

# OREGON

# CONCEPT DESIGN REPORT

Klamath Falls Campus June 17, 2016





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Joseph Maurer, Campus Life: Director of Campus Life



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#### **OVFRVIFW**

Oregon Tech is a vibrant and sustainable university that requires a facility master plan that is continually living and evolving to meet current needs, anticipate future opportunities and utilize best pedagogical methods.

Since Oregon Tech is the only polytechnic university in the Pacific Northwest, its multiple areas of expertise and close connection to Oregon Industry make Oregon Tech a unique learning environment. The University could expand and grow to better serve the entire NW region with adequate investment in its highly competitive, high-ROI programs. Oregon Tech has a positive impact on Oregon's economy. In terms of the earning power of its graduates, Oregon Tech has approximately 670 graduates per year, of which 90% have a job within 6 months. Even using an overly conservative average starting salary of \$55,000/ year, this equates to \$33,165,000 earnings. Since approximately 70% of graduates remain in Oregon, this means an increase in income tax (70% of earnings eguals \$23,215,500 in Oregon payroll, which, multiplied by 0.09 Oregon tax equals \$2,089,395 income tax for Oregon from new graduates annually).

Due to the age of many of the buildings on the campus, Oregon Tech facilities have a number of deficiencies and critical challenges that limit the schools ability to fulfill its mission to serve the

educational needs of Oregon's students. This study proposes conceptual solutions that address the largest of these educational obstacles and position Oregon Tech to continue to lead as the only polytechnic university in the Pacific Northwest.

With the development of the projects represented in these studies, Oregon Tech has a unique opportunity to support the evolving and growing academic mission of the college and to define the long-term physical future of the Institute in a significant way. The study looks closely at meeting the four most pressing facility needs on campus: resolving the life safety, accessibility, hazardous materials, and functional challenges of Cornett Hall; creating a new Engineering expansion building; creating a new Student Services Building; and creating a Recreation Center on campus.

All new work on campus anticipates a LEED Gold (or higher) benchmark as a reflection of the sustainable aspirations of the University.

This report defines a considered path to immediate facility growth and medium term development on campus. The projects represent careful study and thought by a diverse user group, brought about through discussion and collaboration. When implemented, these facilities will undoubtably shape





**CENTRAL CAMPUS** 

future educational growth and quality of student life, campus image, and financial health of the University.

Project 1, Cornett Renovation \$12.5M This first project has received state funding and will proceed to design and construction commencing this fall. It is the first part of a phased project that repositions the College of Engineering Technology and Management (ETM), creates a safe education environment and sets the stage for the second project. The 99,000 GSF renovation focuses on improvements to meet life safety and accessibility needs of the building. It will include hazardous materials abatement and a seismic/structural upgrade.

Project 2, New Engineering Building, \$41M The construction of the 80,000 GSF New Engineering Building will complete the CENTER ENGINEERING AND TECHNOLOGY. Designed as a facility expansion integrated with the existing Cornett Hall, this new building will allow for the consolidation of the critical functions of the Engineering School. The focus for building development is in creating a multidisciplinary, collaborative model for learning. This project is currently the highest campus priority for state funding.

Project 3, New Student Services Building \$16.9M The 32,500 GSF Student Services Building brings



#### **EXECUTIVE SUMMARY**

together all of the student support functions in a single "Welcome Building" at the main entrance to campus. A key feature of the building is the "One-Stop" services location where each student can efficiently take care of an assortment of business and registration tasks. The change frees up needed space in four other buildings to allow for needed growth.

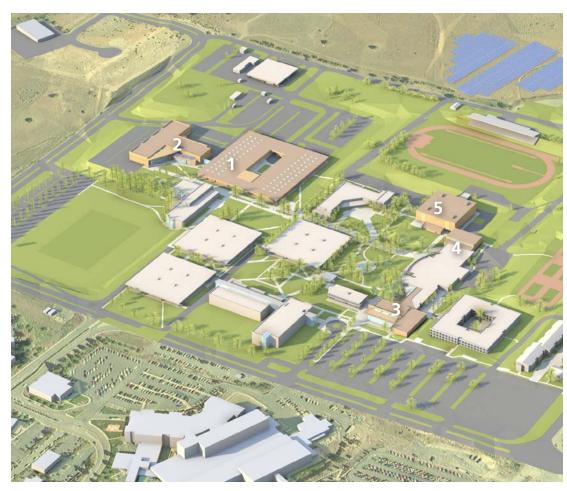
Project 4 and 5 (below) provide two different strategies for to meet the goal of student recreation and fitness on campus.

Project 4, New Recreation Center Building, \$9M The Recreation Center brings accessible and inviting wellness facilities to the center of campus. This study proposes a new 18,000 GSF Recreation Center connected to the College Union, and includes a fitness center, a Gym, dance studio, and all of the support functions.

Project 5, Recreation Center Renovation, \$2.7M This project proposes a Recreation Center reuse of the mothballed Swimming pool volume in the Athletic Center. It is a cost effective, but slightly smaller wellness solution that also includes a small gym, dance studio, and fitness center.

#### THE PROCESS

The concept studies and their associated probable cost analysis are the basis for the current Capital Project Requests and a future, student fee supported



#### **CAMPUS** WITH PROJECTS IDENTIFIED

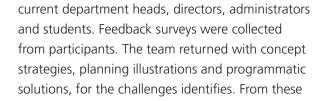
- 1. Cornett Hall Renovation
- 2. New Engineering Building
- 3. Student Services Building
- 4. New Recreation Center Building
- 5. New Recreation Center in Athletics Building





Recreation Center.

The team engaged campus stakeholders and students in a series of informational discussions on campus. These sessions included discussions with





#### CAMPUS FRAMEWORK & NEEDS

discussions the design team established a series of consensus programmatic and building design strategies for the most urgent building needs on campus. From these conceptual design strategies the illustrations and construction cost estimates included in this report were developed.

#### PROJECT COST BASIS:

The cost estimates in this report reflect probable construction costs as determined by the consultant team.

Also included in this report is an approximation of the total Project Cost (where noted). This total includes a 30% university soft cost assumption to arrive at a probable total Project Cost. The 30% in university costs is assumed to include A/E fees, project contingencies (+-10%), furnishings and equipment, project management costs, hazardous materials abatement (beyond those identified in the cost plan), Permits, Enabling work, Legal, Financing, and project cost escalation beyond anticipated project time lines.

This 30% assumption is not based on a knowledge of all of the universities development costs.





#### CAMPUS FRAMEWORK & NEEDS

The Oregon Tech Klamath Falls campus is a beautifully landscaped and well organized campus with resources serving a population of approximately 4,400 students. Situated on a slight rise above the city of Klamath Falls it enjoys unobstructed views to Klamath Lake and the Cascade Mountain range.

#### CAMPUS FRAMEWORK

The campus was designed in 1964 by the architects Skidmore Owings and Merrill as a series of single story academic buildings, a multistory residence hall, and an library/athletic center. The campus was laid out on a highly structured geometric grid, a pattern which is still visible today. The majority of the original buildings are still in use, and many are without significant upgrades since they were built. The largest building on campus, Cornett Hall, is one of the original buildings and houses much of the Engineering Laboratory Space. It is badly in need of a life-safety overhaul.

The campus is zoned into three general campus areas around a central green. The two academic colleges (Engineering, Technology and Management and Health, Arts and Sciences) share facilities in the east side of campus. Athletics and Student Life zones are



**EXISTING CAMPUS** 





5 minute walk radius from the fountain

on the East and North. All parts of campus share the campus-wide resources of the College Union, Athletics Building and Learning Resource Center in the heart of campus. This well established order creates a very legible campus that should be supported by future buildings and additions.

Surrounding these three zones is a series of play fields, activity areas, facilities buildings, and the majority of the campus' parking. Several smaller parking lots are located near central campus buildings for accessibility and convenience. All of the campus is within a 5 minute walk radius from the fountain in the central green. One of the critical needs is to establish a clear strategy for parking relocation and expansion as the campus grows and new buildings require new sites.

From the main campus entry point just southeast of the center of campus, major pedestrian paths are laid out in a simple grid. Three large greens anchor the center of campus and define the campuses landscaped character.

The campus plan established a significant view corridor from the primary campus entrance across campus to views of Klamath Lake and the Cascade Mountain range. This view corridor creates a ground



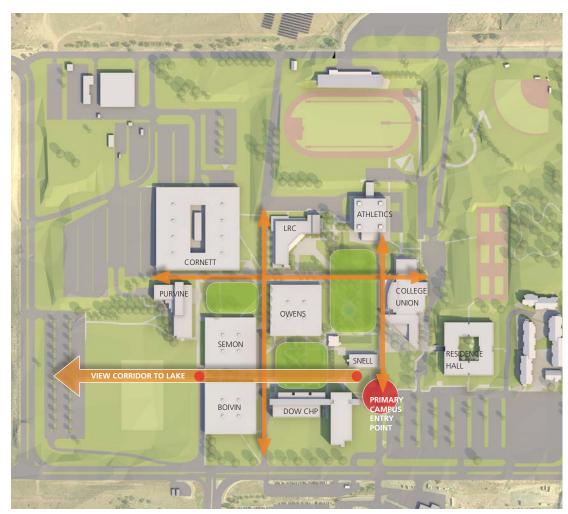
#### CAMPUS FRAMEWORK & NEEDS

level view from near Snell Hall, unobstructed between Boivin and Semon Halls, to the lake. The planning of new facilities should respect this feature of the campus plan.

#### THE NEEDS

Due to the aging state of campus buildings, the continual growth of educational programs, and changes in teaching requirements many of the major buildings have un-met facility needs that should be addressed within the next few years. Numerous code, accessibility and life safety upgrades are required to make a safe campus environment for all students.

The expansion of FTE students and the diversity of program offerings is anticipated to continue to put pressure on the academic facilities on campus. Engineering teaching environments with specialized requirements in support of the unique learning mission of Oregon Tech are in need of modernization and in some cases completely new space types.



**CAMPUS STRUCTURE** 









#### \$12.5M PROJECT COST

(\$9.7M CONSTRUCTION COST)

#### Project Overview

Cornett Hall is currently the primary project lab building for the School of Engineering, Technology and Management consisting of Industrial labs, classrooms and workspaces primarily for the departments of Civil Engineering (CE) and Manufacturing and Mechanical Engineering Technology (MMET). It is also home to the Oregon Renewable Energy Center (OREC), Campus Security and EH&S.

This project is the first phase of a significant renovation that will upgrade Cornett Hall to resolve life safety, health and accessibility issues and extend the useful life of the facility.

Specifically the project will:

- Resolve Seismic/Structural Issues
- Create a fully ADA Accessible Facility
- Resolve Life Safety and Emergency Egress Issues
- Replace the Electrical Service
- Develop Outdoor Work Space in the Courtyard
- Anticipate future growth of Engineering
- Create Collaborative, Interdisciplinary Workspaces
- Provide Safe Classrooms with new HVAC

It is anticipated that there will be a second phase of renovation that will be integrated into the funding of



#### **PROJECT ONE CORNETT HALL RENOVATION**

the new Engineering Building (Project 2).

#### **CORNETT HALL**

The largest and most urgent need on campus is for the creation of a supportive home for the engineering programs at the university. The College of Engineering, Technology and Management is unique in the State of Oregon and a key part of what defines Oregon Tech. Currently the 101,000 square foot Cornett Hall is home to Mechanical Engineering Technology, Manufacturing Engineering Technology, Civil Engineering, and Oregon Renewable Energy Center programs on the Oregon Tech Klamath Falls Campus, growing programs that have seen a sharp increase in students. It was originally built in 1964 and has been adapted over the years to accommodate a wide variety of programs. The building's envelope and building systems are largely beyond their useful life and it has been found to have inadequate structure, emergency egress and it is not ADA accessible.

As a growing polytechnic university, Oregon Tech needs Cornett Hall to be a modern and safe lab and classroom building to educate students for technology jobs meeting Oregon's 40-40-20 goals. This requires expanded state-of-the-art facilities able to accommodate the growth and diversity of programs with adequate locations for student support, including interaction spaces and gathering places for informal meetings and group study.

The current building is configured as a series of disparate interconnected labs and classrooms primarily on one level. Its tall volumes are appreciated for their flexibility and utilitarian function, but the building falls short of providing proper and safe space for the complex educational programs that it houses. Several building systems currently require replacement, including electrical systems and some of the HVAC. The exterior is in need of repair and the building requires a new roof.

Code, Accessibility and Life Safety Issues:

#### Structural Deficiencies:

A structural/siesmic study conducted by Adkins Consulting Engineers as part of this project determined that the building requires correction of seismic structural code-related deficiencies. The longspan structure, while generally sufficient for loading, will require lateral bracing and local reinforcing to meet current seismic codes (report may be found in the Appendix).

#### Life Safety:

The main life safety concerns are due to the lack of adequate protected emergency egress and the lack of sufficient isolation and ventilation of potential hazardous fumes and particulates from lab processes.

#### Egress:

The lack of internal protected corridors creates









emergency egress code deficiencies in many spaces on both the main level and the small second level. Due to their size, several classrooms are classified as assembly use (greater than 50 persons) and must be isolated from other spaces and have two protected means of egress. Compliance with the required (two) means of egress is not comprehensive, with much of the egress being though intervening rooms. This pattern of egress is highly restricted in Section 10.14.2 of the 2010 Oregon Structural Specialty Code, a likely impediment to bringing the building up to compliance with the current building zoning code without substantial reconfiguration. These issues present a very real life-safety risk for the University, its faculty and its students.

#### Accessibility:

The main floor areas are five feet below campus grade and a half level down from the main entrance level. making only half of the building ADA accessible. There is no elevator or ramp access from the main entry to the primary building spaces. Several spaces are on a second floor with no accessibility solution.

The renovation will provide a single, main entrance with a new accessibility lift and connecting corridors that provide easy access to all spaces. Only two existing spaces will not be on this main level, they will be connected via a new ramp system.

#### Other Known Building Deficiencies:

- Unsecured and/or unsafe classroom access. includes connections through potentially hazardous lab space, rather than direct access
- Probable presence of asbestos and other hazardous materials throughout the building (as identified by OIT staff).
- Lack of acoustic separation between spaces presents risks and is not conducive to an effective teaching environment.
- Electrical systems that are beyond their safe and useful life. Minimal availability of appropriate levels of 220v and 110v electrical power for equipment and classroom uses.
- Inadequate HVAC, cooling/heating/ventilation in some spaces and low air quality throughout.
- Insufficient daylight in classrooms, offices and some labs.
- Lack of 20,000 gallon Geotech department underground reservoir.

#### Aspirations:

Beyond the improvements for life safety and accessibility for the existing Cornett Hall facility, the College of Engineering, Technology and Management needs additional space to meet the long term growth of the programs. Proposed is a building that combines collaborative workspace, engineering labs, classrooms



#### **PROJECT ONE CORNETT HALL RENOVATION**

and offices as a multidisciplinary hub for the entire Center for Engineering and Technology.

#### Project Strategy and Scope

The existing building is made up of a series of small classrooms, service spaces, and large labs with few corridors connecting the spaces. Originally the building, with it's 20' floor to ceiling heights, had an extensive network of catwalks to navigate from space to space, a remnant of which still exists. Due to security, life safety concerns, and accessibility issues these have mostly been eliminated or abandoned, leaving the building fairly disconnected and without a clear means of egress for several spaces. This project proposes that the catwalk system and all of the second level space be eliminated from the building, with the exception of the small wet lab at the NW corner, which will be reached by a new accessibility ramp.

The project reorganizes the building around a new lobby and corridor system along the edges of the courtyard (shown in orange at the right). A large lobby/collaborative space at the entry provides a single point of vertical access (new stairs and an ADA lift) to the main level of the building, five feet below the campus entry. This collaborative "maker space" provides a focus area for interdisciplinary activity.

The reorganization and new, centrally located accessibility lifts solves ADA accessibility for the entire







building by providing a single, level corridor access to all spaces. New restrooms will be accessible and the inaccessible second floor space is eliminated. The existing ramp system in the middle of the East wing is proposed to be eliminated. A single ramp at the north end of the East Wing provides access to two class/lab spaces that are not on the main level. The second level Campus Security space is relocated on the ground floor in the East Wing along with EH&S offices.

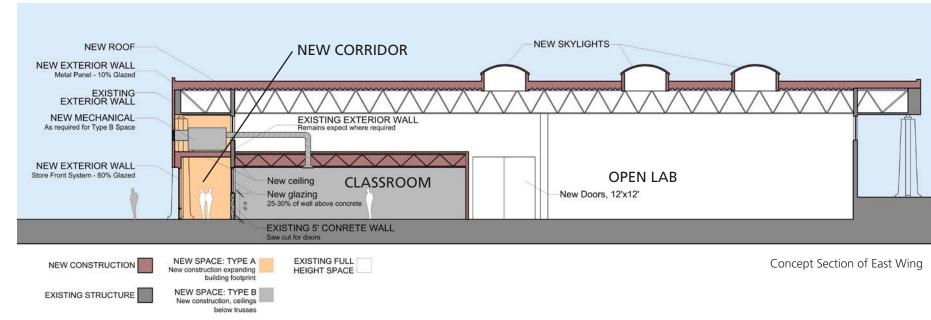
Classrooms and smaller spaces (shown in grey) are grouped along this courtyard corridor and can be acoustically and physically separated from the lab spaces with a new ceiling structure. Each classroom

space will have new HVAC. The new courtyard corridor (enclosed under the current eave) provides a fire-separated emergency egress for all of the smaller rooms and classrooms.

This new configuration allows a flexible series of open lab spaces on the outer edges of each building wing that can be interconnected and rearranged to meet the changing needs of the departments.

#### PHASED WORK

Not all of the renovation work and deferred maintenance required at Cornett Hall will be able to be completed within the \$12M budget of this first



project. We have prioritized the safety, structural, and accessibility upgrades but will have several items that remain on a deferred maintenance list for the building. The budgeting of Project Two contain monies to complete this work. Design work in this phase should include the initial design for both the phase 1 and phase 2 building improvements, with construction completion when Phase 2 monies are available.

The work in this first phase includes a new roof with skylights in the East Wing. These skylights will provide a large percentage of the required lighting during the daylight hours. The West Wing roof and skylights are anticipated to be deferred to the second phase, when the building renovation in that half of the building is completed (Project 2).

Shown in the illustration at right, the hatched areas are areas deferred to the second phase. The unhatched areas indicate the proposed scope and configuration of the building at the end of this first construction phase.

In the illustration, the existing department spaces are reconfigured and/or relocated. All spaces are the same size or larger than in the existing building, and there are several new unassigned areas identified (white).

Most of the storage and service space in the courtyard has been relocated inside allowing better movement of vehicles and providing adequate working area for large projects. Many of the desired interdepartmental relationships have been improved, with additional moves anticipated with the completion of Phase 2.

The relocation of the civil programs will include a new reinforced structural slab under the materials testing frame, an overhead crane for moving large items, and a reinforced concrete testing wall. The fluids Lab (113A) will include a 20,000 gallon underground reservoir, likely in the vacated rifle range accessed from room 110.

The electrical transformers, currently located in the courtyard will be replaced and relocated to the north end of the building. All of the electrical service is scheduled to be replaced.

Of note in the excluded area is the large lab, room 107. This is the current welding lab and is not to be upgraded until the new building is built. The nature and scope of the work done in this lab is best accommodated in new space that meets the current safety regulations regarding ventilation, particulates and fire safety. It is planned that during the second





phase the southwest corner of the building will be substantially reconfigured to reuse the welding area (107) and rooms 106, 108, 109 and 110. This area will also provide a new circulation corridor to the new building (illustrated in Project 2).

Hazardous materials, including asbestos, will be abated and removed in all areas where work is being done in this phase.

#### PHASED SCHEDULE OF CONSTRUCTION

The schedule for the construction is assumed to begin in the summer of 2017, with much of the significant work being done during the summer months when the building is lightly used. The construction can continue during the 2017-18 school year with a scheduled reopening for Fall 2018. Work during the school year will require temporary relocation of programs and phased implementation to allow the College of ETM to remain in operation. Assumed schedule is shown on page 26.

For illustrations of the complete updated Cornett Hall (Phase 1 and 2) see Project 2 in the following section.





#### **PROJECT ONE CORNETT HALL** RENOVATION

New Collaborative "Maker Space" directly connected to the Entry Lobby, circulation corridors and courtyard.





## PROJECT ONE CORNETT HALL

RENOVATION

New Circulation Corridors provide safe, easy and fully accessible connection to all classroom and lab spaces.





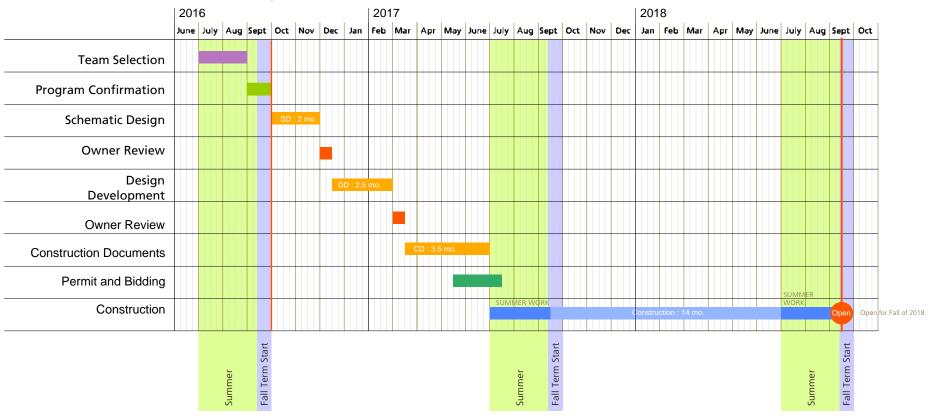
#### **PROJECT ONE CORNETT HALL** RENOVATION

Courtyard space indicating gathering/workspace, circulation corridors and entry area with collaborative "Maker Space"





# Cornett Phase 1 Remodel - Design and Construction Schedule





Conceptual Building Program

# Phase 1 - Renovated Cornett Building

99,000 GSF

RCDESC	ROOM		#	AREA
CIVIL ENGINEERING (CE)				
Lab	115/113	9400	1	9400
Lab	113A	3000	1	3000
Class Lab	115C	1000	1	1000
Class Lab	155	1000	1	1000
Lab Service	132	500	1	500
Lab Service	132A	500	1	500
Staff Office	114E	200	1	200
Lab Service	113C	200	1	200
Materials Storage		350	1	350
Materials Storage		380	1	380
Class Lab	115	600	1	600
Class Lab	114A	1100	1	1100
Class Lab	114B	1100	1	1100
Class Lab	114C	700	1	700
Class Lab	114D	700	1	700
Grad Office	158	100	1	100
Grad Office	157	100	1	100
Grad Office	156	100	1	100
Subtotal New CIVIL Area			21,030	

MANUFACTURING &	MECH. EN	GINEERI	NG (N	1MET)
Open Lab	151	1500	1	1500
Class Lab	147	1200	1	1200
Lab	121	3600	1	3600
Lab Service	128/129	400	1	400
Lab Service	127	380	1	380
Grad Office	159	100	1	100
Grad Office	160	100	1	100
Grad Office	162	100	1	100
Grad Office	163	100	1	100
UNRENOVATED BELOW				
Lab (Welding)	107	7300	1	7300
Class Lab	108	1350	1	1350
Class Lab	106	750	1	750
Lab Service	109	400	1	400
Lab Service	110	270	1	270
Lab Service	106A	370	1	370
Lab Service	105B	600	1	600

	Subtotal New MMET Area			42,550
Class Lab 1	222	1200	1	1200
Lab Service	121A	200	1	200
Lab Service	122A	200	1	200
Class Lab	122	700	1	700
Class Lab	123	1650	1	1650
Lab Service	116D	40	1	40
Lab Service	120C	80	1	80
Lab Service	120F	180	1	180
Lab Service	120B	420	1	420
Class Lab	118	2900	1	2900
Class Lab	117	2900	1	2900
Class Lab (Sr. Projects)	116	2400	1	2400
Class Lab	101	580	1	580
Class Lab	104	700	1	700
Lab Service	105A	180	1	180
Lab (Machine Shop)	105	9700	1	9700

OREGON RENEW	ABLE ENERGY	CENTER	(OREC	I)
Open Lab	120A	2800	1	2800
	Subtot	Subtotal New OREC Area		
			·	
<b>ASSIGNED SPACE</b>	(Not ETM)			
CLASSROOM	149	1500	1	1500
EH&S	131	650	1	650
Campus Security	232	900	1	900
	Subtotal N	lew Assigne	d Area	3,050
			•	
<b>NEW UNASSIGNE</b>	D SPACE			
Unassigned LAB		3000	1	3000
Maker Space		650	1	650
Grad Offices		100	3	300
	Subtotal Nev	Subtotal New Unassigned Area		
Total Net Area			et Area	73,380
Gross Building Factor			Factor	1.35
Total Gross Building Area			ng Area	99.063











#### \$41M PROJECT COST

(\$31.7M CONSTRUCTION COST)

#### Project Overview

This project builds on Project One to complete the integrated Center for Engineering and Technology. The combined project will be home to the expanded interdisciplinary College of Engineering, Technology and Management, including the departments of: Manufacturing and Mechanical Engineering Technology (MMET), Civil Engineering (CE), Electrical Engineering & Renewable Energy (EERE), Computer Systems Engineering Technology (CSET), Geomatics, Management, and Oregon Renewable Energy Center (OREC).

The building is anticipated to be a LEED Gold or LEED Platinum building and will provide a new model of learning that integrates offices, classrooms and labs around interactive workspaces. The building as a whole is seen as a demonstration of best engineering practices in sustainable design.

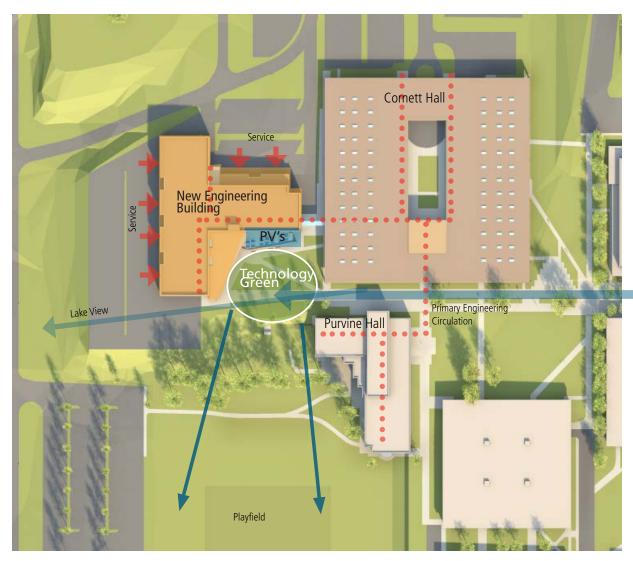
Working labs will be visible and integrated into the use of the building. Photovoltaics and green roofs will provide a visible indication of some of the sustainable research taking place inside the facility. In the lobby,

#### **PROJECT TWO NEW ENGINEERING & TECHNOLOGY BUILDING**

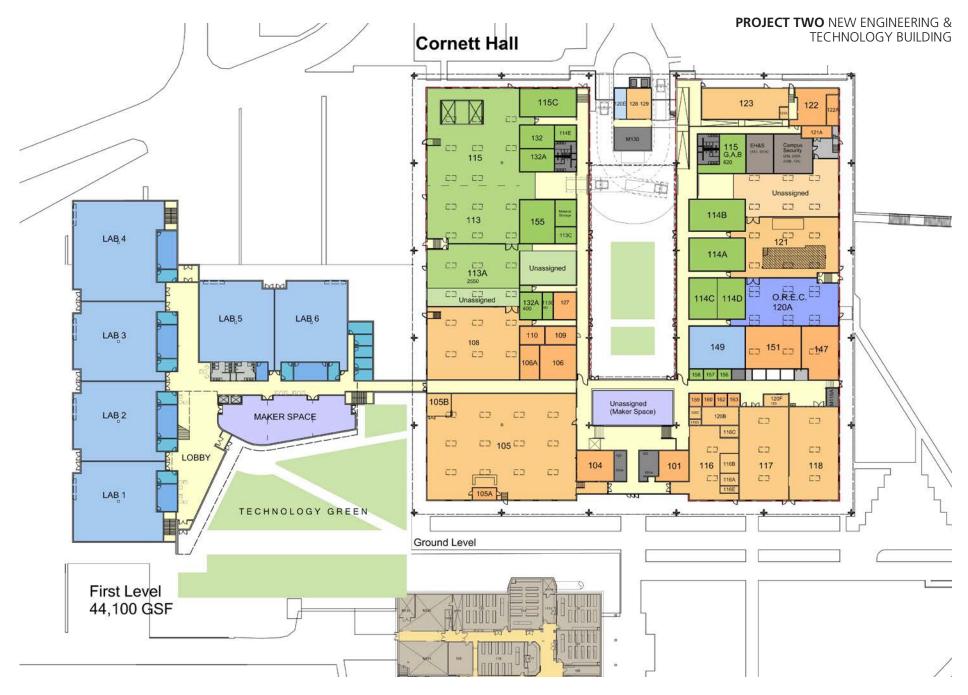
energy monitoring and sustainable information displays will provide interactive engagement with the science of this facility.

The teaching spaces will be state of the art, Technology Enhanced Classrooms, with interactive connected workstations, augmented with a variety of technological tools that enhance the learning environment. Rooms that include these tools will come equipped with an interactive whiteboard or tablet powered by "Smart" technologies. Additionally, these rooms will be outfitted with the necessary equipment that will allow for a laptop to be connected to the inroom system.

The project includes 80,000 GSF of new, air conditioned classroom and lab spaces and will complete the renovation of Cornett Hall (Phase 2). Cornett Hall improvements will include the work to relocate/renovate the welding facility, add skylights and a new roof in the West Wing and provide configuration changes that connect the two buildings. The schedule for both parts of this work is shown on page 41. The schedule assumes that much of the design work for Cornett will be completed during the Cornett Remodel Phase 1 project (Project 1).







#### **PROJECT TWO NEW ENGINEERING & TECHNOLOGY BUILDING**

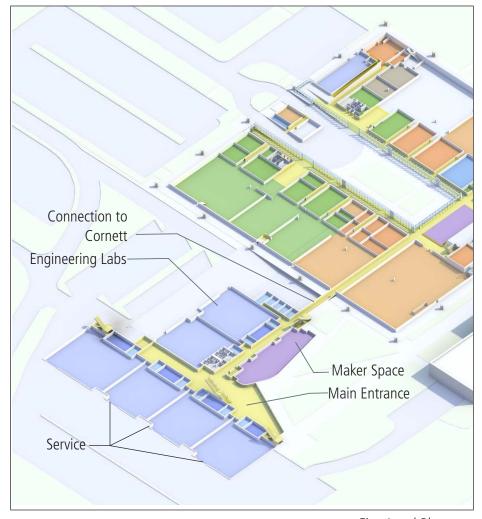
The center of the plan is organized around a subdividable "Maker Space" with visual connections to a new landscaped Technology Green and the major building circulation paths. An adjacent two-story lobby space provides a central gathering space and connection between the two building levels.

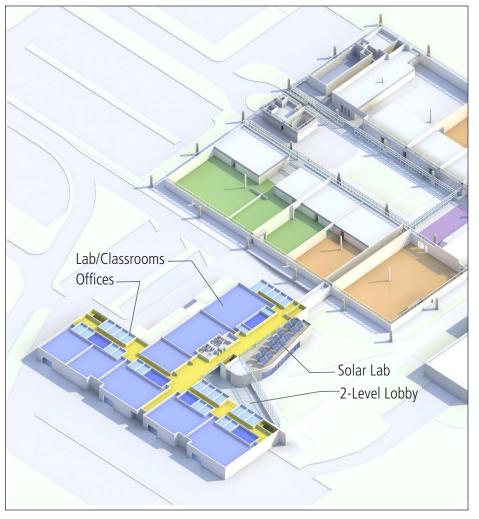
Much of the rest of the first level will be large labs with integrated offices and lab support spaces. This will be tall floor (18' F/F) to allow the lab processes to have adequate services and height.

The second level will have smaller "clean" labs and classrooms, along with departmental and graduate offices. This is the likely location for computer labs, laser labs, geomatics, and other areas that need a controlled and clean environment, but do not require the larger "high-bay" space. Above the Maker Space is an outdoor terrace that houses the solar lab with visible PV array.









First Level Plan

Second Level Plan



# **PROJECT TWO** NEW ENGINEERING & TECHNOLOGY BUILDING

Upper level of Atrium overlooking a Project Display and Exhibition area and Main Entry





### **PROJECT TWO** NEW ENGINEERING & TECHNOLOGY BUILDING

Approach from central campus showing Technology Green, Maker Space wing and Solar Energy Programs display





### **PROJECT TWO** NEW ENGINEERING & TECHNOLOGY BUILDING

Ground level of Lobby Atrium





### **PROJECT TWO** NEW ENGINEERING & TECHNOLOGY BUILDING

South Entry and Technology Green





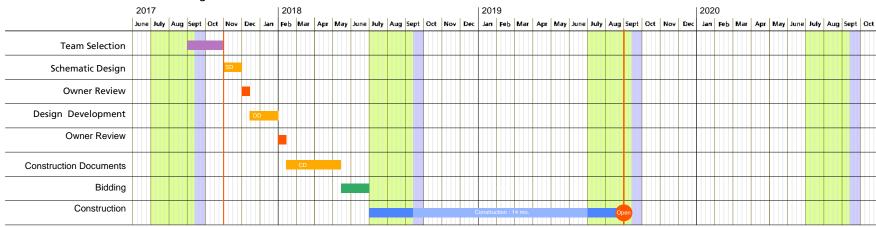
# **PROJECT TWO** NEW ENGINEERING & TECHNOLOGY BUILDING

Maker Space Wing and Solar Technology Display

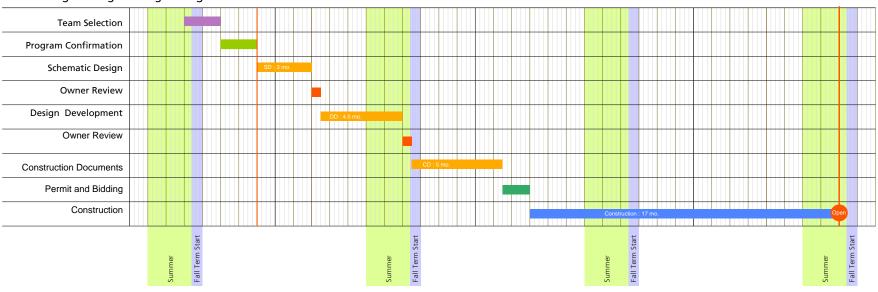




### Cornett Phase 2 Remodel - Design and Construction Schedule



## New Engineering Building - Design and Construction Schedule





## **PROJECT TWO** NEW ENGINEERING & TECHNOLOGY BUILDING

Conceptual Building Program

## **New Engineering Building**

80,000 GSF

GROUND FLOOR

BCDESC	POOM	ш	ADEA
RCDESC	ROOM	#	AREA
Industrial Lab 1	4000	1	4000
Lab Service	350	1	350
Industrial Lab 2	3500	1	3500
Lab Service	400	1	400
Industrial Lab 3	3500	1	3500
Lab Service	120	1	120
Industrial Lab 4	4500	1	4500
Lab Service	700	1	700
Industrial Lab 5	3500	1	3500
Lab Service	350	1	350
Industrial Lab 6	3500	1	3500
Lab Service	350	1	350
Staff Office	120	10	1200
Admin. Office	150	3	450
Lobby	2500	1	2500
Maker Space	3000	1	3000
	Subtotal Ground Floor N	et Area	31,920
UPPER FLOOR			
RCDESC	ROOM	#	AREA
Class Lab 1	2500	1	2000
Classroom Support	440	1	440
Class Lab 2	2000	1	2000
Classroom Support	300	1	300
Class Lab 3	2700	1	2500
Classroom Support	400	1	400
Class Lab 4	1500	1	1500
Classroom Support	700	1	700
Class Lab 5	1500	1	1500
Classroom 6	1500	1	1500
Class Lab 7	2500	1	2500
Classroom Support	120	1	120
Classroom 8	2500	1	2500
Classroom Support	350	1	350
Staff Office	120	24	2880
Admin. Office	150	4	600
	Subtotal Upper Level N	et Area	21,790
	Subtotal Upper Level N		<b>21,790</b> 53,710

Conceptual Building Program

## Phase 2 - Renovated Cornett Building

98,000 GSF

CIVIL ENGINEERING (C	E)			
Lab	115/113	9400	1	9400
Lab	113A	3000	1	3000
Class Lab	115C	1000	1	1000
Class Lab	155	1000	1	1000
Lab Service	132	500	1	500
Lab Service	132A	400	1	400
Staff Office	114E	200	1	200
Lab Service	113C	200	1	200
Materials Storage		350	1	350
Materials Storage		380	1	380
Class Lab	115	600	1	600
Class Lab	114A	1100	1	1100
Class Lab	114B	1100	1	1100
Class Lab	114C	700	1	700
Class Lab	114D	700	1	700
Grad Office	158	100	1	100
Grad Office	157	100	1	100
Grad Office	156	100	1	100
Unassigned Class Lab		1000	1	1000
Unassigned		1200	1	1200
	Subto	tal New CIV	/IL Area	23,130

MANUFACTURING	& MFCH FN	GINFFRI	NG (N	1MFT)
Open Lab	151	1500	1	1500
Class Lab	147	1200	1	1200
Lab	121	3600	1	3600
Lab Service	128/129	400	1	400
Grad Office	159	100	1	100
Grad Office	160	100	1	100
Grad Office	162	100	1	100
Grad Office	163	100	1	100
Lab Service	127	400	1	400
Lab (welding)	107			0
Class Lab	108	4400	1	4400
Class Lab	106	800	1	800
Lab Service	109	360	1	360
Lab Service	110	300	1	300
Lab Service	106A	450	1	450
Lab Service	105B	600	1	600

Subtota	l New MME	T Area	41,740
222	1200	1	1200
	3000	1	3000
121A	200	1	200
122A	200	1	200
122	700	1	700
123	1650	1	1650
116D	40	1	40
120C	80	1	80
120F	180	1	180
120B	420	1	420
118	2900	1	2900
117	2900	1	2900
116	2400	1	2400
101	580	1	580
104	700	1	700
105A	180	1	180
105	10000	1	10000
	105A 104 101 116 117 118 120B 120F 120C 116D 123 122 122A 121A	105A 180 104 700 101 580 116 2400 117 2900 118 2900 120B 420 120F 180 120C 80 116D 40 123 1650 122 700 121A 200 3000 222 1200	105A 180 1 104 700 1 101 580 1 116 2400 1 117 2900 1 118 2900 1 120B 420 1 120F 180 1 120C 80 1 116D 40 1 123 1650 1 122 700 1 122A 200 1 121A 200 1 3000 1

OREGON RENEWABL	E ENERGY	CENTER	(ORE	<b>(</b> )
Open Lab	120A	2800	1	2800
	Subtot	al New ORE	C Area	2,800
ASSIGNED SPACE (No	t ETM)			
CLASSROOM	149	1500	1	1500
EH&S	131	650	1	650
Campus Security	232	900	1	900
Subtotal New Assigned Area				3,050
<b>NEW UNASSIGNED SI</b>	PACE			
Maker Space		650	1	650
Grad Offices		100	3	300
	Subtotal Nev	v Unassigne	ed Area	950
		Total N	et Area	71,670
	Gr	oss Building	Factor	1.37
·	Total C	Fross Buildir	ng Area	98,188



Gross Building Factor

Total Gross Building Area

1.48

79,491







#### \$16.9M PROJECT COST

(\$13M CONSTRUCTION COST)

## Project Overview

This building meets a need for a central location for the delivery of student services on campus. This two-story, 32,500 GSF building is conceived as the new home for student engagement and enrollment on campus and occupies a key gateway location on campus. First time visitors will begin their journey here and students will return repeatedly to this location to get financial aid, sign up for classes, receive counseling, pay bills and get tutoring and support.

### STUDENT LIFE NEEDS

Creating success for students is a first priority on campus. By providing for the academic, health, financial and social wellbeing of Oregon Tech's students, the university is able boost retention and increase successful graduation rates while helping Oregon achieve its 40-40-20 goals. Creating nonacademic opportunities for students on campus will give students an opportunity for a healthy balance to the stresses of university life.

#### Student Success:

Oregon Tech is expanding Student Success Programs to be focused on providing supplemental support for students who have academic needs, are first generation college students, returning veterans, have



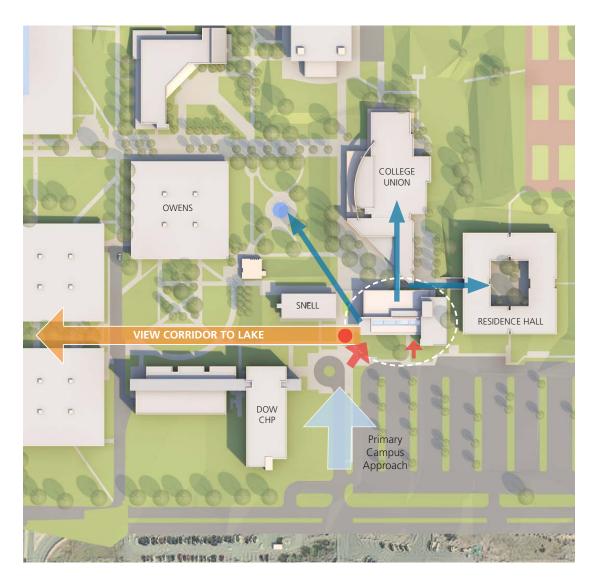
### **PROJECT THREE STUDENT SERVICES BUILDING**

a disability or are low-income. These services require additional learning space. Some of the programs provided under Success Programs include tutoring, mentors, networking, college success classes, and developmental academic advising, supporting our goal to provide timely intervention with struggling students to improve the chance of degree completion.

Many of the services in support of students are dispersed around the campus in "found space." The university needs a clear way to deliver a diverse range of student services to the campus community that is efficient and easy to find. Consolidation of these services in a single location provides success for the most needy of students.

The building will bring together programs from four separate buildings, streamlining the student experience and making campus operations more efficient. Both levels of the building will be directly connected to the existing College Union (CU).

The building is proposed as a two story building attached to the south end of the College Union building (CU), with direct connection on both levels. This will require a rearrangement of program within the CU near the attachment point.







#### THE PROPOSED SOLUTION

Located at the main campus entrance, the new building will mark a gateway to the center of campus. It is situated for visibility and ease of access for visitors. A two story porch and glass lobby invites students into the building and provides immediate wayfinding within the space. Students are met at the lower level Help Desk and will be directed to the appropriate services. Outside a wood column porch addresses a small protected courtyard and shelters the main entrance.

The building is placed at a crossroads on campus, connecting popular campus paths in new ways. Due to the steep site the building can be entered on grade at either level, an arrangement that creates a new ADA accessible way to traverse some of the most difficult terrain on campus. The southwest corner is the primary entrance and gives direct ADA access to the first level. The lower level includes a Welcome Desk/Information Center and the Student Success Center, including testing, tutoring, study space, student retention, and career services.

On the second floor, the accessible entrance from the south connects directly to the "One-Stop" student services area. Here the building will house enrollment services, admissions, financial aid, registrar, student



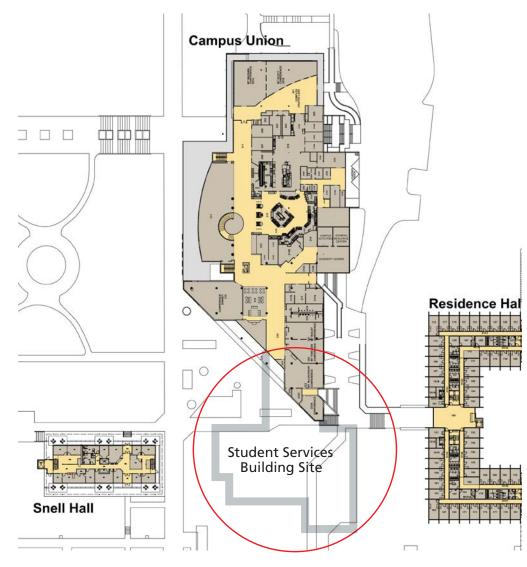
### **PROJECT THREE STUDENT SERVICES BUILDING**

receivables/cashier services in a single location. To the north the building bridges directly into the College Union. An entrance on the northeast corner has a direct accessible path to Residence Hall from level two.

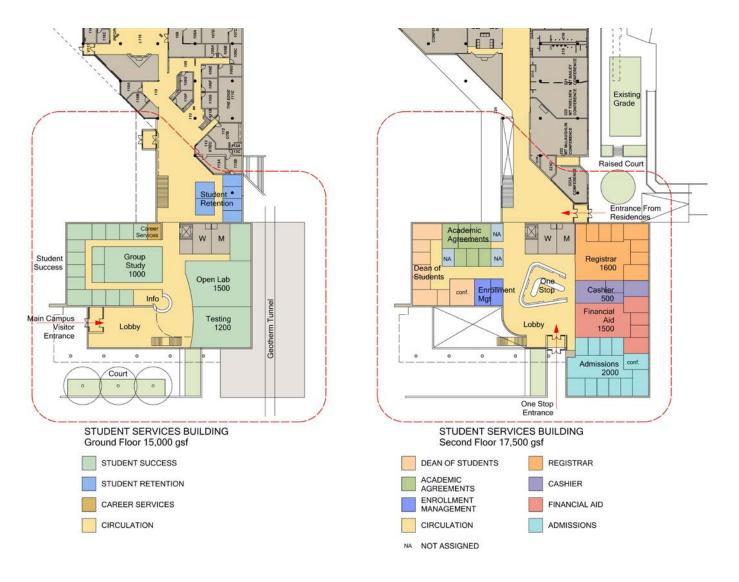
Relocation of this services will free up space in other buildings for needed growth in administrative and academic functions and free up College Union space for student activities and recreation.

The learning spaces will include state of the art, Technology Enhanced Classrooms, with interactive connected workstations, augmented with a variety of technological tools that can enhance the learning environment., with interactive whiteboards or tablet powered by smart technologies. Additionally, these rooms will allow for a laptop to be connected to the in-room system.

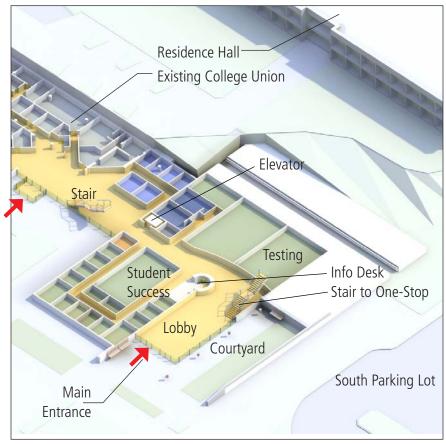
This project was also studied with a fitness center as an integrated component (Student Services/Rec Center Option 1 in the Appendix). This option did not address the need for a sports court on campus and the combination of programs was not considered a likely option for development due to the limited space and the complication of financing of the project.

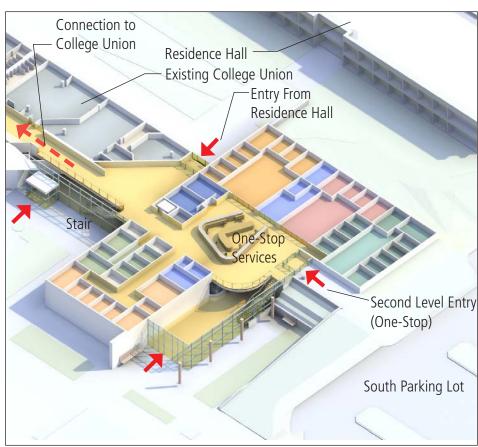












First Level Plan Second Level Plan

Welcome porch as seen from the Southwest





## **PROJECT THREE** STUDENT

SERVICES BUILDING

Main Entry at the southwest corner leading into the two story lobby and Welcome Desk





### **PROJECT THREE** STUDENT SERVICES BUILDING

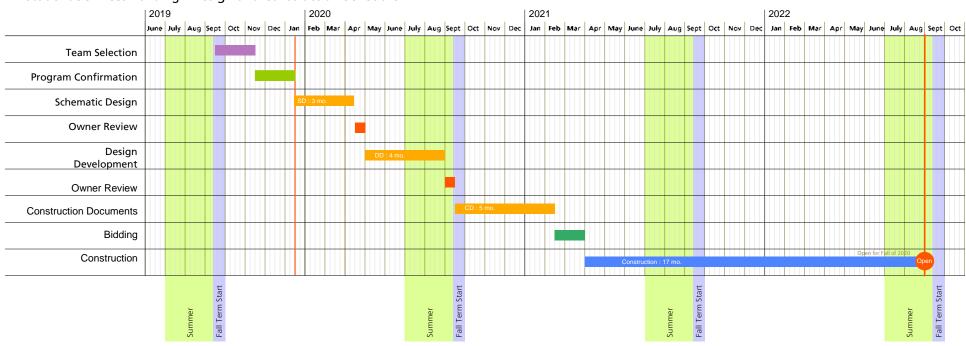
Student "One-Stop" Entrance on the south facade with direct (ADA) access from the parking lot





## **PROJECT THREE** STUDENT SERVICES BUILDING

## Student Services Building - Design and Construction Schedule





## Conceptual Building Program

## **Student Services Building**

32,000 GSF

RCDESC	ROOM		#	AREA
<b>DEAN OF STUDENTS</b>	5			
Staff Office	217	100	3	300
Conference Room	217A	300	1	300
Administrative Office	217B	140	1	140
Office Facilities Service	217C	70	1	70
Staff Office	225A	100	2	200
Unassigned Area		300	1	300
	Subtotal Dean o	f Students	Area	1,310

ONE-STOP SERVICES	CENTER			
One Stop Help Desk	22.1.210	2500	1	2500
ADMISSIONS				
Staff Office	109	100	2	200
Staff Office	109A	100	1	100
Staff Office	109B	100	1	100
Staff Office	109C	100	1	100
Staff Office	109D	100	1	100
Staff Office	109E	100	1	100
Staff Office	109F	100	1	100
Conference Room	109G	150	1	150
Administrative Office	110E	140	1	140
Administrative Office	110G	140	1	140
Unassigned		400	1	400
	Subtotal AD	MISSIONS	Area	1630
FINANCIAL AID				
Office Facilities Service	110	800	1	800
Staff Office	110A	100	1	100
Administrative Office	110B	140	1	140
Staff Office	110C	100	1	100
Administrative Office	110D	140	1	140
Office Facilities Service	110F	100	1	100
Unassigned		400	1	400
	Subtotal FINA	NCIAL AID	Area	1780
REGISTRARS OFFICE				
Administrative Office	006	140	1	140
Staff Office	006A	100	2	200
Staff Office	007	1000	1	1000
Administrative Office	800	140	1	140

Staff Office				
	A800	100	1	100
Office Facilities Service	008B	50	1	50
Office Facilities Service	008C	100	1	100
Office Facilities Service	008D	70	1	70
Unassigned		500	1	500
Subto	otal REGISTRA	RS OFFICE	Area	2300
CASHIERS OFFICE				
Staff Office	116	100	2	200
Office Facilities Service	116A	50	1	50
Administrative Office	117	140	1	140
Unassigned		200	1	200
Sul	btotal CASHIE	RS OFFICE	Area	590
ENROLLMENT MANAGEMENT	Γ			
Administration Office		140	1	140
Staff Office		100	1	100
Subtotal ENROI	LLMENT MANA	AGEMENT	Area	240
ACADEMIC AGREEMENTS				
Administrative Office	E213	140	1	140
	E213 E217	140 140	1 2	
Administrative Office				280
Administrative Office Administrative Office		140	2	280 100
Administrative Office Administrative Office Staff Office		140 100	2	280 100 100
Administrative Office Administrative Office Staff Office Staff Office		140 100 100	2 1 1	280 100 100 100
Administrative Office Administrative Office Staff Office Staff Office Staff Office Staff Office Staff Office		140 100 100 100	2 1 1 1	280 100 100 100 100
Administrative Office Administrative Office Staff Office Staff Office Staff Office Staff Office Unassigned		140 100 100 100 100 300	2 1 1 1 1 1	140 280 100 100 100 100 300

	Total C	10,160		
STUDENT SUCCESS CE	NTER			
STUDENT SUCCESS				
Group Study Room	211	400	1	400
Staff Office	220	100	1	100
Staff Office	222	100	1	100
Staff Office	223	100	1	100
Group Study Room	225	200	1	200
Office Facilities Services	227	300	1	300
Staff Office	228	100	4	400
Office Facilities Services	228A	150	1	150

Staff Office	228	100	4	400
Office Facilities Services	228A	150	1	150
Staff Office	229	100	1	100
Staff Office		100	1	100
Administration Office	229A	140	1	140
Staff Office	229B	100	1	100
Administration Office	229C	140	1	140
Staff Office	229D	100	3	300
Open Laboratory	230	1300	1	1300
Staff Office	230A	100	1	100
Office Facilities Services	230B	130	1	130
Listening Room	230C	50	1	50
Listening Room	230D	50	1	50
Other Spec Use Facilities - T	230E	1200	1	1200
Group Study Room	233	1000	1	1000
Study Room	233A	100	1	100
Study Room	233B	100	1	100
Unassigned		2000	1	2000
Subto	tal STUDEN	T SUCCESS	Area	8660
				1
STUDENT RETENTION				
Administrative Office		140	1	140
Staff Office		100	1	100
Staff Office		100	1	100
Staff Office		100	1	100
Staff Office		100	1	100
Staff Office		100	1	100
Unassigned	L CTLIDENT I	300	1	300
Subtota	I STUDENT I	KETENTION	Area	940
CAREER SERVICES				
Administrative Office		140	1	140
	otal CAREEF			
Subti	Otal CARLLI	( JLI(VICL)	Alea	140
Total ST	UDENT SU	CCESS CEI	NTER	9,740
Total ST	UDENT SER	VICES BUIL	DING	21,210
	Gross	s Building F	actor	1.5
	Total Gro	ss Building	Area	31,815











### \$9M PROJECT COST

(\$6.9M CONSTRUCTION COST)

### Project Overview

This is the first of two strategies that propose to meet the substantial need for additional fitness, recreation and wellness space on campus. In this scenario the Recreation Center is a standalone facility attached to the north end of the College Union (CU).

### RECREATION AND WELLNESS NEEDS

The increase in the number of university students, combined with an expanding successful student athletic program, has made the existing athletic and recreation center unable to support the wellness and activity needs of all students. This need is exacerbated by the increase of resident students that live on campus 24/7. In addition, over the last few decades many the facilities available for students have been lost; the swimming pool and the tennis courts have fallen into disrepair and are currently unsuitable for use.

The availability of indoor court space for both intermurals and athletes activities is inadequate. Other than a small number of fitness apparatus in the athletic center, there are few facilities for general use by the students. In the cold winter months the need



#### PROJECT FOUR

**RECREATION CENTER, OPTION 1** 

for indoor activity space is acute. Physical education courses are minimal due to lack of space.

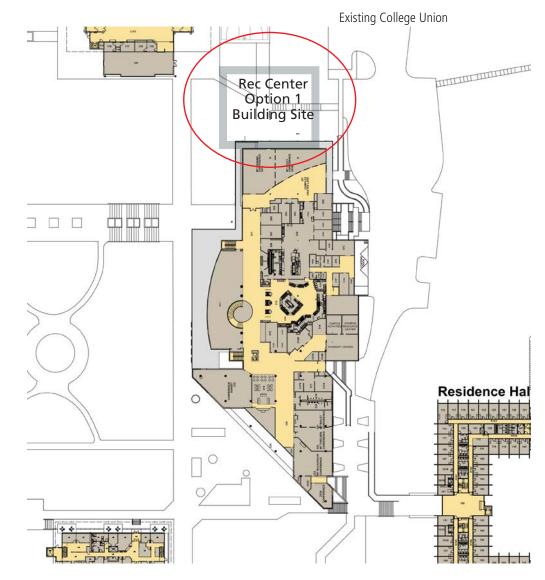
This proposed solution is an 18,000 GSF building arranged on two levels overlooking the center of campus. The program includes a full size Basketball .Sports court on the upper level and a fitness center with weight room, cardio area and aerobics studio on the lower level.

The generous lobby with elevator and stair on two levels gives opportunity for a juice bar, a climbing wall and space for lounging and study. The upper level connects directly into the College Union and the lower level is entered from the main campus green.

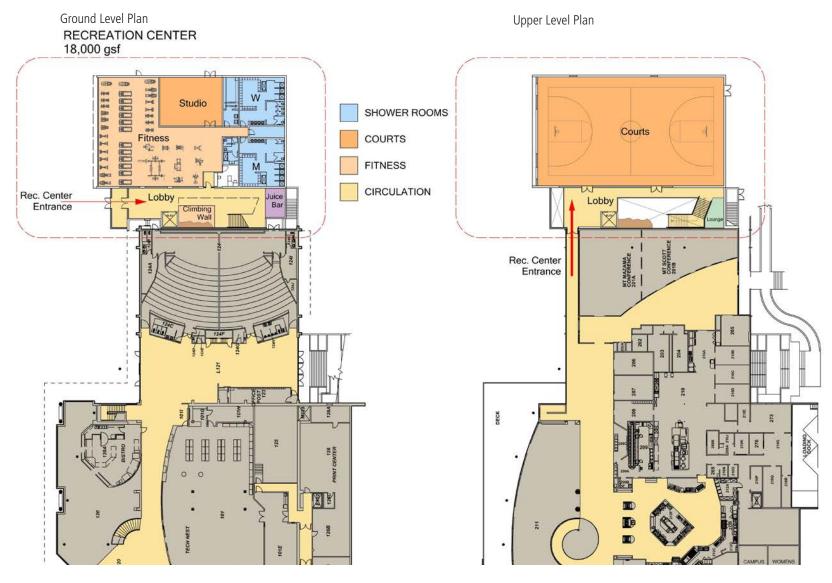
### Conceptual Building Program

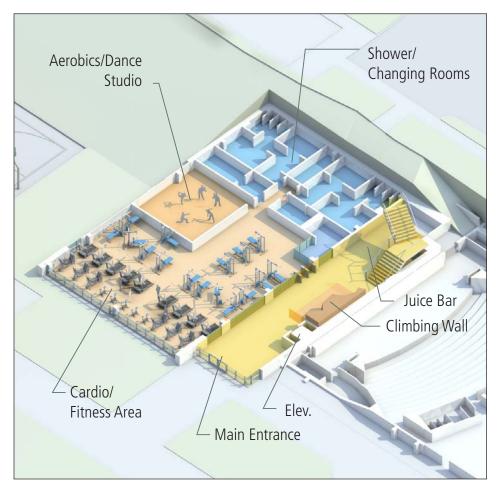
## **Student Recreation Center - Option 1** 18.000 GSF

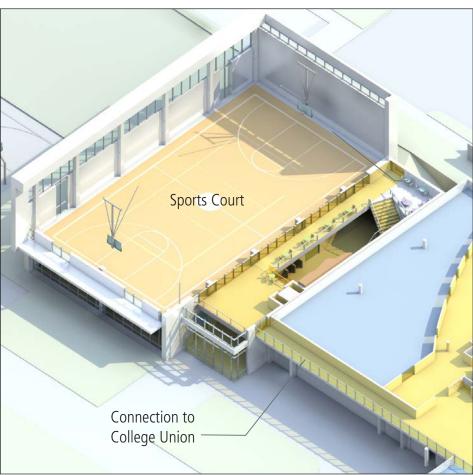
RCDESC	ROOM	#	AREA
Basketball Court	6600	1	6600
Lobbies	2000	1	2000
Lockers/Showers	1700	1	1700
Aerobics Studio	1000	1	1000
Fitness Room	3300	1	3300
Office	140	1	140
Laundry/Storage	230	1	230
	Total STUDENT RECREATION	CENTER	14,970
	Gross Buildin	g Factor	1.2
	Total Gross Build	ing Area	17,964











Lower Level Plan Upper Level Plan



New Gym/Fitness Building is attached to the College Union, adjacent to the Athletic Building with views over the central green. Lower level fitness and upper level Gym.



## **PROJECT FOUR**

RECREATION CENTER, OPTION 1

Two story lobby with climbing wall, Juice Bar, main stair and elevator. Glazed walls offer visibility into the Gym and fitness spaces.





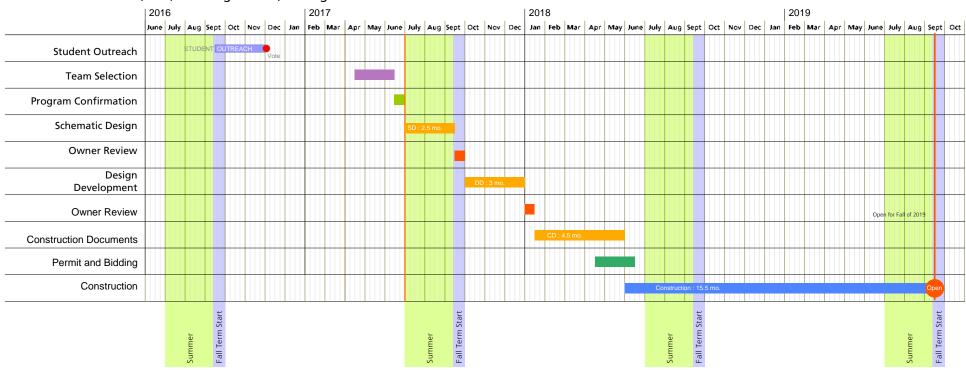
New full size Gym with views over the central green. Configured to allow subdivided multi-use and event functions.



### **PROJECT FOUR**

RECREATION CENTER, OPTION 1

## Recreation Center (New, at College Union) - Design and Construction Schedule











### \$2.7M PROJECT COST

(\$2.1M CONSTRUCTION COST)

## Project Overview

This second strategy for improving recreational opportunities on campus is a lower cost option to meet the need for additional fitness, recreation and athletic space on campus through the reuse of the existing Pool Area in the Athletics Building. In this scenario, the Recreation Center is a renovation of the lower level of that building.

#### RECREATION AND WELLNESS NEEDS

The increase in the number of university students, combined with an expanding successful student athletic program, has made the existing athletic and recreation center unable to support the wellness and activity needs of all students. This need is exacerbated by the increase of resident students that live on campus 24/7. In addition, over the last few decades many the facilities available for all students have been lost. The swimming pool and the tennis courts have fallen into disrepair and are currently unsuitable for use.

The availability of indoor court space for both intermurals and athletes activities is inadequate. Other

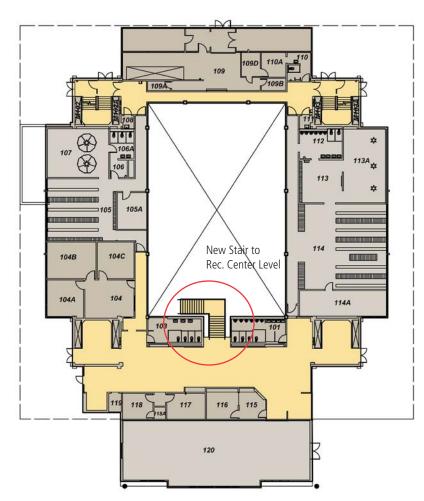


than a small number of fitness apparatus in the athletic center there are few facilities for general use by the students. In the cold winter months the need for indoor activity space is acute. Physical education courses are minimal due to lack of space.

### Proposed Solution:

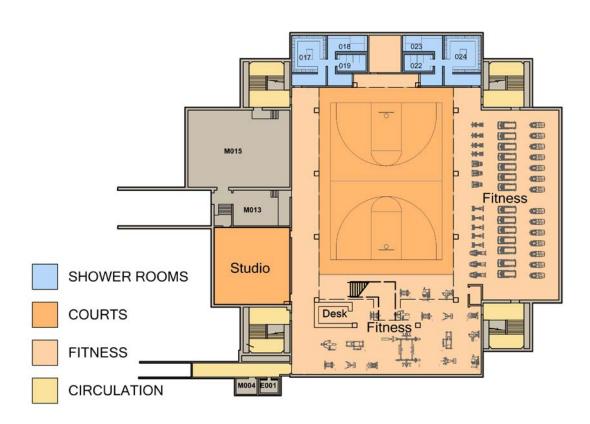
This second strategy meets the need for additional fitness, recreation and wellness in a way that maximizes the reuse of the existing Athletics Building's lower level. Currently much of the lower two levels of the building (grade and basement) are occupied by a 50m pool that is no longer used. The cost of operation and maintenance of the pool facility made the continued use of the pool area infeasible and it was mothballed.

The pool area, which has sat empty since 2009, is proposed to be reused for the 13,500 GSF Recreation Center and can accommodate a 2/3 size basketball court (with a slightly compromised ceiling height), an aerobics studio, and fitness areas. For this strategy the existing shower and locker rooms would be reused with minimal renovations. The existing cadio room (room 120) could be repurposed to allow Athletics staff to retain full functionality within the building. A new stair is proposed to connect the ground floor lobby directly with the lower level Rec. Center in the center of the building (in the location of the current window overlooking the pool). This provides a central location to control access to the Rec. Center and provides an ideal location to create a single control point/



RECREATION CENTER
Athletics Building - Ground Floor
100 GSF renovated area



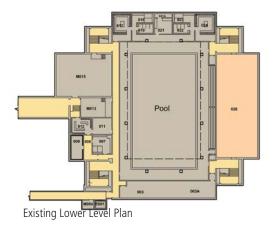


**RECREATION CENTER** Athletics Building - Lower Level 13,500 GSF renovated area

reception desk. The facility will be fully connected with wifi and video streaming to allow fitness users to stream entertainment and news throughout. Video monitors will be available in the Fitness areas for users.

The project does not anticipate a need for a seismic/ structural upgrade.

This project is to be funded by student fees and will require student approval during the fall of 2016 in order to proceed. If approved this project would open for students in the Fall of 2018. The assumed schedule for this work is on page 73.





#### **PROJECT FIVE**

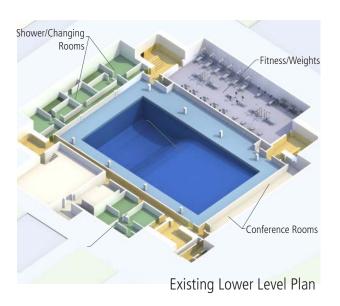
RECREATION CENTER, OPTION 2

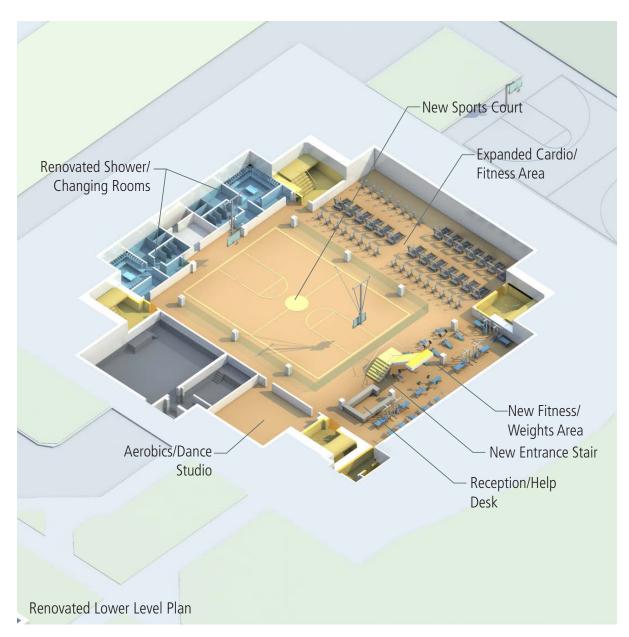
#### Conceptual Building Program

### **Student Recreation Center - Option 2**

13,500 GSF

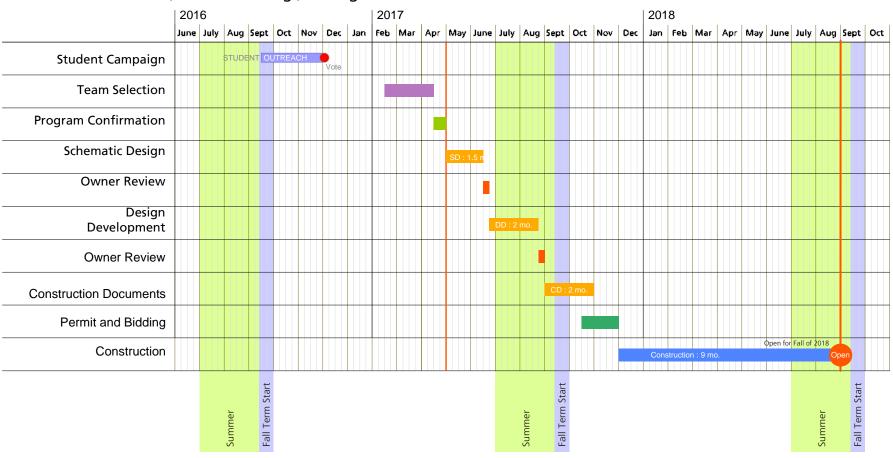
RCDESC	ROOM	#	AREA
Basketball Court	5000	1	5000
Lobbies	300	1	300
Lockers/Showers	1400	1	1400
Aerobics Studio	200	1	200
Fitness Room	4000	1	4000
Office	140	1	140
Laundry/Storage	200	1	200
	Total STUDENT RECREATION	CENTER	11,240
	Gross Buildin	g Factor	1.2
	13,488		







### Recreation Center (In Athletics Bldg.) - Design and Construction Schedule





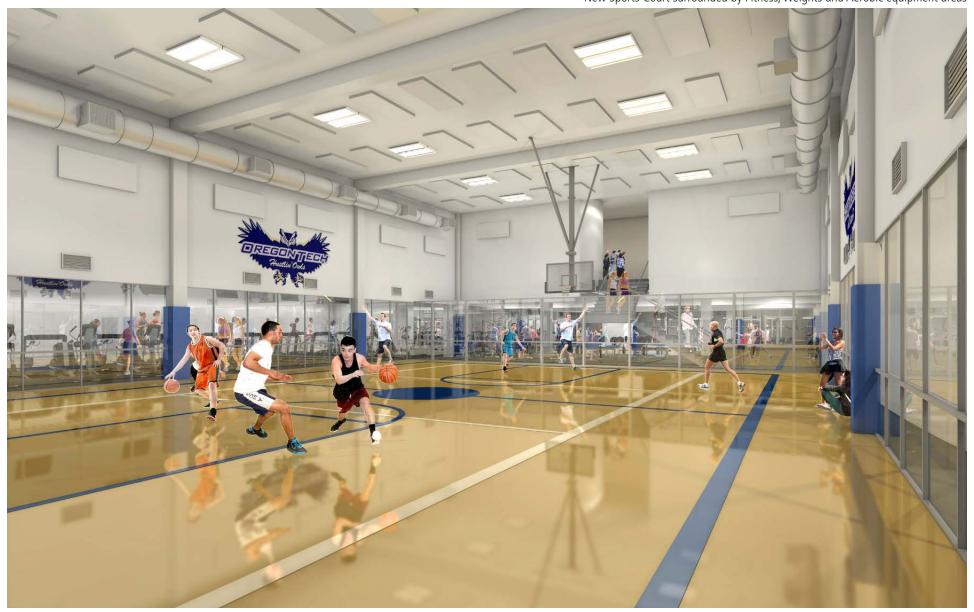
**PROJECT FIVE**RECREATION CENTER, OPTION 2

Expanded Fitness and Cardio Area around the Sports Court





New Sports Court surrounded by Fitness, Weights and Aerobic equipment areas



**PROJECT FIVE**RECREATION CENTER, OPTION 2

New Entrance from Athletics Building lobby directly to Student Fitness





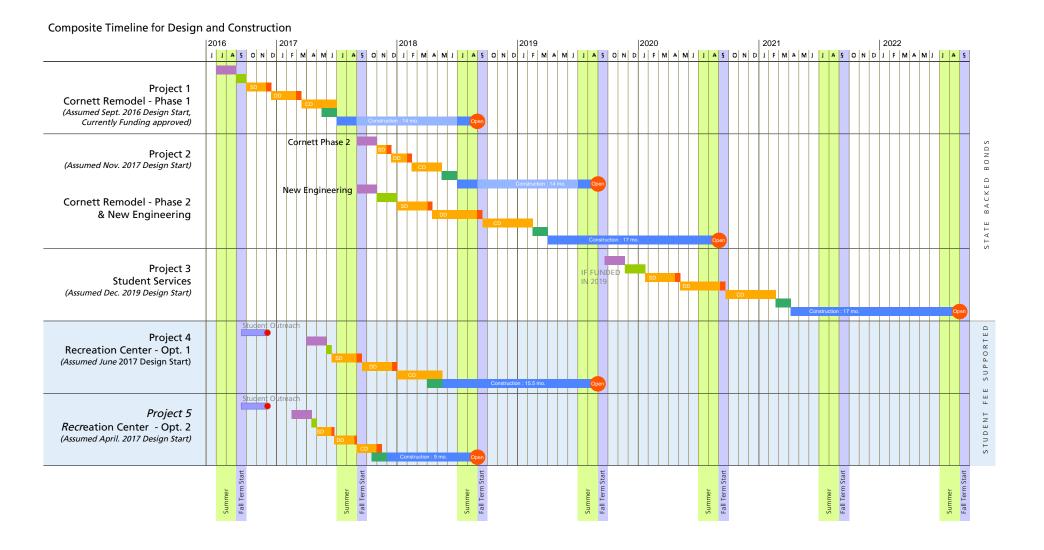




Cornett Hall - Project 1									
				Margins &		Construction	Soft		
		Net Cost	Markup	Adjustments		Costs	Costs		Project Costs
Base: Cornett Renovations (Reduced Scope)	\$	5,040,568	42.70% \$	2,152,323	\$	7,192,891	30%	\$	9,350,758
Add Alternates									
A1: East Wing	\$	615,360	42.70%	262,759	\$	878,119	30%	\$	1,141,554
A2: Cornett Reroof	\$	1,008,775	42.70%	430,747	\$	1,439,522	30%	\$	1,871,379
A3: Cornett Skylights	\$	115,500	42.70%	49,319	\$	164,819	30%	\$	214,264
Base + Add Alternates	\$	6,780,203	43% \$	2,895,147	\$	9,675,350	30%	\$	12,577,955
New Engineering Building - Pro	ject 2	_		_		_			
5 5 5				Margins &		Construction	Soft		
		Net Cost	Markup	Adjustments		Costs	Costs		Project Costs
New Engineering Building	\$	16,135,548	41.65% \$		\$	22,856,004	30%	\$	29,712,805
Add Alternates	<u>-</u>			2,1 = 2, 12 2					
A2: Cornett Reroof	\$	1,008,775	41.65%	420,155	\$	1,428,930	30%	\$	1,857,609
A3: Cornett Skylights	\$	115,500	41.65%	48,106	\$	163,606	30%	\$	212,687
A4: Renovate Welding & Machine Shop	\$	2,000,000	41.65%	833,000	\$	2,833,000	30%	\$	3,682,900
A5: Increase Building Size 13,000 sf	\$	3,133,000	41.65% \$	1,304,895	\$	4,437,895	30%	\$	5,769,263
New Engineering Building + Add Alternates	\$	22,392,823	Ç	9,326,611	\$	31,719,434	30%	\$	41,235,264
Childont Comisons Duilding Deci	oot 2								
Student Services Building - Proj	ect 3								
				Margins &		Construction	Soft		
		Net Cost	Markup	Adjustments		Costs	Costs		Project Costs
Student Services Building	\$	8,786,572	47.90% \$	4,208,768	\$	12,995,340	30%	\$	16,893,942
Danielian Cantan Dualest A	_	_	_	_		_	_		
Recreation Center - Project 4									
				Margins &		Construction	Soft		
		Net Cost	Markup	Adjustments		Costs	Costs		Project Costs
Student Services Building + Fitness	\$	4,694,984	47.90% \$	2,248,897	\$	6,943,881	30%	\$	9,027,046
Recreation Center - Project 5									
				Margins 9		Construction	Soft		
		Net Cost	Markup	Margins &		Construction	Costs		Project Costs
6. I . 6	<u> </u>			Adjustments	<u> </u>			<u>,</u>	Project Costs
Student Services Building + Fitness	\$	1,488,067	40.72%	605,941	\$	2,094,008	30%	Ş	2,722,210



#### **CONCEPT SCHEDULE SUMMARY**







### **Concept Studies Revised Oregon Tech – Klamath Falls Campus**

Klamath Falls, OR





#### **Oregon Tech - Klamath Falls Campus**

Conceptual Cost Plan Revised 6.10.16

**Project Details** 

#### Description

#### Basis of Estimate

This estimate has been prepared at the request of Dimella Shaffer Architecture and is to develop a Concept Studies estimate for the construction of the Oregon Tech Development project. The project is located in Klamath Falls, OR.

The estimate is based upon measured quantities and built-up rates prepared from the drawings by Dimella Shaffer Architecture dated April 2016.

Where information was insufficient, assumptions and allowances were made based wherever possible on discussions with the architect and engineers. We have utilized our experience with similar projects, our cost data information from suppliers and subcontractors, taking into consideration the local construction market for the type and size of similar projects.

Unit pricing is based on June 2016 costs.

Project Schedule:

Cornett Remodel

Start: First Quarter 2017

Engineering Building
Start: First Quarter 2018

Student Services/Rec Center Start: Second Quarter 2020

A reasonable allowance of estimating contingency has been included to account for the level of the design and the complexity of the project.

It is assumed that the contractor will have free access to the work areas.

The costs used in this estimate are based on the assumption that competitive bids for all trades will be received, unless noted otherwise, and that the contractor will be required to pay wages at the Davis Bacon rates for the areas including travel and associated fringe benefits.

COMMENTARY ON THE ESTIMATE DETAILS:

Items are represented by standard units of measure. Example; LF, SY, CY, Item, Each, etc

Unless otherwise noted in the cost report, quantities are measures as fixed in position. There is no allowance for waste in the quantity.

UNIT RATES INCLUDE:

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### **Oregon Tech - Klamath Falls Campus**

Conceptual Cost Plan Revised 6.10.16

**Project Details** 

#### Description

Materials, goods, and all costs in connection therewith including material required for lapping, jointing and the like and all connections therewith such as conveyance, delivery, unloading, storing, returning, packings, handling, hoisting and lowering, square and raking straight cutting, circular cutting and splay cutting, waste of materials, protection, progressive and final cleaning, samples, guarantees and warranties, labor and all costs in connection therewith, shop fabrication work, shop drawings, as-built drawings, manuals, testing, establishment costs, overhead costs and profit, plant and equipment, and site allowances.

#### Items Specifically Included

10.00% - General Requirements

2.85% - Insurances and Bonds

4.50% - Overhead and Profit

12.00% - Estimating/Design Contingency

15.00% - Estimating/Design Contingency - Option 4

20.00% - Estimating/Design Contingency - Roof Work

3.50% - Phase 1 Escalation to 2nd Quarter 2017

8.75% - Phase 2 Escalation to 1st Quarter 2019

11.75% - Phase 3 Escalation to 2nd Quarter 2020

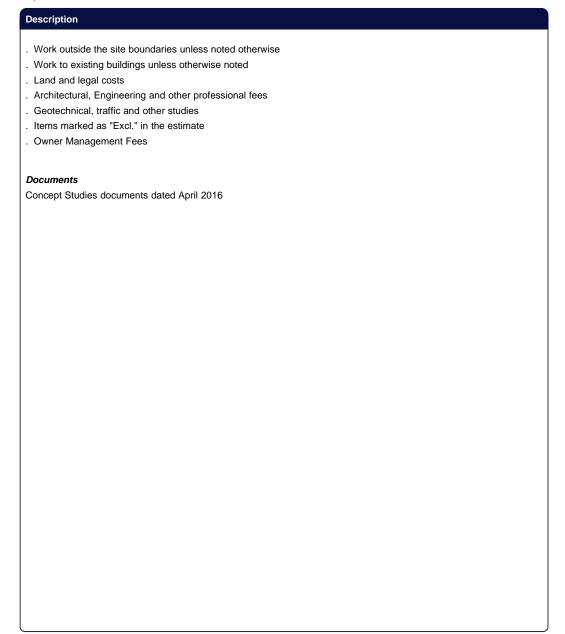
0.00% - Taxes - Excluded

#### Items Specifically Excluded

- . State sales tax
- . Contaminated Soils
- . Overexcavation
- . Phasing
- . Fitness Equipment
- . Kitchen Equipment
- . Laundry Equipment
- . Televisions
- . Storage Shelving
- . Murals and Artwork
- . Furniture, Fittings and Equipment (FF&E)
- . Utility tap fees and charges
- . Owner's Insurances
- . Special testing & inspections
- . Permit & plan review fees
- . Owner contingency
- . Construction phase contingency
- . Compression of Schedule, out of hours work

## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

**Project Details** 



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## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Cornett Renovations Estimate Summary

GFAC: Cornett Renovations GFA Rates Current At June 2016

Location		GFAC SF	Cost/SF	Total Cost
C CORNETT HALL RENOVATIONS A ALTERNATES		97,619.0	51.64	5,040,568
A1 Revisions to East Wing				615,360
A2 Reroof Cornett				1,008,775
A3 New Skylights at Cornett Roof				115,500
	A - ALTERNATES			\$1,739,635
	ESTIMATED NET COST	97,619	\$69.46	\$6,780,203
MARGINS & ADJUSTMENTS				
General Requirements	10.0 %			\$678,021
Insurances and Bonds	2.9 %			\$212,560
Overhead and Profit	4.5 %			\$345,185
Estimating/Design Contingency	10.0 %			\$802,414
Estimating/Design Contingency at Roof	3.0 %			\$265,837
Phase 1 Escalation to 2nd Q 2017	3.5 %			\$317,948
Phase 2 Escalation to 1st Q 2019	1.5 %			\$144,450
Alternate Escalation Allowance	1.4 %			\$131,932
Taxes				Excl.
	ESTIMATED TOTAL COST	97,619	\$99.15	\$9,678,550

# Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

New Engineering Building Estimate Summary

GFAEN: Total new Eningeering GFA Rates Current At June 2016

	GFAEN SF	Cost/SF	Total Cost
	67,000.0	240.83	16,135,548
			1,008,775
			115,500
			2,000,000
	13,000.00	241.00	3,133,000
A - ALTERNATES	13,000.0	\$481.33	\$6,257,27
ESTIMATED NET COST	80,000	\$279.91	\$22,392,823
10.0 %			\$2,239,283
2.8 %			\$702,014
4.5 %			\$1,140,036
8.6 %			\$2,289,172
0.9 %			\$265,83
0.2 %			\$55,820
8.8 %			\$2,544,93
0.3 %			\$89,76
			Excl
TED TOTAL COST	80,000	\$396.50	\$31,719,693
	A - ALTERNATES - ESTIMATED NET COST -  10.0 % 2.8 % 4.5 % 8.6 % 0.9 % 0.2 % 8.8 %	13,000.00  A - ALTERNATES 13,000.0  ESTIMATED NET COST 80,000  10.0 % 2.8 % 4.5 % 8.6 % 0.9 % 0.2 % 8.8 % 0.3 %	13,000.00 241.00  A - ALTERNATES ESTIMATED NET COST  10.0 % 2.8 % 4.5 % 8.6 % 0.9 % 0.2 % 8.8 % 0.3 %

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# Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Student Services Option 1 Estimate Summary

GFAS1: Student Services GFA Rates Current At June 2016

Location		GFAS1 SF	Cost/SF	Total Cos
S STUDENT SERVICES/REC CENT	ER			
S1 Option 1		45,000.00	249.71	11,236,86
·	S - STUDENT SERVICES/REC CENTER			
	ESTIMATED NET COST	45,000	\$249.71	\$11,236,86
MARGINS & ADJUSTMENTS				
General Requirements	10.0 %			\$1,123,68
nsurances and Bonds	2.9 %			\$352,27
Overhead and Profit	4.5 %			\$572,07
Estimating/Design Contingency	12.0 %			\$1,594,18
Phase 3 Escalation to 2nd Q 2020	11.8 %			\$1,748,29
axes				Exc
	ESTIMATED TOTAL COST	45,000	\$369.50	\$16,627,38

# Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

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Student Services/Rec Center Option 2a Estimate Summary

GFAS2: Option 2 GFA Rates Current At June 2016

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Location		GFAS2 SF	Cost/SF	Total Cos
S STUDENT SERVICES/REC CENT	rep			
S2 OPTION 2	ILK			
		32 F00 000	270.26	0.706.67
S2A Student Services S2B Recreation Center		32,500.000 18,000.000	270.36 259.31	8,786,57 4,667,50
OZB Recreation Center	S2 - OPTION 2			\$13,454,07
		00,000.00	φ2001.2	ψ.ο, .ο.,
	S - STUDENT SERVICES/REC CENTER	50,500.0	\$266.42	\$13,454,07
	ESTIMATED NET COST	50,500	\$266.42	\$13,454,07
MARGINS & ADJUSTMENTS				
General Requirements	10.0 %			\$1,345,40
Insurances and Bonds	2.8 %			\$421,78
Overhead and Profit	4.5 %			\$684,95
Estimating/Design Contingency	12.0 %			\$1,908,74
Phase 3 Escalation to 2nd Q 2020	11.8 %			\$2,093,26
Taxes				Exc
	ESTIMATED TOTAL COST	50,500	\$394.22	\$19,908,23

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## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Student Services/Rec Center Option 3a Estimate Summary

GFAS2: Option 2 GFA Rates Current At June 2016

	<u> </u>	710100 001101	
Location		GFAS2 SF Cost/SF	Total Co
S STUDENT SERVICES/REC CEN	TER		
S3 OPTION 3			
S3A Student Services			8,786,5
S3B Recreation Center			4,694,9
	S3 - OPTION 3		\$13,481,5
	S - STUDENT SERVICES/REC CENTER		\$13,481,5
	ESTIMATED NET COST		\$13,481,5
MARGINS & ADJUSTMENTS			
General Requirements	10.0 %		\$1,348,1
nsurances and Bonds	2.9 %		\$422,6
Overhead and Profit	4.5 %		\$686,3
Estimating/Design Contingency	12.0 %		\$1,912,6
Phase 3 Escalation to 2nd Q 2020	11.7 %		\$2,097,5
Taxes			Ex
	ESTIMATED TOTAL COST		\$19,948,8

# Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.14.16

(E) Pool Renovations Ontion 4 Summary

GFAS4: Option 4 GFA Rates Current At June 2016

ocation		GFAS4 SF	Total Cos	
			00000	
OPTION 4: RENOVATIONS AT (E) POO	L	13,600.0	109.42	1,488,06
	ESTIMATED NET COST	13,600	\$109.42	\$1,488,06
MARGINS & ADJUSTMENTS				
General Requirements	10.0 %			\$148,80
nsurances and Bonds	2.9 %			\$46,65
Overhead and Profit	4.5 %			\$75,75
Estimating/Design Contingency Option 4	15.0 %			\$263,89
Option 4 Escalation to 2nd Q 2017	3.5 %			\$70,81
axes				Exc
	ESTIMATED TOTAL COST	13,600	\$153.97	\$2,093,98

## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### **C CORNETT HALL RENOVATIONS**

Desc	cription	Unit	Qty	Rate	Total
A101	10 Standard Foundations				
105	Allowance for Footing for structural seismic upgrades (see Item 104)	LS	1.0		Incl.
121	ADA Lift footing	LS	1.0	6,500.00	6,500
	Standard Foundations				\$6,500
A103	30 Slab on Grade				
112	Slab on grade including concrete, reinforcing, capillary break	SF	7,733.0	5.25	40,598
182	Misc. patching at (E) SOG	SF	84,301.0	1.50	126,452
	Slab on Grade				\$167,050
B101	10 Floor Construction				
113	Structural floor steel: columns, beams, joists, bracing (allow 18 psf)	Т	24.157	4,200.00	101,459
114	Metal floor deck	SF	6,537.0	3.75	24,514
115	Concrete floor on metal deck including reinforcing	SF	6,537.0	4.20	27,455
177	Fireproofing steel columns/beams	Т	24.157	250.00	6,039
	Floor Construction				\$159,467
B102	20 Roof Construction				
104	Allowance for Structural seismic upgrades (per Adkins Consulting 5/23/16)	LS	1.0	1,005,000.00	1,005,000
	Roof Construction				\$1,005,000
B201	10 Exterior Walls				
186	Patch/paint (E) exterior wall (25% of wall area)	SF	6,935.0	2.50	17,338
188	Exterior wall assembly allowance including panel, furring, sheathing, stud framing, vapor barrier, insulation, interior GWB (assume 50% of exterior wall area)	SF	5,810.0	35.00	203,350
	Exterior Walls				\$220,688
B202	20 Exterior Windows				
187	Aluminum storefront framing and windows (assume 50% of exterior wall area)	SF	5,810.0	55.00	319,550
	Exterior Windows				\$319,550
B203	30 Exterior Doors				
128	Aluminum storefront entry doors - pair	EA	7.0	7,000.00	49,000
129	Single hollow metal door/frame entry doors	EA	5.0	1,250.00	6,250
195	New overhead coiling doors	EA	2.0	5,500.00	11,000
	Exterior Doors				\$66,250
B301	10 Roof Coverings				
198	Allowance for misc. roof patching	LS	0.5	10,000.00	5,000
	Roof Coverings				\$5,000

# Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### C CORNETT HALL RENOVATIONS (continued)

Description	Unit	Qty	Rate	Total
C1010 Partitions				
179 Infill door openings	SF	189.0	12.00	2,268
189 Interior partitions	SF	20,087.3	10.00	200,873
193 Glazing at (E) exterior wall	SF	1,899.0	50.00	94,950
194 Patch/paint (E) exterior wall	SF	5,697.0	2.65	15,097
Partitions				\$313,188
C1020 Interior Doors				
190 New interior doors at (E) - pair	EA	4.0	2,400.00	9,600
191 New Fire doors - pair	EA	2.0	4,000.00	8,000
192 New interior doors at (E) - single	EA	12.0	1,100.00	13,200
Interior Doors				\$30,800
C1030 Fittings				
197 Allowance for fittings including restroom accessories, whiteboards, fire extinguishers, corner guards, signage	SF	91,434.0	3.50	320,019
Fittings				\$320,019
C2010 Stair Construction				, , .
180 New short flight stairs	EA	3.0	5,000.00	15,000
Stair Construction				\$15,000
C3010 Wall Finishes				
184 Wall finish allowance at (E) (per GFA)	SF	90,611.0	1.00	90,611
Wall Finishes				\$90,611
C3020 Floor Finishes				
183 Floor finish at (E)	SF	90,611.0	1.25	113,264
Floor Finishes				\$113,264
C3030 Ceiling Finishes				
159 Joist framing for ceiling	SF	10,452.0	12.00	125,424
160 Metal deck at ceiling	SF	10,452.0	3.50	36,582
161 Painted GWB ceiling	SF	10,452.0	8.50	88,842
185 Ceiling finish allowance at (E)	SF	87,167.0	1.00	87,167
Ceiling Finishes				\$338,015
D1010 Elevators & Lifts				
84 ADA Lift	EA	1.0	27,500.00	27,500
Elevators & Lifts				\$27,500
D2010 Plumbing Fixtures				
10 Plumbing FixturesDrinking FountainDual height, stainless steel, wall mounted, with backing	EA	1.0	1,900.00	1,900

## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### C CORNETT HALL RENOVATIONS (continued)

Des	cription	Unit	Qty	Rate	Total
11	Plumbing FixturesMop SinkFloor (Corner) mounted, with wall mounted faucet, includes vacuum breaker and hose adapter	EA	1.0	1,630.00	1,630
60	Plumbing FixturesWater ClosetWall hung with carrier, 1.28 GFP (Manual flush valve)	EA	12.0	1,815.00	21,780
61	Plumbing FixturesUrinalWall hung with carrier (Manual flush valve)	EA	4.0	1,350.00	5,400
62	Plumbing FixturesLavatoryCounter mounted, with sensor activated electronic faucet	EA	6.0	680.00	4,080
	Plumbing Fixtures				\$34,790
D20	20 Domestic Water Distribution				
3	Plumbing Equipment Allowance	SF	10,452.0	0.75	7,839
63	Allowance for extended DW to new toilet room	EA	2.0	3,600.00	7,200
65	Allowance for testing of [E] plumbing systems	SF	97,619.0	0.12	11,714
66	Allowance for extended DW to Classroom fixtures	EA	10.0	1,200.00	12,000
68	DW Fixture rough-ins	EA	22.0	130.00	2,860
	Domestic Water Distribution				\$41,613
D20	30 Sanitary Waste				
64	Allowance to demo slab, install [N] SWV, and patch surfaces	LF	240.0	140.00	33,600
67	Sanitary fixture rough-ins	EA	22.0	320.00	7,040
	Sanitary Waste				\$40,640
	40 Rain Water Drainage				
69	Allowance to relocate [E] RWL pipework to enable the program	LS	1.0	8,000.00	8,000
	Rain Water Drainage				\$8,000
D20					
13	Domestic Water Chlorination, includes 5% Subcontractor MU	SF	97,619.0	0.08	7,810
20	Plumbing permit, documentation, commissioning, testing and supervision	SF	23,667.0	1.10	26,034
	Other Plumbing Systems				\$33,844
D30	5 ,				, ,
70	Provide HVAC to new enclosed spacesIncludes equipment, ductwork, outlets and controls	SF	10,452.0	14.00	146,328
71	Allowance to relocate [E] cleanroom ductwork	LS	1.0	12,000.00	12,000

# Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### C CORNETT HALL RENOVATIONS (continued)

Desc	ription	Unit	Qty	Rate	Total				
72	Allowance to relocate [E] welding exhaust equipment and snorkle	LS	1.0	8,000.00	8,000				
73	Allowance for relocations and additions to serve new unenclosed program space	SF	13,215.0	6.00	79,290				
80	Dissassemble wind tunnel ductwork for relocation by campus	LS	1.0	2,500.00	2,500				
	Distribution Systems				\$248,118				
D309	O Other HVAC Systems & Equipment								
22	Allowance for HVAC BIM, permit, documentation, testing and supervision	SF	23,667.0	0.65	15,384				
23	Balancing Testing and Commissioning Includes coordination with the subcontractor	SF	97,619.0	0.65	63,453				
33	Exhaust fans/ductwork/grilles/fluesallowance	SF	10,452.0	0.80	8,362				
	Other HVAC Systems & Equipment \$87,199								
D401	0 Sprinklers				, , , , ,				
1	Allowance for Fire Suppression Systems including heads, pipework and specialties	SF	10,452.0	2.60	27,175				
2	SprinklersSupervision, drawings and permit - Allowance	SF	10,452.0	0.45	4,703				
199	Sprinkler revisions and updates to existing space - allowance	SF	97,619.0	0.50	48,810				
	Sprinklers				\$80,688				
D501	0 Electrical Service & Distribution								
36	Electrical panels, switchboards, ATS, step transformers, etcAllowance	SF	97,619.0	3.50	341,667				
37	Feeders, cable trays, conduit, etcAllowance	SF	97,619.0	1.80	175,714				
38	Conduit and wire to light fixtures and controlsAllowance	SF	10,452.0	1.80	18,814				
39	Outlets and other low voltage devicesAllowance	SF	10,452.0	2.00	20,904				
40	Conduit and wire to outlets and low voltage devicesAllowance	SF	10,452.0	1.50	15,678				
75	Allowance to demo [E] Transformers and turn over to facility for disposal	EA	2.0	2,500.00	5,000				
76	Cap and abandon [E] building service feeders	LS	1.0	2,200.00	2,200				
77	Install [N] building transformer at remote pad (Assume 300KVA)	EA	2.0	27,000.00	54,000				

## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### C CORNETT HALL RENOVATIONS (continued)

Des	cription	Unit	Qty	Rate	Total
78	Allowance for [N] Feeders	LF	120.0	350.00	42,000
	Electrical Service & Distribution				\$675,977
D50	20 Lighting and Branch Wiring				
41	LED Light fixturesAllowance	SF	10,452.0	8.50	88,842
42	Lighting controlsAllowance for all areas	SF	10,452.0	1.25	13,065
45	Temporary Lighting	SF	97,619.0	0.85	82,976
79	Relocate [E] lighting fixtures to accommodate the [N] program	SF	13,215.0	0.80	10,572
	Lighting and Branch Wiring				\$195, <b>4</b> 55
D50	30 Communications & Security				
52	PA SystemAudio ReinforcementEach Classroom	EA	4.0	1,700.00	6,800
81	Backbone for OFCI AV Projector	EA	4.0	863.00	3,452
82	Provide WAP Coverage	EA	4.0	670.00	2,680
83	Allowance to provide [N] card reader in {E] door	EA	10.0	4,200.00	42,000
	Communications & Security				\$54,932
D509	Other Electrical Systems				
44	Misc. Testing/Permits/Commallowance	SF	97,619.0	1.00	97,619
	Other Electrical Systems				\$97,619
F201	0 Building Elements Demolition				
162	Demo (E) Electrical building	SF	2,430.0	4.00	9,720
163	Demo catwalk	SF	2,052.0	3.00	6,156
164	Demo catwalk stairs	EA	10.0	250.00	2,500
165	Remove/protect/reinstall (E) welding vent	EA	2.0	2,000.00	4,000
166	Demo doors	EA	7.0	50.00	350
167	Demo exterior stairs	EA	3.0	750.00	2,250
168	Demo exterior wall	SF	4,804.0	4.00	19,216
169	Demo interior partition	SF	15,938.0	2.00	31,876
170	Remove/protect/reinstall (E) Material Tesing Equipment/Structure	EA	1.0	2,500.00	2,500
171	Remove/protect/reinstall (E) Wind Tunnel	EA	1.0	1,000.00	1,000
172	Remove/protect/reinstall (E) Self Contained Room	EA	1.0	2,000.00	2,000
173	Demo Overhead doors	EA	2.0	150.00	300
174	Remove/protect/reinstall (E) Overhead door	EA	1.0	500.00	500
175	Demo soffit	SF	1,910.0	2.50	4,775

# Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### C CORNETT HALL RENOVATIONS (continued)

Rates Current At June 2016

Description	Unit	Qty	Rate	Total
176 Misc. Demo	SF	83,415.0	0.75	62,561
Building Elements Demolition				\$149,704
F2020 Hazardous Components Abatement				
100 Demo/Abatement: Mudded joint packing	LF	424.0	5.00	2,120
101 Demo/Abatement: Cement asbestos board	SF	10,152.0	3.00	30,456
102 Demo/Abatement: Vinyl floor tiles	SF	4,706.0	2.65	12,471
103 Demo/Abatement: Ceiling Tiles	SF	4,280.0	3.00	12,840
Hazardous Components Abatement				\$57,887
G1020 Site Demolition and Relocations				
124 Allowance for site demolition	LS	1.0	5,000.00	5,000
Site Demolition and Relocations				\$5,000
G2040 Site Development				
181 New transformer pad	SF	100.0	12.00	1,200
Site Development				\$1,200
G2050 Landscaping				
154 Landscape/Hardscape Allowance	LS	1.0	30,000.00	30,000
Landscaping -				\$30,000
CORNETT HALL RENOVATIONS				\$5,040,568

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## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### E NEW ENGINEERING BUILDING

Desc	ription	Unit	Qty	Rate	Total
A101	0 Standard Foundations				
86	Double Elevator Pits including concrete, forming, reinforcing, excavation, backfill	EA	1.0	16,500.00	16,500
88	Waterproof Elevator Pits	EA	2.0	3,000.00	6,000
111	Allowance for standard foundations (per GFA)	SF	67,000.0	14.00	938,000
	Standard Foundations				\$960,500
A103	0 Slab on Grade				
112	Slab on grade including concrete, reinforcing, capillary break	SF	40,000.0	5.25	210,000
	Slab on Grade				\$210,000
B101	0 Floor Construction				
113	Structural floor steel: columns, beams, joists, bracing (allow 18 psf)	Т	243.001	4,200.00	1,020,604
114	Metal floor deck	SF	27,000.0	3.75	101,250
115	Concrete floor on metal deck including reinforcing	SF	27,000.0	4.20	113,400
177	Fireproofing steel columns/beams	Т	243.001	250.00	60,751
	Floor Construction				\$1,296,005
B102	0 Roof Construction				
116	Structural roof steel: columns, beams, joists, bracing (allow 14 psf)	Т	209.105	4,350.00	909,606
117	Metal roof deck	SF	29,872.0	3.50	104,552
178	Fireproof steel columns/beams	Т	209.105	250.00	52,276
	Roof Construction				\$1,066,434
B201	0 Exterior Walls				
126	Face brick wall assembly including 4" brick, sheathing, stud framing, vapor barrier, insulation, interior GWB (assume 50% of exterior wall area)	SF	15,525.0	45.00	698,625
157	Metal panel wall assembly including furring, sheathing, stud framing, vapor barrier, insulation, interior GWB (assume 15% of exterior wall area)	SF	4,657.6	45.00	209,592
	Exterior Walls				\$908,217
B202	0 Exterior Windows				
127	Aluminum storefront framing and windows (assume 35% of exterior wall area)	SF	10,867.9	60.00	652,074
	Exterior Windows				\$652,074
B203	0 Exterior Doors				
128	Aluminum storefront entry doors - pair	EA	3.0	7,000.00	21,000
129	Single hollow metal door/frame entry doors	EA	5.0	1,250.00	6,250
132	Allowance for access hardware	LS	1.0	10,000.00	10,000
	Exterior Doors				\$37,250

# Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### E NEW ENGINEERING BUILDING (continued)

Rates Current At June 2016

Des	ription	Unit	Qty	Rate	Total
B30 <sup>-</sup>	0 Roof Coverings				
	New roof assembly including membrane, insulation, cover board, vapor barrier	SF	29,872.0	15.00	448,080
	Roof Coverings				\$448,080
B302	0 Roof Openings				
120	Allowance for skylights/curbs/roof hatches	LS	1.0	10,000.00	10,000
	Roof Openings				\$10,000
C10 <sup>2</sup>	0 Partitions				
149	Interior guardrail	LF	47.0	300.00	14,100
152	Allowance for interior partitions (per GFA)	SF	67,000.0	20.00	1,340,000
	Partitions -				\$1,354,100
C102	0 Interior Doors				
151	Allowance for interior doors/hardware (per GFA)	SF	67,000.0	7.00	469,000
	Interior Doors				\$469,000
	0 Fittings				
135	Allowance for fittings including restroom accessories, whiteboards, fire extinguishers, corner guards, signage	SF	67,000.0	7.50	502,500
	Fittings				\$502,500
C20	0 Stair Construction				
144	Steel stairs, landings, handrails, concrete treads (per flight)	EA	1.0	15,000.00	15,000
	Stair Construction				\$15,000
	0 Wall Finishes				
153	Wall finish allowance (per GFA)	SF	67,000.0	5.00	335,000
	Wall Finishes				\$335,000
	0 Floor Finishes	0.5	07.000.0		400.000
137	Flooring finish allowance	SF	67,000.0	6.00	402,000
000	Floor Finishes				\$402,000
C303	· · · · <b>3</b> · · · ·	SF	67 000 0	2.50	167 500
130	Ceiling finish allowance (per GFA)  Ceiling Finishes	- SF	67,000.0	2.50	167,500
D10 <sup>-</sup>	· ·				\$167,500
85	2-Stop Elevator	EA	2.0	75,000.00	150,000
00	Elevators & Lifts		2.0	70,000.00	\$150,000
D20°	0 Plumbing Fixtures				ψ100,000
4	Plumbing FixturesWall Hydrantremovable handle, freeze proof, with vacuum breaker	EA	6.0	533.00	3,198
	Plumbing FixturesLaboratory outlets, Air or Gas	EA	36.0	85.00	3,060

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## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### E NEW ENGINEERING BUILDING (continued)

Des	cription	Unit	Qty	Rate	Total
6	Plumbing FixturesFloor Drain3" Floor drain	EA	10.0	425.00	4,250
7	Plumbing FixturesEmergency Eye Wash	EA	10.0	590.00	5,900
9	Plumbing FixturesLab Classroom Utility Sinkassume stainless steel, deep basin, two compartment with goose neck faucet	EA	10.0	1,260.00	12,600
10	Plumbing FixturesDrinking FountainDual height, stainless steel, wall mounted, with backing	EA	2.0	1,900.00	3,800
11	Plumbing FixturesMop SinkFloor (Corner) mounted, with wall mounted faucet, includes vacuum breaker and hose adapter	EA	2.0	1,630.00	3,260
	Plumbing Fixtures				\$36,068
D20	20 Domestic Water Distribution				
3	Plumbing Equipment Allowance	SF	67,000.0	0.75	50,250
12	Allowance for Domestic Water Pipework, includes hangers, insulation, valves and accessories	SF	67,000.0	2.80	187,600
	Domestic Water Distribution				\$237,850
D20	30 Sanitary Waste				
14	Allowance for SWV Pipe work(CINH) with standard flexible band couplings); Includes fittings, hangers	SF	67,000.0	1.85	123,950
	Sanitary Waste				\$123,950
D20	40 Rain Water Drainage				
15	Rainwater leaders/Storm Pipework	SF	67,000.0	1.64	109,880
	Rain Water Drainage				\$109,880
D20	90 Other Plumbing Systems				
13	Domestic Water Chlorination, includes 5% Subcontractor MU	SF	67,000.0	0.08	5,360
16	Laboratory SpecialtiesFume Hoodintergral sink (Supplied By GC) connect to wall supply	EA	10.0	385.00	3,850
17	Laboratory SpecialtiesLaboratory classroom isolation and emergency shut off	EA	10.0	1,500.00	15,000
20	Plumbing permit, documentation, commissioning, testing and supervision	SF	67,000.0	1.10	73,700

# Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### E NEW ENGINEERING BUILDING (continued)

Rates Current At June 2016

Des	cription	Unit	Qty	Rate	Total
89	Elevator sump pump with discharge to sanitary system	EA	1.0	2,500.00	2,500
	Other Plumbing Systems				\$100,410
D30	10 Energy Supply				
19	Laboratory Pipework3/4"-1" Branch Gas Pipework Distribution, includes hangersAllowance	LF	1,080.0	31.50	34,020
21	Energy Supply to HVAC Equipmentfuel gas supply allowanceIncludes fuel gas to RTU's	SF	67,000.0	0.80	53,600
	Energy Supply				\$87,620
D30	20 Heat Generating Systems				<b>40.,020</b>
24	HVAC HHW Piping Distribution, Central Plant Valves, Distribution Isolation Valves, Insulation and Specialties	SF	67,000.0	0.35	23,450
25	HVAC HHW Pipework, includes hangers, fittings and insulationAllowance	SF	67,000.0	3.20	214,400
	Heat Generating Systems				\$237,850
D30	30 Cooling Generating Systems				,
26	HVAC CHW Pipework, includes hangers, fittings and insulationAllowance	SF	67,000.0	3.68	246,560
27	HVAC CHW Piping Distribution, Central Plant Valves, Distribution Isolation Valves and Specialties	SF	67,000.0	0.52	34,840
	Cooling Generating Systems				\$281,400
D30	0 0 7				φ201,400
28	Allowance for HVAC Distribution, includes dampers, devices, louvers and registers	SF	67,000.0	8.55	572,850
	Distribution Systems				\$572,850
D30	•				,,
29	HVAC EquipmentAir Handler and MUA Units purchase	cfm	40,020.0	4.85	194,097
30	HVAC EquipmentAir Handler and MUA Units Installation: (All accessories included)	cfm	40,020.0	1.15	46,023
31	Split systems for elevator machine rooms and IDF	EA	4.0	6,840.00	27,360
32	HVAC EquipmentTerminal UnitHW CoilIncludes installation, hangers and valve set	EA	168.0	1,080.00	181,440
	Terminal & Package Units				\$448,920

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## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### E NEW ENGINEERING BUILDING (continued)

Des	cription	Unit	Qty	Rate	Total
D30	60 Controls & Instrumentations				
34	DDC Controls - General	SF	67,000.0	3.56	238,520
	Controls & Instrumentations				\$238,520
D30	Other HVAC Systems & Equipment				
22	Allowance for HVAC BIM, permit, documentation, testing and supervision	SF	67,000.0	0.65	43,550
23	Balancing Testing and Commissioning Includes coordination with the subcontractor	SF	67,000.0	0.65	43,550
33	Exhaust fans/ductwork/grilles/fluesallowance	SF	67,000.0	0.80	53,600
35	Allowance for HVAC equipment rigging and hoistingCost per large unit/cost per day for multiple small units	EA	2.0	6,200.00	12,400
	Other HVAC Systems & Equipment				\$153,100
D40	10 Sprinklers				
1	Allowance for Fire Suppression Systems including heads, pipework and specialties	SF	67,000.0	2.60	174,200
2	SprinklersSupervision, drawings and permit - Allowance	SF	67,000.0	0.45	30,150
	Sprinklers				\$204,350
D50	10 Electrical Service & Distribution				
36	Electrical panels, switchboards, ATS, step transformers, etc-Allowance	SF	67,000.0	3.50	234,500
37	Feeders, cable trays, conduit, etcAllowance	SF	67,000.0	1.80	120,600
38	Conduit and wire to light fixtures and controlsAllowance	SF	67,000.0	1.80	120,600
39	Outlets and other low voltage devicesAllowance	SF	67,000.0	2.00	134,000
40	Conduit and wire to outlets and low voltage devicesAllowance	SF	67,000.0	1.50	100,500
	Electrical Service & Distribution				\$710,200
D50	20 Lighting and Branch Wiring				
41	LED Light fixturesAllowance	SF	67,000.0	8.50	569,500
42	Lighting controlsAllowance for all areas	SF	67,000.0	1.25	83,750

# Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### E NEW ENGINEERING BUILDING (continued)

Rates Current At June 2016

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Desc	cription	Unit	Qty	Rate	Total
45	Temporary Lighting	SF	67,000.0	0.85	56,950
	Lighting and Branch Wiring				\$710,200
D503	30 Communications & Security				
47	Audio visual systemsAllowance	SF	67,000.0	3.00	201,000
48	TelecommunicationsPublic Address, Intercom and clock systems	SF	67,000.0	4.00	268,000
49	Security systemIncludes CCTV and Access Control	SF	67,000.0	1.75	117,250
50	Distributed antenna system - allowance	SF	67,000.0	0.70	46,900
51	Fire alarm system	SF	67,000.0	3.00	201,000
52	PA SystemAudio ReinforcementEach Classroom	EA	10.0	1,700.00	17,000
53	Telephone/data; MDF and IDF Rooms system backbone-allowance	EA	1.0	18,000.00	18,000
81	Backbone for OFCI AV Projector	EA	10.0	863.00	8,630
82	Provide WAP Coverage	EA	67.0	670.00	44,890
	Communications & Security				\$922,670
D509	O Other Electrical Systems				
43	GroundingAllowance	SF	67,000.0	0.15	10,050
44	Misc. Testing/Permits/Commallowance	SF	67,000.0	1.00	67,000
46	Emergency Power Generation and ATSAssume by Central Plant	Item			Excl.
	Other Electrical Systems				\$77,050
E101	0 Commercial Equipment				
142	Allowance for misc. equipment including medical cabinets, appliances, etc.	SF	67,000.0	4.00	268,000
	Commercial Equipment				\$268,000
E201	0 Fixed Furnishings				
140	Allowance for casework and counters including reception decks	SF	67,000.0	14.00	938,000
	Fixed Furnishings				\$938,000

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## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### **E NEW ENGINEERING BUILDING (continued)**

Des	cription	Unit	Qty	Rate	Total
G10	20 Site Demolition and Relocations				
125	Allowance for site demolition	LS	1.0	15,000.00	15,000
	Site Demolition and Relocations				\$15,000
G10	30 Site Earthwork				
122	Allowance for site clearing, excavation, backfill, grading	SF	40,000.0	10.00	400,000
	Site Earthwork				\$400,000
G20	30 Pedestrian Paving				
156	Allowance for sidewalks, misc. paving	LS	1.0	10,000.00	10,000
	Pedestrian Paving				\$10,000
G20	50 Landscaping				
154	Landscape/Hardscape Allowance	LS	1.0	30,000.00	30,000
	Landscaping <sup>-</sup>				\$30,000
G30 <sup>-</sup>	10 Water Supply				
54	Allowance for connection to campus water supply service loop	LS	1.0	32,000.00	32,000
59	Allowance of site fire vault, BFP, FDC, distribution and two (2) fire hydrants	LS	1.0	49,500.00	49,500
	Water Supply				\$81,500
G30	20 Sanitary Water				
55	Allowance for connection to campus sanitary sewer system	LS	1.0	48,500.00	48,500
	Sanitary Water				\$48,500
G30	30 Storm Sewer				
56	Allowance for connection to campus storm drainage system	LS	1.0	50,000.00	50,000
	Storm Sewer				\$50,000
G40	30 Site Communications & Security				
57	Allowance for connection to campus communications and security backbone	LS	1.0	38,000.00	38,000
58	Allowance for modifications and additions to site lighting	LS	1.0	20,000.00	20,000
	Site Communications & Security				\$58,000
	NEW ENGINEERING BUILDING				\$16,135,548

# Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### S STUDENT SERVICES/REC CENTER

S1 OPTION 1

Rates Current At June 2016

Desc	cription	Unit	Qty	Rate	Total
A101	0 Standard Foundations				
87	Single Elevator Pits including concrete, forming, reinforcing, excavation, backfill	EA	1.00	12,000.00	12,000
88	Waterproof Elevator Pits	EA	1.00	3,000.00	3,000
111	Allowance for standard foundations (per GFA)	SF	45,000.00	14.00	630,000
130	Concrete retaining wall including footing	SF	160.00	75.00	12,000
	Standard Foundations				\$657,000
A103	30 Slab on Grade				
112	Slab on grade including concrete, reinforcing, capillary break	SF	24,000.00	5.25	126,000
	Slab on Grade				\$126,000
B101	10 Floor Construction				
113	Structural floor steel: columns, beams, joists, bracing (allow 18 psf)	Т	189.0006	4,200.00	793,803
114	Metal floor deck	SF	21,000.00	3.75	78,750
115	Concrete floor on metal deck including reinforcing	SF	21,000.00	4.20	88,200
177	Fireproofing steel columns/beams	Т	189.0006	250.00	47,250
	Floor Construction				\$1,008,003
B102	20 Roof Construction				
116	Structural roof steel: columns, beams, joists, bracing (allow 14 psf)	Т	168.0000	4,350.00	730,800
117	Metal roof deck	SF	24,000.00	3.50	84,000
150	Concrete floor on metal deck including reinforcing	SF	3,157.00	4.20	13,259
178	Fireproof steel columns/beams	Т	168.0000	250.00	42,000
	Roof Construction				\$870,059
	10 Exterior Walls				
126	Face brick wall assembly including 4" brick, sheathing, stud framing, vapor barrier, insulation, interior GWB (assume 50% of exterior wall area)	SF	8,246.00	45.00	371,070
131	Concrete feature wall	SF	832.00	60.00	49,920
148	Exterior guardrail at Terrace	LF	160.00	300.00	48,000
157	Metal panel wall assembly including furring , sheathing, stud framing, vapor barrier, insulation, interior GWB (assume 15% of exterior wall area)	SF	2,473.80	45.00	111,321
	Exterior Walls				\$580,311
B202	20 Exterior Windows				
127	Aluminum storefront framing and windows (assume 35% of exterior wall area)	SF	5,772.35	60.00	346,341
	Exterior Windows				\$346,341

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## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### S STUDENT SERVICES/REC CENTER

S1 OPTION 1 (continued)

Desc	ription	Unit	Qty	Rate	Total
B203	80 Exterior Doors				
128	Aluminum storefront entry doors - pair	EA	3.00	7,000.00	21,000
129	Single hollow metal door/frame entry doors	EA	5.00	1,250.00	6,250
132	Allowance for access hardware	LS	1.00	10,000.00	10,000
	Exterior Doors				\$37,250
B301	0 Roof Coverings				
118	New roof assembly including membrane, insulation, cover board, vapor barrier	SF	24,000.00	15.00	360,000
147	Terrace pavers	SF	3,160.00	14.00	44,240
	Roof Coverings				\$404,240
B302	20 Roof Openings				
120	Allowance for skylights/curbs/roof hatches	LS	1.00	10,000.00	10,000
	Roof Openings				\$10,000
C101	0 Partitions				
149	Interior guardrail	LF	163.00	300.00	48,900
152	Allowance for interior partitions (per GFA)	SF	45,000.00	20.00	900,000
	Partitions -				\$948,900
C102	20 Interior Doors				
151	Allowance for interior doors/hardware (per GFA)	SF	45,000.00	7.00	315,000
	Interior Doors				\$315,000
	0 Fittings				
135	Allowance for fittings including restroom accessories, whiteboards, fire extinguishers, corner guards, signage	SF	45,000.00	7.50	337,500
	Fittings				\$337,500
C201					
145	Feature lobby stair	EA	1.00	25,000.00	25,000
146	Exterior stair to Terrace	EA	1.00	18,000.00	18,000
0004	Stair Construction				\$43,000
	0 Wall Finishes	SF	45 000 00	F 00	225 000
153	Wall finish allowance (per GFA)	51	45,000.00	5.00	225,000
C302	Wall Finishes O Floor Finishes				\$225,000
	Flooring finish allowance	SF	45,000.00	6.00	270,000
131	Floor Finishes	OI.	45,000.00	0.00	
Csus	60 Ceiling Finishes				\$270,000
138	Ceiling finish allowance (per GFA)	SF	45,000.00	2.50	112,500
130	Ceiling Finishes	Oi	-0,000.00	2.50	
	Celling Fillishes				\$112,500

## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### S STUDENT SERVICES/REC CENTER

S1 OPTION 1 (continued)

Rates Current At June 2016

Des	cription	Unit	Qty	Rate	Total
D10	10 Elevators & Lifts				
85	2-Stop Elevator	EA	1.00	75,000.00	75,000
	Elevators & Lifts				\$75,000
D20	10 Plumbing Fixtures				
8	Plumbing Fixtures Alowance for toilet room fixtures and drains	SF	45,000.00	2.25	101,250
	Plumbing Fixtures				\$101,250
D20	20 Domestic Water Distribution				, ,
3	Plumbing Equipment Allowance	SF	45,000.00	0.75	33,750
12	Allowance for Domestic Water Pipework, includes hangers, insulation, valves and accessories	SF	45,000.00	2.80	126,000
65	Allowance for testing of [E] plumbing systems	SF	45,000.00	0.12	5,400
	Domestic Water Distribution		•		\$165,150
D20	30 Sanitary Waste				
14	Allowance for SWV Pipe work(CINH) with standard flexible band couplings); Includes fittings, hangers	SF	45,000.00	1.85	83,250
	Sanitary Waste				\$83,250
D20	10 Rain Water Drainage				
15	Rainwater leaders/Storm Pipework	SF	45,000.00	1.64	73,800
	Rain Water Drainage				\$73,800
D20	O Other Plumbing Systems				, ,
13	Domestic Water Chlorination, includes 5% Subcontractor MU	SF	45,000.00	0.08	3,600
20	Plumbing permit, documentation, commissioning, testing and supervision	SF	45,000.00	1.10	49,500
	Other Plumbing Systems				\$53,100
D30					,
24	HVAC HHW Piping Distribution, Central Plant Valves, Distribution Isolation Valves, Insulation and Specialties	SF	45,000.00	0.35	15,750
25	HVAC HHW Pipework, includes hangers, fittings and insulationAllowance	SF	45,000.00	3.20	144,000
	Heat Generating Systems				\$159,750

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Estimate Details

#### S STUDENT SERVICES/REC CENTER

S1 OPTION 1 (continued)

SF SF SF SF SF SF SF	45,000.00 45,000.00 45,000.00 90.00 45,000.00	3.68 0.52 8.55 1,080.00 8.50	\$189,000 \$189,000 \$84,750 \$384,750 97,200 382,500
SF SF EA SF	45,000.00 45,000.00 90.00	0.52 8.55 1,080.00	23,400 <b>\$189,000</b> 384,750 <b>\$384,750</b> 97,200
SF	45,000.00	1,080.00	\$189,000 384,750 \$384,750 97,200
SF EA	90.00	1,080.00	\$384,750 \$384,750 97,200
EA SF	90.00	1,080.00	<b>\$384,750</b> 97,200
EA SF	90.00	1,080.00	<b>\$384,750</b> 97,200
EA SF			97,200
SF			
SF			
	45,000.00	8.50	382,500
s			
			\$479,700
SF	45,000.00	3.56	160,200
s			\$160,200
d SF	45,000.00	0.65	29,250
SF	45,000.00	0.65	29,250
SF	45,000.00	0.80	36,000
EA	1.00	6,200.00	6,200
nt			\$100,700
SF	45,000.00	2.60	117,000
	SF SF EA	SF 45,000.00  SF 45,000.00  SF 45,000.00  EA 1.00	SF 45,000.00 0.65  SF 45,000.00 0.80  EA 1.00 6,200.00

## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### S STUDENT SERVICES/REC CENTER

S1 OPTION 1 (continued)

Rates Current At June 2016

Des	cription	Unit	Qty	Rate	Total
2	SprinklersSupervision, drawings and permit - Allowance	SF	45,000.00	0.45	20,250
	Sprinklers -				\$137,250
D50	10 Electrical Service & Distribution				
36	Electrical panels, switchboards, ATS, step transformers, etc-Allowance	SF	45,000.00	3.50	157,500
37	Feeders, cable trays, conduit, etcAllowance	SF	45,000.00	1.80	81,000
38	Conduit and wire to light fixtures and controlsAllowance	SF	45,000.00	1.80	81,000
39	Outlets and other low voltage devicesAllowance	SF	45,000.00	2.00	90,000
40	Conduit and wire to outlets and low voltage devicesAllowance	SF	45,000.00	1.50	67,500
	Electrical Service & Distribution				\$477,000
D50	20 Lighting and Branch Wiring				
41	LED Light fixturesAllowance	SF	45,000.00	8.50	382,500
42	Lighting controlsAllowance for all areas	SF	45,000.00	1.25	56,250
45	Temporary Lighting	SF	45,000.00	0.85	38,250
	Lighting and Branch Wiring				\$477,000
D50	•				
47	Audio visual systemsAllowance	SF	45,000.00	3.00	135,000
48	TelecommunicationsPublic Address, Intercom and clock systems	SF	45,000.00	4.00	180,000
49	Security systemIncludes CCTV and Access Control	SF	45,000.00	1.75	78,750
50	Distributed antenna system - allowance	SF	45,000.00	0.70	31,500
51	Fire alarm system	SF	45,000.00	3.00	135,000
82	Provide WAP Coverage	EA	58.00	670.00	38,860
	Communications & Security				\$599,110
D50	· · · · · · · · · · · · · · · · · · ·				
43	GroundingAllowance	SF	45,000.00	0.15	6,750
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Estimate Details

#### S STUDENT SERVICES/REC CENTER

S1 OPTION 1 (continued)

,				
Description	Unit	Qty	Rate	Total
44 Misc. Testing/Permits/Commallowance	SF	45,000.00	1.00	45,000
Other Electrical Systems				\$51,750
E1010 Commercial Equipment				
142 Allowance for misc. equipment including medical cabinets, appliances, etc.	SF	45,000.00	4.00	180,000
143 Equipment in Fitness Center - by others	Note			Excl.
Commercial Equipment	-			\$180,000
E2010 Fixed Furnishings				
140 Allowance for casework and counters including reception decks	SF	45,000.00	14.00	630,000
Fixed Furnishings				\$630,000
F2010 Building Elements Demolition				
119 Demo (E) exterior wall	SF	720.00	25.00	18,000
Building Elements Demolition				\$18,000
G1020 Site Demolition and Relocations				
123 Allowance for site demolition	LS	1.00	50,000.00	50,000
Site Demolition and Relocations				\$50,000
G1030 Site Earthwork				
122 Allowance for site clearing, excavation, backfill, grading	SF	24,000.00	10.00	240,000
Site Earthwork				\$240,000
G2030 Pedestrian Paving				
156 Allowance for sidewalks, misc. paving	LS	1.00	10,000.00	10,000
Pedestrian Paving				\$10,000
G2050 Landscaping				
155 Landscape/Hardscape Allowance	LS	1.00	50,000.00	50,000
Landscaping				\$50,000
OPTION 1				\$11,236,864

## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### S STUDENT SERVICES/REC CENTER

S2 OPTION 2

S2A Student Services

Rates Current At June 2016

Desc	cription	Unit	Qty	Rate	Total
A101	0 Standard Foundations				
87	Single Elevator Pits including concrete, forming, reinforcing, excavation, backfill	EA	1.000	12,000.00	12,000
88	Waterproof Elevator Pits	EA	1.000	3,000.00	3,000
111	Allowance for standard foundations (per GFA)	SF	32,500.000	14.00	455,000
130	Concrete retaining wall including footing	SF	160.000	75.00	12,000
	Standard Foundations				\$482,000
A103	80 Slab on Grade				
112	Slab on grade including concrete, reinforcing, capillary break	SF	16,910.000	5.25	88,777
	Slab on Grade				\$88,777
B101	10 Floor Construction				
113	Structural floor steel: columns, beams, joists, bracing (allow 18 psf)	Т	158.17547	4,200.00	664,337
114	Metal floor deck	SF	17,575.000	3.75	65,906
115	Concrete floor on metal deck including reinforcing	SF	17,575.000	4.20	73,815
177	Fireproofing steel columns/beams	Т	158.17547	250.00	39,544
	Floor Construction				\$843,602
B102	20 Roof Construction				
116	Structural roof steel: columns, beams, joists, bracing (allow 14 psf)	Т	154.70000	4,350.00	672,945
117	Metal roof deck	SF	22,100.000	3.50	77,350
150	Concrete floor on metal deck including reinforcing	SF	1,785.000	4.20	7,497
178	Fireproof steel columns/beams	Т	154.70000	250.00	38,675
	Roof Construction				\$796,467
B201	10 Exterior Walls				
126	Face brick wall assembly including 4" brick, sheathing, stud framing, vapor barrier, insulation, interior GWB (assume 50% of exterior wall area)	SF	8,155.000	45.00	366,975
131	Concrete feature wall	SF	420.000	60.00	25,200
148	Exterior guardrail at Terrace	LF	143.000	300.00	42,900
157	Metal panel wall assembly including furring, sheathing, stud framing, vapor barrier, insulation, interior GWB (assume 15% of exterior wall area)	SF	2,446.500	45.00	110,092
	Exterior Walls				\$545,167
B202	20 Exterior Windows				
127	Aluminum storefront framing and windows (assume 35% of exterior wall area)	SF	5,708.639	60.00	342,519
	Exterior Windows				\$342,519

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## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### S STUDENT SERVICES/REC CENTER

S2 OPTION 2

S2A Student Services (continued)

Description	Unit	Qty	Rate	Tota
B2030 Exterior Doors				
128 Aluminum storefront entry doors - pair	EA	4.000	7,000.00	28,000
129 Single hollow metal door/frame entry doors	EA	2.000	1,250.00	2,500
132 Allowance for access hardware	LS	1.000	10,000.00	10,000
Exterior Doors		1.000	10,000.00	\$40,500
B3010 Roof Coverings				φ+0,500
118 New roof assembly including membrane, insulation, cover board, vapor barrier	SF	22,100.000	15.00	331,500
147 Terrace pavers	SF	1,785.000	14.00	24,990
Roof Coverings				\$356,490
B3020 Roof Openings				
120 Allowance for skylights/curbs/roof hatches	LS	1.000	10,000.00	10,000
Roof Openings				\$10,000
C1010 Partitions				
149 Interior guardrail	LF	101.000	300.00	30,300
152 Allowance for interior partitions (per GFA)	SF	32,500.000	20.00	650,000
Partitions -				\$680,300
C1020 Interior Doors				
151 Allowance for interior doors/hardware (per GFA)	SF	32,500.000	7.00	227,500
Interior Doors				\$227,500
C1030 Fittings				
135 Allowance for fittings including restroom accessories, whiteboards, fire extinguishers, corner guards, signage	SF	32,500.000	7.50	243,750
Fittings				\$243,750
C2010 Stair Construction		0.000	05 000 00	F0 000
145 Feature lobby stair	EA	2.000	25,000.00	50,000
Stair Construction				\$50,000
C3010 Wall Finishes	C.E.	22 500 000	F 00	160 500
153 Wall finish allowance (per GFA)  Wall Finishes	SF	32,500.000	5.00	162,500
C3020 Floor Finishes				\$162,500
	SF	22 500 000	6.00	105.000
137 Flooring finish allowance Floor Finishes	or_	32,500.000	0.00	195,000 <b>\$195,00</b> 0
C3030 Ceiling Finishes				φ 190,000
138 Ceiling finish allowance (per GFA)	SF	32,500.000	2.50	81,250
100 Centing Inflicti allowance (per Gr A)	Ji"	32,300.000	2.50	01,230

## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### S STUDENT SERVICES/REC CENTER

S2 OPTION 2

S2A Student Services (continued)

Rates Current At June 2016

Desc	cription	Unit	Qty	Rate	Total
D10 <sup>-</sup>	0 Elevators & Lifts				
85	2-Stop Elevator	EA	1.000	75,000.00	75,000
	Elevators & Lifts				\$75,000
D201	0 Plumbing Fixtures				
8	Plumbing Fixtures Alowance for toilet room fixtures and drains	SF	32,500.000	2.25	73,125
	Plumbing Fixtures				\$73,125
D202	20 Domestic Water Distribution				
3	Plumbing Equipment Allowance	SF	32,500.000	0.75	24,375
12	Allowance for Domestic Water Pipework, includes hangers, insulation, valves and accessories	SF	32,500.000	2.80	91,000
65	Allowance for testing of [E] plumbing systems	SF	32,500.000	0.12	3,900
	Domestic Water Distribution				\$119,275
D203	Sanitary Waste				
14	Allowance for SWV Pipe work(CINH) with standard flexible band couplings); Includes fittings, hangers	SF	32,500.000	1.85	60,125
	Sanitary Waste				\$60,125
D204	10 Rain Water Drainage				
15	Rainwater leaders/Storm Pipework	SF	32,500.000	1.64	53,300
	Rain Water Drainage				\$53,300
D209	00 Other Plumbing Systems				
13	Domestic Water Chlorination, includes 5% Subcontractor MU	SF	32,500.000	0.08	2,600
20	Plumbing permit, documentation, commissioning, testing and supervision	SF	32,500.000	1.10	35,750
	Other Plumbing Systems				\$38,350
D302	20 Heat Generating Systems				
24	HVAC HHW Piping Distribution, Central Plant Valves, Distribution Isolation Valves, Insulation and Specialties	SF	32,500.000	0.35	11,375
25	HVAC HHW Pipework, includes hangers, fittings and insulationAllowance	SF	32,500.000	3.20	104,000
	Heat Generating Systems				\$115,375

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## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

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#### S STUDENT SERVICES/REC CENTER

S2 OPTION 2

S2A Student Services (continued)

Des	cription	Unit	Qty	Rate	Total
D30	30 Cooling Generating Systems				
26	HVAC CHW Pipework, includes hangers, fittings and insulationAllowance	SF	32,500.000	3.68	119,600
27	HVAC CHW Piping Distribution, Central Plant Valves, Distribution Isolation Valves and Specialties	SF	32,500.000	0.52	16,900
	Cooling Generating Systems				\$136,500
D30	10 Distribution Systems				
28	Allowance for HVAC Distribution, includes dampers, devices, louvers and registers	SF	32,500.000	8.55	277,875
	Distribution Systems				\$277,875
D30	50 Terminal & Package Units				
32	HVAC EquipmentTerminal UnitHW CoilIncludes installation, hangers and valve set	EA	80.000	1,080.00	86,400
90	HVAC EquipmentRooftop UnitsIncludes installation	SF	32,500.000	8.50	276,250
	Terminal & Package Units				\$362,650
D30	60 Controls & Instrumentations				
34	DDC Controls - General	SF	32,500.000	3.56	115,700
	Controls & Instrumentations				\$115,700
D30	Other HVAC Systems & Equipment				
22	Allowance for HVAC BIM, permit, documentation, testing and supervision	SF	32,500.000	0.65	21,125
23	Balancing Testing and Commissioning Includes coordination with the subcontractor	SF	32,500.000	0.65	21,125
33	Exhaust fans/ductwork/grilles/fluesallowance	SF	32,500.000	0.80	26,000
35	Allowance for HVAC equipment rigging and hoistingCost per large unit/cost per day for multiple small units	EA	1.000	6,200.00	6,200
	Other HVAC Systems & Equipment				\$74,450
D40	10 Sprinklers				
1	Allowance for Fire Suppression Systems including heads, pipework and specialties	SF	32,500.000	2.60	84,500

## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### S STUDENT SERVICES/REC CENTER

S2 OPTION 2

S2A Student Services (continued)

Rates Current At June 2016

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Des	cription	Unit	Qty	Rate	Total
2	SprinklersSupervision, drawings and permit - Allowance	SF	32,500.000	0.45	14,625
	Sprinklers -				\$99,125
D50	10 Electrical Service & Distribution				
36	Electrical panels, switchboards, ATS, step transformers, etc-Allowance	SF	32,500.000	3.50	113,750
37	Feeders, cable trays, conduit, etcAllowance	SF	32,500.000	1.80	58,500
38	Conduit and wire to light fixtures and controlsAllowance	SF	32,500.000	1.80	58,500
39	Outlets and other low voltage devicesAllowance	SF	32,500.000	2.00	65,000
40	Conduit and wire to outlets and low voltage devices Allowance	SF	32,500.000	1.50	48,750
	Electrical Service & Distribution				\$344,500
D50	20 Lighting and Branch Wiring				
41	LED Light fixturesAllowance	SF	32,500.000	8.50	276,250
42	Lighting controlsAllowance for all areas	SF	32,500.000	1.25	40,625
45	Temporary Lighting	SF	32,500.000	0.85	27,625
	Lighting and Branch Wiring				\$344,500
D50	30 Communications & Security				
47	Audio visual systemsAllowance	SF	32,500.000	3.00	97,500
48	TelecommunicationsPublic Address, Intercom and clock systems	SF	32,500.000	4.00	130,000
49	Security systemIncludes CCTV and Access Control	SF	32,500.000	1.75	56,875
50	Distributed antenna system - allowance	SF	32,500.000	0.70	22,750
51	Fire alarm system	SF	32,500.000	3.00	97,500
82	Provide WAP Coverage	EA	40.000	670.00	26,800
	Communications & Security				\$431,425

## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### S STUDENT SERVICES/REC CENTER

S2 OPTION 2

S2A Student Services (continued)

Desc	ription	Unit	Qty	Rate	Total
D509	0 Other Electrical Systems				
43	GroundingAllowance	SF	32,500.000	0.15	4,875
44	Misc. Testing/Permits/Commallowance	SF	32,500.000	1.00	32,500
	Other Electrical Systems				\$37,375
E101	0 Commercial Equipment				
142	Allowance for misc. equipment including medical cabinets, appliances, etc.	SF	32,500.000	4.00	130,000
	Commercial Equipment				\$130,000
E201	0 Fixed Furnishings				
140	Allowance for casework and counters including reception decks	SF	32,500.000	14.00	455,000
	Fixed Furnishings				\$455,000
F201	0 Building Elements Demolition				
119	Demo (E) exterior wall	SF	720.000	25.00	18,000
	Building Elements Demolition				\$18,000
G102					
123	Allowance for site demolition	LS	1.000	50,000.00	50,000
	Site Demolition and Relocations				\$50,000
G103					
122	Allowance for site clearing, excavation, backfill, grading	SF	16,910.000	10.00	169,100
	Site Earthwork				\$169,100
	80 Pedestrian Paving		4 000	40.000.00	40.000
156	Allowance for sidewalks, misc. paving  Pedestrian Paving	LS	1.000	10,000.00	10,000
G205					\$10,000
155	Landscape/Hardscape Allowance	LS	1.000	50,000.00	50,000
133	Landscaping	LO	1.000	50,000.00	\$50,000
	STUDENT SERVICES				\$8,786,572
	GIODENI SERVICES				φυ, 100,312

## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### S STUDENT SERVICES/REC CENTER

S2 OPTION 2

S2B Recreation Center

Rates Current At June 2016

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Desc	ription	Unit	Qty	Rate	Total
A101	0 Standard Foundations				
87	Single Elevator Pits including concrete, forming, reinforcing, excavation, backfill	EA	1.000	12,000.00	12,000
88	Waterproof Elevator Pits	EA	1.000	3,000.00	3,000
111	Allowance for standard foundations (per GFA)	SF	18,000.000	14.00	252,000
130	Concrete retaining wall including footing	SF	1,630.000	75.00	122,250
	Standard Foundations				\$389,250
A103	0 Slab on Grade				
112	Slab on grade including concrete, reinforcing, capillary break	SF	9,775.000	5.25	51,319
	Slab on Grade				\$51,319
B101	0 Floor Construction				
113	Structural floor steel: columns, beams, joists, bracing (allow 18 psf)	Т	74.02523	4,200.00	310,906
114	Metal floor deck	SF	8,225.000	3.75	30,844
115	Concrete floor on metal deck including reinforcing	SF	8,225.000	4.20	34,545
177	Fireproofing steel columns/beams	Т	74.02523	250.00	18,506
	Floor Construction				\$394,801
B102	0 Roof Construction				
116	Structural roof steel: columns, beams, joists, bracing (allow 14 psf)	Т	4.88750	4,350.00	21,261
117	Metal roof deck	SF	9,775.000	3.50	34,212
178	Fireproof steel columns/beams	Т	4.88750	250.00	1,222
	Roof Construction				\$56,695
<b>B20</b> 1	0 Exterior Walls				
126	Face brick wall assembly including 4" brick, sheathing, stud framing, vapor barrier, insulation, interior GWB (assume 50% of exterior wall area)	SF	2,380.000	45.00	107,100
133	Face brick wall assembly including 4" brick, sheathing, stud framing, vapor barrier, insulation, interior GWB (assume 80% of exterior wall area)	SF	4,630.400	32.00	148,173
157	Metal panel wall assembly including furring , sheathing, stud framing, vapor barrier, insulation, interior GWB (assume 15% of exterior wall area)	SF	714.000	45.00	32,130
	Exterior Walls				\$287,403
B202	20 Exterior Windows				
127	Aluminum storefront framing and windows (assume 35% of exterior wall area)	SF	1,666.041	60.00	99,962

## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### S STUDENT SERVICES/REC CENTER

S2 OPTION 2

S2B Recreation Center (continued)

Desc	ription	Unit	Qty	Rate	Total
134	Aluminum storefront framing and windows (assume 20% of exterior wall area)	SF	1,157.600	60.00	69,456
	Exterior Windows				\$169,418
B203	0 Exterior Doors				
128	Aluminum storefront entry doors - pair	EA	2.000	7,000.00	14,000
129	Single hollow metal door/frame entry doors	EA	3.000	1,250.00	3,750
132	Allowance for access hardware	LS	1.000	10,000.00	10,000
	Exterior Doors				\$27,750
B301	0 Roof Coverings				
118	New roof assembly including membrane, insulation, cover board, vapor barrier	SF	9,775.000	15.00	146,625
	Roof Coverings				\$146,625
B302	20 Roof Openings				
120	Allowance for skylights/curbs/roof hatches	LS	1.000	10,000.00	10,000
	Roof Openings				\$10,000
C101	0 Partitions				
152	Allowance for interior partitions (per GFA)	SF	18,000.000	20.00	360,000
	Partitions				\$360,000
C102	20 Interior Doors				
151	Allowance for interior doors/hardware (per GFA)	SF	18,000.000	7.00	126,000
	Interior Doors				\$126,000
C103	0 Fittings				
135	Allowance for fittings including restroom accessories, whiteboards, fire extinguishers, corner guards, signage	SF	18,000.000	7.50	135,000
	Fittings				\$135,000
C201	0 Stair Construction				
144	Steel stairs, landings, handrails, concrete treads (per flight)	EA	1.000	15,000.00	15,000
158	Exterior stairs	EA	1.000	12,500.00	12,500
	Stair Construction				\$27,500
C301	0 Wall Finishes				
153	Wall finish allowance (per GFA)	SF	18,000.000	5.00	90,000
	Wall Finishes				\$90,000
C302	20 Floor Finishes				
136	Wood floor	SF	6,580.000	18.00	118,440
137	Flooring finish allowance	SF	11,420.000	6.00	68,520
	Floor Finishes				\$186,960

## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

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#### S STUDENT SERVICES/REC CENTER

S2 OPTION 2

S2B Recreation Center (continued)

Rates Current At June 2016

	cription	Unit	Qty	Rate	Tota
C303	80 Ceiling Finishes				
	Ceiling finish allowance (per GFA)	SF	18,000.000	2.50	45,000
	Ceiling Finishes				\$45,000
D101					
85	2-Stop Elevator	EA	1.000	75,000.00	75,000
D201	Elevators & Lifts 0				\$75,000
91	Plumbing FixturesWater ClosetWall hung with carrier, 1.28 GFP (Manual flush valve)	EA	10.000	1,815.00	18,150
92	Plumbing FixturesUrinalWall hung with carrier (Manual flush valve)	EA	3.000	1,350.00	4,050
93	Plumbing FixturesLavatoryCounter mounted, with sensor activated electronic faucet	EA	8.000	680.00	5,440
94	Plumbing FixturesDrinking Fountain with bottle filler: Dual height, stanless steel, wall mounted, with backing	EA	2.000	2,210.00	4,420
95	Plumbing FixturesMop Sink Floor (Corner) mounted, with wall mounted faucet, includes vacuum breaker and hose adapter	EA	1.000	1,630.00	1,630
96	Plumbing FixturesFloor Drain3" Floor drain, JR Smith 2005	EA	6.000	310.00	1,860
97	Plumbing FixturesShower Valve in tiled compartment (By GC)shower drain included	EA	12.000	830.00	9,960
	Plumbing Fixtures				\$45,51
D202	20 Domestic Water Distribution				
3	Plumbing Equipment Allowance	SF	18,000.000	0.75	13,500
12	Allowance for Domestic Water Pipework, includes hangers, insulation, valves and accessories	SF	18,000.000	2.80	50,400
65	Allowance for testing of [E] plumbing systems	SF	18,000.000	0.12	2,160

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#### S STUDENT SERVICES/REC CENTER

S2 OPTION 2

S2B Recreation Center (continued)

Des	cription	Unit	Qty	Rate	Tota
D20	30 Sanitary Waste				
14	Allowance for SWV Pipe work(CINH) with standard flexible band couplings); Includes fittings, hangers	SF	18,000.000	1.85	33,300
	Sanitary Waste				\$33,300
D20	40 Rain Water Drainage				
15	Rainwater leaders/Storm Pipework	SF	18,000.000	1.64	29,520
	Rain Water Drainage				\$29,520
D20	90 Other Plumbing Systems				
13	Domestic Water Chlorination, includes 5% Subcontractor MU	SF	18,000.000	0.08	1,440
20	Plumbing permit, documentation, commissioning, testing and supervision	SF	18,000.000	1.10	19,800
	Other Plumbing Systems				\$21,240
D30	20 Heat Generating Systems				
24	HVAC HHW Piping Distribution, Central Plant Valves, Distribution Isolation Valves, Insulation and Specialties	SF	18,000.000	0.35	6,300
25	HVAC HHW Pipework, includes hangers, fittings and insulationAllowance	SF	18,000.000	3.20	57,600
	Heat Generating Systems				\$63,900
D30	30 Cooling Generating Systems				
26	HVAC CHW Pipework, includes hangers, fittings and insulationAllowance	SF	18,000.000	3.68	66,240
27	HVAC CHW Piping Distribution, Central Plant Valves, Distribution Isolation Valves and Specialties	SF	18,000.000	0.52	9,360
	Cooling Generating Systems				\$75,600
D30	40 Distribution Systems				
28	Allowance for HVAC Distribution, includes dampers, devices, louvers and registers	SF	18,000.000	8.55	153,900
	Distribution Systems				\$153,900
D30	·				,
32	HVAC EquipmentTerminal UnitHW CoilIncludes installation, hangers and valve set	EA	80.000	1,080.00	86,400

## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### S STUDENT SERVICES/REC CENTER

S2 OPTION 2

S2B Recreation Center (continued)

Rates Current At June 2016

	tooroalion conton (continuou)				
Des	cription	Unit	Qty	Rate	Total
90	HVAC EquipmentRooftop UnitsIncludes installation	SF	18,000.000	8.50	153,000
	Terminal & Package Units				\$239,400
D30	60 Controls & Instrumentations				
34	DDC Controls - General	SF	18,000.000	3.56	64,080
	Controls & Instrumentations				\$64,080
D30	90 Other HVAC Systems & Equipment				
22	Allowance for HVAC BIM, permit, documentation, testing and supervision	SF	18,000.000	0.65	11,700
23	Balancing Testing and Commissioning Includes coordination with the subcontractor	SF	18,000.000	0.65	11,700
33	Exhaust fans/ductwork/grilles/fluesallowance	SF	18,000.000	0.80	14,400
35	Allowance for HVAC equipment rigging and hoistingCost per large unit/cost per day for multiple small units	EA	1.000	6,200.00	6,200
	Other HVAC Systems & Equipment				\$44.000
D40					<b>4</b> 1 1,000
1	Allowance for Fire Suppression Systems including heads, pipework and specialties	SF	18,000.000	2.60	46,800
2	SprinklersSupervision, drawings and permit - Allowance	SF	18,000.000	0.45	8,100
	Sprinklers -				\$54,900
D50	10 Electrical Service & Distribution				
36	Electrical panels, switchboards, ATS, step transformers, etcAllowance	SF	18,000.000	3.50	63,000
37	Feeders, cable trays, conduit, etcAllowance	SF	18,000.000	1.80	32,400
38	Conduit and wire to light fixtures and controlsAllowance	SF	18,000.000	1.80	32,400
39	Outlets and other low voltage devicesAllowance	SF	18,000.000	2.00	36,000
40	Conduit and wire to outlets and low voltage devices- Allowance	SF	18,000.000	1.50	27,000
	Electrical Service & Distribution				\$190,800
(					

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Estimate Details

#### S STUDENT SERVICES/REC CENTER

S2 OPTION 2

S2B Recreation Center (continued)

Desc	cription	Unit	Qty	Rate	Total
D502	20 Lighting and Branch Wiring				
41	LED Light fixturesAllowance	SF	18,000.000	8.50	153,000
42	Lighting controlsAllowance for all areas	SF	18,000.000	1.25	22,500
45	Temporary Lighting	SF	18,000.000	0.85	15,300
	Lighting and Branch Wiring				\$190,800
D503	30 Communications & Security				
47	Audio visual systemsAllowance	SF	18,000.000	3.00	54,000
48	TelecommunicationsPublic Address, Intercom and clock systems	SF	18,000.000	4.00	72,000
49	Security systemIncludes CCTV and Access Control	SF	18,000.000	1.75	31,500
50	Distributed antenna system - allowance	SF	18,000.000	0.70	12,600
51	Fire alarm system	SF	18,000.000	3.00	54,000
82	Provide WAP Coverage	EA	40.000	670.00	26,800
	Communications & Security				\$250,900
D509	00 Other Electrical Systems				
43	GroundingAllowance	SF	18,000.000	0.15	2,700
44	Misc. Testing/Permits/Commallowance	SF	18,000.000	1.00	18,000
	Other Electrical Systems				\$20,700
E101	0 Commercial Equipment				, ,
139	Allowance for athletic equipment including basketball hoops, wall padding, floor inserts	LS	1.000	30,000.00	30,000
142	Allowance for misc. equipment including medical cabinets, appliances, etc.	SF	18,000.000	4.00	72,000
143	Equipment in Fitness Center - by others	Note			Excl.
	Commercial Equipment				\$102,000
E201	0 Fixed Furnishings				
140	Allowance for casework and counters including reception decks	SF	18,000.000	14.00	252,000
	Fixed Furnishings				\$252,000

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#### S STUDENT SERVICES/REC CENTER

S2 OPTION 2

16

S2 OPTION 2 S2B Recreation Center (continued)			Rates Currer	nt At June 201
Description	Unit	Qty	Rate	Total
F2010 Building Elements Demolition				
119 Demo (E) exterior wall	SF	97.000	25.00	2,425
Building Elements Demolition				\$2,425
G1020 Site Demolition and Relocations				
123 Allowance for site demolition	LS	1.000	50,000.00	50,000
Site Demolition and Relocations				\$50,000
G1030 Site Earthwork				
122 Allowance for site clearing, excavation, backfill, grading	SF	9,775.000	10.00	97,750
Site Earthwork				\$97,750
G2030 Pedestrian Paving				
156 Allowance for sidewalks, misc. paving	LS	1.000	10,000.00	10,000
Pedestrian Paving				\$10,000
G2050 Landscaping				
154 Landscape/Hardscape Allowance	LS	1.000	30,000.00	30,000
Landscaping -				\$30,000
RECREATION CENTER				\$4,667,506

Estimate Details

#### S STUDENT SERVICES/REC CENTER

S3 OPTION 3

S3A Student Services

Desc	cription	Unit	Qty	Rate	Total
A101	0 Standard Foundations				
87	Single Elevator Pits including concrete, forming, reinforcing, excavation, backfill	EA	1.000	12,000.00	12,000
88	Waterproof Elevator Pits	EA	1.000	3,000.00	3,000
111	Allowance for standard foundations (per GFA)	SF	32,500.000	14.00	455,000
130	Concrete retaining wall including footing	SF	160.000	75.00	12,000
	Standard Foundations				\$482,000
A103	80 Slab on Grade				
112	Slab on grade including concrete, reinforcing, capillary break	SF	16,910.000	5.25	88,778
	Slab on Grade				\$88,778
B101	10 Floor Construction				
113	Structural floor steel: columns, beams, joists, bracing (allow 18 psf)	Т	158.17547	4,200.00	664,337
114	Metal floor deck	SF	17,575.000	3.75	65,906
115	Concrete floor on metal deck including reinforcing	SF	17,575.000	4.20	73,815
177	Fireproofing steel columns/beams	Т	158.17547	250.00	39,544
	Floor Construction				\$843,602
B102	20 Roof Construction				
116	Structural roof steel: columns, beams, joists, bracing (allow 14 psf)	Т	154.70000	4,350.00	672,945
117	Metal roof deck	SF	22,100.000	3.50	77,350
150	Concrete floor on metal deck including reinforcing	SF	1,785.000	4.20	7,497
178	Fireproof steel columns/beams	Т	154.70000	250.00	38,675
	Roof Construction				\$796,467
B201	0 Exterior Walls				
126	Face brick wall assembly including 4" brick, sheathing, stud framing, vapor barrier, insulation, interior GWB (assume 50% of exterior wall area)	SF	8,155.000	45.00	366,975
131	Concrete feature wall	SF	420.000	60.00	25,200
148	Exterior guardrail at Terrace	LF	143.000	300.00	42,900
157	Metal panel wall assembly including furring, sheathing, stud framing, vapor barrier, insulation, interior GWB (assume 15% of exterior wall area)	SF	2,446.500	45.00	110,093
	Exterior Walls				\$545,168
B202	20 Exterior Windows				
127	Aluminum storefront framing and windows (assume 35% of exterior wall area)	SF	5,708.634	60.00	342,518
	Exterior Windows				\$342,518

## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### S STUDENT SERVICES/REC CENTER

S3 OPTION 3

S3A Student Services (continued)

Rates Current At June 2016

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Description	Unit	Qty	Rate	Total
B2030 Exterior Doors				
128 Aluminum storefront entry doors - pair	EA	4.000	7,000.00	28,000
129 Single hollow metal door/frame entry doors	EA	2.000	1,250.00	2,500
132 Allowance for access hardware	LS	1.000	10,000.00	10,000
Exterior Doors				\$40,500
B3010 Roof Coverings				
118 New roof assembly including membrane, insulation, cover board, vapor barrier	SF	22,100.000	15.00	331,500
147 Terrace pavers	SF	1,785.000	14.00	24,990
Roof Coverings				\$356,490
B3020 Roof Openings				
120 Allowance for skylights/curbs/roof hatches	LS	1.000	10,000.00	10,000
Roof Openings				\$10,000
C1010 Partitions				
149 Interior guardrail	LF	101.000	300.00	30,300
152 Allowance for interior partitions (per GFA)	SF	32,500.000	20.00	650,000
Partitions				\$680,300
C1020 Interior Doors				
151 Allowance for interior doors/hardware (per GFA)	SF	32,500.000	7.00	227,500
Interior Doors				\$227,500
C1030 Fittings				
Allowance for fittings including restroom accessories, whiteboards, fire extinguishers, corner guards, signage	SF	32,500.000	7.50	243,750
Fittings				\$243,750
C2010 Stair Construction				
145 Feature lobby stair	EA	2.000	25,000.00	50,000
Stair Construction				\$50,000
C3010 Wall Finishes	05	00 500 000	5.00	400 500
153 Wall finish allowance (per GFA)	SF	32,500.000	5.00	162,500
Wall Finishes				\$162,500
C3020 Floor Finishes	0.5	20 500 000	0.00	405.000
137 Flooring finish allowance	SF	32,500.000	6.00	195,000
Floor Finishes C3030 Ceiling Finishes				\$195,000
• • • • • • • • • • • • • • • • • • • •	SF	22 500 000	2.50	04.050
138 Ceiling finish allowance (per GFA)	<u>ه</u>	32,500.000	2.50	81,250
Ceiling Finishes				\$81,250

Estimate Details

#### S STUDENT SERVICES/REC CENTER

S3 OPTION 3

S3A Student Services (continued)

	ription	Unit	Qty	Rate	Total
D101	0 Elevators & Lifts				
85	2-Stop Elevator	EA	1.000	75,000.00	75,000
	Elevators & Lifts				\$75,000
D201	0 Plumbing Fixtures				
8	Plumbing Fixtures Alowance for toilet room fixtures and drains	SF	32,500.000	2.25	73,125
	Plumbing Fixtures				\$73,125
D202	20 Domestic Water Distribution				
3	Plumbing Equipment Allowance	SF	32,500.000	0.75	24,375
12	Allowance for Domestic Water Pipework, includes hangers, insulation, valves and accessories	SF	32,500.000	2.80	91,000
65	Allowance for testing of [E] plumbing systems	SF	32,500.000	0.12	3,900
	Domestic Water Distribution				\$119,275
D203	SO Sanitary Waste				
14	Allowance for SWV Pipe work(CINH) with standard flexible band couplings); Includes fittings, hangers	SF	32,500.000	1.85	60,125
	Sanitary Waste				\$60,125
D204	0 Rain Water Drainage				
15	Rainwater leaders/Storm Pipework	SF	32,500.000	1.64	53,300
	Rain Water Drainage				\$53,300
D209	O Other Plumbing Systems				
13	Domestic Water Chlorination, includes 5% Subcontractor MU	SF	32,500.000	0.08	2,600
20	Plumbing permit, documentation, commissioning, testing and supervision	SF	32,500.000	1.10	35,750
	Other Plumbing Systems				\$38,350
D302	Po Heat Generating Systems				
24	HVAC HHW Piping Distribution, Central Plant Valves, Distribution Isolation Valves, Insulation and Specialties	SF	32,500.000	0.35	11,375
25	HVAC HHW Pipework, includes hangers, fittings and insulationAllowance	SF	32,500.000	3.20	104,000
	Heat Generating Systems				\$115,375

## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### S STUDENT SERVICES/REC CENTER

S3 OPTION 3

S3A Student Services (continued)

Des	cription	Unit	Qty	Rate	Total
D30	30 Cooling Generating Systems				
26	HVAC CHW Pipework, includes hangers, fittings and insulationAllowance	SF	32,500.000	3.68	119,600
27	HVAC CHW Piping Distribution, Central Plant Valves, Distribution Isolation Valves and Specialties	SF	32,500.000	0.52	16,900
	Cooling Generating Systems				\$136,500
D30	40 Distribution Systems				
28	Allowance for HVAC Distribution, includes dampers, devices, louvers and registers	SF	32,500.000	8.55	277,875
	Distribution Systems				\$277,875
D30	50 Terminal & Package Units				
32	HVAC EquipmentTerminal UnitHW CoilIncludes installation, hangers and valve set	EA	80.000	1,080.00	86,400
90	HVAC EquipmentRooftop UnitsIncludes installation	SF	32,500.000	8.50	276,250
	Terminal & Package Units				\$362,650
D30	60 Controls & Instrumentations				
34	DDC Controls - General	SF	32,500.000	3.56	115,700
	Controls & Instrumentations				\$115,700
D30	90 Other HVAC Systems & Equipment				
22	Allowance for HVAC BIM, permit, documentation, testing and supervision	SF	32,500.000	0.65	21,125
23	Balancing Testing and Commissioning Includes coordination with the subcontractor	SF	32,500.000	0.65	21,125
33	Exhaust fans/ductwork/grilles/fluesallowance	SF	32,500.000	0.80	26,000
35	Allowance for HVAC equipment rigging and hoistingCost per large unit/cost per day for multiple small units	EA	1.000	6,200.00	6,200
	Other HVAC Systems & Equipment				\$74,450
D40	10 Sprinklers				
1	Allowance for Fire Suppression Systems including heads, pipework and specialties	SF	32,500.000	2.60	84,500

Estimate Details

#### S STUDENT SERVICES/REC CENTER

S3 OPTION 3

S3A Student Services (continued)

Des	cription	Unit	Qty	Rate	Total
2	SprinklersSupervision, drawings and permit - Allowance	SF	32,500.000	0.45	14,625
	Sprinklers -				\$99,125
D50	10 Electrical Service & Distribution				
36	Electrical panels, switchboards, ATS, step transformers, etc-Allowance	SF	32,500.000	3.50	113,750
37	Feeders, cable trays, conduit, etcAllowance	SF	32,500.000	1.80	58,500
38	Conduit and wire to light fixtures and controlsAllowance	SF	32,500.000	1.80	58,500
39	Outlets and other low voltage devicesAllowance	SF	32,500.000	2.00	65,000
40	Conduit and wire to outlets and low voltage devices Allowance	SF	32,500.000	1.50	48,750
	Electrical Service & Distribution				\$344,500
D50	20 Lighting and Branch Wiring				
41	LED Light fixturesAllowance	SF	32,500.000	8.50	276,250
42	Lighting controlsAllowance for all areas	SF	32,500.000	1.25	40,625
45	Temporary Lighting	SF	32,500.000	0.85	27,625
	Lighting and Branch Wiring				\$344,500
D50	30 Communications & Security				
47	Audio visual systemsAllowance	SF	32,500.000	3.00	97,500
48	TelecommunicationsPublic Address, Intercom and clock systems	SF	32,500.000	4.00	130,000
49	Security systemIncludes CCTV and Access Control	SF	32,500.000	1.75	56,875
50	Distributed antenna system - allowance	SF	32,500.000	0.70	22,750
51	Fire alarm system	SF	32,500.000	3.00	97,500
82	Provide WAP Coverage	EA	40.000	670.00	26,800
	Communications & Security				\$431,425

## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### S STUDENT SERVICES/REC CENTER

S3 OPTION 3

S3A Student Services (continued)

Description	Unit	Qty	Rate	Total
D5090 Other Electrical Systems				
43 GroundingAllowance	SF	32,500.000	0.15	4,875
44 Misc. Testing/Permits/Commallowance	SF	32,500.000	1.00	32,500
Other Electrical Systems				\$37,375
E1010 Commercial Equipment				
142 Allowance for misc. equipment including medical cabinets, appliances, etc.	SF	32,500.000	4.00	130,000
Commercial Equipment				\$130,000
E2010 Fixed Furnishings				
140 Allowance for casework and counters including reception decks	SF	32,500.000	14.00	455,000
Fixed Furnishings				\$455,000
F2010 Building Elements Demolition				
119 Demo (E) exterior wall	SF	720.000	25.00	18,000
Building Elements Demolition				\$18,000
G1020 Site Demolition and Relocations				
123 Allowance for site demolition	LS	1.000	50,000.00	50,000
Site Demolition and Relocations				\$50,000
G1030 Site Earthwork				
122 Allowance for site clearing, excavation, backfill, grading	SF	16,910.000	10.00	169,100
Site Earthwork				\$169,100
G2030 Pedestrian Paving				
156 Allowance for sidewalks, misc. paving	LS	1.000	10,000.00	10,000
Pedestrian Paving				\$10,000
G2050 Landscaping				
155 Landscape/Hardscape Allowance	LS	1.000	50,000.00	50,000
Landscaping _				\$50,000
				\$8,786,573

## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### S STUDENT SERVICES/REC CENTER

S3 OPTION 3

S3B Recreation Center

ming, reinforcing,  FA)  Indard Foundations  Ing, capillary break  Slab on Grade  Its, bracing (allow  Iforcing  Floor Construction	EA EA SF SF  T SF SF T	1.000 1.000 18,000.000 2,500.000 9,775.000 74.02523 8,225.000 8,225.000 74.02523	12,000.00 3,000.00 14.00 75.00 5.25 4,200.00 3.75 4.20 250.00	12,000 3,000 252,000 187,500 \$454,500 51,319 \$51,319 310,906 30,844 34,545
FA)  ndard Foundations  ng, capillary break  Slab on Grade  ts, bracing (allow  forcing	EA SF SF SF	1.000 18,000.000 2,500.000 9,775.000 74.02523 8,225.000 8,225.000	3,000.00 14.00 75.00 5.25 4,200.00 3.75 4.20	3,000 252,000 187,500 \$454,500 51,319 \$51,319 310,906 30,844 34,545
ndard Foundations  ng, capillary break  Slab on Grade  ts, bracing (allow	SF SF T SF SF	18,000.000 2,500.000 9,775.000 74.02523 8,225.000 8,225.000	14.00 75.00 5.25 4,200.00 3.75 4.20	252,000 187,500 \$454,500 51,319 \$51,319 310,906 30,844 34,545
ndard Foundations  ng, capillary break  Slab on Grade  ts, bracing (allow	SF SF T SF SF	2,500.000 9,775.000 74.02523 8,225.000 8,225.000	75.00 5.25 4,200.00 3.75 4.20	\$454,500 \$454,500 51,319 \$51,319 310,906 30,844 34,545
ng, capillary break  Slab on Grade  ts, bracing (allow  forcing	SF T SF SF	9,775.000 74.02523 8,225.000 8,225.000	5.25 4,200.00 3.75 4.20	\$454,500 51,319 \$51,319 310,906 30,844 34,545
ng, capillary break  Slab on Grade  ts, bracing (allow  forcing	T SF SF	74.02523 8,225.000 8,225.000	4,200.00 3.75 4.20	\$1,319 <b>\$51,319</b> 310,906 30,844 34,545
Slab on Grade	T SF SF	74.02523 8,225.000 8,225.000	4,200.00 3.75 4.20	\$51,319 310,906 30,844 34,545
Slab on Grade	T SF SF	74.02523 8,225.000 8,225.000	4,200.00 3.75 4.20	\$51,319 310,906 30,844 34,545
ts, bracing (allow	SF SF	8,225.000 8,225.000	3.75 4.20	310,906 30,844 34,545
forcing	SF SF	8,225.000 8,225.000	3.75 4.20	30,844 34,545
forcing	SF SF	8,225.000 8,225.000	3.75 4.20	30,844 34,545
J	SF	8,225.000	4.20	34,545
J	_	,		•
Floor Construction	Т	74.02523	250.00	
Floor Construction				18,506
				\$394,801
s, bracing (allow	Т	4.88750	4,350.00	21,261
	SF	9,775.000	3.50	34,213
	Т	4.88750	250.00	1,222
Roof Construction				\$56,696
, sheathing, stud WB (assume 50%	SF	2,142.000	45.00	96,390
, ,,	SF	4,601.600	32.00	147,251
	SF	642.600	45.00	28,917
Exterior Walls				\$272,558
	SF	1,499.436	60.00	89,966
3	s, sheathing, stud GWB (assume 80% g , sheathing, stud GWB (assume 15%	s, sheathing, stud GWB (assume 80% g , sheathing, stud GWB (assume 15% Exterior Walls	s, sheathing, stud SF 4,601.600 GWB (assume 80% SF 642.600 GWB (assume 15% Exterior Walls	s, sheathing, stud SF 4,601.600 32.00 GWB (assume 80% SF 642.600 45.00 GWB (assume 15% Exterior Walls

## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### S STUDENT SERVICES/REC CENTER

S3 OPTION 3

S3B Recreation Center (continued)

Rates Current At June 2016

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Desc	ription	Unit	Qty	Rate	Tota
134	Aluminum storefront framing and windows (assume 20% of exterior wall area)	SF	1,150.400	60.00	69,024
	Exterior Windows				\$158,990
B203	0 Exterior Doors				
128	Aluminum storefront entry doors - pair	EA	2.000	7,000.00	14,000
129	Single hollow metal door/frame entry doors	EA	3.000	1,250.00	3,750
132	Allowance for access hardware	LS	1.000	10,000.00	10,000
	Exterior Doors				\$27,750
B301	0 Roof Coverings				
118	New roof assembly including membrane, insulation, cover board, vapor barrier	SF	9,775.000	15.00	146,625
	Roof Coverings				\$146,625
B302	20 Roof Openings				
120	Allowance for skylights/curbs/roof hatches	LS	1.000	10,000.00	10,000
	Roof Openings				\$10,000
C101	0 Partitions				
152	Allowance for interior partitions (per GFA)	SF	18,000.000	20.00	360,000
	Partitions -				\$360,000
C102	20 Interior Doors				
151	Allowance for interior doors/hardware (per GFA)	SF	18,000.000	7.00	126,000
	Interior Doors				\$126,000
C103					
135	Allowance for fittings including restroom accessories, whiteboards, fire extinguishers, corner guards, signage	SF	18,000.000	7.50	135,000
	Fittings				\$135,000
C201					
144		EA	1.000	15,000.00	15,000
	Stair Construction				\$15,000
	0 Wall Finishes				
153	Wall finish allowance (per GFA)	SF	18,000.000	5.00	90,000
	Wall Finishes				\$90,000
	0 Floor Finishes	05	0.500.000	40.00	440.440
136	Wood floor	SF	6,580.000	18.00	118,440
137	Flooring finish allowance  Floor Finishes	SF	11,420.000	6.00	68,520
	Floor Finishes				\$186,960

Estimate Details

#### S STUDENT SERVICES/REC CENTER

S3 OPTION 3

S3B Recreation Center (continued)

Desc	cription	Unit	Qty	Rate	Total
C303	30 Ceiling Finishes				
138	Ceiling finish allowance (per GFA)	SF	18,000.000	2.50	45,000
	Ceiling Finishes				\$45,000
D101	10 Elevators & Lifts				
85	2-Stop Elevator	EA	1.000	75,000.00	75,000
<b>D</b>	Elevators & Lifts				\$75,000
D201	· · · · · · · · · · · · · · · · · · ·		40.000	4 045 00	40.450
91	Plumbing FixturesWater ClosetWall hung with carrier, 1.28 GFP (Manual flush valve)	EA	10.000	1,815.00	18,150
92	Plumbing FixturesUrinalWall hung with carrier (Manual flush valve)	EA	3.000	1,350.00	4,050
93	Plumbing FixturesLavatoryCounter mounted, with sensor activated electronic faucet	EA	8.000	680.00	5,440
94	Plumbing FixturesDrinking Fountain with bottle filler: Dual height, stanless steel, wall mounted, with backing	EA	2.000	2,210.00	4,420
95	Plumbing FixturesMop Sink Floor (Corner) mounted, with wall mounted faucet, includes vacuum breaker and hose adapter	EA	1.000	1,630.00	1,630
96	Plumbing FixturesFloor Drain3" Floor drain, JR Smith 2005	EA	6.000	310.00	1,860
99	Plumbing FixturesShower Valve in tiled compartment (By GC)shower drain included	EA	12.000	830.00	9,960
	Plumbing Fixtures				\$45,510
D202	20 Domestic Water Distribution				
3	Plumbing Equipment Allowance	SF	18,000.000	0.75	13,500
12	Allowance for Domestic Water Pipework, includes hangers, insulation, valves and accessories	SF	18,000.000	2.80	50,400
65	Allowance for testing of [E] plumbing systems	SF	18,000.000	0.12	2,160
	Domestic Water Distribution				\$66,060

## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

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#### S STUDENT SERVICES/REC CENTER

S3 OPTION 3

S3B Recreation Center (continued)

Rates Current At June 2016

Desc	ription	Unit	Qty	Rate	Total
D203	0 Sanitary Waste				
14	Allowance for SWV Pipe work(CINH) with standard flexible band couplings); Includes fittings, hangers	SF	18,000.000	1.85	33,300
	Sanitary Waste				\$33,300
D204	0 Rain Water Drainage				
15	Rainwater leaders/Storm Pipework	SF	18,000.000	1.64	29,520
	Rain Water Drainage				\$29,520
D209	0 Other Plumbing Systems				
13	Domestic Water Chlorination, includes 5% Subcontractor MU	SF	18,000.000	0.08	1,440
20	Plumbing permit, documentation, commissioning, testing and supervision	SF	18,000.000	1.10	19,800
	Other Plumbing Systems				\$21,240
D302	0 Heat Generating Systems				
24	HVAC HHW Piping Distribution, Central Plant Valves, Distribution Isolation Valves, Insulation and Specialties	SF	18,000.000	0.35	6,300
25	HVAC HHW Pipework, includes hangers, fittings and insulationAllowance	SF	18,000.000	3.20	57,600
	Heat Generating Systems				\$63,900
D303	O Cooling Generating Systems				
26	HVAC CHW Pipework, includes hangers, fittings and insulationAllowance	SF	18,000.000	3.68	66,240
27	HVAC CHW Piping Distribution, Central Plant Valves, Distribution Isolation Valves and Specialties	SF	18,000.000	0.52	9,360
	Cooling Generating Systems				\$75,600
D304	0 Distribution Systems				
28	Allowance for HVAC Distribution, includes dampers, devices, louvers and registers	SF	18,000.000	8.55	153,900
	Distribution Systems				\$153,900
D305	0 Terminal & Package Units				
32	HVAC EquipmentTerminal UnitHW CoilIncludes installation, hangers and valve set	EA	80.000	1,080.00	86,400

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#### S STUDENT SERVICES/REC CENTER

S3 OPTION 3

S3B Recreation Center (continued)

		Unit	Qty	Rate	Total
90	HVAC EquipmentRooftop UnitsIncludes installation  Terminal & Package Units	SF	18,000.000	8.50	153,000 <b>\$239,400</b>
D30	60 Controls & Instrumentations				<b>4</b> _00,.00
34	DDC Controls - General	SF	18,000.000	3.56	64,080
	Controls & Instrumentations				\$64,080
D30	Other HVAC Systems & Equipment				
22	Allowance for HVAC BIM, permit, documentation, testing and supervision	SF	18,000.000	0.65	11,700
23	Balancing Testing and Commissioning Includes coordination with the subcontractor	SF	18,000.000	0.65	11,700
33	Exhaust fans/ductwork/grilles/fluesallowance	SF	18,000.000	0.80	14,400
35	Allowance for HVAC equipment rigging and hoistingCost per large unit/cost per day for multiple small units	EA	1.000	6,200.00	6,200
	Other HVAC Systems & Equipment				\$44,000
D40	•				7 : 1,000
1	Allowance for Fire Suppression Systems including heads, pipework and specialties	SF	18,000.000	2.60	46,800
2	SprinklersSupervision, drawings and permit - Allowance	SF	18,000.000	0.45	8,100
	Sprinklers <sup>-</sup>				\$54,900
D50	10 Electrical Service & Distribution				
36	Electrical panels, switchboards, ATS, step transformers, etc-Allowance	SF	18,000.000	3.50	63,000
37	Feeders, cable trays, conduit, etcAllowance	SF	18,000.000	1.80	32,400
38	Conduit and wire to light fixtures and controlsAllowance	SF	18,000.000	1.80	32,400
39	Outlets and other low voltage devicesAllowance	SF	18,000.000	2.00	36,000
40	Conduit and wire to outlets and low voltage devices Allowance	SF	18,000.000	1.50	27,000
	Electrical Service & Distribution				\$190,800

## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

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#### S STUDENT SERVICES/REC CENTER

S3 OPTION 3

S3B Recreation Center (continued)

Rates Current At June 2016

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Desc	ription	Unit	Qty	Rate	Total
D502	0 Lighting and Branch Wiring				
41	LED Light fixturesAllowance	SF	18,000.000	8.50	153,000
42	Lighting controlsAllowance for all areas	SF	18,000.000	1.25	22,500
45	Temporary Lighting	SF	18,000.000	0.85	15,300
	Lighting and Branch Wiring				\$190,800
D503	O Communications & Security				
47	Audio visual systemsAllowance	SF	18,000.000	3.00	54,000
48	TelecommunicationsPublic Address, Intercom and clock systems	SF	18,000.000	4.00	72,000
49	Security systemIncludes CCTV and Access Control	SF	18,000.000	1.75	31,500
50	Distributed antenna system - allowance	SF	18,000.000	0.70	12,600
51	Fire alarm system	SF	18,000.000	3.00	54,000
82	Provide WAP Coverage	EA	40.000	670.00	26,800
	Communications & Security				\$250,900
D509	0 Other Electrical Systems				
43	GroundingAllowance	SF	18,000.000	0.15	2,700
44	Misc. Testing/Permits/Commallowance	SF	18,000.000	1.00	18,000
	Other Electrical Systems				\$20,700
E101	0 Commercial Equipment				, ,
139	Allowance for athletic equipment including basketball hoops, wall padding, floor inserts	LS	1.000	30,000.00	30,000
142	Allowance for misc. equipment including medical cabinets, appliances, etc.	SF	18,000.000	4.00	72,000
143	Equipment in Fitness Center - by others	Note			Excl.
	Commercial Equipment				\$102,000
E201	0 Fixed Furnishings				
140	Allowance for casework and counters including reception decks	SF	18,000.000	14.00	252,000
	Fixed Furnishings				\$252,000

## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### S STUDENT SERVICES/REC CENTER

S3 OPTION 3

S3B Recreation Center (continued)

Description	Unit	Qty	Rate	Total
F2010 Building Elements Demolition				
119 Demo (E) exterior wall	SF	97.000	25.00	2,425
Building Elements Demolition				\$2,425
G1020 Site Demolition and Relocations				
123 Allowance for site demolition	LS	1.000	50,000.00	50,000
Site Demolition and Relocations				\$50,000
G1030 Site Earthwork				
122 Allowance for site clearing, excavation, backfill, grading	SF	9,775.000	10.00	97,750
Site Earthwork				\$97,750
G2030 Pedestrian Paving				
156 Allowance for sidewalks, misc. paving	LS	1.000	10,000.00	10,000
Pedestrian Paving				\$10,000
G2050 Landscaping				
154 Landscape/Hardscape Allowance	LS	1.000	30,000.00	30,000
Landscaping <sup>-</sup>				\$30,000
RECREATION CENTER				\$4,694,984

## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.14.16

Pool Option 4 Estimate Details

#### P OPTION 4: RENOVATIONS AT (E) POOL

Rates Current At June 2016

Page 2 of 4

Desc	iption	Unit	Qty	Rate	Tota
A103	) Slab on Grade				
214	New slab on grade (including cap break, concrete, reinforcing, connections to (E) slab	SF	3,735.0	12.00	44,820
215	Patch/prep (E) slab for new finishes	SF	9,865.0	2.00	19,730
	Slab on Grade				\$64,55
C101	) Partitions				
217	Glazed partition	SF	2,647.0	85.00	224,99
231	Infill (E) door	SF	63.0	15.00	945
232	New GWB at existing framing	SF	5,797.0	2.00	11,59
	Partitions				\$237,53
	Interior Doors				
233	New doors	EA	10.0	1,500.00	15,000
	Interior Doors				\$15,00
	) Fittings		700.0	22.22	04.07
218	Netting above glazed partition	SF	729.0	30.00	21,870
236	Mirror walls	SF	1,394.0	18.00	25,09
248	Allowance for misc. fittings	SF	13,600.0	0.50	6,80
C204	Fittings   O Stair Construction				\$53,76
223	New steel stair/concrete pan stair/glass railings/landings	Flight	1.0	18,000.00	18,000
224	New ralings	LF	7.0	400.00	2,800
224	Stair Construction	Li	7.0	400.00	\$20,80
C301	) Wall Finishes				φ20,000
	New wall finishes in (E) locker rooms (assume tile)	SF	3,200.0	14.00	44,800
234	Paint GWB	SF	5,797.0	1.00	5,79
235	Paint (E) GWB at court area	SF	3,708.0	1.25	4,63
	Wall Finishes		· · · · · · · · · · · · · · · · · · ·		\$55,23
C302	) Floor Finishes				. ,
226	New floor finishes in (E) locker rooms (assume tile)	SF	1,030.0	15.00	15,450
239	Synthetic wood-look floor (rubber underlayment)	SF	4,852.0	18.00	87,336
241	Rubber tile flooring	SF	3,838.0	12.00	46,056
242	Carpet tile	SF	3,319.0	5.00	16,59
	Floor Finishes				\$165,43
C303	Ceiling Finishes				
227	New ceiling finishes in (E) locker rooms (assume epoxy paint)	SF	1,030.0	2.00	2,060
	Framed painted GWB ceiling	SF	4,819.0	12.00	57,828
237					14,460

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Pool Option 4 Estimate Details

#### P OPTION 4: RENOVATIONS AT (E) POOL (continued)

Description	Unit	Qty	Rate	Total
240 ACT ceiling	SF	7,190.0	5.00	35,950
Ceiling Finishes				\$110,298
D3040 Distribution Systems				
221 Updated HVAC distribution	SF	12,009.0	10.00	120,090
Distribution Systems				\$120,090
D3050 Terminal & Package Units				
220 New AHU	EA	1.0	5,000.00	5,000
Terminal & Package Units				\$5,000
D4010 Sprinklers				
222 New fire sprinklers	SF	12,009.0	3.20	38,429
Sprinklers -				\$38,429
D5010 Electrical Service & Distribution				
219 New lighting/electrical	SF	12,009.0	20.00	240,180
Electrical Service & Distribution				\$240,180
D5020 Lighting and Branch Wiring				
229 Replace light fixtures in (E) locker rooms	SF	1,030.0	12.00	12,360
Lighting and Branch Wiring				\$12,360
E1090 Other Equipment				
243 Fitness equipment (by others)	LS	1.0		Excl.
244 Retractable backboards/hoops/nets (electrically operated)	EA	2.0	12,500.00	25,000
245 Retractable dividing net	SF	810.0	20.00	16,200
Other Equipment				\$41,200
E2010 Fixed Furnishings				
228 Allowance for Reception Desk	LS	1.0	6,500.00	6,500
247 Allowance for graphics	LS	1.0	10,000.00	10,000
Fixed Furnishings				\$16,500
F2010 Building Elements Demolition				
200 Demo wall finishes in (E) locker rooms	SF	3,200.0	2.00	6,400
201 Demo floors/ceiling finishes in (E) locker rooms	SF	1,030.0	4.00	4,120
202 Remove tile at pool deck	SF	2,716.0	3.00	8,148
203 Remove tile at pool	SF	768.0	4.00	3,072
204 Allowance to remove pool lighting/ladders, etc.	LS	1.0	3,000.00	3,000
205 Demo bleachers	LF	60.0	30.00	1,800
206 Demo walls	LF	472.0	10.00	4,720
207 Electrical/lighting demo allowance	SF	13,039.0	3.00	39,117
208 Demo mechanical for pool allowance	LS	1.0	7,500.00	7,500
209 Demo mechanical as needed	SF	13,039.0	2.00	26,078

# Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.14.16

Pool (	Option 4 Estimate Details				
P OP	TION 4: RENOVATIONS AT (E) POOL (continued)		R	ates Current	t At June 2016
Des	cription	Unit	Qty	Rate	Total
210	Plumbing demo including cut/cap (per fixture)	EA	6.0	500.00	3,000
211	Allowance for misc. demo	SF	13,600.0	0.40	5,440
213	Infill pool openings - allowance	LS	1.0	3,000.00	3,000
216	Sawcut and demo elevated slab	SF	100.0	20.00	2,000
	Building Elements Demolition				\$117,395
F202	20 Hazardous Components Abatement				
246	Abatement	Note			Excl.
	Hazardous Components Abatement				Excl.
G10	30 Site Earthwork				
212		CY	1,162.0	150.00	174,300
	Site Earthwork				\$174,300
	OPTION 4: RENOVATIONS AT (E) POOL				\$1,488,067
1					

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Estimate Details

#### A ALTERNATES

A1 REVISIONS TO EAST WING

Desc	cription	Unit	Qty	Rate	Total
C101	0 Partitions				
189	Interior partitions	SF	11,288.70	10.00	112,887
	Partitions -				\$112,887
C102	20 Interior Doors				
190	New interior doors at (E) - pair	EA	3.00	2,400.00	7,200
192	New interior doors at (E) - single	EA	4.00	1,100.00	4,400
	Interior Doors				\$11,600
C103	80 Fittings				
197	Allowance for fittings including restroom accessories, whiteboards, fire extinguishers, corner guards, signage	SF	6,185.00	3.50	21,648
	Fittings				\$21,648
C301	0 Wall Finishes				
184	Wall finish allowance at (E) (per GFA)	SF	7,008.00	1.00	7,008
	Wall Finishes				\$7,008
C302	20 Floor Finishes				
183	Floor finish at (E)	SF	7,008.00	1.25	8,760
	Floor Finishes				\$8,760
C303	• • • •				
159	Joist framing for ceiling	SF	7,008.00	12.00	84,096
160	Metal deck at ceiling	SF	7,008.00	3.50	24,528
161	Painted GWB ceiling	SF	7,008.00	8.50	59,568
	Ceiling Finishes				\$168,192
	0 Plumbing Fixtures				
6	Plumbing FixturesFloor Drain3" Floor drain	EA	4.00	425.00	1,700
7	Plumbing FixturesEmergency Eye Wash	EA	4.00	590.00	2,360
9	Plumbing FixturesLab Classroom Utility Sinkassume stainless steel, deep basin, two compartment with goose neck faucet	EA	4.00	1,260.00	5,040
	Plumbing Fixtures				\$9,100
D202	20 Domestic Water Distribution				
3	Plumbing Equipment Allowance	SF	7,008.00	0.75	5,256
	Domestic Water Distribution				\$5,256

## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### A ALTERNATES

A1 REVISIONS TO EAST WING (continued)

Rates Current At June 2016

Desc	ription	Unit	Qty	Rate	Total
D209	0 Other Plumbing Systems				
20	Plumbing permit, documentation, commissioning, testing and supervision	SF	7,008.00	1.10	7,709
	Other Plumbing Systems				\$7,709
D304	0 Distribution Systems				
70	Provide HVAC to new enclosed spacesIncludes equipment, ductwork, outlets and controls	SF	7,008.00	14.00	98,112
	Distribution Systems				\$98,112
D309	O Other HVAC Systems & Equipment				
22	Allowance for HVAC BIM, permit, documentation, testing and supervision	SF	7,008.00	0.65	4,555
23	Balancing Testing and Commissioning Includes coordination with the subcontractor	SF	7,008.00	0.65	4,555
33	Exhaust fans/ductwork/grilles/fluesallowance	SF	7,008.00	0.80	5,606
	Other HVAC Systems & Equipment				\$14,716
D401	0 Sprinklers				
1	Allowance for Fire Suppression Systems including heads, pipework and specialties	SF	7,008.00	2.60	18,221
2	SprinklersSupervision, drawings and permit - Allowance	SF	7,008.00	0.45	3,154
	Sprinklers				\$21,375
D501	0 Electrical Service & Distribution				
38	Conduit and wire to light fixtures and controlsAllowance	SF	7,008.00	1.80	12,614
39	Outlets and other low voltage devicesAllowance	SF	7,008.00	2.00	14,016
40	Conduit and wire to outlets and low voltage devicesAllowance	SF	7,008.00	1.50	10,512
	Electrical Service & Distribution				\$37,142
D502	0 Lighting and Branch Wiring				. ,
41	LED Light fixturesAllowance	SF	7,008.00	8.50	59,568
42	Lighting controlsAllowance for all areas	SF	7,008.00	1.25	8,760
	Lighting and Branch Wiring				\$68,328
					-

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## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### A ALTERNATES

A1 REVISIONS TO EAST WING (continued)

Description	Unit	Qty	Rate	Total
D5090 Other Electrical Systems				
44 Misc. Testing/Permits/Commallowance	SF	7,008.00	1.00	7,008
Other Electrical Systems				\$7,008
F2010 Building Elements Demolition				
169 Demo interior partition	SF	5,940.00	2.00	11,880
176 Misc. Demo	SF	6,185.00	0.75	4,639
Building Elements Demolition				\$16,519
REVISIONS TO EAST WING				\$615,360

## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

of Construction e 10% of roof sheathing		Unit	Qty	Rate	Total
e 10% of roof sheathing		0.5			
Ç		0.5			
of Coverings		SF	2,748.00	4.00	10,992
f Coverings	Roof Construction				\$10,992
· · · J ·					
nce for new assembly including on/flashings/membrane/coverboa	ard	SF	54,947.00	16.25	892,889
nce for misc. roof patching		LS	-0.50	10,000.00	(5,000)
	Roof Coverings				\$887,88
ding Elements Demolition					
(E) roofing		SF	54,947.00	2.00	109,894
Building	Elements Demolition				\$109,89
	REROOF CORNETT				\$1,008,77
d	ling Elements Demolition	Roof Coverings Ining Elements Demolition E) roofing  Building Elements Demolition	Roof Coverings ling Elements Demolition  E) roofing  Building Elements Demolition	Roof Coverings ling Elements Demolition  E) roofing  Building Elements Demolition  SF 54,947.00	Roof Coverings ling Elements Demolition  E) roofing  Building Elements Demolition  SF 54,947.00 2.00

## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### A ALTERNATES

A3 NEW SKYLIGHTS AT CORNETT ROOF

Rates Current At June 2016

Description	Unit	Qty	Rate	Total
B1020 Roof Construction				
107 Structural skylight support allowance	EA	21.00	1,750.00	36,750
Roof Construction				\$36,750
B3020 Roof Openings				
108 New skylight and curb allowance	EA	21.00	3,000.00	63,000
Roof Openings				\$63,000
F2010 Building Elements Demolition				
106 Roof demo for skylight openings	EA	21.00	750.00	15,750
Building Elements Demolition				\$15,750
NEW SKYLIGHTS AT CORNETT ROOF				\$115,500

## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

#### A ALTERNATES

A4 RENOVATE WELDING & MACHINE SHOP - CORNETT

Rates Current At June 2016

RENOVATE WEEDING & WACHINE SHOT - CORNETT				it At Julie 20
escription	Unit	Qty	Rate	Tota
1020 Integrated Construction				
49 Allowance to renovate Welding & Machine Shop area at Cornett including HVAC	LS	1.00	2,000,000.00	2,000,00
Integrated Construction	1			\$2,000,00
RENOVATE WELDING & MACHINE SHOP - CORNET	Τ			\$2,000,00

## Oregon Tech - Klamath Falls Campus Conceptual Cost Plan Revised 6.10.16

Estimate Details

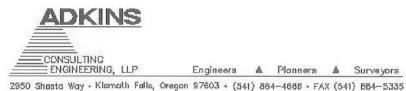
#### A ALTERNATES

A5 ADDITIONAL 13,000 SF TO ENGINEERING BUILDING

Rates Current At June 2016

Description	Unit	Qty	Rate	Total
F1020 Integrated Construction				
250 Additional square footage to Engineering Building on a cost per sf basis	SF	13,000.00	241.00	3,133,000
Integrated Construction				\$3,133,000
ADDITIONAL 13,000 SF TO ENGINEERING BUILDING				\$3,133,000





Date: May 23, 2016

Project: O.I.T Cornett Hall Seismic Retro-fit Planning

DiMella Shafer 1511 Third Ave. Suite 300 Seattle, WA 98101

Attn.: Steve Keyser

At your request, our firm has completed a preliminary planning estimate for the seismic retro-fit of Cornett Hall, which with construction and soft-costs total \$1,300,000.00. A project estimate is included as Table 1, with additional project information provided in Exhibits 1 and 2 (plan and detail). A detailed analysis and design has not been performed, but a preliminary analysis has been completed that shows the existing building to have a lateral strength capacity approximately 9% of current seismic code requirements. Considering the similarity of Cornett to Owens Hall, which was seismically upgraded in 2009, a like-design was assumed as an appropriate budget estimate model. Additional analysis and design will need to be completed and budget is included for that.

Feel free to contact us if you need any questions, comments, or need additional information.

Kind Regards,

Michael D. Moser, P.E.



**EXPIRES 12/31/16** 

## **Preliminary Cost Estimate**

PROJECT: Cornett Hall Seismic Retro-Fit

H:\1090-28 OIT Stair & Sidewalk Replacement\Cornett Seismic Planning\Docs\Cost Estimate - 5-6-16

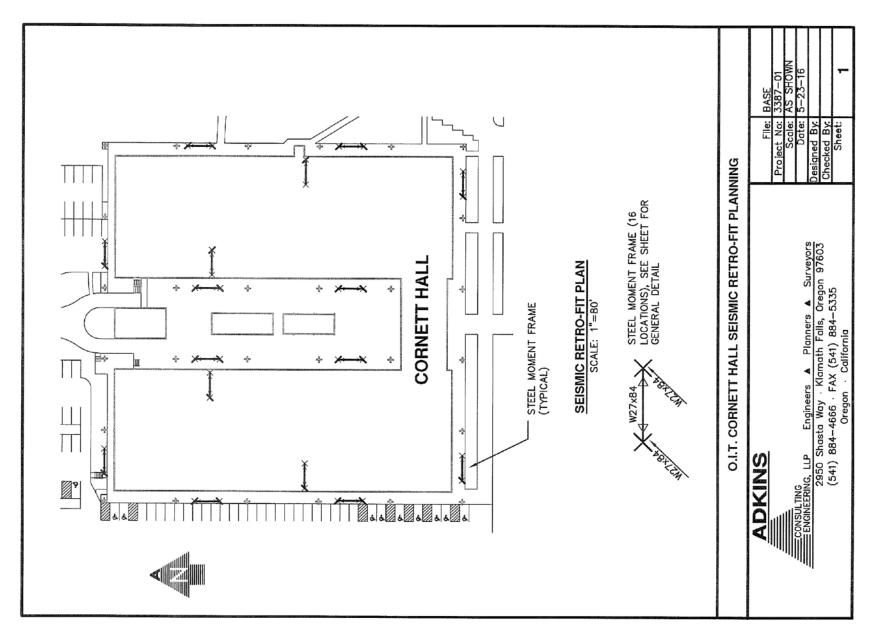
Oregon Institute of Technology

ACE Project #3387-01

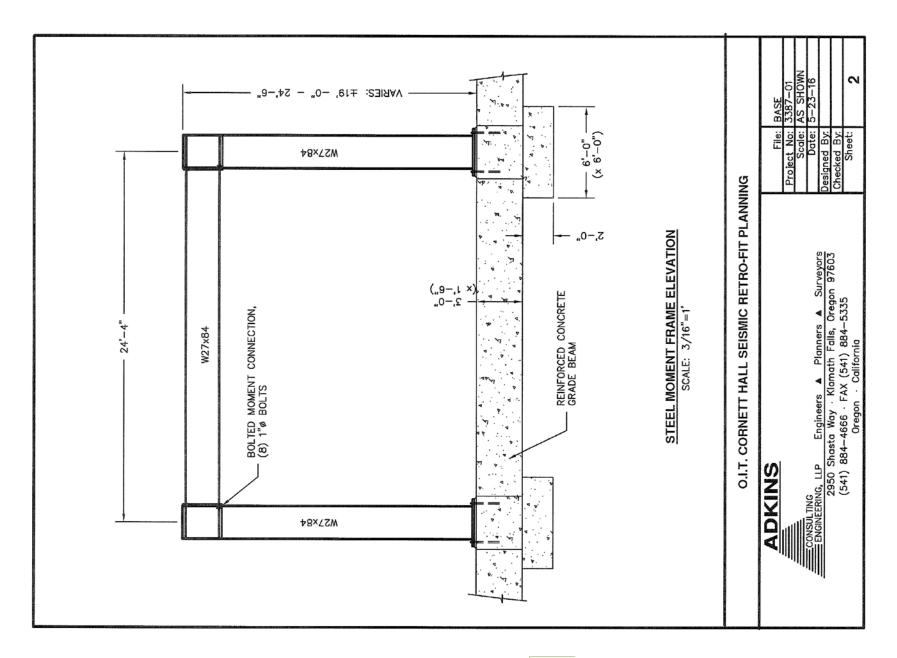
Prepared by: Tyler Pinson, E.I.T. Reviewed by: Michael Moser, P.E. May 23, 2016 Date:



BID ITEM NO.	ITEM	UNIT	QUANTITY	UNIT PRICE	ESTIMATED COST	
	Single Exterior Frame Cost Estimate					
1	Sawcut Concrete	LF	70	\$1.6	\$120	
2	Remove Concrete	SQ YD	25	\$17	\$420	
3	Structural Excavation	CY	29	\$28	\$800	
4	Crushed Rock Foundation Base	CY	17	\$60	\$990	
5	Structure Demolition	LS	1	\$1,700	\$1,700	
6	Reinforced Cast-In-Place Structural Concrete	CY	11	\$1,100	\$11,830	
7	Structural Steel Fabrication and Erection	LB	4,725	\$7	\$33,080	
8	Sidewalk	SF	210	\$12	\$2,520	
	Estimated Construction Cost for Single Frame					
	Estimated Construction Cost for 12 Exterior Frames					
	Estimated Construction Cost for 4 Interior Frames (30% Increase)					
	Total Estimated Construction Cost (16 Frames)					
	Mobilization (5%)					
	Engineering Fees @ 3%					
	OIT Oversight @ 3%					
	Construction Contingencies (20%)					
	Inflation (4% over 2 years)					
	TOTAL ESTIMATED PROJECT COST (YEAR 2016 PRICES)					















#### \$9M PROJECT COST

(\$6.9M CONSTRUCTION COST)

## Project Overview

This reduced scope project reduces the total building area affected by the renovation, but will upgrade Cornett Hall to resolve life safety, health and accessibility issues.

Specifically the project will:

- Resolve Seismic/structural Issues
- Create an Accessible Facility
- Resolve the Life Safety and Egress Issues
- Replace the Electrical Service
- Create Collaborative Interdisciplinary Workspaces
- Provide some New Safe Classrooms with New HVAC

It is anticipated that there will be a second phase of renovation that will be integrated into the funding of the new Engineering Building (Project 2).



## Project Strategy and Scope

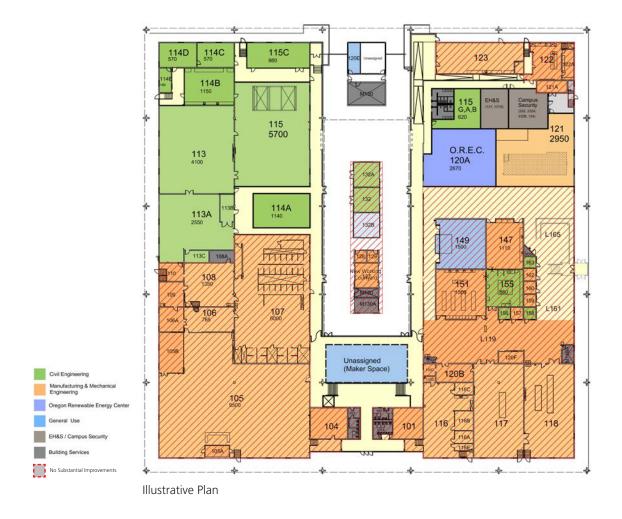
The project reorganizes the building around a new lobby and corridor system along the edges of the courtyard (shown in orange at the right). A large lobby/collaborative space at the entry provides a single point of vertical access (new stairs and an ADA lift) to the main level of the building, five feet below the campus entry. This collaborative "maker space" provides a focus area for interdisciplinary activity.

The reorganization and a new centrally located accessibility lifts solves ADA accessibility for the entire building by providing a single, level corridor access to all spaces. New restrooms will be accessible and the inaccessible second floor space is eliminated. A single ramp at the north end of the East Wing provides access to two class/Lab spaces that are not on the main level. The second level Campus Security space is relocated on the ground floor in the East Wing along with EH&S offices.

Classrooms and smaller spaces (shown in grey) are grouped along this courtyard corridor and can be acoustically and physically separated from the lab spaces with a new ceiling "lid". Each classroom space will have new HVAC. The new courtyard corridor (enclosed under the current eave) provides a fireseparated new egress for all of the smaller rooms and classrooms.







#### PHASED WORK

Not all of the renovation work and deferred maintenance required at Cornett Hall will be able to be completed within the \$12M budget of this first project. We have prioritized the safety, structural, and accessibility upgrades but much of the building will remain on a deferred maintenance list for the building. The budgeting of Project Two contains monies to complete this work.

Shown in the illustration at left, the hatched areas are generally outside of the scope of this first project, other than the necessary life safety and accessibility improvements. The unhatched areas indicate the proposed scope and configuration of the building at the end of this first project. In the illustration the each of the existing departments are reconfigured and/or relocated and each (existing) room number is identified. All spaces are the same size or larger than in the existing building, and there are several new unassigned areas identified (white).

Many of the desired interdepartmental relationships have been improved, but the final arrangement will be only on completion of Phase 2.

Hazardous materials. including asbestos. will be abated in all areas where work is being done in this phase.







#### \$34M PROJECT COST

(\$26.8M CONSTRUCTION COST)

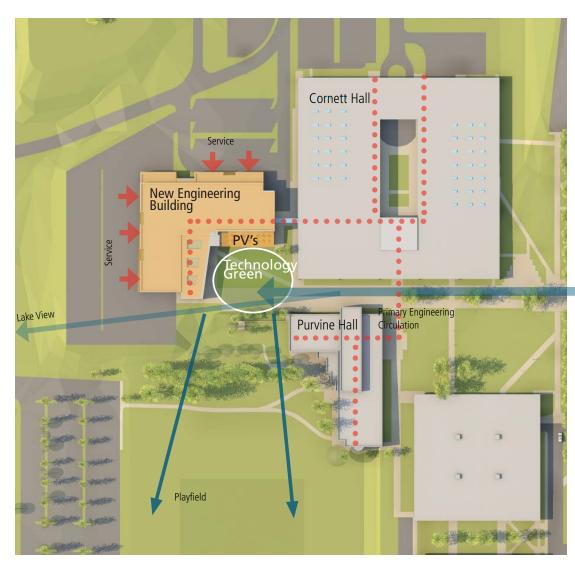
## Project Overview

This project is a smaller building with a similar program to Project 2. Combined with project 1 this project will be home to the expanded interdisciplinary School of Engineering, Technology and Management, including the departments of: Manufacturing and Mechanical Engineering (MMET), Civil Engineering (CE), Electrical Engineering & Renewable Energy (EERE), Computer Systems Engineering Technology (CSET), Geomatics, Management, and Oregon Renewable Energy Center (OREC).

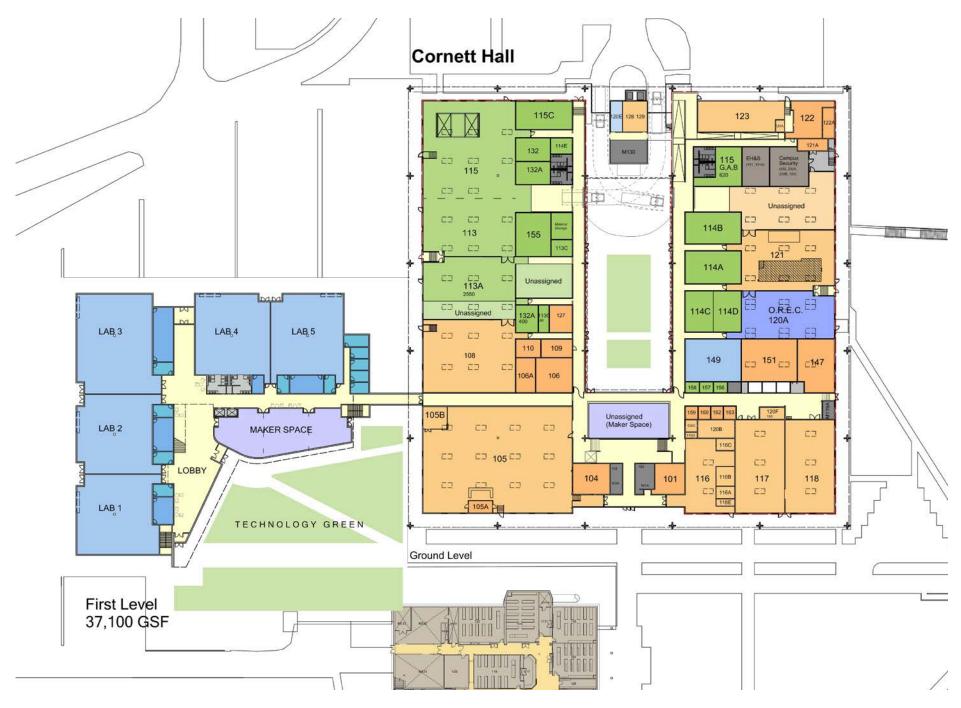
The building is anticipated to be a LEED Gold or LEED Platinum building and will provide a new model of learning that integrates offices, classrooms and labs around interactive workspaces. The building as a whole is seen as a demonstration of best engineering practices in sustainable design. Working labs will be visible and integrated into the use of the building. Photovoltaics and green roofs will provide a visible indication of some of the sustainable research taking place inside the facility. In the lobby, energy monitoring and sustainable information will provide interactive engagement with the science of this facility. The project includes 67,000 gsf of new air conditioned classroom and lab space and will include the completion (Phase 2) of the renovation of Cornett Hall. Cornett Hall improvements will include the work to relocate/renovate the welding facility, add skylights and a new roof in the West Wing and to provide configuration changes that integrate the two buildings.

The center of the plan is organized around a subdividable "maker space" with visual connections to a new landscaped "Technology Green" and the major building circulation paths. An adjacent two-story lobby space provides a central gathering space and connections between the two building levels.

Much of the rest of the first level will be large labs with integrated offices and lab support spaces. This will be tall floor (18' F/F) to allow the lab processes to have adequate services and height.

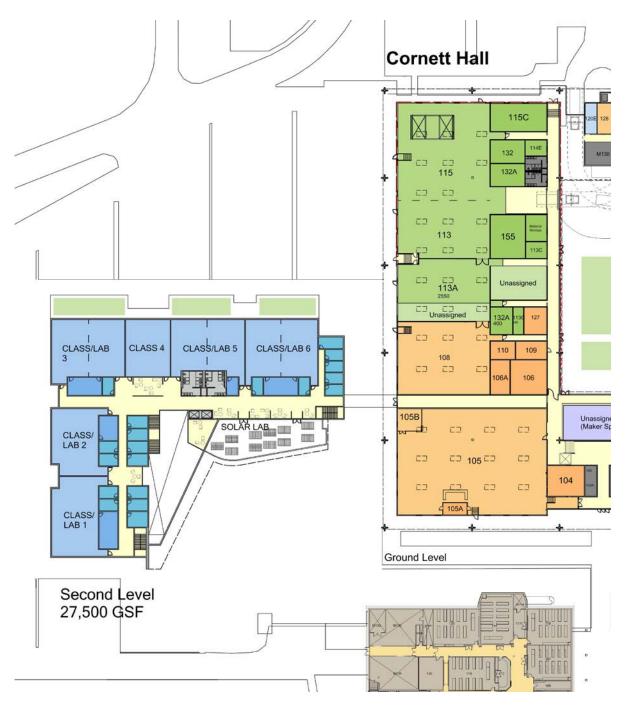






The second level will have smaller "clean" labs and classrooms, along with departmental and graduate offices. This is the likely location for computer labs, laser labs, geomatics, and other areas that need a controlled, and clean environment, but do not require the larger "high-bay" space (14' F/F). Above the Maker Space at the center of the plan is an outdoor terrace that includes the solar lab with its visible PV array.

The new space will provide a new model of learning that integrates offices, classrooms and labs around interactive workspace. Working labs with be visible and integrated into the use of the building. Photovoltaics on the roof provide a visible indication of some of the sustainable research inside the facility.







### \$21.6M PROJECT COST

(\$16.6M CONSTRUCTION COST)

## Project Overview

This strategy combines the Student Services building with a small fitness center. The project meets a need for a central location for the delivery of student services on campus. This new multi-story 45,000 sq. ft. building is conceived as the new home for student engagement and enrollment and meets some of the need for recreation facilities on campus. The project does not provide a basketball court for larger recreational activities.







#### THE PROPOSED SOLUTION

Located at the main campus entrance, the new building will mark a gateway to the center of campus. It is situated for visibility and ease of access for visitors. A two story porch and glass lobby invites students into the building and provides immediate wayfinding within the space. Students are met at the Help Desk and will be directed to the appropriate services.

On the second floor the north facade exit bridges directly to the College Union. At this link between the student services center and the college Union is a glassy fitness center that looks out on to the fountain and the main green. The fitness center will be a two story volume to connect with users passing by on both levels of the CU.







### \$9M PROJECT COST

(\$6.9M CONSTRUCTION COST)

## Project Overview

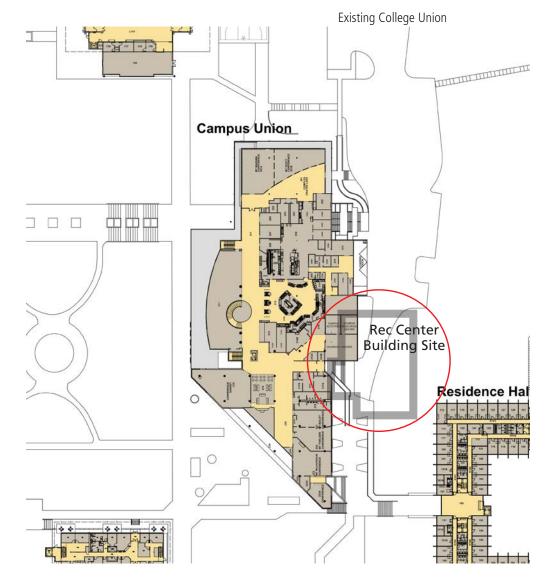
This is an alternate location for the Recreation Center of Project Four. It moves the activity closer to the resident students, and creates an active courtyard on the east side of the CU.

includes a full size Basketball court on the upper level, with a fitness center with weight room, cardio area and aerobics studio on the lower level.

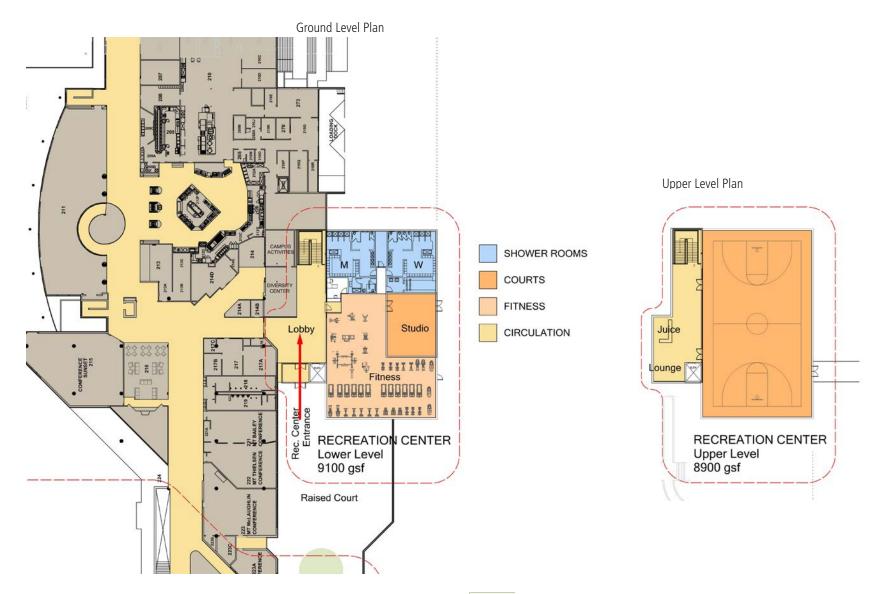
## Conceptual Building Program

## **Student Recreation Center - Option 1** 18,000 GSF

RCDESC	ROOM	#	AREA
Basketball Court	6600	1	6600
Lobbies	2000	1	2000
Lockers/Showers	1700	1	1700
Aerobics Studio	1000	1	1000
Fitness Room	3300	1	3300
Office	140	1	140
Laundry/Storage	230	1	230
	Total STUDENT RECREATION	14,970	
	Gross Buildin	1.2	
	17,964		













## Site Visit 1, April 6-8, Meeting Minutes

Wednesday April 6<sup>th</sup>

Meeting 1 Administrative Group
2:30-5pm Mt. Mazama-College Union
Overview of projects, studies, objectives, desired outcomes, project scope.

## **Agenda**

Overview slideshow. Discussion objectives and outcomes

#### **Attendees**

Jay Kenton, VP of Finance and Administration
Bradley Burda, Provost
Erin Foley, VP Student Affairs, Dean of Students
Hallie Neupert, Acting Dean of ETM
LeAnn Maupin, Dean of Health, Arts & Sciences
Michael Schell, Director of Athletics
Sandra Bailey, Director of Academic Excellence
Lita Colligan, Strategic Partnerships & Exten.: Assoc VP Strategic Partnership
James Lake, Facilities Services: Maintenance Supervisor
Donald Depuy, Facilities Services: Electrical Control Systems Technician
Jerry Bowles, Facilities Services: Electrical/Control System Tech
Steve Keyser, Principal, DiMella Shaffer
Peter Sydloski-Tesch, DiMella Shaffer

<u>ITEM 1</u>: Jay Kenton introduced DiMella Shaffer architecture (DSA) team and their history with Oregon Tech. Explained the budget request and current funding status for projects.

- Oregon Tech was award \$11.6 Million Project Budget for Phase
   1 of Engineering and Cornett Renovation project
- \$42 Million being requested for Phase 2-3 of Engineering and Cornett Renovation project
- \$20 Million being requested for Student Services Building(SSB), possibly adding Recreation Center component
- \$9 Million being requested for Boivin Hall renovations
- Request all being made, expected to receive funding for only Engineering/Cornett in 2017-19 biennium

- Project Budget vs. Construction Budget
- What affect does actual funding have on project size

<u>ITEM 2</u>: Presentation of previous study and strategies for New Engineering Building and Cornett Renovation, Option 1

- Phase 1 New Engineering building of 40,000 sf to be used as "swing space" during Phase 2-3 then being used for ETM programs. Revised size of project based on state funding results in a 28,000 -30,000 sf building
- Phase 2-3 Renovation of Cornett for ETM programs, specifically programs that require high-bay space and "dirty lab" space. Renovation would address all life safety and ADA deficiencies as well as create a second level for classrooms and offices. A central lobby/hearth space would be created at the south entry to simplify building navigation and circulation. Removal of all buildings in courtyard to create student usable outdoor area

#### THOUGHTS / REACTIONS:

- Right use of Phase 1 building? Concern of building for "swing space" and then needing to renovate for final configuration in near future.
- How will Phase 1 building affect Academic Planning efforts
- Name "Center for Excellence of Engineering and Technology" may not be right
- Concern of size of Phase 1 building with the allotted funding will not meet the needs of the ETM programs that would be located there after Phase 3
- Concern that courtyard of Cornett wouldn't be usable for delivery and lab access needs
- Adding second level of classrooms and offices would require A/C in those areas, cost high and limited campus supply available. New Engineering Building will need A/C

THOUGHTS / REACTIONS:

ITEM 3: Presentation of alternate strategy for New Engineering Building and

#### Cornett Renovation, Option 2

- Use current state funds to renovate Cornett at a reduced scope, addressing immediate life safety and ADA issues and reconfiguration of space for more efficient use.
- Build an 80,000-90,000 sf New Engineering building as Phase 2 that will better meet current and future needs/goals of the ETM programs.
- Studies of previous 2014 study shown as placeholders for an idea of what Option 2 may look like, DSA will study out this strategy more specifically if desired

#### THOUGHTS / REACTIONS:

- Is the current funding enough to accomplish enough in Cornett to be a viable option
- Can funding attained for Phase 1 building be repurposed
- Concern that second round of funding may be delayed if the need is perceived to have been met by Cornett Renovation
- Major building in Cornett include, but aren't limited to, ADA access to all areas, seismic bracing needs, Hazardous Material abatement, services (electrical, water), HVAC system, roof
- Further investigation needed to better understand Cornett building
- Are Cornett building's base needs too great to have enough budget left for anything else
- Logistics of renovation while keeping programs running, concern of space as well as safety issues
- DSA will gather department/program specific data to study best strategies for further developing the project
- Option 2 was preferred direction for best use of current funds

<u>ITEM 4</u>: Presentation of previous study and strategies for the new Student Services Building (SSB)

 40,000 sf building to house functions focused on students, possibly to include: Student Activities, Registrar, Cashier, Student Success, Financial Aid, Admissions, Career Services, Student Retention and Dean of Students.

- The three story building would have ground level access on three levels as well as connections to the existing Campus Union building.
- Location would create a "welcome to campus" building as well as serving as "one-stop-shop" for student's needs. Location is also ideal for a wayfinding/campus navigation for new students and parents.
- A student Recreation Center component to provide campus with an updated facility was studied in multiple locations and sizes, elements included: sports courts, fitness room for weight machines and cardio equipment, aerobics studio, changing rooms
- A Resident Dining expansion of the Campus Union was studied on the East side of the Union and would create a new Residence Quad between the Union, the Residence Hall and the new SSB

- Dining component no longer required
- Would parking need increase?
- Possibility for a retail/bar element?
- New facilities would significantly increase recruitment
- Location of SSB could "block campus", possible site at north end of Campus Union
- Campus infrastructure needs to be considered, main geothermal supply line runs just to the south of the Campus Union
- Currently there is a lack of welcome/front door building to campus
- Departments that would be housed in SSB are currently in need of more space and which departments would move still needs to be investigated internally
- Location for Rec. Center as a separate element preferred at the north end of Campus Union
- Size of Rec. Center component likely to be around \$5-7 million budget, 10,000-14,000 sf.
- Courts may not be in the scope for smaller project

- Climbing wall, dance room
- Possible to incorporate Rec. Center into the new SSB?
- Combine funding efforts with student fee increase to support Rec. Center
- Location change if Rec. Center in SSB?

Thursday April 7th

Meeting 2 Engineering Stakeholders
9:00-10:30pm Mt, Scott-College Union

### Agenda

Review studies to date and current strategy Project status Objectives and strategies

#### Attendees

Jay Kenton, VP of Finance and Administration
Hallie Neupert, Acting Dean of ETM
Jack Walker, Geomatics: Professor
Sean StClair, Civil Engineering: Department Chair
James Zipay, Electrical Eng & Renewable Energy: Associate Professor
Aja Bettencourt-McCarthy, Commission of College Teaching
Steve Keyser, Principal, DiMella Shaffer
Peter Sydloski-Tesch, DiMella Shaffer

<u>ITEM 1</u>: Steve Keyser introduced DiMella Shaffer (DSA) and gave an overview presentation of their work on campus. Jay Kenton discussed current status, funding and efforts for capital projects.

- Oregon Tech was award \$11.6 Million Project Budget for Phase 1 of Engineering and Cornett Renovation project
- \$42 Million being requested for Phase 2-3 of Engineering and Cornett Renovation project
- \$9 Million being requested for Boivin Hall renovations
- \$20 Million being requested for Student Services Building(SSB), possibly adding Recreation Center component
- Request all being made, expected to receive funding for only Engineering/Cornett in 2017-19 biennium
- Need to figure out best use of funds granted and start to use them to show state

#### THOUGHTS / REACTIONS:

• Concern that small funds may not get the right sized new building, possible to use on Cornett renovation first?

- Concern that a three phase project won't be fully funded and leave Oregon Tech with only Phase 1 funded
- Any project needs to consider future growth along with current needs
- Recruiting benefit of new facilities will increase future growth
- ETM departments scattered across campus, project should aim to consolidate locations.
- Considerations for expanding programs, new programs and their needs
- "Center for Excellence in Engineering and Technology" is not an appropriate name as it does not meet the definition of a Center for Excellence.

<u>ITEM 2</u>: Steve Keyser gave an overview presentation of the New Engineering Building and Cornett Hall Renovation project done in 2014 and updated strategies.

- Option 1 Phase 1 New Engineering building of 40,000 sf to be used as "swing space" during Phase 2-3 then being used for ETM programs. Revised size of project based on state funding results in a 28,000 -30,000 sf building
- Phase 2-3 Renovation of Cornett for ETM programs, specifically programs that require high-bay space and "dirty lab" space.
   Renovation would address all life safety and ADA deficiencies as well as create a second level for classrooms and offices. A central lobby/hearth space would be created at the south entry to simplify building navigation and circulation. Removal of all buildings in courtyard to create student usable outdoor area
- Option 2 Use current state funds to renovate Cornett at a reduced scope, addressing immediate life safety and ADA issues and reconfiguration of space for more efficient use.
- Build an 80,000-90,000 sf New Engineering building as Phase 2 that will better meet current and future needs/goals of the ETM programs.
- Studies of previous 2014 study shown as placeholders for an idea of what Option 2 may look like, DSA will study out this strategy more specifically if desired

- Opt1 offices above labs may have noise issues
- Opt1 won't have real lab space as needed by programs, glorified classrooms
- Opt1 is phasing the correct method
- Opt1 will programs in Purvine be affected
- Opt2 are current funds enough to adequately renovate Cornett
- Opt2 able to use funds for different project
- Opt2 having offices separate from labs/classrooms is good, collegiate atmosphere of mixed department faculty is desirable
- Opt2 more specific lab requirement could be met
- Long range planning of ETM tied to direction of this project
- Option 2 is preferable direction

Thursday April 7th

**Meeting 3** Engineering Stakeholders ETM, MMET and EERE **Meeting 4** Engineering Stakeholders Civil, CSET and Geomatics. 10:45-11:20pm Mt, Scott-College Union

## **Agenda**

Review studies to date and current strategy Meet/interview individual department leaders to understand their programmatic needs to review potential strategies

#### **Attendees**

Hallie Neupert, Acting Dean of ETM
Todd Breedlove, Computer Systems Engineering Tech: Professor
Allan Lowe, Computer Systems Engineering Tech
James Zipay, Electrical Eng & Renewable Energy: Associate Professor
Roger Lindgren, Civil Engineering: Professor
David Thaemert, Civil Engineering: Associate Professor
Sandra Bailey, Director of Academic Excellence
Steve Keyser, Principal, DiMella Shaffer
Peter Sydloski-Tesch, DiMella Shaffer

<u>ITEM 1</u>: Steve Keyser gave an overview presentation of the New Engineering Building and Cornett Hall Renovation project done in 2014 and updated strategies.

- Option 1 Phase 1 New Engineering building of 40,000 sf to be used as "swing space" during Phase 2-3 then being used for ETM programs. Revised size of project based on state funding results in a 28,000 -30,000 sf building; Phase 2-3 Renovation of Cornett for ETM programs, specifically programs that require high-bay space and "dirty lab" space. Renovation would address all life safety and ADA deficiencies as well as create a second level for classrooms and offices. A central lobby/hearth space would be created at the south entry to simplify building navigation and circulation. Removal of all buildings in courtyard to create student usable outdoor area
- Option 2 Use current state funds to renovate Cornett in Phase 1 at a reduced scope, addressing immediate life safety and ADA issues and reconfiguration of space for more efficient use. Phase 2, build an 80,000-90,000 sf New Engineering building as Phase 2 that will better meet current and future needs/goals of the ETM programs.

- Studies of previous 2014 study shown as placeholders for an idea of what Option 2 may look like, DSA will study out this strategy more specifically if desired
- ETM department heads preferred Option 2 and would like input from the departments

- New need for campus will be a Maker Space that may include interdisciplinary project work areas, open collaboration space, meeting breakout spaces, "labs for all students"
- Renewable Energy department needs more lab space that is more tailored to their needs now and future growth
- Desire for lab spaces to be co-located within departments
- Option 2 needs to address the inefficient use of Cornett Hall
- Concern of displaced parking of a new building sited west of Cornett Hall, Option 1 or 2
- Desire to allocate some of the funding to Purvine Hall to address building needs
- Desire for clear circulation within Cornett, not having to move labs to reach through other labs. Not as big of an issue within department space
- Concern that departments staying in Cornett Hall will only be given a light touch while other's will be in new building, told to "be satisfied"
- Idea of portable buildings for swing space to help logistics of renovation
- Graduate student offices want to be near related labs
- Civil Engineering: Some labs could be moved during construction, some classes are taught once a year and could be scheduled around construction (traffic lab, fluids lab)
- Concern that immediate Cornett renovation would need to be renovated again in future to meet final configuration needs
- Welding lab used primarily by Klamath Community College, future of that partnership is uncertain. Welding lab requirements may change

- Civil Engineering: currently using outdoor space south of Owens as unofficial classroom
- Departments have a limited level of interaction with each other, but do interact to some degree

Thursday April 7th

Meeting 5 Engineering Stakeholders ETM, MMET and EERE
1:30-3:15pm Mt, Scott-College Union

## Agenda

Review studies to date and current strategy Meet/interview individual department leaders to understand their programmatic needs to review potential strategies

#### **Attendees**

Jay Kenton, VP of Finance and Administration
Hallie Neupert, Acting Dean of ETM
Brian Moravec, Mechanical Engineering Technology: Professor
Jeffrey Hayen, Mechanical Engineering Technology: Associate Professor
Sean Sloan, Mechanical Engineering Technology: Assistant Professor
Philip Dussel, Mechanical Engineering Technology: Instrument Technician/Lab
Manager
Mehmet Vurkac, Electrical Eng & Renewable Energy: Associate Professor

Mehmet Vurkac, Electrical Eng & Renewable Energy: Associate Professor Eve Klopf, Electrical Eng & Renewable Energy: Assistant Professor Steve Keyser, Principal, DiMella Shaffer Peter Sydloski-Tesch, DiMella Shaffer

<u>ITEM 1</u>: Steve Keyser gave an overview presentation of the New Engineering Building and Cornett Hall Renovation project done in 2014 and updated strategies.

- Option 1 Phase 1 New Engineering building of 40,000 sf to be used as "swing space" during Phase 2-3 then being used for ETM programs. Revised size of project based on state funding results in a 28,000 -30,000 sf building; Phase 2-3 Renovation of Cornett for ETM programs, specifically programs that require high-bay space and "dirty lab" space. Renovation would address all life safety and ADA deficiencies as well as create a second level for classrooms and offices. A central lobby/hearth space would be created at the south entry to simplify building navigation and circulation. Removal of all buildings in courtyard to create student usable outdoor area
- Option 2 Use current state funds to renovate Cornett in Phase 1 at a reduced scope, addressing immediate life safety and ADA issues and reconfiguration of space for more efficient use. Phase 2, build an 80,000-90,000 sf New Engineering building as Phase 2 that will better meet current and future needs/goals of the ETM programs.

- Studies of previous 2014 study shown as placeholders for an idea of what Option 2 may look like, DSA will study out this strategy more specifically if desired
- ETM department heads preferred Option 2 and would like input from the departments

#### THOUGHTS / REACTIONS:

- Desire to see seismic bracing, ADA issues and reconfiguration of space addressed in Option2
- No second floor in Cornett in Option 2
- Would the new building in Option 2 have high bay lab space?
- Concern of ability to use funding in different manner than awarded
- Concern that second round of funding will be affected by Cornett renovation
- Concern that second round of funding won't happen
- Programming exercise needed to understand all department and professor's needs
- Need to figure out what/who will stay in Cornett in the final configuration and spend the majority of renovation money/efforts meeting those needs
- Everyone will experience some disruption and/or time off line during construction
- Welding lab used primarily by Klamath Community College, future of that partnership is uncertain. Welding lab requirements may change. MMET student are required to take one welding course, so need for welding lab will always exist
- Location of New Building now that soccer field project is moving forward?
- Option 1 more desirable, Option 2 better if no more funding is approved
- What is the possibility of adding levels above Cornett? (not feasible)
- What degree of seismic upgrades is needed? Previous study had been done and generally understood that it would be fea-

sible to upgrade structure

- High bay doors required for Civil, composites lab, and welding.
- Welding and machine shop receive regular deliveries, current in the southern portion of courtyard
- Concern about the electrical system in Cornett being big ticket item
- Why eliminate East entry and lobby?
- Desire for Maker Space
- All spaces in Cornett require wide hallway with tall ceilings (10'x10' minimum) for forklift access
- Desire to make Cornett flexible for unknown future uses

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Thursday April 7th

**Meeting 6** Engineering Stakeholders Civil, CSET and Geomatics 3:30-5:00pm Mt, Scott-College Union

## Agenda

Review studies to date and current strategy Meet/interview individual department leaders to understand their programmatic needs to review potential strategies

#### **Attendees**

Brian Moravec, Mechanical Engineering Technology: Professor David Thaemert, Civil Engineering: Associate Professor Steve Keyser, Principal, DiMella Shaffer Peter Sydloski-Tesch, DiMella Shaffer

ITEM 1: Further discussion of Option 2 and specific department requirements THOUGHTS / REACTIONS:

- Keep the quality of Cornett lab space but use it better
- Environmental Sciences and Civil share Cor 155 and 113A for water lab. 155 is not the right type of space for what it's being used for
- Overlapping or adjacent spaces between Civil and MMET would be helpful
- Graduate programs are small, but need spaces near their disciplines
- Desire for classrooms away from dirty labs
- 50/50 desire to bring together every aspect of a department (classrooms, labs, offices)
- Faculty offices separate from labs and classrooms is nice
- Student's congregate outside of course hours in department spaces where they have the resources they need.
- Civil has need for direct loading/unloading access to labs for field work equipment
- Project spaces in addition to teaching labs.

- Teaching labs need: security, clean from outside other work, sound isolated, air separated, equipment storage
- Project space for each teaching lab
- Program growth potential if tailor made space was available

Friday April 8th

**Meeting 7** Student Services/Recreation 9:00 – 10:30 am Mt. Thielsen-College Union

### Agenda

Meet with Dean of Students and key staff about needs and objectives for Student Services Building.

#### **Attendees**

Erin Foley, VP Student Affairs, Dean of Students Mandi Clark, Housing: Director Housing/Residence Life Tracey Lehman, Financial Aid: Director Financial Aid

Cindy Childers, Business Affairs: Accounts Receivable Manager Michelle Meyer, Business Affairs: Director of Business Affairs

Nellie Stewart, Student Affairs: Executive Assistant

Shellie Wilson, College Union: Auxiliary Accounting Manage

Barb Conner, Student Affairs: Director of Retention Edward Daniels, Security: Director of Campus Security Joseph Maurer, Campus Life: Director of Campus Life Heather Smith, Registrar's Office: Assistant Registrar

Steve Keyser, Principal, DiMella Shaffer Peter Sydloski-Tesch, DiMella Shaffer

ITEM 1: Erin Foley introduced DiMella Shaffer and described the goals of the new Student Services

Building (SSB). Steve Keyser presented previous study and strategies for the new SSB.

- 40,000 sf building to house functions focused on students, possibly to include: Student Activities, Registrar, Cashier, Student Success, Financial Aid, Admissions, Career Services, Student Retention and Dean of Students.
- The three story building would have ground level access on three levels as well as connections to the existing Campus Union building.
- Location would create a "welcome to campus" building as well as serving as "one-stop-shop" for student's needs. Location is also ideal for a wayfinding/campus navigation for new students and parents.
- A student Recreation Center component to provide campus with an updated facility was studied in multiple locations and

sizes, elements included: sports courts, fitness room for weight machines and cardio equipment, aerobics studio, changing rooms

• Rec Center project cost to students: \$10 million project = \$115/student/term; \$5 million project = \$75/student/term

#### THOUGHT / REACTIONS

- Dining component? No longer a need
- Rec Center and absolute need on campus
- What will students be willing to support through additional fees
- Smaller Rec Center would ease funding effort
- Rec Center incorporated into the SSB, may only have changing rooms, aerobics, weights and cardio machines.
- Hours of operation for current fitness source of student complaints
- 24 hour fitness? No staffing and security, not encourage students to skip sleeping hours
- Court seen as a must have for residents
- Adding a curriculum/education to the Rec Center may get more state funding
- Student Fee based funding will have a different timeline than state funding
- Rec Center will greatly help recruitment efforts

#### ITEM 2: Discussion of SSB and Rec Center location

- Study has located the SSB to the immediate south of the Campus Union with connection to the Union.
- Rec Center studied in three locations. (A) Expansion of the Campus Union to the north, (B) attaching to the East of the Union, (C) incorporated into the SSB

- SSB at north end of Campus Union.
  - Not good for visitors

- Rec Center in Boivin to be close to new Soccer Field
  - o Too far from Residence
  - Not combined with academics
  - o No money from Athletics
- Desire to keep separate from Athletics
- Rec Center could replace the Tennis Courts
  - o Accessibility issues from main campus
  - Close to Residence
  - Not being used currently due to disarray and condemned stairs
- Will SSB block views from Residence Hall
  - o 3rd floor of SSB would be below 1st level of Residence
- Desire for SSB to be entry point of campus, welcoming, indentity
- SSB location good because of relationship to other student related functions in that area of campus

### ITEM 3: Programming discussion for SSB

- What departments will move into the SSB
- What relationships do departments have with each other
- What requirements, specific and general, do departments have

- Student Success in original study program, may not be anymore
- Career Services
- Tutoring
- Admissions
- Registrar

- Cashier
- Financial Aid
- Dean of Students
- Student Retention
- Welcome Desk
- Desire for a One-Stop-Shop method that would bring together multiple departments to provide students a single place to accomplish related tasks. One-Stop-Shop would include: Admissions, Registrar, Cashier and Financial Aid
- Financial Aid needs to have counseling space
- Cashier technology changing, hard to know what space needs will change
- Cashier close to Snell for payroll and other business
- Lounge space for students and parents waiting
- Welcome Desk to be concierge/reception for campus as a whole, separate from One-Stop-Shop desk
- Combine Welcome and One-Stop-Shop desk?
  - o Who staffs?
  - o Location in building to meet both needs?
  - o Handling different people, visitors vs. enrolled students
- Will department needs change with One-Stop-Shop method?
- Building size may be more dependent on budget than program

Friday April 8th

**Meeting 8** Student Services/Recreation 1:30 – 3:00 pm Mt. Thielsen-College Union

## **Agenda**

Follow up Meeting with Administrators Group

#### Attendees

Bradley Burda, Provost
Erin Foley, VP Student Affairs, Dean of Students
Hallie Neupert, Acting Dean of ETM
Michael Schell, Director of Athletics
LeAnn Maupin, Dean of Health, Arts & Sciences
Sandra Bailey, Director of Academic Excellence
James Lake, Facilities Services: Maintenance Supervisor
Jerry Bowles, Facilities Services: Electrical/Control System Tech
Steve Keyser, Principal, DiMella Shaffer
Peter Sydloski-Tesch, DiMella Shaffer

ITEM 1: Steve Keyser presented feedback and direction for the Engineering/ Cornett project

- Option 2 was preferred unanimously by all department, not without concerns
- Biggest concerns of Option 2:
  - Getting second phase of funding
  - Having enough funding to make significant change in Cornett

#### THOUGHTS / REACTIONS

- Need to really study out what current funding will do in Phase1: Cornett Renovation
  - o Identify items that have to be addressed immediately
  - o Identify items that should be addressed
  - o Identify items that would be nice to include
- Seismic upgrade of other building's on campus, of similar vintage, have been successful within reasonable budgets

- One major area of concern is welding lab as a major building component is terms of size, requirements and hazardous materials
  - Klamath Community College's relationship with Oregon Tech is changing and welding program needs will change going forward
- A building programming exercise needs to take place in addition to this conceptual study
- Building Site for Phase2: New Engineering Building
  - Soccer field project has removed south site that was in the 2014 Study
  - Location of new building from Option1, west of Cornett, could accommodate larger building
  - o Parking displacement is major concern
  - Connect to or add-on too Cornett
  - Important to utilize space in around a new building, or the space in between the new building and Cornett

ITEM 2: Steve Keyser presented feedback and direction for the New Student Services Building (SSB) and Recreation Center project

- Testing and refinement of previous study needed for SSB to confirm/adapt to current needs/desires, but general strategy will remain the same
- Three locations for the Rec Center need to be further investigated
  - Location A: Addition of Campus Union to the North end of the building
  - o Location B: Addition on Campus Union to the East at the east entry
  - o Location C: Integrated within the new SSB building
- Funding options for Rec Center: \$6 million project (1 court + fitness) = \$82/student/term

- o Student Fees for a standalone project
- Student Fees and State funding for a standalone project with education element
- o Student Fees added to SSB funding request

- Campus needs another court
- Concern about not addressing Athletics Building needs before building new facility
- Preference towards a standalone project with a court
- Student input: more programs than just fitness
- Using state funding will delay Rec Center project for at least 5 years
- Tennis courts as possible site not desirable because of remote location from main campus
- Previous study looked at renovations of the Athletic Building to incorporate student fitness, still an option?
  - o Not able to add court space
  - o Project size not big enough fully renovate
- Qualities of Location B
  - o Close proximity to Residence Halls
  - o Creates new courtyard in underutilized area behind Campus Union
  - o Stronger connection to Campus Union near other student activities



# Prepared by **DiMella Shaffer**

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