



February 8, 2018

Mayor Lydia Lavelle  
Board of Aldermen  
Town of Carrboro  
301 West Main Street  
Carrboro, North Carolina 27510

**Re: Town of Carrboro/Orange County Project, 203 South Greensboro Street**

Dear Mayor Lavelle and Board of Aldermen Members:

On behalf of our design team, I am honored and excited to present our qualifications to you. The Town of Carrboro and Orange County are undertaking a very important project at 203 South Greensboro. We feel our team's combination of local knowledge, extensive experience and forward thinking is a perfect fit for this project.

Please find attached an introduction to our team members. We have also attached detailed responses to your questions. We look forward to talking with you next Tuesday evening.

Sincerely,

A handwritten signature in black ink that reads 'Ken E. Redfoot AIA'.

Kenneth E. Redfoot, AIA, LEED AP  
President

CRA Associates, Inc. offers in-house services in programming, architecture, interior design, civil engineering, and construction administration. Our firm has been locally owned and operated in Chapel Hill, North Carolina for over fifty years.



We successfully integrate the architectural and engineering disciplines to realize one primary goal - designing a facility that meets the client's needs, schedule, and budget - while creating architecture that inspires. For over five decades, our firm has designed projects covering a wide range of cost, size, and complexity. We are proud of the fact that much of our work comes from repeat clients who recognize the value and service that we bring to their organization.



**Ken Redfoot**

#### **Experience**

CRA Associates | Chapel Hill, NC  
1986-Present, Principal

#### **Education**

University of Pennsylvania,  
Master's Degree in Architecture  
Pennsylvania State University,  
Bachelor of Science

#### **Professional Registrations & Affiliations**

NC Board of Architecture, Registered Architect  
PA Board of Architecture, Registered Architect  
American Institute of Architects  
United States Green Building Council, LEED Accredited Professional  
Triangle J Region Sustainable Public Facility Design & Development Committee  
North Carolina Solar Energy Association

For over three decades, Ken has concentrated on the public sector. The breadth of his work includes educational, civic, health care and recreational projects. Sustainability has been a high priority on many of his commissions including East Chapel Hill High School, the Chapel Hill Town Operations Center and the Chapel Hill Public Library. He has also been involved in educational and sustainable organizations such as the Triangle J Council of Governments Sustainable Public Facility Design and Development Committee, the North Carolina Energy Smart Schools Conference and Rebuild America.



**Gaston Eubanks**

#### **Experience**

CRA Associates | Chapel Hill, NC  
2009 – Present, Project Architect

Jim Spencer Architects | Carrboro, NC  
2003 - 2009, Project Architect

#### **Professional Registrations**

NC Board of Architecture, Registered Architect

#### **Education**

Tulane University, Master's Degree in Architecture  
University of North Carolina, Bachelor of Arts

Following ten years of experience with Jim Spencer Architects, Gaston joined CRA Associates, Inc. in 2008 as a Project Architect for large, institutional projects in the institutional market. Since then, he has led the design team on several high-profile projects for the University of North Carolina, North Carolina State University and East Carolina University. He has significant experience in the use of 3-dimensional design programs including the production of renderings and other promotional materials for our client's uses.



**Michael Hammersley**

#### **Education & Professional Registrations**

North Carolina State University, B.S., Civil Engineering  
Registered Engineer in North Carolina

Mike is the principal engineer of CRA's in-house Civil Engineering Department. In addition to providing civil engineering design services for all of the architectural projects in the office, he has designed and managed many parks and greenways throughout the piedmont region. Mike is well versed in the regulatory processes required to get a project built and works closely with county and state agencies.

Jim Spencer Architects, PA (JSA) was founded in 2002 and has been at home in downtown Carrboro since 2004. We are an award winning, full service architectural firm with projects ranging in size from small residential projects to large mixed-use commercial redevelopment. Architecture and design are real passions for us — we believe that good design can truly improve life. Design is a collaborative effort, and we pride ourselves on listening and observing before we propose a solution.



Responsibility — to the client's needs and budget, to the environment and context, and to the community — are foremost in each project. We have designed buildings of many types, scales and budgets over the last fifteen years. Our goal is always to provide an innovative and practical solution to any design program.



**Jim Spencer**

#### **Experience**

Jim Spencer Architects | Carrboro, NC  
2002-Present, Principal

Michael Hining Architects | Chapel Hill, NC  
1998-2002, Project Architect

Kurt Eichenberger, Architect | Raleigh, NC  
1997-1998, Architecture Intern

Jack Davis, Architect | Atlanta, GA  
1994-1997, Architecture Intern

#### **Professional Registrations & Affiliations**

North Carolina Board of Architecture,  
Registered Architect  
American Institute of Architects  
United States Green Building Council, LEED  
Accredited Professional  
Chapel Hill Historic District Commission,  
Member 2002-2006; Chairman 2010-2012

#### **Education**

Georgia Institute of Technology,  
Master's degree in Architecture  
University of North Carolina, B.A., Art History

Jim is principal and president of Jim Spencer Architects, PA, located in Carrboro. Since opening his office in 2002, Jim has concentrated on projects in his community. He has worked diligently to develop architectural works that are compatible with the context of Carrboro and Chapel Hill. His body of work has a breadth of variety and scale - from historic residences, to local restaurants, to community kitchens. He has been an active member and past chairman of the Chapel Hill Historic District Commission.



**Heather Ferrell**

#### **Experience**

Jim Spencer Architects, PA | Carrboro, NC  
2015 – Present, Architecture Intern

Design Corp, 501(c)3 | Raleigh, NC  
2014 – Present, SEED Reviewer

Joinery Structures | Oakland, CA  
2011-2012, Architecture Intern

Center for Housing Innovation | Eugene, OR  
2010-2012, Student Researcher

#### **Professional Affiliations**

American Institute of Architects,  
Associate Member  
SEED Network, SEED Accredited  
Professional in Public Interest Design

#### **Education**

University of Oregon,  
Master's Degree in Architecture  
N.C. State University, B.A. in Anthropology

Heather, a native of Durham, NC, has resettled in Carrboro after spending several years on the west coast. She is pursuing her architecture license as an architectural intern at JSA. She also contributes to the SEED Network, reviewing and evaluating projects based on merits of inclusion, social equity and community participation.

**Landscape Architect**

**Swanson and Associates** | [swansonlandscapearchitecture.com](http://swansonlandscapearchitecture.com)  
David Swanson, ASLA, Partner-in-Charge

Swanson and Associates, P.A., specializes in landscape architecture, site planning and planning studies. The firm places particular emphasis on careful analysis through the entire design process from planning to construction administration, and in the preparation of creative and innovative solutions using sustainable design practices.

**Mechanical, Plumbing, Electrical and Fire Protection**

**RNM Consulting Engineers, Inc.** | [rnm-engineers.com](http://rnm-engineers.com)  
Steve Kaufman, PE, Principal-in-Charge  
Mark McDowell, PE, Mechanical Engineer  
Scott Denton, PE, Electrical Engineer  
Jeff Powell, PE, Plumbing/Fire Protection Engineer

Founded in 1960, RNM has successfully developed a range of engineering services including feasibility studies, design, construction administration and commissioning. In addition to HVAC, plumbing and electrical designs, we possess expertise in specialized areas such as solar energy and geothermal systems design, and energy management and fire protection systems. Many projects have featured significant sustainable design features such as rainwater collection, day lighting, solar, and geothermal heat pumps.

**Structural Engineers**

**LHC Structural Engineers, Inc.** | [lhcengineers.com](http://lhcengineers.com)  
Bobby Lasater, PE, Project Engineer

Founded in 1966, LHC provides structural engineering services for buildings and building systems and has compiled an extensive list of structural projects found throughout North Carolina. Projects have varied in size from \$10,000 to \$90,000,000 in construction costs. Bobby Lasater is president of LHC Structural Engineers in Raleigh. He has been a structural designer with LHC for 30 years and the Engineer of Record on over 200 projects. He continues to lead projects as his primary role. He is a member of the Structural Engineers Association of NC, and the American Council of Engineering Companies.

**Cost Estimation Consultant**

**Cost Plus** | [cpestimating@att.net](mailto:cpestimating@att.net)  
Russ Roark, Chief Cost Estimator

Cost Plus believes that accurate and detailed project costing information is the foundation of a successful building program. We have been working with design professionals across the Carolinas for over 20 years. Our goal is to help insure that the initial budget is not exceeded,

**Performance Space Consultant**

**Theater Consultants Collaborative** | <http://theatrecc.com/>  
Robert Long, ASTC  
Jillian Brown

TCC connects architects to operators, technology to design, and performers to their audience. We are a team of industry veterans and creative thinkers who joined forces in October 2003 to assist our clients through the complex process of theatre programming, planning and design, as well as the design and integration of specialized performance systems. Our goal as The Collaborative is to connect with users, architects and engineers to craft exciting and unique venues where performance comes to life. Through our work, we help translate the exacting design criteria of a performance space into a physical form that enhances that fundamental relationship between performer and patron.



February 8, 2018

**Written Responses to Comments and Questions**  
**CRA Associates, Inc. + JSA Team Responses**

- 1) *What is the possibility of including solar power with battery storage, consistent with recommendations in the NC Clean Path report?*

NC WARN's NC Clean Path 2025 report is an important document cautioning North Carolina on its future energy supply and usage. Localized use of solar collection and storage not only moves us toward a cleaner environment, but can be more economical than expansion of our existing power grid and fossil fuel supplies.

Solar can and should be incorporated into the project at 203 South Greensboro Street. The smaller scale of the surrounding neighborhood to the south allows solar orientation and solar power to be a focus of the project. Careful early planning and cost analysis will be important to make certain project budget and life cycle costs are considered. The large floor plate areas of both the shell building(s) and potential structured parking allow for efficient use of solar panels or roofing.

We have witnessed a significant decrease in solar systems cost in recent years. Arranging financing would be the biggest challenge for this project, as federal tax credits do not apply to public entities. There are other options, however, such as working with a private sector solar developer.

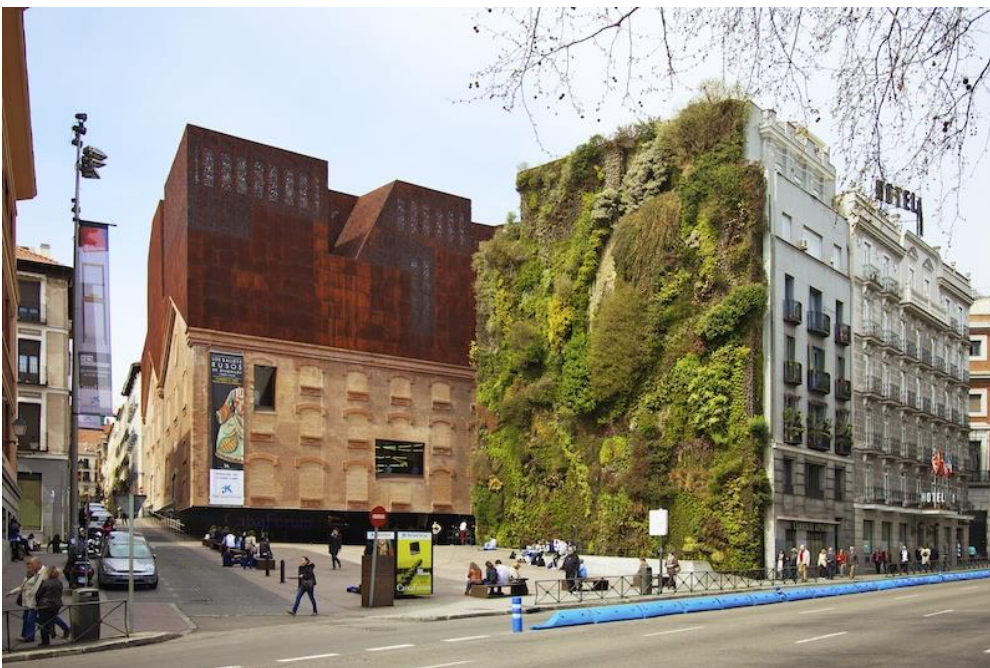
CRA and its consultants have a history of utilizing solar technologies in our municipal projects. Examples are Smith Middle School in Chapel Hill, Rashkis Elementary School in Chapel Hill, Chapel Hill Town Operations Center, and Cedar Ridge High School.

- 2) *What are the possibilities for maximizing urban trees into the site design? Consider and comment on the approach used in the terrace concept in Turin, Italy, where trees were included in the design to absorb noise and pollution, <https://www.boredpanda.com/urban-treehouse-green-architecture-25-verde-luciano-pia-turin-italy/>.*





*25 Verde Apartments, Turin, Italy, Luciano Pia, Architect*



*CaixaForum Socio-Cultural Center, Madrid, Herzog & de Meuron Architects*

Incorporation of plants and trees into the design is an imperative. The relatively small lots of Carrboro make it challenging to plant many trees in the ground in a conventional manner. Approaches like the vertical plantings shown in the two projects above both allow the buildings to create their own biodiversity and to help reduce pollution and noise.

We would approach the design with the attitude that combating climate change and creating a building with very low energy use are appropriate ways of informing aesthetics and form in Carrboro. The 203 site sits in an interesting context with a small residential scale to its south and west and smaller scale commercial buildings to its north. Our landscape architects, Swanson and Associates, have extensive experience in designing rooftop plantings and green roofs. (Additionally, their office has been directly across from the site for many years). They bring exceptional local knowledge to the process. They stress that the type of trees and plantings selected must be adaptable to urban environments. A source that Swanson and Associates often uses when designing projects with urban plantings is Up by Roots: Healthy Soils and Trees in the Built Environment, by James Urban ([jamesurban.net/up-by-roots/](http://jamesurban.net/up-by-roots/)).

3) *What are the techniques your team uses to engage the public and other stakeholders, especially underrepresented publics, in designing their projects?*

Our technique for engaging the public and stakeholders is to be open and transparent in the earliest portions of design, as well as in the approvals processes. Our attitude is to take every idea and suggestion as a potential improvement to the project. Our job is to synthesize stakeholder and public feedback and ideas into a cohesive and efficient design.

We are committed to obtaining responses from underrepresented publics. We have experience in Carrboro and locally with projects whose success depended largely on building community consensus. For Inter-Faith Council's FoodFirst project, we started by volunteering at the kitchen, getting to know staff and users of the facilities. We held numerous community meetings, asking for assistance from local community leaders and activists to ensure these people were heard during the process. We believe the key to completing a project that has broad community support starts with an open dialogue. Our team has its feet on the ground in this community and have been working hand in hand with its citizens for the last 15 years. We are dedicated to making sure the public feels ownership in Carrboro projects.

We are also fortunate in our community to have other resources which may be used to assist with outreach and communication for urban planning and design. Two such resources which the Town and County may wish to consider are:

**Neighborland** – [neighborland.com](http://neighborland.com)

“Neighborland is a civic tool co-founded by Candy Chang, Dan Parham, and Tee Parham to help residents and organizations collaborate on the future of their

communities." (from Neighborland website). Dan and Tee are long-time friends of Jim Spencer and Dan is a graduate of UNC and former resident of Chapel Hill/Carrboro (and employee at Cat's Cradle!) They have helped communities from New Orleans to San Francisco to Raleigh (currently working on Dix Park Project) achieve consensus on projects.

### **SEED Network – seednetwork.org**

The SEED Network (Social Economic Environmental Design), 'is a principle-based network of individuals and organizations dedicated to building and supporting a culture of civic responsibility and engagement in the built environment and the public realm.' (from SEED website). Its mission is to advance the right of every person to live in a socially, economically, and environmentally healthy community.

The SEED Principles are: 1 - Advocate with those who have a limited voice in public life. 2 - Build structures for inclusion that engage stakeholders and allow communities to make decisions. 3 - Promote social equality through discourse that reflects a range of values and social identities. 4 - Generate ideas that grow from place and build local capacity. 5 - Design to help conserve resources and minimize waste.

Heather Ferrell of JSA is a SEED Associate and has been a member of the network since 2010. She has extensive experience using SEED for community-based design projects.

- 4) *Please describe your comfort level receiving public input in your design process and your willingness to accept and adjust an existing well-thought design to accommodate a potentially good idea at the eleventh hour.*

Our team has extensive experience working at a variety of scales and with a variety of building types. Both public and private work involve many stakeholders with disparate types of experience to bring to the design process. It is always the design team's responsibility to respect ideas put forth and to be adaptable. Any idea which makes a project better is a good one, even at a late stage of design. There is obviously a limit as to when design changes make both practical and financial sense, but a good design team can be very flexible in order to achieve the best outcome. The role of the architecture team is to serve the client – to listen to their needs, examine the content and constraints and to develop a creative solution. In the case of this project, the client is a diverse community with a strong vision and variety of perspectives. Public design is consensus building.

Our team has worked on many projects where this theory is put into practice. Two examples are CRA's Passmore Center Renovations project in Hillsborough, and JSA's IFC FoodFirst project in Carrboro. At the Passmore Center, consensus that additional accessibility measures should be provided led to a better end product. Likewise, for the FoodFirst project, coordination between neighboring uses allowed for a much more functional separation of loading and the public entry.



*5) What is your team's familiarity and experience with solar and battery storage, geothermal heating and cooling systems, cool roofs, and other significant sustainable facility/energy construction and management components?*

We have extensive experience in sustainable design practice and implementation. Many of our design team are LEED professionals as well.

We have completed solar projects including both solar photovoltaics and solar thermal solar systems. These projects were listed above – locally, they include Smith Middle School (includes battery storage), Rashkis Elementary School, Chapel Hill Town Operations Center, and Cedar Ridge High School.

Geothermal heating and cooling systems are a prominent feature on many of our designs. We currently have eleven significant geothermal projects in operation, some for over ten years. These projects include 1,242 vertical wells. Local examples include the Chapel Hill Town Operations Center, Orange County Justice Facilities Expansion and Renovation, Orange County Community Geothermal Phases 1 & 2 in Hillsborough (John Link Building, Historic Court House, County Jail, Government Service Annex, and District Attorney's Offices), the Chatham County Justice Center, and Margaret Pollard Middle School in Chatham County. We currently have three geothermal projects in design: a new elementary school and a new high school in Chatham County, and conversion of Orange High School in Hillsborough to geothermal HVAC. JSA has also incorporated geothermal systems in residential and private projects locally and as far away as New York state.

Other sustainable features would also be typical of our designs and worthy of consideration here, including extensive daylighting, rain water harvesting, cool roofs, locally sourced materials, and carefully considered solar orientation.

*6) What is your team's experience with designing performance space, both fixed and flexible?*

Each firm in our team has experience with designing performance space. CRA has designed many schools which include various performance and multi-purpose spaces. These include East Chapel Hill High School, Smith Middle, Rashkis Elementary, Morris Grove Elementary, and the CW Stanford Auditorium Addition.

Additionally, CRA worked on the Chapel Hill Public Library additions and renovations, the UNC Wellness Center, and The Holmes Convocation Center at Appalachian State University.

JSA has designed renovations for the Cat's Cradle in Carrboro, the Cat's Cradle Back Room Music club, and consulted with the Carrboro ArtsCenter in the past.

Our structural engineers, LHC Structural Engineers, worked on the additions to the Duke Energy Center at Meymandi Concert Hall and Fletcher Opera Theater.

Swanson Associates has collaborated with CRA in designing the covered outdoor space for the Orange County River Park and Farmer's Market Pavilion in Hillsborough, which is used for special events. They also provided site design for various outdoor performance spaces at the North Carolina Botanical Garden. They are working on potential improvements to the heavily-used Weaver Street Market lawn in Carrboro.

We are honored to have added Robert Long of Theatre Consultants Collaborative to our team. Mr. Long has a distinguished career in consulting design on many performance venues around the country and beyond, including (locally) the Durham Performing Arts Center and the Carrboro ArtsCenter (please see firm profile for more information on his firm).

*7) We all recognize that vehicular parking accommodations for current and future mobility needs is a major challenge and opportunity for this project. Please describe your approach to such circumstances, including how you believe this project can address inclusive mobility.*

Transportation, parking, and safety and inclusivity are all vitally important pieces of this project, and to Carrboro's present and future. Carrboro has long valued its downtown and its walkability and bike friendliness. Improving those aspects along the Roberson, Greensboro, and Carr Street corridors is essential. This must be balanced here with accommodation for the many types of users for the library and the other uses. Many people will arrive at the site by car, and many will be either parents with children, or older or disabled citizens. Others will arrive via our excellent bus system. Balancing the spatial requirements, as well as the interactions between these types of transit, will largely determine the success of the project from a functional perspective. The design team should assist the Town and County in anticipating these interactions, as well as anticipating future transit changes and requirements. We know that cars and our dependence on them is changing, and we want to be forward-thinking in this regard.

Solutions for parking and mobility are essential to any urban project. Reconsideration of the Roberson Street corridor and how it interacts with adjacent pedestrian and bicycle thoroughfare will be critical to both this project and the downtown in general. We anticipate listening to the various perspectives and offering creative and practical solutions.

*8) Please talk about your thoughts on the importance of this type of project as a civic building, one that has the potential to become a monument of pride for the community, or not, and the role of scale, for example should it blend in vs should it become the largest building in the downtown.*

In a small town like Carrboro, every new building takes on an important role in the overall fabric of the place. This project will assume a very prominent place, both as a civic building and a potential gathering place for its citizens. There are several

significant buildings and places already in town, some town-owned and some private. The location of this facility between the commercial strip of the 100 block of Main Street and the existing neighborhood is an important opportunity to supplement the downtown. We believe the project can create a symbiotic relationship with the surrounding restaurants and other businesses. We understand well that these businesses depend on the parking and the residents nearby to create commercial tax base, as well as the character, of Carrboro. It is therefore critical to use the project to further activate the commercial district, both in physical presence and in user experience. This must be balanced; however, with a sensitivity to the existing small scale and residential character of the neighborhoods to the south and southwest. We believe the best solution at 203 South Greensboro will be a building that acknowledges and is informed by these scale and use differences. A successful project here will also enhance the street level (pedestrian, bike rider, and vehicular arrivers) experience.

It is important to create a bold and visible presence in the downtown. We believe it is possible to do this, while maintaining a relationship to existing context and scale.

*9) Please talk about your approach toward form and style, selecting a style based on tradition such as the historical precedent for certain uses vs the trendiness of certain design features for a place such as Carrboro.*

Carrboro is distinguished by its early 1900's vernacular – its architecture is certainly not a trendy, traditional or “polite” style. Its roots are in somewhat humble, functional buildings which Carrboro citizens find warm and welcoming. Now, 100 years later, with a nod to the past, but with incorporation of current sustainable technology and materials, our team would seek to create a welcoming and appropriate project for the Town of Carrboro and Orange County.

Architecture differs from other arts in that it almost always occurs within an existing context. This context can include existing buildings, spaces and people. It can include climate and geography. It can include historical precedent of style and building methods. It can include culture and tradition. It is important to our team that a building in the context of downtown Carrboro feels appropriate – feels like Carrboro. Form will be, at least in part, determined by function and program. Honesty in buildings is important. Rather than designing a building of a particular style (and assuming that style is appropriate in Carrboro), we believe that the design should reflect Carrboro and Orange County. For this site, it means that it should use materials and forms in an innovative manner. It means that the building should be open and inclusive. It means that existing scale and precedents should be acknowledged. It means that it should be artistic and expressive (and a little funky!).

We believe it is possible to reference particular elements of Carrboro's existing building context without replicating them exactly. For instance, Carrboro clearly has a number of important early commercial masonry buildings. These buildings (such as the Old Graded School [Town Hall], old Baptist Church [Century Center],

Alberta Mill/Durham Hosiery [Carr Mill], and old Grist Mill [Broad Street Building]- have a functional simplicity to their forms and fenestration, but are warm and well-crafted. There is a train language to consider as well – an important piece of Carrboro's story. There are a variety of scales, but a consistent openness at the street/pedestrian level. These are all elements which can inform the design of a public building. We believe a successful solution at 203 South Greensboro will feel timeless and contextual, but certainly elevate the experience of downtown.

*10) Expand on the histories of your firms provided already. Information on your work with MWBE enterprises is requested. Describe your experience working with minority, woman-owned, or disadvantaged businesses.*

CRA was founded in Chapel Hill in 1965 and has a long history of municipal work in the Orange County area. Please see the attached firm profile for more information about the CRA team members.

JSA was founded in Chapel Hill in 2002 but has been in downtown Carrboro since 2004. Much of our work has been in downtown Carrboro and downtown Chapel Hill. Please see the attached firm profile for more information.

Our local work with minority, woman-owned and disadvantaged businesses has included projects for the Inter-Faith Council for Social Services FoodFirst project, the Jackson Center (Northside Initiative), and the Carrboro Human Rights Center, as well as several woman and minority-owned local restaurants.

*11) What is the racial, ethnic and gender diversity within your firm and the project team? Describe your firm's commitment to diversity and equity in your hiring and compensation policies.*

Industry data show that, while improving, women and people of color are underrepresented in the field of architecture. In the 2015 AIA Diversity in the Profession of Architecture Key Findings, we see that only 22% of AIA Members and Associates are women and only 1.9% are African-American. These percentages are growing and we believe that the profession will greatly benefit from diversifying the field. All firms on our team are committed to diversity and equity in hiring and compensation.

In order to attract and retain women and people of color in the field of architecture, the AIA study finds that the industry should increase outreach to K-12 students via school curricula, extracurricular clubs or activities, and weekend summer programs. Heather Ferrell of JSA participates as a judge in National Association of Women in Construction (NAWIC) Durham Chapter's annual Block Kids Building Program in partnership with the Girl Scouts Durham 10 Service Unit for 100 girls grades first –sixth.

"Diversity is a cultural ethos embraced by AIA membership to foster inclusion, service, and a quality of life in celebration of all communities in our society. This is regardless of race, ethnicity, gender, national origin, religion, physical ability, sexual orientation or identity, age, geography, intellectual or practice area."

- AIA Diversity Statement

The firms represented on our team have had a variety of racial, ethnic and gender diversities over their histories. The following is a breakdown of the current gender makeup within each firm:

CRA – 2 females, 10 males

JSA – 1 female, 1 male

Swanson and Associates – 1 female, 1 male

RNM Consulting Engineers, Inc. – 2 females, 16 males

LHC Structural Engineers, Inc. – 3 females, 8 males

Cost Plus – 1 male

Theatre Consultants Collaborative – 2 females, 10 males