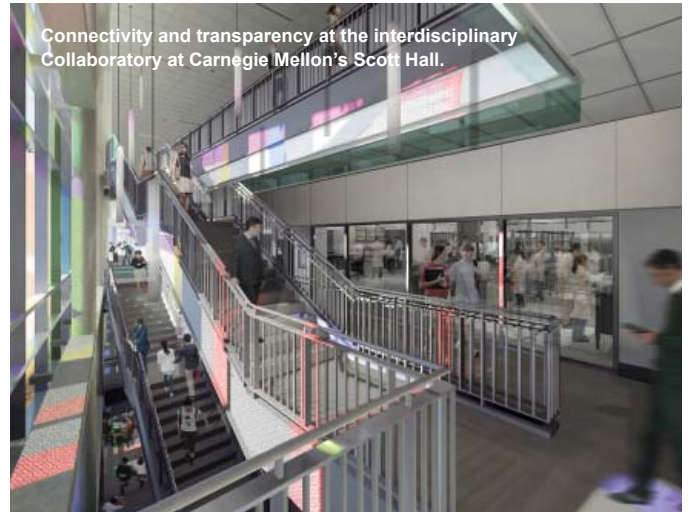


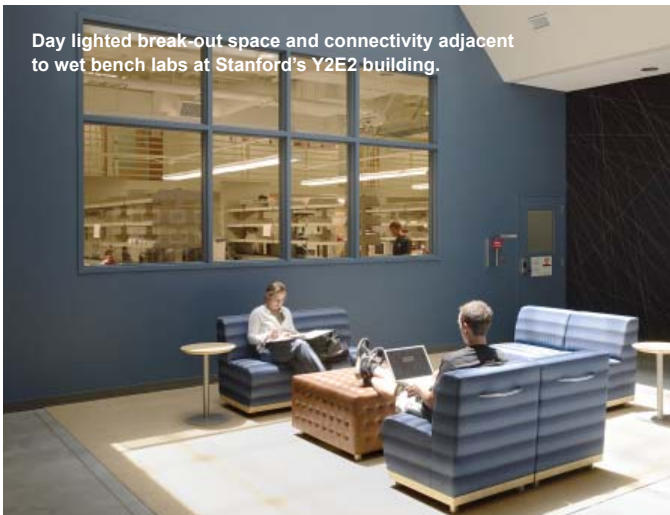
# University of Oregon

## Pacific Hall Basement and First Floor Laboratories A | E RFQ Response

October 21, 2015



Connectivity and transparency at the Interdisciplinary Collaboratory at Carnegie Mellon's Scott Hall.



Day lighted break-out space and connectivity adjacent to wet bench labs at Stanford's Y2E2 building.



**O F F I C E 5 2**

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October 21, 2015

Mr. Fred Tepfer  
Project Planning Manager  
Campus Planning, Design and Construction  
1295 Franklin Blvd., 1276 University of Oregon  
Eugene, OR. 97403

## **A | E Request for Qualifications - Pacific Hall Basement and First Floor Laboratories**

Dear Mr. Tepfer and Members of the Selection Committee,

I am very pleased to submit OFFICE 52 Architecture's qualifications for the renovation of portions of the basement and first floor of Pacific Hall for Human Physiology, Anthropology and Psychology at the University of Oregon.

Located in Portland, OFFICE 52 is an acknowledged leader in the planning, programming and design of innovative research environments that support scientific exploration and facilitate interdisciplinary collaboration. We believe strongly in the core mission of institutions like the University of Oregon to help prepare our future leaders and solve some of humanity's most complex challenges. We create the innovative, flexible and inspired spaces that help institutions like the University of Oregon meet their research and teaching goals.

Our relevant experience encompasses projects for some of the most highly regarded research universities in the country including The University of California, Stanford University, Carnegie Mellon University, Virginia Tech, The University of Texas at Austin and Oregon State University. At each of these institutions, we have successfully collaborated with faculty, staff, students, administrators and trustees to plan, program and design innovative buildings and spaces that create a strong sense of community, facilitate deep research and exploration, support new methodologies and curricula, and encourage collaboration across disciplines. We have worked on difficult sites to realize new construction, infill buildings and complex renovation projects, and our work as campus planners has given us a very keen appreciation for larger campus frameworks and patterns.

A sampling of our relevant experience includes my planning and design of Stanford University's award-winning Science and Engineering Quad and the design of three major interdisciplinary buildings on that quad while a Principal with Boora Architects. This includes the award-winning LEED Platinum Yang and Yamazaki Environment and Energy Building, a facility that brought together faculty and researchers from 26 different departments and all seven schools from across the university and redefined the planning, programming and design of space for interdisciplinary research at Stanford. The building houses an array of wet and dry labs, and since its completion in 2008, faculty and researchers working there have received prestigious awards and grants from the National Science Foundation (NSF), the Centers for Disease Control (CDC), The MacArthur Foundation and many others.

Currently, OFFICE 52 has been engaged at Carnegie Mellon University where we are completing construction of our 109,000 SF competition-winning design for Scott Hall, a transformational building for Nano-Bio-Energy Technologies that combines new construction, infill and renovation on an incredibly complex site encompassing parts of four adjacent buildings. Our design provides for a wide array of wet and dry labs and creates a vital interdisciplinary hub for the College of Engineering that embodies Carnegie Mellon's unique collaborative culture.

At the University of California, San Diego, OFFICE 52 has recently completed work to develop a program and conceptual design for a new 60,000 SF Innovation and Academic Learning Center. Our design integrates a hub for craft and making with new centers for excellence in teaching and learning in a highly flexible environment designed to respond efficiently and inexpensively to changing program needs over time.

Finally, at Carnegie Mellon, OFFICE 52 has been involved in a series of smaller renovation projects, similar in scope and program to your project at Pacific Hall. These projects have been in historic and mid-century modern buildings and deal with many of the same conditions and challenges to be faced in Pacific Hall. These projects include a range of program spaces and new models for collaborative work for the College of Engineering and the Department of Mathematical Sciences.

I firmly believe that we have the expertise and creativity to help the University of Oregon realize a unique, transformational and repeatable design solution for this portion of Pacific Hall; one that will support and facilitate the important work of these faculty while also cleverly working within the constraints of budget and existing building conditions. This is what we do.

Thank you for the opportunity to provide our qualifications for this important project. If you should have any questions regarding the information we have provided, please do not hesitate to contact me directly. We look forward to the next steps in your selection process.

Sincerely yours,

Isaac Campbell, AIA, NCARB



Principal  
OFFICE 52 Architecture  
Oregon License No. 5124

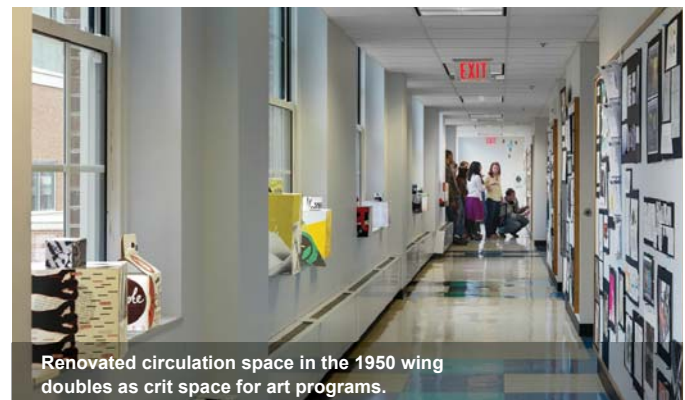
## QUESTION 1 - Overall design skill and ability for building re-use.

OFFICE 52, and its Principals, have demonstrated extensive experience developing innovative re-use strategies that 'breathe new life' into dysfunctional and under utilized campus buildings. We have created attractive and innovative learning and research environments that are a draw for students and faculty, and significantly improve the functionality, performance and efficiency of these structures for their occupants and institutions.

Presently, OFFICE 52 is working with the Department of Mathematical Sciences at Carnegie Mellon University to reinvent their space. Located on the 6th, 7th and 8th floors of Wean Hall, a classic 1970's brutalist concrete structure in the center of campus, the department seeks to create a more open, collaborative and interactive environment within the restrictive framework of this inflexible building. OFFICE 52's design strategy implements a modest budget to create more openness between program spaces and greater transparency from program areas into primary circulation spaces. Additionally, primary circulation spaces are being redesigned to create inviting break-out zones for students and faculty to interact and collaborate.



While a Principal at Boora Architects, Isaac Campbell of OFFICE 52 led the planning, programming and design of Virginia Tech's new Integrated Academic Arts Center and Theater 101 Building. This LEED Gold project encompasses new construction and the renovation of the under utilized Henderson Hall buildings from 1887, 1929 and 1950 to create a unified interdisciplinary and collaborative arts facility that combines programs from the School of the Visual Arts, the School of Performing Arts and Cinema, and the Department of Music. The existing buildings, last used as an old infirmary, were completely re-imagined into new collaborative studios for graphic design, lighting design, costume and set design, model fabrication and offices, and studios for Music. This challenging project was completed within a modest budget and achieved LEED Gold Certification from the USGBC in 2010, the first building on the Virginia Tech campus to be certified at this level.

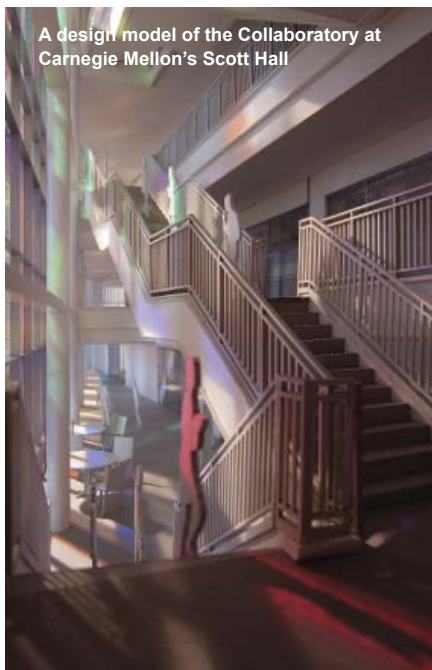


## QUESTION 2 - Demonstrated experience creating similar buildings, systems and spaces.

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We have planned, programmed and designed attractive and well scaled research environments at an array of institutions that have set new standards for performance, flexibility, functionality and efficiency. These have encompassed many different types of dry labs, computational labs and more traditional wet labs. We understand the processes, methodologies and cultures of scientific exploration and how to create environments that simultaneously support intensive individual work while also encouraging broad collaboration across disciplines and groups. We have created a strong sense of community and interaction among researchers through thoughtful placement of program elements and rigorous examination of program needs to determine which functions are better accommodated in 'shared' spaces versus more private 'owned' spaces. We understand the importance of spatial connections and use transparency to establish visual linkages and reveal activity within spaces to create interest 'on both sides of the glass.'

For Scott Hall, Carnegie Mellon University's new interdisciplinary Nano-Bio-Energy Technologies building, OFFICE 52 developed a unique Collaboratory space that was not in the university's original building program. This dramatic four-story space serves as a vertical connector between the lab floors of the building and invites the public to view the activity in the adjacent labs through floor to ceiling windows. More importantly however, the Collaboratory serves as a break-out space and 'discipline mixer' for all the departments and institutes in the building, and it establishes direct spatial connections to 3 neighboring buildings to create a regional hub that is a draw for hundreds of faculty, researchers, staff and students.



We are very skilled at assisting our clients to determine the best lean strategy or highest value point with regard to future flexibility. We have collaborated with many clients to develop infrastructure and systems strategies that maximize overall utility while minimizing the cost of future change. For Stanford University's new Science and Engineering Quad, we worked with the University and the research faculty to develop a simple yet rigorous strategy for infrastructure and systems distribution within the buildings. This approach allowed our team to program the lab spaces more generically and reduce the systems costs at the labs when they were actually 'built-out'. Since this strategy was planning for many decades of change, it also significantly reduced the systems costs when the labs were later renovated.

We also recognize that when working within the constraints of an existing building like Pacific Hall, a measured approach to the systems upgrades is sometimes required in order to develop a repeatable approach to phased upgrades across the larger building over time.

## QUESTION 3 - Demonstrated experience meeting similar design standards.

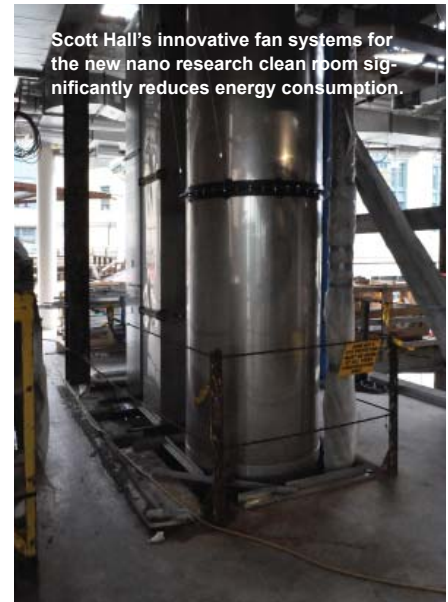
OFFICE 52 has led the planning, programming and design of numerous high performance buildings, including many systems intensive research laboratories, that have met similar or more stringent standards than the University of Oregon Model for Sustainable Development. These include multiple LEED Gold and Platinum certified buildings.



Completed in 2009, Virginia Tech's new Integrated Academic Arts Center was the first LEED Gold certified building on campus.

Virginia Tech's new Integrated Academic Arts Center and Theater 101 Building, a complex renovation and addition project, was the first building on the Virginia Tech campus to achieve LEED Gold certification. A carefully considered strategy for the re-use of the 1887, 1929 and 1950 portions of the building resulted in good alignment between the functional requirements of the program and the systems and infrastructure capacities of those structures. This limited the amount of new construction and expanded the amount of program that could be accommodated in the project, thereby increasing value for the University and the building users.

Our design for Scott Hall at Carnegie Mellon University, an intensive interdisciplinary research facility that includes numerous wet labs and a 10,000 SF class 10|100|1000 clean room for nano-scale research will achieve LEED Gold certification due to its high performance exterior enclosure, an innovative and highly efficient exhaust fan system, heat recovery, cascading systems, radiant heat and cooling systems and an extensive green roof among other features.



Scott Hall's innovative fan systems for the new nano research clean room significantly reduces energy consumption.

Stanford University's Yang and Yamazaki Environment and Energy Building (Y2E2), a mixed dry lab and wet lab building, achieved a 46% reduction in energy consumption below California code and a 90% reduction in potable water consumption in the building's non-lab areas to achieve LEED Platinum certification. The building employs many strategies to achieve this performance, including radiant heating and cooling, active chilled beams, natural ventilation, night flushing, extensive day lighting and an adaptive comfort policy that was carefully crafted with building occupants. A building wide cost-benefit analysis showed that the University's return on investment for these systems was less than 5 years for a building designed for 75 to 100 years.



Y2E2's atria create interdisciplinary centers and facilitate the building's LEED Platinum performance.



Skylights and building actuated louvers top each of Y2E2's atria.

## QUESTION 4 - Demonstrated experience with similar processes expected in Pacific Hall.

### Process and Communication

All of our work arises from strong collaborative partnerships with our clients. From Stanford University, The University of California, San Diego and Carnegie Mellon, to Virginia Tech and Oregon State, we have proven ourselves skilled listeners, able to synthesize input from diverse user groups and work together to produce creative solutions to challenging design problems that gain wide support across broad constituencies.

At Stanford University's Yang and Yamazaki Environment and Energy Building, Isaac Campbell of OFFICE 52 led a team that brought together an incredibly diverse group of faculty and researchers from 26 different departments and all seven schools from across the University to work in a new collaborative paradigm for which there was no organizational or architectural precedent. At Carnegie Mellon's Scott Hall, we worked with 8 different user groups to create new collaborative program elements that embodied that institution's unique interdisciplinary culture. At Virginia Tech's new Integrated Arts Center and Theater 101 Building, we brought together building users from multiple schools and departments to create a new interdisciplinary center in a complex remodel and addition project.

In each of these cases, we have orchestrated a successful process in which the building users were actively engaged in all aspects of the programming, design and realization of their spaces. We are skilled facilitators and experienced presenters; well versed in building consensus and gaining approval among diverse groups. Each of these projects went through many public presentations including design review committees and presentations to senior administration, trustees and donors. For these, we used a broad range of media from written and graphic representation to video and physical presentation materials.



### The Importance of Integrated Teams - IPD Lite

Successful project management and delivery begins at the very outset of a project. In fact, the most impactful decisions with regard to scope, cost and functionality are generally made in the early stages of a project, but the full effect of these early decisions is not usually realized until construction. For these reasons, and more, we are strong advocates for integrated project teams. We know from our experience over many projects that an integrated team consisting of the Owner, the A|E Team and the CM|GC represents the best opportunity for the University to realize the highest value and best quality project. The University will find that we are skilled partners and active leaders in this process; well versed in its advantages and intricacies.

When well executed, this delivery method, sometimes referred to as Integrated Project Delivery (IPD) lite, helps to ensure that all the relevant participants in the realization of the building are consistently present throughout the process of its development and each has input into decisions that impact functionality, performance, construction, durability, budget, schedule and efficiency. In our experience, this gives the team's decision making process a much better foundation and reduces the risk of unintended consequences later.

## QUESTION 4 - Continued...



(Left) Stanford University's Yang and Yamazaki Building, (Center) the Spilker Engineering and Applied Sciences Building and (Right) the Huang Engineering Center were all delivered using an IPD Lite process.

### Project Management Approach

Our process for effective management on this project with regard to schedule, cost control, scope and constructability is proactive and will involve the following tools:

- Throughout the course of the project, we will conduct weekly or bi-weekly management and 'look-ahead' meetings to prioritize current tasks and manage critical path items, update management on progress and track overall progress on schedule, cost and completion.
- We typically employ a two sided cost control and verification process with the CM | GC and an independent cost estimator (either retained by the A | E team or the Owner) providing as needed cost input and full phase end reconciled cost estimates with the CM | GC.
- We will plan to develop scope alternates for pricing with the University to help provide greater flexibility and options during construction.
- We will work with the University and the CM | GC to create a project schedule that takes into account the significant involvement of project stakeholders, the University's project approval process, the academic calendar and constraints on construction and phasing (if needed). As part of the weekly or biweekly management meetings, we will track and update the overall schedule of the project.

### Project Phasing

OFFICE 52 has delivered many projects in multiple phases and we are skilled at developing strategies to minimize the impacts of construction to adjacent occupied spaces. At Carnegie Mellon's Scott Hall, we are building in the interstitial space between four existing research buildings. We have carefully orchestrated the construction phasing and impacts to infrastructure to reduce the impacts to the neighboring buildings and researchers. In addition, the University posts weekly updates on the project website to inform the community of the expected disturbance levels.



Phasing of the infill and renovation work at Carnegie Mellon's Scott Hall to accommodate other projects and researcher relocations.



## QUESTION 5 - Essay on collaborative research labs that are also affordable and flexible.

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Re-imagining portions of the basement and first floor of Pacific Hall on a budget will require an experienced and thoughtful hand. Recently, OFFICE 52 has been working on several renovations for Science and Engineering in historic and mid-century modern buildings at Carnegie Mellon University. For these projects, we have developed a 'less is more' approach that maximizes value for the university and the building occupants while also creating transformative change to accommodate new collaborative programs. This approach begins with a thorough investigation of the existing building conditions and systems to understand capacities and constraints, and an in depth programming phase with project stakeholders to understand project needs. We bring to these efforts a deep appreciation for the power of collaboration and an acknowledgement that there is value in saving buildings like Pacific Hall.

We know that no two projects and no two institutions are the same, but there are common threads that re-appear at major research universities. One is that innovation frequently springs from two sources; deep knowledge and expertise in a particular area or discipline combined with the intentional or serendipitous overlap with other disciplines and knowledge bases. This characteristic has already been identified for the Human Physiology, Anthropology and Psychology faculty that are relocating to Pacific Hall. Their colocation will only increase this capacity and open doors for collaboration with other colleagues and disciplines in Pacific Hall and the neighboring buildings. The planning of their new space must accommodate both the deep discipline focused exploration that is essential to this process while also fostering the interaction across disciplines that is often a catalyst for new approaches, increased discovery and innovation. Working collaboratively with the project stakeholders and faculty, OFFICE 52 will create an environment that facilitates this through thoughtful programmatic adjacencies, stronger spatial connections, greater transparency, and place making that fosters a sense of community and openness among researchers.

Re-balancing and increasing the percentage of 'shared or collaborative' space versus 'owned or single-user' space, even within the lab environments, will be a critical element in this puzzle. We have used this strategy successfully at both Carnegie Mellon and Stanford to increase shared space and to drive greater interaction between disciplines. This has resulted in better space utilization which has allowed us to either reduce the needed program space or increase researchers and flexibility. Less can be more.

The most effective, practical and cost effective design strategy for Pacific Hall is one that builds upon the building's inherent strengths. These include its relatively narrow footprint, its cast in place concrete structure, its repetitive design and its generous service chase space. Conceptually, we plan to use these strengths as the foundation for a transformational design approach that will create more contiguous and flexible space within the building's traditional 'program zones' on either side of the central corridor. More radically, and to the extent it is possible, we will seek to open the central corridor to the adjacent program zones, revealing the work taking place within the labs and offices, and thereby creating spatial and visual connections into the corridor and between the program zones. This will allow the central corridor to become a vital participant in the building's program, creating an active collaboration and break-out zone with increased daylight, niches and casual furniture for meetings, display space for posters and clear visual connection from one side of the building to the other. In many cases, we will be taking away more than we are adding.

Our approach to systems would be equally restrained. Pacific Hall has ample chase space for utilities and systems distribution. It will be important to determine early on which systems are where, what is fixed and what is flexible. We will seek to minimize and combine lab areas that require more intensive systems, more air changes and greater controls. The rest of the program area will be designed for typical office or dry lab use. We will develop a strategy for supply – probably overhead – for power, data and other systems that complement the building's inherent infrastructure and create flexibility within the program zones, thereby establishing a prototype for future renovations. We will factor in equipment loads and seek to de-couple the heating and cooling from the ventilation so as to significantly improve energy performance and comfort. We also will seek to use the most energy efficient and cost effective systems for lighting and daylight control.

All these strategies must be deployable in the portions of the building touched by this project without forcing costly upgrades across the entire building. In short, this project should result in a prototype for the long-term phased upgrade of the larger Pacific Hall. Finally, none of this will happen without successful collaboration and partnership between the University and its many stakeholders, the A|E Team and the CM|GC. The successful planning, programming, design, documentation and delivery of this project will require each of these important participants to be active and engaged from the outset of the project to its completion and close-out.

# OFFICE 52 - Firm Profile

OFFICE 52 Architecture is an award-winning full service design firm based in Portland, Oregon, led by Isaac Campbell and Michelle LaFoe. The firm's work encompasses new construction and renovation and ranges from urban and campus planning and larger-scale institutional buildings to adaptive re-use and smaller-scale infill, residential and installation projects. The firm has particular expertise and depth in the planning, programming and design of innovative buildings for higher education and high performance environments for teaching and research.

Within nine months of its founding in 2010, OFFICE 52 won a national design competition for Scott Hall, Carnegie Mellon University's new 109,000 SF interdisciplinary Nano-Bio-Energy Technologies Building. To win the project, the firm upset 16 other highly regarded and established design firms with a simple, highly innovative and 'outside the box' design approach that has become a hallmark of their work.

Since then, the firm has gone on to a major international competition for a large waterfront park in Copenhagen, Denmark; programming and design for a new Innovation and Academic Learning Center at the University of California, San Diego; a competition for a winter pavilion in Winnipeg, Canada; an Arts District Plan in Salt Lake City; and multiple smaller renovation projects at Carnegie Mellon University including redesign of the Department of Mathematical Sciences and the design of the new Porter Hall Interconnect.

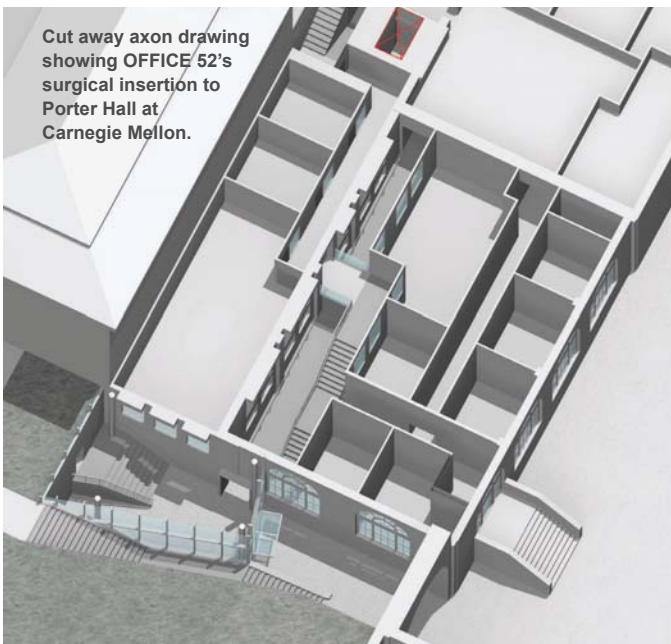
OFFICE 52 Architecture is an Oregon company and is certified as Emerging Small Business (ESB).



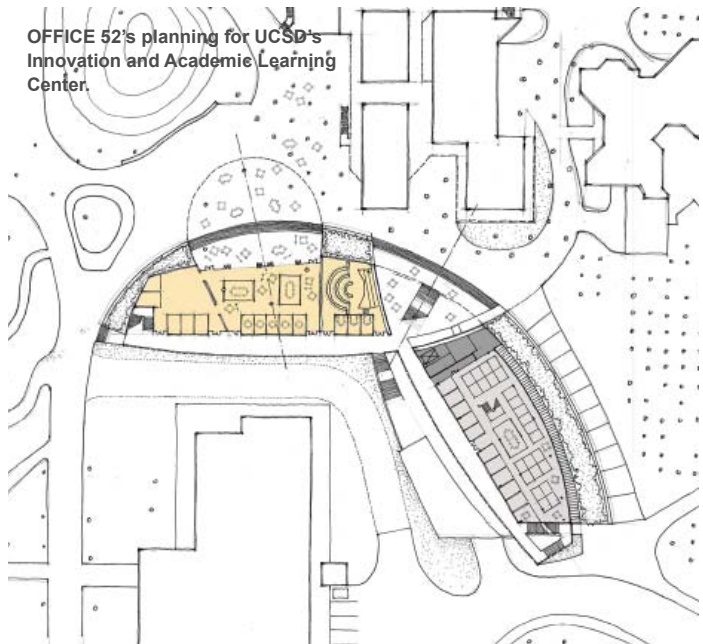
Windows into collaboration at Stanford University's Huang Engineering Center.



OFFICE 52's design for UCSD's new Innovation and Academic Learning Center.



Cut away axon drawing showing OFFICE 52's surgical insertion to Porter Hall at Carnegie Mellon.



OFFICE 52's planning for UCSD's Innovation and Academic Learning Center.



**Isaac Campbell, AIA NCARB**  
**Principal in Charge**

Isaac Campbell is a founding Principal of OFFICE 52 Architecture and will serve as the Principal in Charge for the Pacific Hall project. In this role, he will manage our team, lead the design and act as the primary point of contact for the University. Over his 25 year career, Isaac has planned, programmed and designed a wide array of innovative, highly sustainable and flexible campus buildings. These include major projects at Virginia Tech, Stanford University, Carnegie Mellon University, The University of California, The University of Texas, and Oregon State. Much of his work has focused on creating collaborative and interdisciplinary environments for teaching and research, encompassing a diverse mix of dry labs, wet labs, flexible classrooms, offices and meeting spaces of every type and size.

Most recently, Isaac has been leading OFFICE 52's projects at Carnegie Mellon University and The University of California, San Diego. His relevant experience also includes the planning of Stanford University's award-winning Science and Engineering Quad and the design of three major buildings around that quad. Prior to founding OFFICE 52 with his partner Michelle LaFoe, Isaac worked for a decade as a Principal and Project Designer with Boora Architects in Portland. Prior to that, he worked for a decade in the office of AIA Gold Medallist, Cesar Pelli in New Haven, CT. Isaac is licensed to practice Architecture in Oregon, New York, Pennsylvania, Michigan and California (pending).



**Michelle LaFoe, AIA**  
**Principal**

Michelle LaFoe is a founding Principal of OFFICE 52 Architecture. With degrees in Architecture, Fine Art, Architectural History and Theory and a keen interest in materials technology, Michelle is an 'outside the box' thinker and leads most of the firm's design research. Over her 25 year career, Michelle has designed a wide range of award-winning institutional and residential projects. Most recently, Michelle led the design research that formed the basis for the firm's approach for UCSD's new Innovation and Academic Learning Center. Michelle is also the collaborating designer on Carnegie Mellon's Scott Hall where her research into the science planned for the building profoundly shaped its design. Prior to founding OFFICE 52 with her partner Isaac Campbell, Michelle ran her own design and research practice. Prior to that, she worked in the office of AIA Gold Medallist, Cesar Pelli and Centerbrook Architects in Connecticut.



**Shaun Selberg**  
**Associate**

Shaun Selberg is an Associate with OFFICE 52 Architecture. A graduate of Syracuse University, Shaun is responsible for both technical production and computer visualization within the firm. Shaun's relevant experience includes his work on Carnegie Mellon's Scott Hall, UCSD's Innovation and Academic Learning Center, the Porter Hall Interconnect at Carnegie Mellon, and the Redesign of the Department of Mathematical Sciences at Carnegie Mellon. Prior to joining OFFICE 52, Shaun worked for HDR Architecture.

## RELEVANT PROJECTS - Sherman and Joyce Bowie Scott Hall, Carnegie Mellon University

**Project Size:** 109,000 GSF

**Construction Budget:** \$72 mil.

**Completion:** February 2016

**Location:** Pittsburgh, PA.

**Completed on schedule and budget**

**Sustainability:** On track for LEED Gold certification

**Personnel:** Isaac Campbell, Principal in Charge | Michelle LaFoe, Principal | Shaun Selberg, Associate

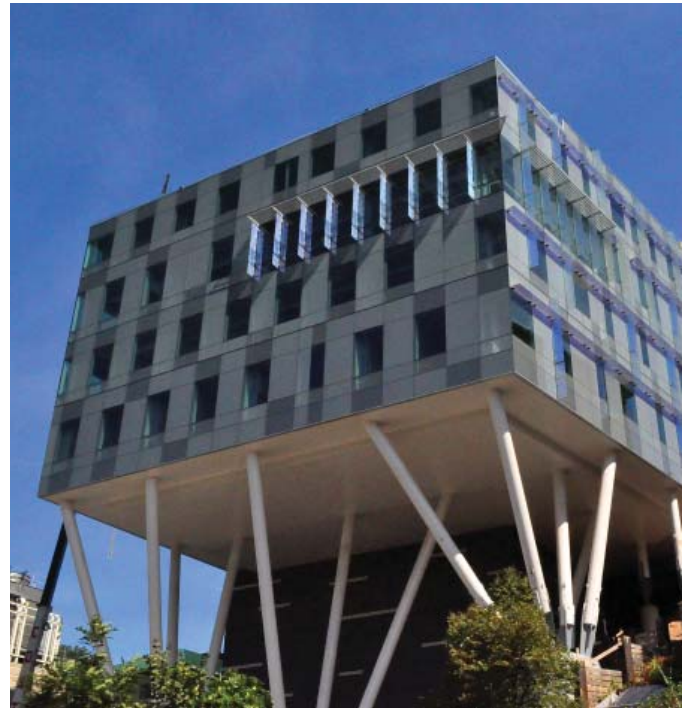
**Client Contact:** Mr. Ralph Horgan, AVP, Campus Design | (412) 268-7280 | rh44@andrew.cmu.edu

Dr. Gary Fedder, Professor and AVP Research | (412)-268-8443 | fedder@cmu.edu

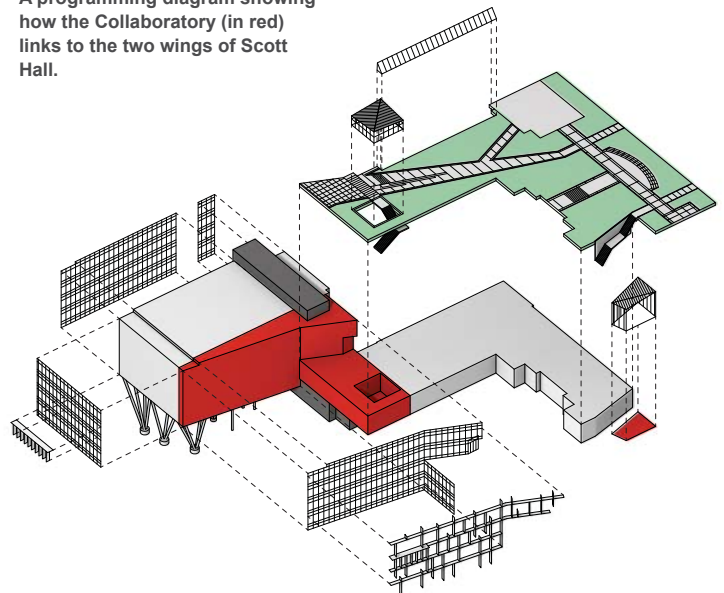
OFFICE 52 was selected over 16 other firms in an invited national design competition for the commission to design Scott Hall, Carnegie Mellon University's new Nano-Bio-Energy Technologies Building. Located on an extremely challenging and interstitial parcel at the west end of the Hornbostel Mall, the site for Scott Hall is defined by four adjacent buildings and drops 100 feet into a neighboring ravine. The project encompasses new construction, infill and renovation. OFFICE 52's innovative design broke with the University's proposed planning approach (the only competitor to do this) and completely reinvented how the building and its demanding collaborative research program could be placed on the site. The resulting design allowed the University to realize more program with greater efficiency, improved functionality and performance, at reduced cost per square foot and significantly improved building connectivity.

Scott Hall houses a diverse mix of wet and dry labs. These include a 10,000 SF class 10|100|1000 clean room for nano-scale research, the University's Department of Biomedical Engineering, a new Institute for Energy Innovation, a new Institute for Disruptive Health Technologies and the Institute for Complex Engineered Systems. At the center of the building is a flexible and technology rich Collaboratory. Conceived by OFFICE 52 during the programming of the building, this shared space connects all four levels of the building and functions as a crossroads, a connector, a break-out space and a collaborative work place for students, faculty, researchers, staff and visitors. From the Collaboratory, circulation flows link to all four adjacent buildings on seven different floor levels and create a much needed interdisciplinary hub for the College of Engineering.

Scott Hall is both iconic and transformative, and validates the University's belief that building in close proximity to other researchers and related programs was worth the cost incurred by a more challenging infill site.

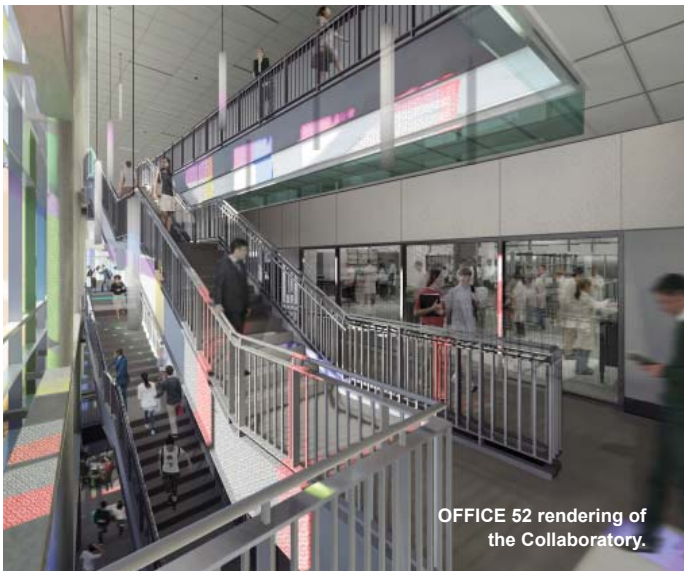


A programming diagram showing how the Collaboratory (in red) links to the two wings of Scott Hall.





Construction of the infill and renovation portion of the project.



OFFICE 52 rendering of the Collaboratory.



OFFICE 52 rendering of the Collaboratory.



View of the nearly complete building from the Carnegie Museum of Art.

## RELEVANT PROJECTS - Integrated Arts Center and Theater 101 Building, Virginia Tech

**Project Size:** 35,400 GSF

**Construction Budget:** \$18.4 mil.

**Completion:** 2009

**Location:** Blacksburg, VA.

**Completed on schedule and budget**

**Sustainability:** LEED Gold certification

**Personnel:** Isaac Campbell of OFFICE 52, Principal and Project Designer at Boora Architects

**Contact:** Mr. John Bush, Architect Senior, Campus Design | (540) 231-2933 | Bushj@vt.edu

Following the completion of a new Arts Precinct that would gather the arts in a cohesive district at the front of the campus, the University began a focused effort to re-think its arts programs and develop greater cross-disciplinary links that leverage the University's strengths in technology and innovation. Virginia Tech's new Integrated Arts Center anchors the southeast corner of the University's new Arts Precinct. The 35,400 square-foot facility combines the careful and efficient renovation of the existing Henderson Hall buildings from 1887, 1929 and 1950 with the new Theater 101 Building to coalesce previously dispersed programs for the School of Visual Arts and the School of Performing Arts and Cinema into a new interdisciplinary center with strong connections to Blacksburg's neighboring downtown.

The new center provides flexible high tech spaces for performance and rehearsal, spaces for exhibits, studios for the fine arts, labs for graphic design and digital fabrication, a costume shop, a lighting lab, and a scene and design model shop. It also includes practice facilities and faculty space for music, facilities for art history, seminar spaces and classrooms. The new Theater 101 Building is carefully designed and positioned to reorient the entire arts center and create a prominent address along College Avenue facing downtown Blacksburg. The building's steps and lobby engage the street and provide a venue for exhibits and impromptu performances. The new building also thoughtfully nestles into the 'L' shaped plan of the existing renovated Henderson Hall buildings to create an 'arts' courtyard with strong connections between indoor and outdoor performance spaces. The landscape planning for the center also reinforces the western edge of a large open space that serves as a 'village green' adjacent to downtown.



Historic photo of the oldest portions of Henderson Hall.

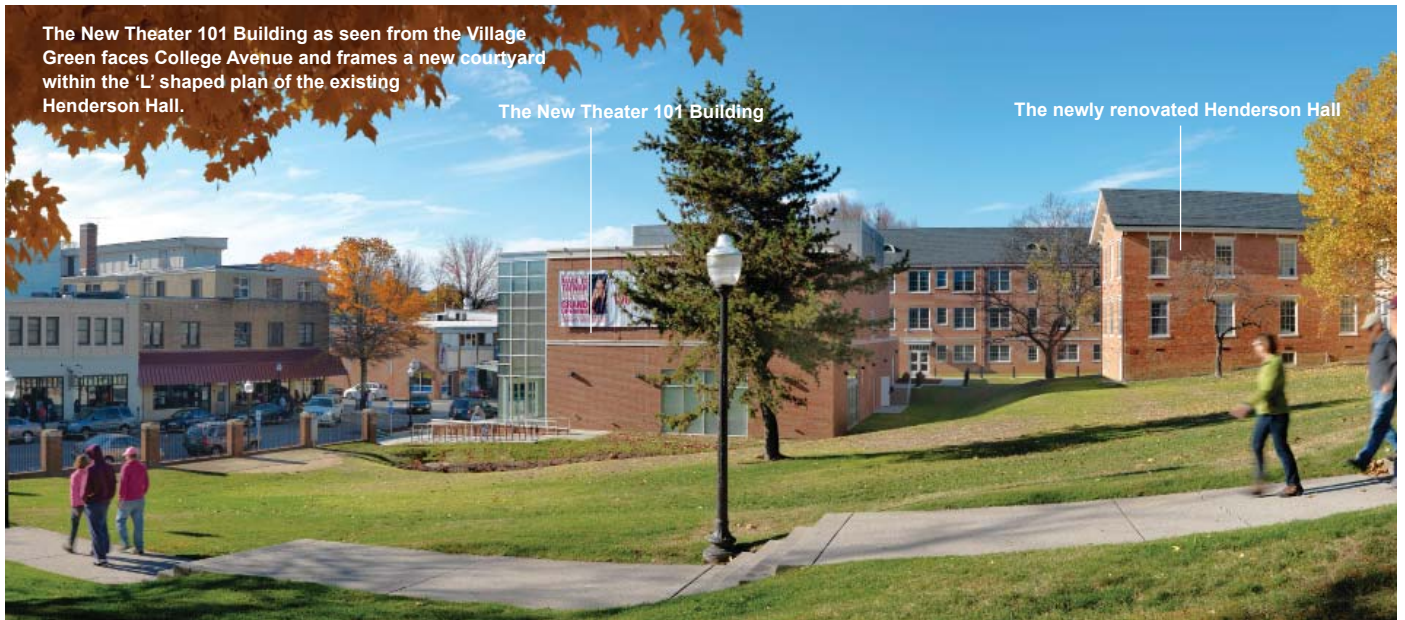


Programming session with faculty users for the new interdisciplinary arts center.



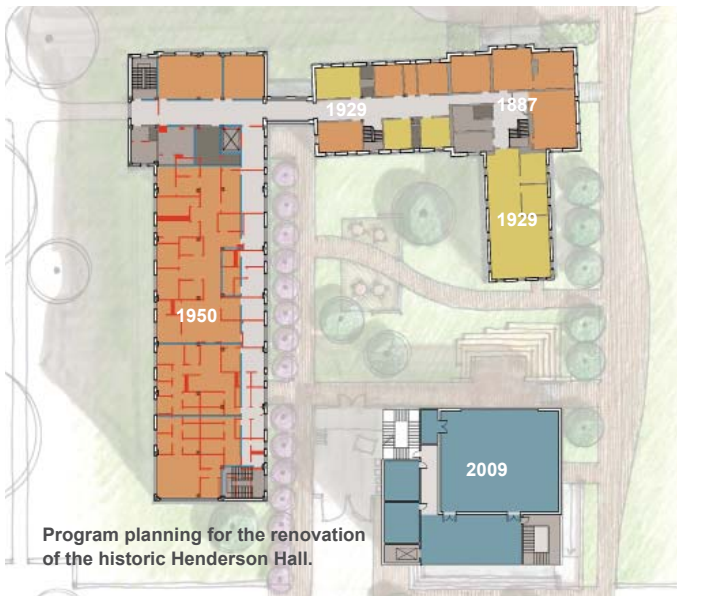
New Lighting Design Lab in the renovated 1950 wing of Henderson Hall.

The New Theater 101 Building as seen from the Village Green faces College Avenue and frames a new courtyard within the 'L' shaped plan of the existing Henderson Hall.

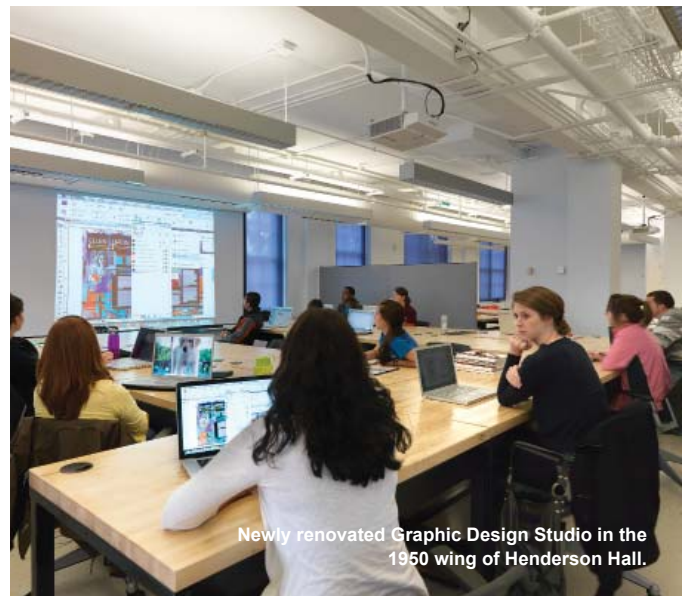


The New Theater 101 Building

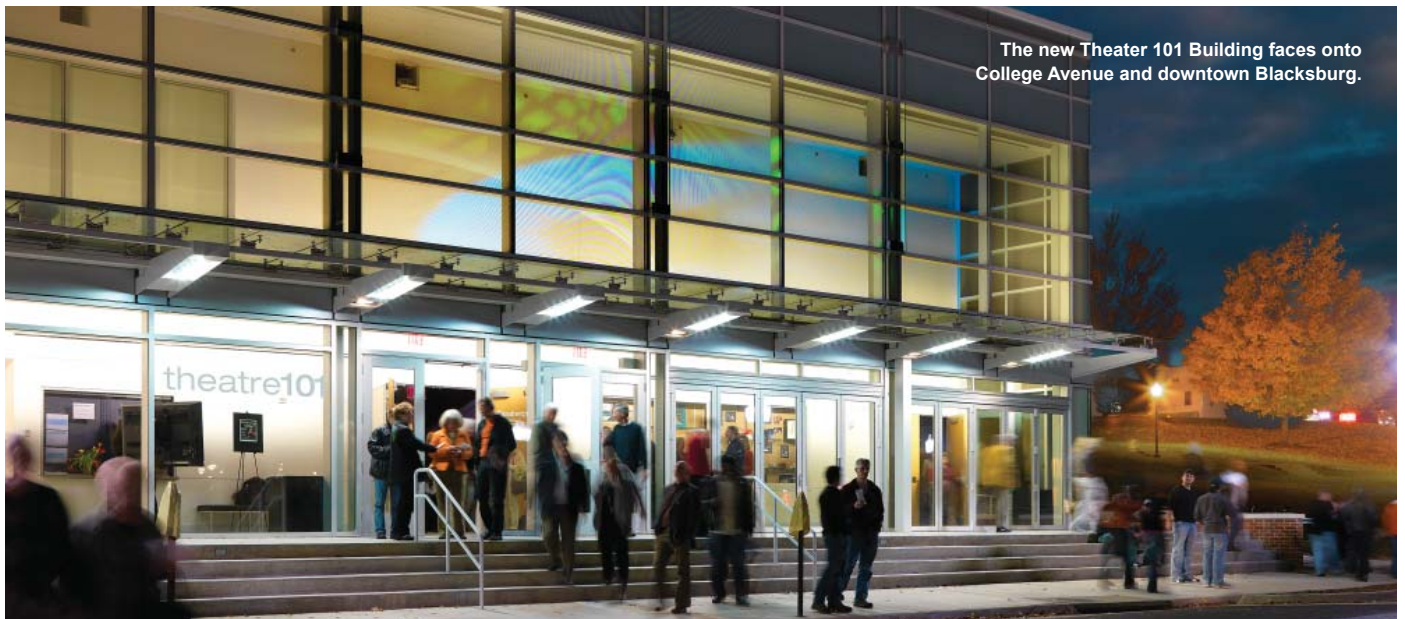
The newly renovated Henderson Hall



Program planning for the renovation of the historic Henderson Hall.



Newly renovated Graphic Design Studio in the 1950 wing of Henderson Hall.



The new Theater 101 Building faces onto College Avenue and downtown Blacksburg.

# RELEVANT PROJECTS - Department of Mathematical Sciences, Carnegie Mellon University

**Project Size:** 6,000 GSF

**Construction Budget:** \$750,000 - Phase 1

**Est. Completion:** 2016

**Location:** Pittsburgh, PA.

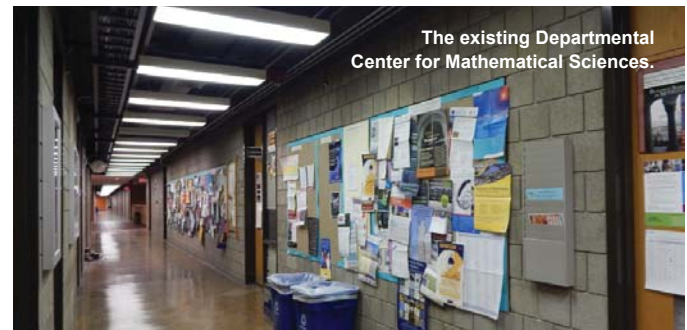
**Currently in Design and Fundraising**

**Sustainability Certification:** N|A

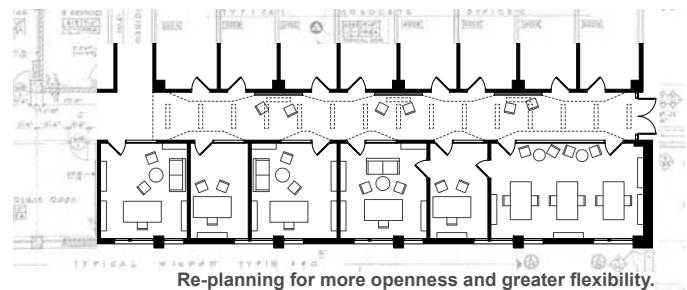
**Personnel:** Isaac Campbell, Principal in Charge | Shaun Selberg, Associate

**Contact:** Mr. Max Dorosa | Project Manager | (412) 268-8936 | maxd@andrew.cmu.edu

OFFICE 52 is working with the Department of Mathematical Sciences at Carnegie Mellon University of re-imagine their space. Located on the 6th, 7th and 8th floors of Wean Hall, a classic 1970's brutalist concrete structure in the center of campus, the department seeks to create a more open, collaborative and interactive environment within the restrictive framework of this inflexible building. Like Pacific Hall at the University of Oregon, the demising walls between program space and circulation spaces in Wean Hall are constructed of concrete block. Working within a limited budget, OFFICE 52's design strategy creates a phased approach to bring greater connection between program spaces and greater transparency from program areas into primary circulation spaces by opening many of these walls. Additionally, primary circulation spaces are being redesigned to create inviting and collaborative break-out zones for students and faculty.



The existing Departmental Center for Mathematical Sciences.



Re-planning for more openness and greater flexibility.



Rendering of the new Departmental Center with greater openness, connectivity interaction and identity.



# RELEVANT PROJECTS - Porter Hall Interconnect, Carnegie Mellon University

**Project Size:** 3,500 GSF

**Construction Budget:** \$2.2 mil.

**Est. Completion:** 2016

**Location:** Pittsburgh, PA.

**Currently in Design and Fundraising**

**Sustainability Certification:** N|A

**Personnel:** Isaac Campbell, Principal in Charge | Shaun Selberg, Associate

**Contact:** Mr. Max Dorosa | Project Manager | (412) 268-8936 | maxd@andrew.cmu.edu

This surgical renovation creates a new entry and connections to the existing Porter Hall (1910) and the new adjacent Scott Hall (designed by OFFICE 52). A new glass entry is constructed in a re-imagined service court between the two buildings and a grand exterior stair adjacent to the pavilion transitions up to the Hornbostel Mall, one of the main outdoor spaces on campus. Inside, the triangular day lighted pavilion creates a new signature entry for both buildings.

From the pavilion, a surgical two-story cut is made into Porter Hall, linking this important new entry up through two levels of the building. Carefully placed along a structural wall of the historic building and threaded between existing utility routes, the new passage provides generous

skylights that bring natural light down into previously landlocked spaces. Old windows in the historic exterior wall of Porter Hall are re-opened into adjacent spaces on two levels to create visual connections and allow for the borrowing of daylight from the new skylights above. Program spaces adjacent to the cut include a new flexible student lounge for civil engineering graduate students, dry labs for computational research and graduate student office space.



The new sky lighted two story cut through Porter Hall.



Surgical demolition at the face of Porter Hall.



The new entry pavilion and grand stair up to the Hornbostel Mall.

## RELEVANT PROJECTS - Yang and Yamazaki Environment and Energy, Stanford University

**Project Size:** 166,500 GSF

**Construction Budget:** \$72 mil.

**Completion:** 2008

**Location:** Stanford, CA.

**Completed on schedule and budget**

**Sustainability:** LEED Platinum EB certification, Net zero energy with off-sets

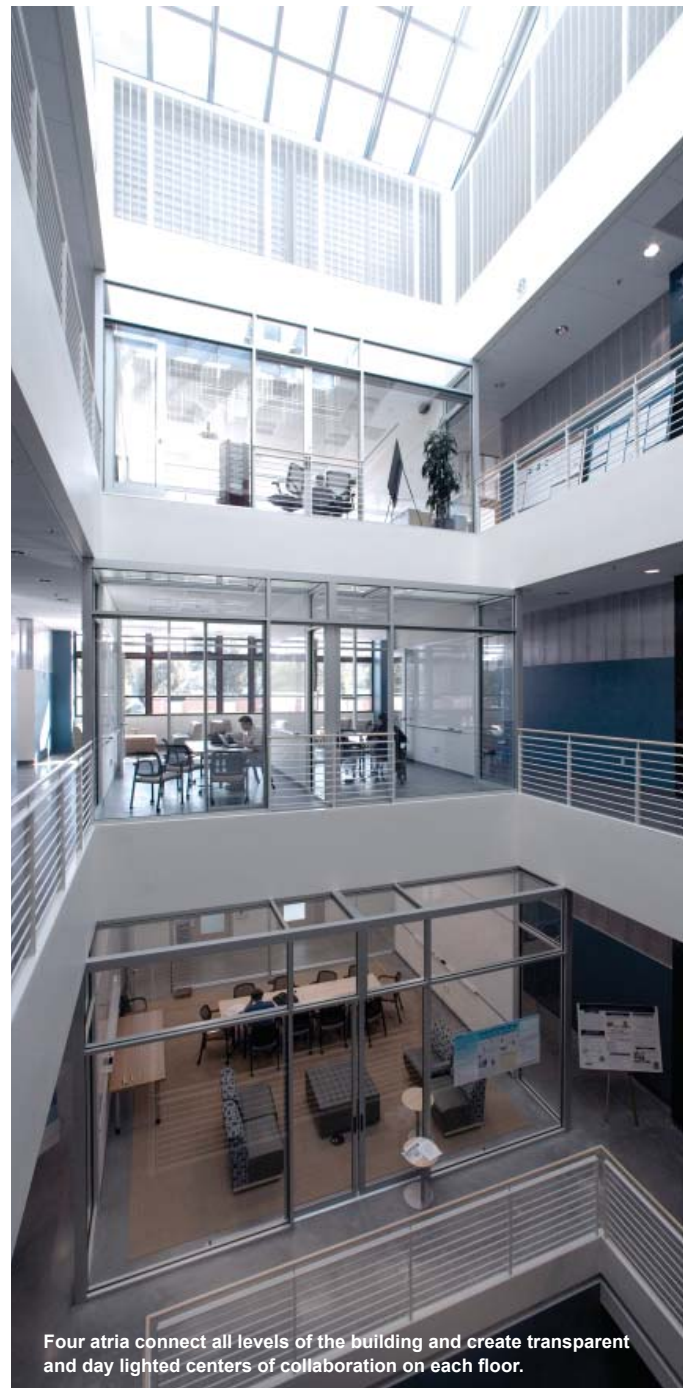
**Personnel:** Isaac Campbell of OFFICE 52, Principal and Project Designer at Boora Architects

**Contact:** Mr. Jeff Koseff, Professor of CEE | (650) 736-2363 | koseff@stanford.edu

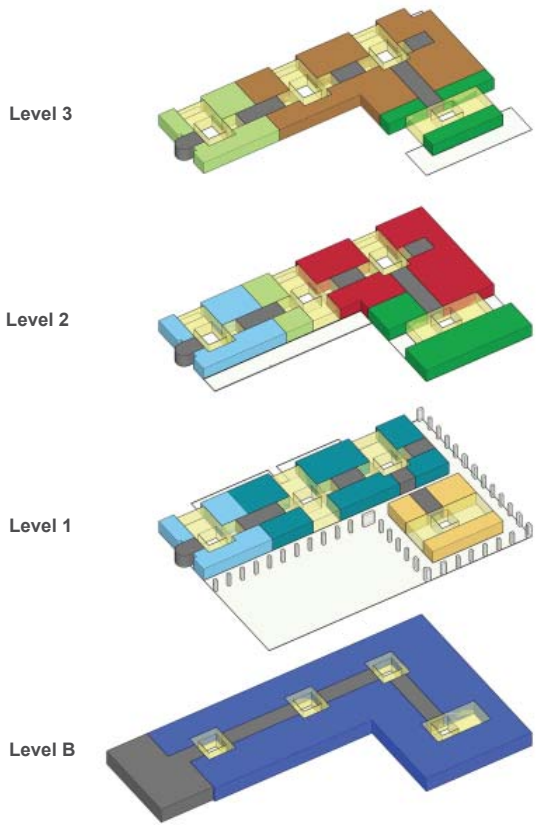
The 166,550 square foot LEED Platinum Yang and Yamazaki Environment and Energy Building (Y2E2) is the first of four new interdisciplinary buildings to be constructed around Stanford's new Science and Engineering Quad. Imagined as a nexus for faculty, researchers and students exploring solutions to some of the most vexing environmental issues of our time, the building is designed around non-departmental centric Focal Areas that combine expertise in engineering, the sciences, the humanities and policy. This programmatic concept drove the building's design, which is organized around a series of four atria that connect all four levels of the building. Each atrium is surrounded by shared and collaborative program elements with high levels of transparency to create hot-spots of multidisciplinary interaction horizontally and vertically within the building. The resulting design facilitates a new organizational paradigm on campus that supports innovative methodologies and allows individuals to work collaboratively and more effectively across disciplines.

Y2E2 houses a large number of dry and computational labs for sensing, classrooms, offices, studios and meeting spaces. Additionally, the lowest level of the building houses a variety of wet bench labs for Environmental Engineering, Conservation Biology, Bioengineering, Structural Analysis and the Environmental Fluid Mechanics Laboratory.

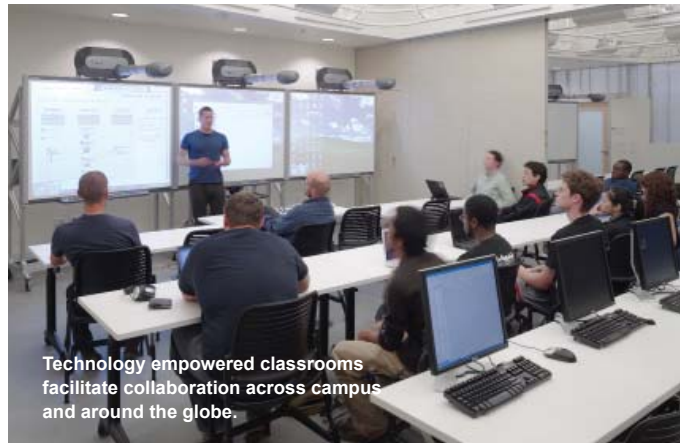
Y2E2's atria give physical form to the building's sustainable mission and act as vectors for daylight and natural ventilation. The building's high performance envelope makes extensive use of daylight harvesting while also controlling solar loads. The building employs a number of high performance systems that include radiate floors (public lobby), active chilled beams (throughout), ceiling fans, operable windows, building-controlled night flushing and exposed concrete mass (slabs), multiple PV arrays and an innovative recycled water system that uses blow-down water from the chillers of the neighboring central energy facility for non-potable uses in the building and the landscape.



Four atria connect all levels of the building and create transparent and day lighted centers of collaboration on each floor.



A programming diagram illustrating the interdisciplinary Focal Areas and the four interconnecting atria of the Y2E2 Building.



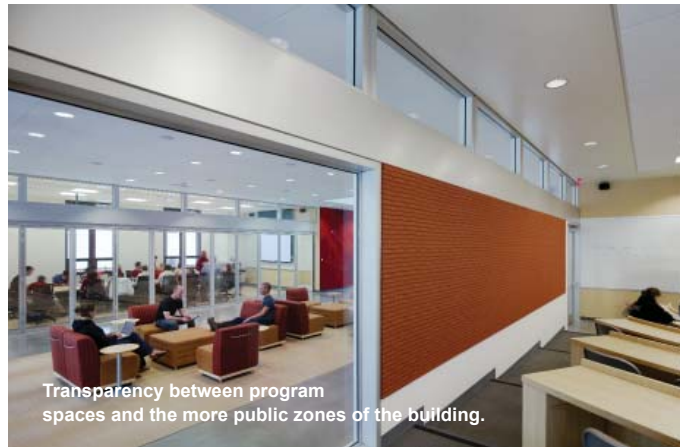
Technology empowered classrooms facilitate collaboration across campus and around the globe.



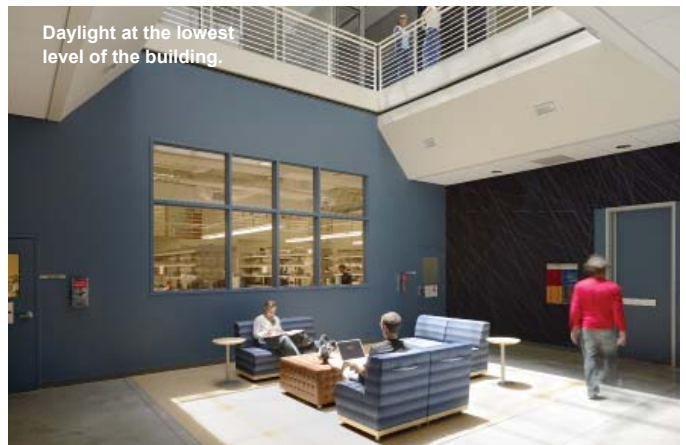
Highly flexible dry labs and studio spaces populate the collaborative zones of the building.



Environmental Engineering wet labs.



Transparency between program spaces and the more public zones of the building.



Daylight at the lowest level of the building.