from a cost and performance perspective. Our design solution allowed the facility to adopt a "shelter-in-place" policy which reduced the chances of needing to evacuate residents during interruption to utility services.



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

a.	(1) FIRM NAME Wiley Wilson	(2) FIRM LOCATION <i>(City and State)</i> Richmond, VA	(3) ROLE Mechanical & Electrical Engineering
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F. EXAMPLES OF PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NO.

3

21. TITLE AND LOCATION *(City and State)*

**East Carolina University, Electrical Switch Replacement
Greenville, North Carolina**

22. YEAR COMPLETED

PROFESSIONAL SERVICES
2026 (Est.)

CONSTRUCTION *(If applicable)*
2028 (Est.)

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER

East Carolina University

b. POINT OF CONTACT NAME

Robert Still

c. POINT OF CONTACT TELEPHONE NUMBER | EMAIL

252.328.6858 | stillr@ecu.edu

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

East Carolina University operates a 12kV electrical distribution system across their main campus in Greenville, NC. Their facilities group has been on a multi-year initiative to eliminate live-front, air-insulated distribution switchgear with dead-front, gas-insulated switchgear in order to modernize their system, improve operator safety, and standardize equipment to simplify maintenance and operations. Our team is in design on a project to replace seven distribution switches in and around their Science & Technology building as well as in their College Hill residential area. In our design, we have looked for opportunities to use fewer, larger switches to reduce switch costs and cable replacement costs. We have also considered shifting switch locations to put them in better spots to avoid surface water issues as well as eliminating one retaining wall that is currently required (but in poor condition). One current challenge with a project of this type is the long lead time that the industry is presently experiencing with medium voltage electrical equipment. We have worked with ECU's team to minimize the impact of that delay and structure the project to best facilitate bidding and construction. Our design is in process and construction is expected early 2027.



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
a.	Wiley Wilson	Raleigh, NC	Electrical Engineering

F. EXAMPLES OF PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NO.

4

21. TITLE AND LOCATION *(City and State)*

**NAVFAC Washington, Ward Hall Generator Replacement
Annapolis, MD**

22. YEAR COMPLETED

PROFESSIONAL SERVICES
2023

CONSTRUCTION *(If applicable)*
2026 (Est.)

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER

NAVFAC Washington

b. POINT OF CONTACT NAME

Tony Freitag

c. POINT OF CONTACT TELEPHONE NUMBER | EMAIL

410.293.3202 | anthony.c.freitag.civ@us.navy.mil

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*



The scope of work for the project included renovating Ward Hall at the U.S. Naval Academy. The electrical scope involved replacing the existing generator with two parallel generators through phasing so that the facility data center has backup power at all times. Demolition of abandoned not-in-service electrical wiring and devices within mechanical spaces was also completed. Our team provided a new UPS system redundant to the existing, replacing the building's diesel generator which was sized for existing and predicted demand. This decision required reconfiguring power for new/modified mechanical equipment and systems, reconfiguring select interior branch circuitry, and reconfiguring interior data/communications to support changes.

The project also included re-pointing masonry, re-caulking windows and doors, re-finishing exterior doors, replacement of the roofing, and repairs to the loading dock. Interior work included all new finishes, new door hardware on all interior doors, wayfinding, and new fixtures in restrooms. Our team included a historic architectural preservationist that we consulted with on the refinishing of the exterior doors and the design of the vestibule in the main entry. Mechanical scope included demolishing existing fan coils; demolishing existing

DOAS unit including duct work and outdoor air diffusers; providing two approximately 60-ton, roof-mounted, air-cooled chillers; providing two small roof-mounted VAV air handlers for the 2nd and 3rd floor, and providing VAV air handlers mounted in the plenum for the 1st floor.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
a.	Wiley Wilson	Richmond, VA	Full A/E

F. EXAMPLES OF PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NO.

5

21. TITLE AND LOCATION *(City and State)*

University of Georgia, Life Sciences Building Generator Replacement - Athens, Georgia

22. YEAR COMPLETED

PROFESSIONAL SERVICES
2021

CONSTRUCTION *(If applicable)*
N/A

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER

University of Georgia

b. POINT OF CONTACT NAME

David Patterson

c. POINT OF CONTACT TELEPHONE NUMBER | EMAIL

706.542.7468 | haroldp@uga.edu

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Wiley|Wilson provided the necessary specifications and drawings to replace the current Life Sciences (Building # 1057) generator at the University of Georgia. Our team also provided a plan for temporary generator connections during the replacement in order to mitigate risk to the sensitive research located within the building.

The project began with our team developing project specific details related to the generator replacement and temporary generator connection. We coordinated with the UGA electrical term contractor for pricing information and evaluated building load with UGA FMD to determine the most appropriate size for the new generator. This design conformed to the latest UGA electrical design standards. Our team also provided construction phase services in support of the UGA FMD staff performing construction project management such as RFI responses and shop drawing review.



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
a.	Wiley Wilson	Atlanta, GA & Lynchburg, VA	Electrical Engineering

F. EXAMPLES OF PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NO.

6

21. TITLE AND LOCATION *(City and State)*

NC State University, Gardner & Caldwell Hall MDP Replacements - Raleigh, North Carolina

22. YEAR COMPLETED

PROFESSIONAL SERVICES
2024

CONSTRUCTION *(If applicable)*
2025

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER

NC State University

b. POINT OF CONTACT NAME

Melanie Butler

c. POINT OF CONTACT TELEPHONE NUMBER | EMAIL

919.515.2011 | mdbodenh@ncsu.edu

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*



The electrical main distribution panels (MDPs) at Gardner and Caldwell Halls were old, obsolete, and difficult to obtain parts for. NC State Facilities had also experienced problems when taking outages at these buildings in the past. Related to the electrical distribution upgrade project across North and Central campuses, this project replaced the MDP in each of these buildings and provided safe, modern, and reliable equipment for the future.

Since both of the electrical rooms involved were space constrained, we chose to implement laser scanning to generate a data point cloud which we then converted into a 3D Building Information Model of the existing spaces. This approach allowed us to have a very detailed view of existing conditions and supported our ability to develop a phasing plan that minimizes outages and takes into account other obstructions within each of these rooms. We collaborated closely with the NC State stakeholders to arrive at a design solution that met the project scope requirements and fit within the project budget.

Construction is now complete at Gardner Hall and soon we will move into the bidding and construction phase for Caldwell Hall.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
a.	Wiley Wilson	Alexandria, VA & Raleigh, NC	Mechanical & Electrical Engineering

F. EXAMPLES OF PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NO.

7

21. TITLE AND LOCATION *(City and State)*

Electrical System Hardening, Marine Corps Base Camp Lejeune, North Carolina

22. YEAR COMPLETED

PROFESSIONAL SERVICES
2021

CONSTRUCTION *(If applicable)*
2022

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER

Marine Corps Base Camp Lejeune

b. POINT OF CONTACT NAME

Jim Sides

c. POINT OF CONTACT TELEPHONE NUMBER | EMAIL

910.545.9233 | james.c.sides@usmc.mil

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Marine Corp Base Camp Lejeune was hit hard by hurricanes in 2018, with significant disruption to the base's 12kV overhead electrical distribution system. Several areas of the base saw lengthy outages of multiple days and those outages pointed our problems related to the vulnerability of the overhead infrastructure plus a lack of generator power at several base buildings. Because of these challenges, the base Public Works Division was able to develop a repair project and obtain \$19M of funding to support it. Wiley|Wilson was the engineer of record, teamed with our design-build partner ECC, for the execution of this project.

The project was organized by the base into four packages:

- 1) the addition of an automated distribution switch to allow Building 24 to be served from either of two base feeders, increasing reliability;
- 2) the conversion of the Midway Park base feeder from overhead to underground to harden the construction and minimize exposure for outages;
- 3) improving the reliability of the service to the Paradise Point housing area by interconnecting two feeders (allowing the housing area to be fed from two directions) plus undergrounding a portion of the feeder to reduce exposure;
- 4) the addition of diesel generators with automatic transfer switches to 14 base buildings.

Most of the 18 buildings were new generator installations, while a few were generator replacements with automatic transfer switches to replace prior manual transfer capability, creating greater ease of use for maintenance staff during emergency situations. The generators ranged in size from 80kW to 750kW, with some operating at 208/120V and some at 480/277V. In support of our design-build partner and the overall project construction schedule, our team performed the design in the same packages as described above. We performed both electrical and civil engineering design and teamed with Cape Fear Engineering, who provided subsurface utility engineering services. The design was complete in spring 2021, with construction complete in March 2022. We supported ECC throughout the construction process and are provided record drawings to Camp Lejeune, including populating their geographic information system (GIS) with data from construction.



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
a.	Wiley Wilson	Raleigh, NC; Lynchburg & Alexandria, VA	Civil & Electrical Engineering

F. EXAMPLES OF PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NO.

8

21. TITLE AND LOCATION *(City and State)*

N.C. Department of Administration, Museum of History Controls Replacement - Raleigh, North Carolina

22. YEAR COMPLETED

PROFESSIONAL SERVICES
2023

CONSTRUCTION *(If applicable)*
2024

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER

N.C. Department of Administration

b. POINT OF CONTACT NAME

Ken Vendel

c. POINT OF CONTACT TELEPHONE NUMBER | EMAIL

984.236.5433 | kenneth.vendel@doa.nc.gov

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

The Department of Administration contracted Wiley|Wilson to replace the 30-year-old obsolete Network 8000 building automation system serving the Museum of History, located in Raleigh, with a new DDC control system that will seamlessly integrate with one of the building's current automation systems to allow for remote alarming, trending, monitoring, and controllability from one of DOA's existing automation platforms.

The existing system uses a mixture of pneumatic and electrically actuated final devices. One goal of the replacement system will be to eliminate as much use of the pneumatic as possible. There are a mixture of air handling units serving the Museum of History. These units serve single zones, VAV fan boxes with hot water reheat, and VAV boxes with and without reheat. The system is maintaining operation, but the DDC system has no active remote access for monitoring or alarming. Local system access is available via HMI port with laptop or through touch pad at main control panels.



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
a.	Wiley Wilson	Raleigh, NC & Richmond, VA	Mechanical & Electrical Engineering

F. EXAMPLES OF PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NO.

9

21. TITLE AND LOCATION *(City and State)*

North Carolina State University, Centennial Campus Substation Commissioning - Raleigh, North Carolina

22. YEAR COMPLETED

PROFESSIONAL SERVICES
2026

CONSTRUCTION *(If applicable)*
N/A

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER

North Carolina State University

b. POINT OF CONTACT NAME

Melanie Butler

c. POINT OF CONTACT TELEPHONE NUMBER | EMAIL

919.515.2011 | mdbodenh@ncsu.edu

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

NC State's delivery substation on the Centennial Campus experienced a catastrophic fault and ensuing fire in April 2021. Several pieces of equipment were destroyed, and the substation transformer was damaged to the point of needing replacement. Due to our team's successful work as the commissioning agent for NC State's Central Campus Power Forward project, they selected our team to provide commissioning services for this project.

The project has moved slowly due to a number of issues affecting the design, and we are currently near the conclusion of commissioning support of the design team. As the project moves into construction for the replacement of the substation transformer, the 230kV circuit switcher, and the protection and control scheme for the high- and low-side of the transformer, our team will shift to support the construction team. The fundamental goal of our commissioning effort is to ensure that successful, reliable operation of the designed protection and control system is achieved. This will allow NC State to return confidently to normal operation knowing that the system has been validated and outages of this critical infrastructure will be limited to those necessary for true system faults.



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
a.	Wiley Wilson	Raleigh, NC	Electrical Engineering

F. EXAMPLES OF PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NO.

10

21. TITLE AND LOCATION *(City and State)*

American University, Mary Graydon Center Standby Generator Replacements & Unit Substation - Washington, D.C.

22. YEAR COMPLETED

PROFESSIONAL SERVICES
2015, 2017

CONSTRUCTION *(If applicable)*
2016, 2017

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER

American University

b. POINT OF CONTACT NAME

Tony Cortes

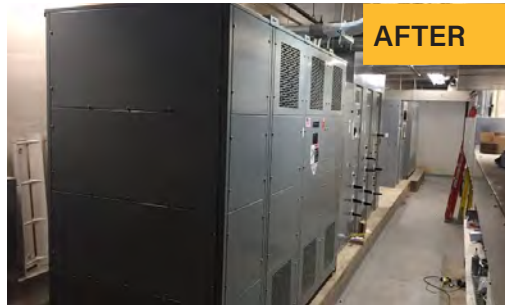
c. POINT OF CONTACT TELEPHONE NUMBER | EMAIL

202.885.3989 | tcortes@american.edu

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*



BEFORE



AFTER

These two related projects were part of a series of transformer and service replacement projects we have performed for American University over the last 16 years. The Mary Graydon Center was constructed

in the mid-1960's and serves as the main dining hall for AU. As is true with many buildings built in that era, the electric service was 208/120V. The University routinely undertakes small renovations to kitchen and server spaces as food service vendors change out, and wanted to integrate 480/277V systems into the building for future renovations. Two separate 13.2kV campus feeders served the 50-year-old 1500-kVA double-ended substation. The switch and fuse-type gear was operated with one main open and the tie closed such that the entire service was normally served from one feeder with the other standing in reserve. With modern breaker gear taking less space, we were able to design a solution that included a new medium-voltage, gas-insulated sectionalizing switch to accommodate the two 13.2kV feeders, a 2000-kVA, 208/120V unit substation for serving existing load, and a new 1000-kVA, 480/277V unit substation for future 480V loads.

We were able to install all of the new equipment in the existing electrical room even though the space was highly constrained, being sub-surface beneath a service tunnel with no direct access. To mitigate this condition, Wiley|Wilson provided structural engineering services to cut an access opening through the tunnel floor into the top of the electrical room to allow for gear removal and replacement, then sealing of the opening once the work was completed.

The next improvement to the building electrical system was the replacement of the existing facility standby generator. The replacement of the generator was essential to support the major building system elements such as fire and life safety, critical IT, and critical HVAC systems. Our team was tasked with sizing the generator, designing the tie-ins to the existing building electrical systems, and enlarging the platform to accommodate the larger footprint of the new generator. The loads supported included life safety, fire pump, second floor IT room, and building refrigeration loads. Other loads, as determined by the Owner, were evaluated for potential support contingent upon remaining generator capacity after the critical loads were served. We provided sizing calculations and ROM cost estimates at the preliminary stage to help the Owner select their desired generator capacity.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
a.	Wiley Wilson	Raleigh, NC; Lynchburg, Richmond & Alexandria, VA	Electrical Engineering

G. KEY PERSONNEL PARTICIPATION IN EXAMPLE PROJECTS

26. NAMES OF KEY PERSONNEL <i>(From Section E, Block 12)</i>	27. ROLE IN THIS CONTRACT <i>(From Section E, Block 13)</i>	28. EXAMPLE PROJECTS LISTED IN SECTION F <i>(Fill in "Example Projects Key" section below before completing table. Place "X" under project key number for participation in same or similar role.)</i>									
		1	2	3	4	5	6	7	8	9	10
Steve Bowman, PE	Officer-in-Charge	X		X		X		X		X	
Chuck Niedermayer, PE	Project Manager	X	X		X						
Eric Gavlek, PE	Designer of Record	X							X		
Andrew Fleenor, PE	Electrical Engineer				X			X	X		
Dillon Ouimet, EIT	Electrical Designer	X		X	X		X		X	X	
Brian Bullock, PE	Civil Engineer	X									

29. EXAMPLE PROJECTS KEY

NUMBER	TITLE OF EXAMPLE PROJECT <i>(From Section F)</i>	NUMBER	TITLE OF EXAMPLE PROJECT <i>(From Section F)</i>
1	National Institutes of Health, Emergency Generators for Chilled Water Service	6	NC State University, Gardner & Caldwell Hall MDP Replacements
2	Sitter & Barfoot Veterans Care Centers Generator Replacement	7	Electrical System Hardening, Marine Corps Base Camp Lejeune
3	East Carolina University, Electrical Switch Replacement	8	N.C. Department of Administration, Museum of History Controls Replacement
4	NAVFAC Washington, Ward Hall Generator Replacement	9	North Carolina State University, Centennial Campus Substation Commissioning
5	University of Georgia, Life Sciences Building Generator Replacement	10	American University, Mary Graydon Center Standby Generator Replacements & Unit Substation

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

Firm Overview

Wiley|Wilson has evolved over our 125-year history from a mechanical engineering sole proprietorship to a full-service architecture and engineering firm dedicated to serving a wide variety of client's needs. Our team enjoys a number of long-term working relationships with various clients, including those in the UNC System, and is particularly well-suited for **this project**.

Our expertise lies in our depth of experience providing services for similar projects. We have a well established higher education practice that reflects our successes in providing design services for complex electrical systems projects.

In-House Capabilities

- Project management
- Civil engineering
- Structural engineering
- Architecture
- Mechanical engineering
- Surveying
- Planning
- Plumbing engineering
- Construction administration
- Interior design
- Electrical engineering
- Building Information Modeling (BIM)
- Environmental engineering
- Cost estimating
- Technology Systems

5
OFFICE LOCATIONS

180+
EMPLOYEE OWNERS

125
YEARS IN BUSINESS



30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

OUR QUALITY ASSURANCE / QUALITY CONTROL

Wiley|Wilson's approach to quality is another differentiator and one of the primary reasons we receive such high marks from our clients. The quality efforts our team will undertake to achieve client satisfaction are described below. Our approach to QA/QC is straightforward:

1. Clearly define UNC Greensboro's requirements and expectations.
2. Engage every team member so they understand these requirements and expectations and embrace their role in the process.
3. Constantly reinforce the importance of QA/QC at every project meeting and by embedding critical QA/QC milestones throughout the project.

To accomplish this, our QA/QC Program, which includes multi-discipline coordination, focuses on three main components: **People**, **Priority**, and **Process**.



We assign the right **People** who know the requirements and have the technical expertise to develop a cost efficient, scope compliant, and constructible design.



We make QA/QC a top **Priority**. We discuss quality at every team meeting. We stress the interconnected importance of both our people and our process. Both are critical to the successful delivery of a well-designed project.



We make sure the entire project team, including subconsultants, knows their role with emphasis on how they contribute to the QA/QC **Process** for each project.

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

QUALITY ASSURANCE (QA) - PREVENTING MISTAKES

QA starts at the very beginning of the project. Our project manager will develop a Quality Plan for each specific project that will include the following elements:

- Client expectations
- Client standards and preferences
- Critical milestones
- Project budget
- Technical requirements

Our Project Manager prepares and distributes the Quality Plan to the team members for each discipline and subconsultants. The Quality Plan is reviewed in detail at the first project kick-off meeting and subsequent milestone meetings.

Each discipline lead prepares a Basis of Design for their part of the project. These Basis of Design summaries are reviewed by senior staff within each specific discipline. The Basis of Design is updated as necessary throughout the design process and is reviewed by the other disciplines. This early cross-discipline review reinforces the importance of multi-discipline coordination.

Multi-disciplinary coordination continues as the design progresses. Design team meetings occur weekly to ensure the team stays informed and coordinated. The Project Manager monitors project progress and works with the discipline Department Managers to ensure the project is properly staffed.

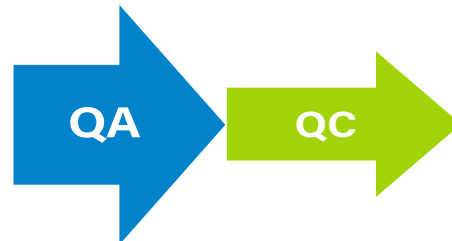
We effectively use the extensive capabilities of CAD tools to support our QA. All our discipline models are linked together from the start so team members can see real-time issues/conflicts as they arise.

QUALITY CONTROL (QC) - CATCHING MISTAKES

Although we focus heavily on QA to prevent mistakes, we are not complacent when it comes to performing rigorous QC in order to catch mistakes. We identify specific QC milestones throughout the project. These planned checkpoints keep the team continuously focused on quality. Our process utilizes senior discipline leads independent of the project team to perform QC reviews.

QC starts early on when our senior team leaders review and evaluate the conceptual approach for the project. Additional independent QC occurs during project milestones to review calculations, secondary consultants work, drawings, specifications, discipline coordination, regulatory requirements, constructability, and maintenance of operations.

QA/QC is built into our work each day through the effective use of the tools built within CAD and through our emphasis on proactive and supportive communication across all disciplines and subconsultants.



At the end of the project, we will meet with UNC Greensboro's staff to solicit feedback on our performance and satisfaction with the construction and operation of the completed project. We value all staff feedback and will incorporate any lessons learned to improve the success of future projects.

I. AUTHORIZED REPRESENTATIVE
The foregoing is a statement of facts.

31. SIGNATURE

Stephen A. Bowman

32. DATE

2/24/2026

33. NAME AND TITLE

Stephen A. Bowman, Raleigh Office Manager

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (If any)

287-19663P-DS

PART II - GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME			3. YEAR ESTABLISHED	4. UNIQUE ENTITY IDENTIFIER
Wiley Wilson			1901	LPKXSJU7N1G3
2b. STREET			5. OWNERSHIP	
5540 Centerview Drive, Suite 311			a. TYPE	
2c. CITY	2d. STATE	2e. ZIP CODE	Corporation	
Raleigh	NC	27606	b. SMALL BUSINESS STATUS	
6a. POINT OF CONTACT NAME AND TITLE			None	
Steve Bowman, PE - Senior Vice President			7. NAME OF FIRM (If block 2a is a branch office)	
6b. TELEPHONE NUMBER		6c. EMAIL ADDRESS		
919.746.8400		sbowman@wileywilson.com		
8a. FORMER FIRM NAME(S) (if any)			8b. YR. ESTABLISHED	8c. UNIQUE ENTITY ID

9. EMPLOYEES BY DISCIPLINE

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Function Code	b. Discipline	c. No. of Employees		a. Profile Code	b. Experience	c. Revenue Index Number (see below)
		(1) FIRM	(2) BRANCH			
02	Administrative	30	3	A05	Airports; Navais; Airport Lighting; Aircraft Fueling	3
06	Architect/Intern Architect	21	1	A06	Airports; Terminals & Hangers; Freight Handling	3
12	Civil Engineer/EIT	19	1	B01	Barracks; Dormitories	3
13	Communications Engineer/Designer	8	0	C13	Computer Facilities; Computer Service	4
21	Electrical Engineer/EIT	24	3	D07	Dining Halls; Clubs; Restaurants	3
37	Interior Designer	1	0	E02	Educational Facilities; Classrooms	3
38	Land Surveyor/Party Chief	2	0	E07	Energy Conservation; New Energy Sources	2
42	Mechanical Engineer/EIT	22	3	H04	Heating; Ventilating; Air Conditioning	4
48	Project Manager	18	2	H11	Housing (Residential, Multifamily, Apts, Condos)	5
57	Structural Engineer/EIT	16	0	I01	Industrial Buildings; Manufacturing Plants	5
25	Fire Protection Engineer/EIT	2	0	L01	Laboratories; Medical Research Facilities	3
	Designers	15	0	O01	Office Buildings; Industrial Parks	7
	IT Specialists	6	0	P06	Planning (Site, Installation, and Project)	5
	BIM Coordinator	1	0	P12	Power Generation, Transmission, Distribution	5
	Construction Administrator	1	0	R06	Rehabilitation (Buildings; Structures; Facilities)	6
				S04	Sewage Collection, Treatment and Disposal	5
				S10	Surveying, Platting, Mapping, Flood Plain Studies	3
				S13	Stormwater Handling & Facilities	4
				U03	Utilities (Gas and Steam)	4
				W03	Water Supply; Treatment and Distribution	6
				P13	Public Safety Facilities	4
TOTAL		186	13			

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

a. Federal Work	9
b. Non-Federal Work	8
c. Total Work	9

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than \$100,000
2. \$100,000 to less than \$250,000
3. \$250,000 to less than \$500,000
4. \$500,000 to less than \$1 million
5. \$1 million to less than \$2 million
6. \$2 million to less than \$5 million
7. \$5 million to less than \$10 million
8. \$10 million to less than \$25 million
9. \$25 million to less than \$50 million
10. \$50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE 	b. DATE February 24, 2026
c. NAME AND TITLE	

Stephen A. Bowman, PE - Chief Operating Officer

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (If any)

287-19663P-DS

PART II - GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME			3. YEAR ESTABLISHED	4. UNIQUE ENTITY IDENTIFIER
Wiley Wilson			1901	UUJJKFV5P5M5
2b. STREET			5. OWNERSHIP	
127 Nationwide Drive			a. TYPE	
2c. CITY	2d. STATE	2e. ZIP CODE	Corporation	
Lynchburg	VA	24502	b. SMALL BUSINESS STATUS	
6a. POINT OF CONTACT NAME AND TITLE			None	
Dennis Knight, PE - Chairman			7. NAME OF FIRM (If block 2a is a branch office)	
6b. TELEPHONE NUMBER		6c. EMAIL ADDRESS		
434.947.1617		dknight@wileywilson.com		
8a. FORMER FIRM NAME(S) (if any)			8b. YR. ESTABLISHED	8c. UNIQUE ENTITY ID

9. EMPLOYEES BY DISCIPLINE

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Function Code	b. Discipline	c. No. of Employees		a. Profile Code	b. Experience	c. Revenue Index Number (see below)
		(1) FIRM	(2) BRANCH			
02	Administrative	30	15	A05	Airports; Navais; Airport Lighting; Aircraft Fueling	3
06	Architect/Intern Architect	21	4	A06	Airports; Terminals & Hangers; Freight Handling	3
12	Civil Engineer/EIT	19	10	B01	Barracks; Dormitories	3
13	Communications Engineer/Designer	8	0	C13	Computer Facilities; Computer Service	4
21	Electrical Engineer/EIT	24	8	D07	Dining Halls; Clubs; Restaurants	3
37	Interior Designer	1	0	E02	Educational Facilities; Classrooms	3
38	Land Surveyor/Party Chief	2	2	E07	Energy Conservation; New Energy Sources	2
42	Mechanical Engineer/EIT	22	4	H04	Heating; Ventilating; Air Conditioning	4
48	Project Manager	18	7	H11	Housing (Residential, Multifamily, Apts, Condos)	5
57	Structural Engineer/EIT	16	4	I01	Industrial Buildings; Manufacturing Plants	5
25	Fire Protection Engineer/EIT	2	0	L01	Laboratories; Medical Research Facilities	3
	Designers	15	5	O01	Office Buildings; Industrial Parks	7
	IT Specialists	6	4	P06	Planning (Site, Installation, and Project)	5
	BIM Coordinator	1	1	P12	Power Generation, Transmission, Distribution	5
	Construction Administrator	1	0	R06	Rehabilitation (Buildings; Structures; Facilities)	6
				S04	Sewage Collection, Treatment and Disposal	5
				S10	Surveying, Platting, Mapping, Flood Plain Studies	3
				S13	Stormwater Handling & Facilities	4
				U03	Utilities (Gas and Steam)	4
				W03	Water Supply; Treatment and Distribution	6
				P13	Public Safety Facilities	4
	TOTAL	186	64			

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

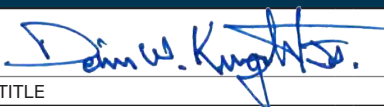
a. Federal Work	9
b. Non-Federal Work	8
c. Total Work	9

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than \$100,000
2. \$100,000 to less than \$250,000
3. \$250,000 to less than \$500,000
4. \$500,000 to less than \$1 million
5. \$1 million to less than \$2 million
6. \$2 million to less than \$5 million
7. \$5 million to less than \$10 million
8. \$10 million to less than \$25 million
9. \$25 million to less than \$50 million
10. \$50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE		b. DATE	February 24, 2026
c. NAME AND TITLE	Dennis Knight, PE - Chairman		

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (If any)

287-19663P-DS

PART II - GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME			3. YEAR ESTABLISHED	4. UNIQUE ENTITY IDENTIFIER
Wiley Wilson			1901	DA8LJLQJMLL5
2b. STREET			5. OWNERSHIP	
6800 Paragon Place, Suite 600			a. TYPE	
2c. CITY	2d. STATE	2e. ZIP CODE	Corporation	
Richmond	VA	23230	b. SMALL BUSINESS STATUS	
6a. POINT OF CONTACT NAME AND TITLE			None	
Robert C. Garner, PE - Senior Vice President			7. NAME OF FIRM (If block 2a is a branch office)	
6b. TELEPHONE NUMBER		6c. EMAIL ADDRESS		
804.254.7242		cgarner@wileywilson.com		
8a. FORMER FIRM NAME(S) (if any)			8b. YR. ESTABLISHED	8c. UNIQUE ENTITY ID

9. EMPLOYEES BY DISCIPLINE

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Function Code	b. Discipline	c. No. of Employees		a. Profile Code	b. Experience	c. Revenue Index Number (see below)
		(1) FIRM	(2) BRANCH			
02	Administrative	30	7	A05	Airports; Navais; Airport Lighting; Aircraft Fueling	3
06	Architect/Intern Architect	21	5	A06	Airports; Terminals & Hangers; Freight Handling	3
12	Civil Engineer/EIT	19	4	B01	Barracks; Dormitories	3
13	Communications Engineer/Designer	8	3	C13	Computer Facilities; Computer Service	4
21	Electrical Engineer/EIT	24	6	D07	Dining Halls; Clubs; Restaurants	3
37	Interior Designer	1	1	E02	Educational Facilities; Classrooms	3
38	Land Surveyor/Party Chief	2	0	E07	Energy Conservation; New Energy Sources	2
42	Mechanical Engineer/EIT	22	9	H04	Heating; Ventilating; Air Conditioning	4
48	Project Manager	18	4	H11	Housing (Residential, Multifamily, Apts, Condos)	5
57	Structural Engineer/EIT	16	5	I01	Industrial Buildings; Manufacturing Plants	5
25	Fire Protection Engineer/EIT	2	1	L01	Laboratories; Medical Research Facilities	3
	Designers	15	3	O01	Office Buildings; Industrial Parks	7
	IT Specialists	6	2	P06	Planning (Site, Installation, and Project)	5
	BIM Coordinator	1	0	P12	Power Generation, Transmission, Distribution	5
	Construction Administrator	1	1	R06	Rehabilitation (Buildings; Structures; Facilities)	6
				S04	Sewage Collection, Treatment and Disposal	5
				S10	Surveying, Platting, Mapping, Flood Plain Studies	3
				S13	Stormwater Handling & Facilities	4
				U03	Utilities (Gas and Steam)	4
				W03	Water Supply; Treatment and Distribution	6
				P13	Public Safety Facilities	4
	TOTAL	186	51			

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

a. Federal Work	9	1. Less than \$100,000	6. \$2 million to less than \$5 million
b. Non-Federal Work	8	2. \$100,000 to less than \$250,000	7. \$5 million to less than \$10 million
c. Total Work	9	3. \$250,000 to less than \$500,000	8. \$10 million to less than \$25 million
		4. \$500,000 to less than \$1 million	9. \$25 million to less than \$50 million
		5. \$1 million to less than \$2 million	10. \$50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE		b. DATE	February 24, 2026
c. NAME AND TITLE	Robert C. Garner, PE - Senior Vice President		



CONSTANT PROGRESS



ALEXANDRIA | ATLANTA | LYNCHBURG | RALEIGH | RICHMOND



Finance and Administration Committee
March 17, 2026

Action Item

FAC - 3 Selection of Designer – Moore Strong Plumbing Renovation

Background Information

The Moore Strong residence hall was constructed in 1961. The project will replace the aging plumbing fixtures and the supporting infrastructure with modern, accessible, and code-compliant materials and systems. The scope will include plumbing modernization of all common, multi-fixture, high-density washrooms and the common kitchen areas. The work will also update the existing electrical heaters in large multi-fixture rooms and create at least one new single-use shower facility in each building wing. The construction target is Summer 2027.

Per the November 11, 2025, BOT meeting, the Finance and Administration Committee approved **\$422,500** for **Advance Planning** (design and commissioning) for the Moore Strong Plumbing Renovation project.

Project Cost: \$4,225,000

The University of North Carolina System website advertised the request for qualifications and letters of interest for design services for this project. Nine (9) firms submitted letters of interest, two (2) from Guilford County.

The Designer Selection Committee reviewed the letters of interest and invited three (3) firms to interview on March 2nd and March 3rd, 2026, to present their qualifications and recommend the following in ranking order.

1. McKim & Creed, Inc., Raleigh, NC
2. Newcomb & Boyd, Durham, NC
3. CPL Architects and Engineers, P.C., Greensboro, NC

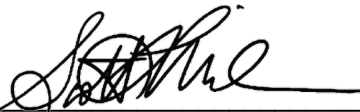
The firm McKim & Creed, Inc. is recommended as the Designer for the following reasons:

1. McKim & Creed assembled and demonstrated the most technically specialized team to strategically undertake this complex Housing plumbing modernization project.
2. McKim & Creed presented the most comprehensive methodology and deepest understanding of the project's unique, specific, and specialized challenges.

3. The McKim & Creed team presented the most proactive cost estimating strategy, through the development of both an in-house estimate and acquiring a separate external professional cost estimate to mitigate risk throughout the design process.

Requested Action

Based on the above information, the Board of Trustees of the University of North Carolina at Greensboro approves the firm of McKim & Creed, Inc. for the Moore Strong Plumbing Renovation project. If agreeable terms cannot be met with the recommended firm, then the Board authorizes the administration to negotiate terms with the other firms in ranking order.



Scott Milman
Interim Vice Chancellor for Finance *and* Facilities

Attachments:

- McKim & Creed, Inc. Letter of Interest



RFQ # 287-30705-DS

ELECTRONIC

UNC Greensboro

MOORE STRONG PLUMBING RENOVATION

JANUARY 28, 2026

SUBMITTED TO:

UNC GREENSBORO

105 Gray Drive | Greensboro, NC

336.334.5269

SUBMITTED BY:

MCKIM & CREED, INC.

4300 Edwards Mill Rd, Suite 200 | Raleigh, NC

919.233.8091 | mckimcreed.com



MCKIM & CREED
ENGINEERS SURVEYORS PLANNERS



1 INFO SHEET





Information Sheet

Firm Name

HUB Certified **If HUB, Specify Type** Female American Indian Hispanic Socially & Economically Disadvantaged
 Disabled Asian-American Black

Point of Contact E-mail Address

Street Address

City State Zip Code County

Phone # Fax #

Type of Firm (e.g. Architectural, Civil Engineering, Surveying, Etc)

Consulting Firms

Architectural:	<input type="text" value="KEI"/>	<input checked="" type="checkbox"/> Check If HUB	Mechanical:	<input type="text" value="McKim & Creed, Inc."/>	<input type="checkbox"/> Check If HUB
Electrical:	<input type="text" value="McKim & Creed, Inc."/>	<input type="checkbox"/> Check If HUB	Plumbing:	<input type="text" value="McKim & Creed, Inc."/>	<input type="checkbox"/> Check If HUB
Structural:	<input type="text"/>	<input type="checkbox"/> Check If HUB	Civil:	<input type="text"/>	<input type="checkbox"/> Check If HUB
Landscape:	<input type="text"/>	<input type="checkbox"/> Check If HUB	Interior Design:	<input type="text"/>	<input type="checkbox"/> Check If HUB
Other (specify type):	<input type="text" value="35 N (Cost Estimating)"/>			<input checked="" type="checkbox"/> Check If HUB	
Other (specify type):	<input type="text" value="F&R (Environmental Consulting)"/>			<input checked="" type="checkbox"/> Check If HUB	



2 COVER LETTER

January 28, 2026

Jeff Manter
UNC Greensboro Facilities Design & Construction
Gray Home Management House
105 Gray Drive
Greensboro, NC 27412



RE: UNCG Moore Strong Plumbing Renovation

Dear Mr. Manter and members of the Selection Committee:

Modernizing plumbing systems is essential for UNCG to maintain safe, functional, and comfortable living environments while supporting its mission to foster intellectual inquiry, prepare students for engaged citizenship, and serve as a source of innovation and leadership for the communities it serves. With Moore Strong Residence Hall requiring significant plumbing upgrades, UNCG seeks a design team with proven expertise in plumbing infrastructure to evaluate modernization options, improve efficiency, and deliver solutions that meet project goals on time and within budget. McKim & Creed understands the unique challenges of renovating aging residence halls and has extensive experience replacing outdated fixtures, upgrading multi-fixture washrooms and common kitchens, and integrating modern systems such as electric/gas water heaters, and implementing smart and efficient DHW controls strategies. Our team excels at developing comprehensive advanced planning strategies, including detailed assessments, phasing concepts, and cost evaluations, to establish a clear strategy that minimizes future disruption and ensures successful execution when the project moves into design and construction.

Beyond technical capability, we bring extensive experience with the State Construction Office (SCO), giving us insight into bid market conditions and equipment pricing. This expertise strengthens our cost estimating process, ensuring accurate budgets during advanced planning. Leveraging our SCO knowledge will help UNC Greensboro streamline approvals and set a clear, realistic roadmap for Moore Strong's plumbing modernization.

McKim & Creed will work with the project team and UNCG staff to meet the goals and objectives of this project. We are a design consultant that offers the following:

<p>▶ COLLABORATION</p> <p>Collaboration with UNCG is crucial for project success and effective issue management. Our team will engage staff throughout the project life cycle to confirm mutual objectives, understand UNCG's goals, and ensure seamless coordination, maximizing value within budget.</p>	<p>▶ EXPERIENCE</p> <p>With 47+ years of experience working in the higher education sector, we are intimately familiar with designing for a university campus context as well as the ins and outs of SCO codes, standards and processes. Our direct experience with UNCG means we know what to expect to meet project goals, schedules and budgets.</p>	<p>▶ LONG-TERM SOLUTIONS</p> <p>Our team will work with UNC Greensboro to identify best-fit, long-term solutions for this project. We will involve UNCG facilities and maintenance staff in equipment selection for ease of management and efficiency, ensuring success for the long-term.</p>	<p>▶ PHASING & SCHEDULING</p> <p>Our team understands that construction will need to be completed while campus facilities remain occupied and recognizes the importance of providing clear scheduling and phasing requirements in construction documents. We will coordinate closely with the contractor, design team, and UNCG staff to develop workable phasing strategies that minimize disruption and adhere to SCO and UNCG project requirements.</p>
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McKim & Creed has the expertise, resources, and team to exceed the requirements of this project. Our experience with higher education plumbing renovations, familiarity with the UNCG campus, and deep knowledge of SCO requirements position us as a highly qualified partner. We will provide accurate assessments and reliable cost estimates during advanced planning to ensure long-term operational reliability. We look forward to the opportunity to serve UNCG and help modernize Moore Strong for safe, functional, and comfortable student living spaces.

Sincerely,

Josh Berard | McKim & Creed

Project Manager
607.743.1437 | jberard@mckimcreed.com



3

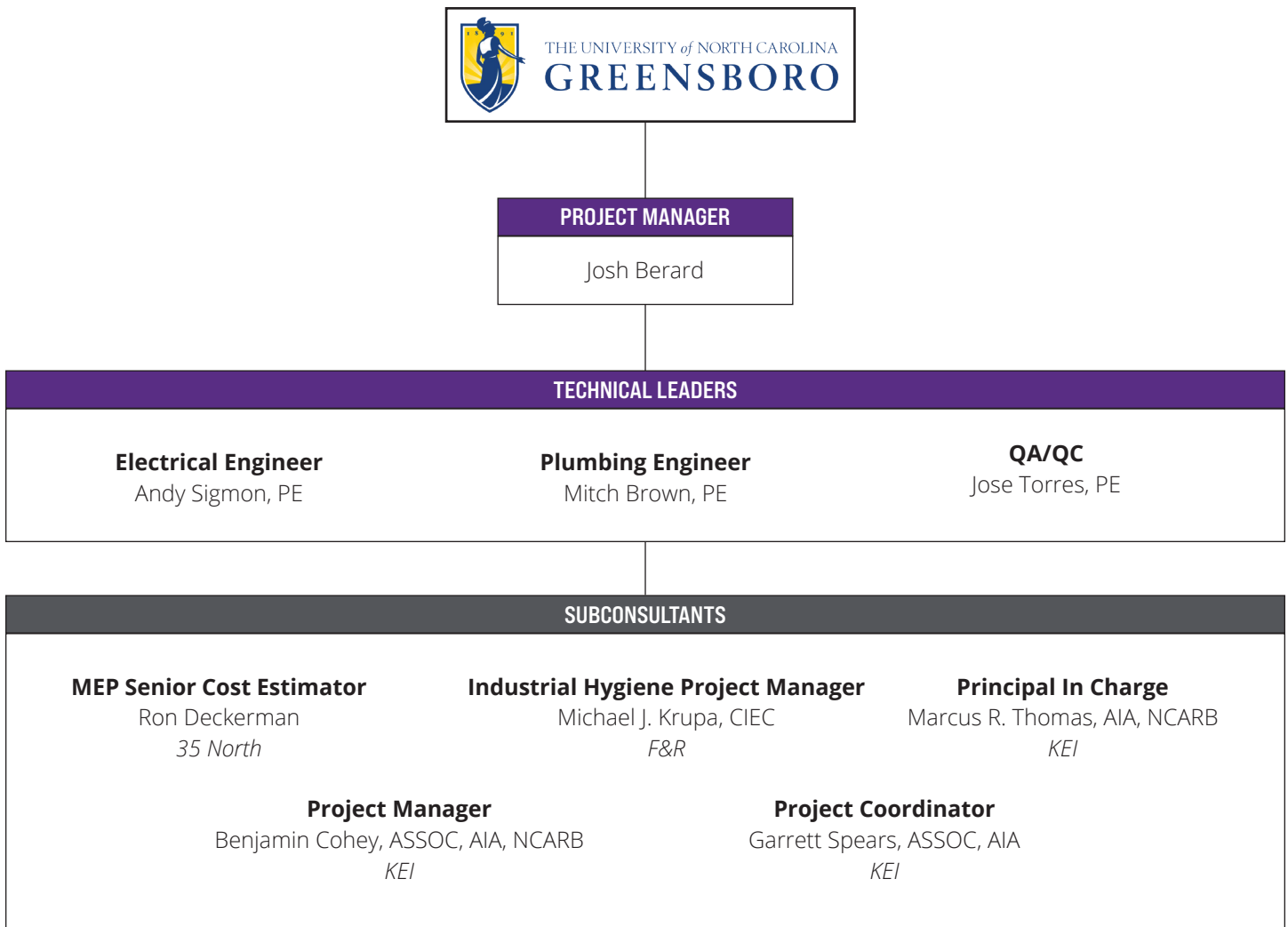
PROJECT TEAM ORGANIZATION CHART

3.1 ADEQUATE STAFF AND PROPOSED DESIGN OR CONSULTANT TEAM AND THEIR RELEVANT PROJECT EXPERIENCE

Our commitment and focus as a firm is to maintain the highest standards of service and quality while meeting our clients' technical, schedule and budget constraints. Our project team will function as an extension of the UNC Greensboro staff, making themselves readily available for hands-on support for this project. This will facilitate the quick identification of challenges resulting in unique, customizable solutions that are best suited for projects of this exact type. Our team brings over 100 years of combined MEP/FP experience to the project with consulting engineering and owner-side experience in design, operations, energy management, and maintenance.

Josh Berard will serve as our project manager for the duration of this project. He will act as the primary point of contact and will focus on project delivery, schedule, budget and resources. Supporting Mr. Berard is Electrical Engineer Andy Sigmon, PE; Plumbing Engineer Mitch Brown, PE; and QA/QC Jose Torres, PE. We also have Ron Deckerman from 35 North joining our team to provide cost estimating services to accurately assess the intention of the design, suggest improvements as needed, and predict other needs that might not yet be reflected on paper. Michael J. Krupa, CIEC, with Froehling & Robertson, Inc. (F&R), a SWaM and HUB minority-owned business, will provide environmental/hazardous materials abatement services to address any environmental risks and liabilities. Principal-In-Charge Marcus R. Thomas, AIA, NCARB; Project Manager Benjamin Cohey, ASSOC, AIA, NCARB and Project Coordinator Garrett Spears, ASSOC, AIA from KEI will be joining our team to provide architectural services, ensuring SCO and UNGC standards for safety, student experience, and long-term maintainability through coordinated design, room layout refinement, and compliance documentation.

Each team member has experience working with plumbing infrastructure and serving higher education facilities, particularly related to residence halls, and understands the needs of colleges and universities for these types of projects. Additionally, the McKim & Creed team has more than 130 MEP/FP professionals across our footprint who can serve this project should the need arise.





Josh Berard

PROJECT MANAGER

QUALIFICATIONS

- ✔ 15+ Years of Experience
- ✔ 8+ Years with McKim & Creed
- ✔ HVAC
- ✔ Hydronics
- ✔ Fire Protection
- ✔ Steam
- ✔ Plumbing

EDUCATION

B.S., Mechanical Engineering, State University of New York at Buffalo

AFFILIATIONS

American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE)

Mr. Berard has 15+ years' experience in HVAC and plumbing consulting working as a designer and project manager. Management of his projects includes successfully driving on-time completion while balancing both the construction budget and the owner's needs and requirements. On the design side, he has a demonstrated history involving domestic water, sanitary, and fire protection systems. Additionally, Mr. Berard is knowledgeable with regards to state building codes, NFPA requirements and ASHRAE guidelines.

► Project Experience

NCSSM Dorm Renovations, NC School of Science and Math / Durham, NC: Mr. Berard is serving as project manager and plumbing designer. McKim & Creed is providing MEP services for this project to renovate and upgrade six student residence halls at NCSSM. The project scope included an initial advanced planning phase to assess all residence halls and associated MEP upgrades. The renovations include upgrading MEP central systems, individual and community restrooms, furnishings in the rooms and lounges, and all adult apartments that are used by live-in staff members. Our scope included replacing the existing plumbing piping systems providing new exhaust fans and ductwork, replacing select air handling units, and providing MEP modifications to support architectural renovations (new lighting, receptacle layout modifications, and new diffusers). Size & Cost: 200,000 SF | \$10 million.

UNC CH Granville Towers HVAC Replacement, UNC Chapel Hill / Chapel Hill, NC: Mr. Berard served as mechanical designer. McKim & Creed responded to an urgent need from UNC Chapel Hill to replace the existing mechanical systems in three high rise residence halls, Granville Towers. The original systems were installed over 60 years ago when designers didn't have the understanding for controlling humidity as well as we do now. This resulted in mold growth in and around the restrooms and system replacement was a must, and schedule was the biggest driver. McKim & Creed explored different HVAC system solutions including considerations for budget, space, phasing, and performance. The best system type was determined to be dedicated outside air handlers coupled with variable refrigerant flow (VRF) room control.

FSU Hood, Harris & Joyner Residence Hall HVAC Replacements, Fayetteville State University / Fayetteville, NC: Mr. Berard served as mechanical designer. McKim and Creed provided MEP/FP design services for these HVAC replacement projects for Harris, Joyner and Hood Residence Halls to replace the existing fan coil units. The units in Harris and Joyner are ceiling mounted and were changed to vertical floor mounted units. The units in Hood were replaced with similar units. The project included replacing the dielectric union gaskets and insulation on the existing piping to prevent condensation during cooling mode. Size & Cost: Hood Hall (17,562 SF) / Harris Hall (24,735 SF) / Joyner Hall (22,031 SF) | Approx \$1.5 million.

UNC CH Everett, Lewis & Stacy Residence Hall HVAC Replacement, UNC Chapel Hill / Chapel Hill, NC: Mr. Berard provided mechanical design support. McKim & Creed responded to an urgent need from UNC Chapel Hill to replace the existing mechanical systems in three high rise residence halls —Granville Towers. The original systems were installed over 60 years ago when designers didn't have the understanding for controlling humidity as well as we do now. This resulted in mold growth in and around the restrooms and system replacement was a must, and schedule was the biggest driver. McKim & Creed explored different HVAC system solutions including considerations for budget, space, phasing, and performance. The best system type was determined to be dedicated outside air handlers coupled with variable refrigerant flow (VRF) room control.



Andy Sigmon, PE

SENIOR ELECTRICAL ENGINEER

QUALIFICATIONS

- ✔ 30+ Years of Experience
- ✔ Low Voltage
- ✔ Electrical Power Distribution
- ✔ Emergency Generators

EDUCATION

B.S., Electrical Engineering,
North Carolina State
University

LICENSURE & CERTIFICATIONS

Professional Engineer: NC
(#027325)

AFFILIATIONS

Professional Engineers of
North Carolina (PENC)

North Carolina Board of
Examiners for Engineers and
Land Surveyors (NCBELS)

Mr. Sigmon has 30+ years of experience in electrical design and application. He has been involved with consultation, electrical design, electrical specification writing and construction administration for institutional, educational, commercial and industrial facilities. His design responsibilities have included lighting, power, emergency generator, fire alarm, security, and communications systems.

► Project Experience

UNCG Bryan Building Air Handling Unit Replacement, UNC Greensboro / Greensboro, NC: Mr. Sigmon served as electrical engineer. McKim & Creed was selected to perform design, bidding, and construction administration services to replace Air Handling Unit #3 for the Bryan Building at UNC Greensboro. This is an informal project, with McKim & Creed being selected under our campus annual service agreement for engineering services. The scope of this project includes the complete replacement of Air Handling Unit #3 that serves the existing auditorium in the building. McKim & Creed provided load calculations to verify unit sizing, conducted meetings with UNC Greensboro staff to review and address controls strategies (in particular humidity control), and provided detailed air handling unit selections to ensure the dimensions of the air handling unit fit the space available while providing space needed for future maintenance and access. Electrical work included a new power feed for the fan motor and associated variable frequency drive, and also integration of new duct smoke detectors into the fire alarm system. A new floor drain was also designed for the mechanical room.

UNCG Coleman Building Fire Alarm System Replacement, UNC Greensboro / Greensboro, NC: Mr. Sigmon served as project manager. The Coleman building at UNC Greensboro needed upgrades to its fire alarm system to ensure a safe environment for all its occupants. McKim & Creed's scope included a complete fire alarm system replacement throughout the building (approximately 265K SF) and upgrading the system to an addressable fire alarm system that includes mass notification and voice evacuation per UNC Greensboro Design & Construction and SCO guidelines. Our team also modified the detection system, which included upgrades to the smoke detectors, duct detectors and beam detectors. The building will remain occupied during construction.

UNCG Phillips Hawkins Fire Alarm Upgrades, UNC Greensboro / Greensboro, NC: Mr. Sigmon served as project manager. McKim & Creed's scope included replacing the existing addressable fire alarm system, adding mass notification and addressing ADA deficiencies along with additional work to install security cameras for improved safety. The project also included the addition of a 100kW/125kVA standby generator to serve life safety loads including emergency lighting, and optional standby loads including an elevator. The total budget for the project is \$1.2M.

NCSSM Dorm Renovations, NC School of Science and Math / Durham, NC: Mr. Sigmon is serving as electrical engineer. McKim & Creed is providing MEP services for this project to renovate and upgrade six student residence halls at NCSSM. The project scope included an initial advanced planning phase to scope all residence halls and associated MEP upgrades. The renovations include upgrading MEP central systems, individual and community restrooms, furnishings in the rooms and lounges, and all adult apartments that are used by live-in staff members. Our scope included replacing the existing plumbing piping systems providing new exhaust fans and ductwork, replacing select air handling units, and providing MEP modifications to support architectural renovations (new lighting, receptacle layout modifications, and new diffusers). Size & Cost: 200,000 SF | \$10 million.



Mitch Brown, PE

PLUMBING ENGINEER

QUALIFICATIONS

- ✔ HVAC
- ✔ Plumbing Systems
- ✔ Medical Gas Systems
- ✔ Boiler and Chiller Plants

EDUCATION

B.S., Mechanical Engineering,
NC State University

LICENSURE & CERTIFICATIONS

Professional Engineer: NC
(#019692)

AFFILIATIONS

American Society of
Heating, Refrigeration and
Air Conditioning Engineers
(ASHRAE)

Mr. Brown is a professional engineer with 37+ years' experience. His principal areas of experience include the design of HVAC systems, plumbing systems, medical gas systems, steam and condensate systems, boiler and chiller plants and facility condition assessments.

► Project Experience

UNC CH Granville Towers HVAC Replacement, UNC Chapel Hill / Chapel Hill, NC: Mr. Brown served as mechanical designer. McKim & Creed responded to an urgent need from UNC Chapel Hill to replace the existing mechanical systems in three high rise residence halls, Granville Towers. The original systems were installed over 60 years ago when designers didn't have the understanding of how to control humidity as well as we do now. This resulted in mold growth in and around the restrooms and system replacement was a must, and schedule was the biggest driver. McKim & Creed explored different HVAC system solutions including considerations for budget, space, phasing, and performance. The best system type was determined to be dedicated outside air handlers coupled with variable refrigerant flow (VRF) room control.

NCSU Kilgore, Scott & Thomas HVAC Renovations, NC State University / Raleigh, NC: Mr. Brown is serving as plumbing and fire protection engineer. This project is a major, phased infrastructure upgrade focused on three buildings on NC State University's North Campus. With a total budget of \$24.3 million, the project addresses deficiencies in mechanical, electrical, plumbing, and fire protection systems, ensuring compliance with NC State Building Codes and regulatory laboratory requirements. The renovations are scheduled in phases to minimize disruption to ongoing academic and research activities. The primary goal of this project is to modernize these facilities to support advanced research and teaching in science and engineering fields. Upgrades will enhance the functionality and safety of laboratories and classrooms, creating an improved environment for scientific discovery and innovation.

UNCSA Sanford & Moore Residence Halls HVAC Replacement, UNC School of the Arts / Winston-Salem, NC: Mr. Brown provided plumbing and fire protection engineering services. As prime consultant, McKim & Creed completed a project study and HVAC upgrades. The HVAC upgrades project included new central HVAC systems and associated electrical power renovations for two new air-cooled chillers, four new boilers, two new domestic water heaters, and associated piping, pumps, and controls system upgrades. The existing chillers served each building separately, but the new chillers were tied together to provide partial redundancy to both buildings. Multiple boilers and pumps were provided to improve redundancy if a single piece of equipment were to fail. This project was completed on time, under budget and prior to students returning to campus.

FSU New Science & Technology Building, Fayetteville State University / Fayetteville, NC: Mr. Brown served as a plumbing and fire protection engineer for the new 55,000 SF Science and Technology Building. An award-winning, LEED Silver-certified project, the building complies with State Construction Office guidelines regarding sustainability to reduce energy and water consumption. A life cycle cost analysis was provided, and energy conservation strategies were put into place that included high-efficiency water-cooled chillers with a variable secondary flow system, high-efficiency condensing type boilers and water heaters, energy recovery for exhaust/outside air streams, high-efficiency T-5 HO lighting and lighting controls, and high-performance glazing and increased insulation values for the building envelope. Low-flow plumbing fixtures were utilized as part of a water reduction strategy.



Jose Torres, PE

QA/QC

QUALIFICATIONS

- ✔ 24+ Years of Experience
- ✔ Healthcare
- ✔ Project Planning
- ✔ Project Estimation
- ✔ Energy Conservation
- ✔ Construction Drawings
- ✔ Sustainable Design
- ✔ Value Engineering

EDUCATION

M.B.A., Business Administration, Wake Forest University

B.S., Mechanical Engineering, North Carolina State University

LICENSURE

Professional Engineer: NC (# 031493)

AFFILIATIONS

- ASHRAE
- NCHEA
- ASHE

Mr. Torres brings 24+ years of experience, with a proven track record of designing and implementing efficient and effective mechanical systems. Mr. Torres possesses extensive knowledge of HVAC, plumbing, and fire protection systems, and has a strong understanding of industry codes and regulations

▶ Project Experience

NCSU Polk Hall Renovation, NC State University / Raleigh, NC: Mr. Torres is providing QA/QC services. McKim & Creed is providing MEP services for the \$73 million renovation of Polk Hall (completed in 1926), which houses the Structural & Molecular Biochemistry and Animal Science departments. The project aims to enhance labs and student spaces and includes modernizing mechanical, electrical, and plumbing systems. Specific upgrades involve the fire alarm system, electrical switchgear, building power panels, air handling units, medium pressure ductwork, lab exhaust systems, lighting controls, and plumbing infrastructure. McKim & Creed led discussions in the planning phase for high-efficiency lab HVAC systems. The goal is to modernize the facility to support program growth and expansion.

FSU Butler & Telecom Building Renovations, Fayetteville State University / Fayetteville, NC: Mr. Torres is providing QA/QC services. Fayetteville State University selected McKim & Creed as the prime consultant to address outdated mechanical and electrical infrastructure in the G.L. Butler and Telecommunications buildings. For the G.L. Butler Building (which houses the Drama and Theater program (and the Butler Theater) of the Department of Performing & Fine Arts), the project includes fire alarm system replacement for code compliance, inspection and repair of air handlers on upper floors, and the installation of VAV boxes and new ductwork for better temperature control. The Telecommunications Building project involves the removal of DX units, installation of air handlers and VAV boxes, connection to the campus chilled water loop, and system upgrades including an emergency generator and fire alarm replacement.

WTCC Perry New Science & Health Education Building, Wake Tech Community College / Raleigh, NC: Mr. Torres is serving as mechanical engineer. McKim & Creed is providing mechanical, electrical, plumbing, and fire protection system design for the 106,000 SF Wake Technical Community College (WTCC) Perry Health Science Campus new Health Sciences building. This building will serve as the campus's state of the art hub for healthcare staff training with a direct adjacency to WakeMed for collaboration. Included in this building are simulation patient rooms, an ED, an OR, ultrasound training bays as well as functioning X-ray, MRI, and CT scanning spaces. This project consists of a unique balance of energy efficiency for Green Globes certification while maintaining robust systems that will meet the school's needs. Overall mechanical systems include penthouse air handlers, boilers and utility yard residing air cooled chillers.

NC Education Campus, State of North Carolina / Raleigh, NC: Mr. Torres is serving as mechanical engineer. McKim & Creed is providing mechanical, electrical, plumbing, and fire protection engineering services for the North Carolina Education Campus project. This new campus will support multiple executive-level agencies, including the Department of Commerce, Department of Public Instruction, Community Colleges System, and the UNC System. The building includes 300,000 SF of office space, high-technology board rooms and conference rooms, support space, and a below-grade parking deck. McKim & Creed's scope includes upgrades to underground chilled water distribution loop that will assist NCDOA with its long-term system upgrades plans. The project is currently in construction documents phase and the total budget is \$320 million.



Ron Deckerman

MEP SENIOR COST ESTIMATOR

Location: Durham, NC

Experience: 32 Years

QUALIFICATIONS

- ✔ 32+ years of industry experience + vast knowledge in MEP design development that exceeds the standard understanding of drawings and specifications

EDUCATION

B.A. in Humanities/Classical Studies, Biola University (Magna Cum Laude)

Ron brings over 32 years of experience in preconstruction services managing high-intensity projects at facilities across the country. He has provided cost estimating support for design projects ranging from \$25,000 to over \$900 million for education, healthcare, municipal, and federal sectors, among others. Ron successfully provides advanced planning, construction cost milestone estimating, and value engineering for all design phases for new facilities and renovations. He specializes in complex MEP estimating. Ron has a deep knowledge of plumbing, mechanical, and electrical utilities, coupled with a strong understanding of project requirements.

▶ Project Experience

- » **UNC Charlotte Cone Center - Restroom Addition**, University of North Carolina at Charlotte / Charlotte, NC
- » **NCSU Tri Towers Residence Hall Mechanical System Upgrade**, North Carolina State University / Raleigh, NC
- » **UNC Charlotte Friday HVAC & Electrical Repairs**, University of North Carolina at Charlotte / Charlotte, NC
- » **ECU Todd Dining Hall Renovation**, East Carolina University / Greenville, NC



Michael J. Krupa, CIEC

INDUSTRIAL HYGIENE PROJECT MANAGER

Location: Raleigh, NC

Experience: 30 Years

QUALIFICATIONS

- ✔ Over 30 years of experience in hazardous materials consulting
- ✔ Vast project collaborations with McKim & Creed including higher education institutions

EDUCATION

B.A., Geology, Rutgers University

M.S., Occupational Safety & Health, Environmental Management

LICENSURE

Asbestos Inspector, Asbestos Air Monitor, Asbestos Project Designer, Asbestos Management Planner / Lead Based Paint Inspector/Risk Assessor

Mr. Krupa is an Industrial Hygienist with extensive environmental project experience that has provided him with detailed industry knowledge and strong management and leadership skills. Mr. Krupa manages, conducts and assists with Indoor Air Quality Studies and Mold/Moisture Assessments, Hazardous Materials Inspections (including asbestos, lead-based paint, PCBs, mercury, universal waste, etc.), Industrial Hygiene Studies (including airborne chemical contaminants, noise, etc.), and Asbestos Air Monitoring activities. He develops reports and remediation designs and manages an assortment of industrial hygiene projects. Mr. Krupa also has experience in the development and maintenance of Respiratory Protection Programs and Personal Protective Equipment (PPE) Programs. **Mr. Krupa will help identify, mitigate and find solutions to any environmental risks and liabilities that may develop.**

▶ Project Experience

- » **Carver Hall Hazardous Materials Survey**, NC A&T / Greensboro, NC
- » **Coleman Athletic Center Building Fire Alarm Upgrade**, UNC Greensboro / Greensboro, NC
- » **Berryhill Hall**, UNC Chapel Hill / Chapel Hill, NC
- » **Everett, Lewis, & Stacy Residence Halls**, UNC Chapel Hill / Chapel Hill, NC
- » **Sitterson Hall Classroom Renewal**, UNC Chapel Hill / Chapel Hill, NC



Marcus R. Thomas, AIA, NCARB

PRINCIPAL-IN-CHARGE

Location: Charlotte, NC

Experience: 10 Years

QUALIFICATIONS

- ✔ 10+ Years of Experience
- ✔ Higher education
- ✔ LEED design
- ✔ BIM proficiency

EDUCATION

Master of Architecture,
Hampton University

LICENSURE

Registered architect: NC, VA,
SC, TN

Marcus brings experience from across a number of market sectors including, Sports & Entertainment, Higher Education, K-12, and Healthcare, overseeing the design and documentation of projects such as the \$14 Million North Charleston Athletic Center, \$12 Million Charleston Southern Residence Hall, and \$4 Million Barton College Athletic Stadium. Marcus has a reputation for efficient documentation throughout all design phases. He is proficient in BIM project execution and designing for LEED accreditation, consistently delivering his projects on time and within budget. Marcus has a keen understanding of how to build successful Owner/Architect relationships. Representative experience.

▶ Project Experience

- » **Hampton University Admin Building Renovation**, Client / Hampton, VA
- » **VSU HVAC Replacements**, Virginia State University / Petersburg, VA
- » **NCCU Art Museum**, NC Central University / Durham, NC
- » **WTCC Therapeutic Massage Renovation**, WTCC / Raleigh
- » **Lakeview Hall Renovation**, University of Richmond / Richmond, VA



Benjamin Cohey, ASSOC, AIA, NCARB

PROJECT MANAGER

Location: Charlotte, NC

Experience: 23 Years

QUALIFICATIONS

- ✔ 23+ Years of Experience
- ✔ Project management
- ✔ Higher education projects

EDUCATION

Bachelor of Architecture,
UNC Charlotte

A.A., Architecture, Anne
Arundel Community College

Ben Cohey is a seasoned project manager and technical design expert with a rich portfolio in higher education and complex architectural projects. With a Bachelor of Architecture from the University of North Carolina at Charlotte and an Associate degree in Architecture Anne Arundel Community College, Ben combines a solid academic foundation with extensive hands on experience in managing diverse and technically challenging initiatives.

▶ Project Experience

- » **Hampton University Admin Building Renovation**, Client / Hampton, VA
- » **Lakeview Hall Renovation**, University of Richmond / Richmond, VA
- » **North Elm Medical Office Building** / Greensboro, NC
- » **Cary Academy Classroom Addition** / Cary, NC
- » **WTCC Therapeutic Massage Renovation**, WTCC / Raleigh
- » **NCCU Art Museum**, NC Central University / Durham, NC
- » **Charleston Southern Residence Hall**, Charleston Southern University / Charleston, SC



Garrett Spears, ASSOC, AIA

PROJECT COORDINATOR

Location: Charlotte, NC

Experience: 9 Years

QUALIFICATIONS

- ✔ 9+ years of experience
- ✔ Revit experience
- ✔ Higher education

EDUCATION

Bachelor of Architecture,
Tuskegee University

As a Project Architect, Garrett launched his career 7 years ago where he focused on Sports & Recreation, Higher Education, K-12, Healthcare, and Community based projects. As a skilled designer, he uses the latest technology platforms such as Revit, Lumion, Enscape, and BIM (Building Information Modeling) to help create 3d models, renderings, and videos to help engage with clients to review and approve product selection. Garrett's passion is using design to help people feel comfortable in their abilities.

► Project Experience

- » **Cary Academy Classroom Addition** / Cary, NC
- » **Karl Strass Track Replacement** / Asheville, NC
- » **Health and Wellness Complex**, Claflin University / Orangeburg, SC
- » **NCCU Art Museum**, NC Central University / Durham, NC
- » **Charleston Southern Residence Hall**, Charleston Southern University / Charleston, SC



4

RELEVANT EXPERIENCE & OTHER
IMPORTANT FACTORS

4.1 SPECIALIZED OR APPROPRIATE EXPERTISE IN THE TYPE OF PROJECT

ABOUT MCKIM & CREED

Since 1978, McKim & Creed has been a company of people helping people solve complex, demanding infrastructure challenges, and that history continues to shape who we are as a firm. Because we remain grounded in tradition, accountability, and integrity while also embracing adaptability, innovation, and new technology, we have the capacity to fulfill our mission with nothing less than exceptional engineering and geomatics solutions.

We are a Top 500 Design Firm in the US as ranked by Engineering News Record. Our Buildings, Energy and Infrastructure (BEI) team includes 130+ full-time MEP/FP experts with a broad resume of projects for educational, state agencies, healthcare and municipal clients. With decades of experience providing MEP services to higher education clients, our team is well-positioned to dive right into this project with the confidence and knowledge that we can provide UNCG with customized and innovative engineering solutions. We also have established experience as a prime designer on State Construction Office (SCO) projects.

EXPERIENCE

With more than 47 years of experience, our team has successfully delivered numerous plumbing renovation projects, including extensive work in higher-education and residence halls. We have deep expertise serving as the prime consultant on large-scale plumbing modernization efforts, providing clear and consistent communication with the client team from initial planning through project completion. As prime consultant, we guide the project through every phase, facilitating collaboration among stakeholders, managing project schedules and budgets, ensuring regulatory compliance, and delivering innovative solutions that align with the client's vision and operational goals.

The McKim & Creed team has extensive experience in plumbing system replacement, renovation and modernization, including the renewal of aging fixtures piping systems, valves, and supporting infrastructure, as well as upgrades to high-density multi-fixture washrooms and common area plumbing. This experience equips us with a strong

project understanding, enabling us to consistently meet project goals, schedules, and budgets.

McKim & Creed has led plumbing renovations in numerous higher education facilities, including North Carolina Central University, Wake Tech Community College, A-B Tech and NC State University. For each of these projects, McKim & Creed evaluated a range of plumbing system modernization strategies, including replacement of aging fixtures, upgrades to supporting infrastructure, and improvements to high-density multi-fixture washrooms to enhance reliability, accessibility, code compliance and overall system performance.

When completing this type of project, there are numerous steps to take, but we've learned from experience that the success of these projects greatly hinges on four (4) fundamental questions for UNCG.

- » How do we design for plumbing infrastructure upgrades in an occupied residence hall to minimize disruptions to students and staff?
- » Are we familiar with UNCG's design standards and submission requirements for plumbing modernization projects?
- » What are the most effective ways to engage the full project team and strategies that support a smooth renovation process?
- » Do we have a clear understanding of the project goals and the needs of end users?

These are fundamental questions we have addressed while completing plumbing and other engineering-led MEP projects throughout the years. However, the one (1) common ingredient to the success of these projects is the same: **constant communication while creating a collaborative dialogue with the entire project team to lead to the best-customized solution.**

Our team has a strong history of providing this level of communication and client-focused service at UNCG and across the UNC System. For the Moore Strong Plumbing Renovation, we will maintain clear coordination through regularly scheduled meetings from Schematic Design through Closeout to support decisions related to fixture replacements, piping upgrades, washroom modernization, accessibility, and related infrastructure. McKim & Creed is highly experienced in delivering plumbing renovation projects by proactively planning around SCO review periods, bid schedules, shop drawing submittals, and material delivery timelines to keep the project on track and responsive to the University's needs.



TECHNICAL APPROACH & RISK MITIGATION

McKim & Creed integrates multidisciplinary building engineering expertise with a structured Advanced Planning methodology tailored to UNCG's objectives. In this phase, our focus is on defining feasible modernization pathways, validating scope, and developing clear options that reflect the constraints of the project. We emphasize early engagement with UNCG stakeholders, careful review of existing building conditions, and planning-level constructability considerations to ensure recommended approaches are aligned with the projected budget, anticipated schedule, and the construction window.

As part of this effort, we review existing building conditions to identify system constraints and modernization opportunities. This includes assessing current restroom layouts, evaluating aging infrastructure at a planning level, and determining how various renovation approaches may impact cost, feasibility, accessibility, and phasing. The outcome is a data-driven basis of planning that clarifies risks, highlights key decision points, and supports the development of reliable alternatives prior to full design. Building on this foundation, we develop planning-level, code-aligned, and accessibility-compliant configurations.

Our team evaluates multiple fixture and layout options, including the incorporation of single-user showers per wing to verify alignment with building code requirements, ADA standards, and UNCG's programmatic needs. These conceptual layouts and comparative analyses help establish a clear, well-vetted direction for the subsequent design phase.

With baseline conditions determined, our Advanced Planning effort shifts toward evaluating the factors that could introduce risk or uncertainty, ensuring they are addressed before the project progresses into full design. McKim & Creed's risk mitigation approach incorporates early constructability reviews and the application of lessons learned from previous projects. This proactive process enables the team to anticipate and address technical, environmental, regulatory, and schedule-related risks before they affect project outcomes. Each risk is evaluated for probability and severity, with mitigation strategies assigned and responsibilities clearly defined. The aggregated risk profile informs the development of project contingencies and schedule buffers, supporting informed decision-making and budget control. By embedding risk management and technical excellence into every phase, McKim & Creed delivers projects that are resilient, cost-effective, and aligned with client objectives.

4.2 PAST PERFORMANCE ON SIMILAR PROJECTS TO MOORE STRONG PLUMBING RENOVATION

The McKim & Creed team has experience with plumbing system replacements and modernization projects, including work in residence halls where we carefully coordinate activities to minimize disruption to building occupants. Throughout our history, we've partnered with higher-education clients, including UNC Greensboro, to deliver thoughtful solutions involving the replacement of aging fixtures, upgrades to piping and supporting infrastructure, modernization of high-density multi-fixture washrooms, and improvements to accessibility and code compliance. Our work on campuses across North Carolina and beyond has enhanced system reliability, improved user experience in shared facilities, and supported long-term operational efficiency.



NCSU POLK HALL RENOVATION

RALEIGH, NC



A unique challenge to Polk Hall Construction is working in an occupied building. A phased construction approach is being utilized. MEP system shutdowns have to be as limited as possible so as not to impact users. McKim & Creed is providing MEP services for the \$73 Million Polk Hall Renovation project at NCSU.

This multi-phased project is to renovate portions of Polk Hall, which houses the Structural & Molecular Biochemistry and Animal Science departments, to improve labs as well as student spaces. The scope of services also includes significant modernization of the mechanical, electrical, and plumbing (MEP) systems within the building. Specifics of this scope include upgrades of the fire alarm system, new electrical switchgear and building power panels, replacement of the air handling units, replacement of the majority of the medium pressure ductwork systems, upgrades to lab exhaust systems, lighting and lighting controls, and replacement of the majority of the plumbing infrastructure systems.

McKim & Creed led systems discussions in the advanced planning phase, including the planning for variable volume, high-efficiency lab HVAC systems, and associated controls. The goal of this infrastructure work is to modernize this lab building to allow for continued program growth and expansion.

KEY HIGHLIGHTS

- ✓ Multi-phased renovation
- ✓ MEP system modernization
- ✓ Infrastructure replacement
- ✓ Advanced planning
- ✓ AHU Replacement

PROJECT DETAILS

OWNER

NC State University

PROJECT DATES

Ongoing

PROJECT COSTS

\$73 million

PROJECT SIZE

128,000 SF



FSU RJSC SANITARY PIPING EMERGENCY REPLACEMENT FAYETTEVILLE, NC



This project was an emergency project to replace sanitary piping in the building that served as the main line from the upper level restrooms and the discharge from the grease separator. The Jones Center is the main dining hall on campus so the piping had to be fixed immediately.

The project was challenging in that the line that needed to be replaced ran down the center of the building and had an eighteen foot drop to a lower level that was inaccessible for replacement in kind.

McKim & Creed rerouted the sanitary main from inside the building where it was accessible in the kitchen prep area to outside the building. Once outside it was routed past the grease separator to a retaining wall. The discharge line from the grease separator was connected to the main line. At the retaining wall, the line passed through the wall and was rerouted down with a drop, then rerouted to the inside of the building in a mechanical room on the lower level to return to the existing main trunk in the building.

KEY HIGHLIGHTS

- ✓ FSU experience
- ✓ Response to emergency/urgent need
- ✓ Sanitary piping replacement and reroute
- ✓ Rapid design
- ✓ Infrastructure upgrade

PROJECT DETAILS

OWNER

Fayetteville State University

PROJECT DATES

2022

PROJECT COSTS

\$360,000

PROJECT SIZE

N/A



NCSU AVENT FERRY COMPLEX

RALEIGH, NC



This project provided the replacement of existing domestic cold water, hot water and hot water recirculation piping for two residence halls and also modified the hot water generation system(s). The piping was failing due to galvanic corrosion. The design provided for a new domestic cold water, hot water and hot water return risers where removed in the existing chases and replaces abandoned piping buried in concrete slabs between floors.

Additionally, insulation was installed on all domestic water piping along with any valves necessary for a complete and operational system. Zone isolation valves are required at each floor and circuit setters were specified to balance the return system where applicable. Additional capacity was provided for the instantaneous gas water heaters as well as thermal storage tanks for both buildings (E&F).

KEY HIGHLIGHTS

- ✓ Piping replacement
- ✓ System balancing
- ✓ Gas water heaters
- ✓ Thermal storage

PROJECT DETAILS

OWNER

NC State University

PROJECT DATES

2018-2019

PROJECT COSTS

\$500,000

PROJECT SIZE

70,000 SF

605 residents



NCSSM DORM RENOVATIONS DURHAM, NC



McKim & Creed is providing MEP services for this project to renovate and upgrade six student residence halls at NCSSM. The project scope included an initial advanced planning phase to scope all residence halls and associated MEP upgrades. The renovations include upgrading MEP central systems, individual and community restrooms, furnishings in the rooms and lounges, and all adult apartments that are used by live-in staff members.

Our scope included replacing the existing plumbing piping systems providing new exhaust fans and ductwork, replacing select air handling units, and providing MEP modifications to support architectural renovations (new lighting, HVAC and plumbing fixtures). These existing buildings were built in the 1960s and renovations of them took careful coordination to ensure all new piping was able to fit in the tight ceiling spaces available.

KEY HIGHLIGHTS

- ✓ Higher education/SCO experience
- ✓ Multiple residence hall building renovations
- ✓ Bathroom renovations and domestic hot water system replacement
- ✓ Complete new building HVAC
- ✓ Phasing that minimized impacts to student residents

PROJECT DETAILS

OWNER

NC School of Science and Math

PROJECT DATES

2025-2026

PROJECT COSTS

\$10 million

PROJECT SIZE

200,000 SF



UNC CHAPEL HILL KENAN LABORATORY INFRASTRUCTURE UPGRADES

CHAPEL HILL, NC



McKim & Creed provided mechanical and electrical engineering services as part of UNC Chapel Hill's initiative to implement energy conservation measures at the 45+-year-old Kenan Lab. This \$21 million project included providing a new chilled water heat exchanger with associated pumps and controls to decouple the building from the central campus chiller plant as well as new supply valves, exhaust valves and laboratory controls. We also replaced the building's air handling units.

The project scope also included modification and extension of steam piping as part of the building's steam to hot water system. McKim & Creed also provided steam to the 3 new lab air handling unit humidifiers. Additionally, McKim & Creed provided a new sprinkler system for floors 3-9 of this building. In addition to the new sprinkler system, a new fire pump was provided as well as a new room for the fire command center and new front end fire alarm panel. Emergency power for the new fire pump was extended from the Murray/Venable generator.

During these infrastructure upgrades the client decided to expand the project again to include a comprehensive renovation of the top four floors of lab space. This involved the total renovation of 6 lab spaces and graduate student office support spaces to support chemistry, optics, and advanced sciences, which included 16 new fume hoods and associated exhaust systems, new lab casework, specialty gases and 208 Volt power for specialty lab equipment.

KEY HIGHLIGHTS

- ✓ New fire pump protection system
- ✓ Voice communication
- ✓ Electrical distribution system
- ✓ MCC replacement
- ✓ HVAC & controls infrastructure upgrades
- ✓ Energy conservation

PROJECT DETAILS

OWNER

UNC Chapel Hill

PROJECT DATES

2017-2019

PROJECT COSTS

\$21 million

PROJECT SIZE

115,000 SF



UNC HOSPITALS 7TH FLOOR BED TOWER CONVERSION

CHAPEL HILL, NC



UNC Hospitals is a network of public hospitals and community clinics serving more than 800,000 patients each year. For patients to receive the highest quality of care, these medical facilities need top-performing mechanical, electrical and plumbing systems for operating equipment, managing comfort conditions, and maintaining sanitary standards.

McKim & Creed is currently providing professional MEP services to the main campus, renovating the existing 7th floor into a new 45 bed surgical inpatient unit. Once complete, our engineering solutions will help provide a comfortable space for patients to recover post-surgery and equip medical staff with the underlying features and tools they need to offer exceptional patient care.

KEY HIGHLIGHTS

- ✓ Improved efficiency and functionality
- ✓ New MEP systems
- ✓ New surgical inpatient bed tower
- ✓ Modernized healthcare facility

PROJECT DETAILS

OWNER

UNC Hospitals

PROJECT DATES

2023/Ongoing

PROJECT COSTS

\$30 million

PROJECT SIZE

34,000 SF



DUKE HOSPITAL DIETARY EXPANSION & KITCHEN RENOVATION DURHAM, NC



McKim & Creed has provided comprehensive mechanical, electrical, plumbing, and fire protection engineering services for multiple renovation and expansion projects at the Duke University Hospital main kitchen. Most recently, the firm supported a 1,500 SF partial renovation of the main kitchen, focused on enlarging the pot washing area to improve workflow for kitchen and dishwashing operations. This project builds on McKim & Creed's longstanding relationship with Duke University Hospital, which includes a full renovation of the 13,000 SF main kitchen completed in 2014.

Previously, McKim & Creed partnered with Duke Medical Center to expand the capacity of the existing 17,000 SF main kitchen. This effort included a new 7,500 SF addition to house coolers, freezers, dry storage, and chemical storage areas, replacing the original adjacent spaces. The kitchen itself was renovated to add ranges, smokers, ovens, and auxiliary equipment, increasing capacity to serve the growing patient population associated with the new Cancer Wing. The Dietary Expansion Project was carefully phased to keep the kitchen operational throughout construction.

After the addition was completed, the kitchen renovation began, with outdated areas demolished to allow for expanded cooking and meal preparation spaces. The project was designed in 3D using the Revit Building Information Modeling System, which improved building systems coordination, reduced construction issues, and decreased construction time.

KEY HIGHLIGHTS

- ✓ Kitchen capacity expansion
- ✓ Phased construction
- ✓ Operational continuity
- ✓ Equipment upgrades
- ✓ Storage area Relocation
- ✓ 3D revit design
- ✓ Improved system coordination

PROJECT DETAILS

OWNER

Duke University Medical Center

PROJECT DATES

2012-2014

Est 2026 (partial renovation)

PROJECT COSTS

\$8 million

PROJECT SIZE

17,000 SF

1,500 SF (partial renovation)



UNCSA SANFORD & MOORE RESIDENCE HALLS HVAC REPLACEMENT WINSTON-SALEM, NC



McKim & Creed completed a project study and subsequently completed the HVAC Upgrades project for the UNC School of the Arts Sanford and Moore Residence Halls. The HVAC Upgrades project included new central HVAC systems and associated electrical power renovations for 2 new air-cooled chillers, 4 new boilers, 2 new domestic water heaters, and associated piping, pumps, and controls system upgrades. The existing chillers served each building separately, but the new chillers were tied together to provide partial redundancy to both buildings. Additionally, multiple boilers and pumps were provided to improve redundancy in a single piece of equipment failed.

This project was completed on time and under budget for UNCSA with the project's substantial completion in the summer of 2020 prior to students returning to campus.

The HVAC systems study included meetings with UNCSA staff and a review of first costs as well as life cycle costs for HVAC systems for the building. Based on available funding and overall maintenance considerations, the first phase of this project was to complete the central system renovations outlined above which were completed on time and under budget.

KEY HIGHLIGHTS

- ✓ HVAC systems upgrade
- ✓ Piping and controls upgrade
- ✓ Completed on time and under budget
- ✓ Multi-residence hall renovation project
- ✓ Life cycle cost analysis
- ✓ Phased design

PROJECT DETAILS

OWNER

UNC School of the Arts

PROJECT DATES

2019-2020

PROJECT COSTS

\$1.1 million

PROJECT SIZE

24,000 SF



UNCG PHILLIPS & HAWKINS FIRE ALARM UPGRADES GREENSBORO, NC



McKim & Creed's scope included replacing the existing addressable fire alarm system, adding mass notification and addressing ADA deficiencies along with additional work to install security cameras for improved safety.

The project also includes the addition of a 125kW generator to support emergency lighting, communications, and an elevator. New distribution equipment, feeders and branch circuits to support to circuiting of the new emergency systems are provided. The design included lighting calculations to ensure adequate lighting is provided for emergency egress throughout the building.

KEY HIGHLIGHTS

- ✓ Fire alarm system upgrades
- ✓ ADA compliance and life safety upgrades
- ✓ Voice communication
- ✓ Mass notification
- ✓ Higher education/UNC system

PROJECT DETAILS

OWNER

UNC Greensboro

PROJECT DATES

2017-2018

PROJECT COSTS

\$1.2 million

PROJECT SIZE

20,000 SF



UNC CHAPEL HILL EVERETT, LEWIS & STACY RESIDENCE HALL HVAC REPLACEMENT WINSTON-SALEM, NC



With buildings nearing 100-years-old on its historic campus, UNC Chapel Hill needed heating, cooling and fire protection system upgrades in several of its dorms. McKim & Creed was the prime consultant for the renovation to Everett, Lewis, and Stacy Residence Halls and provided efficient solutions to improve comfort levels and safety features for the students living there.

This included replacing all the HVAC piping as well as providing new fan coil units, a dedicated outside conditioning unit, HVAC controls, fire alarm system upgrades, and replacement of the building windows. The project also included new chilled water piping and a pumping bridge in the basement of each building. Additionally, hazardous materials abatement was part of the project design. As prime consultant, McKim & Creed provided detailed project documents including a project staging plan and project schedule requirements.

KEY HIGHLIGHTS

- ✓ UNC Chapel Hill experience
- ✓ Residence hall experience
- ✓ Heating & cooling upgrades
- ✓ HVAC renovation
- ✓ Piping and controls replacement
- ✓ Energy efficient solutions
- ✓ Multi-residence hall renovation project
- ✓ Expedited, aggressive design schedule
- ✓ Higher education/SCO experience

PROJECT DETAILS

OWNER

UNC Chapel Hill

PROJECT DATES

2017-2018

PROJECT COSTS

\$4.5 million

PROJECT SIZE

24,056 SF (Everett) / 24,084 SF (Lewis) / 23,745 SF (Stacy)

4.3 CURRENT WORKLOAD & STATE PROJECTS AWARDED

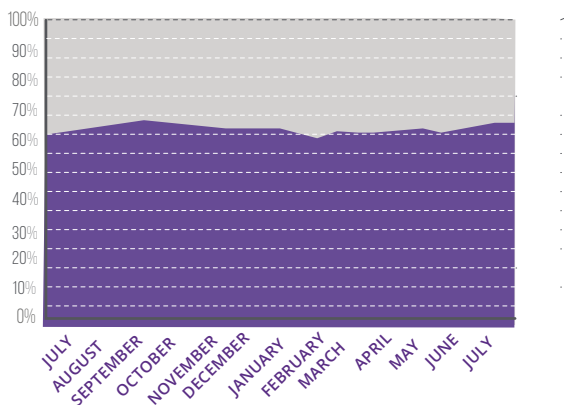
CURRENT WORKLOAD

McKim & Creed's decades of experience have enabled us to develop methods and controls that balance workload requirements while maintaining quality, schedule, and budget for our clients. Throughout our project history, we've repeatedly demonstrated our ability to provide the necessary staff to complete each job in a professional, responsive and cost-effective manner.

Our current workload is such that we are able to begin any project fully staffed upon a notice-to-proceed from UNCG. The McKim & Creed project team has the availability to meet all project assignments, and because of our highly-skilled workforce, future staff availability can be readily managed to meet each project's requirements.

While our Raleigh office will oversee this project, UNCG's campus is conveniently located between our Raleigh and Charlotte offices. This makes it easy for our team to be on-site quickly to respond to issues or allocate additional resources to protect critical milestones and the overall schedule.

AVAILABILITY



STATE PROJECTS AWARDED

McKim & Creed and our consultants have extensive experience with SCO projects across North Carolina. McKim & Creed has decades of success delivering projects on time and within budget, earning a 4.6/5 designer score and working with many UNC campuses, state agencies and community colleges. 35 North understands the impact of SCO guidelines on the design and estimating process, notably that projects must design to 90% of budget with well-established add-alternates for the remaining 10%. Our estimators prioritize early collaboration between the design team and estimator to define must-have program elements versus nice-to-have features that can be earmarked as alternates. KEi has extensive experience delivering State Construction Office (SCO) projects for higher education clients across

North Carolina, including renovations for North Carolina Central University's Art Gallery, the Karl Strauss Track Replacement at UNC Asheville, the Therapeutic Massage training suite at Wake Technical Community College, and Facilities Management renovations at UNC Charlotte. These projects highlight KEi's expertise in reimagining interior spaces, coordinating complex MEP/FP improvements, and enhancing functionality and user experience within campus environments.

- » Fayetteville State University
- » Guilford Technical Community College
- » North Carolina School of Science and Math
- » North Carolina State University
- » University of North Carolina at Asheville
- » University of North Carolina at Chapel Hill
- » University of North Carolina at Charlotte
- » University of North Carolina at Greensboro
- » University of North Carolina at Pembroke
- » University of North Carolina School of the Arts
- » University of North Carolina at Wilmington
- » Western Carolina University

4.4 PROPOSED DESIGN APPROACH FOR THE PROJECT

The advanced planning phase will focus on creating a clear, actionable strategy that anticipates potential challenges and aligns with UNC Greensboro's long-term objectives. This begins with a thorough review of the existing plumbing infrastructure and spatial limitations to guide schematic layouts and preliminary cost projections. Our goal is to establish a design framework that supports efficient construction while minimizing disruption and ensuring compliance with current codes and sustainability standards.

Our approach emphasizes open communication throughout planning, fostering collaboration to clarify project goals, risks, and constraints. By asking the right questions and analyzing responses, we can better understand impacts on cost, schedule, and occupant experience. During this phase, we will identify areas requiring plumbing upgrades and fixture replacements and incorporate these needs into the design strategy. We will also evaluate the building envelope to determine how it influences plumbing layout and system integration, ensuring that design decisions enhance overall performance.

Additionally, advanced planning will include coordination of plumbing modernization with electrical heater integration and fixture placement to achieve optimal functionality. These early insights will help refine design concepts and position the project for successful execution within the project timeline.

■ INTEGRATED, TEAM-ORIENTED DESIGN PHILOSOPHY

McKim & Creed will use a proactive and engaging team approach for the design of this project. It is critical to engage collaboratively with UNC Greensboro personnel from the start and to maintain that communication throughout the entire project. At the beginning of the project, McKim & Creed will lead team discussions to understand project needs and obtain valuable input from UNCG staff on critical issues including project design, deadlines and budget constraints.

Before we begin advanced planning, our team will conduct a comprehensive review of site conditions and existing building information, including available drawings, utility data, and prior studies. Collaboration will continue as we explore options and evaluate findings to inform planning decisions for this complex renovation. Throughout the advanced planning process, the McKim & Creed team will maintain consistent communication with UNCG personnel and stakeholders to ensure alignment and set the foundation for a successful project outcome.

Our team develops and executes work plans that foster collaboration among all stakeholders while aligning with UNC Greensboro's preferences and guidelines. We ensure the approach supports UNCG's vision as an inclusive, collaborative public research university that positively impacts students and communities.

■ OPERATIONAL DESIGN

As part of advanced planning, our team will work closely with UNC Greensboro's operations and maintenance personnel to ensure the plumbing modernization addresses any ongoing maintenance concerns and supports long-term functionality. We will review existing plumbing systems to identify opportunities for improved access and serviceability. Collaboration with UNCG staff will guide decisions on fixture types, shut-off locations, and maintenance points so that the renovated systems are practical and efficient for daily operations.

In addition, we will incorporate University standards into the planning process to ensure consistency for future upgrades and renovations. Our approach includes developing clear documentation and providing recommendations that simplify maintenance and reduce lifecycle costs. By engaging operations staff early, we will confirm that the proposed solutions meet performance expectations and allow for straightforward upkeep after construction.

■ DESIGN & CONSULTANT TEAM

Selecting the right design team is critical for project success given the complexity of plumbing systems and their impact on building performance. McKim & Creed brings decades of experience supporting higher education clients with plumbing and engineering design, leveraging the latest technologies and standards for efficiency and compliance.

Project Manager Josh Berard will serve as the primary point of contact and will ensure seamless coordination, timely communication, and resource optimization.

Our engineers will also provide innovative approaches to achieve project sustainability goals when applicable, and we will work with UNCG staff to find opportunities to save on budget without sacrificing project quality. For this team, we've included 35 North as our third-party cost estimator who will provide an extra layer of assurance that our designs are cost-effective. In addition to 35 North, we have F&R and KEI joining our team as subconsultants.



About 35 North | 35 North is a full-service program and project management firm with wide-ranging project experience focused

in the areas of cost estimating, scheduling, construction management, and compliance. Working on a variety of project sizes and types, we can turn challenging situations into actionable and realistic solutions. They are a North Carolina Historically Underutilized Business (HUB) and a Service-Disabled, Veteran-Owned Small Business (SDVOSB) that offers a host of construction support services to clients nationwide. 35 North excels at complex MEP estimating and has extensive experience with new builds and renovations for higher education institutions throughout North Carolina. Not only does their team hold professional trade and cost estimating certifications, but their senior MEP cost estimators' years of experience and knowledge in MEP design development far exceeds the standard understanding of drawings and specifications. This allows the team to accurately assess the intention of the design, suggest improvements as needed, and predict other needs that might not yet be reflected on paper. Their cost managers know how to account for associated project costs to aid in the design and ensure costs are known and planned for accordingly.



About KEI | KEI Architects is an award-winning full service architecture firm passionate about the built environment

and how it influences the world in which we live. They are a Minority-Owned, Small Business Enterprise focused on results and the satisfaction of their clients. KEI is centered on a continual conversation, they have conducted design

forums and charrettes to engage clients, communities and other stakeholders. It is important to KEI that they are in constant communication with their clients to achieve the best design outcomes. With over 35 years of experience, KEI has projects of varying types, sizes, and budgets, allowing them to compete with the best. KEI Architects, has developed a longstanding reputation as a distinguished, client-driven practice.



About F&R | Froehling & Robertson, Inc. (F&R) is a

third-generation, minority-owned firm providing geotechnical, environmental, materials testing, and special inspection services. Recognized as a Historically Underutilized Business, F&R has over 325 staff members in 11 Mid-Atlantic offices. The firm has supported numerous projects at UNC Greensboro and has partnered with McKim & Creed on more than 15 projects in the past five years, including multiple projects for North Carolina higher education institutions.

Ultimately, this design team is skilled at driving projects for clients to successfully deliver both functional and financial objectives while also ensuring long-term sustainability and occupant comfort. **Learn more about our team in Tab 3 of our qualifications package or Section E of our SF330 document.**

PROACTIVE CONSTRUCTION ADMINISTRATION

Once the project enters the construction phase, proactive construction administration will be a critical factor in this project. This includes a detailed review of the contractor's proposed project schedule, ensuring enough time is allocated for final reviews of the project. Once the project schedule is established, it will be essential to monitor its progress, respond in a timely manner to field issues, and communicate openly and quickly with the entire project team to ensure project success.

McKim & Creed is highly experienced in providing construction administration services and working with the SCO. We will provide these elements to help ensure the success of the project and ease the process

for UNC Greensboro and contractors by providing seamless and proactive construction administration in compliance with SCO guidelines.

QUALITY MANAGEMENT PLAN

McKim & Creed believes in the value of a Quality Management Plan. We emphasize communication, challenge decisions, confirm calculations, question operability, and create efficiencies. This approach will result in providing UNCG with the best value for this project. McKim & Creed's approach to quality is a combination of management and technical experts using established standards to ensure quality products and services.

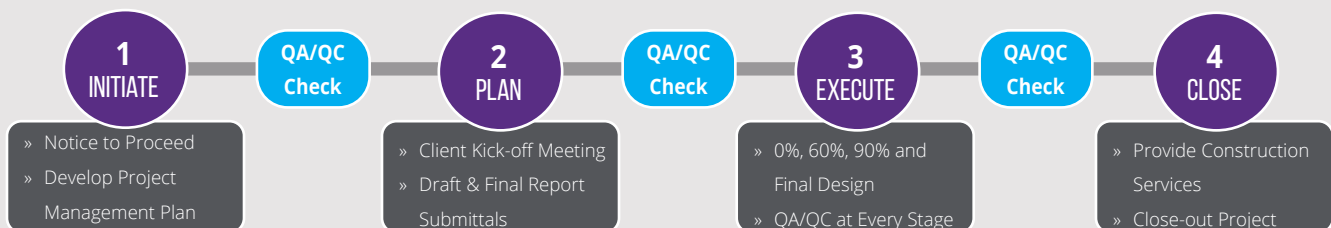
This process embraces accountability in each task lead, engineer, independent peer reviewer, and project manager. The process is led by our internal quality review team and includes rigorous technical reviews at key milestones.

Our first step is to document project goals and concerns from UNC Greensboro's perspective so we can work as a team to identify and define the critical success factors. It is at this time, during the project scoping process, when the McKim & Creed team will initiate our project quality assurance process. Once we receive authorization to begin, the project manager develops a detailed Project Management Plan (PMP), which includes the Quality Assurance (QA) Plan.

To ensure that UNCG is satisfied with our services, and to provide true cost-effectiveness, the quality of the work we perform is maintained at a high standard. Every project team member participates in our effort to provide quality services by taking responsibility for the quality of each members individual work effort. Each project work plan includes specifically scheduled QA reviews to enable us to generate studies and designs that attain the highest standard of quality.

Our QA approach will save time and reduce change orders by conforming to standards and by building quality into the design. We will develop a QA plan that communicates approaches, procedures, schedules, and responsibilities to the team and forms the basis for executing the Quality Control (QC) program for each phase of the project.

QUALITY MANAGEMENT PROCESS



4.5 RECENT EXPERIENCE WITH PROJECT COSTS AND SCHEDULES

COST CONTROL TECHNIQUES

Our State Construction designer evaluation scores have averaged 4.6 out of a possible 5.0 points. We have bid more than 400 projects and 97% of those projects have been bid under budget. Total cost of construction projects designed by McKim & Creed's MEP staff has exceeded \$400 million and our design-related change order rate has remained less than 1.0% of construction costs. The projects shown in Table 1 further illustrate McKim & Creed's ability to accurately estimate costs for our clients.

PROJECT	EST. BUDGET	ACTUAL BUDGET
PBS NC Bryan Center HVAC and Chiller Upgrades	\$3,800,000	\$3,600,000
UNC Health Chilled Water Infrastructure Upgrades	\$10,000,000	\$9,800,000
FSU McLeod Residence Hall HVAC Replacement	\$5,000,000	\$4,900,000
NCSU Watauga Hall HVAC & Chiller Replacement	\$1,700,000	\$1,600,000
UNCSA Sanford & Moore Halls HVAC Replacement	\$1,400,000	\$1,100,000
UNC Charlotte McEnry Chiller Plant Phase IV	\$1,439,200	\$1,418,000
GTCC Greensboro Chiller Plant Upgrades	\$267,300	\$194,000
UNC-CH Marine Biology Chiller Replacement	\$505,200	\$419,814

Table 1

Our team has a number of strategies we use to control costs, such as:

- ✔ Producing clear, concise construction documents
- ✔ Incorporating alternatives into construction documents for added cost control and flexibility
- ✔ Minimizing construction risk by the contractors
- ✔ Maximizing competition during bids (both material suppliers and contractors)

The development of an opinion of probable construction cost is a standard procedure for all projects completed by McKim & Creed. Selected members of the project team will analyze historical bid data and current market trends to complete the cost opinion. Our extensive experience completing cost opinions will facilitate the determination and control of the final project cost.

For additional support, 35 North (a certified SDVOSB HUB firm,) has joined the McKim & Creed team. Ron Deckham brings extensive expertise in cost estimating and project execution for higher education projects. He will ensure accurate budgeting and value engineering for UNCG.

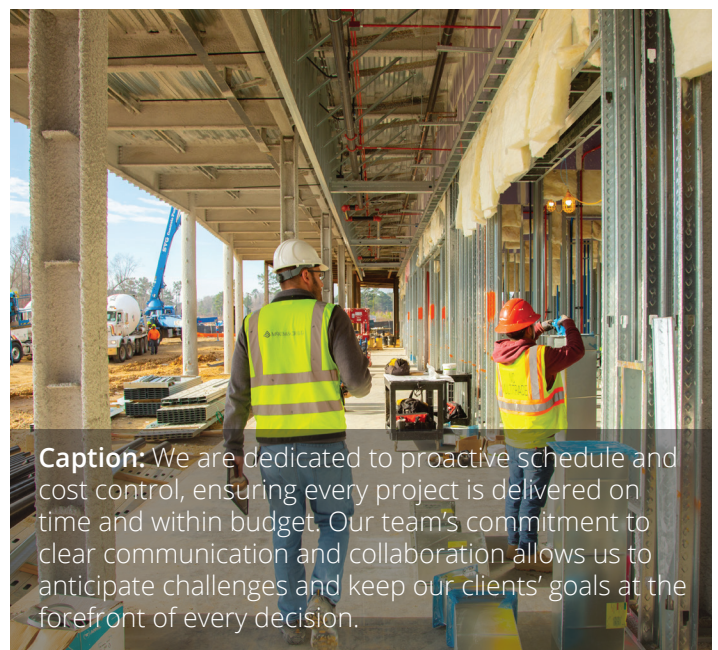
SCHEDULE COMPLIANCE

Schedule compliance is important to project success. McKim & Creed takes great pride in achieving client satisfaction through meeting project milestones. We have a simple but effective schedule compliance process that makes the project manager responsible for both internal and external schedule compliance.

We pride ourselves on our ability to think through projects and develop engineered responses to meet our client's goals and be on-time and in-budget. Our clients can expect the highest level of communication from our team to meet mutual project objectives.

At the beginning of the project, McKim & Creed will work with the University and the entire project team to begin an outline of the project schedule that will be customized and finalized as the design progresses. Critical dates will be identified, and McKim & Creed will be proactive to ensure these dates are met. McKim & Creed understands the importance of having this work completed on time to eliminate disruptions to the campus community.

Each member of the project team performs conscientiously in accordance with the carefully conceived and rigorously enforced schedule. All schedules are developed using the critical path method, with total project float to determine when delivery becomes critical. Schedule development is a team effort. Listening to the concerns of all team members ensures a firm level of commitment from all involved. Schedules are then developed using Microsoft Project to ensure a direct link between schedule, scope, and budget.



Caption: We are dedicated to proactive schedule and cost control, ensuring every project is delivered on time and within budget. Our team's commitment to clear communication and collaboration allows us to anticipate challenges and keep our clients' goals at the forefront of every decision.

Task-specific roles are assigned so that each team member is responsible for accomplishing certain duties. The entire team receives a copy of the task assignments so that each member is aware of the responsibilities of the individual team members. When tasks are assigned, schedules and man-hour budgets are distributed. Team conferences are held on a regular basis to provide for a smooth workflow for the duration of each project. Client meetings are scheduled at critical decision points in each project to reduce wasted efforts and undue delays. Agendas are prepared in advance to make the meetings as productive as possible. Meeting minutes are then prepared so that all conferees have a clear understanding of the decisions.

Additionally, weekly staff meetings are held to accommodate the scheduling needs. As a safety blanket, McKim & Creed has an integrated network of offices with a staff of 1000+ employees that communicates on a continual basis to determine workload and, if necessary, work-sharing opportunities.

PROJECT PHASING

McKim & Creed recognizes that phasing may be necessary for this project to minimize disruption on UNCG's campus. We will work through a phased approach with the university to minimize these impacts. Additionally, we will develop phasing needs for the construction of this project and convey this intent to the contractors on the drawings, in the specifications and throughout the bid phase so these expectations are understood by each bidding contractor. Understanding the desired construction time frame allows this project to be broken into efficient construction phases, and for the design schedule to be developed so that projects can be bid early enough to allow for equipment lead times prior to the start of construction.

There are numerous strategies we will implement for project phasing, including work after normal business hours as well as on weekends. It is imperative to have bid documents complete with all staging and construction requirements clearly defined. For the construction sequence itself, it is important to have all equipment

and materials delivered prior to removing existing system components with planned phasing. It is also critical for inspections and commissioning to have a designated time frame in the construction schedule.

Exact strategies will be developed during design to ensure central systems are ready and in accordance with SCO and UNCG schedule requirements.

4.6 CONSTRUCTION ADMINISTRATION CAPABILITIES

As mentioned, McKim & Creed takes a proactive approach to construction administration. Our designers will participate in the construction administration process through on-site visits to identify and resolve issues. This will ensure the quality of the construction and keep it on schedule. We always strive to build a total team effort among all parties involved to create a positive and collaborative working environment.

McKim & Creed's BEI staff is familiar with the requirements of the State Construction Office's construction and monitoring requirements.

In the construction administration process, we provide:



TIMELY REVIEW of shop drawings.



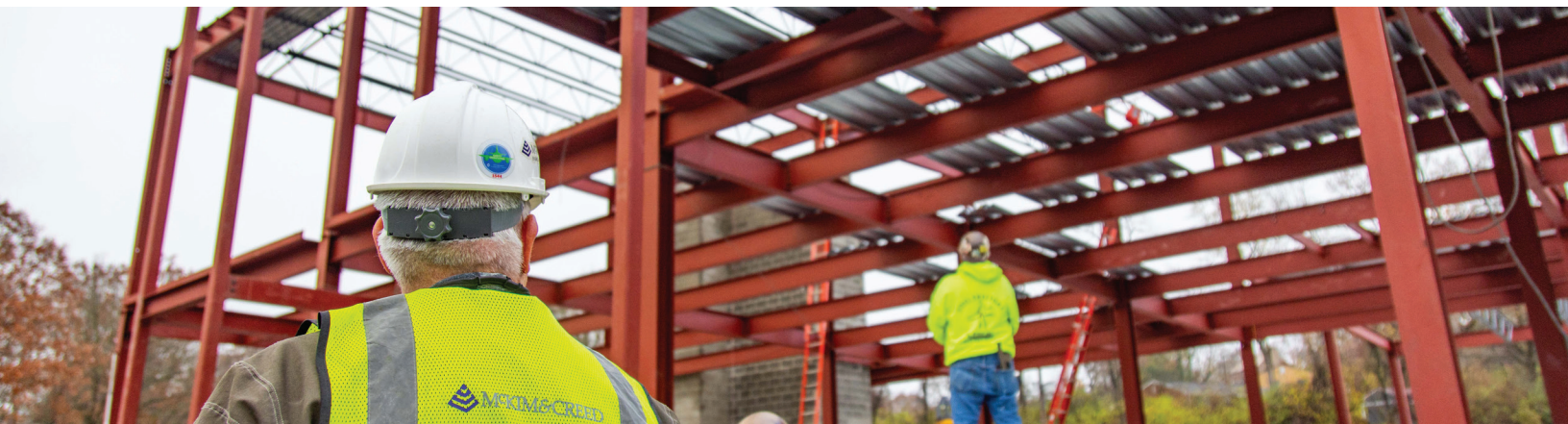
UP-TO-DATE LOGS for RFIs, RFPs, and COs.



WEEKLY MEETINGS with documented minutes.



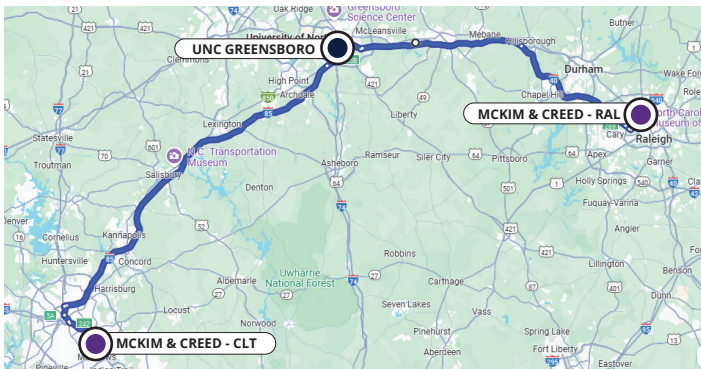
ADDITIONAL SITE VISITS AND REPORTS as required by the construction process.



Closeout and turnover are also critical phases of construction. We are experienced in project closeout procedures and aware of the importance of staff training for new equipment. We are also experienced with the SCO procedure for hearing claims/disputes and with their resolution process. Additionally, it is our policy to start assembling closeout documents before construction is complete to provide timely submission of closeout documents.

4.7 PROXIMITY TO AND FAMILIARITY WITH THE AREA WHERE PROJECT IS LOCATED

The McKim & Creed team has been working on the UNCG campus for almost 20 years, dating back to the Petty Science Building renovation. We are deeply familiar with the campus, operations and maintenance staff, and the local area. UNCG is conveniently located between McKim & Creed's Raleigh and Charlotte offices. Our Raleigh office will manage this contract and can be on site quickly if the need arises. Our Charlotte office will serve as backup support for Raleigh. We also have an overall team of 130+ MEP/FP professionals who can provide additional support should the need arise. Below is a map that demonstrates McKim & Creed's proximity to UNCG.



Similarly, our team is highly familiar with Guilford County and its neighboring municipalities. In addition to UNCG, other local clients we've served include Guilford County Government, Guilford Tech, and UNC School of the Arts.

4.8 RECORD OF SUCCESSFULLY COMPLETED PROJECTS WITHOUT MAJOR LEGAL OR TECHNICAL PROBLEMS

The projects included within this proposal have been completed successfully without any major legal or technical problems. However, McKim & Creed is currently (and has been over the past five years) involved in a limited number of legal claims. McKim & Creed is confident in its ability to

successfully defend, or settle on favorable terms, all such outstanding claims. Furthermore, for the protection of McKim & Creed and its clients, McKim & Creed always maintains a comprehensive insurance program that includes professional liability, workers' compensation, comprehensive general liability, automobile and umbrella policies, with limits sufficient to cover the defense and payment of all outstanding claims against McKim & Creed. In the opinion of McKim & Creed's management, no claim or lawsuit currently pending against McKim & Creed will materially affect McKim & Creed's ability to perform this project.

4.9 ENERGY CONSERVATION/LEED EXPERIENCE

With McKim & Creed, sustainability is at the core of our design philosophy. We prioritize energy efficiency, environmental responsibility, and occupant comfort in all our projects. Our team has expertise in incorporating renewable energy sources, optimizing the performance of building systems and minimizing environmental impact through innovative design strategies.

LCCA / WHOLE BUILDING ENERGY ANALYSIS

McKim & Creed is experienced working with clients to identify existing design features and cost-effective design change options that will help achieve conservation objectives and save money. McKim & Creed brings a collaborative and supportive mindset for open discussion of MEP/FP systems and expertise in sustainable design. In addition to these sustainable design strategies, our team brings unique expertise with facility controls and building automation system optimization.

WATER AND ENERGY EFFICIENCY

Our specialized analyses are frequently used in new construction to compare design alternatives and quantify water and hot water energy benefits, such as those derived from low-flow fixtures or efficient hot water generation. For renovations, such as the Moore Strong Plumbing project, we use these analyses to estimate potential savings from different design solutions, including fixture upgrades, hot water system optimizations, solar hot water systems, and improved distribution networks. These projections can be used for sustainability reporting or as a critical decision-making tool for long-term operational cost reductions.

McKim & Creed employs a variety of software and methodologies for these assessments, including hot water system sizing and comprehensive life cycle cost analysis. Our analyses are updated at each phase of the project, gaining accuracy and validity the further into design we go. If applicable, we follow relevant industry standards for water efficiency and energy performance in hot water systems, such

as those referenced in LEED and Green Globes certifications, ensuring compliance and optimal performance. In addition to these analytical approaches and standards, our team applies many years of professional experience in water and energy efficiency, ensuring the solution meets our client's specific needs for modern, efficient plumbing infrastructure.

WATER ENERGY USE

Our team recognizes that a significant portion of a building's operational costs stems from water consumption and the energy required for heating water, particularly in facilities like residence halls. Therefore, prioritizing conservation efforts within plumbing systems presents a prime opportunity for substantial savings. Some plumbing-focused conservation measures, such as upgrading to low-flow fixtures or optimizing hot water systems, can be implemented with low to no upfront cost.



McKim & Creed was instrumental in the development of Wake Tech Community College's new Eastern Campus—providing MEP/FP engineering services for several new buildings. Our design prioritized sustainable design features to achieve Green Globes certification, including Solar PV systems, manifolded air handling units with fan wall technology, LED lighting and lighting controls, and optimized HVAC controls sequences. McKim & Creed also provided commissioning services for the 15,000 SF CEP, which provides chilled water and hot water to all campus buildings on the WTCC Eastern Campus.

LEED AND GREEN GLOBES EXPERIENCE

McKim & Creed leverages our team's talent and certification to push past the conventional and offer innovative solutions. Our team has experience with the process of obtaining LEED & Green Globes ratings on both new and existing buildings. Many of our design decisions are based on these principles even if the project does not have LEED or Green Globes certification requirements. We've provided an overview of our expertise.

LEED

Our firm is one of the most accomplished in the local arena with energy efficiency, renewable energy and LEED / Sustainability. McKim & Creed has 17 LEED Accredited Professionals. We have experience with the process of obtaining LEED ratings on both new and existing buildings. Design choices are often based on LEED principles even if the project does not require LEED certification. McKim & Creed also has experience in achieving the necessary energy performance to obtain Energy Star-rated buildings, which is a requirement for LEED Existing Building (EB) certification.

GREEN GLOBES

Similar to the hierarchical levels of LEED certification (bronze, silver, gold, platinum) Green Globes certifies a building's design and actual performance according to four levels of achievement (one, two, three, and four Green Globes).

The flexible and interactive nature of the Green Globes rating scale enables our engineering team to consider the ability and impact of pursuing these during capital infrastructure renovations and renewal. Our team will select the most cost-effective design solutions early on and throughout the design phase; however, when design is already underway or almost complete, pursuit of Green Globes points can have a significant cost impact.

McKim & Creed's Green Globes experts are able to review the design and construction documents for opportunities to maximize Green Globes points via design optimization and provide clients with the important and necessary information to make informed decisions that will minimize cost and schedule impact and optimize the opportunity for qualifying Green Globes points.

McKim & Creed's LEED Experience includes...
Ft Bragg Blood Donor Center, LEED Silver
FSU New Science & Technology Building, LEED Silver
UNCC (PORTAL) Building, LEED Certified
UNC Charlotte Rose Football Center, LEED Certified
Camp Lejeune Consolidated Academic Instructional Facility - Phase II, LEED self-certified
CMS, Pineville Elementary New Construction, LEED certified
The US Forest Service lab, LEED Silver (prepared the energy models and all LEED forms and documentation)
NC State Indoor Practice Facility, LEED certified
High Point Baseball Stadium, LEED certified
East Asheville Library, LEED certified

McKim & Creed's Green Globes Experience includes...
UNC Charlotte University Recreation Center, Two Green Globes
UNC Charlotte South Village Dining Facility, Three Green Globes
UNC Charlotte Martin Residence Hall, Two Green Globes
WTCC Education & Innovation Building, Green Globes certified
WTCC Public Safety Complex, Green Globes certified



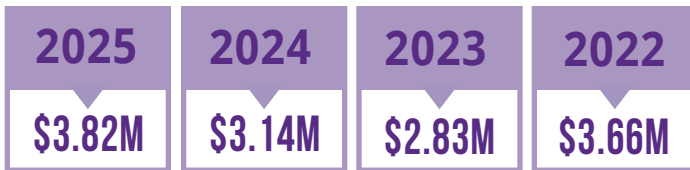
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MINORITY BUSINESS PARTICIPATION PLAN

OUR COMMITMENT TO HUB UTILIZATION

McKim & Creed appreciates UNC Greensboro’s commitment to supplier diversity. While McKim & Creed is not a minority-owned business, a significant portion of our services are performed for clients who routinely require M/WBE/VBE/LDB/SBE participation. We routinely work with and pursue M/WBE/VBE/LDB/SBE subconsultants and use our ever-expanding database of qualified partners to procure additional work depending on the needs of our clients. In fact, we have never failed to meet a client’s contractual requirement in regard to the use of MBE’s, LDB’s, SBE’s, and VBE’s and work diligently to exceed clients’ goals.

McKim & Creed is committed to partnering with historically underutilized businesses, small businesses, small disadvantaged businesses, women-owned businesses, and minority businesses when the need arises. The numbers below demonstrate McKim & Creed’s commitment over the years.



DESIGN & CONSTRUCTION EFFORTS TO REACH UNCG HUB GOALS

McKim & Creed is committed to supporting UNCG’s HUB goals through the use of certified HUB partners in our design and construction team and implementing strategies that promote equal access and participation. Our approach includes proactive outreach, transparent communication, and compliance monitoring throughout the project lifecycle. We prioritize collaboration and good faith efforts, ensuring project plans are accessible and opportunities are clearly communicated to our HUB team members.

To achieve the state of North Carolina (10%) and UNCG (15%) participation benchmarks, we have F&R and 35 North joining our team. F&R, **an NC HUB and SWaM-certified firm** with over 70 years of experience, brings expertise in environmental consulting, engineering, and testing services. F&R will help us identify and mitigate risks with minimal campus disruption. 35 North, **an NC HUB and certified Service-Disabled, Veteran-Owned Small Business (SDVOSB)**, offers extensive experience in cost estimating, construction management and compliance, ensuring technical excellence and local market insight. These partnerships strengthen our ability to deliver a collaborative, efficient, and inclusive project. If needed, we will also leverage the use of HUB directories if any additional efforts are needed in reaching targeted HUB goals.





6 CURRENT SF-330



ARCHITECT - ENGINEER QUALIFICATIONS
PART I - CONTRACT-SPECIFIC QUALIFICATIONS

A. CONTRACT INFORMATION

PROJECT LOCATION (CITY, STATE) Greensboro, NC	PROJECT TITLE Moore Strong Plumbing Renovation
PUBLIC NOTICE DATE 1/8/2026	SOLICITATION OR PROJECT NUMBER 287-30705-DS

B. ARCHITECT - ENGINEER POINT OF CONTACT

NAME AND TITLE
Josh Berard / Project Manager

NAME OF FIRM
McKim & Creed, Inc.



PHONE 607.743.1437	FAX 919.233.8031	E-MAIL jberard@mckimcreed.com
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C. PROPOSED TEAM

A.	PRIME	J-V	SUB	FIRM NAME	ADDRESS	ROLE IN THIS CONTRACT
	✓			McKim & Creed, Inc. <input type="checkbox"/> BRANCH OFFICE	4300 Edwards Mill Rd Suite 200 Raleigh, NC 27612	Electrical & Plumbing Engineering; Project Management; QA/QC
			✓	35 North <input type="checkbox"/> BRANCH OFFICE	4601 Creekstone Drive Suite 130 Durham, NC 27703	Cost Estimating
			✓	F&R <input checked="" type="checkbox"/> BRANCH OFFICE	310 Hubert Street Raleigh, NC 27603	Environmental Consulting
				KEI <input checked="" type="checkbox"/> BRANCH OFFICE	210 East Trade St, C 440 Charlotte, NC 28202	Architectural Services
				<input type="checkbox"/> BRANCH OFFICE		
				<input type="checkbox"/> BRANCH OFFICE		
				<input type="checkbox"/> BRANCH OFFICE		
				<input type="checkbox"/> BRANCH OFFICE		

D. ORGANIZATIONAL CHART OF PROPOSED TEAM

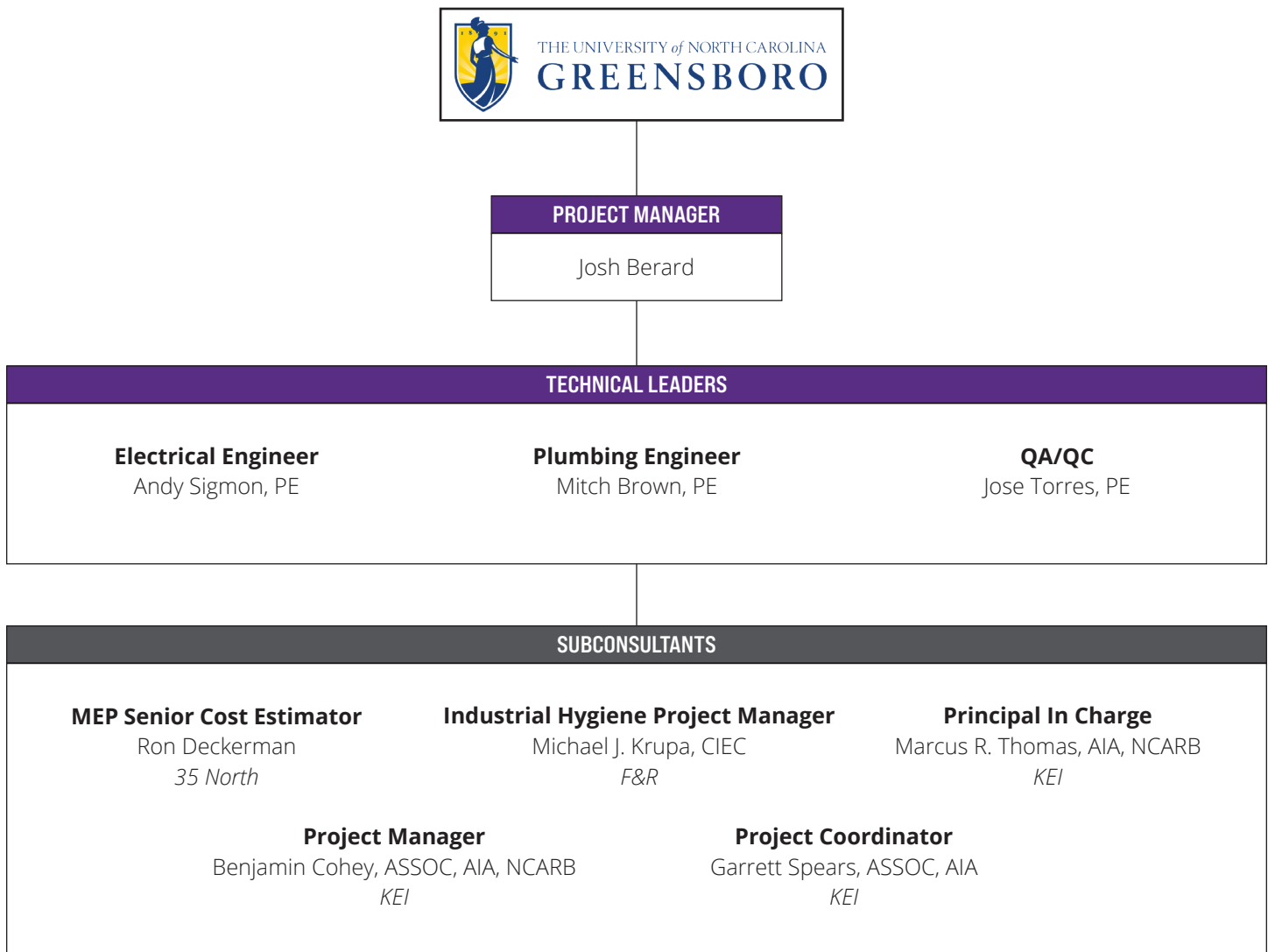
Attached

D. Organizational Chart



Our commitment and focus as a firm is to maintain the highest standards of service and quality while meeting our clients' technical, schedule and budget constraints. Our project team will function as an extension of the UNC Greensboro staff, making themselves readily available for hands-on support for this project. This will facilitate the quick identification of challenges resulting in unique, customizable solutions that are best suited for projects of this exact type. Our team brings over 100 years of combined MEP/FP experience to the project with consulting engineering and owner-side experience in design, operations, energy management, and maintenance.

Josh Berard will serve as our project manager for the duration of this project. He will act as the primary point of contact and will focus on project delivery, schedule, budget and resources. Supporting Mr. Berard is electrical engineer Andy Sigmon, PE; Plumbing Engineer Mitch Brown, PE; and QA/QC Jose Torres, PE. We also have Ron Deckerman from 35 North joining our team to provide cost estimating services to accurately assess the intention of the design, suggest improvements as needed, and predict other needs that might not yet be reflected on paper. Michael J. Krupa, CIEC, with Froehling & Robertson, Inc. (F&R), a SWaM and HUB minority-owned business, will provide environmental/hazardous materials abatement services to address any environmental risks and liabilities. Principal-In-Charge Marcus R. Thomas, AIA, NCARB; Project Manager Benjamin Cohey, ASSOC, AIA, NCARB and Project Coordinator Garrett Spears, ASSOC, AIA from KEI will be joining our team to provide architectural services, ensuring SCO and UNCG standards for safety, student experience, and long-term maintainability through coordinated design, room layout refinement, and compliance documentation.

Each team member has experience working with Plumbing infrastructure and serving higher education facilities, particularly related to residence halls, and understands the needs of colleges and universities for these types of projects. Additionally, the McKim & Creed team has more than 130 MEP/FP professionals across our footprint who can serve this project should the need arise.



E. RESUME

	NAME	ROLE	YEARS EXPERIENCE	
	Josh Berard	Project Manager	TOTAL 15	CURRENT FIRM 8
FIRM				
MCKIM & CREED Raleigh, NC				

EDUCATION
B.S., Mechanical Engineering, State University of New York at Buffalo

CURRENT PROFESSIONAL REGISTRATION

Mr. Berard has 15+ years' experience in HVAC and plumbing consulting working as a designer and project manager. Management of his projects includes successfully driving on time completion while balancing both the construction budget and the owner's needs/requirements. On the design side, he has a demonstrated history involving domestic water, sanitary and fire protection systems. Additionally, Mr. Berard is knowledgeable with regard to state building codes, NFPA requirements and ASHRAE guidelines.

RELEVANT PROJECTS

A.	NCSSM DORM RENOVATIONS <i>Durham, NC</i>	PRO. SERVICES COMPLETED	2025	CONSTRUCTION COMPLETED	Est 2026
		<input checked="" type="checkbox"/> PERFORMED WITH CURRENT FIRM			

Mr. Berard is serving as mechanical and plumbing designer. McKim & Creed is providing MEP services for this project to renovate and upgrade six student residence halls at NCSSM. The project scope included an initial advanced planning phase to assess all residence halls and associated MEP upgrades. The renovations include upgrading MEP central systems, individual and community restrooms, furnishings in the rooms and lounges, and all adult apartments used by live-in staff members. Our scope included replacing the existing plumbing piping systems providing new exhaust fans and ductwork, replacing select air handling units, and providing MEP modifications to support architectural renovations (new lighting, receptacle layout modifications, and new diffusers). Size: 200,000 SF | Cost: \$10 million

B.	UNC CHAPEL HILL GRANVILLE TOWERS HVAC REPLACEMENT <i>Chapel Hill, NC</i>	PRO. SERVICES COMPLETED	2020	CONSTRUCTION COMPLETED	2021
		<input checked="" type="checkbox"/> PERFORMED WITH CURRENT FIRM			

Mr. Berard served as mechanical designer. McKim & Creed responded to an urgent need from UNC Chapel Hill to replace the existing mechanical systems in three high rise residence halls, Granville Towers. The original systems were installed over 60 years ago when designers didn't have the understanding of controlling humidity as well as we do now. This resulted in mold growth in and around the restrooms and system replacement was a must, and schedule was the biggest driver. McKim & Creed explored different HVAC system solutions including considerations for budget, space, phasing, and performance. Size: 300,000 SF | Cost: \$23 million

C.	FSU HOOD, HARRIS & JOYNER RESIDENCE HALL HVAC REPLACEMENTS <i>Fayetteville, NC</i>	PRO. SERVICES COMPLETED	2022	CONSTRUCTION COMPLETED	2023
		<input checked="" type="checkbox"/> PERFORMED WITH CURRENT FIRM			

Mr. Berard served as mechanical designer. McKim and Creed provided MEP/FP design services for these HVAC replacement projects for Harris, Joyner and Hood Residence Halls to replace the existing fan coil units. The units in Harris and Joyner are ceiling mounted and were changed to vertical floor mounted units. The units in Hood were replaced with similar units. The project included replacing the dielectric union gaskets and insulation on the existing piping to prevent condensation during cooling mode. Size: Hood (17,562 SF) / Harris (24,735 SF) / Joyner (22,031 SF) | Cost: \$1.5 million



D.	UNC CH EVERETT, LEWIS & STACY RESIDENCE HALL HVAC REPLACEMENT <i>Chapel Hill, NC</i>	PRO. SERVICES COMPLETED	2017	CONSTRUCTION COMPLETED	2018
		<input checked="" type="checkbox"/> PERFORMED WITH CURRENT FIRM			

Mr. Berard served as mechanical designer. McKim & Creed responded to an urgent need from UNC Chapel Hill to replace the existing mechanical systems in three high rise residence halls —Granville Towers. The original systems were installed over 60 years ago when designers didn't have the understanding of controlling humidity as well as we do now. This resulted in mold growth in and around the restrooms and system replacement was a must, and schedule was the biggest driver. McKim & Creed explored different HVAC system solutions including considerations for budget, space, phasing, and performance. The best system type was determined to be dedicated outside air handlers coupled with variable refrigerant flow (VRF) room controls. Size: Everett (24,056 SF) / Lewis (24,084 SF) / Stacy (23,745) | Cost: \$7.5 million

E.	WTCC PERRY NEW SCIENCE & HEALTH EDUCATION BUILDING <i>Raleigh, NC</i>	PRO. SERVICES COMPLETED	2024	CONSTRUCTION COMPLETED	Est 2026
		<input checked="" type="checkbox"/> PERFORMED WITH CURRENT FIRM			

Mr. Berard served as project manager. McKim & Creed is providing mechanical, electrical, plumbing, and fire protection system design for the 106,000 SF Wake Technical Community College (WTCC) Perry Health Science Campus new Health Sciences building. This building will serve as the campus's state of the art hub for healthcare staff training with a direct adjacency to Wake Med for collaboration. Included in this building are simulation patient rooms, an ED, an OR, ultrasound training bays as well as functioning X-ray, MRI, and CT scanning spaces. This project consists of a unique balance of energy efficiency for Green Globes certification while maintaining robust systems that will meet the school's needs. Overall mechanical systems include penthouse air handlers, boilers and utility yard residing air cooled chillers. Size: 106,000 SF | Cost: \$95 million

E. RESUME

	NAME	ROLE	YEARS EXPERIENCE	
	Andy Sigmon, PE	Electrical Engineer	TOTAL 30	CURRENT FIRM 10
FIRM MCKIM & CREED Raleigh, NC				

EDUCATION
B.S., Electrical Engineering, North Carolina State University



CURRENT PROFESSIONAL REGISTRATION
Professional Engineer: NC (#027325)

Mr. Sigmon has 30+ years of experience in electrical design and application. He has been involved with consultation, electrical design, electrical specification writing and construction administration for institutional, educational, commercial and industrial facilities. His design responsibilities have included lighting, power, emergency generator, fire alarm, security, and communications systems.

RELEVANT PROJECTS

A.	UNCG BRYAN BUILDING AIR HANDLING UNIT REPLACEMENT Greensboro, NC	PRO. SERVICES COMPLETED	2020	CONSTRUCTION COMPLETED	2020
		<input checked="" type="checkbox"/> PERFORMED WITH CURRENT FIRM			
<p>Mr. Sigmon provided electrical engineering services. McKim & Creed was selected to perform design, bidding, and construction administration services to replace Air Handling Unit #3 for the Bryan Building at UNC Greensboro. This is an informal project, with McKim & Creed being selected under our campus annual service agreement for engineering services. The scope of this project includes the complete replacement of Air Handling Unit #3 that serves the existing auditorium in the building. McKim & Creed provided load calculations to verify unit sizing, conducted meetings with UNC Greensboro staff to review and address controls strategies (in particular humidity control), and provided detailed air handling unit selections to ensure the dimensions of the air handling unit fit the space available while providing space needed for future maintenance and access. Electrical work included a new power feed for the fan motor and associated variable frequency drive, and also integration of new duct smoke detectors into the fire alarm system. A new floor drain was also designed for the mechanical room. Size: SF Cost: \$180,000</p>					
B.	UNCG COLEMAN BUILDING FIRE ALARM SYSTEM REPLACEMENT Greensboro, NC	PRO. SERVICES COMPLETED	2022	CONSTRUCTION COMPLETED	N/A
		<input checked="" type="checkbox"/> PERFORMED WITH CURRENT FIRM			
<p>Mr. Sigmon served as project manager. The Coleman Building at UNC Greensboro needed upgrades to its fire alarm system to ensure a safe environment for all its occupants. McKim & Creed's scope included a complete fire alarm system replacement throughout the building and upgrading the system to an addressable fire alarm system that includes mass notification and voice evacuation per UNC Greensboro Design & Construction and SCO guidelines. Our team also modified the detection system, which included upgrades to the smoke detectors, duct detectors and beam detectors. The building will remain occupied during construction. Size: 200,000 SF Cost: \$2 million</p>					
C.	UNCG PHILLIPS HAWKINS FIRE ALARM UPGRADES Greensboro, NC	PRO. SERVICES COMPLETED	2017	CONSTRUCTION COMPLETED	2018
		<input checked="" type="checkbox"/> PERFORMED WITH CURRENT FIRM			
<p>Mr. Sigmon served as project manager. McKim & Creed's scope included replacing the existing addressable fire alarm system, adding mass notification and addressing ADA deficiencies along with additional work to install security cameras for improved safety. The project also included the addition of a 100kW/125kVA standby generator to serve life safety loads including emergency lighting, and optional standby loads including an elevator. Size: 20,000 SF Cost: \$1.2million</p>					
D.	WTCC PERRY NEW SCIENCE & HEALTH EDUCATION BUILDING Raleigh, NC	PRO. SERVICES COMPLETED	2024	CONSTRUCTION COMPLETED	Est 2026
		<input checked="" type="checkbox"/> PERFORMED WITH CURRENT FIRM			
<p>Mr. Sigmon served as electrical EOR. McKim & Creed is providing mechanical, electrical, plumbing, and fire protection system design for the 106,000 SF Wake Technical Community College (WTCC) Perry Health Science Campus new Health Sciences building. This building will serve as the campus's state of the art hub for healthcare staff training with a direct adjacency to Wake Med for collaboration. Included in this building are simulation patient rooms, an ED, an OR, ultrasound training bays as well as functioning X-ray, MRI, and CT scanning spaces. This project consists of a unique balance of energy efficiency for Green Globes certification while maintaining robust systems that will meet the school's needs. Overall mechanical systems include penthouse air handlers, boilers and utility yard residing air cooled chillers. Size: 106,000 SF Cost: \$95 million</p>					
E.	NCSSM DORM RENOVATIONS Durham, NC	PRO. SERVICES COMPLETED	2025	CONSTRUCTION COMPLETED	Est 2026
		<input checked="" type="checkbox"/> PERFORMED WITH CURRENT FIRM			
<p>Mr. Sigmon is serving as electrical engineer. McKim & Creed is providing MEP services for this project to renovate and upgrade six student residence halls at NCSSM. The project scope included an initial advanced planning phase to scope all residence halls and associated MEP upgrades. The renovations include upgrading MEP central systems, individual and community restrooms, furnishings in the rooms and lounges, and all adult apartments that are used by live-in staff members. Our scope included replacing the existing plumbing piping systems providing new exhaust fans and ductwork, replacing select air handling units, and providing MEP modifications to support architectural renovations (new lighting, receptacle layout modifications, and new diffusers). Size: 200,000 SF Cost: \$10 million</p>					

E. RESUME

	NAME	ROLE	YEARS EXPERIENCE	
	Mitch Brown, PE	Plumbing Engineer	TOTAL 37	CURRENT FIRM 13
FIRM				
MCKIM & CREED Raleigh, NC				

EDUCATION
B.S., Mechanical Engineering, NC State University

CURRENT PROFESSIONAL REGISTRATION
Professional Engineer: NC (#019692)

Mr. Brown is a professional engineer with 37+ years of experience. His principal areas of experience include the design of HVAC systems, plumbing systems, medical gas systems, steam and condensate systems, boiler and chiller plants and facility condition assessments.

RELEVANT PROJECTS

A.	NCSU KILGORE, THOMAS, SCOTT RENOVATION <i>Raleigh, NC</i>	PRO. SERVICES COMPLETED	Ongoing	CONSTRUCTION COMPLETED	TBD
		<input checked="" type="checkbox"/> PERFORMED WITH CURRENT FIRM			

Mr. Brown is serving as plumbing and fire protection engineer. The Kilgore (built in 1952), Scott (opened in 1952) and Thomas (built in 1964) Halls project is a combined and phased HVAC and laboratory renovations project addressing multiple needs across NC State's North Campus. The project addresses deficient mechanical, electrical, plumbing, and fire protection systems and brings the buildings into compliance with the NC State Building codes and regulatory laboratory requirements. Size: 237,000 SF total | Cost: \$24.3 million

B.	UNC CHAPEL HILL GRANVILLE TOWERS HVAC REPLACEMENT <i>Chapel Hill, NC</i>	PRO. SERVICES COMPLETED	2020	CONSTRUCTION COMPLETED	2021
		<input checked="" type="checkbox"/> PERFORMED WITH CURRENT FIRM			

Mr. Brown served as plumbing and fire protection engineer. McKim & Creed responded to an urgent need from UNC Chapel Hill to replace the existing mechanical systems in three high rise residence halls, Granville Towers. The original systems were installed over 60 years ago when designers didn't have an understanding of controlling humidity as well as we do now. This resulted in mold growth in and around the restrooms and system replacement was a must, and schedule was the biggest driver. McKim & Creed explored different HVAC system solutions including considerations for budget, space, phasing, and performance. Size: 300,000 SF | Cost: \$23 million

C.	UNCSA SANFORD & MOORE RESIDENCE HALLS HVAC REPLACEMENT <i>Winston-Salem, NC</i>	PRO. SERVICES COMPLETED	2019	CONSTRUCTION COMPLETED	2020
		<input checked="" type="checkbox"/> PERFORMED WITH CURRENT FIRM			

Mr. Brown served as mechanical engineer. McKim & Creed completed a project study and subsequently completed the HVAC Upgrades project for the NC School of the Arts Sanford and Moore Residence Halls. The HVAC Upgrades project included new central HVAC systems and associated electrical power renovations for 2 new air-cooled chillers, 4 new boilers, 2 new domestic water heaters, and associated piping, pumps, and controls system upgrades. The existing chillers served each building separately, but the new chillers were tied together to provide partial redundancy to both buildings. Additionally, multiple boilers and pumps were provided to improve redundancy if a single piece of equipment were to fail. This project was completed on time and under budget for UNCSA with the project substantial completion in the summer of 2020 prior to students returning to campus. Size: 24,000 SF | Cost: \$1.1 million

D.	FAYETTEVILLE STATE UNIVERSITY NEW SCIENCE AND TECHNOLOGY BUILDING <i>Fayetteville, NC</i>	PRO. SERVICES COMPLETED	2014	CONSTRUCTION COMPLETED	2016
		<input checked="" type="checkbox"/> PERFORMED WITH CURRENT FIRM			

Mr. Brown served as a plumbing and fire protection engineer for the new 55,000 SF Science and Technology Building. An award-winning, LEED Silver-certified project, the building complies with State Construction Office guidelines regarding sustainability to reduce energy and water consumption. A life cycle cost analysis was provided, and energy conservation strategies were put into place that included high-efficiency water-cooled chillers with a variable secondary flow system, high-efficiency condensing type boilers and water heaters, energy recovery for exhaust/outside air streams, high-efficiency T-5 HO lighting and lighting controls, and high-performance glazing and increased insulation values for the building envelope. Low-flow plumbing fixtures were utilized as part of a water reduction strategy. Size: 55,000 SF | Cost: \$19 million

E.	WTCC PERRY NEW SCIENCE & HEALTH EDUCATION BUILDING <i>Raleigh, NC</i>	PRO. SERVICES COMPLETED	2024	CONSTRUCTION COMPLETED	Est 2026
		<input checked="" type="checkbox"/> PERFORMED WITH CURRENT FIRM			

Mr. Brown served as plumbing and fire protection engineer. McKim & Creed is providing mechanical, electrical, plumbing, and fire protection system design for the 106,000 SF Wake Technical Community College (WTCC) Perry Health Science Campus new Health Sciences building. This building will serve as the campus's state of the art hub for healthcare staff training with a direct adjacency to Wake Med for collaboration. Included in this building are simulation patient rooms, an ED, an OR, ultrasound training bays as well as functioning X-ray, MRI, and CT scanning spaces. This project consists of a unique balance of energy efficiency for Green Globes certification while maintaining robust systems that will meet the school's needs. Overall mechanical systems include penthouse air handlers, boilers and utility yard residing air cooled chillers. Size: 106,000 SF | Cost: \$95 million

E. RESUME

NAME	ROLE	YEARS EXPERIENCE	
		TOTAL	CURRENT FIRM
Jose Torres, PE	QA/QC	24	1
FIRM			
MCKIM & CREED Raleigh, NC			

EDUCATION
M.B.A., Business Administration, Wake Forest University | B.S., Mechanical Engineering, North Carolina State University

CURRENT PROFESSIONAL REGISTRATION
Professional Engineer: NC (# 031493)

Mr. Torres brings 24+ years of experience, with a proven track record of designing and implementing efficient and effective mechanical systems. Mr. Torres possesses extensive knowledge of HVAC, plumbing, and fire protection systems, and has a strong understanding of industry codes and regulations

RELEVANT PROJECTS

A.	FSU BUTLER & TELECOM BUILDINGS RENOVATIONS <i>Fayetteville, NC</i>	PRO. SERVICES COMPLETED	Ongoing	CONSTRUCTION COMPLETED	TBD
		<input checked="" type="checkbox"/> PERFORMED WITH CURRENT FIRM			

Mr. Torres is serving as mechanical engineer. Fayetteville State University selected McKim & Creed as the prime consultant to address outdated mechanical and electrical infrastructure in the G.L. Butler and Telecommunications buildings. For the G.L. Butler Building, the project includes fire alarm system replacement for code compliance, inspection and repair of air handlers on upper floors, and the installation of VAV boxes and new ductwork for better temperature control. The Telecommunications Building project involves the removal of DX units, installation of air handlers and VAV boxes, connection to the campus chilled water loop, and system upgrades including an emergency generator and fire alarm replacement. Size: 87,000 SF | Cost: \$3.8 million

B.	WTCC PERRY NEW SCIENCE & HEALTH EDUCATION BUILDING <i>Raleigh, NC</i>	PRO. SERVICES COMPLETED	2024	CONSTRUCTION COMPLETED	Est 2026
		<input checked="" type="checkbox"/> PERFORMED WITH CURRENT FIRM			

Mr. Torres is serving as mechanical engineer. McKim & Creed is providing mechanical, electrical, plumbing, and fire protection system design for the 106,000 SF Wake Technical Community College (WTCC) Perry Health Science Campus new Health Sciences building. This building will serve as the campus's state of the art hub for healthcare staff training with a direct adjacency to Wake Med for collaboration. Included in this building are simulation patient rooms, an ED, an OR, ultrasound training bays as well as functioning X-ray, MRI, and CT scanning spaces. This project consists of a unique balance of energy efficiency for Green Globes certification while maintaining robust systems that will meet the school's needs. Overall mechanical systems include penthouse air handlers, boilers and utility yard residing air cooled chillers. Size: 106,000 SF | Cost: \$95 million

C.	NC EDUCATION CAMPUS <i>Raleigh, NC</i>	PRO. SERVICES COMPLETED	Ongoing	CONSTRUCTION COMPLETED	Est 2027
		<input checked="" type="checkbox"/> PERFORMED WITH CURRENT FIRM			

Mr. Torres is serving as mechanical engineer. McKim & Creed is providing mechanical, electrical, plumbing, and fire protection engineering services for the North Carolina Education Campus project. This new campus will support multiple executive-level agencies, including the Department of Commerce, Department of Public Instruction, Community Colleges System, and the UNC System. The building includes 300,000 SF of office space, high-technology board rooms and conference rooms, support space, and a below-grade parking deck. McKim & Creed's scope includes completing an advanced planning phase with an emphasis on energy savings and review of options including a new hybrid chilled water-cooled chiller plant coupled with NC SCO utilities and usage of existing central steam system, heat recovery chiller, LED lighting and lighting controls and optimized HVAC system controls. Size: 300,000 SF | Cost: \$320 million

D.	NCSU POLK HALL RENOVATION <i>Raleigh, NC</i>	PRO. SERVICES COMPLETED	Ongoing	CONSTRUCTION COMPLETED	TBD
		<input checked="" type="checkbox"/> PERFORMED WITH CURRENT FIRM			

Mr. Torres is providing QA/QC services. McKim & Creed is providing MEP services for the \$73 million renovation of Polk Hall (completed in 1926), which houses the Structural & Molecular Biochemistry and Animal Science departments. The project aims to enhance labs and student spaces and includes modernizing mechanical, electrical, and plumbing systems. Specific upgrades involve the fire alarm system, electrical switchgear, building power panels, air handling units, medium pressure ductwork, lab exhaust systems, lighting controls, and plumbing infrastructure. McKim & Creed led discussions in the planning phase for high-efficiency lab HVAC systems. The goal is to modernize the facility to support program growth and expansion. Size: 128,000 SF | Cost: \$73 million

E.	METHODIST UNIVERSITY BERNS STUDENT CENTER MEP STUDY <i>Fayetteville, NC</i>	PRO. SERVICES COMPLETED	2024	CONSTRUCTION COMPLETED	NA
		<input checked="" type="checkbox"/> PERFORMED WITH CURRENT FIRM			

Mr. Torres provided cost estimating services. McKim & Creed conducted a study of the Berns Student Center's existing MEP systems to address inefficiencies and identify future needs. The assessment examined outdated systems, proposed a fire protection design, and considered a digital building automation system for improved HVAC controls and temperature distribution. Plumbing recommendations included a new domestic water service, replacing tankless water heaters with a recirculating system, and upgrading the kitchen's grease trap and sanitary system. The electrical analysis advised consolidating systems, replacing switchboards and panelboards, installing new LED lighting and controls, a 250kW generator for backup power, and updating the fire alarm system to align with vendor preferences. Size: 40,000 SF | Cost: \$20 million

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each Key Person)



12. NAME RON DECKMAN	13. ROLE IN THIS CONTRACT MEP Senior Cost Estimator	14. YEARS OF EXPERIENCE	
		a. TOTAL 32+	b. CURRENT FIRM 8
15. FIRM NAME AND LOCATION 35°NORTH PEG Contracting Inc., dba 35 North, Durham, NC			
16. EDUCATION (DEGREE AND SPECIALIZATION) B.A. in Humanities/Classical Studies, Biola University (Magna Cum Laude)		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	

18. OTHER PROFESSIONAL QUALIFICATIONS (PUBLICATIONS, ORGANIZATIONS, TRAINING, AWARDS, ETC.)

Ron brings over 32 years of experience in preconstruction services managing high-intensity projects at facilities across the country. He has provided cost estimating support for design projects ranging from \$25,000 to over \$900 million for education, healthcare, municipal, and federal sectors, among others. Ron successfully provides advance planning, construction cost milestone estimating, and value engineering for all design phases for new facilities and renovations. He specializes in complex MEP estimating. Ron has a deep knowledge of plumbing, mechanical, and electrical utilities, coupled with a strong understanding of project requirements.

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (CITY AND STATE)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
a	University of North Carolina Charlotte, Cone Center - Restroom Addition, Charlotte, NC	2024	NA
	(3) BRIEF DESCRIPTION (BRIEF SCOPE, SIZE, COST, ETC.) AND SPECIFIC ROLE MEP Senior Cost Estimator for a feasibility study involving the renovation of existing areas to include ablation stations. Scope includes a new gender-neutral ADA-compliant restroom with floor sink drain, wash basin, and shower attachment at water closet, along with new walls to deck with sound batt insulation. In the existing men's restroom, one lavatory will be replaced with a Kohler Rivlet (wudu). In the existing women's restroom, three lavatories will be removed and replaced with one wall-mounted lavatory and one Kohler Rivlet (wudu). Size: 1,480 SF; Cost: \$606,281		
b	North Carolina State University, Tri Towers Residence Hall, Mechanical System Upgrade, Raleigh, NC	2024	2025-2027
	(3) BRIEF DESCRIPTION (BRIEF SCOPE, SIZE, COST, ETC.) AND SPECIFIC ROLE MEP Cost Estimator for the phased mechanical system renovations for three residence halls - Bown Hall, Carroll Hall, and Metcalf Hall (Tri-Towers). Building scopes will include upgrades to the restroom and corridor ventilation, new exhaust ventilators, new restroom exhausts, as well as new ducts and ceilings where required. A new 125-amp 480-volt panel is provided on the first floor of each building to provide power to the DOAS units. Size: 31 Levels; Cost: \$10.2 M		
c	University of North Carolina Charlotte, Friday HVAC & Electrical Repairs, Charlotte, NC	2024	2026 (est)
	(3) BRIEF DESCRIPTION (BRIEF SCOPE, SIZE, COST, ETC.) AND SPECIFIC ROLE MEP Senior Cost Estimator for this project, which prioritizes HVAC renovations, including the replacement of three rooftop units with new DX units featuring VFDs. Additionally, a new four-pipe AHU is installed, along with new medium-pressure ductwork and VAV units. The fire alarm system undergoes extensive upgrades, with devices and conduit to be replaced on multiple floors and wiring meeting Class A standards throughout. Size: 90,050 SF; Cost: \$6.5 M		
d	University of North Carolina Chapel Hill, Morehead Chemistry Teaching Lab Renovations, Chapel Hill, NC	2024	Ongoing
	(3) BRIEF DESCRIPTION (BRIEF SCOPE, SIZE, COST, ETC.) AND SPECIFIC ROLE MEP Senior Cost Estimator for the renovation and conversion of six existing laboratories into teaching laboratories within an occupied facility. Scope includes architectural upgrades including casework, specialty equipment, mechanical, electrical, plumbing, fire protection, low-voltage systems, and abatement. Size: 5,698 SF; Cost: \$3.2 M		
e	East Carolina University, Todd Dining Hall Renovation, Greenville, NC	2025	TBD
	(3) BRIEF DESCRIPTION (BRIEF SCOPE, SIZE, COST, ETC.) AND SPECIFIC ROLE MEP Senior Cost Estimator for the the project, which involves demolition and structural upgrades to the existing crawl space beneath the active main kitchen at East Carolina University. Scope includes installation of a drainage system, grease separator, and floor drains, as well as updating existing plumbing and natural gas lines. Size: 14,365 SF; Cost: \$3.5 M		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete on Section E for each key person.)

12. NAME Michael J. Krupa, MS OSH, GSP®, CIEC		13. ROLE IN THIS CONTRACT Industrial Hygiene Project Manager		14. YEARS EXPERIENCE	
				a. TOTAL 30	b. WITH CURRENT FIRM 7
15. FIRM NAME AND LOCATION <i>(City and State)</i> Froehling & Robertson, Inc. (Raleigh, NC)					
16. EDUCATION <i>(Degree and Specialization)</i> Master of Science / Occupational Safety and Health, Environmental Management Bachelor of Arts / Geology			17. CURRENT PROFESSIONAL REGISTRATION <i>(State and Discipline)</i> NC: Asbestos Inspector, Asbestos Air Monitor, Asbestos Project Designer, Asbestos Management Planner, Lead Based Paint Inspector/Risk Assessor; SC: Asbestos Inspector, Asbestos Air Sampler, Asbestos Project Designer		
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> Mr. Krupa manages and conducts Indoor Air Quality Studies and Mold/Moisture Assessments, Hazardous Materials Inspections (asbestos, lead-based paint, PCBs, mercury, universal waste), Industrial Hygiene Studies (airborne chemical contaminants, noise), and Asbestos Air Monitoring. Mr. Krupa also develops and maintains Respiratory Protection Programs and Personal Protective Equipment (PPE) Programs.					
19. RELEVANT PROJECTS					
a.	(1) TITLE AND LOCATION <i>(City and State)</i> NC A&T University, Carver Hall Hazardous Materials Survey Greensboro, NC		(2) YEAR COMPLETED		
			PROFESSIONAL SERVICES 2022	CONSTRUCTION <i>(If Applicable)</i> N/A	
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Mr. Krupa provided project management of the Limited Regulated Materials Survey for the planned renovations to the 56,800-square-foot two-story educational and research facility. The limited Regulated Materials Survey was to identify ACM, LBP coatings, Polychlorinated Biphenyls, select Universal waste, and other Regulated Materials (ozone-depleting substances, electronic waste, etc.) that would require appropriate removal, handling, and disposal prior to renovation and select demolition activities.		<input checked="" type="checkbox"/> Check if project performed with current firm			
b.	(1) TITLE AND LOCATION <i>(City and State)</i> UNC Greensboro - Coleman Athletic Center Building Fire Alarm Upgrade Greensboro, NC		(2) YEAR COMPLETED		
			PROFESSIONAL SERVICES 2019	CONSTRUCTION <i>(If Applicable)</i> N/A	
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Mr. Krupa provided project management during hazardous materials design services for a 3,412-square-foot area in the UNCG Coleman Athletic Center. As required, NC Accredited Asbestos Inspector(s) conducted sampling activities of the subject building components within the stated scope of work for ACMs. A visual survey for Lead-Based Paint, PCBs, and other regulated materials was also completed to characterize materials for disposal in accordance with the applicable sections of the Federal Toxic Substance Control Act.		<input checked="" type="checkbox"/> Check if project performed with current firm			
c.	(1) TITLE AND LOCATION <i>(City and State)</i> UNC Chapel Hill - Berryhill Hall Chapel Hill, NC		(2) YEAR COMPLETED		
			PROFESSIONAL SERVICES 2020	CONSTRUCTION <i>(If Applicable)</i> N/A	
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Mr. Krupa provided asbestos project monitoring and management services during the abatement activities at Berryhill Hall in 2020. The asbestos abatement project consisted of removal, disposal, and installation of engineering controls with regard to identified ACM that required removal prior to the demolition of this 128,684-square-foot structure. The project also included hazardous materials surveys completed in 2019.		<input checked="" type="checkbox"/> Check if project performed with current firm			
d.	(1) TITLE AND LOCATION <i>(City and State)</i> UNC Chapel Hill - Everett, Lewis & Stacy Residence Halls Chapel Hill, NC		(2) YEAR COMPLETED		
			PROFESSIONAL SERVICES 2020	CONSTRUCTION <i>(If Applicable)</i> N/A	
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Mr. Krupa provided asbestos survey and monitoring services at the three-story 19,436-square-foot Everett Residence Hall, the three-story 19,502-square-foot Lewis Residence Hall, and the three-story 20,110-square-foot Stacy Residence Halls. The limited Regulated Materials Survey was to identify ACM, LBP coatings, Polychlorinated Biphenyls (PCBs), select Universal waste, and other select Regulated Materials (ozone-depleting substances, electronic waste, etc.) that required appropriate removal, handling and disposal procedures prior to renovation and/selective demolition activities.		<input checked="" type="checkbox"/> Check if project performed with current firm			
e.	(1) TITLE AND LOCATION <i>(City and State)</i> UNC Chapel Hill - Sitterson Hall Classroom Renewal Chapel Hill, NC		(2) YEAR COMPLETED		
			PROFESSIONAL SERVICES 2019	CONSTRUCTION <i>(If Applicable)</i> N/A	
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE Mr. Krupa provided limited regulated materials consulting services at Sitterson Hall at UNC CH. The purpose of the limited regulated materials survey is to identify asbestos-containing materials (ACMs), Lead-Based Paint (LBP) coatings, and other select regulated materials that may require appropriate removal, handling, and disposal procedures before scheduled renovation and selective demolition activities at the subject property. The renovation area comprised 5,000-square-feet and provided a large, active learning classroom. It encompassed selective demolition, new floor construction, finishes, lighting, A/V, electrical, and data distribution.		<input checked="" type="checkbox"/> Check if project performed with current firm			

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

[Complete one Section E for each key person]

12. Name Marcus R. Thomas AIA, NCARB	13. Role in this Contract Principal-In-Charge	14. Years Experience	
		A. TOTAL 10	B. WITH CURRENT FIRM 4

15. Firm Name and Location [CITY AND STATE]
KEi Architects, Charlotte, North Carolina

16. Education [DEGREE AND SPECIALIZATION] Master of Architecture, Hampton University	17. Current Professional Registration [STATE AND DISCIPLINE] Registered Architect NC, VA, SC, TN
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18. Other Professional Qualifications [PUBLICATIONS, ORGANIZATIONS, TRAINING, AWARDS, ETC.]
2021 Autodesk 40 Under 40 Champions of Construction; AIA Charlotte, Board of Directors; NCARB Professional Conduct Committee, NAAB Accreditation Review Committee, Dukes Mayo Bowl Selection Committee

19. Relevant Projects

A.	1. Title and Location [CITY AND STATE] Hampton University Admin. Building Renovation Hampton, Virginia	2. Year Completed	
		Professional Services 2024	Construction [IF APPLICABLE] Est. 2026
	3. Brief Description [BRIEF SCOPE, SIZE, COST, ETC.] and Specific Role 18,000 SF. Renovation of Hampton University's Administration Building focused on modernizing office spaces, enhancing accessibility, and preserving the building's historic architectural character while integrating updated systems to support operational efficiency.	<input checked="" type="checkbox"/> CHECK IF PROJECT PERFORMED WITH CURRENT FIRM	
B.	1. Title and Location [CITY AND STATE] VSU HVAC Replacements Petersburg, Virginia	2. Year Completed	
		Professional Services 2023	Construction [IF APPLICABLE] Ongoing
	3. Brief Description [BRIEF SCOPE, SIZE, COST, ETC.] and Specific Role KEi was contracted to provide Architectural services in support of VSU's efforts to assess and replace HVAC units campuswide.	<input checked="" type="checkbox"/> CHECK IF PROJECT PERFORMED WITH CURRENT FIRM	
C.	1. Title and Location [CITY AND STATE] NCCU Art Museum Durham, North Carolina	2. Year Completed	
		Professional Services 2022	Construction [IF APPLICABLE] 2023
	3. Brief Description [BRIEF SCOPE, SIZE, COST, ETC.] and Specific Role KEi is engaged with North Carolina Central University to renovate the campus Art Gallery. Referred to as the "heart" of campus, the Art Gallery hosts a number of events and functions from classes to cocktail receptions. The project will include rethinking the look at function of the interior space, in addition to electrical, mechanical, plumbing and fire protection.	<input checked="" type="checkbox"/> CHECK IF PROJECT PERFORMED WITH CURRENT FIRM	
D.	1. Title and Location [CITY AND STATE] WTCC Therapeutic Massage Renovation Raleigh, North Carolina	2. Year Completed	
		Professional Services 2023	Construction [IF APPLICABLE] Ongoing
	3. Brief Description [BRIEF SCOPE, SIZE, COST, ETC.] and Specific Role Wake Technical Community College engaged KEi to reimagine a multifunction space for their therapeutic massage program. The program also serves outside clients, so they new space had to meet both academic and public requirements. The renovated space will include space for 8 massage tables, storage, restroom, handwashing station and public waiting area.	<input checked="" type="checkbox"/> CHECK IF PROJECT PERFORMED WITH CURRENT FIRM	
E.	1. Title and Location [CITY AND STATE] Lakeview Hall Renovation Richmond, Virginia	2. Year Completed	
		Professional Services 2024	Construction [IF APPLICABLE] 2024
	3. Brief Description [BRIEF SCOPE, SIZE, COST, ETC.] and Specific Role A 4,000 SF adaptive reuse project transforming former residential units into modern, functional administrative offices for the Residence Life department. The renovation included flexible office layouts, upgraded infrastructure, and sustainable design elements, all delivered on time and within budget.	<input checked="" type="checkbox"/> CHECK IF PROJECT PERFORMED WITH CURRENT FIRM	

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

[Complete one Section E for each key person.]

12. Name Benjamin Cohey ASSOC. AIA, NCARB	13. Role in this Contract Project Manager	14. Years Experience	
		A. TOTAL 23	B. WITH CURRENT FIRM 1.5 Year

15. Firm Name and Location [CITY AND STATE]
KEi Architects, Charlotte, North Carolina

16. Education [DEGREE AND SPECIALIZATION] University of North Carolina Charlotte / Bachelor of Architecture (UF) Anne Arundel Community College / Associate in Arts / Architecture	17. Current Professional Registration [STATE AND DISCIPLINE] N/A
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18. Other Professional Qualifications [PUBLICATIONS, ORGANIZATIONS, TRAINING, AWARDS, ETC.]

19. Relevant Projects

A.	1. Title and Location [CITY AND STATE] Hampton University Admin. Building Renovation Hampton, Virginia	2. Year Completed	
		Professional Services 2024	Construction [IF APPLICABLE] Est. 2026
	3. Brief Description [BRIEF SCOPE, SIZE, COST, ETC.] and Specific Role 18,000 SF. Renovation of Hampton University's Administration Building focused on modernizing office spaces, enhancing accessibility, and preserving the building's historic architectural character while integrating updated systems to support operational efficiency.	<input checked="" type="checkbox"/> CHECK IF PROJECT PERFORMED WITH CURRENT FIRM	
B.	1. Title and Location [CITY AND STATE] Lakeview Hall Renovation Richmond, Virginia	2. Year Completed	
		Professional Services 2024	Construction [IF APPLICABLE] 2024
	3. Brief Description [BRIEF SCOPE, SIZE, COST, ETC.] and Specific Role A 4,000 SF adaptive reuse project transforming former residential units into modern, functional administrative offices for the Residence Life department. The renovation included flexible office layouts, upgraded infrastructure, and sustainable design elements, all delivered on time and within budget.	<input checked="" type="checkbox"/> CHECK IF PROJECT PERFORMED WITH CURRENT FIRM	
C.	1. Title and Location [CITY AND STATE] North Elm Medical Office Building Greensboro, North Carolina	2. Year Completed	
		Professional Services 2022	Construction [IF APPLICABLE] 2023
	3. Brief Description [BRIEF SCOPE, SIZE, COST, ETC.] and Specific Role North Elm Medical Office Building is a 8,000 SF first time upfit. The project includes 15 exam rooms, lab, teamwork areas, and office space. This Urgent Care facility welcomes both adult and pediatric patients. Focus was given to building circulation and efficiency of staff.	<input checked="" type="checkbox"/> CHECK IF PROJECT PERFORMED WITH CURRENT FIRM	
D.	1. Title and Location [CITY AND STATE] Cary Academy Classroom Addition Cary, North Carolina	2. Year Completed	
		Professional Services 2024	Construction [IF APPLICABLE] Ongoing
	3. Brief Description [BRIEF SCOPE, SIZE, COST, ETC.] and Specific Role Construction Administrator. The Cary Academy Classroom Addition project expands the campus's learning spaces with state-of-the-art classrooms designed to foster collaboration and innovation. Featuring flexible layouts, advanced technology, and sustainable design elements, this addition enhances the academic experience for students and faculty alike.	<input checked="" type="checkbox"/> CHECK IF PROJECT PERFORMED WITH CURRENT FIRM	
E.	1. Title and Location [CITY AND STATE] WTCC Therapeutic Massage Renovation Raleigh, North Carolina	2. Year Completed	
		Professional Services 2023	Construction [IF APPLICABLE] 2024
	3. Brief Description [BRIEF SCOPE, SIZE, COST, ETC.] and Specific Role Wake Technical Community College engaged KEi to reimagine a multifunction space for their therapeutic massage program. The program also serves outside clients, so they new space had to meet both academic and public requirements. The renovated space will include space for 8 massage tables, storage, restroom, handwashing station and public waiting area.	<input checked="" type="checkbox"/> CHECK IF PROJECT PERFORMED WITH CURRENT FIRM	

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

[Complete one Section E for each key person]

12. Name Garrett Spears ASSOC. AIA	13. Role in this Contract Project Coordinator	14. Years Experience	
		A. TOTAL 9	B. WITH CURRENT FIRM 3

15. Firm Name and Location [CITY AND STATE]
KEi Architects, Charlotte, North Carolina

16. Education [DEGREE AND SPECIALIZATION] Bachelor of Architecture, Tuskegee University	17. Current Professional Registration [STATE AND DISCIPLINE] N/A
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18. Other Professional Qualifications [PUBLICATIONS, ORGANIZATIONS, TRAINING, AWARDS, ETC.]

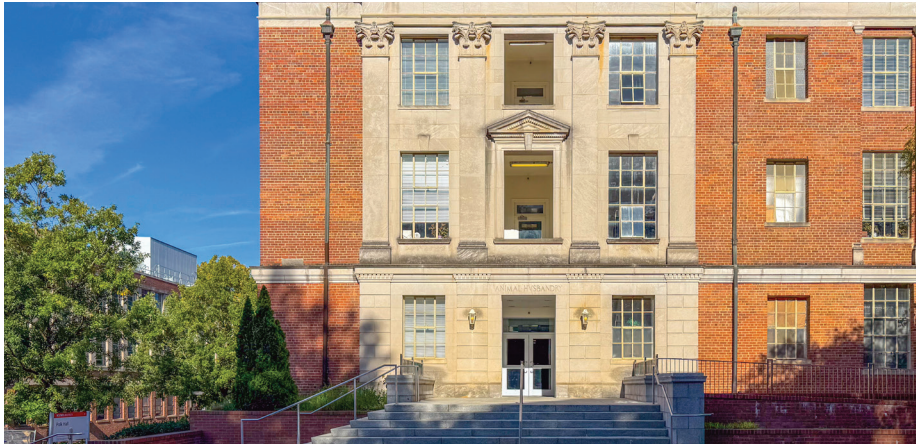
19. Relevant Projects

A.	1. Title and Location [CITY AND STATE] Cary Academy Classroom Addition Cary, North Carolina	2. Year Completed	
		Professional Services 2024	Construction [IF APPLICABLE] Ongoing
	3. Brief Description [BRIEF SCOPE, SIZE, COST, ETC.] and Specific Role The Cary Academy Classroom Addition project expands the campus's learning spaces with state-of-the-art classrooms designed to foster collaboration and innovation. Featuring flexible layouts, advanced technology, and sustainable design elements, this addition enhances the academic experience for students and faculty alike.	<input checked="" type="checkbox"/> CHECK IF PROJECT PERFORMED WITH CURRENT FIRM	
B.	1. Title and Location [CITY AND STATE] Karl Strass Track Replacement Asheville, North Carolina	2. Year Completed	
		Professional Services 2022	Construction [IF APPLICABLE] 2023
	3. Brief Description [BRIEF SCOPE, SIZE, COST, ETC.] and Specific Role KEi was contracted to coordinate and implement the design for the replacement of Karl Strauss Track and natural grass infield at the University of North Carolina Asheville. The project required the removal of all existing surfaces and will be replaced with a new Mondo track surface, natural grass infield and fencing.	<input checked="" type="checkbox"/> CHECK IF PROJECT PERFORMED WITH CURRENT FIRM	
C.	1. Title and Location [CITY AND STATE] Clafin University, Health and Wellness Complex Orangeburg, SC	2. Year Completed	
		Professional Services 2017	Construction [IF APPLICABLE] 2019
	3. Brief Description [BRIEF SCOPE, SIZE, COST, ETC.] and Specific Role The project consisted of the expansion of the historic Jonas T. Kennedy Health and Physical Education Center into a 30,000 SF, full-service Health and Wellness Center that features a gymnastics and aerobics room, a weight room, an indoor track, staff offices, and multi-purpose meeting and seminar rooms. The new facility opened in February 2019 and is open to both Clafin students and members of the nearby Orangeburg community.	<input type="checkbox"/> CHECK IF PROJECT PERFORMED WITH CURRENT FIRM	
D.	1. Title and Location [CITY AND STATE] NCCU Art Museum Durham, North Carolina	2. Year Completed	
		Professional Services 2022	Construction [IF APPLICABLE] 2023
	3. Brief Description [BRIEF SCOPE, SIZE, COST, ETC.] and Specific Role KEi is engaged with North Carolina Central University to renovate the campus Art Gallery. Referred to as the "heart" of campus, the Art Gallery hosts a number of events and functions from classes to cocktail receptions. The project will include rethinking the look at function of the interior space, in addition to electrical, mechanical, plumbing and fire protection.	<input checked="" type="checkbox"/> CHECK IF PROJECT PERFORMED WITH CURRENT FIRM	
E.	1. Title and Location [CITY AND STATE] Charleston Southern University Residence Hall Charleston, South Carolina	2. Year Completed	
		Professional Services 2017	Construction [IF APPLICABLE] 2019
	3. Brief Description [BRIEF SCOPE, SIZE, COST, ETC.] and Specific Role The new residence hall at Charleston Southern is the first new student housing project for the university in decades. This buildings meets a need for suite-style housing for the schools upperclassmen enrollment numbers consistently increase year after year. This 213 bed residence features two-bedroom (doubles) units, Resident Life Coordinator and laundry on the first floor, student meeting and study space on the second floor and student lounge and kitchen on the third.	<input type="checkbox"/> CHECK IF PROJECT PERFORMED WITH CURRENT FIRM	

F. EXAMPLE PROJECT		EXAMPLE PROJECT #	1
POLK HALL RENOVATION <i>Raleigh, NC</i>		YEAR COMPLETED	
		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION NA

PROJECT OWNER'S INFORMATION		
PROJECT OWNER NC State University	POINT OF CONTACT NAME Bill Davis <i>Associate Director</i>	POINT OF CONTACT PHONE NUMBER, & EMAIL 919.513.7492 wrdavis3@ncsu.edu

BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT



McKim & Creed is providing MEP services for the \$73 Million Polk Hall Renovation project at NCSU. This multi-phased project will renovate portions of Polk Hall, which houses the Structural & Molecular Biochemistry and Animal Science departments, to improve labs as well as student spaces. The scope of services also includes significant modernization of the mechanical, electrical, and plumbing (MEP) systems within the building.

Specifics of this scope include upgrades to the fire alarm system, new electrical switchgear and building power panels, replacement of the air handling units, replacement of the majority of the medium pressure ductwork systems, upgrades to lab exhaust systems, lighting and lighting controls, and replacement of the majority of the plumbing infrastructure systems. McKim & Creed led systems discussions in the advanced planning phase, including the planning for variable volume, high-efficiency lab HVAC systems, and associated controls.

The goal of this infrastructure work is to modernize this lab building to allow for continued program growth and expansion.

PROJECT DETAILS:

SIZE
128,000 SF

COST
\$73 million

ROLE
Engineering Prime

PROJECT HIGHLIGHTS:

- ✔ Multi-phased renovation
- ✔ MEP system modernization
- ✔ Plumbing infrastructure replacement
- ✔ Advanced planning leadership
- ✔ New electrical switchgear

FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT			
#	FIRM NAME	FIRM LOCATION	ROLE
A.	McKim & Creed, Inc.	Raleigh, NC	MEP/FP Engineering

F. EXAMPLE PROJECT

EXAMPLE PROJECT #

2

FSU RJSC SANITARY PIPING EMERGENCY REPLACEMENT

Fayetteville, NC

YEAR COMPLETED

PROFESSIONAL SERVICES

2022

CONSTRUCTION

2022

PROJECT OWNER'S INFORMATION

PROJECT OWNER

Fayetteville State University

POINT OF CONTACT NAME

Harold Miller

POINT OF CONTACT PHONE NUMBER, & EMAIL

910.703.7669

hmiller1@uncfsu.edu

BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT



This project was an emergency project to replace sanitary piping in the building that served as the main line from the upper level restrooms and the discharge from the grease separator. The Jones Center is the main dining hall on campus so the piping had to be fixed immediately.

The project was challenging in that the line that needed to be replaced ran down the center of the building and had an eighteen foot drop to a lower level that was inaccessible to replace in kind.

McKim & Creed rerouted the sanitary main from inside the building where it was accessible in the kitchen prep area to outside the building. Once outside it was routed past the grease separator to a retaining wall. The discharge line of the grease separator was connected to the line. At the retaining wall, the line passed through the wall and routed down with a drop and rerouted to the inside of the building in a mechanical room on the lower level to return to the existing main trunk in the building.

PROJECT DETAILS:

SIZE

N/A

COST

\$360,000

ROLE

Engineering Prime

PROJECT HIGHLIGHTS:

- ✔ FSU experience
- ✔ Response to emergency/urgent need
- ✔ Sanitary piping replacement and reroute
- ✔ Rapid design
- ✔ Infrastructure upgrade



FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

#	FIRM NAME	FIRM LOCATION	ROLE
A.	McKim & Creed, Inc.	Raleigh, NC	MEP/FP Engineering

F. EXAMPLE PROJECT		EXAMPLE PROJECT #	3
NCSU AVENT FERRY COMPLEX <i>Raleigh, NC</i>		YEAR COMPLETED	
		PROFESSIONAL SERVICES 2018	CONSTRUCTION 2019

PROJECT OWNER'S INFORMATION		
PROJECT OWNER NC State University	POINT OF CONTACT NAME Lynn Swank, PLA, LEED AP	POINT OF CONTACT PHONE NUMBER, & EMAIL (919) 513.4637

BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT



This project provided the replacement of existing domestic cold water, hot water and hot water recirculation piping for two residence halls and also modified the hot water generation system(s). The piping was failing due to galvanic corrosion. The design provided for a new domestic cold water, hot water and hot water return risers where removed in the existing chases and replaces abandoned piping buried in concrete slabs between floors.

Additionally, insulation was installed on all domestic water piping along with any valves necessary for a complete and operational system. Zone isolation valves are required at each floor and circuit setters were specified to balance the return system where applicable. Additional capacity was provided for the instantaneous gas water heaters as well as thermal storage tanks for both buildings (E&F).

PROJECT DETAILS:

SIZE
70,000 SF
605 residents

COST
\$500,000

ROLE
Engineering Prime

PROJECT HIGHLIGHTS:

- ✔ Piping replacement
- ✔ System balancing
- ✔ Gas water heaters
- ✔ Thermal storage

FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT			
#	FIRM NAME	FIRM LOCATION	ROLE
A.	McKim & Creed, Inc.	Raleigh, NC	MEP/FP Engineering

F. EXAMPLE PROJECT		EXAMPLE PROJECT #	4
NCSSM DORM RENOVATIONS <i>Durham, NC</i>		YEAR COMPLETED	
		PROFESSIONAL SERVICES 2025	CONSTRUCTION 2026 EST

PROJECT OWNER'S INFORMATION

PROJECT OWNER NC School of Science and Math	POINT OF CONTACT NAME Robert Allen	POINT OF CONTACT PHONE NUMBER, & EMAIL 919.416.2659 allenr@ncssm.edu
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BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT



McKim & Creed is providing MEP services for this project to renovate and upgrade six student residence halls at NCSSM. The project scope included an initial advanced planning phase to scope all residence halls and associated MEP upgrades. The renovations include upgrading MEP central systems, individual and community restrooms, furnishings in the rooms and lounges, and all adult apartments that are used by live-in staff members.

Our scope included replacing the existing plumbing piping systems providing new exhaust fans and ductwork, replacing select air handling units, and providing MEP modifications to support architectural renovations (new lighting, HVAC and plumbing fixtures). These existing buildings were built in the 1960s and renovations of them took careful coordination to ensure all new piping was able to fit in the tight ceiling spaces available.

PROJECT DETAILS:

- SIZE**
200,000 SF
- COST**
\$10 million
- ROLE**
Engineering Consultant

PROJECT HIGHLIGHTS:

- ✔ Higher education/SCO experience
- ✔ Multiple residence hall building renovations
- ✔ Bathroom renovations and domestic hot water system replacement
- ✔ Complete new building HVAC
- ✔ Phasing that minimized impacts to student residents

FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT			
#	FIRM NAME	FIRM LOCATION	ROLE
A.	McKim & Creed, Inc.	Raleigh, NC	MEP/FP Engineering

F. EXAMPLE PROJECT

EXAMPLE PROJECT #

5

UNC CHAPEL HILL KENAN LABORATORY INFRASTRUCTURE UPGRADES

Chapel Hill, NC

YEAR COMPLETED

PROFESSIONAL SERVICES

2018

CONSTRUCTION

2020

PROJECT OWNER'S INFORMATION

PROJECT OWNER

UNC Chapel Hill

POINT OF CONTACT NAME

Chris Glenn

POINT OF CONTACT PHONE NUMBER, & EMAIL

(919) 201-6649

Chris.Glenn@facilities.unc.edu

BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT



McKim & Creed provided mechanical and electrical engineering services as part of UNC Chapel Hill's initiative to implement energy conservation measures at the 45-year-old Kenan Lab. This \$21 million project included providing a new chilled water heat exchanger with associated pumps and controls to decouple the building from the central campus chiller plant as well as new supply valves, exhaust valves and laboratory controls. We also replaced the building's air handling units. The project scope also included modification and extension of steam piping as part of the building's steam to hot water system. McKim & Creed also provided steam to the 3 new lab air handling unit humidifiers.

Additionally, McKim & Creed provided a new sprinkler system for floors 3-9 of this building. In addition to the new sprinkler system, a new fire pump was provided as well as a new room for the fire command center and new front end fire alarm panel. Emergency power for the new fire pump was extended from the Murray/Venable generator. During these infrastructure upgrades the client decided to expand the project again to include a comprehensive renovation of the top four floors of lab space.

This involved the total renovation of 6 lab spaces and graduate student office support spaces to support chemistry, optics, and advanced sciences, which included 16 new fume hoods and associated exhaust systems, new lab casework, specialty gases and 208-Volt power for specialty lab equipment.

PROJECT DETAILS:

SIZE

115,000 SF

COST

\$21 million

ROLE

Engineering Prime

PROJECT HIGHLIGHTS:

- ✔ Electrical distribution system modifications
- ✔ Energy conservation and savings
- ✔ HVAC & controls infrastructure upgrades
- ✔ New fire pump protection system design
- ✔ Voice communication



FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

#	FIRM NAME	FIRM LOCATION	ROLE
A.	McKim & Creed, Inc.	Raleigh, NC	MEP/FP Engineering
B.	F&R	Raleigh, NC	Environmental Services

F. EXAMPLE PROJECT		EXAMPLE PROJECT #	6
UNC HOSPITALS 7TH FLOOR BED TOWER CONVERSION <i>Chapel Hill, NC</i>		YEAR COMPLETED	
		PROFESSIONAL SERVICES 2023	CONSTRUCTION TBD

PROJECT OWNER'S INFORMATION

PROJECT OWNER UNC Hospitals	POINT OF CONTACT NAME Cleopatrice Robinson <i>Project Manager</i>	POINT OF CONTACT PHONE NUMBER, & EMAIL 919.966.5211 Cleopatrice.Robinson@unchealth.unc.edu
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BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT



UNC Hospitals is a network of public hospitals and community clinics serving more than 800,000 patients each year. For patients to receive the highest quality of care, these medical facilities need top-performing mechanical, electrical and plumbing systems for operating equipment, managing comfort conditions, and maintaining sanitary standards. McKim & Creed is currently providing professional MEP services to the main campus, renovating the existing 7th floor into a new 45 bed surgical inpatient unit.

Once complete, our engineering solutions will help provide a comfortable space for patients to recover post-surgery and equip medical staff with the underlying features and tools they need to offer exceptional patient care.

PROJECT DETAILS:

SIZE
34,000 SF

COST
\$30 million

ROLE
Engineering Prime

PROJECT HIGHLIGHTS:

- ✔ New Surgical Inpatient Bed Tower
- ✔ Modernized Healthcare Facility
- ✔ Improved Efficiency and Functionality
- ✔ New MEP Systems

FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT			
#	FIRM NAME	FIRM LOCATION	ROLE
A.	McKim & Creed, Inc.	Raleigh, NC	MEP/FP Engineering

F. EXAMPLE PROJECT

EXAMPLE PROJECT #

7

DUKE HOSPITAL DIETARY EXPANSION

Durham, NC

YEAR COMPLETED

PROFESSIONAL SERVICES

2012

CONSTRUCTION

2014

PROJECT OWNER'S INFORMATION

PROJECT OWNER

Duke University Medical Center

POINT OF CONTACT NAME

Chris Boudreaux

POINT OF CONTACT PHONE NUMBER, & EMAIL

919.730.0866
christopher.boudreaux@duke.edu

BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT



McKim & Creed has provided comprehensive mechanical, electrical, plumbing, and fire protection engineering services for multiple renovation and expansion projects at the Duke University Hospital main kitchen. Most recently, the firm supported a 1,500 SF partial renovation of the main kitchen, focused on enlarging the pot washing area to improve workflow for kitchen and dishwashing operations. This project builds on McKim & Creed's longstanding relationship with Duke University Hospital, which include a full renovation of the 13,000 SF main kitchen completed in 2014.

Previously, McKim & Creed partnered with Duke Medical Center to expand the capacity of the existing 17,000 SF main kitchen. This effort included a new 7,500 SF addition to house coolers, freezers, dry storage, and chemical storage areas, replacing the original adjacent spaces. The kitchen itself was renovated to add ranges, smokers, ovens, and auxiliary equipment, increasing capacity to serve the growing patient population associated with the new Cancer Wing. The Dietary Expansion Project was carefully phased to keep the kitchen operational throughout construction.

After the addition was completed, the kitchen renovation began, with outdated areas demolished to allow for expanded cooking and meal preparation spaces. The project was designed in 3D using the Revit Building Information Modeling System, which improved building systems coordination, reduced construction issues, and decreased construction time.

PROJECT DETAILS:

SIZE

17,000 SF

COST

\$8 million

ROLE

Engineering Prime

PROJECT HIGHLIGHTS:

- ✔ Kitchen capacity expansion
- ✔ Phased construction
- ✔ Operational Continuity
- ✔ Equipment Upgrades
- ✔ Storage Area Relocation
- ✔ 3D Revit Design
- ✔ Improved System Coordination



FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

#	FIRM NAME	FIRM LOCATION	ROLE
A.	McKim & Creed, Inc.	Raleigh, NC	MEP/FP Engineering

F. EXAMPLE PROJECT

UNC SCHOOL OF THE ARTS SANFORD & MOORE RESIDENCE HALLS HVAC REPLACEMENT
Winston-Salem, NC

EXAMPLE PROJECT #

8

YEAR COMPLETED

PROFESSIONAL SERVICES

2019

CONSTRUCTION

2020

PROJECT OWNER'S INFORMATION

PROJECT OWNER

UNC School of the Arts

POINT OF CONTACT NAME

Chris Placco

POINT OF CONTACT PHONE NUMBER, & EMAIL

336.631.1236

placcoc@uncsa.edu

BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT



McKim & Creed completed a project study and subsequently completed the HVAC Upgrades project for the UNC School of the Arts Sanford and Moore Residence Halls. The HVAC Upgrades project included new central HVAC systems and associated electrical power renovations for 2 new air-cooled chillers, 4 new boilers, 2 new domestic water heaters, and associated piping, pumps, and controls system upgrades. The existing chillers served each building separately, but the new chillers were tied together to provide partial redundancy to both buildings. Additionally, multiple boilers and pumps were provided to improve redundancy if a single piece of equipment was to fail.

This project was completed on time and under budget for UNCSA with the project's substantial completion in the summer of 2020 prior to students returning to campus.

The HVAC systems study included meetings with UNCSA staff and reviewing first costs as well as life cycle costs for HVAC systems for the building. Based on available funding and overall maintenance considerations, the first phase of this project was to complete the central system renovations outlined above which were completed on time and under budget.

PROJECT DETAILS:

SIZE

24,000 SF each

COST

\$1.1 million

ROLE

Engineering Prime

PROJECT HIGHLIGHTS:

- ✔ HVAC systems upgrade
- ✔ Piping and controls upgrade
- ✔ Completed on time and under budget
- ✔ Multi-residence hall renovation project
- ✔ Life cycle cost analysis
- ✔ Phased design

FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

#	FIRM NAME	FIRM LOCATION	ROLE
A.	McKim & Creed, Inc.	Raleigh, NC	MEP/FP Engineering

F. EXAMPLE PROJECT

EXAMPLE PROJECT #

9

UNCG PHILLIPS & HAWKINS FIRE ALARM UPGRADES

Greensboro, NC

YEAR COMPLETED

PROFESSIONAL SERVICES

2017

CONSTRUCTION

2018

PROJECT OWNER'S INFORMATION

PROJECT OWNER

UNC Greensboro

POINT OF CONTACT NAME

Tim Rouse
Project Manager

POINT OF CONTACT PHONE NUMBER, & EMAIL

336.334.4317
tsrouse2@uncg.edu

BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT



The Phillips Hawkins 102,000 SF residence hall at UNC Greensboro needed upgrades to its fire alarm system to meet ADA compliance and improve building safety measures for all its occupants. Mckim & Creed's scope included replacing the existing addressable fire alarm system, adding mass notification and addressing ADA deficiencies along with additional work to install security cameras for improved safety.

The project also included the addition of a 125kW generator to support emergency lighting, communications, and an elevator as well as new distribution equipment, feeders and branch circuits to support circuiting of the new emergency systems. The design included lighting calculations to ensure adequate lighting is provided for emergency egress throughout the building.

Important for SCO-related fire alarm projects, we also worked in close collaboration with UNCG, contractors and design team members to review shop drawings, verify installation specifications, coordinate mechanical aspects and follow detailed testing criteria to efficiently get the system online and ensure it met all design elements.

PROJECT DETAILS:

SIZE

102,406 SF

COST

\$1.2 million

ROLE

Engineering Prime

PROJECT HIGHLIGHTS:

- ✔ UNC System / Higher Education Experience
- ✔ SCO Experience
- ✔ New 125kW Generator
- ✔ New Emergency Systems
- ✔ ADA Compliance and Life Safety Upgrades
- ✔ Emergency Lighting



FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

#	FIRM NAME	FIRM LOCATION	ROLE
A.	McKim & Creed, Inc.	Raleigh, NC	MEP/FP & Civil Engineering

F. EXAMPLE PROJECT

UNC CHAPEL HILL EVERETT, LEWIS & STACY RESIDENCE HALL HVAC REPLACEMENT
Chapel Hill, NC

EXAMPLE PROJECT #

10

YEAR COMPLETED

PROFESSIONAL SERVICES
2017

CONSTRUCTION
2018

PROJECT OWNER'S INFORMATION

PROJECT OWNER UNC Chapel Hill	POINT OF CONTACT NAME Chris Glenn	POINT OF CONTACT PHONE NUMBER, & EMAIL 919.201.6649 Chris.Glenn@facilities.unc.edu
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BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT



With buildings nearing 100-years-old on its historic campus, UNC Chapel Hill needed heating, cooling and fire protection system upgrades in several of its dorms. McKim & Creed was the prime consultant for the renovation of Everett, Lewis, and Stacy Residence Halls and provided efficient solutions to improve comfort levels and safety features for the students living there.

This included replacing all the HVAC piping as well as providing new fan coil units, a dedicated outside conditioning unit, HVAC controls, fire alarm system upgrades, and replacement of the building windows. The project also included new chilled water piping and pumping bridge in the basement of each building. Additionally, hazardous material abatement was part of the project design. As prime consultant, McKim & Creed provided detailed project documents including a project staging plan and project schedule requirements.

PROJECT DETAILS:

SIZE

24,056 SF (Everett) / 24,084 SF (Lewis) / 23,745 SF (Stacy)

COST

\$4.5 million

ROLE

Engineering Consultant

PROJECT HIGHLIGHTS:

- ✔ UNC Chapel Hill experience
- ✔ Residence hall experience
- ✔ Heating & cooling upgrades
- ✔ HVAC renovation
- ✔ Piping and controls replacement
- ✔ Energy efficient solutions
- ✔ Multi-residence hall renovation project
- ✔ Expedited, aggressive design schedule
- ✔ Higher education/SCO experience

FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

#	FIRM NAME	FIRM LOCATION	ROLE
A.	McKim & Creed, Inc.	Raleigh, NC	MEP/FP Engineering
B.	F&R	Raleigh, NC	Hazardous Material Abatement

Architecture-Engineer Qualifications

SOLICITATION NUMBER
287-30705-DS

PART II - GENERAL QUALIFICATIONS

FIRM NAME MCKIM & CREED, INC.					YEAR ESTABLISHED 1990	DUNS NUMBER 04-693-9948
STREET 4300 Edwards Mill Rd, Suite 200					OWNERSHIP	
CITY Raleigh	STATE NC	ZIP CODE 27612	TYPE Professional Corporation			
POINT OF CONTACT Street Lee, PE, ENV SP CEO					SMALL BUSINESS STATUS No	
PHONE NUMBER 727.491.7567			EMAIL ADDRESS slee@mckimcreed.com		NAME OF FIRM McKim & Creed, Inc.	
FORMER FIRM NAME(S) McKim & Creed, P.A. McKim & Creed Engineers, P.A.					YEAR ESTABLISHED 1978	DUNS NUMBER 04-693-9948

EMPLOYEES BY DISCIPLINE				PROFILE OF FIRM'S EXPERIENCE AND ANNUAL REVENUE FOR LAST 5 YEARS		
FUNCTION CODE	DISCIPLINE	NO. OF EMPLOYEES		PROFILE CODE	EXPERIENCE	REVENUE INDEX #
		FIRM	BRANCH			
02	Administrative	109	25	E03	Electrical Studies and Design	9
08	CADD Technicians	32	4	F03	Fire Protection	1
12	Civil Engineers	90	16	H04	Heating; Ventilating; Air Conditioning	9
15	Construction Inspectors	16	2	A12	Automation; Controls; Instrumentation	8
21	Electrical Engineers	22	3	P06	Planning (Site, Installation, Project)	8
33	Hydrographic Surveyors	13	0	P07	Plumbing & Piping Design	7
38	Land Surveyors	40	5	S09	Structural Design; Special Structures	7
42	Mechanical Engineers	25	7	P12	Power Generation; Transmission; Distribution	1
48	Project Managers	82	14	G04	Geographic Information System Services: Development, Analysis, and Data Collection	4
49	Remote Sensing Specialists	16	2			
57	Structural Engineers	5	2	H13	Hydrographic Surveying	6
58	Technician/Analyst	34	0	S13	Storm Water Handling and Facilities	8
	Fire Protection Designers	2	0	U03	Utilities	7
	Electrical Designers	17	3	S10	Surveying; Platting; Mapping; Flood Plain Studies	9
	Mechanical Designers	13	3	R07	Remote Sensing	6
	Survey Crew Members	105	17	L02	Land Surveying	10
	SUE Crew Members	117	11	I03	Industrial Waste Treatment	10
	Crew Chiefs	55	7	W03	Water Supply; Treatment; Distribution	10
	Instrumentation & Controls Specialists	14	1			
	Engineer Intern	68	13			
	Other Employees	120	16			
Total		995	151			

Annual Average Professional Services Revenues of Firm for Last 3 Years	Professional Services Revenue Index Number	
	a. Federal Work	4
b. Non-Federal Work	10	
c. Total Work	10	

AUTHORIZED REPRESENTATION

The Forgoing is a statement of facts.

SIGNATURE 	DATE 1/28/2026
NAME & TITLE Street Lee, PE, ENV SP CEO	

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (If any)

PART II - GENERAL QUALIFICATIONS
(If a firm has branch offices, complete for each specific branch office seeking work.)

2A. FIRM (Or Branch Office) NAME			3. YR ESTABLISHED	4. UNIQUE ENTITY IDENTIFIER
PEG Contracting Inc., dba 35 North			2010	L7SHLVUSN4A4
2B. STREET			5. OWNERSHIP	
4601 Creekstone Drive, Suite 130			A. TYPE	
2C. CITY	2D. STATE	2E. ZIP CODE	S Corporation	
Durham	NC	27703	B. SMALL BUSINESS STATUS	
6A. POINT OF CONTACT NAME AND TITLE			SDVOSB, NC HUB, and SWaM Certified	
Scott McEntee, President and CEO			7. NAME OF FIRM (If block 2a is a branch office)	
6B. TELEPHONE NUMBER		6C. E-MAIL ADDRESS		
(919) 747-4544		smcentee@35n.com		
8A. FORMER FIRM NAME(S) (If any)			8B. YR. ESTABLISHED	8C. UNIQUE ENTITY IDENTIFIER

9. EMPLOYEES BY DISCIPLINE

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Function Code	b. Discipline	c. No. of Employees		a. Profile Code	b. Experience	c. Revenue Index Number (see below)
		(1) FIRM	(2) BRANCH			
02	Administrative	7	0	A03	Agricultural Development; Grain Storage; Farm	2
48	Project Manager	13	0	A08	Animal Facilities	1
16	Construction Manager	15	0	A12	Automation; Controls; Instrumentation	3
18	Cost Engineer/Estimator	7	0	C15	Construction Management	2
22	Electronics Engineer	1	0	C18	Cost Estimating; Cost Engineering & Analysis; Parametric Costing; Forecasting	4
				E02	Educational Facilities, Classrooms	2
				H09	Hospital & Medical Facilities	1
				I01	Industrial Buildings; Manufacturing Plants	4
				I02	Industrial Processes; Quality Control	2
				L01	Laboratories; Medical Research Facilities	2
				O01	Office Buildings; Industrial Parks	2
				R05	Refrigeration Plants/Systems	1
				R08	Research Facilities	5
				S08	Special Environments; Clean Rooms, etc.	1
	OTHER EMPLOYEES			S11	Sustainable Design	2
Total		43	0	V01	Value Analysis; Life-Cycle Costing	1

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS


PROFESSIONAL SERVICES REVENUE INDEX NUMBER


(Insert revenue index number shown at right)

a. Federal Work	1	1. Less Than \$100,000	6. \$2 million to less than \$5 million
b. Non-Federal Work	8	2. \$100,000 to less than \$250,000	7. \$5 million to less than \$10 million
c. Total Work	8	3. \$250,000 to less than \$500,000	8. \$10 million to less than \$25 million
		4. \$500,000 to less than \$1 million	9. \$25 million to less than \$50 million
		5. \$1 million to less than \$2 million	10. \$50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

A. SIGNATURE	B. DATE
	01/20/2026
C. NAME AND TITLE	
Scott McEntee, President and CEO	

ARCHITECT - ENGINEER QUALIFICATIONS				1. SOLICITATION NUMBER (If any) N/A		
PART II - GENERAL QUALIFICATIONS <i>(If a firm has branch offices, complete for each specific branch office seeking work.)</i>						
2a. FIRM (OR BRANCH OFFICE) NAME Froehling & Robertson, Inc.				3. YEAR ESTABLISHED 1881		4. UNIQUE ENTITY IDENTIFIER RL9UP3E4BV68
2b. STREET 310 Hubert Street				5. OWNERSHIP		
				5a. TYPE Corporation		
2c. CITY Raleigh		2d. STATE NC	2e. ZIP CODE 27603	5b. SMALL BUSINESS STATUS N/A		
6a. POINT OF CONTACT NAME AND TITLE Elias N. Ruhl, Branch Manager				7. NAME OF FIRM (If block 2a is a branch office) Same as in Block 2a.		
6b. TELEPHONE NUMBER 919.719.1973		6c. E-MAIL ADDRESS eruhl@fandr.com				
8a. FORMER FIRM NAME(S) (If any) N/A				8b. YEAR ESTABLISHED		8c. UNIQUE ENTITY IDENTIFIER
9. EMPLOYEES BY DISCIPLINE				10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS		
a. Function Code	b. Discipline	c. Number of Employees		a. Profile Code	b. Experience	c. Revenue Index Number (see below)
		(1) FIRM	(2) BRANCH			
02	Administrative	44	3	A10	Asbestos Abatement	3
08	CADD Technician	3	1	C15	Construction Management	3
12	Civil Engineer	43	8	E09	Environmental Impact Studies, Assessments	5
15	Construction Inspector	138	24	E13	Environmental Testing and Analysis	6
16	Construction Manager	14	2	H03	Hazardous, Toxic, Radioactive Waste Remediation	3
23	Environmental Engineer	0	0	L01	Laboratories	5
24	Environmental Scientist	12	3	M03	Metallurgy	5
26	Forensic Engineer	1	0	S05	Soils and Geologic Studies	8
27	Foundation/Geotechnical Eng.	30	5	T02	Testing and Inspection Services	8
30	Geologist	7	4			
36	Industrial Hygienist	9	4			
	Drillers/Driller Helpers	26	7			
	Total	327	58			
11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS <i>(Insert revenue index numbers shown at right)</i>		PROFESSIONAL SERVICES REVENUE INDEX NUMBER				
a. Federal Work	6	1. Less than \$100,000		6. \$2 million to less than \$5 million		
b. Non-Federal Work	8	2. \$100,000 to less than \$250,000		7. \$5 million to less than \$10 million		
c. Total Work	9	3. \$250,000 to less than \$500,000		8. \$10 million to less than \$25 million		
		4. \$500,000 to less than \$1 million		9. \$25 million to less than \$50 million		
		5. \$1 million to less than \$2 million		10. \$50 million or greater		
12. AUTHORIZED REPRESENTATIVE The foregoing is a statement of facts.						
a. SIGNATURE 				b. DATE January 22, 2026		
c. NAME AND TITLE Gary A. Bruce, P.E., President & COO						



MCKIM & CREED

ENGINEERS SURVEYORS PLANNERS