

# Pacific Hall Basement and First Floor Laboratories at the University of Oregon



**YOST GRUBE HALL**  
ARCHITECTURE

Statement of Qualifications  
Submitted: 2015OCT21



October 21, 2015

Fred Tepfer, Program Manager  
Campus Planning, Design & Construction  
University of Oregon

RE: Pacific Hall Basement and First Floor Laboratories

Dear Fred and Members of the Selection Committee:

Thank you for this opportunity to express our enthusiastic interest in working in partnership with the University of Oregon to create 21st century lab spaces for Human Physiology, Anthropology, and Psychology research in Pacific Hall. This project signals an important opportunity to bring an important interdisciplinary research community onto the UO campus, while adding to the already-robust culture of collaborative innovation at the Lokey Science Complex.

Our design team offers proven experience to collaborate with you to define and design research spaces that meet each of your project goals as defined in the RFQ. Yost Grube Hall Architecture (YGH) has enjoyed a long relationship with the University, having completed many significant projects on campus, including the Knight Law Center, a 1971 addition to Lawrence Hall, and the recent renovation and addition to the Allen Hall School of Journalism and Communication, as well as an Esslinger Hall conceptual study and a Phase III pre-design for the Student Recreation Center. We are intimately familiar with UO's unique planning processes and work style, and understand how the use of Pattern Language informs and drives organic, responsive campus development.

Our projects have consistently exceeded our clients' goals. Through an integrated and collaborative process with our partners and owner teams, we deliver highly sustainable, functional and sophisticated buildings that improve the environment for learning and enrichment. The buildings we design become centers of assembly, discussion and collaboration, with their sense of light and space positively affecting all users, expanding their sense of connection and integration. Our talented team's ability to problem-solve and think critically has often resulted in the generation of additional program area and attained a higher level of sustainable excellence without a cost premium. We will respect each dollar invested and will help you evaluate the functional, aesthetic and financial impact each decision will make. We will carefully listen and work with you to bring your project to fruition.

We have truly enjoyed working with the University of Oregon in the past and look forward to the possibility of assisting you as you work to provide new and innovative research spaces to attract and serve current and future University of Oregon students and professors.

Sincerely,



Thomas Robbins, AIA, LEED AP BD+C  
Yost Grube Hall Architecture



Jerry Waters, AIA, LEED AP BD+C  
Yost Grube Hall Architecture

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## one page essay

**“DON’T BECOME A  
MERE RECORDER  
OF FACTS, BUT TRY  
TO PENETRATE THE  
MYSTERY OF THEIR  
ORIGIN.”**

~Ivan Pavlov

**“PHYSIOLOGY AND  
PSYCHOLOGY COVER,  
BETWEEN THEM,  
THE FIELD OF VITAL  
PHENOMENA; THEY  
DEAL WITH THE FACTS  
OF LIFE AT LARGE,  
AND IN PARTICULAR  
WITH THE FACTS OF  
HUMAN LIFE**

~Wilhelm Wundt

Modern research science is social, interdisciplinary and collaborative. The most successful and productive researchers are intimately aware of the substance and methods of each other’s work, and they understand how new research tools and techniques foster the development of new ideas and comprehensive results. Collaborative research teams, composed of scientists with myriad degrees and branches of expertise, must be able to share their experiences and data. Office suites and write-up areas allow groups to work as teams, providing the informal contact that allows the spontaneous exchange of ideas, which is a crucial aspect of creative problem solving. A collaborative research laboratory environment encourages collegiality by moving away from closed labs that are dedicated to a particular department. When a closed lab is necessary (for research or safety reasons), direct access to a large shared open lab with visual transparency helps to maintain a collaborative environment.

As financial pressures challenge the conventional research lab design process, the notion of less customized laboratory space is becoming more widely accepted, adjusting to meet the need for more wet and translational research spaces. Today, avoiding looking backward or to what was ‘historically’ designed and probing researchers for what is actually needed often opens up a more flexible atmosphere and a lasting buy-in with the joint creation of their workspace. Flexibility holds different meanings to different people; a successful design begins with defining the concept in terms related to research needs and associated cost. The iterative process between programming and concept design helps refine the project’s desired characteristics and performance goals. Creating flexible engineering systems (supply and exhaust air, water, electricity, data and vacuum systems) and casework both allows and encourages teams to alter their spaces to meet both current needs and future demands. The engineering systems can be designed to enable fume hoods to be removed or added to transform the space from a lab to an office and back again, or to allow maintenance of the controls from outside the lab. The creation of equipment zones that effortlessly accommodate change is a cost-effective design approach. The lab can be generic, with 50-75% casework initially and the rest of the lab fitted out after the research group determines its actual needs.

Research facilities are expensive to build and operate given the requirements for large volumes of outside air ventilation, energy consumption and the need for redundant systems to avoid the loss of equipment and valuable research. However, demand based systems and more efficient engineering can yield operational savings, beginning with high-performance and low-flow fume hoods coupled with air and lighting monitoring systems. Occupancy sensors on fume hoods can reduce airflow when the laboratory is unoccupied. Isolating chemical fume hoods in alcoves reduces the overall volume of air required for safe operation. The use of air sensing technologies is being recognized as a benefit to setting lower baseline air change rates. Adding these techniques to the traditional sustainability tool kit improves lab performance and reduces long-term operational costs.

The art of designing laboratory facilities for today and the future is to foster meaningful connections among the users, whether in offices, labs, or the spaces in-between, by creating strategically located, technology rich, dynamic environments where people want to work.

## relevant projects

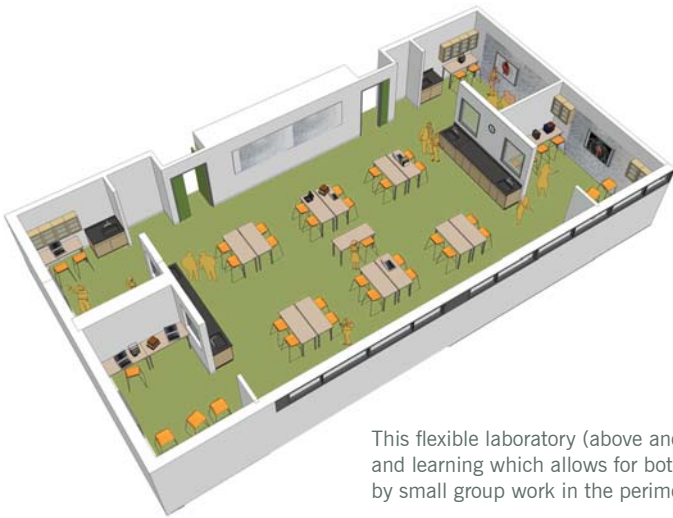
### Central Oregon Community College Science Center Bend, Oregon

Nestled into a hillside site at Oregon's oldest community college, the COCC Science Building provides flexible instructional spaces that support both traditional and innovative ways of teaching and learning. Along with the lab and classroom spaces the building contains a wide variety of informal student study areas designed to encourage collaboration and interaction.

The building maximizes opportunities to put learning on display, both within the teaching spaces and the public areas of the building. Each of the lab spaces is connected to its adjacent public hallway by large interior windows, providing views from the hallways to the activities in the labs. Floor-to-ceiling writing surfaces and display cases abound in the public areas of the building, turning them into places of education and discussion.

The building earned Earth Advantage Gold certification.

**BUILDING USE** Dedicated Instructional Labs for Biology, Chemistry, Geology & Physics + General Purpose Classrooms, Learning Resource Center, Herbarium and Faculty Offices



This flexible laboratory (above and below) supports innovative teaching and learning which allows for both large classroom instruction followed by small group work in the perimeter divided zones.



## relevant projects

### Pacific University Health Professions Campus Bldg 2 and Remodel of Creighton Hall

Hillsboro, Oregon

YGH was selected to design the 62,000 SF Phase II Health Professions Building as part of a CM-GC team. An initial master plan was completed and approved by the City for Pacific University and Tuality Hospital to guide future growth for both institutions.

The four-story building provides student lounge and breakout spaces, classroom and seminar spaces, administrative and faculty offices with research labs and clinic space to support professional psychology, nursing, occupational health and pharmacy programs. The ground floor of the building also includes admissions and counseling staff to support the Pacific University Health Professions programs.

The design process developed alternatives and received approval for a building height adjustment to improve solar exposure to an adjoining historic residential area while providing a more efficient academic building floor plate. The final design steps down to the historic residential neighborhood and incorporates a two-story, skylit multipurpose lounge space as a center for student and faculty activity and interaction.

The building is LEED Gold certified.

**BUILDING 2 BUILDING USE** Occupational Therapy, Physical Therapy, Anatomy Lab (includes wet labs), Pharmacy, Graduate and Professional Admissions, Office of the Vice Provost and Executive Dean, Campus Public Safety

**CREIGHTON HALL REMODEL** Psychology & Comprehensive Health Clinic



### Humboldt State University Kinesiology & Athletics Building

Arcata, California

Designed to LEED Silver standards, the new 91,000 SF Kinesiology & Athletics Building provides recreational, educational and social space for Humboldt State University. The facility houses a natatorium with extra depth for SCUBA classes offered by the PE department, gymnasium for competition basketball and volleyball and a dance studio along with athletic office suites and Kinesiology instructional space which include the Human Performance Lab, Behavioral Performance Lab and an improved Biomechanics Lab. Also housed in the facility are the Employee Wellness Program, North Coast Concussion Program and additional research projects.

**BUILDING USE** Department of Kinesiology, Athletics and Student Recreation

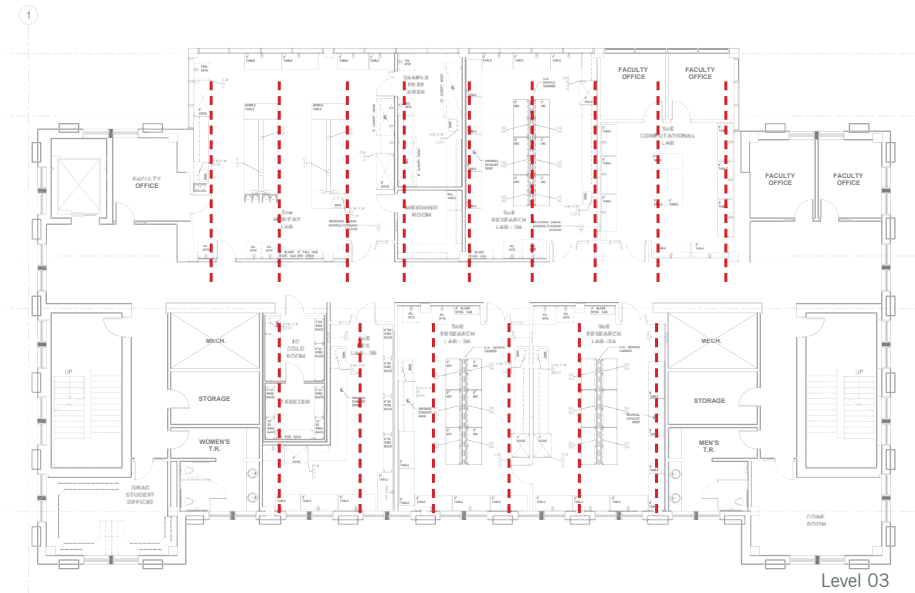
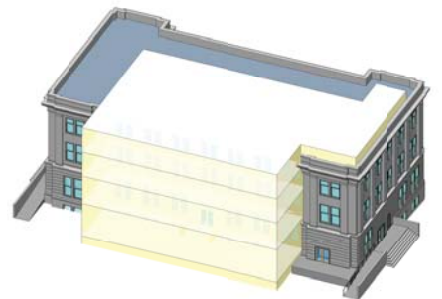
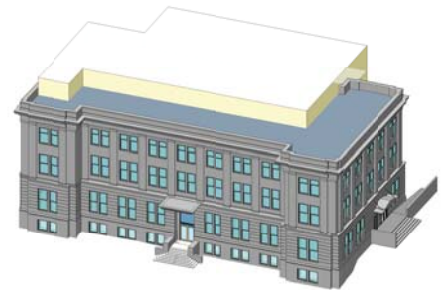


## relevant projects

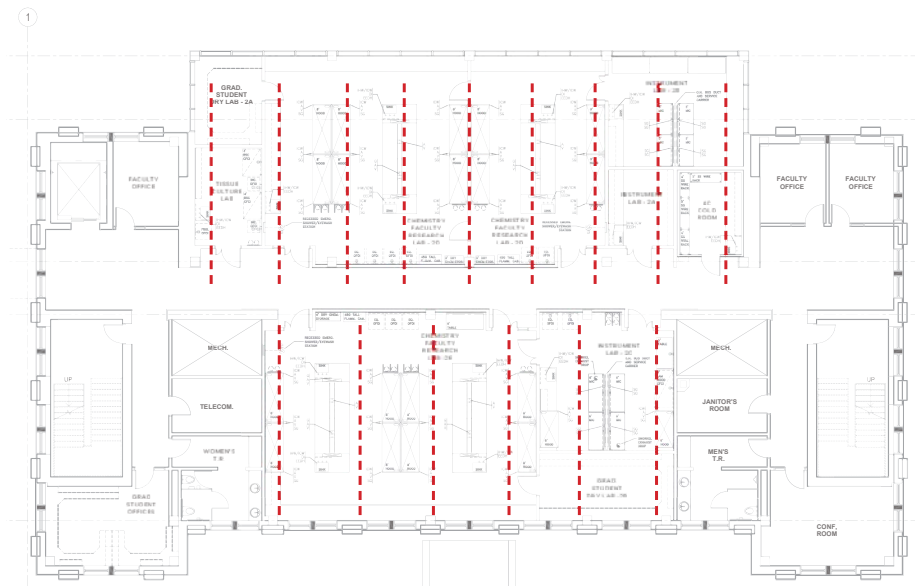
### Washington State University Troy Hall Pre-design Pullman, Washington

YGH provided pre-design programming for renovation of the 100 year old Troy Hall to create new state-of-the-art instructional labs, research labs, and faculty space for the Chemistry Department and the newly formed School of the Environment. In addition to providing additional space to accommodate current educational and research demands in STEM program areas, the renovated Troy Hall will also include space for the cross-college academic units of the School of the Environment and its focus on sustainability and the natural environment.

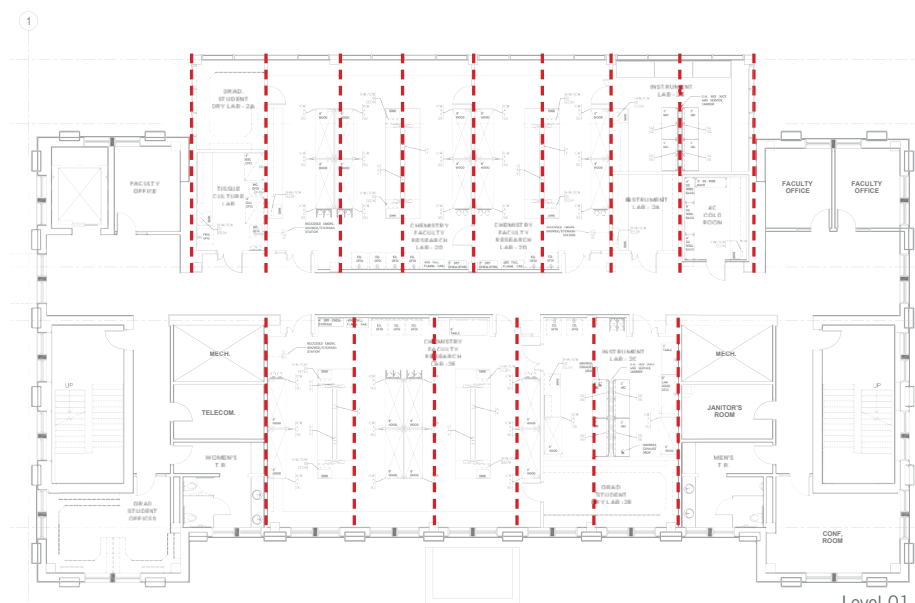
**BUILDING USE** Chemistry Research Labs  
(helps support disciplines in agriculture, biotechnology, engineering, food science, physics, pre-health science and physical therapy), Habitat Lab, Weighing Room, Instrument Labs, Computational Lab, Faculty Offices, Graduate Student Offices



Level 03



Level 02



Level 01

## references



### CENTRAL OREGON COMMUNITY COLLEGE Science Center

Joe Viola, Director of Campus Services  
2600 NW College Way  
Bend, OR 97701  
541 383 7776

Rick Hayes, Construction Project Manager  
2600 NW College Way  
Bend, OR 97701  
541 330 4391

**SIZE** 46,000 SF

**COST** \$12,545,000 (construction)

**COMPLETION DATE** September 2012

**SCHEDULE / BUDGET** on time, on budget

#### TEAM MEMBERS & ROLES

Tom Robbins, Project Manager  
Liz Bray, Interior Designer



### HUMBOLDT STATE UNIVERSITY Kinesiology & Athletics Building

Traci Ferdolage, Director, Campus Planning  
and Design  
1 Harpst St  
Arcata, CA 95521  
707 826 4111

**SIZE** 91,000 SF

**COST** \$35,100,000 (construction)

**COMPLETION DATE** September 2008

**SCHEDULE / BUDGET** on time, on budget

#### TEAM MEMBERS & ROLES

Tom Robbins, Project Manager



### WASHINGTON STATE UNIVERSITY Troy Hall Pre-Design

Jeff Lannigan, Project Manager, Facilities  
Services - Capital Projects  
110 Commons  
Pullman, WA 99164  
509 335 7221

**SIZE** 38,798 SF existing, 4,800 SF add.

**COST** \$32,303,000 (construction)

**COMPLETION DATE** April 2015

**SCHEDULE / BUDGET** on time, on budget

#### TEAM MEMBERS & ROLES

Steve Neiger, Project Architect

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## YGH personnel for Pacific Hall



Tom Robbins, AIA,  
LEED AP BD+C  
Project Manager



Jerry Waters, AIA,  
LEED AP  
Project Designer



Liz Bray, IIDA,  
LEED AP  
Interior Designer



Steve Neiger, AIA,  
LEED AP BD+C  
Project Architect



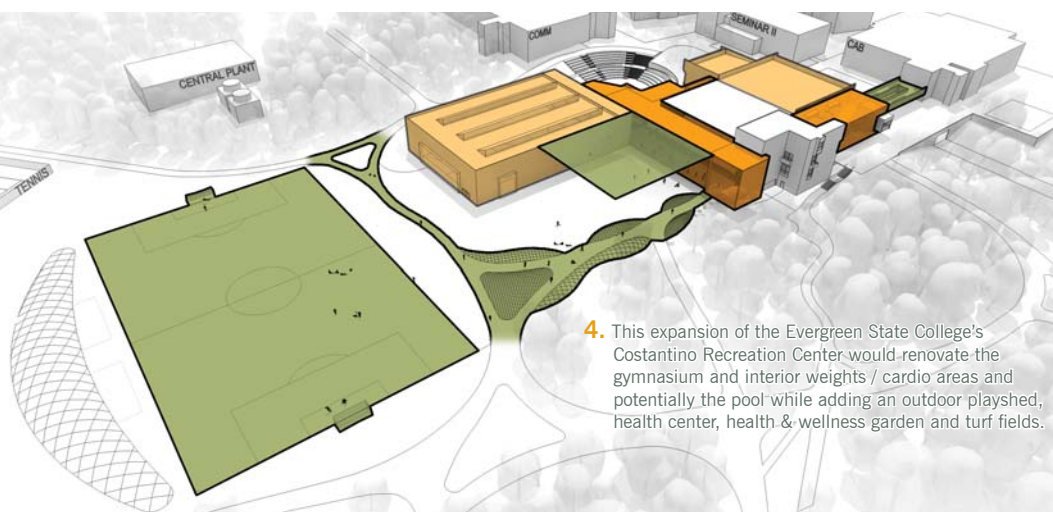
## design ability



1. YGH is currently working with Clark College to transform the Culinary Program which resides within the Northwest portion of Gaiser Hall. One of YGH's design goals is to transform the relatively blank facade into a welcoming and lively frontage.

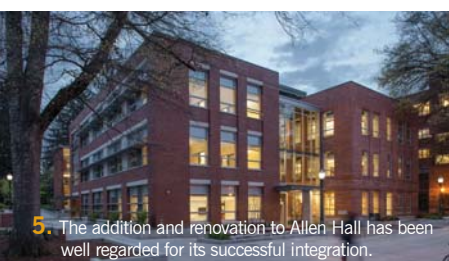


2. Originally constructed in 1911 as the regional armory, YGH transformed the McAlexander Field House at Oregon State University into expanded recreation space for the student population.



4. This expansion of the Evergreen State College's Costantino Recreation Center would renovate the gymnasium and interior weights / cardio areas and potentially the pool while adding an outdoor playshed, health center, health & wellness garden and turf fields.

3. The Samuelson Communication and Technology Center at Central Washington University (images below) was designed to re-purpose the old student union, which had been lying vacant for over 5 years, and infuse the center of campus again with a vibrant and transparent hub for the Communication program as well as for the entire campus' information technology.



5. The addition and renovation to Allen Hall has been well regarded for its successful integration.



6. YGH provided additions to both sides of an existing building and created one cohesive facility for Clackamas Community College.



# buildings, systems, spaces

## 2a. 21st century laboratories

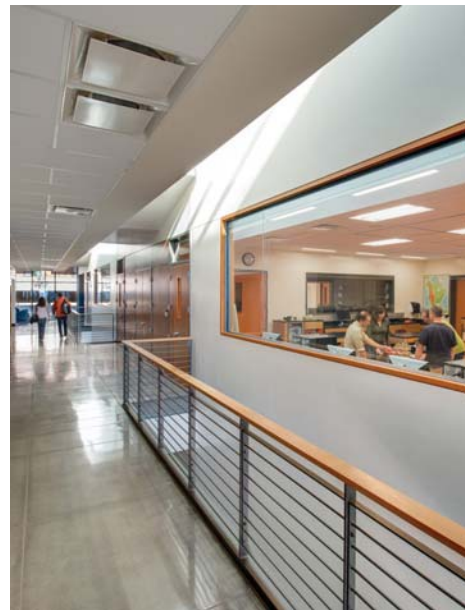
Creating appropriately scaled, and comfortable environments for our clients is important. With research laboratory environments, where individuals may spend long hours, it becomes even more imperative to provide space people can enjoy.



1. Pacific University's Building B laboratories at the Health Professions Campus are light and airy/



2. Central Oregon Community College's Science Center gets daylight into even interior labs with skylights. Transparency and learning put on display were part of the design drivers.



3. The LEED Platinum certified Angst Hall at Skagit Valley College includes bright laboratories specified with non-Red-Listed products.

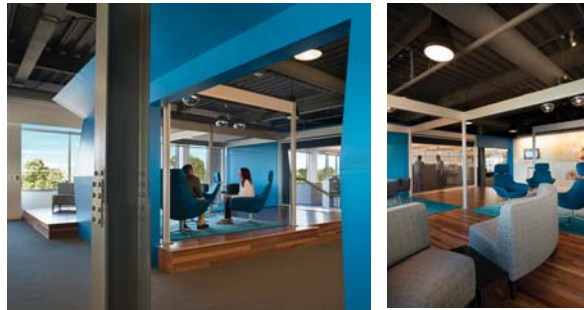
4. YGH's work at the Oregon National Primate Research Center at Oregon Health & Science University includes state-of-the-art research labs.

5. The \$6.5M Virology & Immunology Laboratory at UC Davis for the California National Primate Research Center includes state-of-the-art BSL-3 labs for contagious disease research.



2b. collaborative work areas

A successful collaborative research laboratory environment requires shared open lab spaces where researchers with different branches of expertise can spontaneously exchange ideas across disciplines. YGH has extensive experience designing collaborative environments for a wide variety of users both in higher education and the professional sector.



1. YGH's work with Dow Chemical has included a large amount of collaborative work spaces which include open office design supported by lots of breakout, small conference, focus and social spaces.



2. The Science Center at Central Oregon Community College (left) takes advantage of corridors to create opportunities for collaboration.



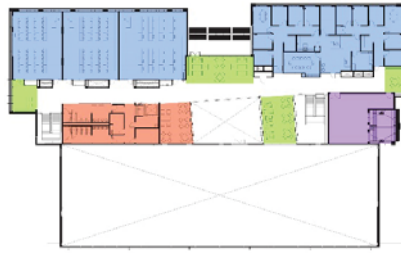
3. A mix of open collaborative and enclosed spaces allow for many different kinds of group interaction or individual study at UO's Allen Hall School of Journalism and Communication (right)



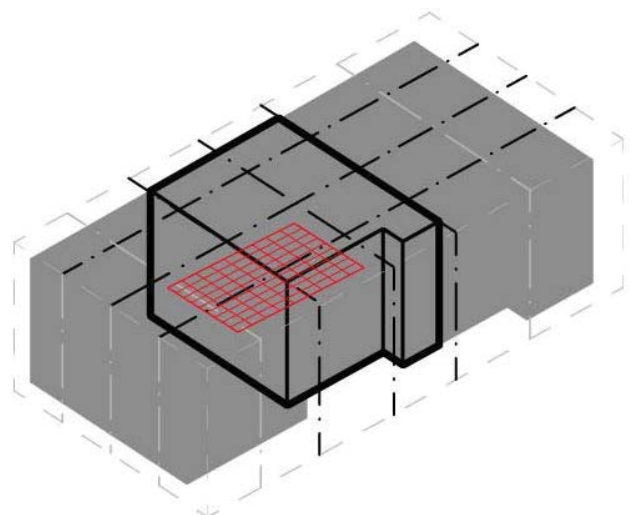
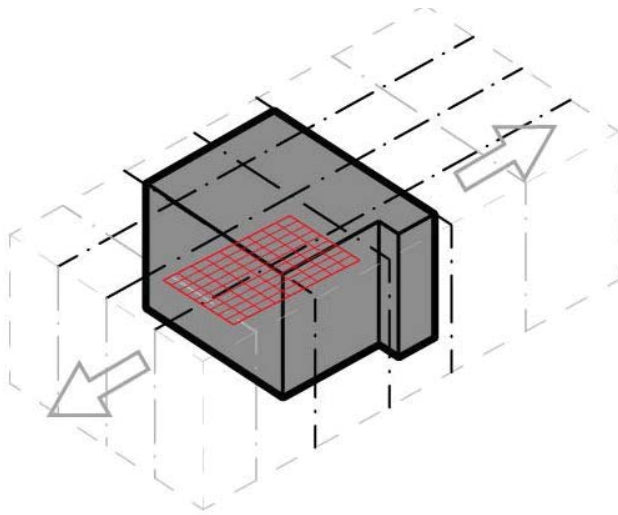
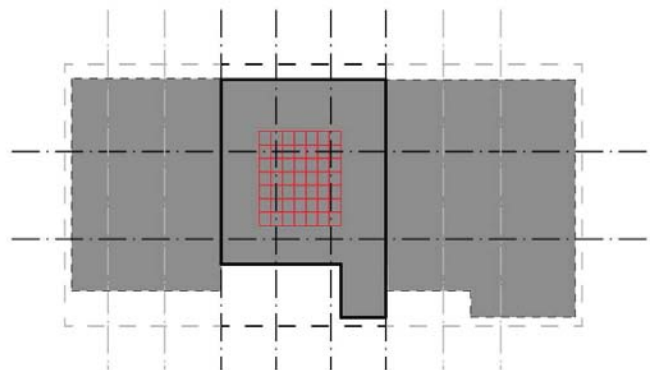
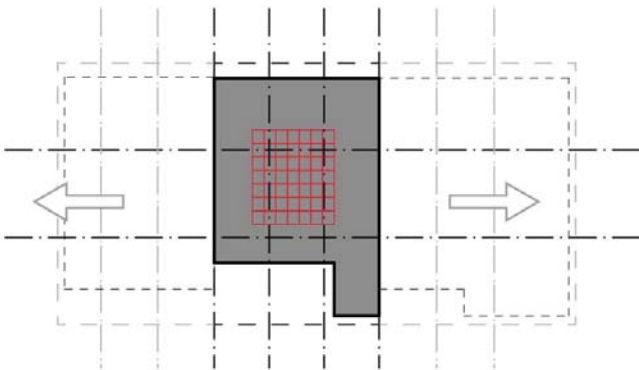
# buildings, systems, spaces

## 2c. design for future flexibility without a cost premium

The true test of a successful research laboratory environment unfolds over time, as new research techniques, technologies and tools are developed, transforming the way professionals practice, learn, and teach. The field of scientific research is continually evolving, placing increasing demands on learning environments to adapt. Our team has a strong history of designing projects that achieve these goals without a cost premium through a combination of early budget confirmation, high-performance building systems, and reduced long-term operational costs.



Modular design helps for planning future expansion as well as flexibility. These principles were applied to both the Center for Health Education at Clackamas Community College and the newly opened Machining, Drafting and Engineering project at Chemeketa Community College.



## 2d. lean construction approaches

As planners, architects and other design professionals, we enjoy the process of finding the right fit to the need.

Our extensive experience with CM-GC and Design-Build delivery methods has long contributed to our mentality to communicate effectively and collaborate early on with our entire team. This has led to cost effective solutions early on with opportunities to provide our clients with additional program or return of funds.

1. The LEED Gold certified PSU ASRC Design-Build project was a highly collaborative process that delivered a project on budget and three months early despite adding one and a half floors of additional program after the initial design-build design was complete. An 80-seat lecture hall was also added at no cost.

2. A fast-track CM-GC process was employed for the Clackamas Community College Wilsonville Training Center. Pushed by the utilities' requirements to meet new training regulations, the A/E/C team was mandated to deliver renovation and addition project in 10 months.

3. The Center for Health Education at Clackamas Community College's Harmony Road Campus was created through a very collaborative process with extended into the community. A blue ribbon panel was created with the industry partners who would be eventual employers of the students going through the CCC program. This extra conversation helped create the curriculum and real world scenario facilities that would best prepare students. These program elements were also designed on modules for future flexibility.



## 2e. renovation of existing buildings for 21st century research labs

Adaptive reuse for laboratory spaces can present some very specific challenges involving structural, electrical and mechanical systems. Our design and consultant team has significant experience solving these issues, most recently for Washington State University's Department of Chemistry.

1. The 100 year-old Troy Hall had been the former dairy for Washington State University. For modern laboratory uses, the team suggested a different module size to accommodate for current and future flexibility. Mechanical systems also needed to be upgraded to handle the loads of the extensive research from the chemists and environmental scientists who occupy the space.



2. Allen Hall at the UO, incorporated a "Digital Commons" concept as one of the 21st century updates for the School of Journalism's need to keep pace with the latest technology.

3. The Eastern Oregon University Science Center which includes a Cellular Genetics Lab for OHSU as well as Fish Pathology Research Labs for the Oregon Department of Fish and Wildlife



#### 4a. highly sustainable projects / LEED Gold or higher experience

##### Sustainability

We believe that built and natural systems are interrelated and should be considered holistically. As stewards of the environment, we take responsibility for the projects we design as well as the operation of our offices. Sustainability is a core value and central to our design process.

Our work with the Oregon Department of Energy is extensive, spanning two decades and resulting in SEED awards on seven projects that reduce energy use and operational cost with no impact to the project budget or schedule. This includes the LEED Gold certified North Mall Office Building, the “pilot project” for Oregon sustainability which established the foundation for DAS’s Sustainable Facilities Standards and Guidelines Policy Manual in use today. Implementing LEED in combination with the SEED process has enabled each of our state projects to achieve modeled energy savings in the range of 40% better than code. Since the NMOB, we have designed the LEED Gold Kelley Engineering Center at OSU, the LEED Gold Behavioral & Social Sciences Building at Humboldt State University, the LEED Gold Academic & Student Recreation Center at PSU, the LEED Gold College of Health Professions Building B for Pacific University, the LEED Gold Humanities and Student Services Building at Olympic College and the LEED Platinum Science & Allied Health Building at Skagit Valley College. With the exception of purposeful decisions at Skagit to add features to reach Platinum, these projects exceeded their original goals for LEED Silver without additional cost.

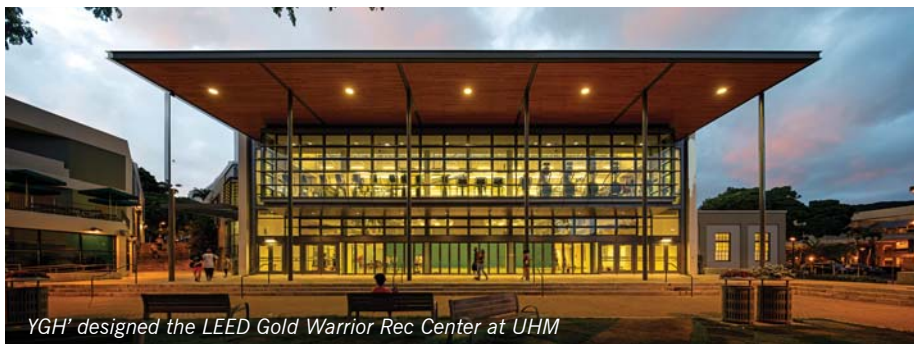
Working closely with the UO, we anticipate meeting LEED and SEED goals initially established by the team. Discussions should be completed at the kickoff of the project to understand your aspirations and how we meet or exceed them.



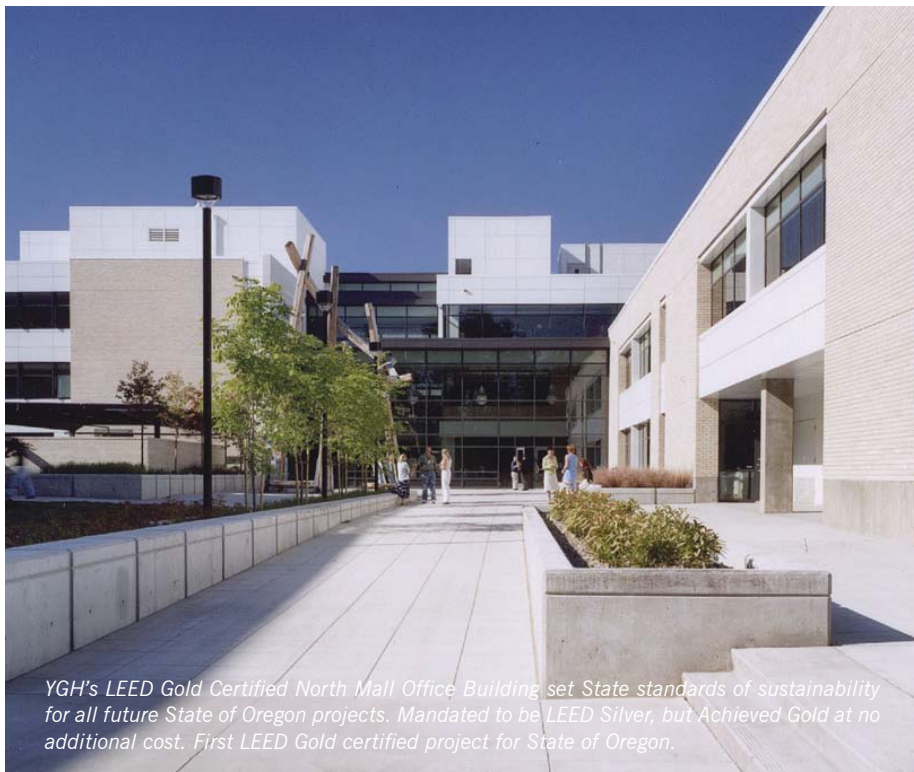
*Oregon State University Kelley Engineering Center was mandated to be LEED Silver, but Achieved Gold at no additional cost. Kelley was the first LEED Gold certified academic engineering building in the nation.*



*Skagit Valley College Angst Hall (Science and Allied Health Building) was first Higher Education project in the State of Washington to achieve LEED Platinum certification. Mandated to be LEED Silver, but achieved LEED Platinum at no extra cost*



*YGH' designed the LEED Gold Warrior Rec Center at UHM*



*YGH's LEED Gold Certified North Mall Office Building set State standards of sustainability for all future State of Oregon projects. Mandated to be LEED Silver, but Achieved Gold at no additional cost. First LEED Gold certified project for State of Oregon.*



*The Behavioral & Social Sciences Building at Humboldt State University was won through a best value design-build competition. HSU required a LEED Silver building, but YGH delivered a LEED Gold building for the least cost. It was the first academic building for the entire CSU System to achieve LEED Gold and was selected as the Best Overall Sustainable Design for the entire UC/CSU System in 2005.*

## relevant experience

meeting UO / State of Oregon stds.



### 4b. projects designed similarly to the UO campus plan

YGH's depth of experience with university and college projects includes creating campus plans as well as designing buildings that integrate campus planning policies and procedures. These range from creating large plans for the University of Botswana and American University of Afghanistan, developing Precinct Plans for OSU and Pacific University, to direct experience at the University Oregon on multiple projects, guided by the *Oregon Experiment* and *Pattern Language* planning principles and process. YGH's experience integrating the University of Oregon Campus Plan policies into the design and documentation process is extensive. These experiences have reinforced our goal of strong collaboration, with participation from a diverse user group and Campus Planning and Real Estate.



1. (top, left) YGH helped the University of Botswana with a master plan in 2001 and was subsequently invited to update it in 2009.
2. (middle) USAID awarded the master plan for the American University of Afghanistan to YGH in 2006.
3. (bottom left) UO's Allen Hall is filled with collaborative spaces.
4. (bottom right) The UO William W. Knight Law Center.







### 5a. working with diverse users

A multi-stakeholder participatory design process requires good planning and communication to be successful. Establishing a strong work plan for will be part of our earliest work. A detailed schedule will be used to document and communicate the plan and enable stakeholders to understand and plan for their participation.

#### Pre-Design Engagement

Engagement with stakeholders from the very earliest stages of the design process is essential to a successful project. Assisting with the development of a comprehensive program of objectives for the project is our primary goal from the beginning. With the constituents, we consider functional objectives, budgetary control, and schedule. Most importantly, at this early stage, we want to capture the important qualities that will create the project's sense of spirit.

Because people care about what they help create, the way YGH builds consensus is based on users vocalizing what is important to achieve and starting toward those clear goals. The entire project team will establish guidelines to measure success by. Along the path to a final design, these guidelines ensure that the design team continues to respond to the users' primary desires. From the beginning, and regularly throughout the design process, we will ask each other "What is the project about?"

- The richness of our ideas and solutions will flow from our engagement of the diversity of participants on this project.
- The design responses we create together will be honest and respectful of all the building's future needs and occupants.
- Our lines of communication will be established and clear. Open, candid dialogue is our preferred path toward mutual achievement.
- The YGH team is the embodiment of accountability and commitment, evidenced by the regular, repeat work we have built with clients.

#### Continuing Involvement

We will value contribution across the project. We will ensure that all the questions are asked and that input from constituents will not be lost. Lines of communication will be established and respected.

#### Respond to the Voices

While we consider your project's program objectives, we include review of the aspects of the spaces that will influence design options, and share our findings. We have learned from our other university projects that with so many voices involved, the answers individual contributors hear back can appear haphazard or not in response to their needs. To counter this perception, we will share all the knowledge as we collect it, in bi-weekly reviews with stakeholders.

Our continuing feedback to the constituents in the latter stages of the design phases helps assure stakeholders that there is reason behind the design decisions being made, and reminds project managers and staff the process that was involved to get to the solution. Examples of factors we share with constituents include the local climate effect on the project, views and sight-lines, movement, and workplace needs. Our assessment of these attributes allows the design team to work with and incorporate their effect, rather than battle them: a proactive design response from the gate.

#### Drive Toward Solutions

The YGH process toward design is neither image nor style based, but rather driven to arrive at a solution that best meets the overall needs of the project. Our thinking is centered on the notion that there is always more than one way to satisfy the functional program, and that it is our task to explore all the possible solutions, isolate the inherent conflicts with the program in each of them, toward the goal of the best possible response to your needs.

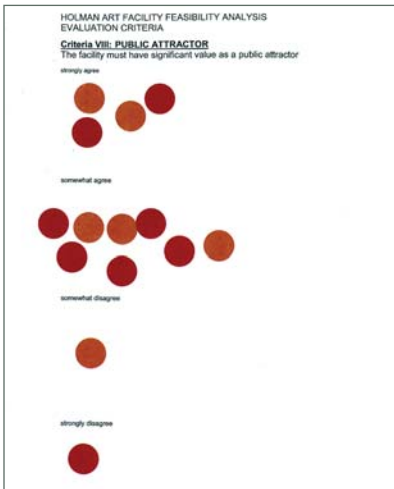
- We are devoted to providing the best possible facilities, accommodating to the pursuit of intellectually based discoveries and innovations.
- We seek to design easily maintained facilities, of robust yet affordable materials, that support the technology and advancements.
- We are committed to provide the highest level of service to UO.



## relevant experience

### process

#### 5b. effective communication



Voting Dots

#### Consensus Building

Initiated on confidence and nurtured with trust, the successful client-architect relationship reaches deeper than most business connections. The client enriches the architect's knowledge of their needs and program, allowing the architect to shape the client's vision and give desires reality. Building for higher education clients includes the added dimension of dedication to service for multiple, diverse groups, understanding users and unique campus qualities.

Consensus building among various interests is therefore a major focus in educational projects with multiple stakeholder involvement. It depends on effective communication within the programming and design process, a process that begins with the formulation of goals leading to the definition of criteria. This is followed by development and evaluation of alternatives and eventually to selection of the optimum solution.

Our skills help develop consensus and closure at each step with involved students, administration, facility management and academic campus staff. Our process is analytically based and produces concise information in the form of meeting memoranda, cost analyses and design evaluations. These in turn define the costs and benefits of the developing design options. The essential pragmatic aspects are successfully addressed while we interpret the written program into a graphical presentation, ensuring understanding by all involved. In this era of diminished public funding and increased educational needs, we recognize the importance of defining project requirements in terms of public benefit and value. These include enhanced user experiences, increased space efficiency, improved public access to services and long-term (lifecycle) economic savings. Our open and transparent process of clearly recorded communication and analysis supports consensus-based decision making by all involved campus participants and the project team.

Subject to confirmation with your project leadership group, we normally progress through the following steps:

- Following your review, distribution of questionnaires prepared by the design team to all stakeholders to assess program requirements and obtain technical requirements for the rehearsal hall, administrative facilities and common areas.
- Review of questionnaire responses by the consultant team.
- "Charrette" sessions (brainstorming and collective decision-making) with all stakeholders to confirm a shared understanding of big-picture vision and goals, and the possible architectural spaces and support systems that will meet these goals.
- Development of a draft program for review, documenting spaces and infrastructure support requirements with detailed room data sheets and systems narratives. Meetings with stakeholders to dialog, receive feedback and further develop modifications and additions to the draft program.
- Incorporate feedback and then distribute the program for review. Receive comments and repeat review cycle if significant revisions are suggested.

#### Communications

A multi-stakeholder participatory design process requires good planning and communication to be successful. Establishing the work plan for the programming and design phases will be part of our earliest work. A detailed schedule will be used to document and communicate the plan and enable stakeholders to understand and plan for their participation.

Weekly project updates will be issued to keep all members of the project team informed of discussions, decisions, necessary actions and upcoming events.

Summary documents addressing program, design, estimated costs and schedule will be developed and distributed to all stakeholders at the conclusion of each phase of the work.

Project updates, schedule and summary materials will be pro-actively distributed to all stakeholders and members of the project team. We also recommend making these documents available on a project website if this is acceptable to UO. A protocol for feedback and written input, such as for corrections to meeting notes or input from a stakeholder who is unable to attend a worksession, will also be established.

We will reinforce good project communications with clearly defined lines of communication and with project-long commitment of key YGH personnel for continuity of project understanding.

Pro-active weekly communication will continue throughout the documentation, bidding, permitting and construction phases to keep all constituent groups aware of project progress and of any developments that could require their further input in response potential or required changes occurring during construction.

Our programming and design approach and communication processes will provide all constituent groups with opportunities for meaningful participation in a well-planned sequence of steps to design facilities that embody your vision and meet your pragmatic needs.

### 5c. phased construction with occupied spaces

We are intimately familiar with projects which require construction in phases and/or while still occupied. One of YGH's more complicated phased construction projects was a \$25M complete interior reconstruction and exterior ground level construction of a 365,000 SF Class A Office Building in downtown Portland (1). In order to complete the renovations of the occupied building, tenants were moved three floors at a time in eleven phases. The complete remodel was done in two years.



2. Following the 118,000 SF occupied expansion and renovation of the Oregon State University Dixon Recreation Center (above), nearly doubling its size and completed in 2004, YGH has provided additional studies and subsequent designs for changes in program and the facility. These changes have allowed Rec Sports to evolve their program, adding classes as well as more versatile activity spaces. Two years ago, YGH provided a study followed by the design to expand the Outdoor Recreation Center at Dixon as the Adventure Leadership Institute, allowing Rec Sports to provide team building and leadership development as credit courses to the university's professional schools. This year, YGH completed a concept feasibility study for the fourth phase of Dixon's continued expansion. That study proposed solutions for the addition of 110,000 SF of space, allowing Rec Sports to meet the needs of 28,000 OSU students and 6,000 faculty projected by 2020.
3. The Eastern Oregon University Science Center project (below) added 92,000 SF of space and renovated the existing 30,000 SF Badgley Hall. The construction was phased to allow for continued building occupation.



1. 200 SW Market Building

4. (below) The Western Culinary Institute is located in downtown Portland, Oregon in the historic Galleria Building. YGH helped the Institute renovate three different floors for their operations and training needs.



## relevant experience

### process

#### Past Performance on Budget and Schedule

##### Pacific University

##### Health Professions Campus Bldg B

**Delivery Method:** CM/GC

**Original Construction Cost:** \$19,190,333

**Final Construction Cost:** \$18,606,613

Project met demanding schedule to open for classes by Sept. 2010

##### Clackamas Community College

##### Center for Health Education

**Delivery Method:** CM/GC

**Original Construction Cost:** \$20,000,000

**Final Construction Cost:** \$20,000,000

Project met demanding schedule to open for classes by Sept. 2010

##### Portland State University

##### Academic & Student Rec. Center

**Delivery Method:** Design-Build

**Original Construction Cost:** \$43,000,000

**Final Construction Cost:** \$68,000,000 (due to addition of another floor+ of program after award)

The Skanska-YGH team provided a nearly full design to win the competition. When the project was underway, PSU found tenant partners which allowed them to include additional program.

Despite being in the ground already, the team added the program and delivered a LEED Gold certified building on time and 3 months early.

## 5d. project / schedule / cost management techniques

### Cost and Budget

Our team has a strong history of designing buildings that are fiscally responsible and consistently in alignment with their allotted budgets. Our role is to help our clients evaluate the entire spectrum of cost from construction through the life of a building. Life cycle costing, allocating expenditures where they are most appropriate and promoting longevity in materials and systems are all fundamental to our approach to responsibly budgeted design.

YGH relies on an open-book, inclusive process that demonstrates the costs and benefits of various design and systems options. We will begin this budget confirmation process in the earliest stages of the project, when design and engineering alternatives have the greatest potential impact on costs and savings.

### In House Expertise

YGH's in-house cost control procedures are an integral part of the way we work. We review contractor costs in all of our projects, creating a database for understanding the implications of cost on design decisions. YGH involvement on projects throughout the world brings a wide variety of budgeting and bidding experience from which to draw. Cost control techniques we perform include program budget validation, value engineering, and life-cycle cost analysis.

### Budget Validation / Estimate Reviews

A budget confirmation process in the earliest stages of the project will put the project on the path to budgetary success. Our design team will analyze client goals, technical requirements, alternative building concepts, construction costs and long-term operational costs to define the optimum scope within the budget. Our team will develop cost control assessments at each project milestone, that will help all involved to work together to meet the project budget.

### Value Engineering

Value Engineering (VE) is not merely a means of cutting costs. When properly administered and combined with contractor input, VE will maintain the programmatic and aesthetic qualities of a project, while minimizing overall construction, operational and maintenance costs. Our collaboration with the CM/GC to evaluate VE in conjunction with all design decisions is essential to timely selection of components, client consensus, and a successful project delivery.

### Alternative Delivery Method Experience in Higher Ed

- University of Oregon Allen Hall Addition / Renovation, Eugene, OR
- Clackamas Community College Training Center, Wilsonville, OR
- Clackamas Community College Center for Health Education, Milwaukie, OR
- Chemeketa Community College Yamhill Valley Campus, McMinnville, OR
- Humboldt State University Behavioral & Social Sciences Building, Arcata, CA
- Humboldt State University Kinesiology & Athletics Facility, Arcata, CA
- Pacific University Health Professions Campus Building B, Hillsboro, OR
- Portland Community College Cascade Campus 2000 Bond, Portland, OR
- Portland Community College Southeast Center 2000 Bond, Portland, OR
- Portland State University Academic & Student Recreation Center, Portland, OR
- University of Idaho Commons, Moscow, ID
- Washington State University Student Recreation Center, Pullman, WA

## 5e. collaboration - cm/gc

Our experience with alternate forms of project delivery, such as Design-Build and Construction Manager / General Contractor (CM/GC) is extensive. In both Design-Build (D/B) and Construction Management/General Contractor (CM/GC) delivery, YGH is established as a strong and collaborative design partner, capable of arriving at critical early design decisions that enable overlap between design and construction phases. This experience includes phased construction on existing and new facilities, early design packages for sequenced bidding and schedule acceleration, and coordinated cost control and design progress. YGH has successfully completed three major collegiate projects in the past five years using the CM/GC delivery method: University of Oregon's Allen Hall Addition/Remodel project, Pacific University's College of Health Professions Building B, and Clackamas Community College's Center for Health Education.

The majority of our larger projects (>\$15 million) in recent years have been delivered using one of these two methods. Our experience with CM/GCs has revealed the following:

- CM/GC estimates include significant contingencies to protect from risk. Our team's ability to establish standard construction methods and isolate and limit risk can help diminish risk concerns, contingency and cost.
- Effectively communicating a project's evolution and design ideas to the CM/GC can be challenging. Our ability to engage in constructability dialogue has proven critical to assuring the CM/GC of the design intent and constructability.
- CM/GC's are often out in front on cost estimating, with their interpretation of the project requirements. Our early use of quantity based estimating allows clear understanding and cost comparison with the CM/GC's estimate early on.

Beginning in the programming phase, our team will analyze your goals, technical requirements, alternative building concepts, construction costs and long-term operational costs. These assessments will define the optimum scope within the budget, ensuring long-term flexibility and value.