COAA Project Leadership Awards Submission / University of Maryland, Baltimore County

INTERDISCIPLINARY LIFE SCIENCES BUILDING

Contents

Section One

GENERAL PROJECT INFORMATION

Project Information

Name of Project
University of Maryland, Baltimore County
Interdisciplinary Life Sciences Building (UMBC ILSB)

Location of Project
University of Maryland, Baltimore County Campus

Name and Address of Owner
University of Maryland, Baltimore County
1000 Hilltop Circle
Baltimore, MD 21250

Name and Address of Design Professional
Ballinger
833 Chestnut Street; Suite 1400
Philadelphia, PA 19107

Name and Address of Construction Professional
The Whiting-Turner Contracting Company
300 East Joppa Road
Baltimore, MD 21286

Type of Project Educational

Delivery Method Construction Management at-Risk

Other Consultants

Site Civil Engineer Site Resources, Inc.
Landscape Architect Mahan Rykiel Associates
Consulting Structural Engineer Columbia Engineering
Mech/Elec/Plumbing/Fire Protec. Engineers Ballinger

Schedule + Cost

Project Duration
Design 742 Calendar Days
Construction 791 Calendar Days

Project Start Date Design 4.8.15 / Construction 5.1.17
Project Completion Date Planned 5.1.19 / Actual: 7.1.19

Changes in Schedule
A record amount of rainfall was encountered while building the foundations, structure and while working toward building close-in. In addition, unforeseen field conditions were encountered on this 5+ acre site.

Initial Construction Cost ($) $91,450,723
Final Construction Cost ($) $96,458,983
Change Orders as % of Final Construction Cost 5.2%

General Project Description

The Interdisciplinary Life Sciences Building (ILSB) is a 133,416 GSF teaching and research building at the University of Maryland, Baltimore County in Catonsville, Maryland. The building was designed to accommodate both teaching and research space as well as core facilities with the breakdown by percentage and components for each space type noted below.

Teaching Spaces (36%)
which includes four (4) multidisciplinary teaching laboratories, eight (8) active learning classrooms for 45 to 180 students each, study rooms and associated support spaces.

Research Space (49%)
which includes fourteen (14) shared, flexible research laboratories and associated support spaces.

Core Facilities (12%)
consisting of advanced scientific core laboratories including a vivarium, Good Manufacturing Practices (GMP) core facility and an environmental systems lab.

Other (3%)
The balance of the space consists of building support.

The research space accommodates interdisciplinary research groups from the schools of engineering, natural and mathematical sciences, environmental sciences and others to work together on complex problems in an institute-like environment away from traditional departmental home spaces. For this project, an obsolete one story building was demolished creating the site for the ILSB that would provide a defined edge to the Quad to the west and permit redevelopment of the area to the north into a pedestrian friendly environment accommodating diagonal cross campus movement between the academic core and residential life areas.

The site was designed as a series of flowing walkways that surround bioswale areas for storm water from the site and building roof areas. The walkways to the north feature built in seating and lush plantings in a shaded area and are intended for warm season use. An elevated terrace facing west to the Quad creates a welcoming gesture to the center of campus and presents a sunny exterior space for cooler seasons. The project included extending an underground campus tunnel system for utility infrastructure as well as enlarging the pedestrian core of the campus. The total project site area was 5+ acres.

The ILSB was conceived to showcase multi-disciplinary teaching and interdisciplinary research on the UMBC campus. The research and teaching laboratories line a north facing glass wall, providing light and views while allowing visibility into the labs from campus. These laboratories form a glass clad layer that is grafted onto a brick volume that blends with the existing campus in scale and materiality. The laboratory layer inflects inward to preserve mature trees and give space to a major campus passage. The glass cladding wraps the volume to front onto a campus quad and forms a glowing lantern after dark.

The active learning classrooms are arranged in a second layer behind the laboratories. A two story student commons, featuring a dynamic public art installation, occupies the space between these two program layers providing an indoor campus passage parallel to the campus walkway. The art installation, “In Flight”, by Volkan Alkanoglu is a dynamic representation of movement based on multidisciplinary teaching and interdisciplinary research at UMBC. The commons establishes a memorable home on campus for the sciences while facilitating high student traffic flow. Glass partitions between the commons and laboratories highlight the beauty of scientific tools and invite curiosity about its processes. The project demonstrates UMBC’s commitment to sustainability through highly visible storm water management landscape features and a large green roof. The building uses energy efficient HVAC systems with DOAS (dedicated outdoor air supply) air handlers and chilled beam cooling, coupled with very limited glazing to the east and south facades. West facing glazing includes exterior shading and frit to help reduce solar heat gain. The resultant project complements the campus in its scale and materiality and highlights art and sustainability while using transparency to engage the community in the excitement of science.

Section Two

OVERALL PROJECT MANAGEMENT

Project Management

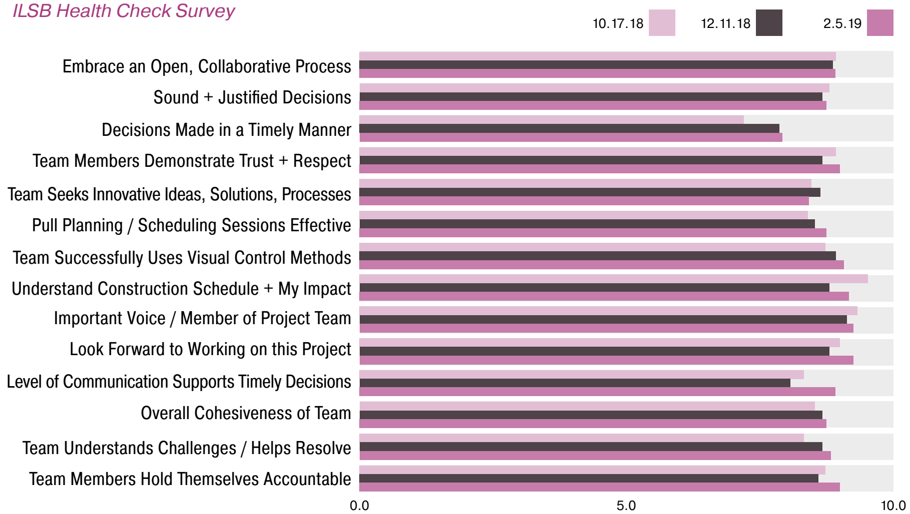
Example 1

Creating a Healthy + Open Environment for the Project Team

The University fully embraces a collaborative approach on its projects and views the AE and CM as its partners in successfully designing and constructing its projects. The AE and CM teams on ILSB had not worked together before and the AE had not worked with the University previously. The Project Manager took a leadership role in the creation of a healthy, collaborative and open environment on this project and, perhaps more importantly, in maintaining it while ensuring that accountability was retained. A team health survey was employed to provide another tool to gauge the team atmosphere. The survey questions were developed by the project team and the results of this bi-monthly survey were distributed to the team members and discussed at the O/A/C monthly meeting.

Overall the survey results were extremely positive demonstrating that the desired environment was achieved. Strong partnerships were developed among the team members allowing for genuine dialogue on new ideas (first building on campus with chilled beams), solving problems or addressing unexpected challenges. The Project Manager also was diligent in the University providing decisions in a timely manner. All of this is particularly valuable on a project which involved faculty and staff from multiple areas (engineering, natural and mathematical sciences, environmental, etc.) and on which there were “surrogate” end users for the research spaces (49% of the total space) given the interdisciplinary approach.

ILSB Health Check Survey

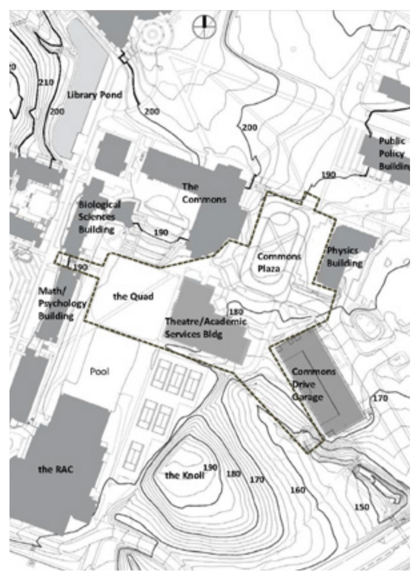


Example 2

Site Walks

The ILSB project site is in the academic center of the UMBC campus. The total site was over 5 acres and is depicted on the image below from the Project Program. The project included the demolition of the theater/academic services building. A major pedestrian walkway and the loading dock servicing The Student Commons Building, which includes the campus bookstore, dining services, meeting rooms and offices, passed directly through the project site along with the adjacent Physics Building.

Existing topography



The extension of the underground utility tunnel was substantial and was routed through the project site (see photo below). The Owner’s Project Manager conducted a site walk through with the Construction Manager’s Superintendent at a minimum of twice per week to review the construction activities that could potentially impact campus operations. By doing this, the construction team began viewing the project site from the perspective of the campus community which helped to determine what needed to be done proactively to minimize any impacts. As the construction progressed, the temporary accommodations were revised to ensure appropriate and safe pathways for pedestrians and vehicular access to the loading dock.

Construction of the extension to the campus underground utility tunnel for the ILSB project

Scheduling

Example 1

Attendance at CMAR Pull Planning Meetings

The Owner participated in CM's weekly Pull Planning/Progress meeting with all trade partners. During these meetings the University aided in the coordination of installations with employees of every trade partner for the work taking place in the next six weeks of the project. The University's involvement in this aspect was a major component towards making this project successful. The effect of being involved in each weekly meeting allowed for several benefits. The first being that each trade partner's Project Manager and Lead Foreman saw the University's physical presence.

This physical & visible involvement reinforced to all installers that the University truly cared about the planning and execution of this project which made them have an increased stake in the commitments that they made in that meeting. The second benefit of this was that the University was able to immediately voice concern over any plan that could potentially impact the University's day-to-day operations. Thirdly, trade partners saw how their responsibilities tied into the project. For example, if the University needed to provide facilities shop support for outages or when a decision from the campus was needed, they had ample notice and time to engage the appropriate department or individuals.

Example 2

Attendance at CMAR Bi-Monthly Meetings with Scheduling Consultant

The Owner also participated in the CM's bi-monthly meetings with Aegis, the CM's scheduling consultant. By attending these meetings, the Owner could ask questions, make suggestions and become an active participant in the overall scheduling process.

Pull Planning Meeting Board

Cost Management

Cost Management

The University took a proactive approach in controlling the design against the project construction budget. The University established a “design-to-dollar” (DTD) amount for the construction of the ILSB project to which both the AE and CM were obligated. At the design kick-off meeting, the project team (AE, CM and University) developed a cost model for the project based on the DTD amount; this cost model provided a cost breakdown of the DTD amount by building components based on the expertise, experience and historical data of all parties. This approach enabled all design consultants to understand the budget allocations for their respective disciplines.

The cost model also served as a “control budget” against which all subsequent cost estimates would be compared. For the schematic design and design development submissions, a detailed estimate from both the CM and the AE was provided to represent the design that was being shown in that submission. The CM’s estimate and the A/E’s estimate were reconciled and compared to the prior estimate to identify variances as well as compared to the cost model with the applicable differences identified. This approach enabled the project team to be able to identify the cost discrepancies on which to focus.

The CM also provided an estimate at the 50% construction documents milestone and this estimate was compared to the cost model to identify variances. After each cost estimate, a thorough value engineering effort was conducted (whether the project was over budget or not) to make sure that all elements were optimal for the project’s needs; that is, that the University was achieving the best value for its project. If the construction costs could not be brought in line through value engineering efforts, the project team would reevaluate the design, make adjustments and refrain from proceeding to the next design stage until the design was reconfigured to represent the project budget.

Change Orders

The University thoroughly reviewed all change order requests. When contractor change order requests were submitted, the owner’s team reviewed them thoroughly to ensure that the change was appropriate and was representative of their understanding of the request. Complete detail and back-up documentation was provided and reviewed by the University to ensure that the documentation met the requirements per contract. The University also ensured that written authorization was provided to the CM on a timely basis so that change order work could proceed thereby avoiding any impact to the project schedule and/or claims for delays by the trade contractors.

Quality Management

Structured Quality Program

As part of the RFP, the University outlined a very detailed quality management program that the CMAR was required to use as the basis of their project quality program. This program included guidelines that followed the “Three Phases of Quality”. (Please note: The CMAR on this project has since adopted the “Three Phases of Quality” as the basis of their company-wide quality program, based on the successful use of this program on the ILSB project). The quality requirements were reinforced by the design team in each specification section, defining elements of work that were to be included in the program. This approach assured that all team members from the Owner down to the individual tradesperson installing the element of work were on the same page with what was being installed and had the same expectation on the level of quality being provided.

The process began with a pre-installation conference where the owner, architect, CM, trade partners, vendors and 3rd party inspectors were all together to review and discuss the plan for installation for a specific definable element of work. This review took place a few weeks before installation was scheduled to commence. The University played a large role participating in these meetings, as it showed the trade partners and individuals doing the installation that UMBC was involved and committed to the process.

Meeting minutes were taken to document all commitments and plans to be reviewed during the later phases of the quality program.

The second step was a first work inspection which took place a day or two after the respective definable element of work installation began. Again, all parties that were involved in the pre-installation conference were there to witness, review, and participate in the review of the initial installation for the respective element of work and agree that the level of quality being provided was acceptable. Any deficiencies were noted and then were tracked to be corrected, these items were the key components to be reviewed in the last step.

The third step was the recurring follow-up inspections that ensured that the installation of a specific element of work was continuing to meet the level of quality that was agreed to in the two prior steps. From these inspections, QC reports were generated to document compliance or non-compliance.

The CM also had an on-site Quality Manager to coordinate all QC/QA activities inclusive of the program noted above, daily and weekly inspections by the CM and inspections by third parties per the project specifications.

Section Three

OVERALL PROJECT SUCCESS

A key factor that contributed to the success of this project was the unyielding belief by the project team that all partners from the Owner, Architect, and CM would work together, maintain constant communication, look out for each other without placing blame and then collaborate to find solutions. The entire project team had a clear understanding of these core values.

Project Delivery Method

The selection of the Construction Management at Risk project delivery method was a key element of the project success. With this method, the contractor who was responsible for constructing the project was fully involved in the project from the design start through close out with the open book approach. This method allowed for maximum collaboration, information sharing and consideration of all perspectives. This method also allowed for the use of design assist with some of the major subcontractors and provided flexibility so that the construction of the early trade packages could proceed concurrently with the design of the balance of the building.

Team Selection

The selections of the A/E and Prime Contractor are the two most important decision an owner can make on a project. UMBC selected an outstanding architectural and engineering firm in Ballinger and an accomplished and excellent Construction Manager in The Whiting-Turner Contracting Company. In this selection, key personnel was a significant criteria and the project personnel from both firms were highly knowledgeable with the requisite expertise, project experience and proficiency with the CMAR method; all of which substantially contributed to the project success. An important note is that the AE and CM selections were conducted concurrently so both parties started the project together with the University.

Team Engagement

Each member of the A/E and CM teams was completely engaged in the project. The A/E had a solid understanding of the program and paid close attention to every detail; listening to what UMBC had to say and then implementing based on this guidance. During the design process, the University and the CM paid close attention to the information that the design team was including in the design documents. They made sure that all design elements were fully thought out, that there was sufficient detail to convey the clear intent of the design and confirmed that the design is what the University wanted for the project. This effort produced an excellent set of construction documents that allowed the trade partners to build the project that was envisioned. (During the CM's scope review meetings, many of the trade contractors commented on the quality of the construction documents.)

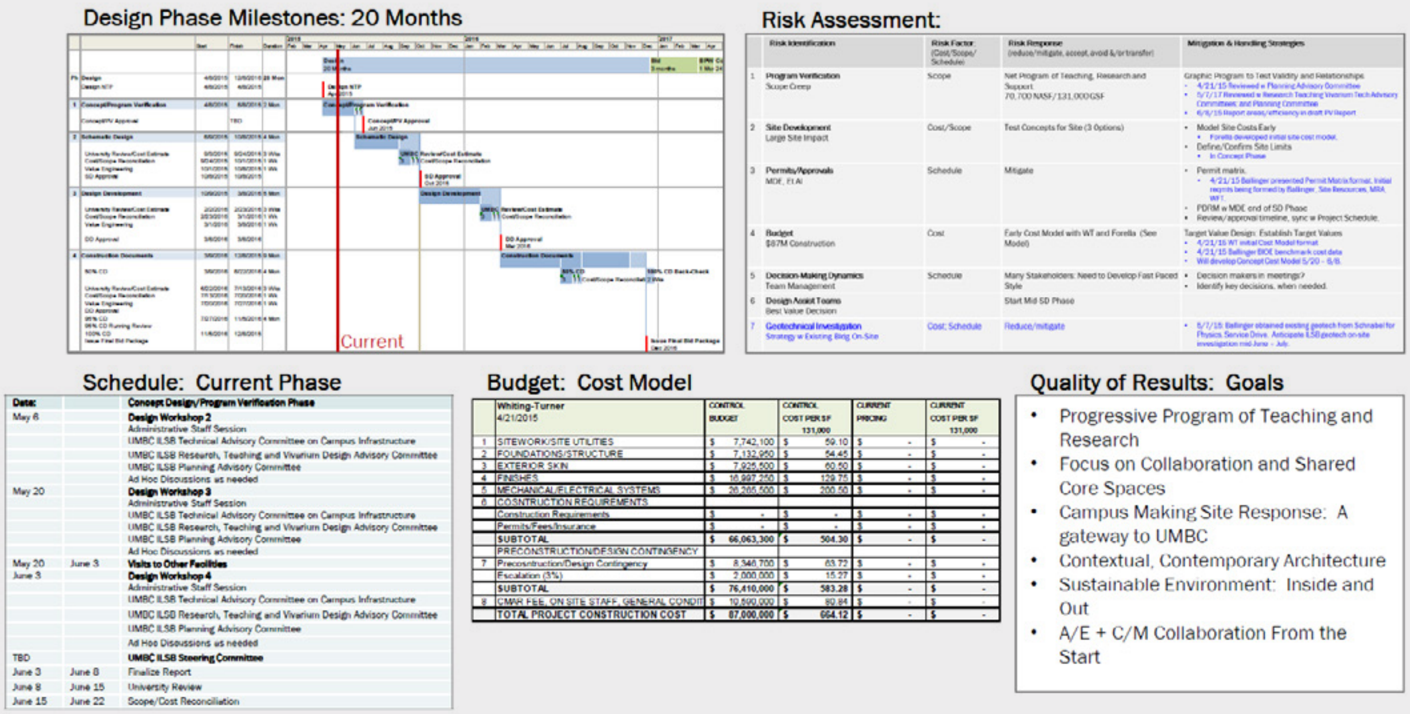
Team Tools

The University, A/E and CM implemented three (3) tools that enabled the team to be proactive and focused on the project.

The first was the University's Risk Assessment tool to identify potential risks during design and construction, the likelihood of each, the response (avoid, accept or mitigate) and the associated strategies. In advance of the design kick-off meeting, the project team was asked to complete this assessment. At the kick-off meeting, the risk assessment was fully discussed and completed for the design phase of the project. This risk assessment was also conducted prior to the start of the construction phase with the results incorporated into the document. This assessment document was reviewed and updated on a regular basis until all risks had either been mitigated or avoided.

The second tool was the designated Big Room during the design phase where all team members could work when on site, meetings could be conducted, and university faculty and staff could be engaged. Co-locating team members also maximized the collaboration, sharing of information and perspectives and issue resolutions.

The third tool was a project dashboard tool which was implemented throughout the design and construction of the project and reviewed on a monthly basis. This dashboard included the risk assessment items, a 2-month look ahead schedule, key issues, current schedule and status, and costs versus budget status.



Sample Monthly Design Process Dashboard

Decision-Making

The success of any project is tied to the ability of the team to make sound and timely decisions about all aspects of a project. On the ILSB, this belief was well imbedded in all the project partners throughout the duration of the project. Each team provided the necessary information and background that was required by the other team members to make decisions on a timely basis. When discussions were required to arrive at a decision, a session was scheduled with the appropriate parties, the item was fully discussed and evaluated with all pertinent information that allowed for a sound decision to be made. The University established an Owner decision-making structure to streamline the process and ensure decisions were made in a timely manner.

Subcontractor Selections / Management

The CM conducted a pre-qualification process specific to the ILSB project and maximized competition among trade contractors with the expertise and experience for the project. The CM did an outstanding job of developing the scopes of work for each trade, and conducting the scope review meetings. During the construction, the CM appropriately managed the trade contractors and took action when needed.

Section Four

PROJECT COMPLEXITY

The ILSB is a highly complex project in various ways including (a) multidisciplinary teaching labs, (b) flexible active classrooms, (c) interdisciplinary research labs with "surrogate" end users from a wide and diverse set of disciplines, (d) complex building systems and security requirements for the varied space types and (e) a 5+ acre site with the associated storm water management requirements and the extension of the campus underground utilities tunnel and relocation of a 12" water line that ran through the project site. All of these challenges were met while maintaining the project schedule and budget. Some specific examples are noted here.

Complexity Challenge 1

Ensure functionality for a wide range of disciplines but working with surrogate end users given the interdisciplinary nature of the building.

- **Constraint:** multiple schools / multiple departmental uses / diverse needs/ surrogate end users
- **Solution:** Create technical advisory committees with broad representative stakeholders to guide program input. Ensure inclusive decisions based on flexibility and long term adaptability.

Complexity Challenge 2

Keep the project on schedule and on budget.

- **Constraint:** The project needs to meet schedule for building occupancy in advance of the start of the fall 2019 semester. Complex technical requirements increase the chances of construction delays and change orders.
- **Solution:** UMBC created a highly orchestrated process including full day workshops with multiple stakeholder meetings that included the construction manager's participation through the entire design process. A big room was created for these meetings and for project work to occur. Through their knowledge of the project the CMAR was able to deliver several milestone estimates, each of which tracked close to budget thus avoiding value engineering rework. The CM's preconstruction services also included design assist for key trades including electrical, mechanical and building skin. This investment enabled the CM's construction team to deliver the project without cost overages or rework.

Complexity Challenge 3

Ensure energy efficiency in a building where most of the spaces use 100% outside fresh air and recirculation is not a safe practice.

- **Constraint:** Eliminate any possible contamination between research labs and scientific core labs. Ensure redundant and full back up power to all essential systems.
- **Solution:** Separate ventilation from heating and cooling using neutral temperature DOAS (dedicated outdoor air supply) air handlers with dual energy wheels to recover heat and humidity from outgoing airstream to minimize the need to condition incoming air. Use chilled beams for cooling and perimeter fin tube radiation for heating. Create entirely separate air supply systems for different portions of the building each with redundant capacity and fully backed up on emergency power. Engaging subcontractors in design assist roles helped ensure these complex systems were both estimated and constructed properly.

Section Five

SUSTAINABILITY ELEMENTS / EFFORTS

The ILSB is a high performance teaching and laboratory building designed to optimize energy efficiency, indoor air quality and ease of maintenance. Overall energy use predicted by IESVE modelling is reduced by 40.6% compared to the ASHRAE 90.1-2007 baseline and 57% compared to the AIA 2030 baseline. The project is included in current AIA 2030 reporting.

The high efficiency HVAC system was modeled against a traditional VAV system and the first cost premium at current energy rates yielded an attractive 2.5 year payback. The analysis also showed a reduction of 1,255 metric tons of carbon dioxide emissions per year, or 33% less, than a comparable all-air VAV system.

Sustainability strategies include those noted below. The building anticipates LEED Silver Certification.

- DOAS air handlers using dual-wheel enthalpy and sensible recovery wheels to deliver neutral temperature dehumidified ventilation air with "100% once through" air supply.
- Active chilled beams and perimeter radiators for heating and cooling
- Elimination of reheat coils in ventilation air systems.
- "Air Share" plenum recovering exhaust/return air from classrooms for use as makeup air in laboratories, thus lowering overall air use. This innovative approach leveraged the program adjacencies to reduce overall airflow volume requirements by 4,000 cfm
- Central campus supplied high efficiency chilled and hot water serving building systems.
- High efficiency lighting with daylight harvesting using occupancy sensor controls.
- High performance chemical fume hoods commissioned at reduced air velocities.
- Carbon dioxide level sensors varying airflow to teaching classrooms.
- High performing envelope with minimal east and south glazing to reduce solar heat gain. East and West facing glazing uses frit and exterior sun shades to reduce overall solar exposure.
- Half of office area electric plugs are tied with lighting to occupancy sensors.
- Commissioning of building envelope and systems to ensure design performance.
- Green roof area reducing storm water runoff.

Green Roof

- Pervious site paving and bioswales throughout the landscape to capture both site and building storm water runoff. Native plantings used throughout the site.
- No new vehicle parking associated with the project. Site area dedicated to vehicular traffic was reduced overall, while the pedestrian campus core has been expanded by pushing vehicles further from the campus center.

Section Six

CONFLICT RESOLUTION

From the onset, the University created a healthy team environment and developed strong working relationships with its AE and CM partners which minimized conflicts.

- The monthly Team Health Survey provided an anonymous gauge of all team members' perception of the project environment and how the project was going. The full results of these surveys were shared among the team and any identified issues were openly discussed and addressed. A comparison of all survey results were also included to identify any rating changes that required discussions. Team members felt comfortable in questioning items in the survey. For example, the submittal process was raised as a concern. As a result, all parties worked together to set achievable parameters and incorporate changes to make the process more efficient.
- The University is an advocate of the approach to bring all parties involved in a conflict together to review, discuss and find an acceptable solution to the issue.
- Despite this being a $96M+ complex project, the University had no disputes or claims on this project.

Section Seven

CUSTOMER SATISFACTION

Attachment A

Letter from the Design Professional

BALLINGER

833 CHESTNUT ST
SUITE 1400
PHILADELPHIA, PA 19107

T 215 446 0900
F 215 446 0901
BALLINGER.COM

JULY 16, 2020

COAA PROJECT LEADERSHIP AWARDS NOMINATION COMMITTEE

Dear COAA Awards Committee,

It has been my privilege to work with UMBC as design principal for the Interdisciplinary Life Sciences Building. As an institution, UMBC brought many qualities to ensure the success of this endeavor. These include an aspiration for quality, expertise in the technical requirements for science buildings and thoughtfulness about the impact the new project would have on the campus community. Beyond these important attributes, the two most significant characteristics they fostered were clarity in the organization and management of the design and construction process and a determination to ensure an inclusive process that solicited input from the broadest range of stakeholders. These qualities reflect the long term strategic vision and stewardship of UMBC and are at the heart of this recommendation.

This project was an ambitious venture. It included space for general education requiring easy public access, secure research space with limited and controlled access, and highly secure scientific core labs with special equipment and security needs. Each of these primary space types required input from a very different set of campus stakeholders, requiring the client to organize to ensure that diverse needs were met in the final design. UMBC created a hierarchy of committee groups – Technical Advisory Committees – that ensured the right input was sought across campus for each of the primary space types. These committees fed their input to a Planning Advisory Committee to integrate the diverse requirements into a unified whole, and then fed their recommendations up to the Steering Committee to ensure the leadership was presented a well-founded basis for review and approval throughout the design process. This organizational pyramid worked successfully through the entire project and allowed the discussion of diverse ideas and viewpoints at each level, while maintaining forward momentum.

This same organizational model also ensured that the process was open to broad input from stakeholders throughout the university. At every opportunity, UMBC opened the process to feedback and input to ensure the final design is a real reflection of their culture and community. This included town hall style presentations for community information and feedback, as well as detailed functional discussions with scientists about technical requirements for their work. Through clear leadership and organization, the design process was open and engaging, furthering the sense of community and shared purpose on campus.

This was an exemplary process that has led to a flagship building for the sciences on the UMBC campus. We are proud to have supported UMBC through this project and sincerely endorse their recognition for leadership in delivering the ILSB as a wonderful addition to their campus.

Sincerely,

Steve Bartlett
DESIGN PRINCIPAL

Ballinger

Attachment B

Letter from the Construction Professional

W. C. WHITING
(1883-1974)

WILLARD HACKERMAN
(1918-2014)

TIMOTHY J. REGAN
PRESIDENT AND CEO

FOUNDED 1909

THE WHITING-TURNER CONTRACTING COMPANY

ENGINEERS AND CONTRACTORS

CONSTRUCTION MANAGEMENT
GENERAL CONTRACTING
DESIGN-BUILD
SPECIALTY CONTRACTING
PRECONSTRUCTION
BUILDING INFORMATION MODELING
INTEGRATED PROJECT DELIVERY

300 EAST JOPPA ROAD
BALTIMORE, MARYLAND 21286
410-821-1100

INSTITUTIONAL
COMMERCIAL
CORPORATE
TECHNOLOGY
INDUSTRIAL/PROCESS
INFRASTRUCTURE
SUSTAINABILITY

July 15, 2020

COAA Project Leadership Award Nomination Committee

Dear COAA Awards Committee,

As the CMAR Senior Project Manager for the UMBC ILSB project, it is my pleasure to provide this letter of recommendation for the COAA Project Leadership Award to the nomination committee.

Whiting-Turner joined the team at the beginning of the preconstruction process of developing the design for the project. It was my observation throughout this process that the UMBC team was fully engaged in the effort, asked informed and thoughtful questions and provided guidance on the direction of the design while keeping in mind the program and purpose of the ILSB for all stakeholders.

As the project moved into the physical construction, the UMBC team continued to be fully engaged. I believe that there are several elements that the UMBC team brought to the table that aided in making the construction of the ILSB a success for all organizations involved. They implemented a monthly project team "health check" to maintain a pulse on the entire project team to ensure everyone was working cohesively while maintaining open communication. They required that the Whiting-Turner and Ballinger teams develop and review a project "risk assessment log" on a regular basis throughout the course of the project, making sure all potential risks were recognized and addressed. Their commitment to quality as an owner was second to none. Their drive for a quality orientated project helped motivate the Whiting-Turner team. Their continued participation in the quality process throughout the course of the project ensured that all project partners remaining involved with a common goal of making quality one of the keystones of this project.

During construction when challenges arose, the UMBC Project Team was demanding, but fair, and were always willing to work with the Whiting-Turner team to find solutions that allowed for the construction to continue while addressing the campus' concerns.

In my 35 years working in the construction industry being involved in hundreds of projects, I would say that the ILSB project team was one of the best teams that I have had the pleasure working with and I believe that a strong reason for the success of this project is a direct result the UMBC's continuous engagement, commitment and leadership provided throughout the project.

Very truly yours,

THE WHITING-TURNER CONTRACTING COMPANY

Charles (Chuck) KonKolics
Vice President

WWW.WHITING-TURNER.COM

OFFICES NATIONWIDE

Attachment C

Letter from the End User

COLLEGE OF NATURAL & MATHEMATICAL SCIENCES
University of Maryland, Baltimore County
116 University Center
1000 Hilltop Circle, Baltimore, MD 21250

p: 410-455-5827 // f: 410-455-5831
tty: 410-455-3233 TTY
cnms.umbc.edu // cnms@umbc.edu

July 10, 2020

The COAA Project Leadership Award
Nomination Committee

Dear COAA Awards Committee,

It is with great pleasure that I send this letter of recommendation for the COAA Project Leadership award for the Interdisciplinary Life Sciences Building (ILSB) at the University of Maryland, Baltimore County (UMBC).

As Dean of the College of Natural & Mathematical Sciences at UMBC and chair of the Project's Planning Advisory Committee, I was intimately involved in this project. My participation began with the selection of the AE and CMAR firms through the design, construction and occupancy of the building.

This building was the first "interdisciplinary" building on our campus so there were no designated end users; rather we had "surrogate" end users from a wide range of disciplines from biology, chemistry, engineering, and environmental sciences. As a result, the complexity of the project was not limited to the building design and construction but also relative to the collaborative involvement with end users from a wide range of disciplines focused on interdisciplinary work.

The overall project management was excellent. The project team of the University, Architect/Engineer, and Construction Manager worked collaboratively to solve problems, instituted a quality management program specific to ILSB, achieved LEED Silver certification and completed the project under budget and on schedule to open for the fall 2019 semester.

This building is a "gem" on our campus – both with respect to the quality design and construction but also for its contributions to the education of our students and our research enterprise.

I applaud the commitment and dedication by the team members which were demonstrated on a daily basis on this project. I highly recommend them for this important award and appreciate your consideration.

Sincerely yours.

William R. LaCourse, Ph.D.
Dean and Professor of Chemistry

Appendix A

AFFIRMATION + RELEASE

Affirmation + Release

Nomination is submitted by
Lenn Caron

Company
University of Maryland, Baltimore County

Street Address
1000 Hilltop Circle

City, State/Province, Zip/Postal Code
Baltimore, MD 21250

Phone Number
410-455-3260

Email Address
lenn.caron@umbc.edu

In submitting this application, I affirm to the best of my knowledge, that the information contained herein is accurate and correct. I also agree to grant permission for COAA ® to use the nomination materials in their entirety (including photographs) for promotional purposes which may include, but not be limited to, the COAA® website and the Owners Perspective magazine.

8.17.20 / Associate Vice President, UMBC Facilities Management