

# **Team Cover Letter**

September 30, 2013

Re: Blue Line Construction - Project submittal for College of William and Mary Residence Hall

Dear Design-Build Institute of America,

It is with great excitement and confidence that we submit our qualifications for your College of William and Mary Residence Hall Project. At Blue Line Construction, we realize the importance of satisfying customer needs. You can count on us to design an educational environment that contributes to academic achievement, encourages artistic expression, and harbors a social atmosphere conducive to student interaction. Our promise is backed by our award-winning educational projects and satisfied customers. Blue Line's prestigious performance and reputation indicates that we are clearly the leader in the design and construction of university projects; producing top tier buildings and happy customers.

Since our firm was formed in 1987, Blue Line Construction has thrived and answered the challenges by undertaking and completing the design and construction of some of the most esteemed educational buildings in the United States from our multiple offices.

Our company operates under our core values of Integrity, Safety, Excellence, Service, and Tradition. These values guide our construction process and are the main contributors to our success. Everyone on our staff graduated from the United States Air Force Academy, and this common background fuels our morally sound work ethic and instills special team cohesion within our group. As a minority owned business, we're proud of our roots, but will be even more proud of our future with you as our next satisfied client.

I can say with complete certainty and assurance that the team assembled to take on this project is unmatched in qualifications, experience, or skill and they will go above and beyond any and all expectations. Thank you for your time and considering us for this tremendous opportunity.

Sincerely,

Philip C. Hellmers Project Manager Blue Line Construction



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on numerous projects.

BLUE LINE CONSTRUCTION

### **RFQ William & Mary Residence Hall Team General Info**

Na	me	Blue Line Construction											
Ad	dress	25 N Cascade Ave											
Cit	y, State, Zip	Colorado Springs, C	CO, 80903										
Co	ntact Phone / Email	(714) 420-3956 / C <sup>2</sup>	14Philip.Hellmers@usa	fa.edu									
Ту	pe of Organization	Corporation	Partnership	JV Agreement									
Ye	ar Established	1987											
На	s the team executed Team	ing Agreements?	🛛 Yes 🗌 No	_									
1.	List Companies Comprisi	ing Team:											
	Name (First company is n	nanaging member)	Discipline		Years in Business	Years Exp. With Team Members							
	Philip Hellmers		Owner		26	26							
	Conor Favo Nicholas Arellano, PE		Superintendent		25	22							
			Architect		16								
	Michael Morris, MBA		BEM Engineer		11	9							
2.	Complete Attachment 4 –	Design-Build Team Ce	rtification.										
3.	Does your team have in-h	nouse design capabilitie	es? 🖂 Yes 🗌 N	lo If yes what disc	iplines do you have'	? Our team possesses							
	the in-house disciplines of	mechanical engineering,	corresponding to our	subcontracting teams f	or heating, ventilation	on, and air conditioning.							
	We also employ specialists	s in the architectural and	structural design capa	bilities. Furthermore, c	our miscellaneous n	netal fabrications design							
	capability, to include abov	e ceiling supports, wall	supports, architectura	l railings, etc. is inno	vative and unique.	Blue Line Construction							
	recognized the inefficiencie	es inherent with the tradition	onal installation of the	se systems. To overco	me this, we develop	oed turnkey design/build							
	solutions in collaboration w	ith our Misc. Metals Divis	ion. These solutions h	ave resulted in reducin	g material waste by	30% and costs by 25%							

4. Do you utilize any 3D modeling programs? Yes No If yes how do you utilize and what programs do you use? <u>We utilize the 3D modeling programs of Revit, Auto CAD, Navisworks, Visual Analysis in order to produce the designs and drawings that best meet customer needs. 3D models give our engineers a precise depiction of the construction project while still</u>

in the design phase, allowing for corrections to easily be made.

5.	Does the team have personnel Critical Path Method (CPM) of s	$\boxtimes$	Yes	🗌 No			
6.	Has the team used CPM schedu	Yes	🗌 No				
7.	Has the team utizilized the LCI	Yes	🗌 No				
8.	List the main construction firm	te for the fo	bllowing years.				
	EMR <u>.77</u> for 2010	EMR	<u>73</u> for 2012				
9.	List three (3) trade references:						
	Company American GeoServices LLC.	Address 191 University Blv #375 Denver, CO 80206	Contact Mr. Gaston Rebilly		Phone (503) 836-7966		
	Mister Sparky Electrician	1731 South Wadsworth Boulevard Lakewood, CO 80232	Mr. Mike Elder		(720) 924-6815		
	Applewood Plumbing	5000 W 29th Ave. Denver, CO 80212			(303) 800-0255		
10	List bank reference(s):						
	Company USAA	ompanyAddressContactSAA1855 Telstar Drive, Colorado Springs, CO, 80841Mr Frank Peterson					
11	. Have you at any time failed to c	complete a contract?		🗌 Yes	🖂 No		
12	Are there any judgments, claim	🗌 Yes	🖂 No				
13	. Have you, in the past five years	s, been involved in any judgments', c	laims, suits or arbitration pro	oceedings?	,		
				🗌 Yes	🖂 No		
14	. Are you now, or have you ever	Yes	🖂 No				

NOTE: If the response to number 9, 10, 11 and 12 is "Yes", please provide response to "Yes" answer in with the RFQ response:

I. PROJECT RFQ GENERAL INFORMATION

G. SELECTION PROCESS

4. PREQUALIFICATION SUBMITTAL EVALUATION CRITERIA

i Miscellaneous Information

i. Claims / Litigation History of Firm (Mandatory)





### i. Organization Chart







# ii. Key Personnel

Blue Line Construction will design and build the College of William and Mary's Residence Hall Program as a team, partnering with you, the owner, for project success. BLC takes pride in the fact that, as the project evolves, our team is guided by BLC's core values: integrity first, service before self, and excellence in all we do. At BLC, the only thing we build that is more important than our projects are the relationships we build with you, the owner. Please meet your world class team of engineers and designers:

#### Phillip Hellmers, Project Manager, Blue Line Construction



Phillip will serve as the Project Manager. He will take the lead role in creating the partnership team and budgeting for the project. Phillip has spent countless hours reviewing the College of William and Mary's design standards and will ensure that they are incorporated into the project design. Phillip will manage project costs, manage and drive the project schedule, and maintain responsibility for the day-to-day management of the project.

#### Conor Favo, Project Superintendent, Blue Line Construction



Conor will serve as the Project Superintendent. He will take charge in constructability review of the project design. He will identify and resolve any conflicts and prevent any dangerous encounters early into the project before construction even begins. Conor will head the detailed planning and refinement of the Site Utilization and Logistics Plan to keep the construction site a safe and efficient area while also preventing any disruption to the College of William and Mary's students and faculty. His emphasis on safety will be vital to the project to run effectively and efficiently. He will be on site every day of the build phase.

#### Michael Morris, MEP Engineering, Blue Line Construction Company



Mike will serve as the lead designer for mechanical, electrical, and plumbing systems. Mike will work closely with William and Mary to ensure that the mechanical system is user friendly, reliable, and matches their current infrastructure. He will develop innovative and sustainable ways to conserve energy throughout the project. Mike will design the systems and perform inspections for all mechanical, electrical, and plumbing work on the project in accordance with high performance building standards.

#### Nicholas Arellano, Architect, Blue Line Construction



Nick will be the design lead for the residence hall. He will be responsible for detailed design development, architectural renderings, landscape design, and developing outdoor space and site character. He will also assist in leading design reviews and project related meanings. Nick's strength is listening to his clients' wishes and incorporating those into lasting designs that marry form and function.







B.S. Civil Engineering USAFA '87

PE, Colorado/Virgina.

### Phillip Hellmers - Project Manager

Phillip started Blue Line Construction 25 years ago. He deals mostly with new school buildings, particularly housing for colleges and military bases in Colorado and Denver. His focus on exceeding owner's expectations with all his projects has led to great success for BLC. His technical expertise at and connections in our markets gives BLC the upper hand when networking with subcontractors. His equal treatment of all clients and subcontractors results in positive experiences for all project team partners.

#### <u>Role</u>

Phillip will serve as the overall lead for the student residence hall. He will constantly communicate with the College of William and Mary Residence Hall Program Committee to make sure requirements are not just met but also exceeded. His involvement in estimating, managing subcontractors, and on-site construction oversight will allow him to easily relay project details to the owner. He will head up design direction and construction methods to guarantee a contract price in the target range of \$33,000,000 and \$40,000,000. Overseeing the whole project, he will ensure realistic, achievable milestones for completion.

#### **Related Experience**

The George Washington University West Hall2012Phillip was the Project Manager for this 63 million dollar project. Heplayed a key role in developing strong relations with localPhillip'soversight allowed the project to be completed under budget.

**Western State Colorado University Apartments- Gunnison, CO 2011** Phillip was Project Manager for this 4-story, 226-bed student complex. He worked with student leaders to ensure they received what they wanted. This project had to demolish existing buildings and to construct while five surrounding apartment complexes remained operational.

UCCS Alpine Village Housing- Colorado Springs, CO2010Phillip was Project Manager for this three-building project. He was in<br/>charge of setting the schedule for all work. The fast-tracking of this project<br/>with 60% preconstruction completion led to a two-month early completion.







**B.S.** Civil Engineering USAFA '88

#### **Conor Favo** - Superintendent

Conor is one of the senior members of Blue Line Construction with 22 years in the company. With 25 total years of experience, Conor is often sought out by younger members in the company for advice. He maintains positive relationships with the owner and architect throughout every project he partakes in. With safety as his biggest emphasis, Conor ensures that every construction site keeps everyone on the site free of harm.

#### Role

Conor will be the Superintendent for the Residence Hall. He will play an extremely active role in providing technical expertise throughout the preconstruction process. Conor will assist in the management of the preconstruction schedule and have an active involvement in the estimate. He will make sure on-site safety meetings are held accordingly as well. Lastly, he will be the lynchpin for the project team as they partner for a successful end product for William and Mary.

#### **Related Experience**

#### The George Washington University West Hall

2012 Conor was the Superintendent for this 4-story residence hall. He made sure that the project followed the local building codes and laws in the Commonwealth of Virginia. His organization of paperwork and supervision of the site allowed the project to be completed one and a half months ahead of schedule.

Western State Colorado University Apartments- Gunnison, CO 2011

Conor was the Superintendent for this \$63 million dollar project. Conor ensured the safety of everyone on the construction site with safety emphasis items and safety meetings. As a result, no one was injured on the jobsite, despite the demolition of two existing buildings.

#### UCCS Alpine Village Housing- Colorado Springs, CO 2010

Conor was the Superintendent of this 130,000 square foot project. Conor's technical expertise on drawings and scheduling allowed the project to be fast-tracked with only 60% preconstruction completion.







B.S. Electrical Engineering USAFA'02

PE, Virginia

### Michael Morris - MEP Engineer

Michael began working with Blue Line Construction in the spring of 2008 and has been an asset for superior coordinated MEP design. His knowledge of high performance buildings makes him a force multiplier for BLC. Michael has been active in our previous dormitory projects and will continue to be extremely vital to the success of your project.

#### <u>Role</u>

As the Project Engineer for the project, Michael will coordinate all the building systems and ensure that interstitial space is maximized so that usable space is optimized.

#### **Related Experience**

# The George Washington University West Hall2012Michael was able to help LEED experts plan for enhanced commissioning<br/>and superior owner training in order to calibrate the building's controls for<br/>maximum efficiency and "Energy and Atmosphere" points.2012

Western State Colorado University Apartments- Gunnison, CO 2011 Michael was the Project Engineer for this \$63 million dollar project. Michael took the initiative with making sure that the room CFM/turnover were designed in line with owner needs. His innovation and oversight allowed Blue Line Construction to win the design and build solicitation for this 92,721 square-foot building.

#### UCCS Alpine Village Housing- Colorado Springs, CO 2010

Michael was the MEP Project Engineer for this \$33 million dollar project located in Colorado Springs, CO. He reviewed all the preliminary schematics for this project. Michael was the critical factor in reviewing the final estimates as well as constantly reviewing the project for continuity and completeness throughout the entire construction. He worked heavily with the Project Architect, Phillip Hellmers to keep all workers on the job informed and coordinated. His role as Project Engineer was vital for ensuring the proper construction of this 133,000 square feet housing system.





### Nick Arellano- Architect



Nick is Blue Line Construction's design lead after working with us for 10 years. With 4 prior years of experience before joining Blue Line Construction, the AIA Technology in Architectural Practice Committee (TAP) recognized him for excellence with BIM designs that pushed the field towards greater building simulation. Having helped with most of the projects at Blue Line Construction whether leading them up or working with subcontracted architects, he has designed revolutionary buildings for schools that merge form and function. His innovative work has led to LEED certification for all owner-requested LEED projects. His designs have left a lasting influence on the built environment.

#### <u>Role</u>

Nicholas will be the design lead for the dorm project. His focus on LEED certification will ensure a state of the art, green, and innovative facility. He will work closely with the project manager to ensure his design is representative of the owner's vision. He will be in charge of design decisions to guarantee a quality product. He will construct a digital building information model that can be viewed by anyone involved with the project to resolve any confusion with his work.

#### **Related Experience**

The George Washington University West Hall2012Nicholas played an essential role as the lead designer for this 4-storyresidence hall. His efforts for landscape design were the reason Blue LineConstruction was able to be a pilot recipient for the Sustainable SitesInitiative (SITES). His knowledge also allowed this project to be LEED Gold certified.

Western State Colorado University Apartments- Gunnison, CO 2011 Nicholas was lead designer for the apartment complex. 3D Revit models allowed the owner ease in having multiple options of room sizes throughout the building. A focus on LEED designed construction strategies provided a sustainable, green building that saved \$4 million on the project. The apartment complex is currently under review for LEED Gold Certification.

UCCS Alpine Village Housing- Colorado Springs, CO2010Nicholas was lead designer this three-building student housing complex..Revit framing models allowed field engineers to use fabrication drawings, consisting of direct order cut-to-length studs, marked material and complete dimensional layout. These buildings all received LEED Gold Certification.

B.S. Architecture USAFA '97 Master of Architecture Louisiana State University '99 R.A., Virginia, Colorado, Louisiana





### iv. Office Locations and Resident Expertise

#### Denver, Colorado



Blue Line Construction opened its first office in Denver and has grown to become one of the most trusted building firms throughout the state of Colorado. We have completed over 500 projects throughout the state, focusing on the construction of dormitories, residence halls, and living quarters. Our presence has grown greatly around Denver due to the large amount of Colleges located in the area. Blue Line Construction is also extremely successful on military projects and has built great

relationships with the members located on Peterson Air Force Base, Fort Carson, Buckley Air Force Base, and the United States Air Force Academy. Blue Line Construction's safety, innovation, and quality are unmatched. BLC continues to expand its services throughout the Colorado from its original office in Denver.

#### Washington D.C.



With Blue Line Construction's success in Colorado, the company formed the Washington D.C. Office in 1999. Our office in D.C. has several LEED Certified projects on their resumé. Once again, we have developed strong relationships within the military and university communities in this area. With the amount of colleges and military bases here, we have been able to amass over 250 subcontractors in this region who share our common vision. Our work can be seen at dormitories found in Georgetown University, Catholic University of

America, American University, George Washington University, and Joint Base Langley-Eustis. Understanding regional construction issues, developing relationships with military and university clients, architects, subcontractors, and being active in the local area are ways in which we dedicate ourselves to being a trusted, informed resource and active community member.

#### Why we're the qualified choice

You are our main priority. Our portfolio of work is focused on inspirational accommodations for both Universities and military bases. With our east coast presence and strategic reach in Virginia, our team is qualified for the construction of the residence hall at the College of William and Mary. Since we are a certified construction firm for the Commonwealth of Virginia, our team is fully qualified and we look forward to mobilizing a field office at the College of William and Mary.







# i. Strategic Project Approach

**Design-Build:** Design-build is an integrated approach that delivers design and construction services under one contract with a single point of responsibility. Blue Line Construction partners with the owner, designers, constructors, subcontractors, and the community for project success. At BLC, we understand that owners select design-build to achieve best value while meeting schedule, cost and quality goals (See Figure 1).

METRIC	DESIGN-BUILD (as compared to Design-Bid-Build)	DESIGN-BUILD (as compared to CM@R)
Unit Cost	6.1% lower	4.5% lower
Construction Speed	12% faster	7% faster
Delivery Speed	33.5% faster	23.5% faster
Cost Growth	5.2% less	12.6% less
Schedule Growth	11.4% less	2.2% less

Figure 1. CII/Penn State research comprising 351 projects ranging from 5K to 2.5M square feet. The study includes varied project types and sectors.

Blue Line Construction's client-centric business model drives similar savings. At the heart of this process is communication. With your approval, we propose monthly strategy sessions and updates with senior personnel and the local community, weekly meetings with owner's representatives, and extensive daily interaction with inspectors from the University Housing Authority and University Facilities Department. Seven years ago, Blue Line Construction accrued the manpower to successfully achieve an integrated, in-house Design-Bid-Build capability. With our own mechanical engineers, and with input from MEP subcontractors, we will coordinate all efforts to ensure we virtually build the building before we build it on site. In this way, we anticipate very few coordination challenges once construction begins, but will ensure we update the model with our lead subs weekly during that phase of construction (See Figure 2).



Figure 2. Screen capture of NavisWorks<sup>™</sup> Clash Detection Process on past project

Blue Line Constructions Design-Build services, while offering many similar benefits of construction management services, have one unique difference—We hold the contract with you, hiring the architect





and engineer directly. This singular point of responsibility to you changes the architect, engineer and contractor's relationship and thus the project dynamic. This method of project delivery effectively eliminates the cross claims between the architect and contractor by truly integrating the design and construction process from start to finish. Ultimately, our corporation has created an integrated Design-Build team ready to efficiently serve you. Our design team will apply an inclusive, alternative-based approach to design for the student residence hall and will stay involved throughout the warranty phase.

**Project Team:** Our superior Design-Build techniques provides us the opportunity to develop an optimal team—one that has worked together before, has established relationships, has developed effective communication strategies and understands the core philosophy of the other firms in the partnership. Success stems from our ability to assemble the right team for your project and to procure and manage construction forces effectively for a quality project on a compressed schedule. Utilizing our standing relationships with other firms throughout the country, Blue Line Construction has the ability to assemble teams with which we have successfully completed work before. We can maximize our experience together providing you with a team that has "no learning curve" and that is



able to jump right into the project tackling even the most challenging complexities with vigor and esprit d'corps.

**Integrated Project Delivery:** IPD is a project delivery approach that integrates people, systems, business structures and practices into a process that collaboratively harnesses the knowledge, talents and insights of all participants to increase project value, reduce waste and optimize efficiency through all phases of design, fabrication and construction. At Blue Line Construction Integrated Project Delivery is built on collaboration, which in turn is built on trust. Effectively structured, trust-based collaboration encourages parties to focus on project outcomes rather than their individual goals. In order to obtain the benefits of IPD, all project participants must embrace the following principals:

- 1. **Mutual Benefit and Reward** All participants or team members benefit from IPD. Because the integrated process requires early involvement by more parties, IPD compensation structures recognize and reward early involvement. Compensation is based on the value added by an organization and it rewards "what's best for project" behavior, such as by providing incentives tied to achieving project goals.
- 2. **Collaborative Innovation and Decision Making-** Innovation is stimulated when ideas are freely exchanged among all participants. In an integrated project, ideas are judged on their merits, not on the author's role or status. Key decisions are evaluated by the project team and, to the greatest practical extent, made unanimously.
- 3. **Intensified Planning-**The IPD approach recognizes that increased effort in planning results in increased efficiency and savings during execution. Thus the thrust of the integrated approach is not to reduce design effort, but rather to greatly improve the design results, streamlining and shortening the much more expensive construction effort.
- 4. **Open Communication-** IPD's focus on team performance is based on open, direct, and honest communication among all participants. Responsibilities are clearly defined in a no-blame culture leading to identification and resolution of problems, not determination of liability. Disputes are recognized as they occur and promptly resolved.





### ii. Services Prior Experience

At Blue Line Construction, our scope of services throughout the design phase is focused on two aspects: project sustainability and value. Our 26 years of experience in the construction industry have allowed us to create solution-oriented tools and flexibility in order to guarantee that our projects are on time and within the designated budget. After a careful dissection of the initial specifications, our team plans to subdivide the design development into seven units. For each of the units our team will incorporate and/or perform the following design-build services to ensure the most quality and sustainable project.

#### **Project Subunits:**

- Site Work and Demolition
- Substructure
- Superstructure
- Enclosure
- Interior Finishes
- Landscape
- Final Finishes

#### Cost:



1. **Project Estimates-** The earlier we are engaged in the process, the more impact we will have. We understand how important it is to provide an accurate estimate. You need a reliable forecast of project costs from the first estimate. Our experienced in-house team Estimating and LEED Accredited Professionals has what it takes. Equipped with tools such as On-Screen Take-Off and E4Clicks estimating software, and a historical knowledge base of similar projects, we are able to prepare extremely accurate estimates with the detail you need. In-depth cost studies are performed to give you the information required to make intelligent decisions early in the process relative to both initial costs and long term paybacks.

#### Schedule:

1. **Project Development-** Blue Line Construction believes the key to a successful preconstruction effort lies in our ability to provide you with the information you need in a timely manner to make those informed decisions needed at every stage in the development of the project. From design charrettes to constructability reviews; from cost studies and life cycle analysis to proposed alternate methods of construction and/or materials; Blue Line Construction provides the team with the knowledge of project costs at any point in the project. We take the lead on evaluating every option for cost, schedule, and quality impacts with all team members involved and participating. Understanding that the construction costs are only a part of the Total Project costs, we are mindful of other potential expenses and are often called upon to help identify these costs. It is not just in how we present the numbers, but that you understand what the numbers represent.





# ii. Services Prior Experience

2. Detailed Process Scheduling- A good project schedule is an essential tool for effective project management. Our approach to every project places schedule management on the Project Manager and Superintendent who are supervising the work. They develop the initial project schedule and are responsible for maintaining it throughout the life of the project. Like many companies, we utilize



Primavera as our primary scheduling tool, and the schedules we prepare are not unlike everyone else's. The difference lies in our commitment to putting the extra effort into analyzing all the critical aspects of the project. Effective scheduling is a team effort, and in addition to continually updating the schedules, we will make sure that all parties are in agreement with its contents.

3. Subcontractor Involvement- Early involvement of our key contractors is vital to the success of the project. Our team will begin soliciting key subcontractors immediately. We will be prequalifying all subcontractors to ensure that everyone on site processes the correct skills, knowledge, and experience to successfully complete this project. We will also complete schedule reviews with our subcontractors to ensure that all schedule expectations are understood and will be achieved.

#### **Quality Effectiveness:**

- 1. **Integrated Technology Modeling -** The Blue Line Construction tracks measurable quality, schedule and cost return outcomes derived from the use of our state-of-the-art processes. We employ BIM, Revit, LEED, and MEP systems as our major modeling programs. Our in-house team will work alongside our contractors as an integrated design team tasked to created models and overlays of the project. We specialize in structural and architectural geometric control in order to perform concrete work and to ensure quality of steel detailing, fabrication and erection. By combining our architectural, structural, and systems designs, we are able to correct any variances or errors within the document. Key to our success is resource depth and design expertise. Our team is comprised of mechanical, electrical, structural and architectural design and construction professionals. Blue Line Construction has the design expertise and resource depth to successfully lead the entire BIM process, which is essential to realize the cost, quality and schedule acceleration benefits of this technology.
- 2. **Sustainability Review-** Blue Line Construction has the experience and expertise to make your green project a success. Our personnel have the right skill set to help your project from pre-construction through punch list. Blue Line Construction built one of the first LEED certified projects in Colorado Springs, the Pikes Peak Regional Building Development Center. The Pikes Peak Regional Building Development Center included numerous green features ranging from pervious paving to ice storage cooling systems.





### ii. Services Prior Experience



Operating costs can be reduced through efficient systems. Employee productivity can be increased through greater amounts of natural light and improved indoor air quality that can increase morale and reduce sick days. Even student test scores have been shown to be higher for schools and residences built with green building principles. BLC has a long history of success on LEED certified projects. We anticipate meeting William and Mary's sustainability goals and achieving LEED Gold on the student residential academic program and dining facility project.

#### **Innovation:**

 BlueLineConLinked- a document management system that marries the document mark-up functionality of Bluebeam, and the document storage and organization functionality of Microsoft SharePoint using an intuitive visual user interface for navigation that is accessible from a computer, tablet, or smartphone. Designed, developed and implemented at the Denver International Airport Terminal



2, BlueLineConLinked streamlines a number of processes, including drawing and specification retrieval, RFI and Submittal mark-up and sharing. With a simple dashboard interface, regardless of how many documents are stored in the database, retrieval is clear and fluid.

2. **RFID for the Field Workforce-** Waterproof tags affixed to the inside of subcontractor hardhats contain embedded data such as their name and contact information and what company they work for. When subcontractors wearing tagged hats pass through project gates fitted with readers, a computer records their presence on site. The readers software integrates with Prolog, the project management system through which Blue Line Construction does Daily Construction Reporting. In an emergency situation, knowing exactly how many workers are on-site could save lives.





# iii. "Best Value" and Quality Assurance

**Defining Best Value**-Best value is the most advantageous balance of price, quality, and performance achieved through competitive procurement methods in accordance with your stated selection criteria.

At Blue Line Construction we realize that the owner has a list of non-price criteria that essentially ranks each contractor in accordance with their importance to the specific project. We succeed in surpassing all of our competitors by loyally following and expanding on the given criteria:

- Experience with project team
- Safety performance
- Bonding program (single project / aggregate)
- Past performance
- Schedule commitment and ideas to project
- Firm's experience relating to project (delivery method, agency, funding source)
- Depth of resources
- Responsiveness of submittal
- Project approach

**Defining Quality Assurance-**We engineer quality assurance into our daily activities so that product or service requirements' fulfillment are assured. Our systematic measurement, standard monitoring processes, and our associated feedback loop triple checks against error prevention.

In accordance with the Army Corps of Engineer QA standard, Blue Line Construction's quality assurance project plan contains 16 functional elements. These elements cover all aspects of project activities including staff responsibilities, selection of measurement methods, designation of project-specific performance requirements (data quality objectives) for the chosen methods, procedures for assessing the quality assurance data, and specification of corrective actions that will be taken, if necessary. The preparation of a quality assurance plan is a systematic planning process to anticipate the potential problems that could adversely affect the performance of a measurement system and to establish a program that will eliminate these errors if possible and identify and correct them when they occur. Although all 16 elements of a quality assurance plan are necessary, the single most important concept in preparing and implementing a quality assurance project plan is the issue of timing. One consideration of this issue is that the quality assurance project plan must be prepared before any measurements are taken. Therefore, the plan functions as an effective blueprint for how data are to be generated and acceptable procedures can be used during the entire project. A second consideration of this issue is that the data must be compared with the project data quality objectives on a real-time basis. This results in the earliest detection of any errors that may be occurring and timely control over the performance of the data-measurement process.



### i. Past Projects



**The George Washington University-West Hall** Project Manager: Phillip Hellmers Architect: Nick Arellano Owner Reference: Michael Jones, Capital Facility Branch Phone Number: (202) 521-0435

All members of the proposed William and Mary College Resident Hall were active in this Virginia construction project. Phillip Hellmers was the Project Manager. He was active in building relationships between the students and faculty of The George Washington University as well as the subcontractors hired for the project. As a result, Phillip was able to get Blue Line Construction a renovation project from the University 18 months later with many of the same subcontractors. Conor was the Project Superintendent for this project. He played a vital role in instructing and training subcontractors the safety procedures and job safety requirements throughout the project. Michael was the MEP Engineer for this project. He was able to incorporate many of the existing mechanical, electrical, and plumbing systems into the new residence hall from the existing dormitory. Nicholas was the Project Architect. He applied and planned Blue Line Construction to be a pilot recipient for the Sustainable Sites Initiative<sup>TM</sup> (SITES) by innovatively turning the previous parking lot into tennis courts for the University.



Western State Colorado University Apartments Project Manager: Phillip Hellmers Architect: Nick Arellano Owner Reference: Jim Douglas, Capital Facility Directorate Phone Number: (719) 420-3656 Gunnison, Colorado

All members were once again active in this Colorado project. Phillip was the Project Manager. He was vital in maintaining the proper supervision on the project where the surrounding apartment complexes were maintained completely operational throughout the demolition and construction of the new complex. Conor was the Project Superintendent for this project. With safety always as his number one concern, he was able to run regularly safety meetings that prevented zero injuries on the construction site. Michael Morris was the MEP Engineer. He was able to work all electrical wiring and plumbing systems through an intricate design of the openweb steel joists found throughout this project. Nick Arellano was the Project Architect for this construction site. His knowledge of Revit models allowed the construction project to have a relatively smooth fabrication ease due to the simplicity of the designs he choose for the project. It was also his expertise to get the newly established building to become LEED Gold Certified.









#### American University- Cassell Hall

Project Manager: Phillip Hellmers Project Architect: Adam Engelhardt Owner Reference: Mike Jefferson, Public Works Phone Number: (202) 521-0435 Washington, D.C.

This project was a big project for Phillip Hellmers and Conor Favo. While not all the members of the team for the College of William and Mary Resident Hall were participants in this job, Phillip and Conor learned some extremely valuable safety lessons from this experience. Phillip Hellmers was the Project Manager. He made sure that the safety guidelines were established and constantly reiterated throughout the entire construction project. He set up important safety guidelines, recognizing that this project required a lot of safety procedures due to the demolition and removal of the existing dormitory. Conor Favo was the Project Superintendent. He followed Phillip's safety guidance by thoroughly enforcing the Safety Plan on the site, with copies of Virginia's OSHA regulations readily available and accessed. His emphasis on safety resulted in no lost time safety injuries.



#### Georgetown University: Kennedy Residence Hall

Project Manager: Michael Morris Architect: Nick Arellano Owner Reference: Jorge Martinez, Georgetown Facilities Phone Number: (202) 521-0435 Washington, D.C.

Michael played an important role in the renovation of this building. Prior to BLC taking over, mold growth was beginning to be a problem in Kennedy Hall. Michael reviewed construction documents and inspected the existing conditions. From these inspections, he was able to determine mechanical deficiencies that were allowing water and air filtration through the exterior walls and was able remediate the mold. Nick was able to work with Michael on this project as well. He reviewed the construction documents with Michael and was able to design walls and mechanical systems for the dormitory that could prevent mold in the future.





### **Project Background**

# Western State Colorado University Apartments

(719) 420-3656

Gunnison, Colorado

Architect: Design West Architects

Project POC- Nicholas Arellano

The Western State Colorado University Apartments is a \$63 million dollar project contracted to Blue Line Construction on May 18, 2011. This project is a 92,721-square-foot, 4-story, 226-bed student apartment complex. In order to begin this project, it required the demolition of the existing Keating Hall and heating plant on campus. All construction for the Western State Colorado University Student Apartments took place while five existing apartment structures remained operational. The complex consists of 55 multiple-style units with varying capacities and amenities such as common space, lounges, study rooms and computing labs.

Construction to fully renovate and expand the existing apartments was initiated by student leaders to improve the outdated, overcrowded facility. Funding is provided through the sale of bonds to be repaid through student fees collected over a period of 25 years. The project will address nearly \$25 million in deferred maintenance and address accessibility concerns and safety issues.





Blue Line Construction performed several in-house 3D Revit models of the apartments during the preconstruction period in order for the owner to have multiple options of room arrangements. We wanted to ensure that the spatial control in regards to specific room dimensions were responsive to meet the university's needs.

This project was Design-Build contracted mid May 2011. Utilizing Primavera v6, our efficient schedule not only allowed our teams to work concurrently for the maximum possible time, it also allowed for an early finish. The University Apartments anticipated completion date is 17 October 2017.

Blue Line Construction's commitment to sustainability and green building provides tangible cost savings for building projects and a lasting impact on our environment. With Western State Colorado University expecting a sustainable build, we saved \$4 million dollars on this project using LEED® designed construction strategies. Blue Line Construction employs five LEED® accredited professionals on staff responsible for applying innovative construction practices as part of the Blue Green philosophy. These apartments are currently under review for the LEED Gold Certification.





### **Project Background**

### UCCS Alpine Village Housing

(719) 952- 4722

Colorado Springs, Colorado

Architect: CSNA

Project POC- Conor Favo

The UCCS Alpine Village Housing Apartments is a \$33 million dollar project that was contracted to Blue Line Construction April 2010. This three-building student housing facility located on University of Colorado at Colorado Springs campus consists of approximately 303 beds in two 5story and one 4- story buildings totaling 130,000 square feet. The buildings are constructed of insulated concrete form and precast floor plank, with brick and precast exterior. All three halls include numerous shared spaces to encourage community life and innovative features new to residential living at UCCS.

Blue Line Construction used the Design Build philosophy to create a developer driven project. Blue Line Construction offers unique design build services that make us different from all the rest.





Instead of seeking out a separate architect, general contractor, engineer and everything in between, UCCS came to us to get all of it done on time and on budget. With the Design Development drawings provided by an in house architect, we were able to fast-track the project with only 60% preconstruction completion.

With extensively trained and professional Building Information Modeling technicians, Blue Line performed structural and architectural geometric control for concrete work and to ensure quality of steel detailing, fabrication and erection. Our field engineers use fabrication drawings produced directly from the Revit framing models. This process consisted of direct order cut-to-length studs, marked material and complete dimensional layout.

Blue Line Construction's commitment to sustainability and green building provides tangible cost savings for building projects and a lasting impact on our environment. With this in mind, these buildings all received LEED Gold Certification.





### **Project Background**

# The George Washington University- West Hall

(202) 521-0435

Washington, D.C.

Architect: Einhorn Yaffee Prescott

#### Project POC- Michael Morris

The George Washington University West Hall is a \$43 million dollar project started in mid-September 2011. This project involved the demolition and removal of the existing dormitory and replacing it with a new 4-story residence hall. The new dormitory has 287 beds for undergraduate students and 3 apartments for professional staff. The facility includes below grade meeting rooms, classrooms, dining hall facilities, a fitness center, sound studios, a black box theater, dance areas and related support facilities.

At Blue Line Construction, we recognize our responsibility for being a good steward of the environment. Our goal is to build for a sustainable future while preserving resources and minimizing the footprint that construction practices have today. Sustainable construction practices are integrated into every Blue Line Construction project. Thus it we made it a requirement for the West Hall to be LEED Gold certified.





We have also been recognized as a pilot recipient for the Sustainable Sites Initiative<sup>TM</sup> (SITES) Pilot Program for the adaptive reuse of a parking lot into vibrant tennis courts for The George Washington University. SITES is the first national rating system for sustainable landscape design, construction, and maintenance. The project includes three underground cisterns with a total capacity of 33,000 gallons. The cisterns will provide water for the landscape, irrigation and decorative fountains, and is designed to rarely, if ever, release water into the city storm water system.

In addition, the project was completed one and one-half months ahead of schedule and was completed on November 15, 2012. Blue Line Construction also ensured that this project was completed under budget. With strong relations with the local suppliers, we were able to minimize transport and time costs in regards to material delivery. In total, \$500,000 dollars was saved throughout the entire project.



**Project Characteristic Successes** 



**UCCS Alpine Village Housing** 

#### i. Timeliness

The UCCS Alpine Village Housing Project was able to be done nearly two months before the contract end date. The project's timeliness can be attributed in part to its fast-tracked schedule. Construction site work began with only 60% design completion. The utilization of Primavera v6 enabled efficient scheduling that allowed project teams to work concurrently for the maximum possible time. Prior experience with efficient scheduling ensured a shorter than anticipated work schedule.

### ii. Budget Considerations

In all of Blue Line Construction's projects accurate estimating gives a reliable prediction of the project costs from our first estimate. In this way, BLC partners with owners to create reliable projected invoices for the duration of the project. While most construction is front loaded in bills for the contractor, BLC provides the owner with cost-averaged invoices in order to ensure financial feasibility and ease of payment. In-depth cost studies are performed to give the owner numerous options that will affect the final cost throughout all stages of the project. Additionally, BLC accomplishes life cycle analysis and value engineering simulations that allow the owner to specify initial expenditures that reap the most long term benefits. For example, the UCCS Alpine Village Housing Project received LEED Gold Certification on all three buildings, ensuring long-term operating cost savings in the energy and atmosphere credit category. Lastly, looking in the southeast Virginia area, our strong relations with local suppliers minimize transport time and costs for material delivery, while also satisfying the LEED requirement for locally procured materials.





# **Project Characteristic Successes**

### iii. Quality

Blue Line Construction's push for LEED certification on almost all projects ensures an innovative and efficient building. The UCCS Alpine Village Housing Project used Building Information Modeling and Revit framing models to coordinate structural design and mechanical equipment in the interstitial space. BIM allowed structural and architectural control for concrete work and ensured quality of steel detailing, fabrication, and erection. Fabrication drawings from Revit framing models permitted direct order cut-to-length studs, marked material, and complete dimensional layout. BLC's weekly coordination meetings with subcontractors ensures that rework in the mechanical installation phase is kept to an absolute minimum, providing you, the owner, with higher quality workmanship and reduced cost. Lastly, the in-house Revit models provided the owner with multiple options for room arrangements. It also ensured that spatial control in regards to specific room dimensions was responsive to meet the university's needs and program scope was optimized.

#### iv. Service Disruption

BLC ensures and assures minimal impact on existing owner operations. On all projects, Blue Line Construction's primary concern is safety and this includes protecting the public by securing the construction site. All construction processes, including materials and equipment, are positioned to minimize disruption at the existing facilities in the area surrounding the work site. Most importantly, work hours are scheduled with team partners to ensure proper inspection, noise minimization, dust control, vibration control, and safe delivery times. Our scheduler will work with your facility department to ensure work only occurs when it's best for you. Finally, no students should suffer at William and Mary because of our ongoing construction project.

### v. Project Acceptability

The UCCS Alpine Village Housing Apartments is a three-building student housing facility that consists of approximately 303 beds in two 5-story and one 4- story buildings. All three halls include numerous shared spaces to encourage community life and innovative features new to residential living at UCCS. Construction to fully renovate and expand the existing apartments was initiated by student leaders to improve the outdated, overcrowded facility. The project increased the size of the student housing portfolio by about 30% and addressed accessibility concerns and safety issues for previously unacceptable student housing. We are excited to bring you the same types of successes we shared with our partners at UCCS here on the William and Mary student residential academic program and dining facility project.

### **Design Concept Presentation**

The new William and Mary Residence Hall will accomplish all goals of the Board of Regents of The College of William and Mary. These goals include the following:

1. Meet the expanding needs and demands for modern student housing by creating a living/academic environment that will entice students to return to live in student housing. 2. Meet the maximum space requirements in order to create student activity/lounge space for social networking, support space, ground storage space and custodial space.

3. It will enhance the surrounding landscape areas and circulation pathways throughout the site, and create exterior spaces that continue to foster social interaction and learning opportunities between students, faculty and staff.

4. Obtain a minimum LEED Gold certification, minimizing the University carbon footprint on the environment.

The 113,500 SF concept design depicted on this page is a continuum of the William and Mary design expression. We captured the "intense" shade of red that the college is famous for. Since the residence hall is the future of William and Mary, we decided to incorporate a transitional design from the road to the ravine. As the building traverses towards the ravine, the building strays from the traditional Georgian architecture. The balconies portray this fundamental difference. However, one of the most important design concepts we integrated into this design hall is the 50' span bridge over the ravine. We ensured that this bridge incorporated much of the design from the Crim Dell Bridge, also depicted on this page. Although our renderings do not show the conservations of trees, the site plan view does show that all trees outside of the plan footprint will be present. Our main goal is to intertwine a futuristic design with the present architecture of





Bubble Diagram: Elevation View

BLUE LINE CONSTRUCTION



### **Design Concept Presentation**



Bubble Diagram: Floor Plan, 3rd Floor (Secure Zone)





Figure 5. Single Bedroom

At Blue Line Construction we realize that residence halls are reserved primarily for underclassmen.

These facilities typically offer the traditional collegiate housing experience where students live in double-occupancy rooms and share community bathrooms. Although this lifestyle is wanted for some students, we believe that it is a necessity to have your space to which you can truly call your own.

The bathroom has a shower with a bath tub. This allows the student an area for relaxation after a challenging day of classes.

The kitchen provides the student an area to explore his or her cooking abilities. This ultimately ingrains a lifelong skill into the student's daily life.

Lastly, the separate living room and bedroom provides the distinction between school and relaxation. It also offers extra room for study sessions and other student gatherings.



Figure 3. Double Bedroom

#### **Quadruple Bedroom Layout:**



Figure 6. Quadruple Bedroom

At Blue Line Construction we understand your undergraduate years at William and Mary may be your first experience living away from home, or your first time in a new city—possibly in a new country. You will be in an unfamiliar environment, keeping a different schedule and making new friends. This new lifestyle will be a change and a challenge, but it will also be memorable and exciting.

many students.

The adjoining bathrooms maximize the size of the rest of the room, allowing for more common and private storage spaces.

convenience.

Figure4. Alternate Double Bedroom

This four bedroom apartment layout is designed for the typical college experience of close living quarters with students of the same age or interests. However, our apartment layouts offer larger spaces and the

convenience of a private bathroom-features attractive to

Also, unlike most shared rooms, these rooms will have two separated closets for added privacy and











ID	Task Mode	Task Name	Duration	Start	Finish	Nov 24, Dec 15, Jan 5, 'I Jan 26, Feb 16, Mar 9, 'Mar 30, Apr 20, May 11 Jun 1, 'I Jun 22, Jul 13, 'Aug 3, 'Aug 24, Sep 14, Oct 5, 'Oct 26, Nov 16, Dec 7, 'Dec 28, Jan 18, Feb 8 S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S
1	<b>S</b>	Notice to Proceed/ Contract Awarded	l 0 days	Mon 12/9/13	Mon 12/9/13	◆ 12/9
2		Meeting with William and Mary's Building Committee/Receive program budget, construction time, and other requirements	2 days 1,	Thu 12/12/13	Fri 12/13/13	
3	2	Design Concept Presentation to William and Mary's Building Committee	7 days	Mon 12/16/13	3 Tue 12/24/13	Design Concept Presentation to William and Mary's Building Committee
4		Design Concept Modification if needed	3 days	Tue 12/24/13	Thu 12/26/13	
5		Approval of Concept Plan by William and Mary's Building Committee/Proceed with schematic and preliminary drawings	14 days	Fri 12/27/13	Wed 1/15/14	Approval of Concept Plan by William and Mary's Building Committee/Proceed with schematic and preliminary drawings
6		Concept Plan Review by City of Williamsburg	7 days	Thu 1/16/14	Fri 1/24/14	Concept Plan Review by City of Williamsburg
7	•	Concept Plan Modification if needed	3 days	Mon 1/27/14	Wed 1/29/14	Concept Plan Modification if needed
8	C	Concept Plan Approval by City of Williamsburg	14 days	Thu 1/30/14	Tue 2/18/14	Concept Plan Approval by City of Williamsburg
9		Site Survey	5 days	Wed 2/5/14	Tue 2/11/14	Site Survey
10		Schematic Design Development	5 days	Wed 2/19/14	Tue 2/25/14	Schematic Design Development
11		Review of Schematic Design	14 days	Wed 2/26/14	Mon 3/17/14	Review of Schematic Design
12		Schematic Design Approval	14 days	Tue 3/18/14	Fri 4/4/14	Schematic Design Approval
13		Preliminary Drawings Development	5 days	Mon 4/7/14	Fri 4/11/14	Preliminary Drawings Development
14		Preliminary Drawings Review	7 days	Mon 4/14/14	Tue 4/22/14	Preliminary Drawings Review
15		Preliminary Drawings Approval	14 days	Wed 4/23/14	Mon 5/12/14	Preliminary Drawings Approval
16	<b>*</b>	Establish Target Budget	5 days	Tue 4/22/14	Mon 4/28/14	Establish Target Budget
17		Meeting with College Design Review Board	2 days	Tue 4/29/14	Wed 4/30/14	Meeting with College Design Review Board
18		Meeting with State Art and Architectural Review Board	2 days	Thu 5/1/14	Fri 5/2/14	TMeeting with State Art and Architectural Review Board
19		Meeting with College Code Review Team	2 days	Mon 5/5/14	Tue 5/6/14	🚡 Meeting with College Code Review Team
20		Working Drawings Development	5 days	Tue 5/13/14	Mon 5/19/14	Working Drawings Development
21		Working Drawings Review	7 days	Tue 5/20/14	Wed 5/28/14	Working Drawings Review
22		Working Drawings Approval	14 days	Thu 5/29/14	Tue 6/17/14	Working Drawings Approval
23		Site Plan Permit	7 days	Tue 5/13/14	Wed 5/21/14	Site Plan Permit
24		Bid Package-Site Work	14 days	Tue 6/10/14	Fri 6/27/14	Bid Package-Site Work
25		Foundation Permit	6 days	Tue 5/13/14	Tue 5/20/14	Foundation Permit
26		Bid Package-Foundation/Structure	14 days	Tue 6/10/14	Fri 6/27/14	Bid Package-Foundation/Structure
27		Final Building Permit	10 days	Wed 6/18/14	Tue 7/1/14	Final Building Permit
28	2	Bid Package-Interior/MEP/Finishes	14 days	Wed 7/2/14	Mon 7/21/14	Bid Package-Interior/MEP/Finishes
29		Materials Procurement	30 days	Wed 6/18/14	Tue 7/29/14	Materials Procurement
30	•	Construction Phase	306 days	Mon 7/7/14	Mon 9/7/15	Construction Phase
					-	
Willia	m & Mar	Residence Hall		Summ	iary	External Milestone  Inactive Summary  Manual Summary Rollup  Finish-only
Date: 1	Mon 9/30	13 Split Milostopo		Evtor	al Tasks	Inactive Task     Inactive Milestone     Ouration only     E      Start only     E     Decadine
		winestone	•	Exterr	101 1 0585	Inactive ivinescone v Duration-only Start-only Progress
						Page 1

eb 8, ' Mar 1, ' Mar 22, Apr 12, May 3, May 24, Jun 14, Jul 5, '1 Jul 26, ' Aug 16, S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W	Sep 6, ' Sep 27, ( T F S S M T
⊐ ↓	





# **Design Schedule Narrative**

As requested, Blue Line Construction made a schedule for the preconstruction phase of your William and Mary's Student Residence Academic Program and Dining Facility. The schedule includes dates for critical tasks, including design milestones, municipality submissions, W&M approvals, and W&M decision dates needed in order to meet construction start and substantial completion requirements. This schedule breaks ground by 7 July 2014 and has an anticipated completion date of to be open in time for the fall 2015 semester.

### Considerations

Blue Line Construction's schedule will always leave time for anyone involved in the project to hold a meeting with our company to voice suggestions on the project. Since this project will occur on an active college campus, we will ensure our schedule does not conflict with students trying to study or sleep at night or any major events occurring on campus.

#### **Project Development**

Throughout the preconstruction phase, Blue Line Construction will find time in the established schedule to provide you with the information you may need outside of the pre-established meeting of the schedule. From design charrettes to constructability reviews; from cost studies and life cycle analysis to proposed alternate methods of construction and/or materials; an accurate project cost will be provided at all meetings.

### **Detailed Process Scheduling**

We will make every effort to to accommodate you as the owner. The schedule will continually be updated but all parties involved will be in agreement and informed before the change occurs.

#### **Subcontractor Involvement**

As soon as bids for subcontractors can be sent out, Blue Line Construction will send out packages to key subcontractors. Early involvement of subcontractors will allow the project to commence as soon as possible. Early subcontractor involvement is one of BLC's competitive edges in the market. When our subs better understand the schedule and can collaborate on the schedule's creation, everyone's expectations are more realistic and more easily achievable.

1	OPTION I 2-Way Concrete Flat Plate (Post Tensioned)								OPTION II Load Bearing Metal Studs with Ecospan System						
	ATTACHMENT 5 AITACHMENT 5 All shaded cells have formulas.		Floor	SF	6,000	Skin SF (Assume 100' pe	12' erimeter)	Fir to Fir	3,000	Floor	SF	6,000	Skin SF (Assume 100' pe	12' erimeter)	Fir to Fir
	System elements identified are suggestions only - delete/change/add elements as required	QUANTITY	UNIT	UNIT	ITEM	CSI	SECTION	COST/	QUANTITY	UNIT	UNIT	ITEM	CSI	SECTION	COST/
CSI	DESCRIPTION			COST	COST	TOTAL	TOTAL	SQ. FT.			COST	COST	TOTAL	TOTAL	SQ. FT.
STRUC 03100	CONCRETE Formwork (Horizontal)					32 640	\$450,294	\$150.10 \$10.88						\$200,004	\$66.67
03100	* Post Tension Slabs	3,000.00	sf	10.88	32,640	32,040		\$10.00							
03200	Concrete Reinforcement					327,846		\$109.28					100,500		\$33.50
	<ul> <li>Columns</li> <li>Post Tension Tendons (1.1 #/SF)</li> </ul>	30.00 2.730.00	ton Ib	1,450.00 1.82	43,500 4,969										
	* Post Tension Slab Reinforcement (1.25 #/SF)	2,400.00	lb	0.76	1,824										
	* Mild Slab Reinforcement (5.8 #/SF) * W/W/F	520.00	lb	0.68	354				3 000 00	cef	33 50	100 500			
	* Deck Chairs, Bolsters & Accessories	1,800.00	clf	154.00	277,200				0,000.00	00.	00.00	100,000			
03300	Concrete - Form, Place, Finish	500.00		70.00	00 500	89,808		\$29.94					38,472		\$12.82
	^ Columns	520.00	су	76.00	39,520										
	* Composite Concrete Slab	40.00		070.40	00.050				3,000.00	sf	8.92	26,760			
	* Supervisions requirements	40.00	day day	280.80	39,056				30.00	day	390.40	11,712			
												·			
05100	Structural Steel												43 430		\$14.48
03100	* Steel Floor System								7,500.00	lb	3.72	27,900	43,430		\$14.40
	Columns								104.0	ea	149.33	15,530			
05400	Structural Metal Studs												17,602		\$5.87
	Bracing								300.0	ea	56.35	16,905			
	Framing								60.00	lf	11.61	697			
FOUNT							\$154 684	\$51.56						\$154 684	\$51.56
02380	Auger Cast Piles					9,654	\$134,004	\$3.22					9,654	\$134,004	\$3.22
	* Auger Cast Pile	100.00	lf	96.54	9,654				100.00	lf	96.54	9,654			
03200	Concrete - Reinforcement WWF	2,500.00	csf	33.50	83,750	83,750		\$27.92	2,500.00	csf	33.50	83,750	83,750		\$27.92
												·			
03300	Concrete - Form Place Finish					61 280		\$20.43					61 280		\$20.43
C	oncrete Pile	3,200.00	су	19.15	61,280	01,200		\$20.45	3,200.00	су	19.15	61,280	01,200		\$20.45
Note:	Identify what factor was used for the dfference in foundation														
	system design														
FIREP	ROOFING COSTS						\$10,637	\$3.55						\$1,488	\$0.50
07811	Fireproofing * Firestopping @ Slab Edge	1.100.00	lf	9.67	10.637	10,637		\$3.55					1,488		\$0.50
	* Sprayed Fireproofing	.,			,				1,750.00	sf	0.85	1,488			
	*														
							\$07 FF0	\$00 FC						\$07 FFC	too 50
05400	6" Metal Stud Exterior					37,345	<b>\$67,552</b>	\$22.52 \$6.22					37,345	\$07,552	\$22.52 \$6.22
	* Exterior Metal Framing System	1,100.00	lf	33.95	37,345				1,100.00	lf	33.95	37,345			
05500	Miscellaneous Metals * Slab Edge Embeds for Support of Skin Elements	450.00	sf	9.31	4.190	4,397		\$0.73	450.00	sf	9.31	4.190	4,397		\$0.73
	* Misc metals for attachment of exterior elements	50.00	lf	4.15	208				50.0	lf	4.15	208			
07100	Waterproofing	40,000,00	-4	4.40	44.000	11,600		\$1.93	40.000.00	-4	4.40	44.000	11,600		\$1.93
	*	10,000.00	SI	1.16	11,600				10,000.00	SI	1.16	11,600			
07200	Thermal Insulation					5 300		\$0.88					5 300		\$0.88
01200	* 6" Batt Insulation	10,000.00	sf	0.53	5,300	0,000		÷0.00	10,000.00	sf	0.53	5,300	0,000		ψ0.00
	*														
07900	Caulking & Sealants					360		\$0.06					360		\$0.06
	<ul> <li>Enclosure Joint Sealants</li> </ul>	300.00	lf	1.20	360				300.00	lf	1.20	360			

William and Mary Residence Hall Request For Qualifications Structural System Comparison Worksheet			2	-Way Con	OP1 Icrete Flat	TION I Plate (Post T	ensioned)	OPTION II Load Bearing Metal Studs with Ecospan System							
ATTACHMENT 5 All shaded cells have formulas.			3,000 Floor SF			6,000 Skin SF 12' FIr to FIr (Assume 100' perimeter)		Fir to Fir	3,000 Floor SF			6,000	Skin SF (Assume 100' pe	12' erimeter)	Fir to Fir
CSI	System elements identified are suggestions only - delete/change/add elements as required DESCRIPTION	QUANTITY	UNIT	UNIT COST	ITEM COST	CSI TOTAL	SECTION TOTAL	COST/ SQ. FT.	QUANTITY	UNIT	UNIT COST	ITEM COST	CSI TOTAL	SECTION TOTAL	COST/ SQ. FT.
09250	Gypsum Systems Inside Exterior Gyp Wall	7,500.00	sf	0.57	4,275	4,275		\$0.71	7,500.00	sf	0.57	4,275	4,275		\$0.71
09900	Painting * Inside Exterior Gyp Wall *	7,500.00	sf	0.57	4,275	4,275		\$0.71	7,500.00	sf	0.57	4,275	4,275		\$0.71
INTER	OR SYSTEMS						\$14,728	\$4.91						\$14,728	\$4.91
07300	Insulation * Between Floor Acoustical Absorption Material	9,000.00	sf	0.53	4,770	4,770		\$1.59	9,000.00	sf	0.53	4,770	4,770		\$1.59
07850	Firesafing * Rated wall head details for firesafing premium	250.00	If	9.11	2,278	2,278		\$0.76	250.00	lf	9.11	2,278	2,278		\$0.76
07900	Caulking and Sealants * Joint Sealants	300.00	lf	1.20	360	360		\$0.12	300.00	lf	1.20	360	360		\$0.12
09250	Gypsum Systems * Gyp Coffered and Flat Ceilings *	12,000.00	sf	0.61	7,320	7,320		\$2.44	12,000.00	sf	0.61	7,320	7,320		\$2.44
MECH	ANICAL & ELECTRICAL SYSTEMS						\$104 737	\$34.91						\$138 793	\$46.26
15000	HVAC     * Hangers and installation premium     Offsets and routing premium	60.00 30.00	day day	1,120.00 582.80	67,200 17,484	84,684		\$28.23	80.00 50.00	day day	1,120.00 582.80	89,600 29,140	118,740		\$39.58
15200	Plumbing * Piping	1,250.00	lf	14.25	17,813	17,813		\$5.94	1,250.00	lf	14.25	17,813	17,813		\$5.94
15400	Fire Protection * Fire Alarm	2.00	ea	1,120.00	2,240	2,240		\$0.75	2.00	ea	1,120.00	2,240	2,240		\$0.75
<u>WEATI</u> 01000	HER / WINTER PROTECTION PREMIUMS Weather * Weather protection and temp heating	300.00	day	1,250.00	375,000	375,000	\$375,000	\$125.00 \$125.00	300.00	day	150.00	45,000	45,000	\$45,000	\$15.00 \$15.00
Note: Ti system:	SUBTOTAL CONSTRUCTION COST his estimate is provided as a comparison of structural s and is not representative of the total project cost.					****	##########	\$392.54					\$622,247	\$622,247	\$207.42





# iii. Cost Comparison Pros and Cons

### 2-Way Concrete Flat Plate (Post Tensioned)

Advantages:

- Simplicity: Fast and simple to install
- Rigidity: Composite design
- Maximum Duct Openings: Allows chasing of mechanical, electrical and plumbing
- Non-Combustible: UL/ULC/cUL Ratings with PVC plumbing and duct openings without fire dampers
- Acoustical Properties: STC 57 / IIC 30
- Versatility: Applicable to all types of framing
- Long Spans: Less concrete and reinforcing steelPost-tensioning brings cost savings in the
- form of less material use. Concrete will be able to use smaller member sizes in the slab, a savings of nearly 20% concrete. Less rebar can be used by up to 60 to 75%.
- Less concrete and rebar can also be used in the columns due to lighter load of the slab. Increased

performance comes in the form of reduced deflection and vibration. Crack control is much easier in this system. Longer spans and fewer columns in the system can allow more floor space in the building and more flexibility in setting up floor layouts. The building will require less maintenance, giving the building a lower lifetime cost. The costs of installation for MEP will be cheaper with open roof space.

Disadvantages:

• Overall, the building will be heavier than a steel composite floor building.

### Load Bearing Metal Studs with Ecospan Composite Floor System

Advantages:

- A composite floor system speeds up and eases the construction of the building. The concrete for the floor does not require plywood forms. Less concrete and reinforcing steel is required with this system with lighter floor loads.
- Speed (No Shoring 14' Span)
- Cost (Non Proprietary Pricing)
- Quantity of Walls Included
- Floor-to-Floor Height

Disadvantages:

• The installation costs of MEP will be higher with the constant crossing of steel joists across the ceiling of the building.











### **Miscellaneous Considerations**

#### i. Claims & Litigation History of Firm:

Since Phil Hellmers established the company in 1987, Blue Line Construction has never been the defendant in any litigation. When claims or issues have arisen in the past, we've successfully demonstrated success as the plaintiff in cases where our partners did not hold themselves to the same high standard as BLC. We attribute our success to the thorough planning, communication, and execution employed on our projects. With everyone on the same page, our team has been able to circumvent miscommunication, resulting in far less litigation than our counterparts in the industry. Our emphasis on safety has resulted in a low and continuously decreasing Experience Modification Rate (.73 in 2012), allowing us to mitigate risk for our insurance companies. Blue Line Construction protects its employees from injury through rigorous training programs and proper safety gear, further helping us avoid legal action and allowing our employees to focus on mission accomplishment.







#### Awards:

Leadership in Energy and Environmental Design

- 2012 LEED for Homes Award
- Most of our recent University projects are LEED Gold Certified by the U.S. Green Building Council Occupational Safety and Health

Administration

- Our Firm has been an OSHA SHARP Safety Award Recipient for the past 5 years.
- BLC has been acknowledged as a "Good Practice Company" by OSHA

AIA TAP BIM Award - 2012.

APWA Project of the Year 2012 for our firm's superb work on the Living and Learning Residence Hall at Gallaudet University







# **Miscellaneous Considerations**

#### ii. Current Workload, Commonwealth of Virginia Office:

• 6 projects, \$200M total



Since its opening in 1999, we service the Commonwealth of Virginia from our Washington, D.C. branch office. This team has successfully completed numerous projects in the state of Virginia and excels at constructing university residences. Since there are no current school residential projects underway, we can leverage our full team immediately upon award of your residence hall project.

- 100% complete: The Living and Learning Residence Hall at Gallaudet University, a dormitory residence designed towards providing maximum comfort for its deaf occupants, was a 14 month long project completed in August 2012. Our team designed the Residence Hall with sloping ramps rather than stairs, wide hallways, automatic sliding doors, smaller bedrooms in exchange for huge communal areas, and soothing wall colors.
- 100% complete: West Hall at George Washington University is a 12-story apartment style housing facility for upperclassmen. We finished the project in 2002, in 22 months. The elegantly furnished Hall includes state-of-the art amenities and features.
- 100% complete: Gibbons Residence Hall at the Catholic University of America was a \$4.5 million project involving the vast upgrade of the dormitory originally built in 1855. Our team installed new bathrooms meeting ADA regulations, replaced all the piping, upgraded the walls, floors and ceiling finishes. Our team provided an innovative new layout to the dormitory in this 8 month long project completed in 2010.







# **Team Statement**

By now, you can see that Blue Line Construction has a tradition of excellence; living by the following set of values and expectations that set us apart from our competition and make us your best option for the College of William and Mary Residence Hall.

**Integrity** – Blue Line Construction truly works for you, the customer. We settle for nothing short of perfection, which is why we demand quality, honesty, and hard work in our construction process to achieve the best possible product. When interacting with our company, you can always expect professionalism. Blue Line Construction has been a responsible business partner in this industry, operating honorably since its creation.

**Excellence** – As evidenced by our numerous achievements and impressive company history, we always deliver. Through effective teamwork, communication, and commitment we are able to provide the best quality product to the customer while still reducing waste in our construction process. The brilliant minds of Blue Line Construction provide innovative ideas and powerful motivation attributing to the excellence we have become known for.

**Safety** – Blue Line Construction genuinely cares about not only its workers, but for the health, safety, and well-being of those surrounding the construction site. During the construction of the UCCS Alpine Village Housing and the Western State Colorado University Apartments, our construction process had a reduced Experience Modification Rate of .61, indicating that safety is at the core of this company. Corporate Risk Management is a priority when conducting our operations and our firm has been recognized for our occupational safety and environmental concern through numerous LEED and OSHA accolades. We are the pinnacle of safe construction and a good influence for establishing a culture of safety and health within the industry.

**Service** – The founders of Blue Line Construction had the goal of serving the surrounding community with exceptional constructional feats while still driving down costs. The great value provided to our customers stems from an intrinsic desire to be charitable and generous. We think of ourselves as servants to the community and we would feel truly blessed to continue our legacy of unbeatable service if we are selected to design the University Dormitories for your project.

**Tradition** – Our firm has built a reputation of trust and reliability through our high standards and genuine personal attention to clients. We are famous for providing the absolute best quality to our customers. By setting the bar high for ourselves, we have been able to establish unparalleled credibility, resulting in our frequent selection to lead high profile and unique projects. Blue Line Construction looks forward to its next chapter in its storied tradition: working with you! We take immense pride in our history, but are always looking to the future.

We are excited about working with you, and we sincerely appreciate your time and consideration in reviewing BLC's response to the RFQ. Our team of professionals is ready for award!