

ATTACHMENT A

**A RESOLUTION AWARDING A CONTRACT
FOR DESIGN AND CONSTRUCTION MANAGEMENT/
CONTRACT ADMINISTRATION SERVICES
FOR FIRE STATION #2
Resolution No. 176/2005-06**

**BE IT RESOLVED BY THE BOARD OF ALDERMEN OF THE TOWN OF
CARRBORO:**

Section 1. The Board hereby awards a contract for design and construction management/contract administration services for Fire Station #2 based on the following.

Section 2. The Board authorizes the Town Manager to negotiate and execute a contract with Stewart, Cooper, Newell Architects for the design and construction management/contract administration services for Fire Station #2.

Section 2. If negotiations are unsuccessful with Stewart, Cooper Newell Architects, then the Board authorizes the Town Manager to negotiate and execute a contract with Brown and Jones for the design and construction management/contract administration services for Fire Station #2. If the negotiations are unsuccessful with Brown and Jones, then the Town Manager is authorized to negotiate and execute a contract with DJG.

Section 3. This resolution shall become effective upon adoption.

Professional Fire Station Design Services For
Carrboro Fire Department
Carrboro, North Carolina



Submitted by:

 **Stewart · Cooper · Newell · Architects**
Architecture Planning Interiors www.scn-architects.com

Fire-Facilities.com
A Product of SCN-ARCHITECTS.com

Friday, May 26, 2006

Ms. Sandy Svoboda
Interim Purchasing Manager
Town of Carrboro
301 West Main Street
Carrboro, NC 27510

Dear Ms. Svoboda and Committee:

The men and women that serve in the Fire Department have always had a special place in the heart of a community. Unfortunately, they have spent most of the last 50 years working out of poorly designed facilities because nobody was taking the time to understand their specific needs. However, that is no longer the case. Stewart Cooper Newell Architects has spent the last 30 years working with fire departments across the country and taking the time to understand how to build facilities that increase morale, improve response time, reduce department turnover, and maximize the taxpayer's money that you invest in these facilities.

We are excited to have the opportunity to offer our expertise in Fire Station design to your District and the citizens of Carrboro. For your project we are proposing a team of qualified experts that have successfully completed numerous fire stations as a team and is well experienced in sustainable design for the fire service.

We have taken great effort to show our expertise in the design of fire stations within this RFQ, however we encourage you to visit our website www.fire-facilities.com to learn even more about our dedication to designing public safety facilities.

We are confident that our team will meet and exceed your expectations. We look forward to the opportunity to meet with you and further discuss how our team can make this project run smoothly and successfully. Every member of our team is looking forward to working with you soon.

Sincerely,

Kenneth C. Newell, AIA

Town of Carrboro, North Carolina

New Fire Station Design and Construction

Table of Contents

- 1: Company profile listing: name, address, year established, type of ownership, size of company and staff. If company has multiple offices, please list where the work for this project will be performed.

Company Name - Stewart Cooper Newell Architects

Address- 719 E. 2nd Avenue
Gastonia, N.C. 28054

Year Established -1971

Type of Ownership - Professional Association

Size of Company and Staff - 23 employees

Offices – Gastonia, N.C. / Columbia, S.C.

All work for this project will be performed in our Gastonia office.

Also see “Firm Description” section

- 2: Information about the overall makeup of the project team, including: the identity of all key personnel, a description of their respective responsibilities and duties, and each team members experience with Fire Station design projects.

Principal in Charge & Project Architect – Ken Newell

Project Manager – Phil Fieler

Quality Control – Gordon Ross

Construction Administration – Beth Griffiths

Please see “Resumes” section

- 3: Information about any consultants to be included on the team. Identify consultant company name, address, telephone number, contact person, and names and job descriptions of key personnel. Identify consultants experience with Fire Station design projects.

Sustainability Consultant

SCOPE Architectural Consulting
Steve Englehardt, AIA LEED AP
11121 Caramel Commons Blvd 200
Ste. 155
Charlotte, N.C. 28277
Phone: 704-341- 9800

Civil and Site Engineering

Stewart Engineering – MBE
Willie Stewart
South College Street
Ste. 720
Charlotte, N.C. 28202
Phone: 704-334-7925

Structural Engineering

Taylor & Viola
Kirk Viola, PE
231 13th Avenue
Hickory, NC 28601
Phone: 828-328-6331

Interior Design

Incore Planning – WBE
Barbara Ratchford
P.O. BOX 61071
Columbia, S.C. 29223
Phone: 803-699-1066

P,M,E Engineering

Optima Engineering
Ron Almond, PE
1300 South Mint Street
Ste. 100
Charlotte, N.C. 28203
Phone: 704-338-1292

Please see “Organizational Chart” section

- 4: Company’s experience in designing and constructing multiple fire/rescue/EMS stations and application of TJCOG High Performance Principles, as well as LEED certification. Areas of expertise should include architectural, civil engineering, structural engineering, mechanical engineering, fire protection engineering, and electrical engineering. Services provided by the architectural team may include schematic design, design development, construction document development and construction management. Expertise in facilitating public input is desired because it is anticipated that the company will be asked to conduct a public design charette early in the design process.

Please see “Fire Station Projects” and “Sustainable Design” section

- 5: Life cycle costing for the energy system.

Please see “Life Cycle Costing” section

- 6: Summary of five (5) similar projects, in the past 5 years, for which the designer was responsible. Each of the project summaries should include the following:
- a: Description of the facility, including size, functions housed, and year completed.
 - b: Degree of involvement (principals or consultants).
 - c: Consulting firms involved and their assigned responsibilities.
 - d: Project references including names, addresses, and telephone numbers (Attachment B)

Please see “Attachment B” section.

- 7: Current company workload, ability to perform the work, and estimated completion schedule for this project.

Please see “Workload” section

- 8: Proposed design approach by company for this project.

Please see “Project Approach” section

- 9: Listing of any pending or settled lawsuits or professional liability claims in which the designer was involved during the past ten (10) years.

Stewart Cooper Newell Architects is proud to inform the Town of Carrboro that there have been no litigation or governmental/regulatory action pending or threatened against Stewart Cooper Newell Architects affecting the ability to provide services.

- 10: Additional information the respondent believes to be relevant to the selection efforts of the Town of Carrboro including minority business status of prime or consultants. Also include a standard hourly rate chart for all personnel and other charges associated with a project.

Please see “Additional Information” section.

Firm Description

STEWART COOPER NEWELL ARCHITECTS has been providing its clients with quality architectural design services since 1971. As a firm, our goal is to provide excellence in planning, design, and construction administration; while keeping in mind our client's budget and schedule. Since the formation of the firm in 1971, we have enjoyed steady growth in all our studios and had the opportunity to work with many different project types and industries.



Today, our multi-disciplined staff specializes in several areas, most notably Municipal and Public Safety Facilities, including Fire Stations, Municipal Complexes, Detention Centers, Police Stations, Fire Training Facilities, Law Enforcement and Correctional Facilities. We also provide design services for Higher Education clients, Church clients, Recreation clients, and Commercial clients.

In addition to our architectural expertise, we also offer our clients Master Planning, Space Needs Studies, Long Range Planning, Feasibility Studies, and Interior Design Services.

Stewart Cooper Newell Architects understands the science of designing public safety and municipal Facilities. Over the past 30 years we have designed over 120 Fire/EMS Stations and Law Enforcement Facilities across North and South Carolina, and the United States. Our specialized expertise has helped many cities and counties better the morale of their firefighters, decrease insurance rates, and provide better protection for their citizens. We are active members of several national firemen's Associations, which helps us stay abreast of all the regulations and other changes that effect the fire service and design of these critical facilities.

Stewart Cooper Newell Architects has provided architectural and consulting services for fire departments and municipalities in North Carolina, South Carolina, Texas, Kentucky, Virginia, Michigan, Wisconsin, Arkansas, Florida, Georgia, Nebraska, New York, and New Jersey. Several of these designs have won Station Style Design Awards from Fire Chief Magazine, however our commitment to sustainable and practical design remains. We serve our clients from two offices: Columbia, South Carolina and Gastonia, North Carolina.

OFFICE LOCATIONS

719 E. Second Avenue, Gastonia, NC 28054
Phone: 704.865.6311 Fax: 704.865.0046

2016 Sumter St. Ste 202 Columbia, SC 29201
Phone: 803.765.9011 Fax: 803.765.2011

www.scn-architects.com
www.fire-facilities.com





Ken Newell earned his architectural degrees from The University of North Carolina at Charlotte and North Carolina State University in Raleigh. He completed his education in 1988 and joined the firm the same year. He was named a Principal in 1998.

His design experience includes mostly Fire and EMS projects over the last 15 years. Mr. Newell has earned a reputation around the United States for programming and designing Fire Stations and Fire Training Facilities. He has been published in regional and national Fire and Rescue publications and teaches design courses for regional and national conferences.

EDUCATION:

University Of North Carolina At Charlotte
College of Architecture
Bachelor of Art In Architecture

North Carolina State University
School of Design
Bachelor of Architecture

REGISTRATION:

Virginia	Florida
North Carolina	Georgia
South Carolina	NCARB

PROFESSIONAL SOCIETIES AND INVOLVEMENT:

American Institute of Architects
North Carolina Fireman's Association
South Carolina Fireman's Association
Virginia State Fireman's Association
International Association of Fire Chiefs

PRESENTATIONS and ARTICLES:

Ken has written articles on Fire Station Design that have been published in Carolina Fire & Rescue Journal and Fire Chief Magazine

Ken has deliver presentations on Fire Station Design and Training Facility Design at the following conferences:

- *Virginia Mid Atlantic Expo Conference*
- *South Carolina Fire Chief's Conference*
- *FIERO, National Fire Station Design Symposium*
- *North Carolina Firefighter's Conference*
- *Georgia State Fireman's Conference*

RECENT PROJECTS:

Below is a sample of projects where Mr. Newell has served as Principal in Charge or as a Design Consultant:

New Hanover County, NC Federal Point Fire Station
Town of Vinton, VA Public Safety Facility
City of Virginia Beach, VA Fire Substation
Henrico County, VA Fire Substaion Replacement
City of Hampton, VA Fire Substation
City of Asheville, NC 2 Fire Substations
Town of Murphy, NC Fire Headquarters Stations
City of Fayetteville, NC Fire Substation and Training Center
Lincoln County, NC EMS Headquarters
Town of Cary, NC Fire Substation
Town of Kernersville, NC Fire Substation
Town of Hilton Head Island, SC 4 Fire Substations and 911 Center



Philip M. Fieler

Project Manager

Philip Fieler is a 2001 graduate of North Carolina State University. Since joining Stewart Cooper Newell Architects full time, Mr. Fieler has excelled in project management, design, & detailing of public safety facilities across the Southeast.

Mr. Fieler has attended many design symposiums representing Stewart Cooper Newell Architects including F.I.E.R.O, a national event, as well as many in North and South Carolina. These events allow him to share his knowledge and further develop his excellence in Fire Station Design.

EDUCATION:

North Carolina State University

College of Design & School of Architecture

Bachelor of Environmental Design in Architecture

Bachelor of Architecture

DESIGN AWARDS:

Triangle Brick Design Scholarship

Louis Sullivan Design Competition - Second Place 2001

North Carolina State University Faculty Design Award 2004

PROFESSIONAL EXPERIENCE:

Stewart - Cooper - Newell Architects

1999 - Present

Gastonia, NC

RECENT PROJECTS:

Mr. Fieler has served as the Project Manager for the design team on the following projects for Stewart Cooper Newell Architects:

Town of Kitty Hawk, NC Fire Dept. Needs Assessment & Design

Town of Washington, NC Fire Dept. Needs Assessment & Design

City of Thomasville Fire Department

Township of Bluffton, SC Fire Department Substation

Pine Knoll Shores Fire and Police Headquarters

Town of Clayton, NC Fire Department Headquarters

City of Rock Hill Fire Department Substations (2)

Bahama Vol. Fire Department Headquarters

Clarendon County, SC Public Safety Headquarters

Pasquotank County Public Safety Building

Pasquotank County W.C. Witherspoon Memorial Library

Design Experience:

Fire/EMS Facilities

Municipal Government

Office/Retail

Law Enforcement

FIRM RESPONSIBILITIES:

Planning & Design

Project Management

Technical Specifications

Construction Documentation



Gordon Ross graduated from Clemson University in 1962. Mr. Ross has over 40 years experience in the architecture industry and uses the knowledge as the primary Quality Control leader for Stewart Cooper Newell Architects. Gordon conducts peer reviews on construction documents in house prior to bidding to ensure accuracy and completeness for our clients.

EDUCATION:

Clemson University

Major: Bachelor of Architecture (5 years)
1962

PROFESSIONAL EXPERIENCE:

Stewart - Cooper - Newell Architects
2000 - Present
Columbia, SC

Consultant to Brennan Associates
1995 - 2000
Columbia, SC

Stevens & Wilkinson
Project Architect
1990 - 1995
Columbia, SC

RECENT PROJECTS:

Mr. Ross has performed Quality Control reviews on the following projects

- Elon Fire Department
- Old Richmond Fire Department
- Liberty Fire Department
- National Guard AARF Department
- City of Clayton Fire Department
- City of Cary Fire Department
- Bahama Vol. Fire Department (Durham County)
- Alamance EMS Headquarters
- Thomasville Fire Departments
- Hilton Head Island Fire Department (6 substations)
- City of Gastonia Fire Department

DESIGN EXPERIENCE:

Correctional Facilities
Fire/EMS Facilities
Government/ Office

FIRM RESPONSIBILITIES:

Quality Control
Technical Specifications
Construction Documentation
Planning and Design



Beth Griffiths has an integral role in the successful completion of all Stewart Cooper Newell Architects fire station projects. As a construction administrator, Ms. Griffiths coordinates with the project Owner, Principal in Charge, and General Contractor to ensure projects are built to the full accuracy, completeness, and quality shown in the drawings.

In addition to shop drawing review and RFI responses inside the office, Beth provide on-site construction inspections, monthly coordination meetings, final inspections and field coordination.

EDUCATION:

University of Georgia

Bachelor of Arts in Graphic Design

PROFESSIONAL EXPERIENCE:

Stewart Cooper Newell Architects
Construction Administration
2000 - Present

M. Taylor & Company Hoteliers, Inc. Charlotte, North Carolina
PROJECT MANAGER
1997 - 1999

RECENT PROJECTS:

Ms. Griffiths has successfully performed construction administration services for the following Fire Clients of Stewart Cooper Newell Architects

City of Lincolnton Fire Department and City Hall
Pine Knoll Shores Fire and Police Headquarters
Rock Hill Fire Department Substations #2 & #5
City of Gastonia Fire Department Sub Stations
City of Gastonia Fire Department Headquarters
Hickory Fire Department Substation
Bahama VFD Fire & Rescue Headquarters
Clayton Fire Department Headquarters
AASF #2, National Guard Fire, Salisbury Airport
Fayetteville Fire & Training, Fayetteville State Univ.

CONSTRUCTION ADMINISTRATION EXPERIENCE:

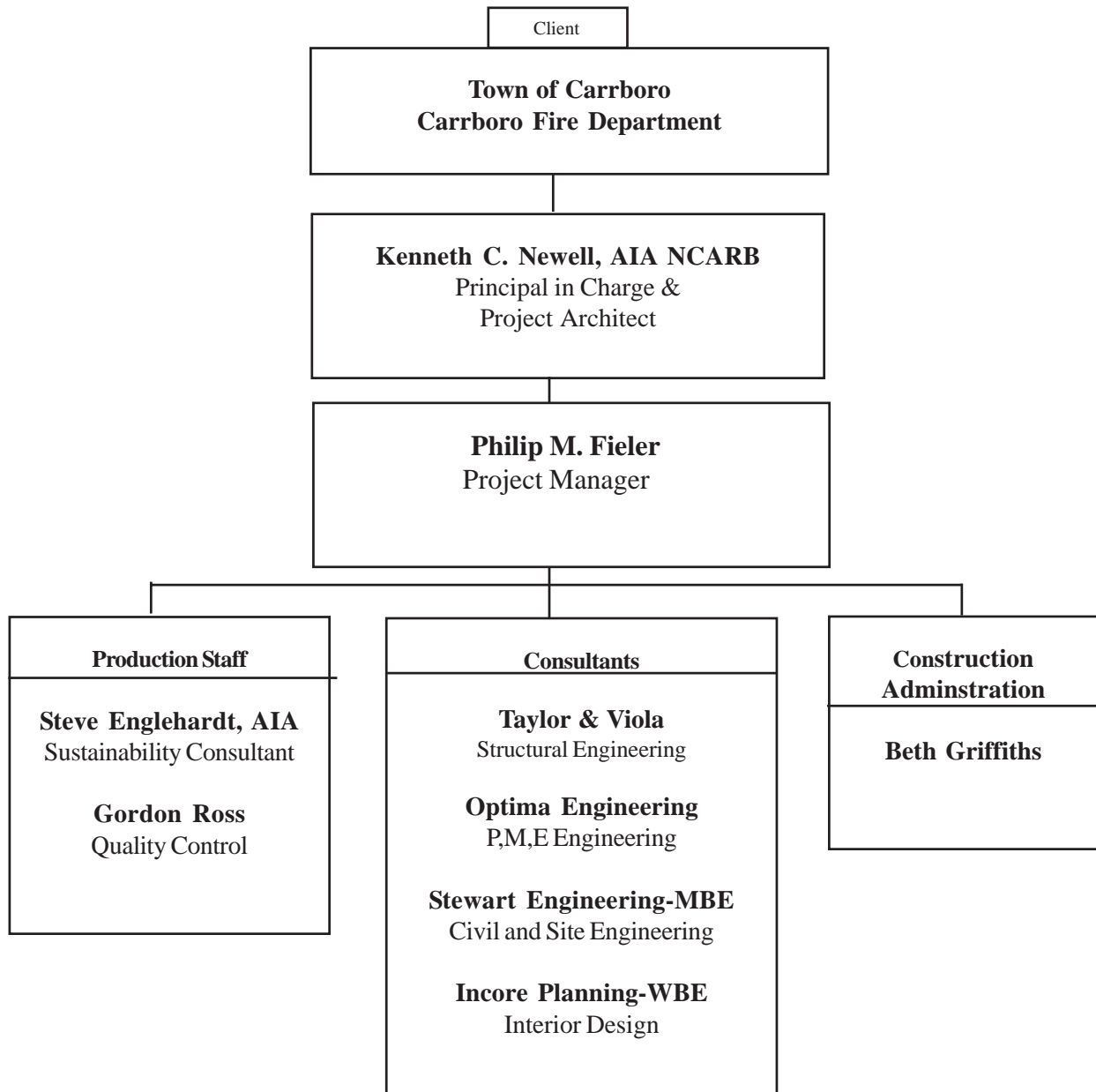
Fire/EMS Facilities
Government/ Office
Medical

FIRM RESPONSIBILITIES:

Technical Specifications
RFI Reviews
Shop Drawings Review
Construction Coordination Meetings
Review Pay Applications



**Organizational Chart and Staff Task Assignments for
Fire Station Design
Town of Carrboro, North Carolina**



Hilton Head Island Fire SubStation #7



Contact

Chief Tom Fieldstead
843-682-5155

Station

Size: 12,200 SF each
Cost: \$3,050,900 combined
Design Fee: \$240,000 (8%)

The coastal barrier island location of these stations presents several design issues including hurricane force winds and flooding. To tackle these issues the structure was designed to handle 125 MPH wind loads and the site is elevated to get the station above flood level. The station includes three drive-through apparatus bays, individual sleep rooms, a large kitchen, a dayroom, an exercise room, and a covered patio.

The architectural team worked closely with the fire department and the town Design Review Board to create a functional interior for the station while meeting the aesthetic exterior requirements of this community.

This project received the 2004 Fire Chief Magazine Station Style Gold Award for design of a Career Station based on the completeness & quality of the station when compared to the cost to construct the facilities.



Rock Hill, SC Fire Department Substations #2 and #5



Contact

Chief Mike Blackmon
803-329-7220

Stations

Size: 9,865 SF Per Station
Cost: \$ 2,621,000 combined
Design Fee: \$ 209,680 (8%)

Design Issues

The City of Rock Hill is located just 10 minutes south of Charlotte, NC and has seen enormous growth in both its residential and commercial population. This growth has driven the need for several new substations in order to keep up with the growth of the city. Station No. 2 will replace an existing facility on Cherry Rd. and Station No. 5 will be located near the Galleria Mall and I-77. This area is a major shopping and residential area currently unprotected by the Fire Department.

The new stations will have two, double-stack, drive through apparatus bays, and a decontamination room off the bays, as well as several storage closets. The interior includes a training / community room, central kitchen, offices, EMS storage and bunk rooms that can sleep up to eight in semi private areas.



Kitty Hawk, NC Fire Department Headquarters



Contact

Chief Lowell Spivey
Owners Representative
Town of Kitty Hawk Fire Department
252-261-2666

Station

Size: 15,260 SF
Cost \$3,600,000 Construction Bids
Design Fee: \$306,000 (8.5%)

Design Issues

Located on the Outer Banks of North Carolina's coast, the Town of Kitty Hawk has seen tremendous growth over the last 10 years. To keep up with the growth, the Town hired Stewart Cooper Newell Architects to complete a Needs Assessment and Space Plan of all the town's facilities and make recommendation so they could better serve their citizens and tourists.

The first project resulting from this study was a new fire department headquarters. The station is one of the first in North Carolina to leverage a storm water reclamation system for use in the grey water system as a source to fill the trucks. This system help mitigate the high percentage of pervious surface required to locate the station on the small site.

The Outer Banks is an area highly susceptible to strong storms, including hurricanes, and flooding. Stewart Cooper Newell designed the station with hardened walls and structure to withstand 125+ mph winds.

Stewart Cooper Newell is the architect of record and sole designer of this station. Completion is scheduled for Dec 2006.



Clayton Fire Department Headquarters



Contact

Chief Lee Barbee
919-553-1755

Station

Size: 13,704 SF
Cost: \$1,514,000
Design Fee: \$121,120 (8%)

The Clayton Fire Station utilizes a split-level design due to a four foot incline on the site. This “stepped” feature saved the department significant money during construction. The Clayton Fire Department had specific requirements for the floorplan of the facility, specifically the spatial relationship of the sleep rooms, the dayroom, and the kitchen. Stewart Cooper Newell Architects was able to make recommendations that made the layout more efficient, while meeting the needs of the department. Administrative offices and a training room large enough to seat 40 were integral parts of the design of this station. The station was constructed in conjunction with a new city street that allowed for an easier drive-through bay configuration.



Prototype Fire Substation



Contact

Chief Jimmy Barrow
336-996-4885

Station

6,895 SF
\$820,000 Base Bid

Design Issues

This station serves the fastest growing area of the town. It is a traditional two drive-through bay station with sleep rooms, day room, kitchen, laundry room, and large meeting room/dining room area in the main entry. The design is to serve as a prototype for future Kernersville substations.

Misc

A unique aspect of this station is the Police satellite station that is included in the rear of the station. This 250 square foot area is completely separate from the fire station and houses a bathroom, desks, and separate entry. EMS crews were added to the station after construction, and also have their own sleep area, which is separate so that their calls will not interrupt the firefighters on duty.



Kernersville, NC Fire Department



Stewart Cooper Newell Architects
800-671-0621

Bahama Vol. Fire & Rescue Headquarters



Contact

Chief Len Needham
919-477-1561

Station

Size: 17,989 SF
Cost: \$1,475,000
Design Fee: \$118,000 (8%)

Design Issues

This station is located in northern Durham County, in a very restricted watershed district which requires a lot size of over twenty acres. The station accommodates eight fire apparatus, eight full-time fire fighters, and a training/social facility that can accommodate over seventy people. The station also utilizes a split-level design that reduces the overall height of the station, while saving money by limiting the required site grading. Due to the limited road frontage, the station was designed with the drive-through apparatus bays at the rear of the station.



Prototype Substation



Contact

Chief Marty Dailey
336-475-5524

Station

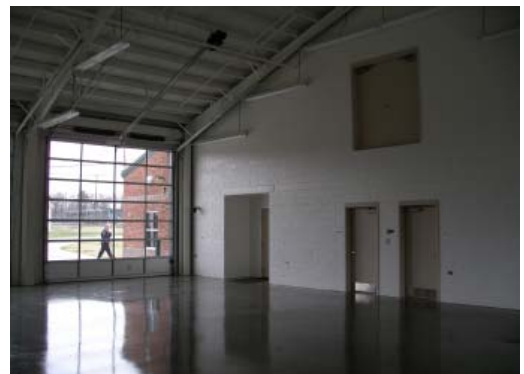
7,400 SF North Station
8,200 SF South Station
\$ 1,500,500 Original Base Bid Both Stations

Design Issues

Due to annexation and tremendous residential growth, the City of Thomasville was in need of two immediate fire substations. The Owner desired stations that were functional, attractive, as maintenance free and durable as possible, and be capable of speedy construction. The facilities are pre-engineered, masonry veneered buildings with standing-seam metal roofs.

Misc

The stations were designed to be prototypes for the City. The design allows the number of vehicle bays and sleep rooms to be determined and built as each station requires. Each station also includes a small police sub station room with a separate entry.



Thomasville, NC





Contact

Mr. Craig Hampton
Special Projects Coordinator
City of Fayetteville
910-433-1786

Station

Size: 19,400 SF
Cost: \$2.30 MM

Design Issues

This 3 double-bay station will house both career fire fighters as well as students who are enrolled in the Fayetteville State University Fire Protection Program. The facility all includes bunk room for the full time fire fighters and dorm rooms for the students, offices, day rooms, and a large training room. In addition many spaces for expanded training opportunities are designed into the station.

Per Owner necessity, this project was designed and built on a fast-track schedule. Contracts were signed in October 2004, design was complete in January 2005, and construction was complete by October 2005.



Sustainable Design

Stewart Cooper Newell Architects has designed over 125 fire/rescue/EMS facilities across the United States. We are well versed in all NFPA, State and local standards and we are a very active member in F.I.E.R.O which is an organization dedicated to improving Fire Stations functionality. As we continue to meet the needs of the Fire Service, we are constantly enhancing our services offering. One of these services that have become more requested by our clients is sustainable design. As we reviewed your TJCOG High Performance Principles, we noticed a strong correlation to the LEED™ standards issued by the United States Green Building Council (USGBC). We have a solid working knowledge of these principals and are ready to work with the Town of Carrboro to evaluate your options for making this Fire Station a building that save lives and save the environment.

When looking at sustainable options for Fire Station design there are a plethora of options. However, we have listed the most common options that our clients traditionally consider.

Sustainable Sites:

Construction Activity Control methods can be implemented to control both erosion and sedimentation. This is accomplished by isolating the distributed areas of earth at the construction site and carefully monitoring air borne containments that can affect the local microclimate. In addition you can monitor the waste disposal of the contractor to minimize the amount of trash sent to the landfill.

Water Efficiency:

Water use for a fire station can be high due to the washing of vehicles and the filling of tanker trucks. Opportunities exist to reclaim gray water in cisterns and reuse this resource for these functions. Also, the saving of water may be gained by the use of waterless urinals and water controlling faucets. There are also sustainable methods of irrigation for building landscaping using reclaimed water.

Energy & Atmosphere:

The most fundamental is the commissioning of mechanical equipment and primary building systems, however there are many options that can be considered to make the station energy efficient. For example using motion sensitive lighting to automatic turn lights on or off in rooms, using natural light to reduce the need for artificial lighting and/or heating/cooling needs.

Material & Resources:

Many materials that make up the building can be gained from recyclable sources. Options include the use of recycled carpet, furniture that has recycled materials used in it manufacturing process, or the use of fly ash in the station's concrete slab.

Indoor Environmental Quality:

The use of strategically placed low-e glass will enable energy savings while maximizing daylight and views. The use of occupancy sensors in each space will also allow better control with energy consuming lighting while spaces are not occupied. Also, the monitoring of CO2 levels is imperative to occupant health.

In general, a fire station is a building that is used to serve the public and is therefore a facility that should give back to the environment through that use of sustainable design practices. A building that is used as a temporary residence, command post and apparatus storage combined into a single facility brings many opportunities to integrate these practices.

Life Cycle Costing

Stewart Cooper Newell Architects has taken the time over the years to understand all the components that are required to design a fire station. This includes spending many ours with our engineering partners working with them to educate them on the Fire Service needs, and being educated by them on how they can best meet these needs.

In recent years there has been an increase in client asking question about the energy systems of their stations. This has to do as much with rising energy cost as it does the greater acceptance of sustainable design principle. In response to our clients needs, we have been researching various options to balance the initial costs of an energy system and the long term value that it will deliver to the station and the municipality.

In a traditional setting you would normally see a typical Gas split system or Geo Thermal HVAC systems along with gas water heaters utilized. In these settings many opportunities exist to decrease the life cycle cost, but this has to be addressed very early in the design process when we are designing the mechanical and HVAC systems for a fire station. By leveraging computer modeling, we can compare the standard base systems against any alternatives, advanced energy saving systems and other methods to assist you the owner in making the best decision about how the buildings systems can be selected and designed.

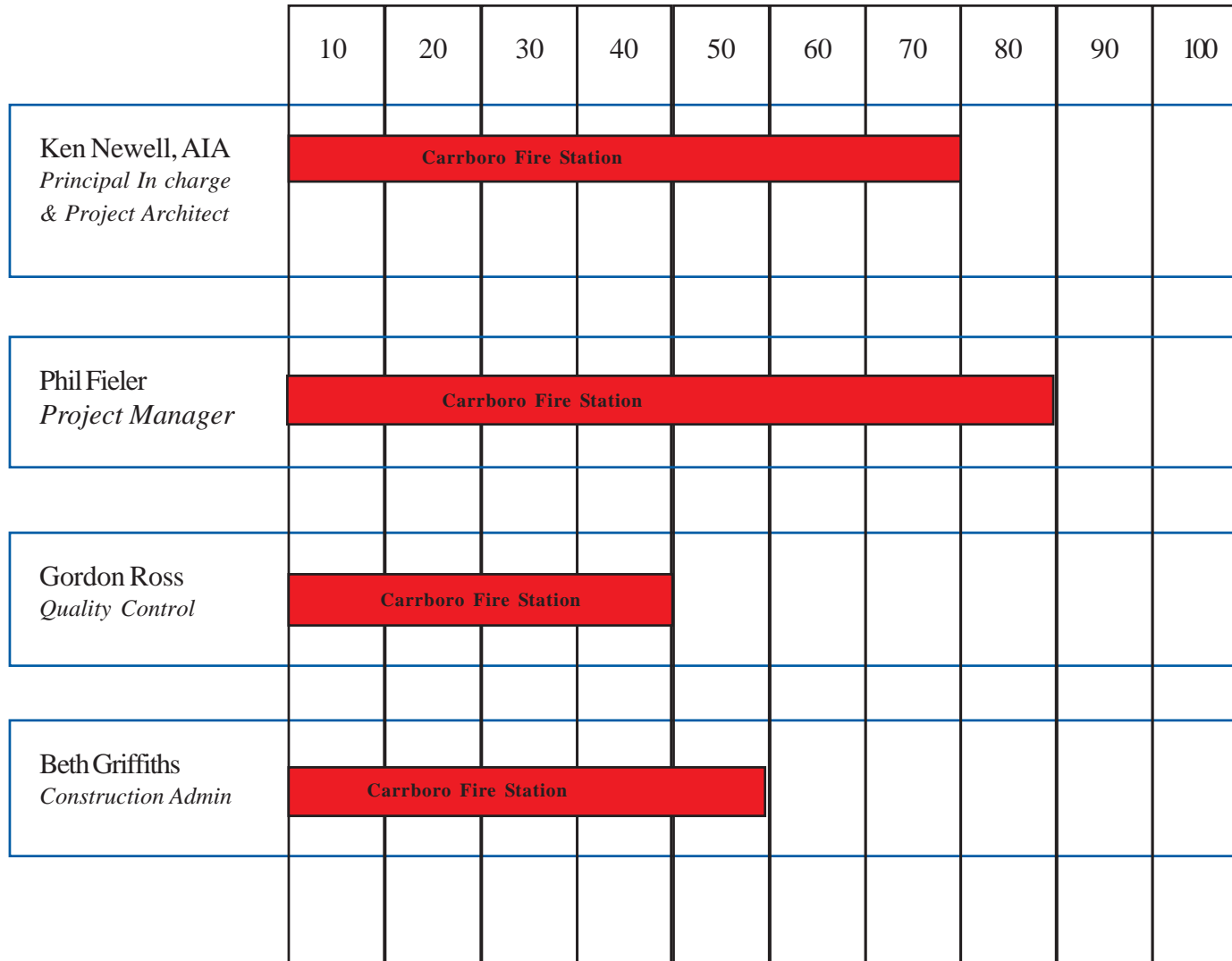
For example, as an alternate to the typical system, the mechanical HVAC system may be designed using high-efficiency systems such as water-source heat pumps, adjustable-speed condenser pumps, variable-air-volume boxes for outside air, and energy-efficient cooling towers. Computer controls may be used to balance the system for additional energy savings. Another example may be the use of solar energy to provide daily hot water may prove to be most cost effective then the purchasing and operation of a typical water heater.

Our team understand the constraints of the both the project budget and your longer term maintenance budget. It is our goal to provide you with the information, cost benefit data, and guidance that you will need to make the best decision possible about the right energy system for your fire station.

Fire Station Project Summary
5 Similar Stations

	Square Foot	Year Completed	SCNA Involvement	Sub-consultants	Contact Person
Kitty Hawk Fire Department	15,260	November 2006	Architect of Record	Cheetham Associates Taylor and Viola Optima Engineering	Chief Lowell Spivey
Clayton Fire Department	13,704	March 2006	Architect of Record	Timmons Engineering Taylor and Viola Optima Engineering	Chief Lee Barbee
Hilton Head Station # 7	12,200	July 2003	Architect of Record	WK Dickson Taylor and Viola Optima Engineering	Chief Tom Fieldstead
Rock Hill Fire Department	9,865	November 2004	Architect of Record	Moretz Engineering Taylor and Viola Optima Engineering	Chief Mike Blackmon
Kernersville Fire Department	6,895	March 2000	Architect of Record	Moretz Engineering Coggin and Carrera Optima Engineering	Chief Jimmy Barrow

Capacity Schedule of Team Members



Please Note: This chart represents how much of an individuals capacity will be dedicated to your project. The shaded area is the percentage time that is being dedicated to work for the fire station. The individual capacity can fluctuate depending on stage of each projects and its design team.

	June 2006	2	3	4	5	6	7	8	9	10	April 2007	12	16	18	20	Mar 08	34
Programming																	
Schematic Design																	
Design Development																	
Construction Documents																	
Bidding & Negotiations																	
Construction Contract Award																	
Construction & Construction Administrtaiion																	
One year Warranty Inspection																	

Project Approach

Programming/ Schematic Design Phase:

Phase I Components:

- * Questionnaire
- * Project Schedule
- * Staff Interviews
- * Needs Assessment
- * Internal Adjacency
- * External Adjacency
- * Site Selection
- * Schematic Sketches
- * Cost Estimates

On site interviews with Town of Carrboro officials and other relevant staff members (i.e. council members, Fire Chief, planning board, etc.) will be conducted to accurately determine the program, space needs, and adjacencies of the proposed new Fire Station. The information gained during these face to face meetings will be compared with any preliminary spacial data provided by the Town of Carrboro and used to develop a starting point for the written programming of the facility. The quantitative information gathered in these meetings will pertain to office size, truck bays, community use, living areas, security, conference rooms, traffic flow of visitors, ADA issues, projected growth, and other pertinent information not specifically mentioned.

After these meetings, Stewart Cooper Newell Architects (SCNA) will conduct a “Site Based Design” meeting with the Town of Carrboro. During this meeting the architectural team will meet with City representatives in Carrboro and together develop preliminary elevations and floor plans for the proposed facility. At the end of this meeting, which can be a one day meeting or multiple day meeting, the Town of Carrboro will be ready to approve the program and schematic design sketches. Once the schematic plans are approved by the committee, SCNA will provide a comprehensive budget estimate to the Town.

Design Development Phase:

Phase II Components

- * Operational Systems Selected
- * Site Parking & Landscape
- * Revised Schematic Sketches
- * Interior Design
- * Cost Estimates

SCNA will meet with members of your Town’s administration and operation staff to identify all major building components including architectural, structural, mechanical, electrical, plumbing, etc. We will present system options to the Town of Carrboro that are both in line with your specifications and will deliver the town optimum performance with as little operational cost as possible. The results from the “Site Based Design” meeting will be combined with this information to develop a final design for the proposed Fire Station. SCNA will also perform site evaluations in regards to the positioning of the station. We will begin by working with town officials discussing the original footprint of the facility used for planning and the actual building designed. During this evaluation we will be attempting to find the best position for maximum parking, security, green areas, public spaces, etc. We will submit these design development documents to the Town for review and comment. After inclusion of any comments/modifications, SCNA will prepare the full package for submission. SCNA shall submit a budget estimate based on 100% complete design development drawings and specifications. This budget estimate shall clarify many of the qualifications and assumptions presented in the Schematic Estimate and focus on the specifics of the overall project.

Project Approach

Construction Documents Phase:

Phase III Components

- * “Blueprints”
- * Final Budget
- * Construction Bids

Once the Town of Carrboro has approved the Design Development phase, SCNA will complete full documentation, including plans and specifications, to completely and accurately describe the conditions of the project. We will submit progress sets and provide the assistance necessary to insure production of the project in accordance with Town of Carrboro requirements. SCNA will submit the documents to all the required local and state government agencies for approval before commencement of sending out construction bid requests. As with the previous phases, we will be submitting this information for review and approval by the Owner’s committee. Included with this submittal will be a revised statement of estimated construction costs and project schedule. At completion of the Construction Documents, we shall submit the final estimate. This shall be the most detailed and comprehensive pricing, narrowing the scope of assumptions and qualifications. Again, this estimate shall be submitted with a complete breakdown of all pricing and a summary listing of any outstanding inconsistencies, delays or problem areas which could impact budget parameters and final delivery into the construction phase.

Bidding Phase:

SCNA will print and distribute the plans to the bidding community in accordance with Town of Carrboro and State of North Carolina guidelines. We will organize a pre-bid conference for interested bidders in order to answer questions and concerns. We will attend and moderate the opening of the submitted bids at a public meeting, and after the bids, SCNA will assist with the evaluation and recommendation and contract negotiation of the successful bidder.

Project Approach

Construction Administration:

Phase IV Components

- * Construction Administration
- * One Year Warranty

SCNA will manage the construction process by utilizing well-founded means, as the project requires. The project architect and your principal in charge will stay deeply involved during this stage of the project. They are assisted by our dedicated staff of trained construction administrators. Our methods will entail on-site job representation on a weekly (at minimum) basis and working closely with Town of Carrboro representatives. All appropriate consultants will make visits to the job site to review the progress of the work and preparation for the upcoming work. We will be conducting mandatory monthly meetings with all the contractors, the architect, and the Owner present. These meetings will discuss the past months work in detail and will discuss the next month construction processes. We will review and approve or take appropriate action on the contractor's request for payment. Near the completion of construction a "Punch List" of items will be generated for extra attention before occupancy will be granted.

Warranty Period:

SCNA remains in close contact with the Town of Carrboro after move-in is completed. For the next twelve months we are your main point of contact for any warranty concerns. We will handle coordination of the contractors to fix any issues that arise. During the 11th month after move-in we will perform another full inspection of the facility. During this inspection we develop another "Punch List" of items that the contractor will be asked to correct before the warranty period expires. Following the warranty period is over we still stay in contact with the Town of Carrboro and assist in any facility issues that arise.

HOURLY RATE & REIMBURSABLES SCHEDULE

Senior Architectural Principals	\$150.00 /hr.
Junior Architectural Principals	\$120.00 /hr.
Architect	\$100.00 / hr.
Project Manager	\$ 90.00 /hr.
Architect In Training	\$ 75.00 /hr.
Architectural Technician	\$ 65.00 /hr.
Construction Administrators	\$ 85.00 /hr.
Senior Engineering Principals	\$120.00 /hr.
Junior Engineering Principals	\$100.00 /hr.
Project Engineers	\$ 95.00 /hr.
Engineer	\$ 85.00 /hr.
Engineer In Training	\$ 75.00 /hr.
Engineering Technician	\$ 65.00 /hr.
Senior Planning Principals	\$120.00 /hr.
Junior Planning Principals	\$100.00 /hr.
Senior Interior Design Principals	\$100.00 /hr.
Junior Interior Design Principals	\$ 85.00 /hr.
Interior Designer/CAD	\$ 60.00 /hr.
Business / Office Manager	\$ 70.00 /hr.
Clerical & Word Processing	\$ 45.00 /hr.

REIMBURSABLES SCHEDULE

Reproduction:

Xerox (Black & White)-----	\$ 0.10 /ea.
Xerox (Color - 8-1/2 x 11) -----	\$ 0.85 /ea.
Xerox (Color - 11 x 17) -----	\$ 1.50 /ea.

Bluelines, Plots, Large Format Xerox Bonds:

24 x 36 -----	\$ 2.50 /ea.
18 x 24 -----	\$ 1.50 /ea.
30 x 42 -----	\$ 3.50 /ea.
30 x 21 -----	\$ 2.00 /ea.
12 x 18 -----	\$ 1.00 /ea.
11 x 17 -----	\$ 1.00 /ea.

Sepias/Vellums:

24 x 36 -----	\$ 7.50 /ea.
30 x 42 -----	\$ 10.50 /ea.

Mylars:

24 x 36 -----	\$ 12.00 /ea.
30 x 42 -----	\$ 15.00 /ea.

Specifications -----	\$ 50.00 /ea.
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Continued

REIMBURSABLES SCHEDULE – CONTINUED

Presentation Charges:

30 x 42 Color plot -----	\$ 56.88 /ea.
30 x 42 Color plot on board-----	\$ 62.13 /ea.
30 x 42 Color plot on board with acetate-	\$ 65.19 /ea.
24 x 36 Color plot-----	\$ 39.00 /ea.
24 x 36 Color plot on board-----	\$ 42.60 /ea.
24 x 36 Color plot on board with acetate-	\$ 44.70 /ea.

CD of drawings - \$1.00 per drawing recorded on CD

Telephone, Fax, Postage ----- Cost x 1.20

Travel (Meals, Lodging, Airfare, Rental Car)----- Cost x 1.20

Mileage ----- Federal rate x \$1.20

REIMBURSABLE EXPENSES DESCRIPTION

1. Reimbursable Expenses are in addition to the Architect's compensation and include expenses incurred by the Architect and Architect's employees and consultants in the interest of the Project for:
 - A. Expense of transportation and living expenses in connection with out-of-town travel authorized by the Owner;
 - B. Long distance communications;
 - C. Fees paid for securing approval of authorities having jurisdiction over the Project;
 - D. Reproductions;
 - E. Postage and handling of Drawings and Specifications;
 - F. Expense of overtime work requiring higher than regular rates, if authorized by the Owner;
 - G. Renderings and models requested by the Owner;
 - H. Expense of additional insurance coverage or limits, including professional liability insurance, requested by the Owner in excess of that normally carried by the Architect and Architect's consultants.

Budget and Cost Control

Delivering projects within budget is a critical factors that we use to determine if a project is “successful”. As an owner, you show a tremendous amount of trust in your Architect during the design and construction of a new building or renovation project. You trust us to listen to your needs, you trust us to design a building that meets your visual standards, and most importantly- you trust us to make every effort possible to keep your project within your spending limits.

At SCN-Architects, we begin by asking alot of questions and create an excel spreadsheet of every space your building requires and how big you, the client, want this space to be- for example a conference room that would seat 75 people. At the end of this meeting we have list of all the components of your facility and their size, therefore we have our first budget checkpoint. If we are on target we move forward, if we are out of budget then we can go back and examine each room in the list to find ways to get the project in budget. This save you large amount of time and money as we can check the validity of preliminary budget or desires before any design decisions are made.

Once your project begins the design phase we have a number of methods to make sure your project remains inside your budget. The most important being our budget projections at the completion of each phase of design. Before your project receives construction bids you will have received at least 5 budget projections from SCN-Architects. This information helps us make decision about alternate bids, upgrades to equipment, or being able to help you, our client, communicate with your stakeholders about why decisions are made with a concern for cost.

In addition, budget reviews are part of our quality control process. Our architects are required to justify the selection of components, materials, and other items to the review team. This review team also make suggestions to the design team of other materials and construction methods that could provide cost savings to the owner while still meeting their needs.

Cost Control Process:

- Program review versus proposed budget
- Budget projections at the completion of each phase of design process
- Budget projection at 50% complete construction documents
- Internal reviews with peers with feedback
- Historical cost database of previous projects for unit cost comparisons

Quality Control

Quality is not something that you just develop for a specific project. It is something that must be part of the firm's culture, supported daily, on every project, from the top of the organization down to the architectural intern. Stewart Cooper Newell Architects has focused on providing the highest quality design possible for every project we undertake. This core competency has led to a long list of impressive facilities and satisfied clients who can attest to our success at meeting their most stringent quality requirements.

Quality begins in the earliest meetings by making sure that the owner's level of quality is clearly understood and translated into the design, the construction documents and specifications, and finally the budget. Constructability reviews, value analysis, scope of work clarifications, selection of materials and schedule sequencing all impact the ability to provide a quality product.

Quality continues with the qualifying and selecting good, solid subconsultants and working with them to develop a workable schedule with achievable goals. By keeping the entire design team involved we can better manage the different schedules and design that go into your facility.

Quality also goes into our construction administration process. Our dedicated team of professional work to build a good working relationship with the on-site project team. This team has the responsibility for satisfying the project quality requirements from the daily inspections, system validation, weekly meetings, review of pay applications, punch-lists and final signoffs.

We are never satisfied with our quality process. We review each project at its completion to gain new insights on how to improve our level of service to our clients.

Design Review Process:

- Program Review with team including subconsultants
- SD Drawings Review by Principal in Charge
- DD Drawings and Subconsultants drawings review by Project Architect
- Various Phases of Construction Documents are reviewed by Principal in Charge
- Specifications Review by Principal in Charge
- Final CD drawings review by QC Team and PIC
- Construction Administration by CA team and Project Architect

COMPUTER AND GRAPHIC TECHNOLOGY

Stewart Cooper Newell Architects endeavors to maintain a technologically up to date infrastructure as a tool to better serve our clients. We use AutoDesk's most current architectural software, Architectural Desktop 2006, which includes AutoCAD 2006. We run this software on a MS Windows based computer network comprised of individual PC's, laptops and other devices with Windows XP Professional operating systems interacting through two dedicated Windows 2000 Small Business servers.

Along with the CADD capabilities we have complete in-house printing and scanning capabilities including a KIP Starprint 2000 engineering copier and scanner, full size HP inkjet color plotters and a Cannon color copier / printer. To make the administering of contracts simpler for our clients, we carry several license of AIA Contract Documents software which allows us to draft contracts quicker and facilitate the process of keeping accurate records for projects.

Other software utilized for our clients includes Microsoft's full Office product suite (Word, Excel, PowerPoint, Etc.), Adobe photographic and publishing software, and Sketch UP which is used for 3d schematic renderings. We pride ourselves with providing our clients with accurate graphic renderings of their buildings, floor plans, and site so that they can be used to gain support in the community for the investment of taxpayer dollars.

To further enhance our ability to communicate with our clients, our servers are configured with MS Exchange Server software as our email platform, allowing desktop to desktop email service directly through the scn-architects.com domain. To protect both our clients and our equipment, we scan all incoming and outgoing email for viruses. For larger file distribution, which is sometimes ungainly for email, we also provide access to an FTP site, allowing for safe and efficient dissemination of information.

What all this means is that we have the infrastructure in place that can be brought to bear on your project; allowing us to more efficiently, accurately and economically serve your needs, whether this is preparing accurate and comprehensive construction drawings, full color renderings and presentation materials to help with project promotion or detailed project reporting and cost tracking.





Brown & Jones
Architects, Inc.

701 North Person Street
Raleigh, North Carolina 27604

919.831.2625
fax 919.831.2626

May 31, 2006

Ms. Sandra Svoboda, Interim Purchasing Administrator
Town of Carrboro
Purchasing Department
301 West Main Street
Carrboro, NC 27510

RE: Architectural Services for Fire Station No. 2

Ms. Svoboda,

We appreciate the chance to present our qualifications for consideration towards this exciting project. We are presenting a strong design team with a great deal of experience designing Fire / EMS Stations and High Performance Buildings. Brown & Jones Architects, Inc. was founded with the goal of utilizing our experience and insight into energy efficiency and sustainable design into dynamic and interesting design solutions. In 2002 we were recognized by Sustainable North Carolina with a NC Sustainability Award for our contributions in this field. Our firm members contribute to various groups including NC Sustainable Energy Association, the US Green Building Council (USGBC), Sustainable Sandhills, and the Triangle Region's High Performance Guidelines for Designing Public Facilities as volunteer leaders and invited speakers. We are responsible, creative in our solutions, and knowledgeable in the design and administration of construction projects.

Please note that Brown & Jones Architects, Inc. is currently undergoing a change in ownership and as of July 1, 2006 will be renamed Brown Architecture, Inc. All of the firm members listed within will remain with Brown Architecture, Inc.

Brown & Jones has provided design services for multiple fire and EMS facilities such as;

**Stony Hill Fire/ EMS Headquarters Station
Willow Spring Fire Station (Fuquay-Varina #3)
Cary Fire Station No. 6
Garner Volunteer Fire Department Station 3
Rolesville EMS Station**

Included on our team are Swanson & Associates for site design, Sud Associates for MEP engineering, and Stroud Pence Associates for structural engineering. We have an extensive work history with each of these firms and find that our styles and philosophies compliment one another and the integrated design process. We feel our experience in this project type and LEED™ projects as the Architect and as consultant to other designers provides you with a uniquely qualified team. This is an exciting opportunity and we welcome the chance to discuss our qualifications with you further.

Sincerely,

Charles Brown, AIA, LEED™ Accredited Professional
Brown & Jones Architects, Inc. (Brown Architecture, Inc.)



1. COMPANY PROFILE



At Brown & Jones Architects we take pride in using an integrated design approach to every project. Building context, siting, local material availability, aesthetics, budget, present and future needs of the occupants are all taken into consideration from the very beginning of the design process. It is critical that the building maintains its own identity through an efficiently designed plan and building form.

Our expertise in Sustainable Design is a significant benefit to the Town of Carrboro. We feel it's critical to solve problems in a way that improves the occupant's experience and maintains its value for years to come. Selecting durable materials that are appropriate for each specific project is second nature to our firm. We offer solutions that are attractive, and affordable with decreased impact on the natural environment. Efficiently designed mechanical systems, used in conjunction with properly placed glazing, and a well detailed thermal envelope will drastically reduce heating and cooling costs and improve indoor air quality.

Firm Information:

Brown & Jones, Inc. (Brown Architecture, Inc.)
701 N. Person Street
Raleigh, NC 27604
919.831.2625 p
919.831.2626 f

Year Established: 1996

Type of Ownership: Corporation

Small Business Status

Staff: 2 Architects, 2 Project Managers, 2 CADdesign, 1 Administrative



Brown & Jones
Architects, Inc.



2. RESUMES OF KEY PERSONNEL



Charles Brown, AIA, LEED A.P. :- Principal Architect, Brown & Jones Architects, Inc.

Education:

North Carolina State University, Bachelor of Arts - Environmental Design in Architecture, 1983

Professional Accreditations:

LEED 2.0 Accredited Professional

Registered Architect - Virginia 1996

Registered Architect - North Carolina 1994

Awards & Recognitions:

2005 Sir Walter Raleigh Community Appearance Award

2004 Raleigh Neighborhood Appearance Award

2002 Sustainable NC Annual Sustainability Award

1994 Mayor's Award of Excellence - Cary, North Carolina - SAS Institute Office Building "R" Headquarters

1994 Pinnacle Award Nominee Best partnering Project - Carolinas AGC - SAS Institute Building "R" Headquarters

1994 Bidability & Buildability Competition, 2nd Place - Raleigh/Durham CSI - Cary Fire Station #5

Relevant Experience:

Principal in Charge/ Project Manager of the following projects:

Willow Springs Fire Station- Wake County Prototype Fire/EMS Station

Stony Hill Fire/ EMS Station

Rolesville EMS Station & Wake County EMS Station # 7, #8, #9

Prestonwood Country Club Pro Shop Renovation

Raleigh Fire Stations # 24 & 25

Cary Fire Station #6

Garner Volunteer Fire Station #3

Renovations to Garner Volunteer Fire Station #1

University North Carolina at Asheville Sam Millar Facilities Management Complex

Jordan Lake State Park Vista Point & Crosswinds Renovation

Kerr Lake Nut Bush Recreation Area

SAS Institute R Data Center Expansion



Fran Robertson - Project Manager, Brown & Jones Architects, Inc.

Education:

University of North Carolina at Charlotte, Bachelor of Arts in Architecture, 1991
Study in Valdarno, Region of Tuscany, Italy

Professional Affiliations:

Ex-Chair of Hillsborough Citizens Advisory Council- City of Raleigh

Experience:

15 years Project Manager Experience
5 years Freelance Residential & Industrial Design



Patrick Welsh - Project Manager, Brown & Jones Architects, Inc.

Education:

University of North Carolina at Charlotte, College of Architecture, BA in Architecture,
Minor in Geography, concentration in development, 1987
North Wilkesboro Community College, Construction Technology, 1981-82

Professional Affiliations:

Project Management Institute (Project Management Professional - certification in process)
Member of The Project Management Institute- Piedmont Triad Chapter
Green Building Council (LEED Certification in process)
Member of International Facilities Management Association (IFMA)

Professional Development:

United States Green Building Council: LEED Certification - in progress
Speed-Flannigan Consulting: Leading Relationships: Executive Management Seminar, 2005
Project Management Institute Exam Preparation Course - April, 2005
Law for Architects: Professional Seminar - June, 2004

Experience:

15 years Project Manager Experience



Cindi French - Draftsperson, Brown & Jones Architects, Inc.

Education:

Wake Technical College, Associates in Architectural Technology, 2005

Professional Certifications & Affiliations:

Construction Document Technology Certification
United States Green Building Council: LEED Certification - in progress



3. CONSULTANT INFORMATION



Alicia Ravetto, AIA, LEED AP - Principal Architect, Alicia Ravetto Architect

Education:

UCLA, Master of Architecture - Architecture and Urban Planning, Los Angeles, California, 1987
National University of Rosario, Santa Fe, Argentina - Architecture School, 1980
Fulbright Scholar 1985-1987 & CONICET (National Council of Scientific and Technical Research)
- Argentina Graduate Grant 1985-1987



Awards & Recognitions:

California Building Industry Foundation Award (The Irvine Company Scholarship) 1986
• Special interest in construction field: SOLAR AND ENERGY CONSERVATION
Best Practices in Sustainability Award (SBIC - Sustainable Buildings Industries Council) Nov 2002

Professional Affiliations:

US Green Building Council (USGBC) & USGBC NC Triangle Chapter
Sustainable Buildings Industry Council (SBIC)
NC Sustainable Energy Association (NCSEA)
American Solar Energy Society (ASES)
Sustainable North Carolina

Relevant Experience:

Sustainability / LEED Consultant for local architects:

Durham County Human Services Complex
Durham County Libraries - North, East, South Branch
Wake Technical Community College - NE Campus
Weaver Street Market Mixed Used Projects - Orange County

Daylighting Consultant for:

UNC-CH Environment Health Safety Building
Enloe High School Campus Renovations - Wake County
Orange County Skills Development Center
Durant Middle School - Wake County

Principal in charge & Project Manager of the RAFIUSA

Office Building and Dan Pollitt Conference Center



David Swanson, RLA, ASLA– Landscape Architect, Swanson and Associates

Registration: #461, State of North Carolina (1984)

Teaching Experience:

North Carolina State University, Visiting Adjunct Professor - College of Design Landscape Architecture

Instructor for studio course with emphasis on design and construction, 2002 - Present

Education:

North Carolina State University, Graduate School of Design - Master of Landscape Architecture, 1983

St. Andrews Presbyterian College, Bachelor of Arts - Environmental Studies/Political Science, 1978

Harvard University, Graduate School of Design, Summer Career Discovery Program

- Landscape Architecture, 1978

Institute of Government, seminars in Planning and Municipal Administration, 1978 - 1980

University of North Carolina, General College, 1975

Professional Affiliations:

American Society of Landscape Architects (Member, North Carolina Chapter Executive Committee)

Design Council of Chapel Hill (past President)

Design Review Board, Chapel Hill (past member)

Orange Co. Rural Character Study Commission (past member)

Chapel Hill Community Design Commission (past member)

Preservation North Carolina (Professional Associates Network)

Triangle Land Conservancy

Awards & Recognitions:

St. Patrick's Episcopal Mission Columbarium and Memorial Garden

- Merit Award, Excellence in Design, Inform Architecture and Design Magazine, 2003

The Ballet School of Chapel Hill

- Excellence in Design for Institutional Use, Chapel Hill Appearance Commission, 1993

Old Chapel Hill Cemetery Master Plan

- Merit Award, NC Chapter of American Society of Landscape Architects, 1991

Paper: 'The Quality and Quantity of Daylight in Landscape Architecture'

- Honor Award, NC Chapter American Society of Landscape Architects, 1983

Research Grant, Landscape Architecture Foundation, Washington DC 1982



Dave Mykins, P.E. – Vice President/ Branch Manager, Stroud, Pence & Associates, Ltd.

Education:

University of new York at Buffalo– Bachelor of Science in Civil Engineering, 1981

Old Dominion University– Master of Education in Structural Engineering, 1988

Professional Status:

Professional Engineering Registration– VA, 1990; NC, 1996; WV, 1997; SC, 1999

Professional Associations:

The Construction Specifications Institute (CSI) - Secretary, Raleigh-Durham Chapter

National Society of Professional Engineers (NSPE)

Professional Engineers of North Carolina (PENC)

American Institute for Steel Construction (AISC)

American Concrete Institute, Virginia Chapter (ACI)

Jeff Morrison, P.E. - Project Engineer, Stroud, Pence & Associates, Ltd.

Education:

Old Dominion University - Bachelor of Science in Civil Engineering, 1996

North Carolina State University - Master of Science in Civil Engineering, 2000

Professional Status:

Professional Engineering Registration - NC, 2002

Professional Associations:

American Society of Civil Engineers (ASCE)

Precast/Prestressed Concrete Institute (PCI)

American Concrete Institute (ACI)

Honors & Awards:

Tau Beta Pi, National Engineering Honor Society

Chi Epsilon, National Civil Engineering Honor Society



Ish Sud, Ph.D., P.E., Fellow ASHRAE - President, Sud Associates, PA

Education:

Duke University - PH.D. in Mechanical Engineering, 1975

Duke University - Masters of Science in Mechanical Engineering, 1971

Indian Institute of Technology - Bachelors of Technology in Mechanical Engineering, 1970

Professional Status / Affiliations:

Professional Engineer: NC, 1976; TN, 1983; VA, 1993; SC, 1993

Fellow, American Society of Heating, Refrigerating and Air Conditioning Engineers

National Society of Professional Engineers

Green Lights Surveyor Ally, 1995

Professional Experience:

Fire Station # 3 - Asheville, NC

Fire Station # 8 - Asheville, NC

West Buncombe Fire Department, Buncombe County, NC

Lee County Public Works - EMS Central Station, Sanford, NC

LEED Associated projects:

Carmichael Hall, University of North Carolina at Asheville

Physical Plant, University of North Carolina at Asheville

Gateway Center and Demonstration Greenhouse, The North Carolina Arboretum

Wayne C. Nelson, P.E. - Mechanical Engineer, Sud Associates, PA

Education:

North Carolina State University - Bachelor of Science in Mechanical Engineering

Course on Instrumentation Selection & Application

Trane Air Conditioning Clinic - Brady Trane

ASME Pump and Valve Selection

Intermediate AutoCAD - Cape Fear Community College

NCSU Seminars in Energy Management on HVAC and Motors

NEC Review - Cape Fear Community College

Professional Registration / Memberships:

Professional Engineer: North Carolina

American Society of Mechanical Engineers

American Society of Heating Refrigeration & Air Conditioning Engineers

Professional Engineers of North Carolina

Professional Experience:

Wake 911 Emergency Operations Facility, Raleigh, NC.

Eagleson Dormitory Renovations, North Carolina Central University, Durham, NC.

HVAC Renovations - Phase I, Piedmont Community College, Roxboro, NC.

Glendale Acres Elementary School, Fayetteville, NC, Boiler Replacement.

Central School for the Deaf, Greensboro, NC. Renovation of Mechanical Rooms

NC Academy of Justice, Salemburg, NC, Life Cycle Energy Study of Training Facility for Public Safety Officers.



Angus M. Clark, P.E. - Electrical Engineer, Sud Associates, PA

Education:

North Carolina State University - Bachelor of Science in Electrical Engineering, 1982

Professional Registration/Membership(s):

Professional Engineer: NC, 1987

Professional Experience:

Carolina Power & Light, Raleigh, NC.

DSA Consulting Engineers, Raleigh, NC.

Progressive Design Collaborative, Raleigh, NC.

Fenner and Proffitt Consulting Engineers, Wilson, NC. .

Angus Clark Consulting Engineer, Cary, NC

Electrical Engineer of Record for the following Major Projects:

Additions and renovations to the North Carolina Aquarium at Roanoke Island

Additions and renovations to the North Carolina Aquarium at Fort Fisher

North Carolina Wesleyan College Dunn Center (1200 Seat Performing Arts Facility) in Rocky Mount, NC

James Sprunt Community College Library in Kenansville, NC

Womack Army Medical Center main switchboard replacement in Fort Bragg, NC

Dixie M. Davis, P.E. - *Mechanical Engineer, Sud Associates, PA*

Education:

North Carolina State University - Master of Science in Mechanical Engineering (Thermal Sciences), 1981

North Carolina State University - Bachelor of Science in Engineering Science & Mechanics, 1979

Professional Registration/Membership(s):

Professional Engineer: NC, 1987

American Society of Heating, Refrigerating and Air Conditioning Engineers

Professional Experience:

Renovation of Cooper and Haley Residence Halls, North Carolina A&T University, Greensboro, NC

Morrison/Barbee Studies, North Carolina A&T University, Greensboro, NC

Comprehensive Renovation of Morrison Hall - Phase I, North Carolina A&T University, Greensboro, NC

Renovations and Additions to Northwest High School, Guilford County, NC

Cooling Tower Replacement Dorothea Dix Hospital, Department of Health & Human Resources, Raleigh, NC

Greensboro Multimodal Transportation and Community Center, Greensboro, NC

Orange County Public Works New Vehicle Facility, Orange County, NC.

Renovations to Rooms of Venable Hall, UNC Chapel Hill, Chapel Hill, NC

Duke Primary Care Clinic at Maria Parham, Henderson, NC

Wayne Memorial Hospital 2nd and 3rd Floor Renovations, Goldsboro, NC

Moses Cone Day Surgery Additions and Renovations, Greensboro, NC

Coliseum Annex, Winston Salem, NC

Carver Hall HVAC Upgrade, North Carolina A&T State University, Greensboro, NC

Fire Protection for University of North Carolina Hospitals



4. HIGH PERFORMANCE BUILDING DESIGN & LEED



Brown & Jones Architects, Inc. is currently designing three LEED registered projects - each anticipating a Gold rating. We have expanded our extensive solar and energy efficiency expertise to include assisting governmental agencies and private companies achieve their sustainable goals with "green" consulting and community sustainable design charrettes. Brown & Jones is currently acting as LEED consultants to three other LEED projects; Proximity Hotel - Greensboro, Ravensford K-12 School - Cherokee, and Winston Salem Family Services.



BROWN & JONES ARCHITECTS, INC. OFFICE BUILDING
Raleigh, North Carolina
Year Completed: 2003

Renovation of an historic urban property projected to receive a Gold LEED rating by the US Green Building Council. Environmental strategies include water conservation such as flow restrictors, roof garden and stormwater collection; energy efficiency of all building systems; and use of materials that are no-VOC, have high recycled content and are sustainably processed. Windows are detailed to provide good quality natural light to occupied spaces. On the South, a light shelf shades interiors from the glare of beam sunlight and bounces light deep into the room. On the East side, both light shelves and trellises are arranged to create good indoor lighting and a welcoming entry. A wide variety of plants native to the area were selected to add visual interest and diversity to the urban setting and to reduce watering requirements.



UNIVERSITY OF NORTH CAROLINA AT ASHEVILLE PHYSICAL PLANT BUILDING
Asheville, North Carolina
Construction budget \$5,000,000
Estimated Completion: 2007



This 28,000 SF building is comprised of office space with its amenities as well as shops for vehicle repair, carpentry, plumbing, and welding, electrical, HVAC, locksmith and paint, break rooms, and storage space. The design team has integrated the United States Green Building Council's Leadership in Energy and Environmental Design (LEED) building rating system into design decisions. The project will use 40% less energy than code. Material selection included recycled content products. The use of salvaged material, and construction waste reduction are specified in the project. Challenges included: extensive coordination, maximized daylighting and improved air quality. Placement of the building on the site focused on reduction in footprint, minimized grading, preservation of natural areas and reduction of storm water run-off with the use of bio-retention ponds, underground storage tanks, gravel pave, and landscaped garden roofs.



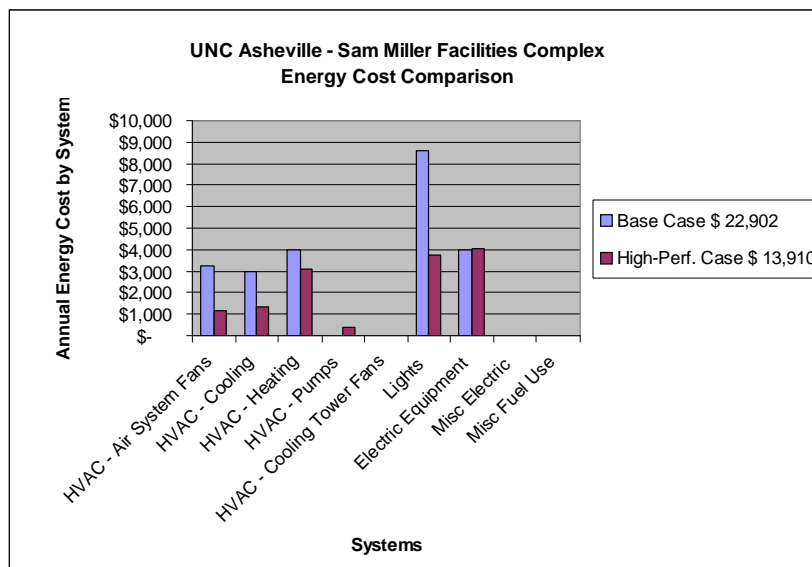
5. LIFE CYCLE COSTING FOR ENERGY SYSTEM

You can not be serious about High Performance Design if you are not serious about saving energy. Brown Architecture is serious about High Performance Design. A "Boiler Plate" or conventional building system design process will create conventional building performance. Therefore, we seek consulting engineer team members who design creatively.

Sud Associates, P.A. has been providing quality engineering services to both government agencies and private entities for more than 20 years. Sud started by performing energy audits and have become a well-known name in the field of building sustainability. Not only has Sud performed thousands of building studies, they have remained on the cutting edge of sustainability technology through research, evaluations, and training for ASHRAE, U.S. Department of Energy, Environmental Protection Agency, North Carolina Alternative Energy Corporation, Electric Power Research Institute, etc.

Sud approaches each project with no preconceived solutions, but determines what the Owner's and occupants' needs are and how best to meet them. Sud Associates takes the time to keep the client informed and to explain the strengths and limitations of any design concept being presented. They are cognizant of the "big picture" and analyze all feasible and economical options given proposed future usage; the occupants' needs; life-cycle cost; financing opportunities; and current energy-efficient technologies.

Brown Architecture recently took the next step in maintaining their leadership in High Performance Design by converting to a parametric or Building Information Management (BIM) CAD program. When drawing in BIM we are creating more than lines, circles, and arches, but an actual database of building information. This allows us to quickly convert to 3D imagery and use this information to support Building System Energy Analysis using DOE 2, Trane Trace, Equest, etc. In the past a major expense in energy modeling is inputting the thermal envelope and making changes to these parameters with each model. BIM allows us to quickly change parameters using simple pull down menus.





6. RELATED EXPERIENCE



WILLOW SPRING FIRE STATION

Wake County, North Carolina

Year Completed: 2002

Construction Cost: \$978,821

Triangle J High Performance Guidelines - Bronze Rating

Brown & Jones worked with local firechiefs, EMS chiefs, and Wake County Facilities Design to program and design a prototype facility. The plan allows for a rural fire station, or a larger municipal station with or without Department Headquarters and Training. In addition a one or two vehicle EMS facility can be added depending on location and needs.

The first prototype station was built in the Willow Spring Community of Wake County and leased to the Fuquay-Varina Volunteer Fire Department.

These fire stations are designed to, at minimum, achieve the Triangle J High Performance Building bronze rating with no increase to the project budget and 40% to 50% energy savings over building code requirements. Shown left, on the South facade of the building, is a solar transpired air collector. In winter, the sun warms the air behind the panels and low power fans bring in fresh warm air to help heat the apparatus bays. The panels are shaded in the summer due to higher sun angles and properly designed overhangs.



STONY HILL FIRE/EMS HEADQUARTERS STATION

Stony Hill, North Carolina

Year Completed: 2004

A 15,136 SF facility to house the local Fire Department, EMS crew(s), and administrative offices. Includes 4 double Apparatus Bays, separate sleeping areas for Fire & EMS, shared living areas, large multi-functional Training Room, and private & shared offices.

Severe issues made this a challenging site; steep existing slope, an existing CP & L easement, and location at a sharp bend in the road which limited entrance options. For efficient space planning we created separate and shared spaces for Fire and EMS allowing each entity to operate as needed. The design allows public access to administrative offices while keeping living area private and secure.



ROLESVILLE EMS STATION

Town of Rolesville, North Carolina

Year Completed: February 2004

3,667 SF EMS Station. Based on the prototype developed with Wake County in 1999, this station was expanded to include an auxiliary meeting room with separate toilet facilities. Addition of a meeting Room posed challenges to constricted site. Exterior appearance designed to fit into Historic Conservation Overlay District.



6. RELATED EXPERIENCE



RALEIGH FIRE STATIONS #24-BRIER CREEK & 25-WAKEFIELD

Wake County, North Carolina

Year Completed: 2001

Each station is 5,650 SF and include 2 vehicle bays, shower/locker facility, storage, kitchen, day area, weight training room, offices and dormitories. The projects utilized Insulated Concrete Forms (ICF's) for exterior walls. ICF's are highly insulated concrete walls which also possess extreme wind load resistance.

Brown & Jones increased square footage and energy efficiency over the previous prototype within the same budget.



WAKE COUNTY EMS BUILDINGS

Wake County, North Carolina

Year Completed: 1999

Public safety facility housing two ambulance crews and a district supervisor. This plan was developed into a prototype for at least three locations throughout the county. The building is designed with a residential character, as four sites are close to neighborhoods.

Modeled after an existing prototype, the plan was revised and improvements were made to enhance energy performance. Measures taken include increasing insulation levels, using efficient appliances, and locating the ductwork inside the conditioned space. Computer modelling during the design process showed a 45% reduction of annual energy use compared to the previous prototype, a cost savings estimated at \$1060 per year. The previous prototype was designed eight years ago and still meets today's North Carolina Energy Code.



GARNER VOLUNTEER FIRE STATION #3

Garner, North Carolina

Garner Volunteer Fire Department

Year Completed: 1999

Three bay fire station including a dormitory wing with shower/locker rooms and a dayroom with dining and kitchen space. Translucent panels provide natural light to vehicle bays.



CARY FIRE STATION #6

Town of Cary, North Carolina

Year Completed: 2000

Fire station including dormitory, shower/locker rooms, maintenance shop, training room, dining and kitchen space, and a two bay apparatus room. Living quarters are placed across the vehicle bays from the training and maintenance areas to enhance privacy. This design uses translucent wall panels to allow natural light into the vehicle bays.



7. CURRENT WORKLOAD AND STATE PROJECTS

We currently have three State projects awarded: the Physical Plant Building at UNC Asheville, the UNC Asheville Craft Campus (on hold-pending private funding), and the Nut Bush Boat Ramp Area Development. We are actively looking for substantial design work. Our design team can easily handle the workload required for this project.

Prior to Carrboro's decision Brown Architecture expects to begin designing the refurbishment of historic Durham Fire station #1 which will be LEED certified. The building will be converted into office space and first floor café/ retail use for Greenfire development.

8. DESIGN APPROACH

Our approach to environmentally sensitive design can be described as systems integration. The natural world gives us a beautiful model of integrated design; systems interact with each other and the parts become a stronger whole. A good design solution solves several problems at once, so we strive to mimic nature's efficiency in the systems of our buildings. This concept of integrated design is the key to our idea of what makes a building sustainable.

To begin this integration we suggest an initial Green Goal Setting Charrette/ Workshop. These initial conversations with the client and designers will determine the level and feasibility of sustainable options for this project. This approach proves to be extremely informative to not only the client, but also the designers as we review the sustainable potential for the building.

During this initial goal setting, we come to understand the commitments and steps necessary to accomplish our shared goals. The client often volunteers to undertake the task of securing grants for funding of specialized sustainable project enhancements. We can provide support and backup information for grant writing or manage the entire process.

Local Architect Alicia Ravetto, will lead the charrette process. Brown Architecture feels an outside facilitator allows us to be more involved in the goal setting and offers a fresh outlook on the process.

Prior to the green charrette, to insure the successful execution of the design concept within budget and schedule, we will:

- We will intimately familiarize ourselves with your project site.
- Listen. The project's program requirements must be resolved in a way that is agreeable to the owner's team. We will help insure that the client's needs are met by holding participatory programming meetings while staying within the project's budget and scope.

As the project design proceeds, the issues move from general to specific. By regular interaction and review with key staff we will insure that the standards and green goals are maintained, the correct function of the building is established, and the greatest value for the investment is achieved.

We are dedicated to considering and pursuing sustainable design solutions in our projects. We have an extensive technical understanding of energy efficiency, conservation, renewable energy applications, and use of LEED Guidelines.



9. PENDING OR SETTLED LAWSUITS OR LIABILITY CLAIMS

Brown & Jones has no pending or settled lawsuits or professional liability claims. Brown & Jones was sued once, and the case was thrown out of court by summary judgment.

We have received recognition for our ability to assemble construction documents that are clear, concise, and thorough. We take pride in producing documents that are easy to bid and build. All of our construction documents are reviewed in house a minimum of three times, and final drawings are checked by more than one person. We use a 'single point of contact' rule for project management within our firm and our consulting firms. This requires that all decisions be routed through a project manager and insures information is appropriate, accurate, and coordinated.

10. ADDITIONAL INFORMATION

Brown & Jones Architecture, Inc. Standard Hourly Rates:

Principal Architect	\$ 125.00 /Hr
Project Architect	\$ 100.00 /Hr
Project Manager	\$ 100.00/Hr
Intern III	\$ 85.00 /Hr
Intern II	\$ 80.00 /Hr
Intern I	\$ 75.00 /Hr
Non-technical Staff	\$ 55.00 /Hr
Consultants	Applicable Hourly Rates, not to exceed those of Brown Architecture x 1.10.

- David Swanson as the lead site designer will play an important role in siting and permitting the project. Brown Architecture always teams with a site consultant who is familiar with local regulations. Swanson & Associates will also bring a strong knowledge of low impact site design to the project.

TOWN OF CARRBORO
NORTH CAROLINA

REQUEST FORM
FOR
ARCHITECTURAL SERVICES

The contents of this proposal are known to no one outside the undersigned company.

Date:	<u>5.30.2006</u>
Company Name:	<u>Brown & Jones Architects, Inc.</u> <u>(Brown Architecture, Inc. on July 1, 2006)</u>
Address:	<u>701 North Person Street</u> <u>Raleigh, NC 27604</u>
Contact Person	<u>Charles Brown</u>
Phone #	<u>919. 831. 2625 ext. 203</u>
Fax #	<u>919. 831.2626</u>
Authorized Signee:	<u></u>
Print Name:	<u>Charles Brown</u>
Print Title:	<u>President</u>

Please attach list of individuals to be assigned to this project with qualifications.

List of Individuals with Qualifications for Attachment A

- Since 1994, Charles Brown, AIA, LEED AP, has been Project Architect on over 8 fire stations, 4 EMS stations and 1 fire/EMS station.
- Patrick Welsh, has 15 years Project Manager experience.
- Fran Robertson has 15 years Project Manager experience and 5 years Freelance Residential & Industrial Design experience.
- Cindi French as draftsperson holds an Architectural Technology degree.
- Alicia Ravetto, AIA, LEED AP, established herself in downtown Carrboro, North Carolina in 1997, as a small minority- female owned business specializing sensitive architecture. The focus of Alicia's work is on a design approach that integrates advanced building technologies with renewable energy to achieve more comfortable, durable, affordable and environmentally sound buildings.
- David Swanson, RLA, ASLA, has been practicing Landscape Architecture in North Carolina for 20 years.
- David Mykins, PE, has partnered with Brown & Jones to provided structural engineering services for Willow Springs Fire Station and Raleigh fire stations #24 and #25. Stroud, Pence and Associates have also provided services for 7 other surrounding area fire stations as well as 1 EMS station.
- Jeff Morrison, PE, of Stroud, Pence and Associates, has more than 7 years experience in the structural design and construction administration for various projects including: schools, office buildings, shopping centers and churches.
- Ish Sud, Ph.D., PE, has directed all Sud Associate projects since the firm was founded, in 1979. Sud Associates has provided services for 3 fire stations and 2 EMS stations in North Carolina.
- Wayne Nelson, PE, has over 25 years of mechanical engineering experience designing building mechanical, HVAC, and plumbing systems for emergency facilities, offices and assembly, health care facilities, schools, dormitories, offices and churches.
- Angus Clark, PE, has over 23 years of electrical engineering experience on a variety of projects including designing lighting, power and fire alarm systems for commercial and institutional buildings.
- Dixie Davis, PE, has 19 years of experience in HVAC design, 10 years experience in fire protection sprinkler design, and 9 years experience in plumbing design for commercial, institutional and industrial facilities.

REFERENCES

(Vendor must supply five (5) references of clients to whom similar work was performed.)

Reference Company Name:

Wake County Facilities Design & Construction

Contact: Mark Forestieri

Phone: 919-856-6350

Nature of work performed:

Willow Spring Fire Station

Stoney Hill Fire & EMS Station

Rolesville EMS Station

Wake County EMS Stations #7, #8 & #9

Feasibility Studies for Baylief, Garner Station #4

Reference Company Name:

Cary Fire Department

Contact: Alan Cain, Chief

Phone: 919.469-4056

Nature of work performed:

Cary Fire Station #6

While w/ Walter Davis Architects;

Cary Fire Station # 5 & Police Service Center

Additions & Renovations to Stations 3& 4

Conceptual Design of Station #1

Reference Company Name:

Garner Volunteer Fire Department

Contact: Chief Phil Mitchell

Phone: 919.772.1550

Nature of work performed:

Garner VFD Station #3

Garner VFD Renovations to Station 1 (Two Phases)

Reference Company Name:
Raleigh Construction & Engineering

Contact: David Watson
Phone: 919-890-3575

Nature of work performed:
Raleigh Fire Department Station 24 – Brier Creek
Raleigh Fire Department Station 25 – WakeField

Reference Company Name:
UNC Asheville Facilities Design & Construction

Contact: Melissa Acker
Phone: 251.6699

Nature of work performed:
UNC Asheville Sam Millar Facilities Management Complex (Physical Plant)

Town of Carrboro, NC

**Architectural Services for
Design of a
New Fire Station,
RFQ #0100**

- **Cover Letter of Interest**
- **Signed Proposal Request Form**
(Attachment A)
- A Prime Company Profile & Organization Chart**
- B Project Team Members**
- C Subconsultant**
- D Fire/Rescue/EMS Station Design Experience**
- E Life Cycle Costing for the Energy System**
- F Similar Projects, including References**
(Attachment B)
- G Current Workload & Estimated Completion Schedule**
- H Design Approach**
- I Lawsuits or Claims**
- J Standard Hourly Rate Chart**

*Submitted
May 31, 2006, by Team:*





ENGINEERS • ARCHITECTS • PLANNERS

449 McLaws Circle, Williamsburg, VA 23185 • P. O. Box 3505, Williamsburg, VA 23157

Phone: 757.253.0673 • Norfolk-Virginia Beach: 757.874.5015 • Fax: 757.253.2519

E-mail: williamsburg@djginc.com • Web: www.djg-inc.com

May 31, 2006

Town of Carrboro
Purchasing Department
301 W Main St
Carrboro, NC 27510

Re: Design Services for New Fire Station, RFQ #0100

Dear Ms. Svoboda & Selection Team Members:

Among other things, September 11th, 2001, further illustrated for America the important role fire fighters fill in their communities. With homeland security now a focus at every level of government, it's clear the Town of Carrboro's new Fire Station is important to helping keep the community as safe as possible and prepared to face any emergency. At DJG, we also like to know that the work we do benefits communities. For this reason, we are pleased to submit our qualifications to provide professional architectural and engineering services for the Town's new Fire Station.

As evidenced in the enclosed proposal, DJG has extensive previous experience designing Fire Stations and we offer a substantial list of satisfied municipal Clients whom we have served on similar contracts. Our Project Manager on this project, Donald Booth, AIA, has been involved in the design and construction of fire and emergency service type facilities for 10 years. His varied experience designing public safety facilities ranges from small additions to new six and seven drive-through bay emergency services facilities with support and administration spaces.

DJG is based in Williamsburg, VA, but is licensed in North Carolina. Serving the Town of Carrboro well is a matter of commitment, not geography. To best meet the needs of the Town on this contract, we have teamed with North Carolina-based McKim & Creed to provide civil engineering and land surveying services. Mr. Booth and the rest of the DJG team are ready and able to begin planning for this Station, and will work diligently to meet (if not exceed) the Town's expectations.

We trust the enclosed proposal provides all the information you need to confidently entrust this important project to DJG, but do not hesitate to contact us should you require additional details. We welcome the opportunity to learn more about your goals for this Station—as well as to further demonstrate our interest and abilities—during the interview process. Thank you for considering the DJG team.

Respectfully Submitted,

Daniel J. DeYoung, PE, FASCEC
President

TOWN OF CARRBORO
NORTH CAROLINA

REQUEST FORM
FOR
ARCHITECTURAL SERVICES

The contents of this proposal are known to no one outside the undersigned company

Date: May 31, 2006

Company Name: DJG, Inc.

Address: 449 McLaws Circle

Williamsburg, Virginia 23185

Contact Person: Daniel J. DeYoung, PE, FACEC

Phone #: 757.253.0673

Fax#: 757.253.2319

Authorized Signee: 

Print Name: Daniel J. DeYoung, PE

Print Title: President

Please attach list of individuals to be assigned to this project with qualifications.

A. Prime Company Profile & Organization Chart

Prime Firm Name: DJG, Inc.

Address: 449 McLaws Circle
Williamsburg, VA 23185

Year Established: 1978

Type of Ownership: Corporation

Size of Company & Staff: 35

DJG is a multi-discipline firm licensed to practice engineering and architecture by the State of North Carolina (Registration #51116) and by the Commonwealth of Virginia (Certificate # 0405 000368). DJG will accomplish the design for the Town of Carrboro's new Fire Station from its only office located in Williamsburg, VA. DJG offers the following services in-house:

- Architecture
- Interior Design
- Structural Engineering
- Electrical Engineering
- Mechanical Engineering
- Civil Engineering
- Landscape Design
- Project Management
- Construction Administration

DJG proposes to provide architecture and structural, mechanical and electrical engineering services to successfully deliver the Town's new Fire Station. Civil engineering and land surveying services for Fire Station 1 will be provided by North Carolina-based McKim & Creed. Please see Section C for further details and information about McKim & Creed. Services shall include programming, conceptual design, preliminary design, preparation of construction documents, bid and award assistance, and construction administration services, until successful completion and acceptance of the project by the Town.

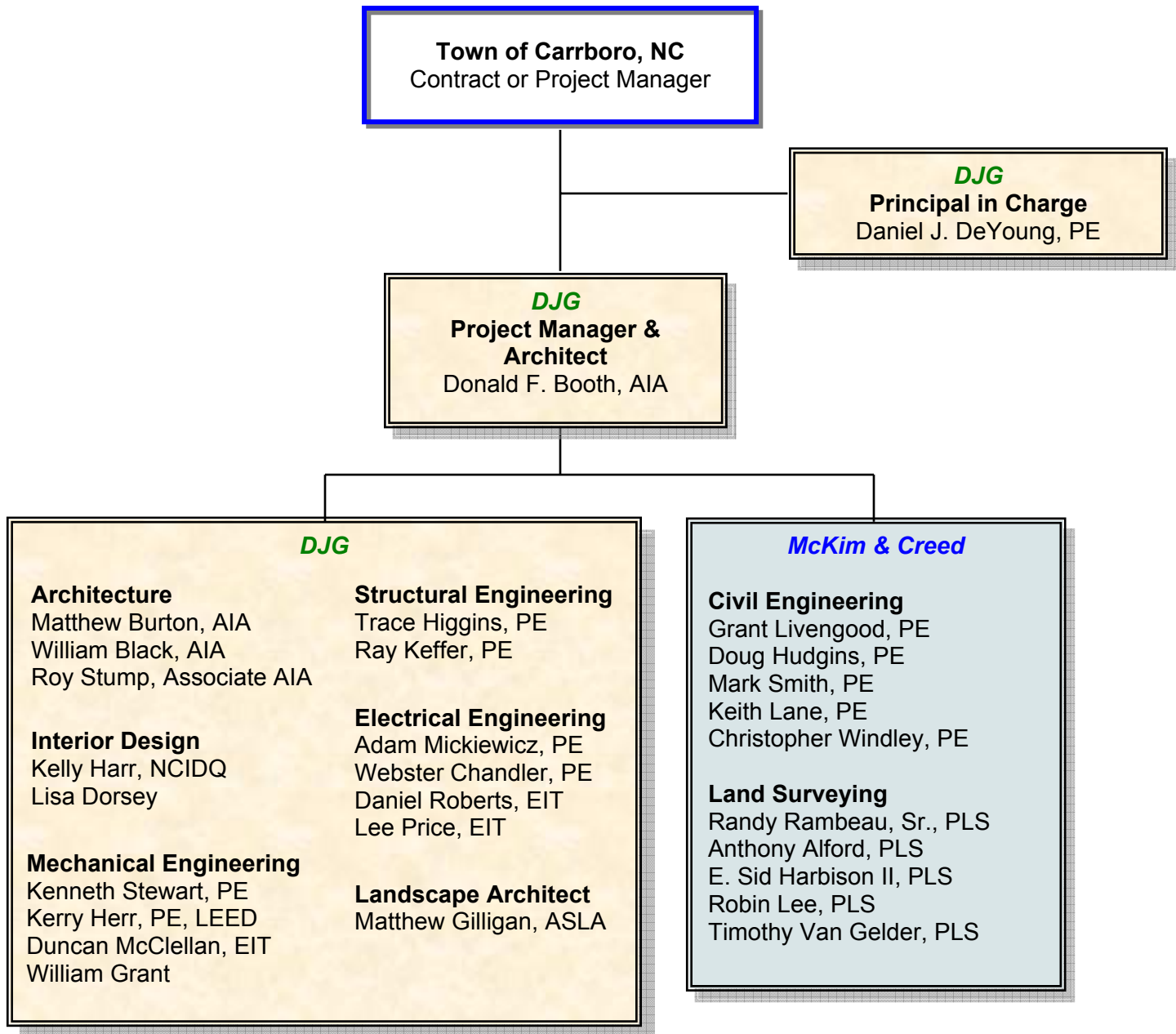
Insurance

DJG maintains normal statutory insurance levels but more specifically, maintains Professional Liability Insurance of \$1 million, comprehensive general liability of \$2 million, and auto liability of \$1,000,000. Our professional liability provider is Beazley. Probably the best indication of DJG's quality work performance is the rate of Professional Liability Insurance cost. The industry range is from less than one percent of gross receipts upward to eight to ten percent of gross receipts for Professional Liability Insurance. **DJG's cost is roughly one percent of gross receipts. Our low rate is a reflection of our claims history—which ultimately is a true reflection of providing quality service.**

DJG's Organization Chart shown on the following page reflects firm roles and responsibilities as well as the breadth of staff who are available and committed to support completion of this project. Individual key staff resumes are included at Section B.



Organization Chart



B. Project Team Members

DJG is committed to the involvement and oversight of a firm principal on every project we undertake. On this project, our Principal in Charge will be **Daniel J. DeYoung, PE**, who has more than 45 years of combined design, management and supervisory experience. He has managed several local government level contracts, including for Dare County, NC, and the Town of Kill Devil Hills, NC. Mr. DeYoung will be responsible for contract negotiation—and seeing that DJG meets or exceeds the Town of Carrboro's expectations on this project. **Mr. DeYoung is a licensed Professional Engineer in North Carolina.**

DJG's Project Manager for the Town's new Fire Station will be **Donald F. Booth, AIA**. A licensed architect in North Carolina, Mr. Booth will serve as the Town's direct point of contact throughout the project, providing smooth coordination and communication. As a Project Manager, he is seasoned beyond his years, with expertise in complete project design consisting of site investigation, consultation with the Client, preparation of construction drawings, specification writing, cost estimating and construction administration. Mr. Booth has been involved in the design and construction of fire and emergency service type facilities for more than 10 years. **He has contributed new and renovation design expertise to more than \$15 million worth of emergency service facilities.** These projects have ranged from one room renovation and additions, to new six and seven drive-through bay fire and rescue facilities with support and administration spaces. His experience in construction management enables him to provide interdisciplinary coordination of the design documents to avoid costly change orders during construction.

Mr. Booth has continued his education in the realm of fire and emergency service design. In the Fall of 2002 and 2004, Mr. Booth attended a national Fire Station design symposium, sponsored by FIERO. In October 2005, he was a featured speaker at this design symposium in Charlotte, NC. Additionally, Mr. Booth participated in the May 2006 Fire Chief Magazine Station Style Design Conference in Phoenix, AZ.

Following are detailed resumes of key staff who will be working on Carrboro's new Fire Station.



Daniel J. DeYoung, PE, FACEC

Principal in Charge

Professional Qualifications

Daniel DeYoung has more than 45 years of extensive experience in the design and management of a variety of important projects. Since founding DJG, Inc. in 1978, he has served as the firm's principal. Mr. DeYoung has managed both the design and construction of a multitude of projects, which have included municipal facilities, military sites, federal facilities, industrial facilities, and private commercial developments. **Mr. DeYoung has had personal design experience with more than 10 Fire and EMS Stations.** He is a Certified Value Analyst and applies those techniques to his designs.

Professionally, Mr. DeYoung is adept at forensic work of structural designs. He has led DJG's Design Team through several design/build projects and has in-depth knowledge of construction processes and the industry.

Although Mr. DeYoung's forte has been the design of unique structures and forensic analysis, his experience includes design and renovation of Fire Station and EMS Facilities, industrial and commercial facilities, and housing for public and private clients.

Mr. DeYoung served as the 2002-2003 National Chairman of the American Council of Engineering Companies (ACEC), a national organization representing more than 5,500 private engineering companies. He continues to serve the industry through active association participation.

Education

Bachelor of Science / 1961 / Civil Engineering / Virginia Polytechnic Institute and State University

Registration

1965 / Professional Engineer / Virginia / #3517

Professional Engineer / North Carolina / #19552

Professional Engineer / Maryland / #4885

Professional Engineer / South Carolina / #22729

Professional Engineer / Tennessee / #108609

Related Experience

- **Public Works Complex**, Town of Kill Devil Hills, NC
- **Main Fire Station Renovation**, Town of Kill Devil Hills, NC
- **Northern Fire Station**, Albemarle County, VA
- **Satellite Fire Stations #4, #5 & #6**, York County, VA
- **Fire Stations #1, #4 and #5**, Spotsylvania County, VA
- **Fire Training Facility**, Andrews Air Force Base, Maryland



Project Manager & Architect

Professional Qualifications

Mr. Booth has ten years of experience as an architect at DJG. His broad range of career experience includes new design, renovation and restoration work for historical, commercial, industrial, municipal and government agency facilities.

Additionally, Mr. Booth has experience in project management as well as construction administration for a variety of projects and Clients. **He has focused training in Fire Station design and current issues impacting fire and emergency services operations.**

Mr. Booth is active in professional associations including the American Institute of Architects and the Virginia Fire Chiefs Association. He is also active in his community as a volunteer coach and mentor for the Peninsula Wrestling Association.

Education

Bachelor of Architecture / 1996 / Virginia Polytechnic Institute and State University

Roofing Technology / 1999 / Roofing Industry Educational Institute

Better Understanding of Roofing Systems Institute (BURSI) Certified / 2000

Commonwealth of Virginia Procedures and Policies of Construction and

Professional Services for Architecture and Engineers / 2000 / Bureau of Capital Outlay Management

Fire Station Design Symposium, Charlotte, NC / Fall 2002, 2004 & 2005

LEED Intermediate Workshop / February 2003

Fire Chief Magazine Station Design Conference / Phoenix, AZ / May 2006

Registration

Architect / Virginia / 2003 / #11728

Architect / North Carolina / 2004 / #9877

Related Experience

- **Main Fire Station Renovation**, Town of Kill Devil Hills, NC
- **Public Works Complex and Town Hall**, Town of Kill Devil Hills, NC
- **Fire Stations #5, #18, #21 and #22**, Henrico County, VA
- **Fire Stations #1, #4 and #5**, Spotsylvania County, VA
- **Salem Fields Fire and Rescue Station**, Spotsylvania County, VA
- **Regional Fire Training Facility**, City of Fredericksburg, Spotsylvania County and King George County, VA
- **Northern Fire Station**, Albemarle County, VA
- **Fire Stations #2 & #3 Renovations**, York County, VA



Trace Higgins, PE

Structural Engineer

Professional Qualifications

Trace Higgins joined DJG to assist with design of wood, concrete and steel structures, as well as field inspection of construction.

His experience includes construction project engineering and quality control, OSHA HazWopper training, and OSHA 40-hour instructor and safety inspector training.

Mr. Higgins is a certified Virginia Emergency Medical Technician – B, and is a former Professional Firefighter and Medic.

Education

Bachelor of Arts / 1993 / Environmental Science

Masters of Engineering / 2003 / Structural Engineering

Registration

2005 / Professional Engineer / Virginia / #041188

Related Experience

- **Regional Fire Training Academy** for Spotsylvania County, King George County and the City of Fredericksburg, VA
- **Fire & Rescue Station #10**, Spotsylvania County, VA
- **Volunteer Rescue Squad**, Mathews County, VA
- **Virginia Department of Military Affairs**—Multiple projects under a term contract, including Roof Replacements at Charlottesville and Blackstone Armories
- **Classified Department of Defense Location**—K-9 Units; Boathouse; and Feeney Road
- **Colonial Williamsburg Foundation**, Williamsburg, VA—Packett's Warehouse Structural Repairs; and Dewitt Wallace Expansion Study
- **Pepsi Bottling Group Warehouse Expansion**, Norfolk, VA



Kenneth M. Stewart, PE

Senior Mechanical Engineer

Professional Qualifications

Kenneth Stewart has nearly 43 years of experience in both civil and mechanical engineering. In the field of civil engineering, he has been responsible for infrastructure planning, design and general commercial land development. In the field of mechanical engineering, his experience has been concentrated in the areas of HVAC and plumbing modifications, and upgrades to existing building systems, as well as process piping and valving for pumped conveyance systems.

In addition to practical design, Mr. Stewart is a skilled Project Manager who has served both public and private Clients well.

Mr. Stewart has supervised staff engineers and technicians while participating in conceptual planning, final design, preparation of specifications and construction documents, public bidding process and construction management. His responsibilities have included project budget monitoring, scheduling and quality control.

Education

Bachelor of Science / 1963 / Mechanical Engineering

Masters of Science / 1978 / Civil Engineering

Registration

1998 / Professional Engineer / Virginia / #32339

1980 / Professional Engineer / Massachusetts

1975 / Professional Engineer / New Hampshire

Related Experience

- **Fire Stations #1 and #4, and Salem Fields Fire and Rescue,** Spotsylvania County, VA
- **Fire Stations #5 and #21,** Henrico County, VA
- **Fire Stations #2 & #3 Renovations,** York County, VA
- **Mathews County Rescue Squad Building,** Mathews County, VA
- **Fire Station #4,** Roanoke, VA
- **FY '02 & '03 Dormitories (Design/Build),** Langley Air Force Base, VA
- **Downing Gross Building HVAC Renovations,** Newport News, VA
- **Orcutt Mid-rise Generator,** Newport News RHA
- **Crossroads Community Center,** York County, VA



Mechanical Engineer & LEED Accredited Professional

Professional Qualifications

Kerry Herr has more than seven years of mechanical engineering experience, and has served as lead mechanical engineer on a variety of projects, such as a 120,000 square foot combination elementary school and Boys & Girls Club in Camden, NJ. He is experienced in designing HVAC and related mechanical systems for both new and renovation projects. Mr. Herr is familiar with and has designed a variety of complete HVAC system layouts; including geothermal and water source heat pumps.

A LEED accredited professional, Mr. Herr designs and evaluates HVAC systems for maximum sustainability and future flexibility.

Education

Bachelor of Science, Mechanical Engineering / 1999 / University of Maine, Orono

Registration

Professional Engineer / Maine

Professional Engineer / Pennsylvania

Professional Engineer / Virginia / 2006

LEED Accredited Professional / 2001

Related Experience at DJG

- **Fire Stations #5, #21**, Henrico County, VA
- **Fire Stations #1 and #4, and Salem Field Fire and Rescue Station**, Spotsylvania County, VA
- **Northern Fire Station**, Albemarle County, VA

Related Experience during prior employment

- **United States Embassy HVAC Renovation**, Islamabad, Pakistan
- **Juvenile Detention Center**, Philadelphia, PA
- **US Department of State Main Building HVAC Renovation**, Washington, DC

J. Adam Mickiewicz, PE

Electrical Engineer

Professional Qualifications

Adam Mickiewicz, PE, has nine years experience in the design of a variety of DJG electrical projects. Mr. Mickiewicz has designed various types of lighting systems, and electrical power and communication distribution systems for public, industrial and commercial facilities. His work has included various lighting and power calculations, field survey, design layout, specifications and cost estimating.

Education

Bachelor of Science, Electrical Engineering / 1997 / Virginia Military Institute

Registration

Professional Engineer / 2003 / Virginia / #38888

Related Experience

- **Office Building Renovation**, Town of Kill Devil Hills, NC
- **Public Works Complex**, Town of Kill Devil Hills, NC
- **Fire Stations #1 & #4**, Spotsylvania County, VA
- **Salem Fields Fire and Rescue Station**, Spotsylvania County, VA
- **Fire Stations #5, #21 & #22**, Henrico County, VA
- **Fire Stations #2 & #3 Renovations**, York County, VA
- **Fire Station #4**, Roanoke, VA
- **Rescue Squad Building**, Mathews County, VA
- **Virginia Department of Military Affairs**—Fort Pickett Electrical; Staunton OMS-12 Additions and Renovations; Warrenton Boiler Replacement; and Staunton Boiler Replacement
- **Department of Defense Secure Location**—Various designs for electrical service at this classified facility including Base Club Restroom; Birchwood Student Lounge; Recreation Area; Phase 3 & 4 Housing; Beechtree Renovation; Motor Pool & Barracks Renovation; and Watch Desk Renovation
- **Transportation Inn**, Fort Eustis, VA (design/build)—Assisted in the lighting design for this \$25 million hotel-style temporary lodging facility
- **Evercel Industrial Plant**, Newport News, VA—Design of an electrical switchboard to be installed underground. This project was accomplished to meet the demands of increase voltage power in the company. The design increased the main electrical service from 3000 amps to 7000 amps



Landscape Architect

Professional Qualifications

Matt Gilligan has more than three years experience in commercial, residential, and civil design. Mr. Gilligan provides landscape design services from concept to construction specifications, while meeting local zoning and planning regulations and requirements. He specializes in master planning, site design, site grading as well as preparation of cost estimates. He proficiently creates site plan renderings using various computer software programs.

Education

State University of New York, Syracuse, Environmental Science / Bachelors Degree, Landscape Architecture / 2002

Registration

Registered Landscape Architect / 2006 / Virginia / #0001264

Related Experience

- **Fire Stations #1 and #4, and Salem Fields Fire Station**, Spotsylvania County, VA
- **Northern Fire Station**, Albemarle County, VA
- **Fire Station #21**, Henrico County, VA—Landscape design for this Station, which sits on a 2.5 acre site, adjoining a mixture of upscale residential and commercial properties
- **Celey Subdivision**, Hampton, VA—Landscape design for seven home sites in a new subdivision for the Hampton Redevelopment and Housing Authority
- **Jefferson Lab 10 Year Master Plan**, Newport News, VA—Landscape design and cost estimates for this Master Plan, which includes the expansion of an industrial facility; specific work includes streets, streetscapes, vegetative buffers, stormwater conveyance systems and utility design
- **Shoothouse Complex, Department of Military Affairs**, Fort Pickett, VA—Landscape design for site design associated with a multiple building, urban warfare training facility; site design elements included grading, paving, some site utilities, and planting layout and selection

Grant M. Livengood, PE Civil Engineer

Summary

Mr. Livengood has more than nine years of experience in computer graphics and graphic design and is involved with the design of construction documents for many site development projects. Since 2003, Mr. Livengood has worked as a Project Manager and team leader of McKim & Creed's Cary office land development services. He is proficient in AutoCAD 2005 and operation of land development civil design software and is very knowledgeable in calculating earthwork quantities and provides clients with cost estimates. He has completed coursework in underground detention design for stormwater management by NCSPA and has successfully worked on projects that involve this type of requirement. In addition, Mr. Livengood performs construction observation services and is familiar with State and Federal permitting procedures.

Fields of Specialization

Site Development
Roadway and Storm Drainage Design
Stormwater Management \ Detention Design
Underground Detention Design
Soil and Erosion Control
Earthworks

Education

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

Professional Licensure

Professional Engineer, NC

Selected Project Experience

Siler City 230 Kv Substation, Progress Energy, Siler City, NC. Project involved site engineering design services for the CP&L Siler City Substation. Services included providing a site plan, a grading/erosion control plan, a landscape plan, a stormwater management plan, and construction details. McKim & Creed also coordinated with CP&L Transmission Facilities Engineering and Transmission Line Engineering Units regarding the new substation and transmission line orientation and provided assistance in identifying and obtaining local zoning and building permits and NCDOT driveway permit.

Carrboro State Employees' Credit Union Site Plan, O'Brien/Atkins Associates, PA, Carrboro, NC.

McKim & Creed prepared a stormwater impact analysis due to the proposed improvements and obtained existing pond data from Sungate Design Group for the purpose of completing a Stormwater Impact Analysis.

Chatham County Juvenile Justice Facility, O'Brien/Atkins Associates, PA, Chatham County, NC. McKim & Creed provided engineering services and construction administration for the development of the thirty-two bed Youth Development Center in Chatham County for the North Carolina Department of Juvenile Justice and Delinquency Prevention. Work included stormwater design, water and sewer utility design, grading, erosion control design and construction details that coincided with these areas.

Chatham County Park & Ride Construction Plans, University of North Carolina at Chapel Hill, Chapel Hill, NC. McKim & Creed provided engineering, bidding and construction phase services to The University of North Carolina at Chapel Hill. The work consisted of schematic design/design development, construction documents, bidding and construction phase services for a two-phase construction, 970 parking space combination pervious/impervious pavement parking lot and bus pick-up/drop off area on US 15-501 in Chatham County just south of the Orange County/Chatham County line.

Randy S. Rambeau, Sr., PLS

Project Surveyor

Summary

Mr. Rambeau is a Senior Survey Project Manager and is responsible for the McKim & Creed Cary Office Geomatics group. Mr. Rambeau has been extensively involved in all aspects of the surveying profession. He has performed Local Control Network Surveys (Class AA) horizontal control surveys and Urban Vertical Control Surveys (Class A) using conventional and GPS methods, transmission line surveys for water, sanitary sewer, natural gas and electricity, aerial photogrammetry control, boundary surveys, topographic surveys, as-built surveys, in-shore hydrographic surveys, construction layout for highways, streets, storm and sanitary sewer, bridges, and buildings, residential, commercial, and industrial land surveys, flood certifications, wetland locations, ALTA surveys, and cadastral mapping, engineering design surveys, highway design surveys, etc.

Mr. Rambeau's experience has allowed him to provide surveying services to the following clients: County of Wake, Wake County Public School System, North Carolina State University, University of North Carolina at Chapel Hill, Wilmington Corps of Engineers, Memphis Corps of Engineers, Savannah Corps of Engineers, North Carolina Department of Transportation, North Carolina Natural Gas Company, Progress Energy, Raleigh/Durham Airport, Miles Laboratories, Seymour Johnson Air Force Base, Fort Bragg, Pope Air Force Base and MCAS Cherry Point. He has also provided services to numerous engineering, architectural and landscape architectural firms and private corporations such as PCS Phosphate, Weyerhaeuser, Bayer and Stockhausen.

Fields of Specialization

Professional Land Surveyor

Education

High School Diploma, Coats High School
Certificate, N.C.S.S. Institute

Professional Licensure

Professional Land Surveyor, NC, AR, TN

Selected Project Experience

Barwell Road Fire Station Sanitary Sewer, City of Raleigh, Raleigh, NC. McKim & Creed completed design of the sanitary sewer to serve the new fire station located on Barwell Road consisting of approximately 1,300 LF of 8-inch gravity sewer.

New Operational Facilities, Orange Water & Sewer Authority (OWASA), Carrboro, NC. Planning, design, permitting, and construction administration for New Operational Facilities at OWASA's Headquarters. The scope of work for the project included the following: needs assessment; Operations Center site plan; new operational facilities for fleet maintenance, vehicle storage, warehouse, meter shop, workshop, material and equipment storage, and loading dock; vehicle wash facility; parking and traffic flow; and site security. Additional services included 3-D renderings. The second phase of the project included the completion of design development, construction drawings, bidding, and construction administration services for the Orange Water & Sewer Authority Operations Center.

Hedrick Park and Ride Lot, University of North Carolina at Chapel Hill, Chapel Hill, NC. The University of North Carolina at Chapel Hill employed McKim & Creed to provide site planning and engineering, landscape design, lighting and electrical design, bidding and construction administration on the Hedrick Park and Ride Lot. The project was a 300-space parking lot for the Hedrick Building located on Friday Center Drive. McKim & Creed helped UNC-CH to complete this project on schedule and open it up to both students and employees.

Global Education Center, University of North Carolina at Chapel Hill, Chapel Hill, NC. McKim & Creed provided a comprehensive as-built survey of approximately 13 acres at an extremely busy section on UNC's campus. All streets and intersections were included in the survey. Above ground improvements such as buildings, fences, sidewalks, curb and gutter, storm drains, sanitary sewer, fire hydrants, phone pedestals and power poles were located and mapped.

C. Subconsultant



McKim & Creed will provide Civil Engineering and Land Surveying services for the Town of Carrboro's new Fire Station. McKim & Creed's civil and site engineers plan and design utilities, roadways, drainage systems, and other influential site features for commercial, residential, industrial, and institutional projects.

Since McKim & Creed's establishment in 1978, they have grown from a single office generalist to an infrastructure specialist with 441 professionals working in offices throughout the Southeast. McKim & Creed are ranked among *Engineering News-Record's* top 500 design firms and top 200 environmental firms in the U.S., among *Southeast Construction's* top 75 engineering and architecture firms, and among *Public Works's* top 100 AEC firms.

McKim & Creed's civil/site engineering services include:

- Construction administration and observation
- Drainage plans
- Erosion control and grading plans
- Permitting
- Project management
- Public Involvement
- Re-zoning assistance
- Roadway design
- Site certifications
- Stormwater management
- Utility design

The McKim & Creed office supporting DJG in fulfillment of this contract:

200 MacKenan Court
Cary, NC 27511
Phone: (919) 233-8091
Fax: (919) 233-8031
Grant Livengood, PE, Project Manager
glivengood@mckimcreed.com

McKim & Creed has provided civil engineering and land surveying services on a variety of Fire Stations, including:

- **Apex Fire Station Staking Curb, Gutter and Building**, Apex, NC
- **Hunter Street Fire Station**, Apex, NC—Provided an as-built survey and Quality Level B Subsurface Utility Engineering (SUE) for the Hunter Street Fire Station; all above ground improvements and underground utilities on the site were located and mapped
- **Benson Fire Station**, Town of Benson, NC—Evaluated the condition of two existing buildings and provided a feasibility study for converting the main



building to a town hall, public works facility, and police station; subsequently developed plans and specifications to modify the second building to a fire station with three single vehicle bays. A fourth bay was added to house new equipment and serve as a wash down bay.

- **Carpenter Fire Station**, City of Raleigh, NC—Site investigation for utility service to the site
- **Barwell Road Fire Station Sanitary Sewer**, City of Raleigh, NC—Design of the sanitary sewer to serve the new Fire Station located on Barwell Road, consisting of approximately 1,300 LF of 8-inch gravity sewer
- **Sunny Point Fire Station Architectural Support**, Sunny Point, NC—Architectural CAD support services for the Sunny Point Fire Station
- **Plymouth Fire Station**, Town of Plymouth, NC—Provided all architectural, electrical, mechanical and civil engineering services for a prototype for future remote stations; featured 5,000 sf of office space, a radio and dispatch room, training and recreation room, kitchen, and equipment room



D. Fire/Rescue/EMS Station Design Experience

DJG has been designing public safety facilities since the early 1980's, including police, fire and EMS facilities in combined or independent structures. This Section concludes with a complete list of DJG-designed fire and EMS facilities.

DJG staff has committed hundreds of hours annually to the study and research of new Fire Station technologies in turnout gear, hoses, apparatus, Self-Contained Breathing Apparatus, call alerting systems, decontamination and disinfection products, wireless and wired communications, data transmission, remote door operators, and shunt trip devices, among many others. With this deep commitment to the fire service, DJG offers our services to the Town of Carrboro on this project.

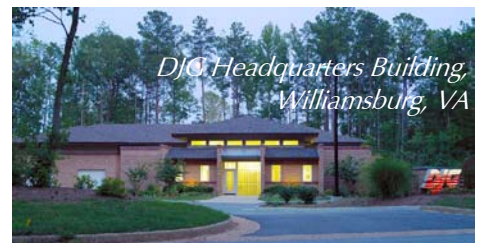
Application of TJCOG High Performance Principles & LEED Accreditation

McKim & Creed helped design and deliver one of the first facilities in the area to use the Triangle J Council of Government's High Performance Design Guidelines—the Orange Water & Sewer Authority Operations Center, a 36,000 sf, \$5 million facility. With this experience and background, McKim & Creed will support DJG in aiming for a cost-effective, durable and environmentally sound design and construction for Carrboro's Fire Station.

As engineers and designers, we recognize that our work directly impacts the natural environment. Knowing this, DJG designers are committed to incorporating sustainable design practices into each of our projects, where appropriate and approved by the Client, in order that our projects positively impact the built and natural environment—as well as minimize life-cycle costs.

DJG Mechanical Engineer Kerry Herr, PE is a LEED Accredited professional. Architects Matthew Burton, AIA, and Donald Booth, AIA, have attended LEED Intermediate training and are pursuing accreditation.

DJG's Headquarters Building is itself a sustainable design—accomplished by the firm's in-house staff. Our Headquarters Building was a National Finalist in the 2003 American Council of Engineering Companies' Engineering Excellence Award Competition. In addition, our building is one of the few in Virginia to have earned Energy Star® certification from the U.S. Environmental Protection Agency for its energy efficiency, with operating costs that are roughly 1/3 of the industry standard.



DJG is currently designing the Virginia Department of Transportation's new Rest Area off Interstate 64 near New Kent. This project will be designed and documented to achieve LEED Certification at the Silver level. Whether or not the Town of Carrboro desires to apply for LEED certification of the new Fire Station 1, DJG can incorporate LEED and sustainable design practices to improve the operating and maintenance performance of the facility.



Experience Facilitating Public Input & Conducting Design Charettes

DJG is accustomed to working with the government sector at all levels. With any of these agencies, design often involves public and government input during the course of design and construction of the new facility. Local governments often use Architectural Review Boards, design guidelines, and community town hall style meetings for the solicitation of citizen input into a new municipal facility. These steps in the design process are ever important in keeping citizens and government boards informed, and in allowing citizens to voice their opinions into their local community improvements. DJG embraces these opportunities whenever presented.

We have regularly held design charettes early in the process to solicit the input of neighboring citizens. Once the project's program and schematic design is complete, DJG has found communication with key government review and approval agencies leads to a smooth review, approval and permitting process on most projects. DJG strives to engage the local planning departments and review agencies in pre-development meetings prior to the start of site plan development to identify the key elements of the project, required submittals for the project, and begin building the relationships with the plans reviewers and numerous agencies having input through the approval process.



Fire Stations and Related Facilities

Albemarle County, VA

- Northern Fire Station, site selection study followed by design

Chesterfield County, VA

- Bensley Station #3
- Center Pointe Station #16
- Fire Stations #7 and #13, renovation and additions
- Ten (10) Stations, renovation for vehicle exhaust systems

Hanover County, VA

- West Hanover Volunteer Rescue Squad, new emergency generator
- Fire Training Building repairs
- EMS Training Facility renovations
- Black Creek Fire Station Roofing
- Fire Escapes, three Fire Stations

Henrico County, VA

- Station #5
- Station #18 and Police Precinct
- Station #21 and Police Precinct
- Station #22 and Police Precinct
- Disinfection and Decontamination – 17 Station additions
- Central Laundry Facility renovation

City of Hopewell, VA

- Site selection for the replacement of Station #2

James City County, VA

- Old Towne Road Station #4
- Route 5 Station #3, civil and structural engineering
- Stations #2, #3 and #4, renovation for vehicle exhaust systems

Town of Kill Devil Hills, North Carolina

- Main Fire Station and Fire Administration Offices, 11,000 sf complete renovation

Mathews County, VA

- Volunteer Rescue Squad Building

City of Newport News, VA

- Station #7, exterior renovations and roofing
- Station #9, structural repairs and renovations

City of Roanoke, VA

- Fire Station #4, new 8,100 square foot Station
- Fire Station #1 and Fire Administration Building, site selection analysis

Fire Stations and Related Facilities

Spotsylvania County, VA

- Site Selection, Space Programming and Schematic Design, Stations #1, #4, and #5
- Fire and Rescue Station #1
- Fire and Rescue Station #4 with Police Precinct
- Salem Fields Fire and Rescue Station

Spotsylvania County, King George County & City of Fredericksburg

- Regional Training Academy

York County, VA

- Grafton Station #1, renovations and additions
- Station #2, renovations and improvements
- Station #3, and later addition and renovations
- Stations #4, #5 and #6 (Prototype design)

Department of Defense

- Live Fire Training Facilities (4) at Langley Air Force Base, VA; Dover AFB, Delaware; Andrews AFB, Maryland; and Lajes Field, Azores, Portugal
- Smoke / Burn Training Building, Langley AFB
- Fire Station Renovation, Langley AFB
- Radford Arsenal Fire Station

** Red text indicates new Stations and facilities*

E. Life Cycle Costing for the Energy System

DJG staff aims to evaluate and identify the best value for public facilities. This is even more important in a Fire Station design, as these facilities are manned and operated on average 2.5 to 3 times longer each day than the typical government facility. DJG knows the staff in a fire house want a space to function not only as their office and place of business during the day, but their home away from home at night. With that in mind the long term maintenance and life cycle analysis of all materials and equipment placed in a fire house is required to exceed the standard value that may be placed in a 9-to-5 office building.

Starting with the basic finish materials through the plumbing, mechanical and electrical equipment selected for the facility, DJG's design team evaluates the anticipated life for every item to be used in the Station. These options are then presented to Town representatives with our recommendations and evaluations to help the Town to make the most informed decision possible for their new Fire Station. These options are further supported with accurate cost comparisons of each of the material and equipment options, continually keeping the Town's budget constraints in mind.

The layout of important equipment rooms are designed to allow for ease of cleaning, maintenance and long-term replacement. These layouts often include designing sufficient space in front of and around the equipment for ease in accessing the equipment; allowing sufficient doors and access to provide adequate space for equipment replacement in the long term; placing critical sensors and alarms in readily viewed areas for fire and EMS staff to quickly recognize problems with building equipment operations; providing additional breakers and spaces in the electrical panels for future additions and modifications to the facility; and using equipment and fixtures with the same lamp, filter and maintenance requirements to minimize the quantity of spare replacement parts stored at the facility.



F. Similar Projects & References

DJG's multi-disciplined staff of licensed engineers and architects has worked in concert through various design phases on more than 15 Fire and EMS facilities during just the last five years. This experience translates into smooth and effective coordination across disciplines, and incorporation of all the details that contribute to a successful, practical, functional and liveable Fire Station.

The following Client abstracts for the Town of Kill Devil Hills, NC, and the Counties of Spotsylvania and Henrico, VA, provide project details for more than five similar projects completed in the last five years and include:

- Facility descriptions, including size, functions houses and year completed;
- Degree of DJG's involvement and design role; and
- Consulting firms involved, where applicable, and their assigned responsibility.

This Section concludes with the completed Attachment B, reflecting recent DJG Clients who we encourage you to contact for their insight as to our performance on their projects.



Main Fire Station Renovation

Town of Kill Devil Hills, North Carolina

ROLE:

Programming
Space Planning
Architectural Services
Structural Engineering
Mechanical Engineering
Electrical Engineering

CONTACT:

Shawn Murphy,
Administrative Services
Director, (252) 480-4005

OWNER:

**Town of Kill Devil
Hills**
P O Box 1719
Kill Devil Hills, NC
27948



The Town of Kill Devil Hills retained DJG to renovate the Town's only Fire Station. Located on a heavily-traveled thoroughfare, the building was composed of various additions built during a 50-year period. The Town desired a more functional living and training quarters as well as a more cohesive and attractive exterior for such a highly visible Town building.

DJG gutted and renovated 3,000 square feet of interior work space for new living, training and bunkroom space, including space for shared volunteer and career fire fighter facilities. The renovation was designed to improve response time from bunkroom to apparatus, improve training facilities, and improve quality of life and handicap accessibility. Deteriorated portions of the building were also repaired.

The building exterior was an inconsistent mix of periods, styles and materials. A cohesive look was achieved through applying common exterior materials and new lighting, in a facade recalling the local Outer Banks architectural character. Durable, low-maintenance materials were specified to spare the Owner's budget and time in the long-term.

The facility was designed to be constructed in two phases to allow continued emergency operations during renovation. Temporary quarters were established on-site. The Phase I interior renovations were completed for occupancy in July 2001. Phase II was accomplished and the project completed in 2002.



Fire and Emergency Services

Spotsylvania County, Virginia

ROLE:

Architecture
Interior Space Planning
Structural Engineering
Mechanical Engineering
Electrical Engineering
Civil Engineering
Landscape Architecture
Construction
Administration

CONTACT:

Jesse Beavon,
(540) 582-7055 ext 244; or
R. Christain Eudailey,
CEM, (540) 582-7095

OWNER:

Spotsylvania County
P O Box 818
Spotsylvania, VA 22553

DJG, Inc. is currently assisting the Spotsylvania County Board of Supervisors and the Department of Fire and Emergency Services in the site analysis and selection of property for new Public Safety facilities. Three replacement Fire and Rescue Stations and three new Stations are planned in various areas of the County. With a \$30 million budget from an approved bond referendum, the Board of Supervisors is planning for future needs, including combining fire and EMS facilities, and providing new facilities in the remote, rural areas of their county. Each of the proposed facilities had two to three **alternative sites** in the range of 4- to 10-acre parcels. DJG is **investigating each site** to determine suitability for construction, call time and direction, topography, transportation, utilities, wetlands, stormwater, soil analysis (especially shrink/swell), and using possible proffered land from various developers.

Upon narrowing the field of potential sites, a brief **programming** exercise helps identify the needs for a proposed Station at each selected site. At this stage, preliminary schematic design is formalized for each Station, showing site circulation, ingress/egress, parking, and emergency apparatus response data. These schematics assist the County in making a final decision for Fire and Rescue Station parcels.

Fire Station 4

Fire Station 4 is currently being constructed to provide response within the developing Route 1 corridor of the County. This Station, sited on a developer proffered six acre parcel within the outer limits of a residential zone, is designed to accommodate a full time staff of 16 personnel (paid and volunteer) with upward possibilities of 10 first due, reserve and specialty apparatus. With expected completion in August 2006, Station #4's construction bid cost of \$4,080,000 fell below DJG's estimated construction cost of \$4,600,000.

Station #4 will serve as a regional hub within the County's emergency

services, housing the necessary SCBA shop, disinfection facility and cascade system, and supporting four to five smaller satellite Fire



Stations. The 26,000+ square foot facility features a community room for 50 people, a small police field office, and volunteer fire and rescue operation offices. Station #4 also has a fully automated fire alarm system as well as a full sprinkler system.

Staffing for Station #4 is separated between fire and rescue, and divided by gender, with separate signalization between fire and rescue calls. The facility contains an exercise room to help emergency staff meet their annual fitness requirements.

Fire Station 1

Fire Station 1 is currently being designed at the gateway entrance to the Historic Courthouse Area for Spotsylvania County. This 26,000 sf facility will serve as the replacement for the existing volunteer fire and rescue stations currently serving the Courthouse area. The design of this proposed facility was reviewed and approved to comply with the Historic Courthouse Design Guidelines. Furthermore, DJG conducted a town hall style meeting to solicit and address citizen concerns for this new County Station.

Taking advantage of the falling topography, DJG has designed a two-story facility housing all of the public community needs on the lower level, with private personnel spaces on the upper level with the apparatus. This Station followed the same basic programmatic requirements as Fire Station #4. Station #1 is currently under construction and scheduled to be completed in summer 2007.

Salem Fields Fire & Rescue Station

This smaller satellite Station is located on a three acre proffered site in a developing residential district of the County. The 13,453 sf, three bay drive-through Station was designed as a prototype to be site adapted at other locations across the County. The Station will accommodate a small community and training room for up to 20 people, a police precinct office, and bunking for a staff of 13. Bunk spaces are organized by apparatus with individual call signaling for each independent apparatus.



Division of Fire

County of Henrico, Virginia

ROLE:

Architecture
Interior Space Planning
Structural Engineering
Mechanical Engineering
Electrical Engineering
Civil Engineering
Land Surveying
Landscape Architecture
Construction Administration

CONTACT:

William Smith, AIA,
(804) 501-5271; or
Capt. Henry Rosenbaum
or **Chief Dale Harris,**
County of Henrico Fire
Department,
(804) 501-7355

OWNER:

County of Henrico
1590 E Parham Road
Richmond, VA 23228



Since 1995, DJG, Inc. has assisted the County of Henrico in planning and implementing a bond referendum for emergency service upgrades throughout the County. During this timeframe, DJG has or will design in excess of \$8 million in new fire rescue and emergency service facilities.

Fire Station 5. In an established area of the County, the existing 50-year-old Station was failing to meet the department's modern needs. The new Fire Station 5 will replace the old facility at the same site—while preserving some of the historic trees and landscaping—to better accommodate current apparatus as well as the needs of male and female staff. The 7,500 sf facility will provide two drive-through apparatus bays, a disinfection facility and bunking for a career staff of 9. Construction is underway and is scheduled for completion in Spring 2007.

Fire Station 18. This Station is Henrico's first three-truck Station, as well as satellite Police Precinct and backup Emergency Operations Center. The 10,330 sf facility accommodates six sets of apparatus, and sleeps a career staff of 13. In addition to living, training, emergency operations and exercise spaces, this facility provides the County's first Station designed specifically for containing and disinfecting equipment of bloodborne hazards, as well as a central cascade refill system for breathing apparatus for all East-end Stations. The alarm system addresses each Company separately, and computerized radio systems help dispatch proper personnel and equipment required for each call. Date completed: November 2002.

Fire Station 21. Fire Station 21 sits on a 2.5 acre site in North Henrico County, adjoining a mixture of upscale residential and commercial properties. This 11,125 sf one-story Station houses the County's Hazardous Material apparatus and equipment, and serves as a base for regional Hazardous Materials Response Team operations. The apparatus bays are a three-bay drive-thru configuration—one for the Haz-Mat Command Center and support equipment, the others housing an Engine and Rescue Company. A **passive ventilation system** for the apparatus bay was designed to minimize exposure to diesel exhaust. Construction of this Station is scheduled for completion in October 2006.

Fire Station 22. Fire Station 22 is a 10,625 sf masonry and brick Station, developed on a **tight 1.5-acre site** and accommodates on-site turnaround for engines and ladder trucks. The Station was designed with an integral **vehicle exhaust system** to comply with the current OSHA safety requirements. This fully automated system does not require any connections to the fire apparatus. Date completed: October 2004.



REFERENCES

Vendor must supply five references of clients whom similar work was performed

Reference Company Name:

Town of Kill Devil Hills, NC

Contact: Shawn Murphy

Phone#: 1-252-449-5303

Nature of work performed:

Full service design for Main Fire Station Renovation; and architecture,
structural, mechanical and electrical engineering for Public Works Complex.

Reference Company Name:

Spotsylvania General Services, Spotsylvania County, VA

Contact: Jesse Beavon

Phone#: 1-540-507-7702

Nature of work performed:

Full service design for multiple Fire Stations, including Stations
#1 and #4, and Salem Fields Fire Station.

Reference Company Name:

Albemarle County, VA

Contact: Ron Lilley

Phone#: 1-434-296-5854

Nature of work performed:

Full service design for the Northern Fire Station.

Reference Company Name

Henrico County, VA

Contact: Bill Smith

Phone#: 1-804-501-7355

Nature of work performed

Full service design for multiple Fire Stations, including Stations #5, #18, #21 and # 22.

Reference Company Name

York County, VA

Contact: Robert Peters

Phone#: 1-757-890-3833

Nature of work performed

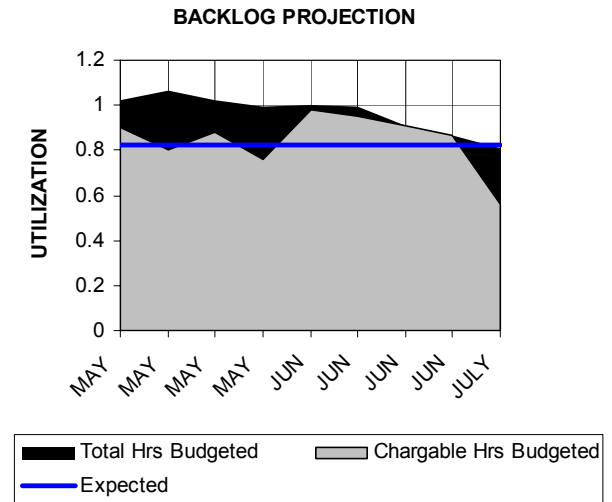
Full service design for a prototype Fire Station as well as two station renovations.

G. Current Workload & Estimated Completion Schedule

Current Workload & Ability to Perform the Work

DJG tasks are accomplished through three practice groups: Architecture, Engineering and Land Development. Each group manager is responsible for the time commitment of staff to projects and project schedules, and for continually projecting staff assignments six weeks in advance.

Prior to deciding to pursue this project, DJG group managers thoroughly examined the firm's existing and upcoming backlog (shown), and determined we can commit the necessary staff to meet the demands of this contract. **DJG would not undertake any project or contract that would compromise the firm's ability to provide the highest quality service to all of our existing Clients.**



The DJG team has always been, and will continue to be, extremely sensitive and responsive to Client budgets and schedules. It is understood that the ability to meet demands for orderly contracting of the project depends on our meeting cost, time and quality expectations. Our response time on Requests for Information is typically two days or less while our shop drawing approvals average six days.

Estimated Completion Schedule

In light of our current and anticipated workload as outlined above, following is our proposed timeline to accomplish tasks for the Town's new Fire Station, expressed in number of calendar days from Notice to Proceed:

Submit Written Facility Program	30
Submit Schematic Design (15%)	30
Submit Preliminary Design (35%)	30
Submit Contract Documents (100%) (includes site plan approval)	150
Final Corrections to Working Drawings	14
Bidding through Town Purchasing Department	45

Owner review periods at each submittal phase shall be in addition to these time frames.



H. Design Approach

From our project history with Fire Station design, we know that all localities have unique and specialized needs, specific to their community. However, one thing all incident response agencies have in common is the goal of quick response to every emergency. This overriding principle is the basis for all design decisions made through the process of programming and preliminary design, and continuing through to construction.

Programming

DJG will begin by reviewing all existing information pertaining to this project from the Fire Department staff, elected officials and other Town representatives. In our experience, we find the most helpful input to programming comes from the staff that operates from fire and EMS facilities. Therefore, input from Town staff will be crucial to the programming process. DJG will conduct multiple interviews with appropriate staff and leadership in preparation of development of the building program. Future growth projections will also be taken into consideration, to provide a Station that meets the Town's needs today—and tomorrow.

Following the user and staff interviews, DJG will conduct a building walk-through of an existing facility used by the Town fire staff to review department operating procedures, protocols and existing spaces that meet or fail to meet department needs. This provides DJG's team with first-hand working knowledge of the Town's operations. DJG will be available to shadow your fire staff for a complete 24-hour shift to expose our staff to your important operating protocols.

Schematic Design

Following the Town's approval and acceptance of the Building Program for the new Fire Station, DJG will provide several design alternatives, considering the site impacts and road access to or from Homestead Road. These options will include schemes that will allow for quick response within the Station to the apparatus and exiting from the site. At a minimum, the Building Program will accommodate two drive-through apparatus bays, as well as sleep rooms, kitchen and dining areas, day room, biohazard room, locker room, fitness room, police sub-station, backup emergency operations center, watch room and office for the Captain and fire fighters, a small meeting room, and other support areas such as storage and office spaces.

As our project abstracts in Section F attest, DJG has planned multiple Fire Stations in the size range of 7,000 - 20,000 sf that have included similar spaces and functions needed at Carrboro's new Fire Station, logically programmed and organized to achieve the fastest possible emergency response times, meeting both daytime and nighttime demands.

Design Development

Once a conceptual design has been selected and approved, DJG will work closely with the Town's Project Manager to work efficiently through the preliminary design development. Starting with the basic finish materials through the plumbing, mechanical and electrical equipment selected for the Station, DJG's design team evaluates the anticipated life for every item to be used in the Station. These options, with anticipated life spans, are then



presented to the Town's representatives with our recommendations and evaluations to help the Town make the most informed decision possible for their new Fire Station.

DJG will also provide landscape design services for this new Station. Final landscape features will be based around the new building footprint, and include at a minimum native, hardy, low-maintenance plant materials that offer four seasons of color. Of course, final landscape design, including plant and other materials selection, will depend on the Town's preferences as well as final overall site layout of the 1.68 acre parcel.

Construction Document Development

Once the important design decisions are made through the programming, schematic and design development phases of the project, the design team will proceed with the construction documents and permitting phase. During this phase, the design team will coordinate between all disciplines to provide a clear, concise set of bidding and construction documents. Early in this phase, the design team will start the necessary permit review and approval processes, including stormwater, environmental (if necessary), waterline, sewer, and erosion and sediment control. As the plans near completion, the design team will collect all of the documents and a final quality review will be performed by DJG's dedicated staff members for quality control.

Upon implementation of these quality review comments, DJG will submit the construction documents for a codes compliance review. Each of these reviews, permits and approvals shall be received prior to the development of the Invitation to Bid and advertisement. During the completion of the documents, the DJG team of designers will work with the Town staff to incorporate the appropriate language for the contract, disadvantaged/minority business requirements, invitations, and advertisements.

All Planning Department and Town review comments will be incorporated into the documents and the DJG team will receive site plan approval prior to the bidding documents being distributed to contractors. Integrated into this process will be the final selections of interior finishes, products and equipment to be furnished for the building. At each milestone of the project, a complete set of review documents, specifications and updated estimate of construction costs shall be provided for the Town's and the Fire Department's review.

Construction Management

Upon the completion of the construction documents, DJG will assist the Town of Carrboro during the bidding and construction administration periods. DJG will attend all pre-bid conferences, assist the Town in responding to any questions during the bid period, and review the bids received. DJG will then make recommendations to the Town upon receipt of bids, and review of all contractors' bidding documents and references. We will complete this phase with a formal recommendation of the successful bidder to the Town staff and Board of Aldermen.

DJG's Project Manager will be directly responsible for the construction administration phase of the work. This continuity through to construction enables the project history and design intent to be maintained. During the construction phase of the work, appropriate



DJG staff will attend project meetings on site throughout the course of the work. DJG will space visits as appropriate to address the project regularly throughout construction to completion. DJG's design staff will also review all shop drawings and pay requests, review and negotiate change order proposals, and assist in the close-out of the construction through substantial and final completion inspections. At the conclusion of construction, DJG will prepare a written punch list for all disciplines, prepare record drawings based on the contractor's markups, and provide other required closeout documentation.

All DJG staff have full access to e-mail, which has become a standard of communication between the Owner, construction administrator, and the contractor. All construction document logs used by DJG staff to track Requests for Information, shop drawings and Change Orders are electronic and updated as the project progresses. These logs are shared electronically, as needed, with all team members involved with the project.

Additionally, as part of our services, Mr. Booth will advise the Town concerning warranties, correction of defective work, or equipment operational problems during the post-construction warranty periods. DJG provides a follow-up walk-through of the building during the 11th month of the warranty period to prepare a warranty correction list requiring the attention of the contractor.

Quality Control

To deliver a well-coordinated and constructible project, DJG's Quality Control program involves all members of the design team. Technical and document quality control is accomplished through periodic scheduled reviews by DJG's practice group managers. In addition to constant oversight by design team members, individuals separate from those directly involved with the project design also perform Independent Technical Reviews, providing a fresh and objective perspective on coordination and constructability of the project. DJG's in-house Quality Control Manager reviews all design products for constructability and quality control at every submission. Lastly, the DJG Principal in Charge on each project reviews final design documents.

Quality is a major focus at DJG and throughout the firm's 28-year history we have developed and refined a successful QC program.



I. Lawsuits or Claims

DJG has not been involved in any litigation or professional liability claims in the past ten years. As a frame of reference, during the last five years, we have successfully completed more than 490 projects with individual construction values ranging from \$30,000 to \$25 million.



J. Standard Hourly Rate Chart

DJG rates:

• Principal	\$160
• Project Manager	\$125
• Senior Design Engineer	\$110
○ Structural	
○ Mechanical	
○ Electrical	
○ Civil	
• Senior Architect	\$110
• Engineer	\$85
• Architect	\$85
• Landscape Architect	\$85
• Draftsman	\$75
• Clerical	\$45

McKim & Creed rates:

• Principal	\$220
• Civil Engineer	\$110
• Land Surveyor	\$82
• Two-person Survey Crew	\$105



**REIMBURSEMENT RESOLUTION
TOWN OF CARRBORO – FIRE SUBSTATION
Resolution No. 175/2005-06**

WHEREAS, members of the Town staff have described to the Board the desirability of adopting a resolution, as provided under federal tax law, to facilitate the Town's using financing proceeds to restore the Town's funds when the Town makes capital expenditures prior to closing on an installment financing or other financing.

BE IT RESOLVED by the Board of Aldermen of the Town of Carrboro, North Carolina, as follows:

Section 1. The project is a future fire substation, of which architectural services is the first phase.

Section 2. The project is to be financed. The currently expected type of financing (which is subject to change) is Town installment financing under G.S. 160A-20. The currently expected maximum amount of installment debt to be issued or contracted for the fire substation is \$2,524,825.

Section 3. Funds that have been advanced, or may be advanced, from the Town's Capital Reserve Fund, or any Town enterprise fund, for project costs are intended to be reimbursed from the financing proceeds.

Section 4. The adoption of this resolution is intended as a declaration of the Town's official intent to reimburse project expenditures from financing proceeds.