

PERKINS
+ WILL

Student Union 2020 Feasibility Assessment

APRIL 2012



ASPSU
Associated Students of PSU

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“Those who stayed long realized that it was the very atmosphere of the place, the independence, the cosmopolitan relevance of the environment that provided the real education at the college – something lacking at other colleges; something that suburban life and an ivory-towered, green-lawned campus could never provide”

- Michael Smith, 1968

Foreword

Perkins+Will and Dull Olson Weekes-IBI Group Architects are pleased to present the Associated Students of Portland State University (ASPSU) and the Student Fee Committee (SFC) with the Smith Memorial Student Union 2020 Feasibility Assessment.

In this Summary, ASPSU and SFC will find the design team's recommendations and findings, including the best location for the Student Union, highlights of the proposed space program, two concepts that provide a roadmap to fulfill the proposed space program, an itemization of the ideas embodied in the two concepts, and concept renderings of the potential for the new building.

This report also summarizes the road we took together to arrive at these outcomes. We have thoroughly enjoyed working with the PSU community on this study and were impressed by the open, direct and professional communication made available to the design team. The students and professional staff assigned to shepherd this process will serve PSU well as it continues to build consensus for the vision of the PSU Student Union 2020.

Our team is excited for the University and look forward to seeing the next steps for your important Student Life building. We'd like to thank ASPSU and SFC for giving us the opportunity to participate in this process.

Sincerely

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1 Project Overview

- 1.1 Executive Summary
 - 1.1.1 Background
 - 1.1.2 The 21st Century Student Union
 - 1.1.3 Recommendations
 - 1.1.4 Outcomes

1.1 Executive Summary



1.1.1 BACKGROUND

In early 2011, the Associated Students of Portland State University (ASPSU), Student Building Fee Committee and Student Fee Committee (SFC) allocated funds to conduct a feasibility study of alternatives for maintaining, renovating, rebuilding, or relocating the Smith Memorial Student Union. The existing structure was built in four phases throughout the 1960's and many believe it fails to serve the current and near future needs of the University's diverse student community

The consultant team of Dull Olson Weekes-IBI Group Architects, a respected architectural firm in Portland and the Northwest, and Perkins+Will, a nationally recognized leader in Student Union design, was retained in the summer of 2011 to engage the PSU community to construct alternatives and provide recommendations.

This executive summary is organized in three sections.

- (1) A vision of the 21st Century Student Union states the relevance for modern student unions.
- (2) Recommendations are based on the methodology, interviews and work sessions described under the project goals or Benchmarks described in greater detail in Sections 2 and 3.
- (3) Outcomes are the highlights and selling points of this project if the recommendations are adopted.

1.1.2 THE 21ST CENTURY STUDENT UNION

The 21st Century Student Union is a beacon of campus activity and a powerful focal point of student life on campus. When the right mix of programs, at the right location on campus, comes together in a signature student union building symbolizing the values and vision of the university, the results are magical. The union then conveys that unique sense of community, it is comfortable and inviting, and becomes the most important address and place on campus.

We believe the PSU Student Union should be a unique symbol of the values, aspirations, culture, reputation, and traditions of Portland State University; both in philosophy and in form. Its activities and programs, as well as its planning and design should celebrate the ethos of PSU, the City of Portland, and the Willamette Valley. No other building on campus fosters the opportunity or bears the responsibility for creating such a lasting beacon of PSU values as does the Student Union.

The irreplaceable role of the Student Union is as vital today in the holistic education of the modern PSU student as it was when the union ideas was first established at Oxford or Cambridge. In an increasingly isolated and individualistic world where communicating across the world seems easier than communicating across the hallway, the Student Union's unique blend of hi-tech and hi-touch connectivity fulfills a vital need to create engagement with both people and place.

The architecture of PSU's Student Union should be as open and engaging as the individuals who give the building life. The current building's most pressing needs are to increase daylight, transparency, openness, clarity of circulation, connection to campus and the city, develop prominent entries, and provide clear service access. The proposed concepts carefully compose these elements into a unique, representational symbol of Portland State and will create much more than just another building on campus; the Union will establish a living center of campus life that will anchor the education of students for generations to come.

1.1.3 RECOMMENDATIONS

GOALS

In this study, the 2020 Student Union Project Goals are defined by the following statements. The first set of statements are absolutes and must be achieved in the project for it to be considered successful.

The rejuvenated Student Union must:

- a) Be a campus hub that engages all students, builds community, and becomes a home for student groups and activities
- b) Be located on the Park Blocks and connect to the campus and the City
- c) Become a campus beacon of sustainable design and green operations
- d) Be easy to navigate and provide clear and intuitive way-finding; simple in its organization and layout
- e) Embody and represent the unique qualities of PSU, the City of Portland, and Oregon

The following set of statements are imperatives that have a high priority:

The rejuvenated Student Union should:

- a) Represent and celebrate the rich diversity of PSU
- b) Encourage opportunities for partnerships and community engagement
- c) Be transparent, open, and full of daylight in its interior spaces
- d) Embrace and celebrate connections to nature and the environment
- e) Provide a beautiful, impressive, and vibrant student environment
- f) Be multi-use/flexible and efficient in its layout
- g) Provide adequate areas for back of house operations

LOCATION

Due to the strong student body perception that the current Smith Memorial Student Union occupies the physical heart of campus and that the Student Union must be adjacent to the Park Blocks; the Union should be located on its current site as a heavily renovated and rejuvenated building or a completely new build. Four additional locations were considered including the Harder House block, the Shattuck Parking Lot block, the School of Education and the School of Business block and the Koinonia House block.

PROGRAM AND SIZE

The recommended target program is 247,000 gross square feet (GSF) which is

in line with ACUI national student benchmarks. P+W's student union database projects 20,000 (27,400 Headcount) Time Equivalent (FTE) enrollment for 2019 and 25,000 FTE (32,300 Headcount) in 2034. PSU's Fall 2010 enrollment was 18,705 FTE.

The current existing Union size is estimated at 178,000 GSF of the 238,000 existing GSF available on the site. Roughly 50,000 GSF of the existing available building area is currently being used for non-traditional union functions such as Library East, Office of Information Technology and other administrative offices.

DEPARTMENT ADJACENCIES

The recommended program and departmental adjacencies are detailed in Section 4. The "ideal" adjacencies were produced under three user perspectives each with their own desired adjacencies for optimal performance:

- (1) Dining Service
- (2) Conference and Events
- (3) Student driven programs and the departments that administer them.

The challenge of any design team is to achieve as many of these adjacencies as possible with the building and site limitations.

CONCEPT PLANS

Two concept plans and alternatives are offered to achieve the recommended target program and adjacencies.

- A. Alternative A calls for the demolition of the Broadway half of the Union while heavily renovating the Park Block's side for an estimated total construction cost of \$67M.
- B. Alternative B demolishes the existing SMSU to build a new union on the same location for an estimated total construction cost of \$86M.

It is completely natural to have "sticker shock" at the above figures. This report provides evidence that these estimates are in line with current projects of similar size and scope with similar project priorities at similar institutions.

The natural question that follows is, "Can PSU achieve this study's recommendations with modest renovations and expansions as portions of funds become available in a longer term phased approach?"

While we understand the realities of the current economy and ever tightening state budgets, the design team discourages smaller phased renovations, defined as under \$25M in 2012 construction cost dollars, to meet an overall building master plan. The major goals the 2020 Student Union Plan desires to achieve

are the consequence of problems that are rooted in prior piecemeal additions over a long time. The recommendation is to save up enough capital to have a critical mass to create a major impact on the building. The design team's experience is that Portland State would require over \$60M in construction cost to have a meaningful, transformative impact in altering the experience of the students beyond MEP & code compliance.

Smaller phased renovations to the union should consider the following guidelines in order to meet the Student Union 2020 Mission.

- Follow the recommended departmental adjacencies outlined in section 4.2 Program Adjacencies.
- Favor departmental moves that create districts in the building placing the most active functions on the sub-basement to the second level and placing destination or quiet functions on higher levels.
- Favor open office arrangements over closed office arrangements in order to:
 - improve visibility to the exterior windows of the union,
 - improve daylight penetration into the building,
 - improve the efficiency of office suites, and
 - improve the flexibility of the space with less permanent partition walls.
- Where possible, provide glazed floor-to-ceiling suite partition walls in order to improve visual transparency and daylight penetration.
- Promote major North-South circulation in the building which is supported in both Schemes A & B.
- If new vertical circulation is considered, promote vertical cores in similar locations as Schemes A & B.
- Promote circulation that runs from one side of the building to the opposite side without any major turns or twists in the path of travel.
- Alter building operations periodically to improve sustainability performance.

SUSTAINABILITY (Recommendations)

Students and staff acknowledged the importance for the building to function as a catalyst and demonstration project for sustainability and district scale measures. Centrally located on the campus and connected to the chilled and hot water loops, the Union can benefit from the resources in its neighboring buildings and infrastructure. In addition, it should function as a generator of resources to support the district.

Possible strategies for alternative energy generation include photovoltaics on the roof and south facing façade, a geo-exchange system and/ or the extraction of heat from sewage lines. It is unlikely that the energy generated can fully offset the energy consumed. However, in a district scale approach "scale jumping" ideas (use of roof on adjacent parking garage for wind power/ solar installation) can significantly increase the potential for energy generation. Storm and grey water could be stored in large scale tanks in the new basement for toilet flushing/ fire protection and irrigation.

The building should be configured as a public transport and bike hub with commuter lounges, bike repair facilities and transit monitors. Another important goal for the new facility is to convert 95% waste, by using bio converters and mostly locally grown fruits and vegetables, while remaining waste should be disposed of by the use of a central vacuum waste collection system thus eliminating the local environmental impact caused by traditional waste collection vehicles.

DESIGN AESTHETIC

The Design Aesthetic will play a key role in the transformation of the Student Union 2020 in creating a student center that is relevant and contextual to the student experience at Portland State University.

The Student Union 2020 will be a bold vision of student life reflected in a contemporary aesthetic that reflects the openness and transparency which will be introduced into the program planning. Within the context of the Portland State University Campus's highly urban environment, the opportunity is to create a distinct and modern building aesthetic of simple and clear form that is direct in its expression of the Student Union's function as the hub of student culture and life.

The Aesthetic is drawn from the integration of the timeless qualities of brick and masonry and the generous use of glass for transparency to shape the path of light into the building. Recognizing the beauty of the regional setting of the Pacific Northwest, the Design aesthetic also integrates the natural warmth and character of wood extensively throughout the interior environment and external envelope to bring together a vocabulary of materials and form that will create a distinctive landmark Student Union building.

OTHER OPPORTUNITIES

This project is one of many that the University is considering. Communicating with other projects that may impact the Student Union 2020 provides an opportunity to coordinate University efforts. The design team understood that Portland State was engaged in the PSU Child Development Center Feasibility Study (June 2011), the School of Business expansion study and a deferred maintenance challenge with Neuberger Hall.

With respect to the latter two projects, the design team recommends that this project engage the Business School and Neuberger Hall stakeholders to study the opportunity of how all three projects could help solve a district wide challenge of deliveries and receiving to the Union, the School of Business, Cramer Hall and Neuberger Hall.

While studying the site, there appears to be an opportunity, due to existing grades, of bringing an underground dock to the Student Union site from SW 6th street through the proposed School of Business site. Such a solution would require the engagement of multiple stakeholders and creative source funding, as well as challenging project scope coordination; however, the opportunity may be worth the discussion.

1.1.4 OUTCOMES

A NEW IMAGE AND HOME FOR CAMPUS

If the recommendations are adopted, the rejuvenated Union will become a campus hub that engages all students, that builds community, and that is a home for students groups and activities. The presence of the student union as a unique beacon on campus will bring identity to its' unique function as the center of the university.

The project has the potential to achieve this by creating a building with:

- a) Intuitive and clear way-finding.
- b) Improved transparency and visibility from inside and outside.
- c) Improved visual transparency between floor levels via interior atriums.
- d) Improved natural daylighting.
- e) Opportunities to increase synergies between collaborative departments by improving program adjacencies and favoring open office floor plans with shared central services.
- f) Long term flexibility via open floor plans and floor plates as suites can be more easily reassigned or repurposed as the needs of PSU change (in contrast to closed office plans dedicated to single use). Open office suites are typically more efficient than closed office plans by up to 30% without a reduction in functionality.
- g) Universal Access, currently one of the highest standards for accessibility
- h) A re-configured back of house and service layout, improving seamless behind-the-scenes operations.

SUSTAINABILITY (Outcomes)

Without completing the design process and doing a thorough analysis of existing energy and water uses in the union, it is difficult to predict outcomes regarding sustainability. However, it is not unreasonable in a major renovation to see the following outcomes regarding sustainability.

- a) The building presents opportunities to visibly demonstrate sustainable and green practices through its architectural design by integrating solar and stormwater systems for example.
- b) Energy use reduced by more than 20% from existing baseline via appropriate program zoning, daylight harvesting and a more efficient building envelope.
- c) Water usage reduced by approximately 30% through gray water collection and re-use and the use of more efficient water fixtures including food service equipment.
- d) Waste reduced by 50% through the use of appropriate recycling including bio converters.
- e) Energy generation is possible via photovoltaic systems and wind turbines, but is more likely via waste heat harvesting/trading from neighboring buildings.

- f) Watershed and municipal storm system impacts reduced by storing and holding water runoff on site.
- g) The project can also be a catalyst for local food sourcing as well as selecting building materials based on the P+W Precautionary list, which tracks 25 of the most common dangerous chemicals found in commonly used building materials.

PROGRAM

The following table highlights the space gains in the proposed program:
THE UNIVERSITY DISTRICT FRAMEWORK PLAN

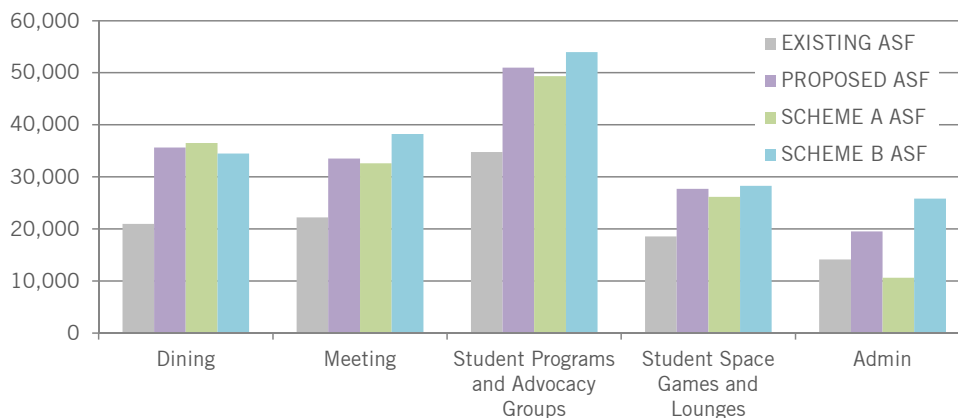
The outcomes listed in this section also support the vision and recommendations of the University District Framework Plan 2010.

“General Use” category space was identified as more than half the shortage in total needed spaces for the University. Of that 238,000 Net Assignable Square Feet deficit, more than half of that area was identified to be student life and student union space. [PSU University District Framework Plan, p. 42.]

COMPARISON OF ASSIGNABLE AREAS BY USAGE

	EXISTING ASF	PROPOSED ASF	%	SCHEME A ASF	%	SCHEME B ASF	%
Dining	20,938	35,640	70%	36,500	74%	34,490	65%
Meeting	22,193	33,532	51%	32,600	47%	38,250	72%
Student Programs and Advocacy Groups	34,748	50,974	47%	49,365	42%	53,962	55%
Student Space Games and Lounges	18,534	27,718	50%	26,175	41%	28,280	53%
Admin	14,131	19,526	38%	10,600	-25% *	25,830	83%

* reduction is result of Office of Information Technology relocated outside of Student Union 2020



HIGHLIGHTS FOR SCHEMES A & B

	Scheme A	Scheme B
Area		
Meets Proposed Program	N	Y
% Increase in Gross SF over Existing	20%	30%
includes Office of Information Technology	N	Y
# of stories tall	5 stories	6 stories
Student Focused Highlights		
% more Food for Thought space located in a prominent 2nd floor exterior corner	10%	30%
% more hangout and recreation space including a computer lab half the size of Parkway North	40%	50%
includes computer lab half the size of Parkway North	Y	Y
% more meeting space for student organizations and involvement	45%	70%
includes a new 10,000 SF multipurpose room that can serve 550 banquet style seats	Y	Y
The addition of the Viking Café and performance venue	Y	Y
A new student organizations suite that can serve 600 groups instead of 25 student groups including work space and room for student projects	Y	Y
% more student resource centers: disability, diversity, queer and womens	15%	25%
% more student activities and leadership programs space including a student leadership lounge	110%	150%
A new higher profile ASPSU space	Y	Y
revitalized White and Littman Gallery positions to improve foot traffic	Y	Y
% more Media and Publications without the existing exiting issues	80%	45%
% more Diversity and Multicultural Student Services	20%	20%
site opportunities for outdoor dining on the Park Blocks, food carts, and other activities that can spill out of the building into the exterior plaza	Y	Y+
Project Goals		
Reinvented "wow" building facades	Y	Y
Improved wayfinding	Y	Y
Improved visual transparency between floor levels via interior atriums	Y	Y+
Embrace and celebrate connections to nature and the environment	Y	Y+
Improved departmental adjacencies	Y	Y
Improved back of house access	Y	Y
ADA compliant	Y	Y
Code compliant to latest Portland adopted building codes	Y	Y
Sustainable: Minimum LEED Silver	Y	Y

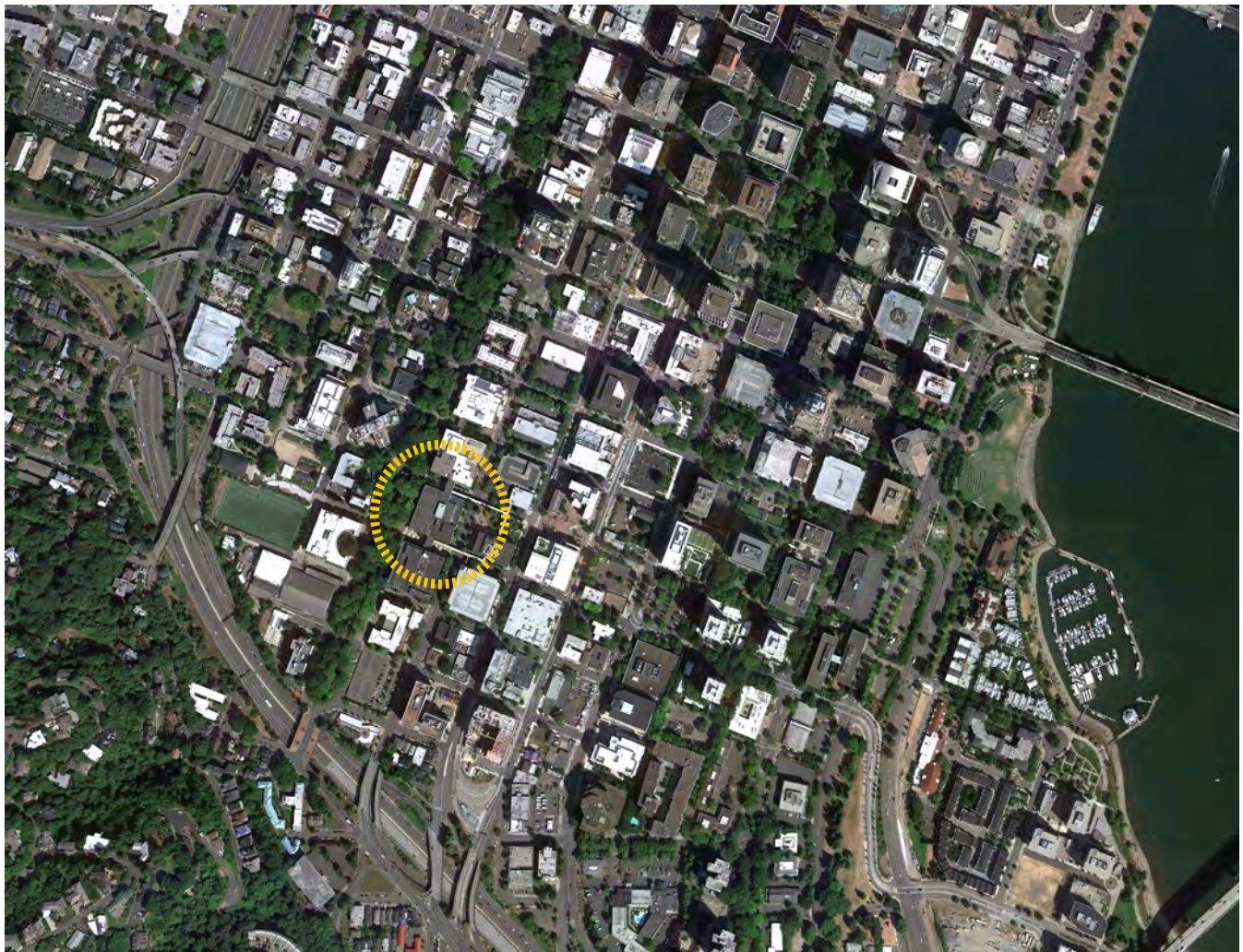
As the campus moves to a more residential model, the plan concluded that the University would need to triple the amount of student life spaces.
[Framework Plan, p. 52]

In specific regards to the Smith Memorial Student Union, the plan quotes:

‘Smith Memorial Student Union was built in four phases. One of these, the Library East facility, has different floor-to-floor heights and mechanical systems than the remainder of the building. This and the two-story ballroom that is entered from the third floor contribute to a complex set of vertical relationships in the building. This complexity is largely disguised on the exterior, which is a modernist slab-and-curtain-wall expression. Despite having large windows on SW Broadway, Smith Memorial Student Union does not feel connected to the street. Partitions, blinds, posters, and other user-added elements screen out the street. As it improves the streetscape and the buildings, Portland State should develop appropriate strategies that enhance privacy inside Smith Memorial Student Union without limiting visual access to the street.’

The following is a list of strategies that should be considered in any major renovation of campus facilities:

- *Create stronger entries, including signage (potentially largescale banners), canopies, lighting, etc.*
- *Improve the window quality with larger openings, at least in select locations, as well as more visual light transmittance.*
- *Use furnishings to help buffer interior work spaces from the street edge, and encourage an ‘open blinds’ policy to help promote visibility between interior and exterior, with adequate provision for privacy.*
- *Develop a series of recurring elements – banners, light fixtures, etc., that identify these buildings as Portland State facilities and help offset their relative heaviness and hardness.*
- *Make strategic renovations to better connect key spaces with the exterior, animate the street edge, bring in more daylight, and improve wayfinding.’*





2 Project Analysis

- 2.1 History of the SMSU
- 2.2 Site Analysis
- 2.3 Existing Program Spaces
- 2.4 Problem Areas/ Opportunities

2.1 History of the SMSU



Constructed in four distinct phases from 1956 to 1963, the Smith Memorial Student Union (SMSU) was designed to accommodate a Portland State University (PSU) much different than that which exists today. Covering a full city block, each phase expanded the functions of the structure and created linkages both within SMSU and outward to other campus buildings. Originally called “College Center”, it was renamed Smith Memorial Center in 1969 for student Michael Smith, an instrumental member of the historic 1965 PSU College Bowl team. Smith died of cystic fibrosis in 1968 after leading a full and active life, contributing to PSU in numerous ways including writing for all three college publications.

Over the years, changes to the PSU campus and student population led to a number of planning efforts aimed at re-organizing the existing structure. Significant renovations completed in 2004 included the integration of Library East and official designation as Smith Memorial Student Union. These renovations primarily focused on physical changes to SMSU and did not include an extensive analysis of building programming in light of changing university and student needs.

As the University grew in population size the demand on the student Union grew with it.

Improvements made included hazardous material removal, electrical and mechanical upgrade work. As with most buildings of this nature, program elements were moved and reconfigured multiple times.

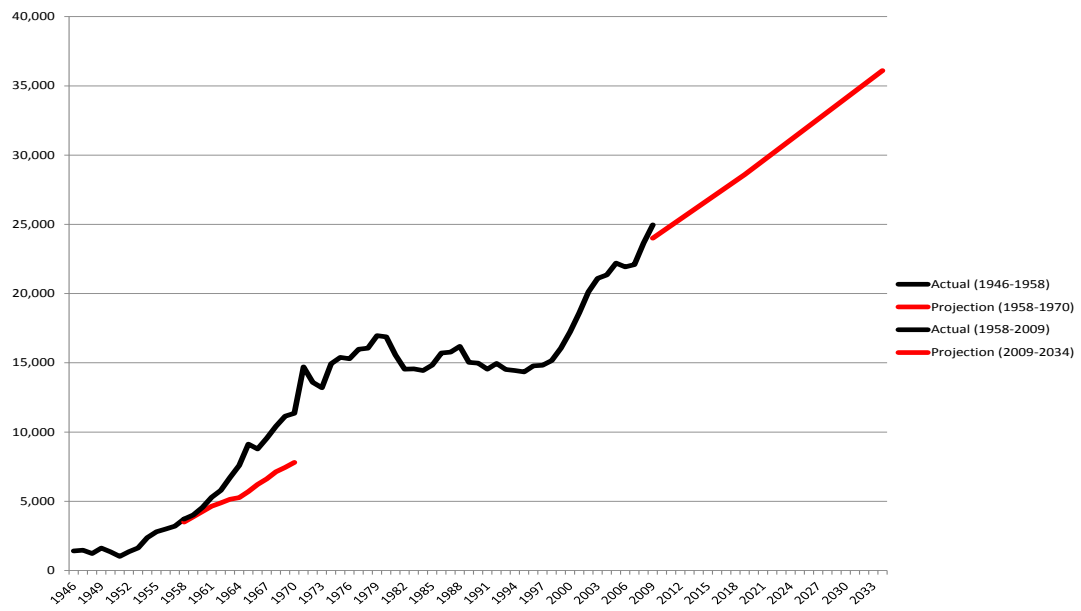


PRESIDENT MILLAR AT OPENING CEREMONY

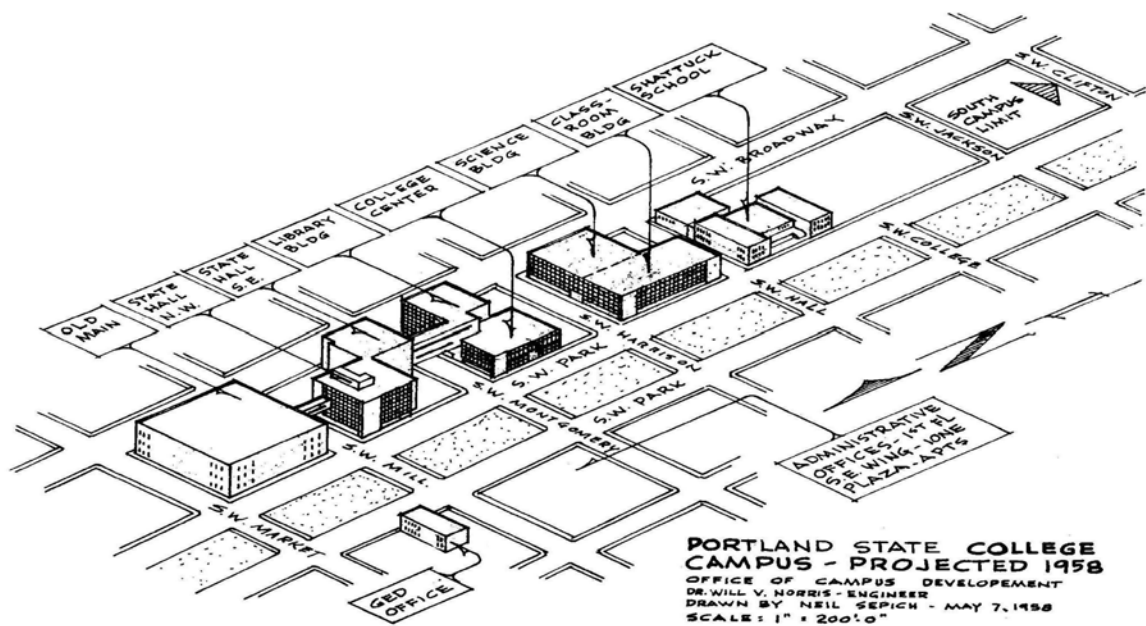


HISTORIC PHOTOGRAPHS

PSU Student Population

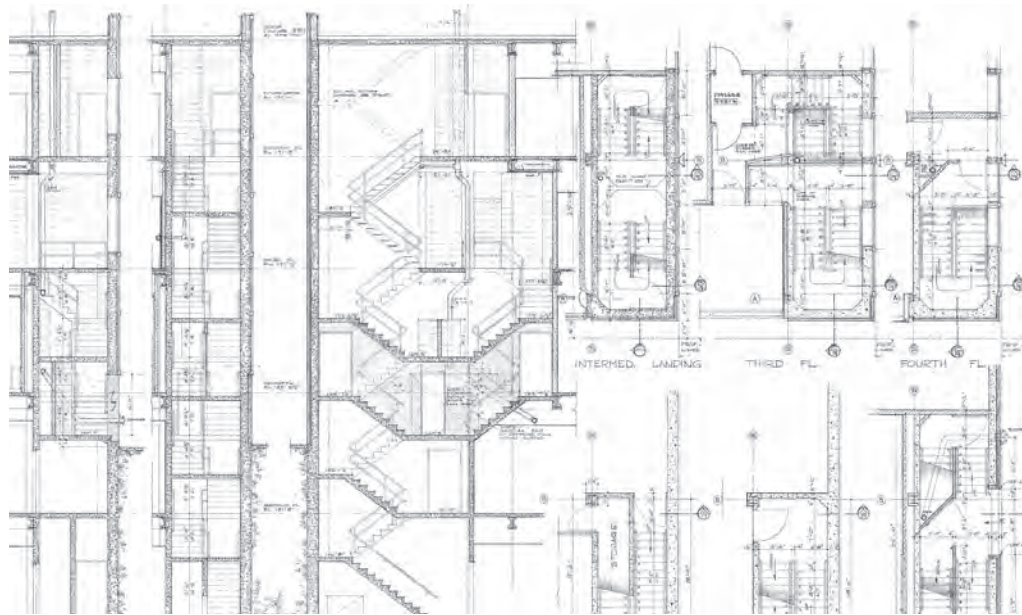


PSU STUDENT POPULATION



CAMPUS MAP 1958

Review of Previous Structural Analysis



The Smith Memorial Student Union was built over almost a decade from 1956-63 in four major phases. ('58,'60,'62, 66'). The building consists of four stories with 2 basement levels on an entire 200' x 200' city block. The structural system consists of a reinforced concrete, concrete with steel beams and columns on concrete foundations. Lateral, wind and seismic forces are counteracted by concrete shear walls. In 2002-04 seismic upgrades were undertaken to provide added safety in the event of an earthquake. At that time the addition of a 5th floor to the existing structure was ruled out as economically unfeasible. Other improvements included hazardous material removal, and electrical and mechanical work. As with most buildings of this nature, program elements were moved and reconfigured over time.

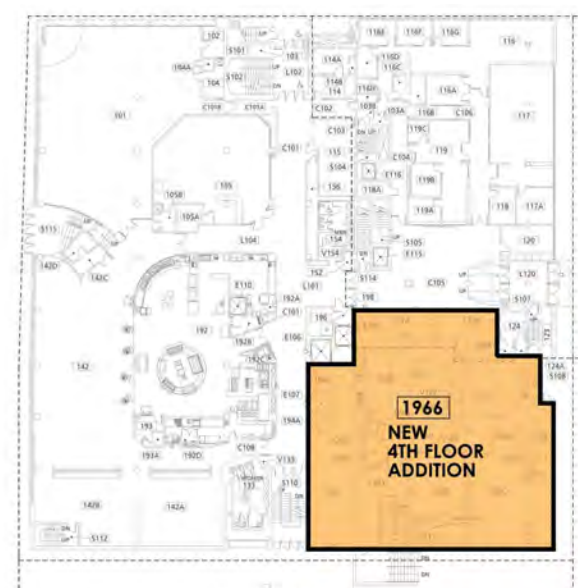
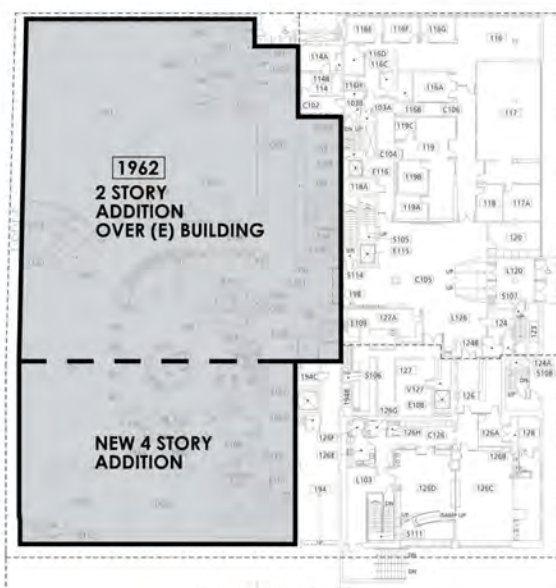
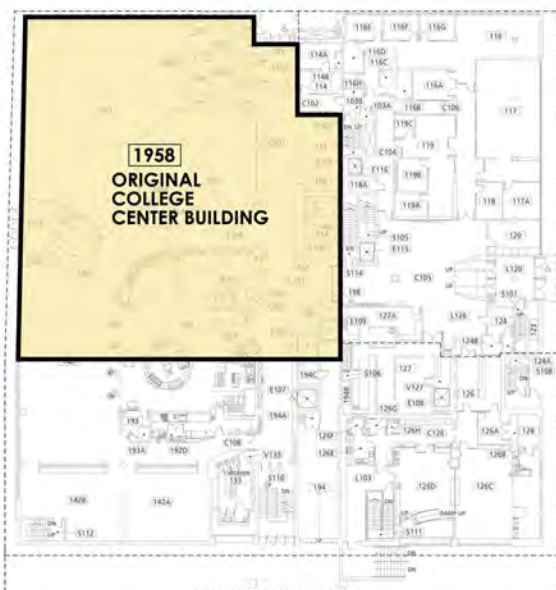
Phase 1, (1958): Located at northwest corner of site, two stories on basement and sub-basement. Steel structure with light-weight concrete on steel deck.

Phase 2, (1960): Located at northeast portion of site, 4 stories above grade. This phase was the original PSU library. Combined steel frame and reinforced concrete structure.

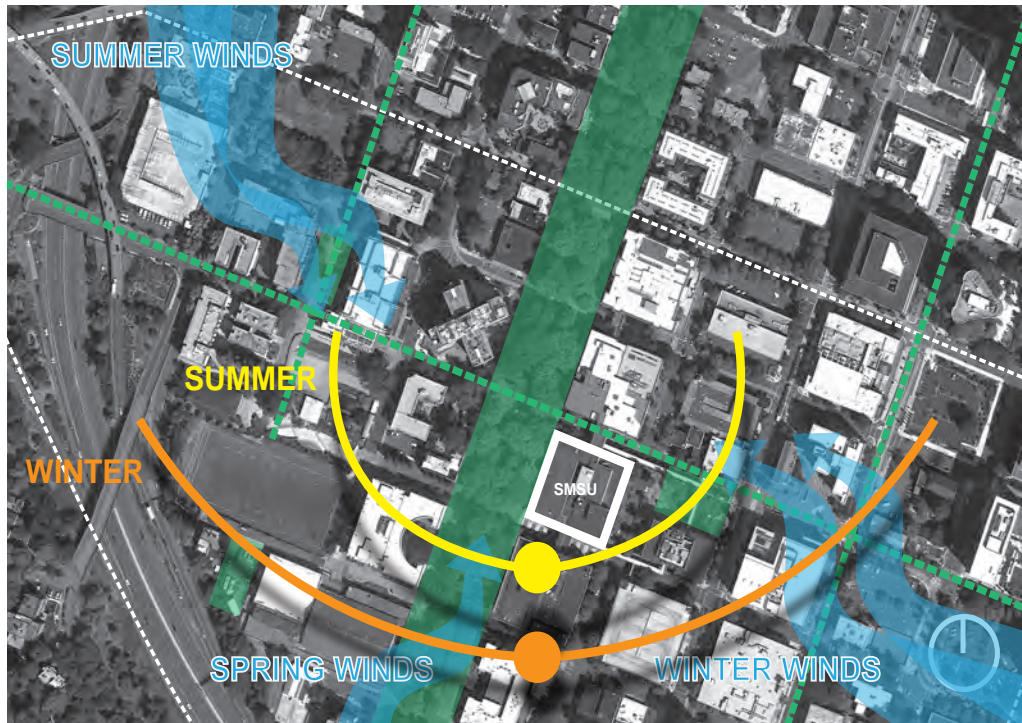
Phase 3, (1962): Located at southwest portion of site, extending over original Phase 1 structure. Four story structure with a basement at its southwest part adding two story structure for ballroom.

Phase 4, (1966): Located at the southeast portion of the site. Four story structure with basement. Steel frame structure with light weight concrete on steel deck.

Phasing Diagrams



2.2 Site Analysis



Site Location & Characteristics

The existing SMSU block is in a central position on the Portland State campus and is a hub for student life and activities within the University District. The block is located on SW Broadway between the vacated rights owned by City of Portland Parks & Recreation, SW Harrison and SW Montgomery. It is one block from the Millar Library and the PSU Alumni Center on the west and one block from the Urban Center and Student Recreation Center on the east. Classroom buildings are located on adjacent blocks to the north and south (Cramer and Neuberger Hall respectively). Portland's historic South Park Blocks, which lead north to the Cultural District of Portland and heart of downtown, are directly adjacent on the west.

Ideally located relative to public transportation infrastructure, the SMSU is one or two blocks from the light rail transit and a number of bus lines on SW 5th and 6th Avenues. The Portland street car route is located on SW Market and Mill Streets one and two blocks to the north. A southbound cycle track is located on SW Broadway. Currently the SMSU is served by two parking garages just one block away. Therefore, the proposal to locate the new student union on the existing SMSU block takes advantage of these key locational attributes.

The SMSU block is typical of Portland's 200 x 200 ft. grid dimensions. It has a grade change from southwest to northeast of about 10 vertical feet upwards toward the Park Blocks.

SW Broadway is a busy southbound traffic street offering opportunities for greater visibility of a new student union building. The other block faces are oriented to pedestrians and campus service activities such as loading. The existing SMSU has entries at mid-block on all four block faces. Architecturally, the existing SMSU is difficult to distinguish from the four other Portland State buildings on SW Broadway.

Overhead, elevated walkways at the fourth floor connect the SMSU to Cramer Hall on the north and Neuberger on the south. The elevated walkways also link across SW Broadway to the School of Education and parking garages on the east. While important overhead connections to the current Smith Memorial Student Union both hinder the visibility of SW Broadway at SW Montgomery to the north and SW Harrison to the south.



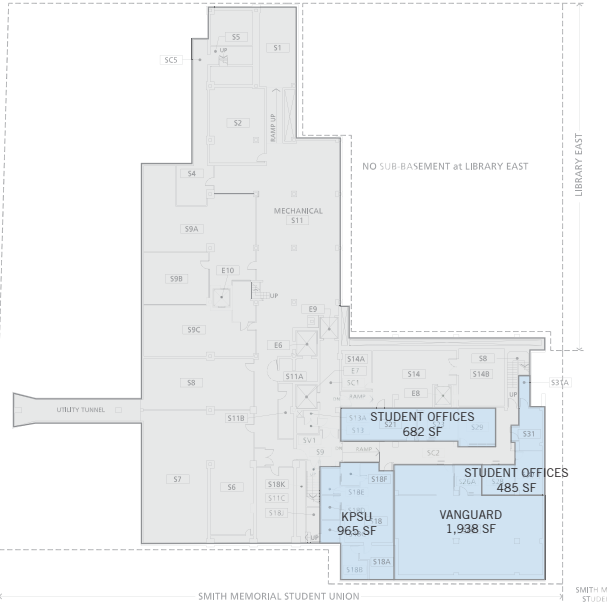


Street trees line SW Broadway on the east. Large canopy, mature elm trees on the west are the signature, character-defining features of the South Park Blocks. The two pedestrian spaces between buildings on SW Harrison and SW Montgomery contain lighting, seating and bike racks, along with some landscape improvements. The SW Broadway facade of the current Student Union lacks engagement with the street and is largely ‘closed’ to pedestrians. There is a great opportunity to create a vibrant street scene celebrating campus and urban life and culture as well as connections from the urban Plaza and transit center on the east to the South Park Blocks on the west. Eventually SW Montgomery will become established as a green street and extend from the residential neighborhood in Portland’s West Hills across I-405 on the west to the Willamette River.

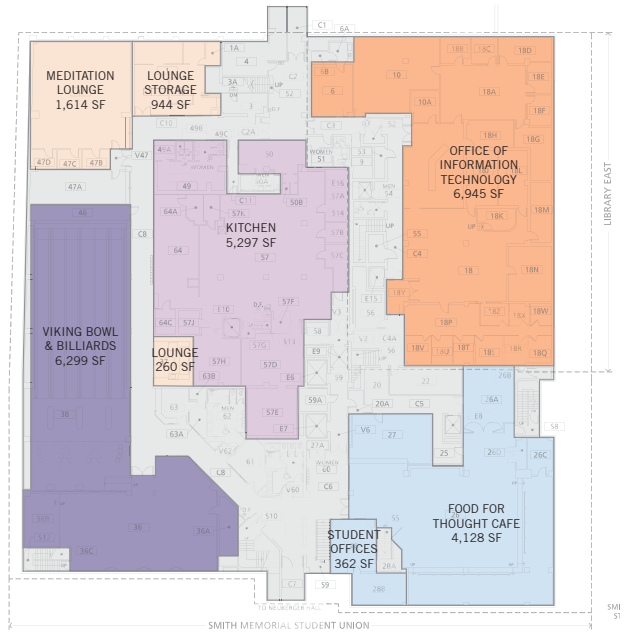
The grade change of nearly one story across the site from corner to corner can be mitigated by daylighting the building’s active ground floor uses with large window wells on the south and west sides.

There are a number of issues in the existing SMSU building that have been identified by users and the design team. We have categorized these problems and corresponding potential solutions in the following areas.

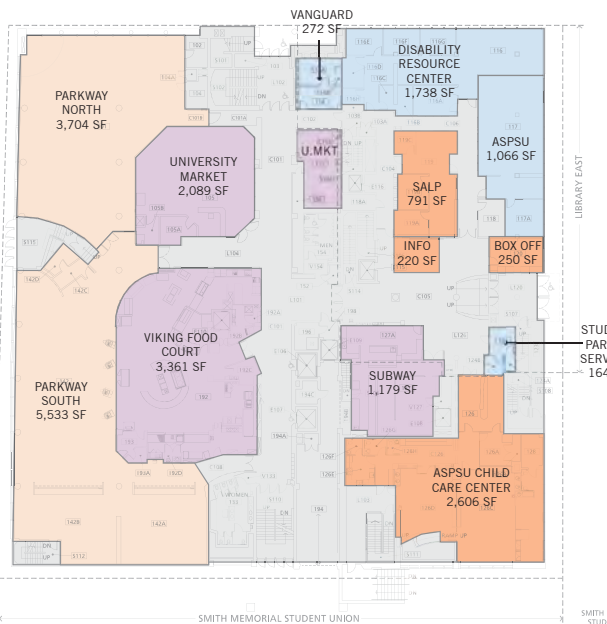
2.3 Existing Program Spaces



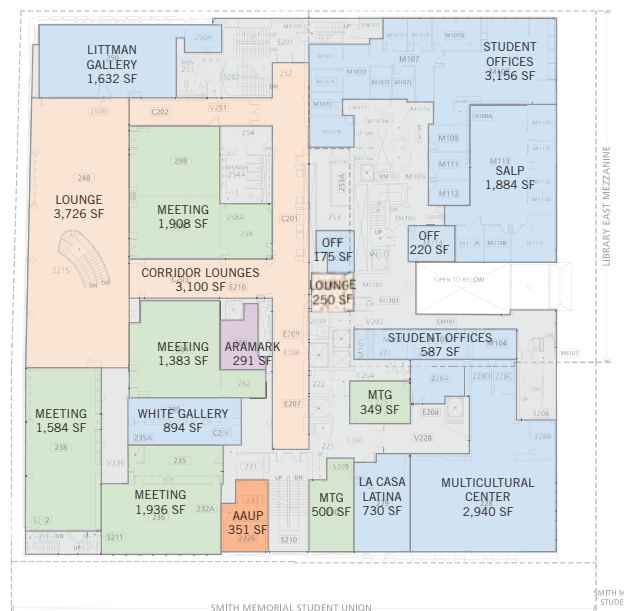
SMITH MEMORIAL STUDENT UNION - EXISTING PROGRAM
SUB-BASEMENT FLOOR PLAN
GROSS FLOOR AREA = 20,147 SF



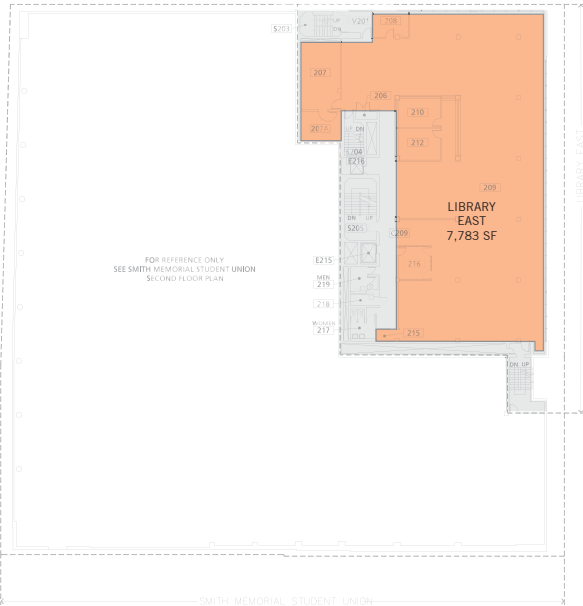
SMITH MEMORIAL STUDENT UNION - EXISTING PROGRAM
BASEMENT FLOOR PLAN
GROSS FLOOR AREA = 40,001 SF



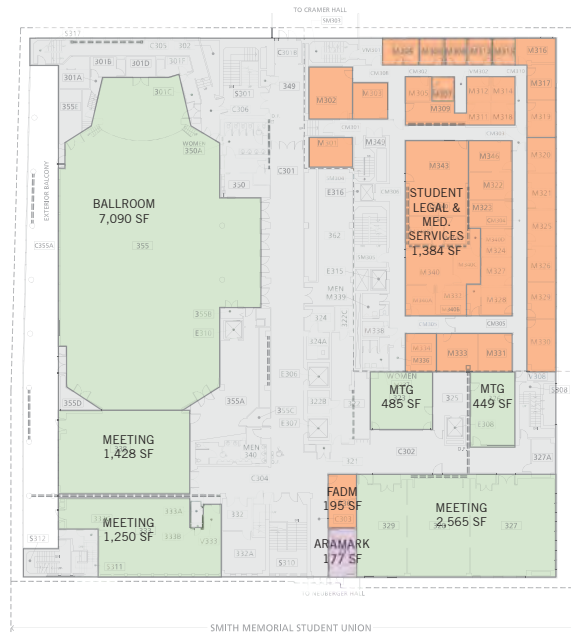
SMITH MEMORIAL STUDENT UNION - EXISTING PROGRAM
FIRST FLOOR PLAN
GROSS FLOOR AREA = 38,995 SF



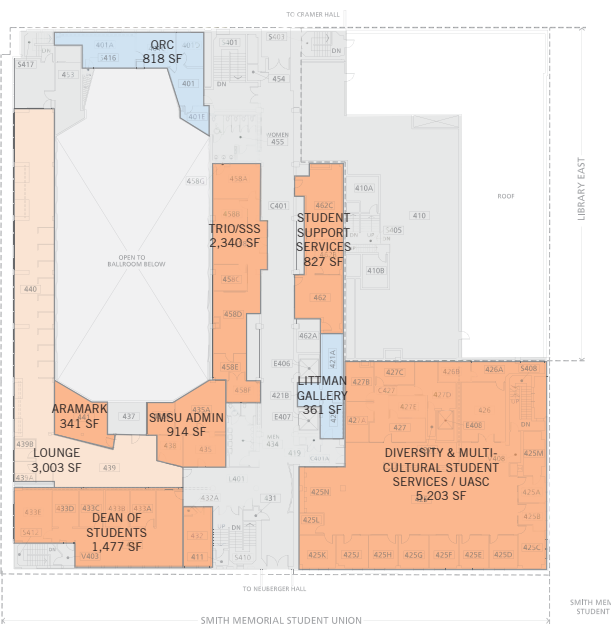
SMITH MEMORIAL STUDENT UNION - EXISTING PROGRAM
SECOND FLOOR PLAN
GROSS FLOOR AREA = 39,359 SF



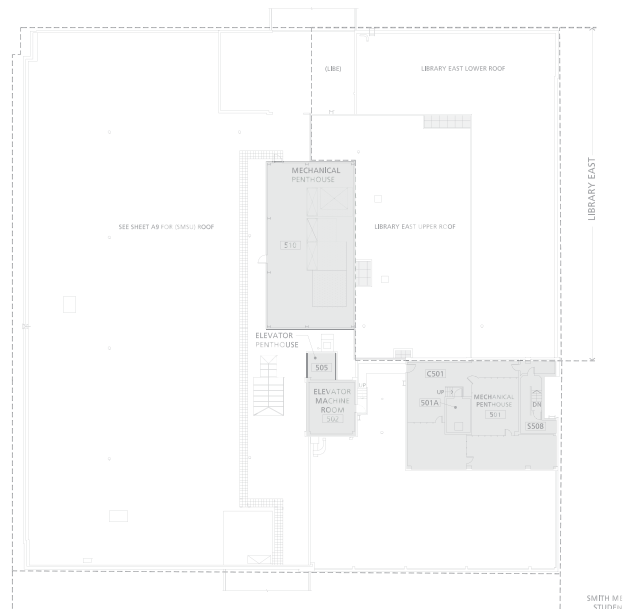
SMITH MEMORIAL STUDENT UNION - EXISTING PROGRAM
SECOND FLOOR PLAN - LIBRARY EAST
GROSS FLOOR AREA = 10,903 SF



SMITH MEMORIAL STUDENT UNION - EXISTING PROGRAM
THIRD FLOOR PLAN
GROSS FLOOR AREA = 40,134 SF



SMITH MEMORIAL STUDENT UNION - EXISTING PROGRAM
FOURTH FLOOR PLAN
GROSS FLOOR AREA = 34,491 SF



SMITH MEMORIAL STUDENT UNION - EXISTING PROGRAM
MECHANICAL PENTHOUSE FLOOR PLAN
GROSS FLOOR AREA = 4,849 SF

2.4 Problem Areas / Opportunities



PHOTOS OF EXISTING CONDITIONS: LIGHTING

Poor Lighting Conditions

With deep floor plates, semi-opaque envelope, and most stairs being internal cores, the existing SMSU building's light levels leave much to be desired. Natural light is a source of health, enjoyment, and spatial delight. In a place as active and important as the Student Union, light should be accessible to as many of the building occupants as possible.

Circulation spaces and the interior of the building can be opened up with the strategic removal of roof areas and walls, as well as a new skin that is translucent, transparent, and designed with access to the sun throughout the day.

Existing Planning Shortcomings

The existing SMSU is a spacial collage of programs. With the natural growth and introduction of new programs and uses, the building has outgrown its flexibility and creates a very problematic environment for expansion. Many new offices and public areas suffer from poor organization, haphazard planning, and involve incongruent adjacencies. For example, one of the best spaces in the building - the ballroom terrace - is nearly inaccessible to the users unless a rare occasion or event opens access. The accommodation of new offices has led to many strange and awkward configurations as portrayed in the photos on the left.

A clear articulation of circulation, public mixing, and programmed spaces will allow functions to seamlessly exist next to one another while clarifying their boundaries. A simplified circulation system within the building will allow for a clear visual organization of present and future uses.

Wayfinding and Accessibility

Wayfinding is crucial to the success of such a large and complex building as the SMSU. Current wayfinding is disastrous. The mezzanines of the library addition pose a serious problem that imposes a rabbit warren of dark corridors, small awkward stairs, and poor disability access. Once planning and circulation zones have been reconfigured, wayfinding will naturally occur with a more transparent rationale.

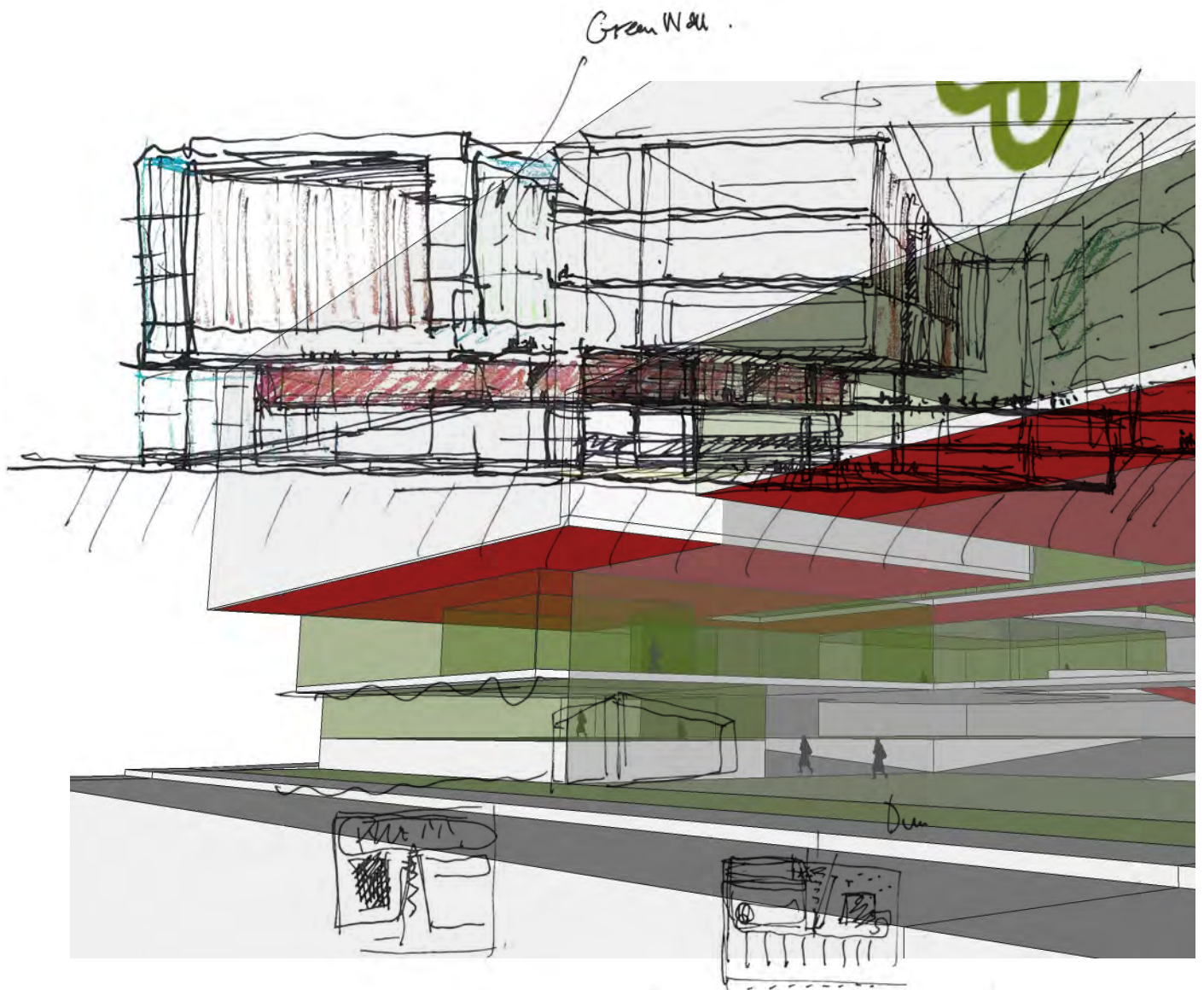
The removal of the library corner of the building offers the opportunity to align all floor plates, thus negating the need for difficult transitioning via stairs and ramps. New ramps can now be ADA accessible.

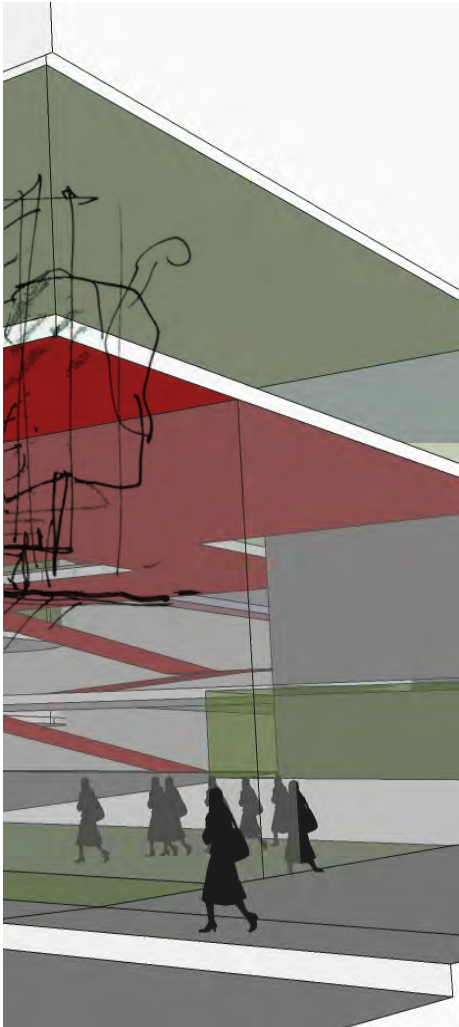


PHOTOS OF EXISTING CONDITIONS: PLAN CHALLENGES



PHOTOS OF EXISTING CONDITIONS: WAYFINDING





3 Process

- 3.1 Process Description & Techniques
- 3.2 Benchmark Statement
- 3.3 Alternative Site Selection
- 3.4 Sustainability Charrette & Targets
- 3.5 Architectural Character Survey
- 3.6 Landscape and Open Spaces

3.1 Process Description & Techniques



This report was developed over a five month period with two on-site multi-day work sessions, a tour of the Husky Union Building at the University of Washington and a video conference and valuable comments from the student body during the process.

TABLE 3.1 Work Session Schedule

- Work Session 1
Information Harvesting Oct. 18 – Oct. 21, 2011
- Work Session 2
Information Harvesting & Initial Concept Development Nov. 29 – Dec. 2, 2011
- Work Session 2.5
University of Washington HUB Tour Dec. 15, 2011
- Work Session 3
Concept Presentation Jan. 25, 2012
- Final Presentation April 2nd, 3rd 2012

At every stage, the team made a deliberate effort to engage and garner student feedback. A summary of the multiple tools and methods that were employed during the work sessions and between work sessions is provided below:

1. Forming a More Perfect Union was employed in Work Session 1 with the Steering Committee and Student Government to determine the project goals. Over 40 individuals participated in the exercise, which is a consensus building method developed by P+W to help a group of stakeholders, who want to arrive at consensus via vote, but desires everyone's opinions taken into account, in contrast to a majority rules vote. The method is similar to the Nominal Group.

2. Focus Groups were conducted with student groups, student leaders and PSU professionals in Work Session 1 and 2 to further project their perceptions, opinions, beliefs and attitudes towards the Union. Three focus groups were conducted with more than 60 individuals participating.

- a. SMSU Lunch Crowd
- b. On-Campus Residents
- c. University Studies Class



3. Program Interviews were conducted to arrive at the space requirements and desires for the project. The below departments and groups were interviewed during Work Sessions 1 & 2. The program is provided in 3.2.

- a. Dining Services
- b. Conference & Events
- c. Dean of Students Office
- d. Student Legal and Mediation Services
- e. Student Resource Centers (Diversity, Queer and Women's)
- f. Student Activities and Leadership Program
- g. ASPSU
- h. Student Media and Publications
- i. Diversity and Multicultural Student Services
- j. Childcare and Student Parent Services
- k. Office of Information Technology
- l. Division of Student Affairs

4. A Sustainability Charrette with student participants and representatives from PSU's Institute for Sustainable Solutions was completed to provide a framework for sustainable goals for the project. Outcomes are presented in section 3.4 of this report.

5. An Architectural Character Survey was conducted at Work Session 2 with students just prior to PSU's Midnight Breakfast 2011: Bollywood. The survey consisted of a series of images that were ranked by students as appropriate or inappropriate for the Union. Results are shown in section 4.3 of this report.

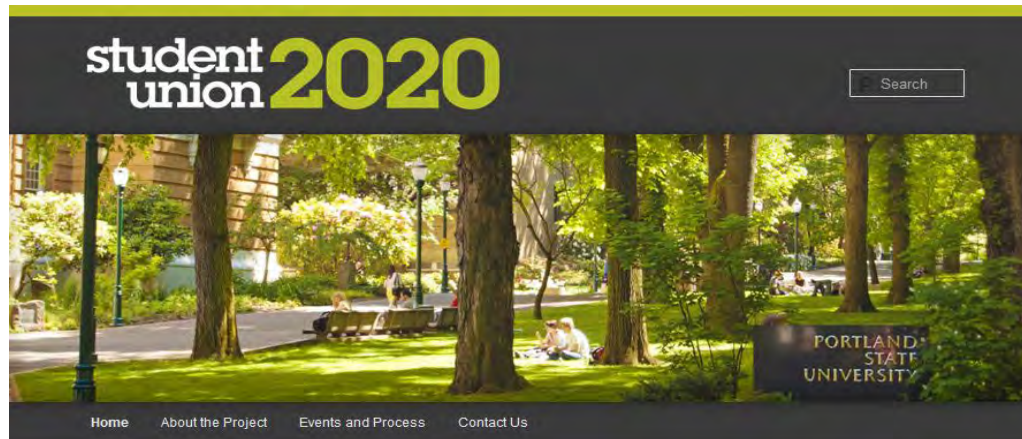
6. Design Charrettes, an interactive process where concepts and schemes were generated, developed and tested by the Design Team and PSU Student Union stakeholders, were conducted in Work Session 2.

7. An Online Survey through Qualtrics was developed and conducted from November 2011 to January 2012. There were 579 respondents and 519 complete surveys. The survey harvested information regarding the perceived heart of the PSU campus, use patterns for the Union and PSU campus, and desired services for the Union.

8. The Husky Union Building was visited by members of the Steering committee. The tour was conducted to illustrate the level of transformation an existing building can have as well as the design elements manifested in the University of Washington's HUB project.

9. A design review was held with members of the executive committee to verify and check on design direction, viability of schemes and to discuss initial ideas and the direction for proposed solutions.

2020 Student Union Project Study



FEATURED

Project Open House Upcoming

We will soon be conducting a public open house to present final concepts for a future Student Union. The open house was previously scheduled for February 15 – it is no longer on February 15 due to scheduling conflicts. We are working to find an new Open House date in early March. Please be on the lookout here for more information.

Posted in [Give Us Your Input](#), [Public Involvement](#) | [Leave a reply](#)

FEATURED

Your Smith Memorial Student Union Survey Results

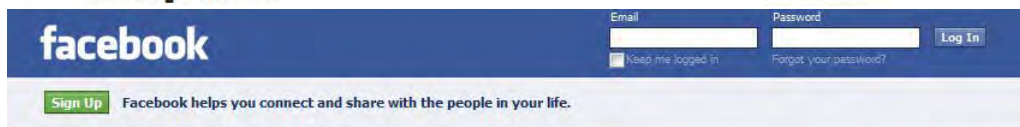
LINKS

- Perkins + Will
- Portland State University
- PSU Framework Plan
- SMSU Floorplans
- SMSU on Facebook
- SMSU on Foursquare

CATEGORIES

- Design Concepts
- Findings
- Give Us Your Input!
- Progress Update
- Public Involvement
- Uncategorized

ARCHIVES



ASPSU/ SMSU/ PSU Initiative

An essential component during the study process was the constant involvement and the gathering of commentary from students and staff at PSU. The 2020 Student Union project provided a lively platform for new information, discussion and reactions to the findings and process.

We believe that only a truly inclusive process for all stakeholders can lead to a successful solution for this project. Constructive criticism and challenges ultimately lead to a stronger concept which will be embraced and supported by the student body. The 2020 Student Union project offered an interactive platform to monitor the opinion and pulse of the project while it proceeded. The survey (see Appendix) will offer valuable clues for the actual design of the project.

From the 2020 project website:
(<http://www.portlandstate2020.com/>)

Project Background

The 2020 Student Union project is an effort to evaluate the Smith Memorial Student Union (SMSU) and its ability to meet the current and future needs of Portland State University students.

Background

In the fall of 2010, a group of administrators and students began a preliminary investigation of SMSU, researching the building's history, physical conditions, and programming. A review of the PSU Framework Plan and enrollment trends suggested a need for a new vision for the future.

In the summer of 2011, PSU enlisted a consultant team led by Perkins + Will to complete an evaluation of PSU's needs, facilitate the process of visioning for the future, and generate conceptual designs for renovation or new construction.

Process

Perkins + Will first visited PSU in late October to gather information about the current student union. During this visit, Perkins + Will toured SMSU and the PSU campus, met with occupants of the student union, and met with students. The consultants will continue to collect input from students through surveys and online submissions.

Perkins + Will will return to PSU in late November to present preliminary findings and meet with more students and employees of PSU. Feedback received during this visit will inform the direction of design charrettes,

In January, Perkins + Will will present design concepts for PSU's student union. Depending on input received throughout the process, design concepts may reflect potential renovations to the Smith Memorial Student Union or the construction of a new student union.

Going Forward

The products generated during the 2020 Student Union Project are intended to generate discussion. The 2020 Student Union project will not include a decision-making process about renovation, construction, or funding.

3.2 Benchmark Statement



Problem Statement: (Authored by Portland State)

'The Smith Memorial Student Union is inadequate to the task of fulfilling the needs of PSU's evolving and growing student population. Built in 1956, the SMSU suffers from a lack of continuity both in its program and in its architectural vision. Initially constructed to serve a small population of older, commuter students, the student population has since ballooned, becoming younger and more residential as it has grown.

The campus culture and values of PSU have also changed during that time. As such, the physical construction and layout of the SMSU no longer reflects the nature of the student population or the University's values of energy efficiency and sustainability. With no master plan guiding its program, the SMSU currently houses an ill-defined collection of services and tenants that have been shoe-horned into the building over the years.

The SMSU is in clear need of a new identity and a long-term direction informed by an accurate understanding of students' current needs and how student demographics are likely to change in the future. The SMSU needs an architectural and planning vision that will give it a clear, service-oriented purpose and yet allow it to retain enough flexibility to adapt as the student population and its needs change. It needs to be energy efficient, a model of sustainability in order that will clearly determine which services the student union needs and a well-designed space to allow for navigability, comfort and ease of use.'

Benchmark Statement Draft 1.0 (Authored by Perkins+Will)

Absolutes:

The rejuvenated Student Union must:

- Be located on and connect to:
Park Blocks, campus and the City of Portland
- Become a campus beacon of sustainable design and green operations
- Be easy to navigate and provide clear and intuitive way-finding
- Be a campus hub that engages all students
- Build community, and become a home for students groups and activities
- Embody and represent the unique qualities of PSU, the City of Portland, and Oregon

Imperative #1:

The rejuvenated Student Union should:

- Represent and celebrate the rich diversity of PSU
- Encourage opportunities for partnerships and community engagement
- Be transparent, open, and full of daylight in its interior
- Embrace and celebrate connections to nature and the environment

Imperative #2:

The rejuvenated Student Union should:

- Be simple in its organization and layout
- Provide a beautiful, impressive, and vibrant student environment

Imperative #3:

The rejuvenated Student Union should:

- Be multi-use and efficient in its layout
- Provide adequate areas for back of house operations



Mission Statement

(from <http://www.portlandstate2020.com/>)

As the living room of our urban campus, the PSU Student Union brings together students and the campus community by providing a center for ideas, programs, services, and engagement that enriches the social, cultural, and educational environment of Portland State.

Values

Student Development

- Support student success
- Promote student engagement and learning
- Provide opportunities for student leadership and employment
- Create programs that foster community and campus pride

Sustainability (social, economic, environmental)

- Manage space, material, and energy effectively and efficiently
- Encourage community and campus engagement
- Be financially responsible stewards of student fees and other resources

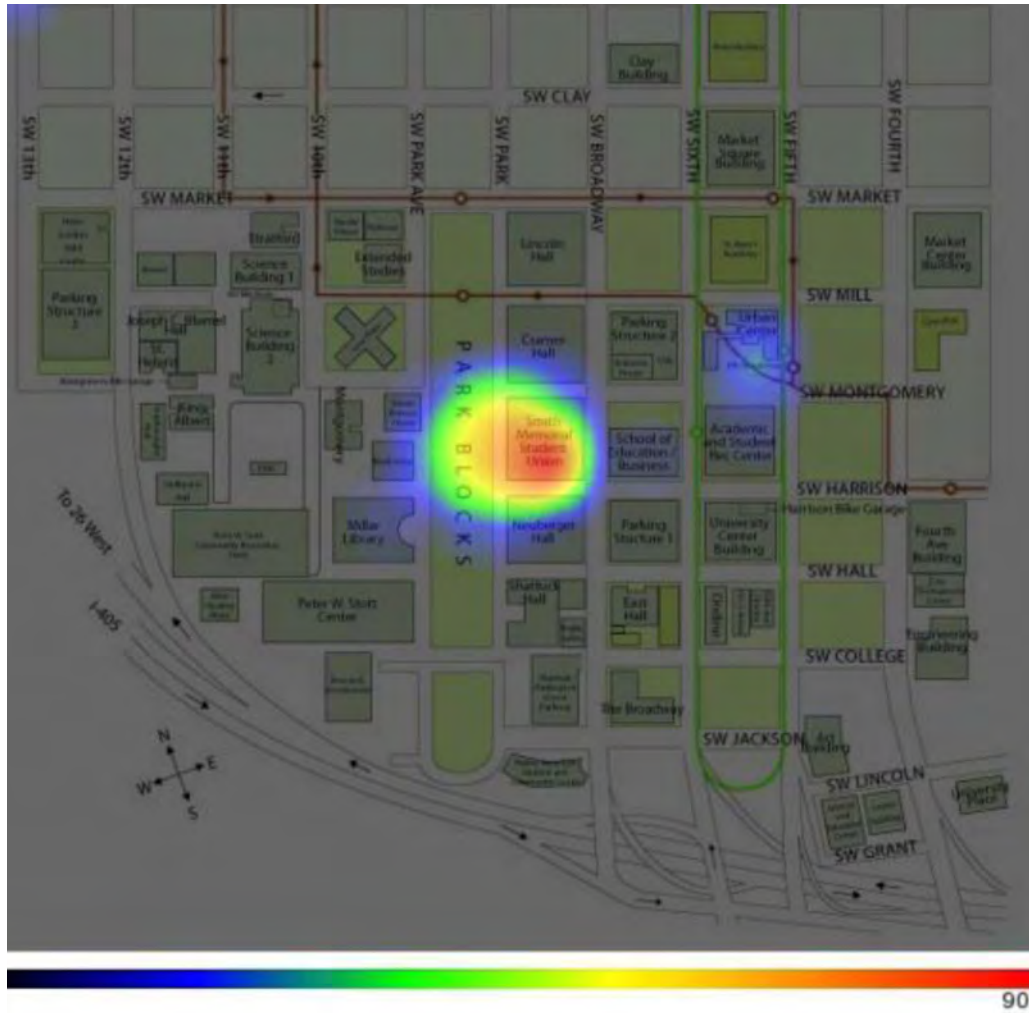
Service

- Provide a consistent, high quality experience through services offered, programs, and venues
- Conduct ongoing assessment to identify and meet needs of campus community
- Use technology to create an efficient and seamless information exchange community
- Provide high quality, adaptable event and programming spaces that encourage community involvement and collaboration
- Foster Portland State University pride and identity in the physical environment and the programs offered

Community

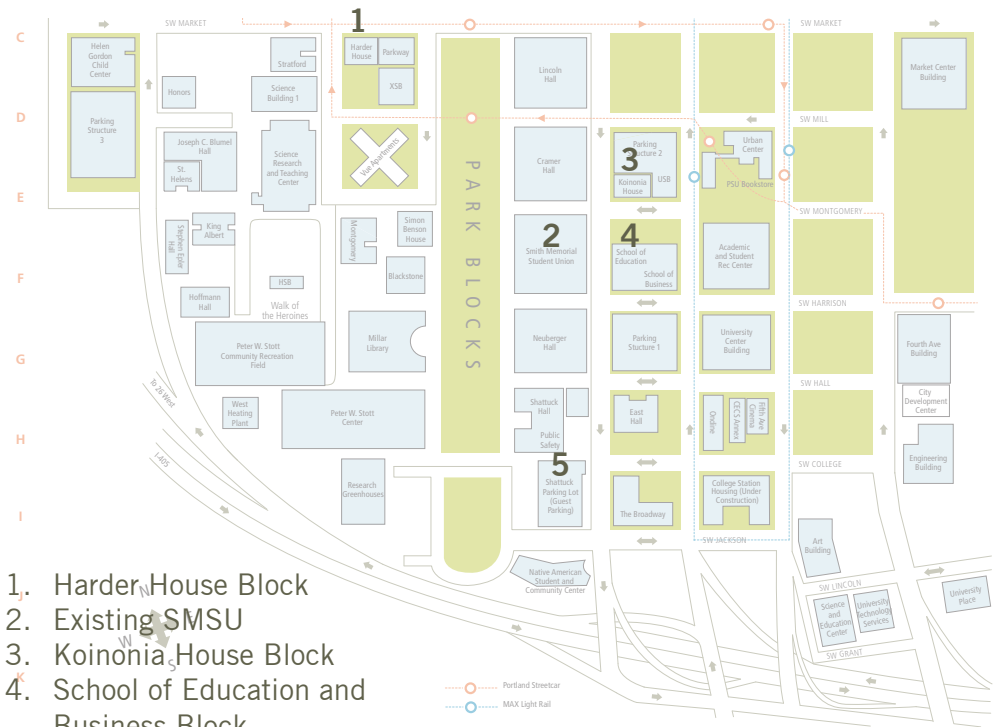
- Promote a welcoming marketplace for ideas built upon civility and respect

3.3 Alternative Site Selections



SMSU 2020 website survey question graphic result:
The question for participating students was: 'To you, where is the heart of campus? Click on the map to select a location.'

A campus map was included in this survey question. Respondents clicked on the single location they felt best represented the "heart of campus". 527 total responses were recorded. The existing SMSU site was clearly identified as the heart of Portland State University.



1. Harder House Block
2. Existing SMSU
3. Koinonia House Block
4. School of Education and Business Block
5. Shattuck Parking Block

ALTERNATIVE SITE STUDY

The study considered two design approaches to meet the required programmatic needs for the Union. The team took into account the information gathered through student workshops, consultation with Portland State student services leadership and the project steering committee, their own site observations and study of planning background material provided by the University. A set of overall goals was identified common to each approach for the student services facility. After considering several potential alternative sites on the Portland State campus, the location of the existing SMSU site on the Park Blocks surpassed all others in its desirability and fundamental identification with the core values of Portland State students and building users.

The design study demonstrates how the expanded program would be accommodated within a substantially renovated Student Union building. 'Scheme A' is an investigation into the opportunities and outcomes of that approach. While there may be attractions for a lower cost remodel approach, given the importance of the site location, on program size alone the renovation of the existing building poses significant compromises in achieving the long term goals for the Student Union.

Given the unequivocally declared value of the current site location the alternative approach 'Scheme B' outlines a complete replacement of the existing building within the borders of the current site. It is proposed to maximize the potential of the site location at Broadway, Harrison and Montgomery as well as to fully meet the Student Union expanded program, ultimately demonstrating a long term vision for a state of the art student services facility.

Sustainability Charrette Intent

The Sustainability Charrette was an opportunity for students and administrators to engage with the design team to brainstorm sustainability goals and set the aspirations for the project. These goals were developed at the start of design so that they could inform decisions throughout the project's design, documentation, and construction. The design team facilitated the charrette but the ideas and the voting of priorities were driven by the students.

Sustainability Charrette Process

The sustainability charrette was organized according to the principle of "backcasting", an approach that is the inverse of "forecasting". When forecasting one references a list of known facts, such as the average energy performance of student unions in the United States, and sets a target based on this information. In contrast, when backcasting one starts with an aspiration of the end result and then develops a series of strategies to achieve it.

Each of the attendees took ten minutes to brainstorm one or more visionary goals for the student union and wrote them on index cards. The cards were organized according to common themes, pinned up on the front board and read aloud. The common themes were water, energy, waste, transportation, economic, social, and educational. Everybody was given five sticky dots to vote for which goals they felt were the most important by placing them on index cards. Participants were allowed to put multiple dots on one goal if they so desired.

After establishing the top goals, the next step in backcasting is to develop the strategies to achieve the desired end result. The attendees divided into small groups to discuss the goal from each of the six categories that received the most votes. For example, in the water category, the goal with the most votes was, "no water leaves site." Three attendees decided they were most interested in discussing this water topic and developed sketches and bullet point notes to show alternative strategies for achieving this end result. Each group took 30 minutes to brainstorm strategies and documented everything on flip charts. The groups then took five to ten minutes to present their recommended strategies to the whole group. Similar to the voting process for goals, everybody was given sticky dots to vote for the strategies they felt were most desirable. However, this time everybody was given ten dots, each worth one vote, and then an additional two special dots at the end, each worth five votes.

Because sustainability is to be integral to every decision for the Student Union, the sustainable design goals and strategies developed at the sustainability charrette were posted during the remainder of the work sessions. These documents remained a live document so students and staff were encouraged to continue voting during later work sessions to capture the full spectrum of priorities.



Sustainability Charrette Documentation

There were two primary objectives of the documentation of the sustainability charrette. The first objective was to create a succinct list of the top priorities. This list can easily be pinned up as a reminder to the design team of the students' vision for their building as the design progresses. This list can also function as a benchmark at the critical milestones during design to evaluate success and redirect as needed. This list of preferred goals and strategies is shown below.

votes preferred goals and strategies

water

- *goal:* no water leaves site - collect and reuse stormwater
- *strategy:* Green roof with portion of building opening out onto it

social+educational

- *goal:* building is the educator - demonstrates sustainability
- *social+educational strategy:* permaculture system - biomimicry

energy

- *goal:* net zero energy / carbon neutral
- *strategy:* maximize natural light

transportation

- *goal:* bike/max/tran/bus hub
- *strategy:* commuter lounge (with transit monitor)

waste

- *goal:* 95% waste diversion
- *strategy:* "living machine" - biomass converter

food

- *goal:* 90% of food on campus is organic and local
- *strategy:* rooftop or vertical gardening - grow fruits and vegetables on site

The second objective of the documentation was to provide the full breadth of ideas that were generated during the charrette. Every goal and strategy was recorded on a spreadsheet with the number of votes that it received. Even the ideas that received no votes may eventually become a valuable reference as the design progresses so it was critical that they were all documented. The results are shown below.

votes water goals

- no water leaves site - collect and reuse stormwater
- bathrooms re-use rainwater
- reduce water use by 30%

votes water strategies

- Green roof with portion of building opening out onto it
- No water leaves site
- Collect and re-use water in building
- Clean/treat for greywater system
- Clean/treat for irrigation of landscape

votes economic + social + educational goals

- building is the educator - demonstrates sustainability
- building creates active campus center
- gender neutrality
- building provides new identity for PSU
- create community-oriented spaces for dialogue
- mental health services for students
- changing stations in all genders bathrooms
- building as 'think tank' for sustainability
- incorporate "oregon sustainability center" partnerships into SMSU
- implement "x" number of murals focused on sustainability concepts
- funding from student fees and general fund is balanced with external revenue

votes economic + social + educational strategies

- Permaculture system - biomimicry
- Building form derived from 'real', authentic and 'natural' materials and processes
- Create community spaces with feedback data dashboard, display performance metrics
- Use dashboard, interactive feedback systems
- Creatively construct exemplary sustainable components
- Impact form of building 'whole' building parts
- Integral sustainable systems (not just applied onto building)

votes energy goals

- net zero energy / carbon neutral
- natural light
 - provide day light to 75% of building
 - 100% renewable energy
 - energy efficiency behavior modification fund of \$500,000
 - self sustainable
 - solar powered

votes energy strategies

- Maximize natural light
- Staircases are intuitive (elevators secondary)
- Beyond carbon neutral
 - Efficient building envelope
 - Outdoor, year-round gathering spaces
 - Sub-meters, feedback to users, behavior modification, operational adjustments
 - Ground source heat pump (well injected)
 - Design to minimize energy use for maintenance and cleaning
 - Solar hot water
 - Sophisticated controls (lighting, HVAC, etc.)
 - Common services located on first floor (reduce elevator use)

votes transportation goals

- bike/max/tran/bus hub
 - 50% of people come to school by public transit
 - 30% of people ride bikes to campus
 - reduce avg. student/staff commute miles by 50%
 - reduce urban heat island effect - less pavement for cars
 - no cars on campus
 - easily accessible safe and secure bike parking

votes transportation strategies

- Commuter lounge (with transit monitor)
- Build dedicated bike lockers designed into building
 - Bike hub satellite
 - Showers for bikers
 - Discounted transit passes
 - Transit alert monitors in building
 - Centralized transit information
 - Transit mural map
 - Affordable bike parking passes
 - Dry/ comfortable bus shelters
 - Bike accessory lockers
 - Bike rental program
 - Exterior food option

votes waste goals

- 95% waste diversion
- recycling and composting made clear and easy - food + waste
 - reuse 50% of current building materials in new building
 - no plastic containers
 - reduce availability of disposable items by 25%
 - consider night skies
 - every room/office compost capable
 - 50% less waste generated than a comparable student union
 - reduce landfill waste by 40%

votes waste strategies

- "Living Machine" - biomass converter
- Mandate 100% compostable containers for on-campus retail
- Durable dishaware use (reuse don't discard)
 - Reuse existing building material in new construction
 - Local source construction material
 - Waste free events
 - Reuse of excess food for social services
 - Reuse room
 - Recycle/compost hub
 - Construction diversion mandates
 - Central dishwashing
 - Universal provision of facilities for recycling

votes food goals

- 90% of food on campus is organic and local
 - plant edible and native plants outside student union
 - compost all food waste
 - 50% reduction in campus food miles
 - make aesthetically pleasing food production that produces 25% of food consumed
 - grow 10% of food consumed on campus

votes food strategies

- Rooftop or vertical gardening - grow fruits and vegetables on site
 - Mandate 90% local organic food
 - Vendor diversity (farms & retailers)



Sustainability Charrette Outcomes

The Sustainability Charrette successfully combined far reaching visions with practical solutions. It also succeeded at engaging the students and administrators in establishing the goals for their Student Union. The list of priorities produced during the Sustainability charrette was a valuable asset for the design team in furthering the conceptual development of the design.

It was apparent that students and staff placed a great value onto the SMSU sustainability strategies and mission as a catalyst for an environmentally conscious education. The intent for the design of the building has to coincide with the University's vision to '...be an internationally recognized urban university known for excellence in student learning, innovative research, and community engagement that contributes to the economic vitality, environmental sustainability, and quality of life in the Portland region and beyond.'

Sustainability Targets



The Student Union offers a unique opportunity for Portland State University to define its commitment to sustainability and promote district-scale innovation. It became obvious in the interviews with students, that the Student Union is both physically and philosophically the center of their campus. It is a hub for them to interact with their classmates, engage in community activism, and explore the relationship between themselves and the environment. The re-design of their Student Union is a chance to redefine and express their values and to re-form the heart of their campus to align with their passion for sustainability.

Previous Sustainable Action Plans

PSU is fortunate to have a rich history of sustainable action plans already in place. The Climate Action Plan of May 2010 was developed in accordance with PSU's signing of the American College and University Presidents' Climate Commitment (ACUPCC) of 2007 with the goal to reach carbon neutrality in 2040. And in 2009 the Portland Sustainability Institute (PoSI) in partnership with the City of Portland launched the EcoDistrict Initiative. As one of five pilot EcoDistricts, the University District aims to help implement and test some of the latest thinking on sustainability at a district scale. The University is positioned to function in a leading role in making this ground-breaking initiative a success.

EcoDistricts - Sharing Resources

As a node within the University EcoDistrict, SMSU can benefit from the resources in its neighboring buildings and infrastructure. In addition, it is well positioned to be a generator of resources to support the district. For example, there was a

goal in the Sustainability Charrette (refer to section 3.4) to be “net zero carbon.” The building can greatly reduce its own carbon consumption, but to achieve ‘net zero’ it will need to produce energy. If one estimates the total potential energy generation of photovoltaics on the roof and south facing façade, it is unlikely that the energy generated would fully offset the energy consumed. However, if one takes a district scale approach, the parking garage adjacent to the student union can essentially double the potential for energy generation. This concept, known as “scale jumping” because it extends beyond the property boundary, is approved by The Living Building Challenge, a certification standard similar to LEED, as a means to achieve energy goals.

The existing central steam plant on campus is another opportunity for sharing a resource. It is outside the scope of this predesign document to compare the efficiency of the existing steam system with alternative forms of district scale energy generation. However, the concept of a centralized heating and potentially cooling system aligns with the goals of the EcoDistrict.

Alternative Energy Options

In addition to the use of photovoltaics to generate electricity as mentioned above, there are other options that should be evaluated during schematic design. For example, a ground source heat pump coupled with radiant floor heating and cooling can be extremely energy efficient. Soil tests would be required to determine if a geo-exchange system (commonly referred to as “geothermal”) would be a viable and cost effective option.

Another alternative energy consideration that can be evaluated during schematic design is the extraction of heat from sewage lines. An analysis of the infrastructure adjacent to the actual project site would provide evidence whether this strategy deserves further study. There are a multitude of additional alternative energy options including wind and solar thermal that would be worth exploring in more depth during schematic design.

Stormwater Strategies

The new SMSU will seek to gather, treat, and reuse as much stormwater and runoff as possible. Opportunities for roof stormwater collection, on-site treatments through landscape elements, and gray water reuse for toilets, maintenance and irrigation are all potential ways to integrate responsible stormwater management practices.

Sustainable Design Certification

The type and size of project could easily aim for LEED GOLD .

Building as Sustainable Education Tool

The Students were very interested in a ‘Building dashboard’. Real time metrics on the energy, water and even refuse performance of the building were discussed in length at EcoCharrette. As an interactive tool the dashboard can raise awareness and change student behavior.



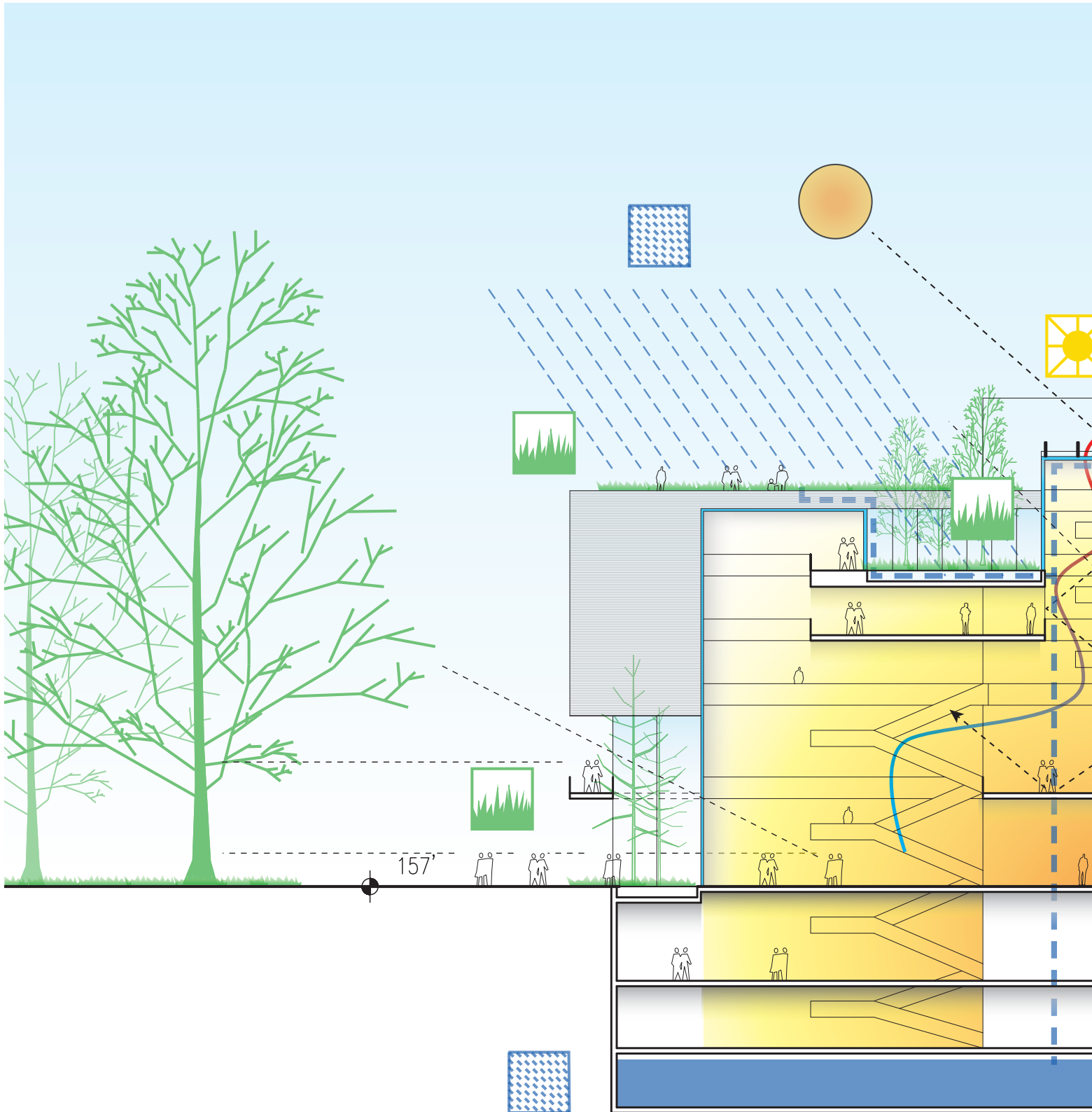
BUILDING MICROCLIMATES

- stormwater and infrastructure habitat diversity
- living walls
- green roof



SOLAR

- photovoltaic arrays
- passive day-lighting maximized
- passive heating maximized





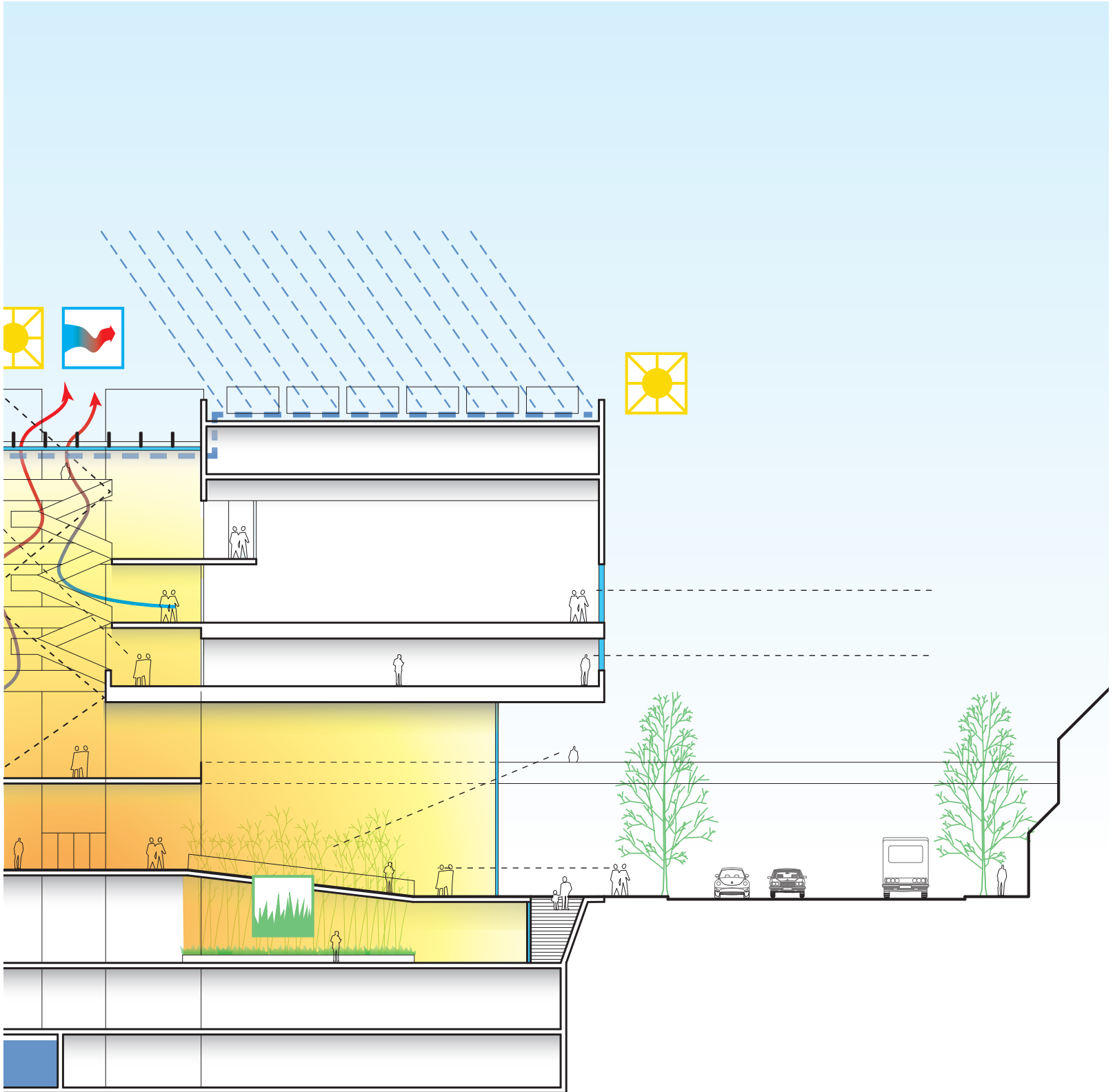
STORMWATER RECYCLING

- roof irrigation
- living wall irrigation
- landscape retention and treatment
- cistern for storage



AIR

- stack ventilation
- passive cooling



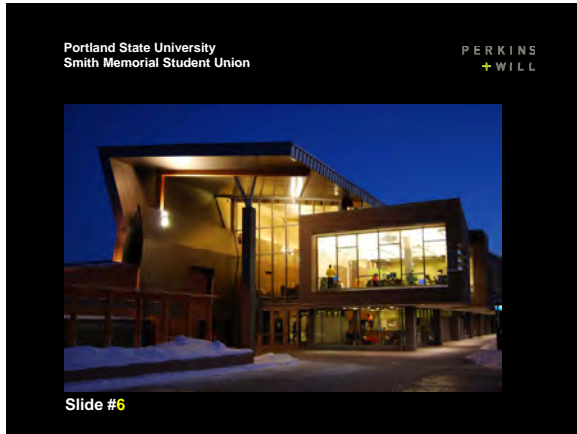
NEW BUILDING SUSTAINABILITY FEATURES

Character Study

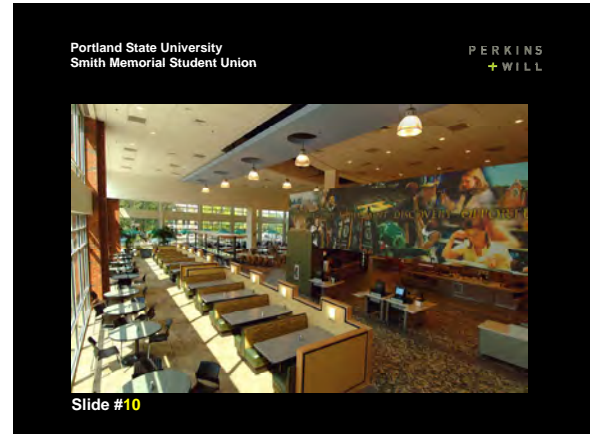
The Architectural Character Survey was held during Work Session #2. Participants rated a series of over 75 images shown in 10 second intervals. The intent is to get a feel of what architectural imagery the group deemed as appropriate or inappropriate for the SMSU 2020 vision.

The word cloud to the left shows the terms and words used the most during the discussion portion of the survey. The facing pages show the top rated 10 images.

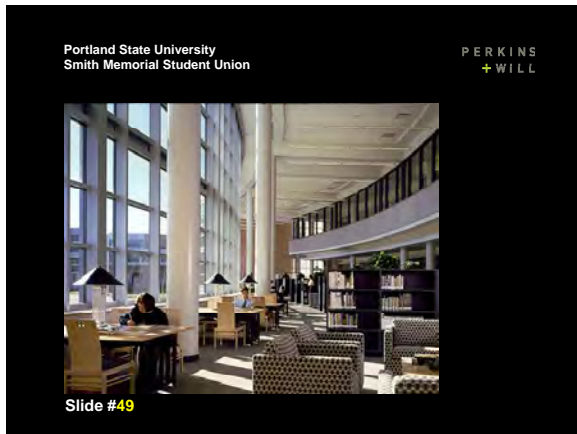
The design of a new or renovated Student Union should take the preferred characteristics into account, while not having to literally copy any of the spaces or ideas shown.



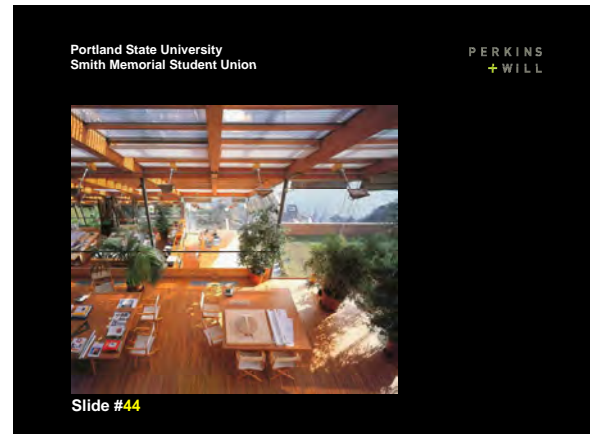
1



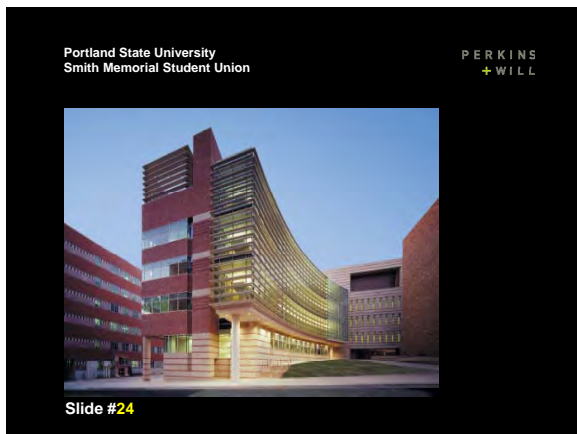
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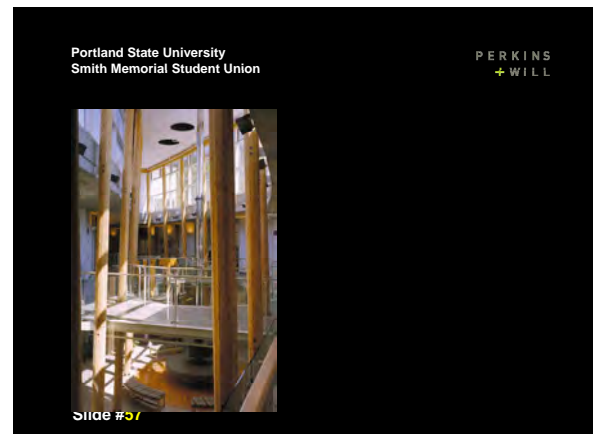
2



5



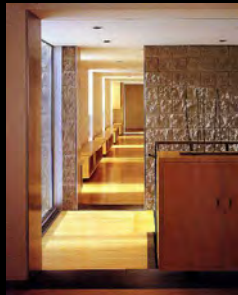
3



6

Portland State University
Smith Memorial Student Union

PERKINS
+ WILL



Slide #3

7

Portland State University
Smith Memorial Student Union

PERKINS
+ WILL



Slide #55

9

Portland State University
Smith Memorial Student Union

PERKINS
+ WILL

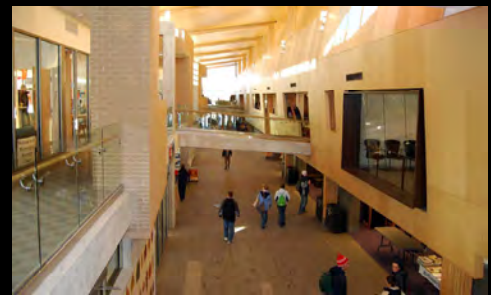


Slide #8

8

Portland State University
Smith Memorial Student Union

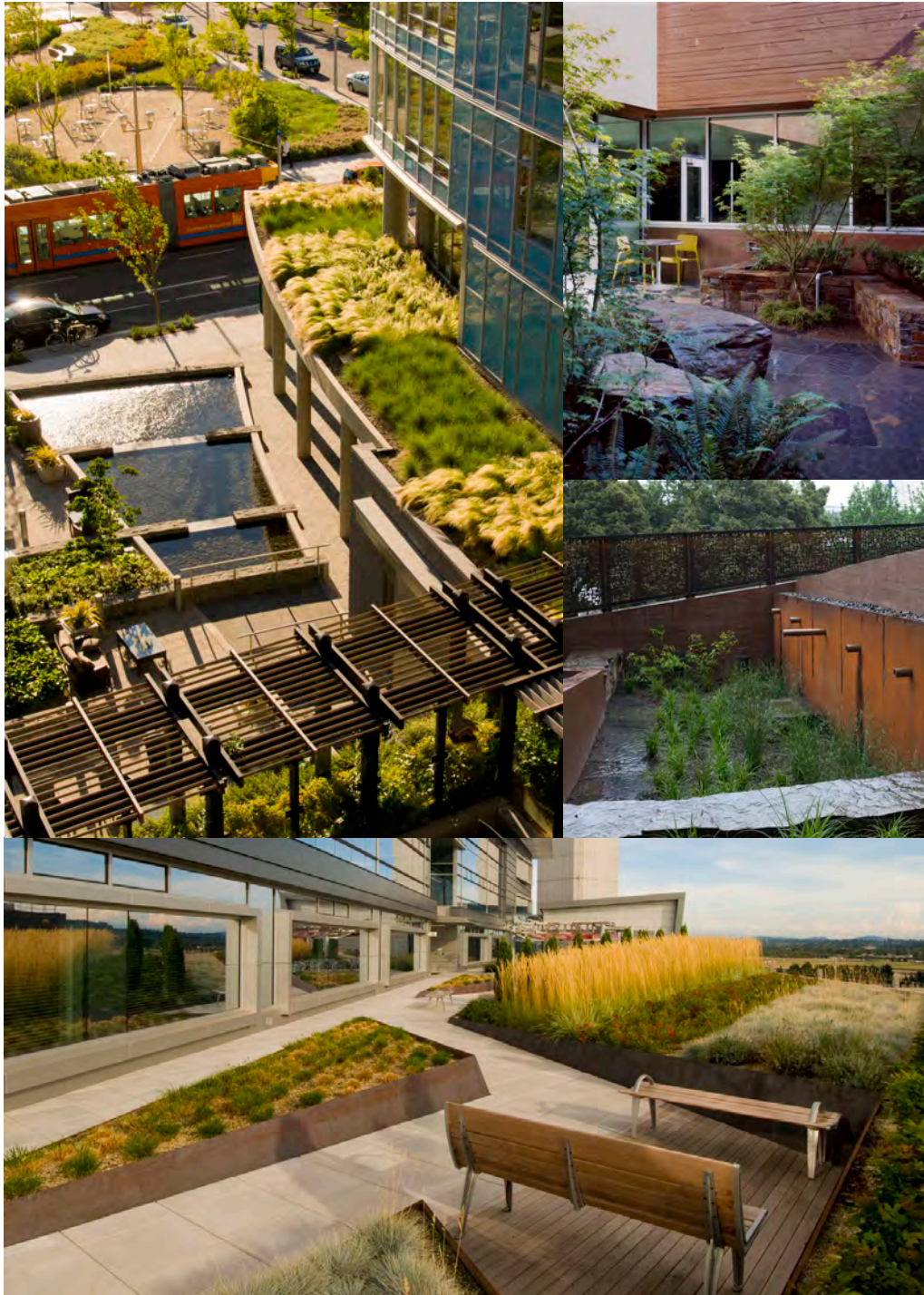
PERKINS
+ WILL

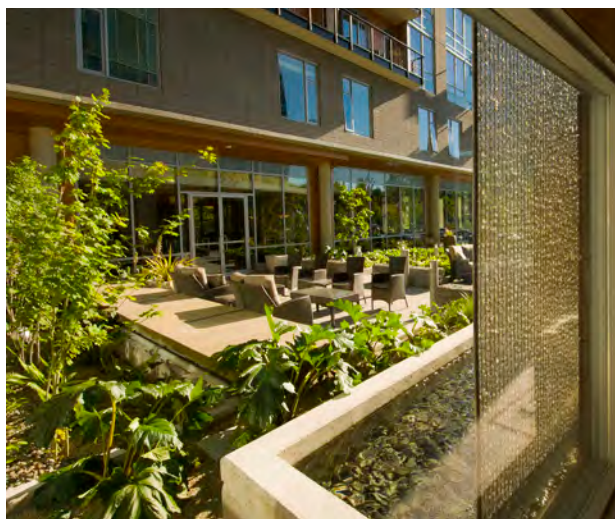


Slide #14

10

3.6 Landscape / Open Space





Landscape / Open Space

The new Student Union will be a seamless and truly integrated expression of site, landscape and building.

While on-grade space for planting around the building is limited, the opportunities for extending of the sense of the Park Blocks' verdant landscape into the new Student Union are many. The new building has opportunities for outdoor courtyards and terraces at many of its levels.

As a vertical atrium space, linked indoor spaces adjacent to the stairwells and public spaces enhance indoor air quality while providing a natural backdrop that helps to soften the adjacent urban environments. Harsh buildings, concrete, traffic, noise and pollution are not a healthy environment and have a profound impact on our physical and mental wellness. Green indoor walls form a spiritual connection to nature which is often lacking in the built surroundings.

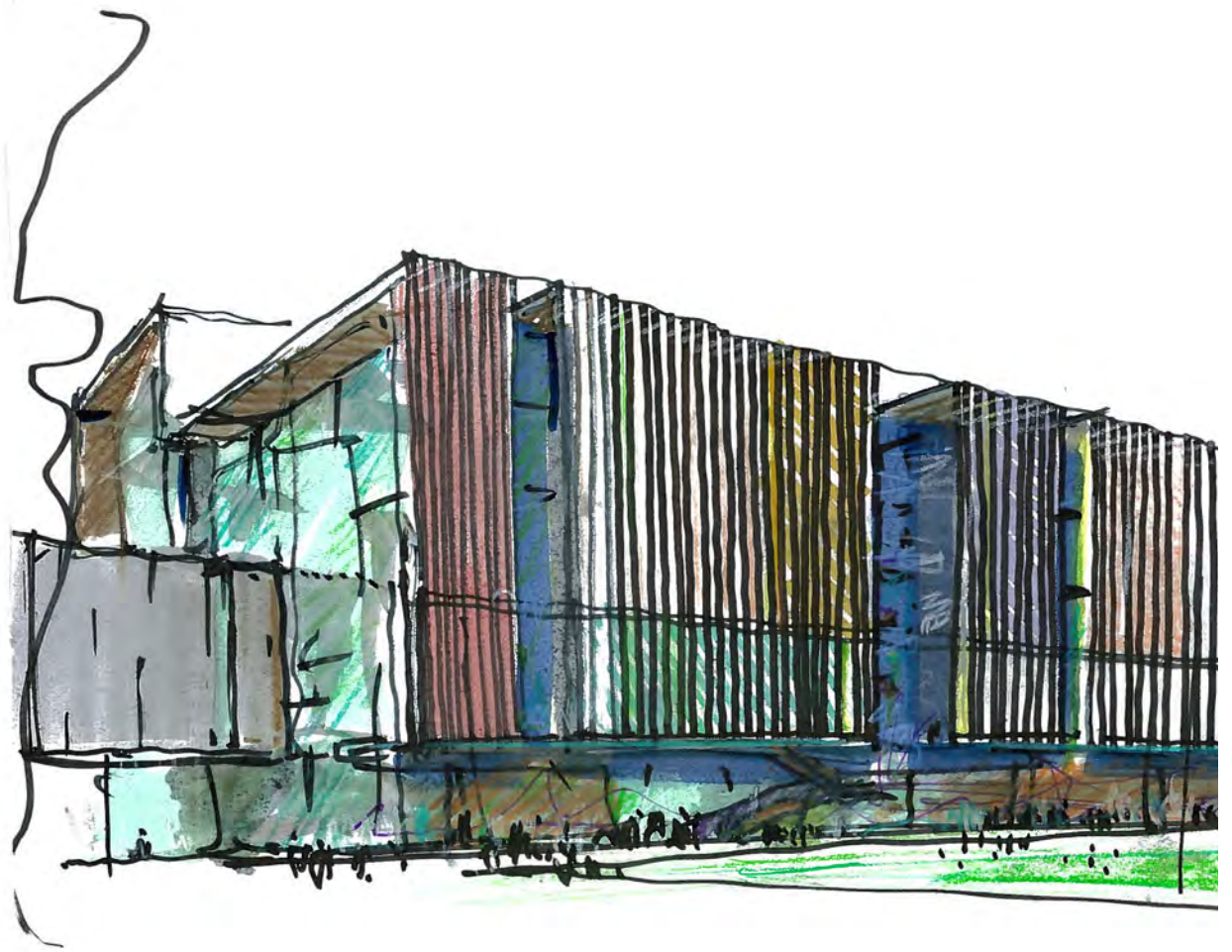


Greenroofs integrated with the architecture can be intensive plantings or shallow soil profile ecoroofs. The intensive soils will allow for trees and shrubs surrounding outdoor terraces. The shallow ecoroofs will absorb rainwater and treat runoff to improve water quality.

There may be opportunities to collect water from the roof of the new Student Union for re-use in the building or flushing toilets or irrigation of plantings. Stormwater that is not collected for re-use is required by the city to be treated. The story of rainwater can be revealed to the users of the building through gardens and ecoroofs on building terraces that treat the water.



Larger trees can also be planted in the entry zone from the Park Blocks, which will result in a direct continuation of the green space into the building. These landscape zones can become an exciting part of greening the architecture and an expression of the ethics and values toward the urban environment.

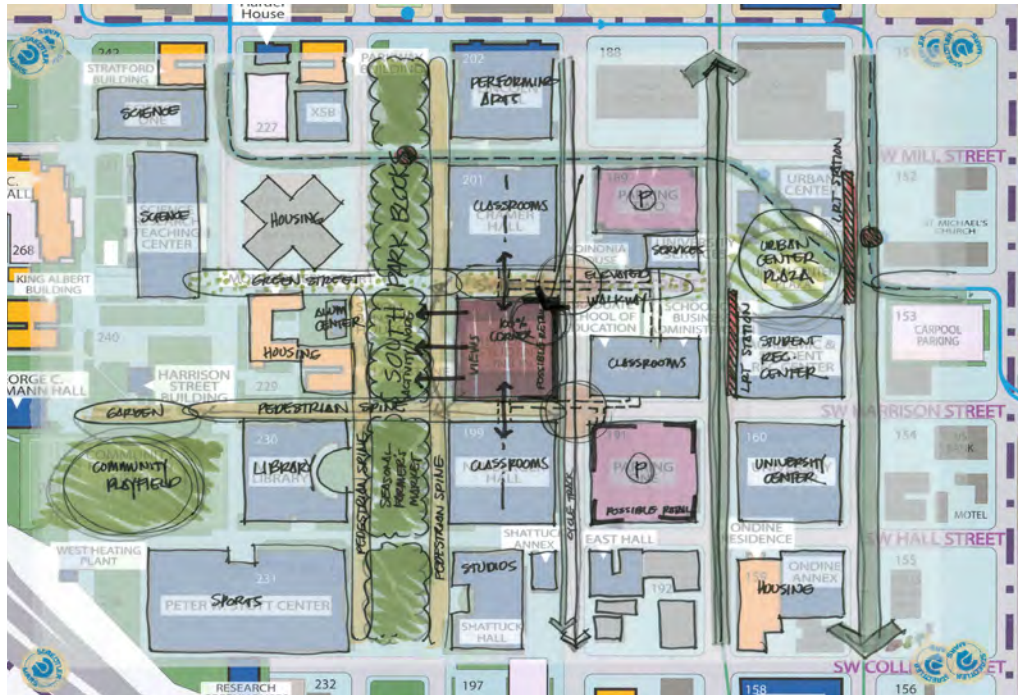


4 Proposals & Recommendations

- 4.1 Overall Site Responses
- 4.2 Program Adjacencies
- 4.3 Proposed Program Spaces
- 4.4 Scheme A - Renovation
- 4.5 Scheme B - New Building



4.1 Overall Site Responses



Site Analysis Sketch WS 2

Portland State University is unique in that its campus is very much a part of downtown Portland. University buildings are integrated with private office towers, retail establishments, apartments and government buildings. Its urban pattern will continue to grow in the future with no clear perimeter that marks the exact campus boundaries. That said, the university is also lacking in distinctive, dynamic buildings that provide hierarchy, presence and identity to the university. The new Student Union, occupying such an important site on campus, will surely become an important landmark for PSU.

The Student Union building design features the corner of SW Broadway as its main entry. In doing so, it will give greater overall visibility to the entry and a stronger identity for PSU. Special signage and dramatic lighting will lend more personality to the campus, extending the sense of activity and character of the many bright entertainment marquees on SW Broadway to the north.

The building's retail opportunities on SW Broadway will also contribute to a more vibrant streetscape. The main entry will directly engage with the pedestrian

spine and green street along SW Montgomery, a street that connects from the Urban Plaza and transit center on the east to the South Park Blocks on the west. Eventually SW Montgomery will extend from the residential neighborhood in Portland's West Hills across I-205 down to the Willamette River.

A new gracious and transparent entry at mid-block on the west side can be linked well to the hardscape plaza on the South Park Blocks. Color and activities of the Student Union can spill out into the building's forecourt on this side through outdoor use spaces and seating on terraces.

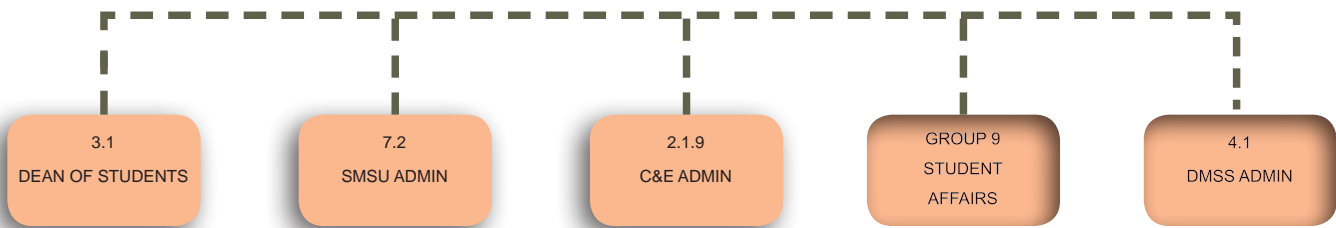
The grade change of nearly one story across the site from corner to corner can be mitigated by daylighting the building's active ground floor uses with large window wells on the south and west sides.

Strategies:

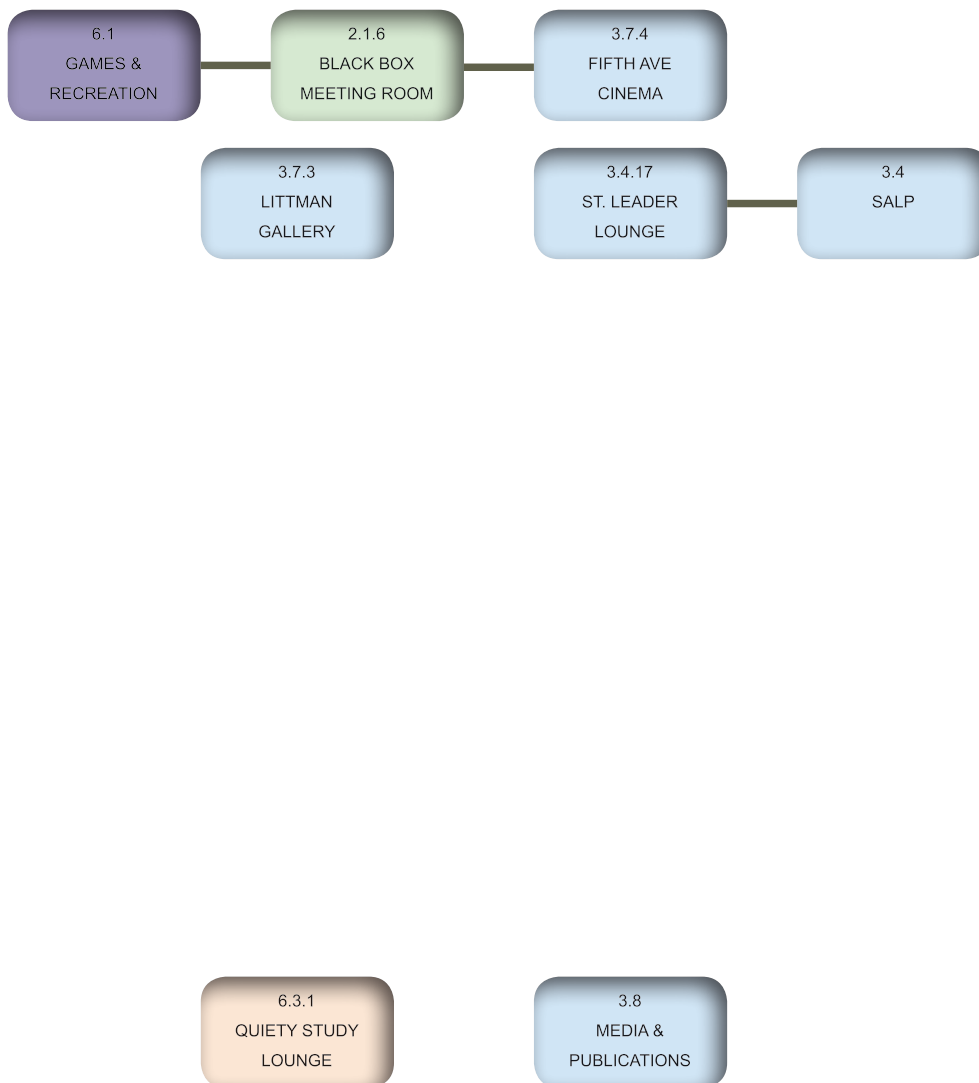
- Organize appropriate program functions to relate to the urban street character of Broadway on the east and the unique landscape character on the Park Blocks side to the west.
- Incorporate the skyway bridges as positive features and connections to the urban campus.
- Establish a prominent identity and a welcoming "front door" for the new Student Union from Broadway.
- Maximize daylighting deep into the interior environment of the building.
- Create facade designs that respond to their site orientation.
- Maximize the design opportunity that the Park block orientation offers.
- Recognize the urban scale transition of greater potential height on Broadway stepping down to the Park Blocks with lower building height.
- Improve the pedestrian environment around the entire perimeter of the entire block with greater transparency, visibility and accessibility to the student services, and activities.
- Recognize the goals of the Montgomery Green Street plan.
- Minimize pedestrian conflicts with building servicing on Harrison Street.

4.2 Program Adjacencies

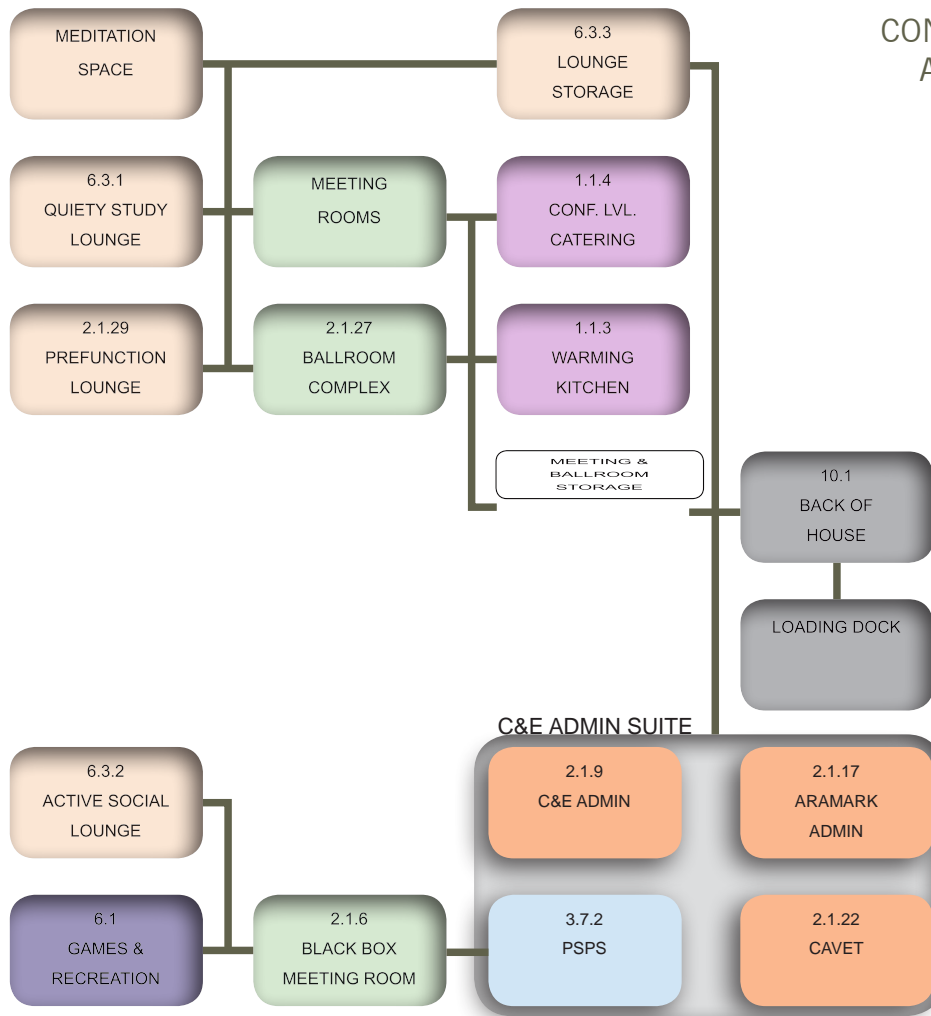
ADMINISTRATION
ADJACENCY DIAGRAM



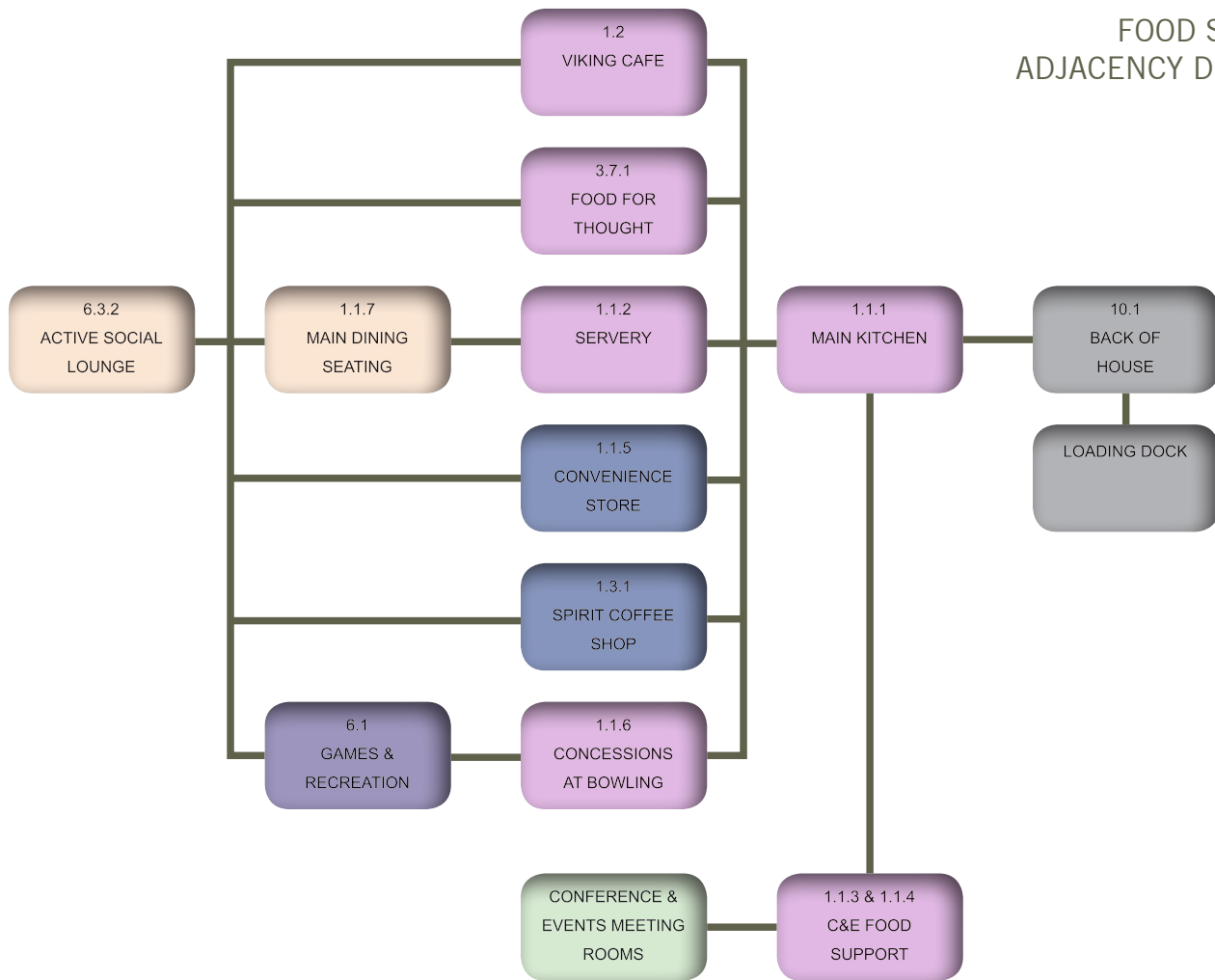
STUDENT ACTIVITIES & ORGS ADJACENCY DIAGRAM



CONFERENCE & EVENTS
ADJACENCY DIAGRAM



FOOD SERVICE ADJACENCY DIAGRAM



4.3 Proposed Program Spaces

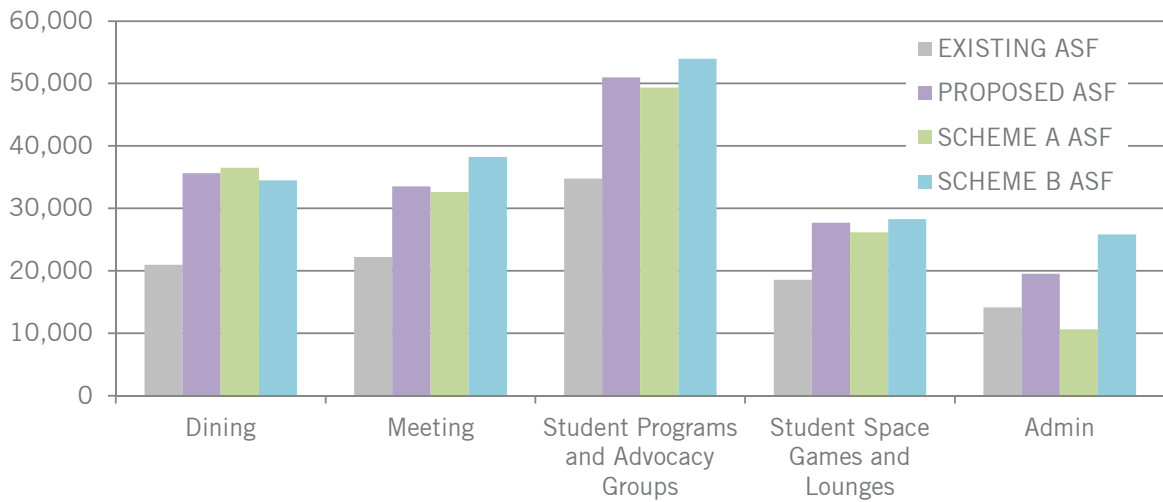
PROGRAM:

The following table highlights the space gains in the proposed program:

COMPARISON OF ASSIGNABLE AREAS BY USAGE

	EXISTING ASF	PROPOSED ASF	%	SCHEME A ASF	%	SCHEME B ASF	%
Dining	20,938	35,640	70%	36,500	74%	34,490	65%
Meeting	22,193	33,532	51%	32,600	47%	38,250	72%
Student Programs and Advocacy Groups	34,748	50,974	47%	49,365	42%	53,962	55%
Student Space Games and Lounges	18,534	27,718	50%	26,175	41%	28,280	53%
Admin	14,131	19,526	38%	10,600	-25% *	25,830	83%

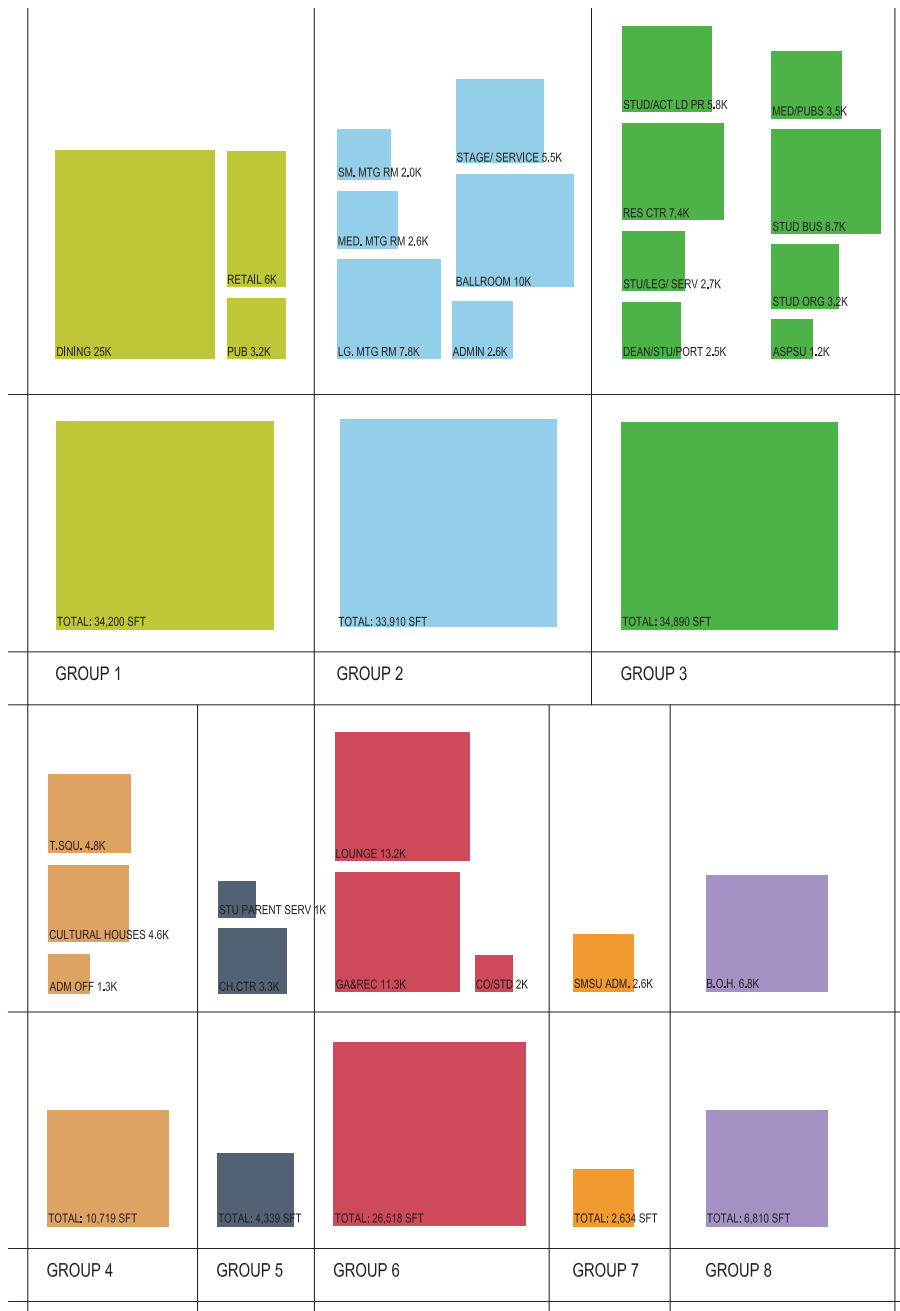
* reduction is result of Office of Information Technology relocated outside of Student Union 2020



PROGRAM HIGHLIGHTS

	Scheme A	Scheme B
Area		
Meets Proposed Program	N	Y
% Increase in Gross SF over Existing	20%	30%
includes Office of Information Technology	N	Y
# of stories tall	5 stories	6 stories
Student Focused Highlights		
% more Food for Thought space located in a prominent 2nd floor exterior corner	10%	30%
% more hangout and recreation space including a computer lab half the size of Parkway North	40%	50%
includes computer lab half the size of Parkway North	Y	Y
% more meeting space for student organizations and involvement	45%	70%
includes a new 10,000 SF multipurpose room that can serve 550 banquet style seats	Y	Y
The addition of the Viking Café and performance venue	Y	Y
A new student organizations suite that can serve 600 groups instead of 25 student groups including work space and room for student projects	Y	Y
% more student resource centers: disability, diversity, queer and womens	15%	25%
% more student activities and leadership programs space including a student leadership lounge	110%	150%
A new higher profile ASPSU space	Y	Y
revitalized White and Littman Gallery positions to improve foot traffic	Y	Y
% more Media and Publications without the existing exiting issues	80%	45%
% more Diversity and Multicultural Student Services	20%	20%
site opportunities for outdoor dining on the Park Blocks, food carts, and other activities that can spill out of the building into the exterior plaza	Y	Y+
Project Goals		
Reinvented "wow" building facades	Y	Y
Improved wayfinding	Y	Y
Improved visual transparency between floor levels via interior atriums	Y	Y+
Embrace and celebrate connections to nature and the environment	Y	Y+
Improved departmental adjacencies	Y	Y
Improved back of house access	Y	Y
ADA compliant	Y	Y
Code compliant to latest Portland adopted building codes	Y	Y
Sustainable: Minimum LEED Silver	Y	Y

Program Spaces by Group Comparing Relative Scale in Square Feet

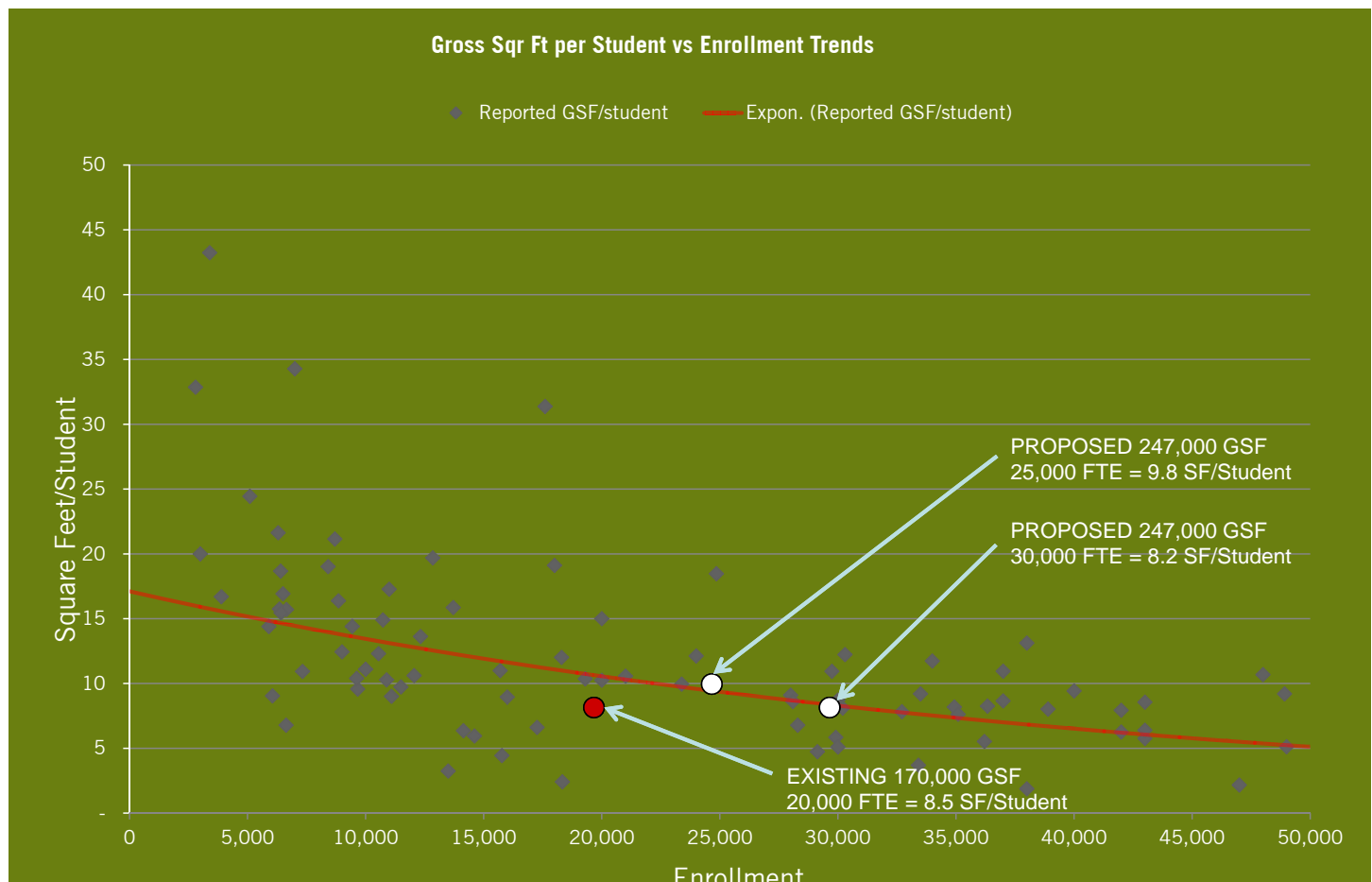


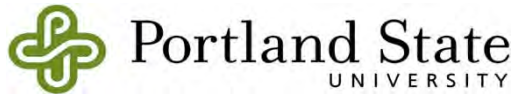
PSU SMITH MEMORIAL STUDENT UNION
PROGRAM SPACES

Smith Memorial Student Union		Gross Area	228,879 *	247,364	219,070	242,780
2-Feb-12 Version 1.7					AS DRAWN	
		EXISTING SF	PROPOSED ASF	SCHEME A	SCHEME B	
GROUP 1	Dining Services and Retail	20,938	35,640	36,500	34,490	
GROUP 2	Conferences and Events	22,193	33,532	32,600	38,250	
GROUP 3	Dean of Students Portfolio	29,160	39,095	38,705	45,220	
GROUP 4	Diversity & Multicultural Student Services	8,253	10,719	10,300	10,167	
GROUP 5	Childcare and Student Parent Services	2,755	4,339	5,360	6,410	
GROUP 6	Lounge / Recreation / Study	18,534	27,718	26,175	28,280	
GROUP 7	SMSU Administration	250	2,634	2,600	3,170	
GROUP 8	Office of Information Technology	6,815	9,056	-	10,030	
GROUP 9	Student Affairs	3,063	4,657	3,000	4,795	
GROUP 10	Building Support	-	6,810	6,550	4,810	
GROUP 11	Programs to be Relocated	11,610	-	-	-	
-	Undefined Program Elements	-	-	-	-	
-	Non-Assignable Areas (Projected)	105,310	73,164	57,280	57,158	

* Existing Gross Areas include approximately 45,000 GSF of traditionally "non Union" programs

Determination of Program Size Based on National Benchmarks





Smith Memorial Student Union
2-Feb-12 Version 1.7

		228,879 EXISTING	Gross Area New PROPOSED			
Space Number	Program Spaces	EXISTING	Qty	Net SF	Total Net SF	Efficiency Factor
GROUP 1	Dining Services and Retail	20,938			35,400	
1.1	Dining	18,865			26,000	
1.1.1	Main Kitchen	5,297				
1.1.1.1	Cooking		1	600	600	1.00
1.1.1.2	Prep		1	450	450	1.00
1.1.1.3	Catering		1	500	500	1.00
1.1.1.4	Dry Storage		1	850	850	1.00
1.1.1.5	Cold Storage		1	1,100	1,100	1.00
1.1.1.6	Catering Storage		1	600	600	1.00
1.1.1.7	Dishwashing		1	600	600	1.00
1.1.1.8	Office/Toilet/Breakroom		1	500	500	1.00
1.1.2	Servery (includes small BOH space)	4,476	1	4,500	4,500	1.00
1.1.3	Ballroom Level Warming Kitchen		1	1,000	1,000	1.00
1.1.4	Conference Level Catering Pantry		1	400	400	1.00
1.1.5	Convenience Store		1	2,000	2,000	1.00
1.1.6	Concessions at Bowling		1	300	300	1.00
1.1.7	Main Dining Seating	9,092	700	18	12,600	1.00
1.2	Viking Café	-			3,400	
1.2.1	Kitchen	-	1	1,200	1,200	1.20
1.2.2	Dining		100	22	2,200	1.00
1.3	Retail Services	2,073			6,000	
1.3.1	Market / Spirit / Coffee Shop	2,073	1	3,000	3,000	1.00
1.3.2	Retail Gray Space		1	3,000	3,000	1.00
GROUP 2	Conference and Events	22,193			32,544	
2.1	Meeting Rooms	22,193			32,544	
2.1.1	Large Meeting Room	13,380	6	1,200	7,200	1.00
2.1.2	Storage		6	100	600	1.00
2.1.3	Medium Meeting Room		4	600	2,400	1.00
2.1.4	Storage		4	50	200	1.00
2.1.5	Small Meeting Room		8	250	2,000	1.00
2.1.6	Black Box Multi-purpose / Auditorium		250	12	3,000	1.00
2.1.7	Storage		1	400	400	1.00
2.1.8						
2.1.9	C&E Administration	914				
2.1.10	Office		2	120	240	1.30
2.1.11	Office (Shared)		1	120	120	1.30
2.1.12	Workstations		1	64	64	1.40
2.1.13	Reception / Student Work Station		2	48	96	1.40
2.1.14	Conference Room		8	20	160	1.30
2.1.15	Kitchenette		-	120	-	1.30

The following pages illustrate the detailed space list which is intended to be used as a roadmap for the Student Union 2020 as it progresses. Minor discrepancies between the Proposed Area and Schemes A and B can be revised at later design phases.



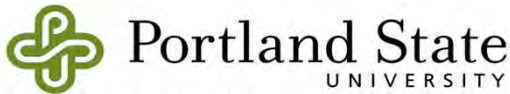
247,364 219,070 242,780 AS DRAWN SCHEMES			
Proposed ASF	A	B	Notes
35,640	36,500	34,490	
26,000	22,300	24,120	
	5,200	5,250	<i>Based on Benchmarks (hold until food service consultant provides numbers)</i>
600			
450			
500			
850			
1,100			
600			
600			
500			
4,500	4,700	4,500	
1,000		2,650	
400	400		
2,000			
300		300	
12,600	12,000	11,420	
3,640	5,490	4,870	
1,440			<i>Locate in lower level location for control.</i>
			<i>Includes stage, lounge seating, etc for performances. Add adjacent lounge space that can open up for larger programs and events.</i>
2,200			
6,000	8,710	5,500	
3,000		3,000	
3,000		2,500	
33,532	32,600	38,250	
33,532	32,600	38,250	
7,200	7,200	7,180	
600	600	2,317	
2,400	2,000	4,980	
200	200		
2,000	1,600	2,105	
3,000	3,000	4,400	<i>blackbox</i>
400	400		
	800	1,556	
312			
156			Two workstations
90			
134			
208			
-			Shared with ARAMARK and Smith Administration Office



Smith Memorial Student Union
2-Feb-12 Version 1.7

		228,879 EXISTING	Gross Area New PROPOSED			
Space Number	Program Spaces	EXISTING	Qty	Net SF	Total Net SF	Efficiency Factor
2.1.16						
2.1.17	ARAMARK Administration	809				
2.1.18	Office		5	120	600	1.30
2.1.19	Workstations		3	48	144	1.60
2.1.20	Shared Work Room		1	120	120	1.40
2.1.21						
2.1.22	CAVET					
2.1.23	Receptionist		1	48	48	1.40
2.1.24	Workstations		4	48	192	1.40
2.1.25	Storage / staging		1	400	400	1.40
2.1.26						
2.1.27	Ballroom	7,090	1,000	10	10,000	1.00
2.1.28	Stage		1	600	600	1.00
2.1.29	Prefunction / Lounge		15%		1,500	1.00
2.1.30	Storage (Table / Chair)		15%		1,500	1.00
2.1.31	Warming Kitchen		7%		-	1.10
2.1.32	Service Corridor		1	300	300	1.00
2.1.33	Sound Room		1	100	100	1.30
2.1.34	Coat Room		1	120	120	1.30
2.1.35	Changing Rooms		2	120	240	1.30
2.1.36	Green Room		1	200	200	1.30
GROUP 3	Dean of Students Portfolio & Other Student Orgs	29,160			30,300	
3.1	Dean of Student Life Office	1,477			1,690	
3.1.1	Dean of Students		1	160	160	1.30
3.1.2	Director of Conduct / Community Standards		1	120	120	1.30
3.1.3	Assistant Dean of Students		1	120	120	1.30
3.1.4	Professional Staff (Future)		1	120	120	1.30
3.1.5	Reception		1	48	48	1.40
3.1.6	Public Waiting		1	100	100	1.40
3.1.7	Confidential Waiting		1	120	120	1.30
3.1.8	Hearings / Meeting Rooms		1	350	350	1.30
3.1.9	Office Specialists		3	64	192	1.40
3.1.10	Commencement Storage		1	200	200	1.30
3.1.11	Copy / Supply / Work		1	160	160	1.30

247,364 219,070 242,780 AS DRAWN SCHEMES			
Proposed ASF	A	B	Notes
	1,000	1,556	
780			Includes shared office with CAVET
230			
168			
	800	1,556	
67			was with OIT-ITS
269			
560			
10,000	10,000	10,000	
600			
1,500	1,500		Serves as lounge space
1,500	3,500	2,600	
-			shown in 1.1.3
300			
130			
156			
312			includes showers
260			
39,095	38,705	45,220	
2,231	2,400	4,400	<i>Must have privacy in waiting areas. Must have discrete emergency exit for staff. Separate from major public activities that are loud and celebratory, but locate in accessible and visible location. Offices should not overlook Park area, student organizations, active loud spaces. Should be adjacent to SALP, SSS/TRIO, all of Dean of Student Life Portfolio.</i>
208			
156			
156			
156			
67			
140			
156			Small meeting room for student, parent, attorney, etc.
455			10 people at conference table. Chairs along the side.
269			Must have view of waiting areas.
260			
208			



Smith Memorial Student Union
2-Feb-12 Version 1.7

		228,879 EXISTING	Gross Area New PROPOSED			
Space Number	Program Spaces	EXISTING	Qty	Net SF	Total Net SF	Efficiency Factor
3.2	Student Legal and Mediation Services	1,384			2,062	
3.2.1	Lawyer Office		3	160	480	1.40
3.2.2	Law Clerks Office (shared)		1	160	160	1.30
3.2.3	Paraletal		1	120	120	1.30
3.2.4	Itinerant Office		2	120	240	1.30
3.2.5	Library / Conference Room		1	350	350	1.20
3.2.6	Intern Workspace		5	40	200	1.40
3.2.7	Receptionist		1	64	64	1.40
3.2.8	Waiting		5	20	100	1.40
3.2.9	Notoray Workspace		1	24	24	1.40
3.2.10	Office Manager (shared)		1	64	64	1.40
3.2.11	Storage Room		1	80	80	1.40
3.2.12	Kitchenette		1	80	80	1.40
3.2.13	Copy / Work Room		1	100	100	1.40
3.3	Resource Centers	6,021			5,360	
3.3.1	Diversity Resource Center	5,203			1,612	
3.3.1.1	Office Manager		1	120	120	1.40
3.3.1.2	Advocate Offices		5	120	600	1.40
3.3.1.3	Offices (student workers)		3	48	144	1.60
3.3.1.4	Work Room / Storage		1	100	100	1.40
3.3.1.5	Lounge		30	20	600	1.40
3.3.1.6	Receptionist		1	48	48	1.60
3.3.2	Queer Resource Center	818			936	
3.3.2.1	QRC Coordinator		1	120	120	1.30
3.3.2.2	Confidential Meeting Space		1	120	120	1.30
3.3.2.3	Meeting Room		-	120	-	0.00
3.3.2.4	Living Room		1	120	120	1.30
3.3.2.5	Work tables		2	40	80	1.50
3.3.2.6	Lounge		12	20	240	1.50
3.3.2.7	Office Specialist		1	48	48	1.40
3.3.2.8	Receptionist		1	48	48	1.40
3.3.2.9	Waiting		6	20	120	1.50
3.3.2.10	Display Case		1	40	40	

247,364 219,070 242,780 AS DRAWN SCHEMES			
Proposed ASF	A	B	Notes
2,765	2,800	3,500	<i>Must have access to daylight. Should have discrete exit for crisis and panic button. Locate away from Dean of Students; near Women's Resource Center, Queer Resource Center, Student Parent Services, and ASPSU. Locate in easy to find but discrete location.</i>
672			Include a small meeting table for 3 inside office.
208			room for three cubicals
156			
312			
420			
280			
90			
140			
34			
90			Provide guest chair.
112			
112			
140			Must be adjacent to the Receptionist
7,372	7,000	7,510	<i>Should be adjacent to Student Parent Services. Provide discrete second entry.</i>
2,295			
168			
840			
230			
140			
840			
77			
1,262			<i>Serve 30-students per day. Adjacent to MCC, WRC, Disability, Student Parent Association, gender inclusive restroom, Student Health Center, and SS/TRIO. Provide visibility in its new location. Provide discrete second entry.</i>
156			
156			
-			See Shared Resources (Centers).
156			Lounge seating,
120			
360			
67			
67			
180			
			Locate near entrance in public area.



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		228,879 EXISTING	Gross Area New PROPOSED			
Space Number	Program Spaces	EXISTING	Qty	Net SF	Total Net SF	Efficiency Factor
3.3.3	Womans Resource Center				1,612	
3.3.3.1	Office Manager		1	120	120	1.40
3.3.3.2	Advocate Offices		5	120	600	1.40
3.3.3.3	Offices (student workers)		3	48	144	1.60
3.3.3.4	Work Room / Storage		1	100	100	1.40
3.3.3.5	Lounge		30	20	600	1.40
3.3.3.6	Receptionist		1	48	48	1.60
3.3.4	Shared Resources (Centers)				1,200	
3.3.4.1	Meeting Room		1	250	250	1.20
3.3.4.2	Kitchenette		1	160	160	1.30
3.3.4.3	Multipurpose Program Space		-	1,200	-	1.00
3.3.4.4	Library		1	200	200	1.20
3.3.4.5	Work / Copy / Supply		1	150	150	1.30
3.3.4.6	Storage		1	200	200	1.20
3.3.4.7	Student Coordinators		5	48	240	1.40
3.4	Student Activities / Leadership Programs	2,675			4,030	
3.4.1	SALP Director Office		1	160	160	1.40
3.4.2	Assistant Director		1	120	120	1.40
3.4.3	Coordinator of Student Businesses		1	120	120	1.40
3.4.4	Leadership Development Office		1	120	120	1.40
3.4.5	Office Manager		1	120	120	1.40
3.4.6	Advisors		4	120	480	1.40
3.4.7	Senior Accountant		1	120	120	1.40
3.4.8	Assitant Accountant		1	48	48	1.60
3.4.9	Student Bookeeper		1	48	48	1.60
3.4.10	Graduate Assistants Office		2	24	48	1.60
3.4.11	Intern / Programming Board		5	48	240	1.60
3.4.12	Student Leaders for Service Coordinator		1	48	48	1.60
3.4.13	Student Leaders for Service Work Area		1	120	120	1.40
3.4.14	Receptionist		1	48	48	1.60
3.4.15	Waiting		2	20	40	1.60
3.4.16	Conference Room		1	350	350	1.40
3.4.17	Student Leader Lounge		1	800	800	1.40
3.4.18	Work / Copy / Plotter / Banner Room		1	120	120	1.40
3.4.19	Computer Access Area		5	20	100	1.60
3.4.20	Shared Meeting Room		1	350	350	1.40
3.4.21	Multi-purpose Activity Space		1	350	350	1.40
3.4.22	Storage		1	80	80	1.40

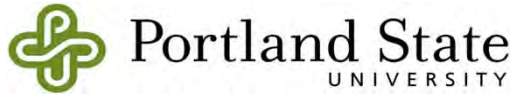
247,364 219,070 242,780 AS DRAWN SCHEMES			
Proposed ASF	A	B	Notes
2,295			<i>Should be adjacent to Student Parent Services. Provide discrete second entry.</i>
168			
840			
230			<i>Shared cubical space with three individual workstations</i>
140			
840			
77			Locate near Lounge area for waiting
1,519			
300			Shared with other Centers.
208			Shared with other Centers.
-			Shared with other Centers. Located in "Conference and Events" above.
240			75lf / center
195			
240			
336			
5,766	5,800	6,710	
224			
168			
168			
168			
168			
672			
168			
77			
77			
77			Includes Programming Board,
384			Includes 5 desks and small meeting table.
77			
168			Includes desk and work table, locate in single room with Coordinator
77			
64			
490			
1,120			Locate Advisors Office around perimeter
168			
160			Around edge of Student Leader Lounge
490			Around edge of Student Leader Lounge
490			
112			



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		228,879 EXISTING	Gross Area New PROPOSED			
Space Number	Program Spaces	EXISTING	Qty	Net SF	Total Net SF	Efficiency Factor
3.5	ASPSU	1,232			866	
3.5.1	Student Government		15	24	360	1.60
3.5.2	Conference Room		1	350	350	1.20
3.5.3	Reception		1	48	48	1.40
3.5.4	Waiting		1	60	60	1.00
3.5.5						
3.5.6	Organization Budget Council		1	48	48	1.40
3.6	Student Organizations	4,271			2,640	
3.6.1	Resource Area					
3.6.2	Office / Work Rooms		5	120	600	1.30
3.6.3	Storage Cabinets		60	4	240	1.50
3.6.4	Meeting Rooms		2	200	400	1.30
3.6.5	Storage Room		1	160	160	1.30
3.6.6	Lounge		50	20	1,000	1.00
3.6.7	Copy / Work Room		1	120	120	1.30
3.6.8	Kitchen		1	120	120	1.30
3.7	Student Run Businesses	7,758			8,266	
3.7.1	Food For Thought Café	4,726				
3.7.1.1	Kitchen		1	1,000	1,000	1.00
3.7.1.2	Cooperative Office		1	500	500	1.20
3.7.1.3	Cob Oven		-	120	-	0.00
3.7.1.4	Dining / Lounge		1	3,500	3,500	1.00
3.7.1.5	Serving Window		1	120	120	1.40
3.7.1.6	Storage		1	150	150	1.40
			1	120	120	1.00
3.7.2	Portland State Professional Sound	145				
3.7.2.1	Equipment Storage		1	300	300	1.00
3.7.2.2	Equipment repair		1	200	200	1.00
3.7.2.3	Office		1	48	48	1.00

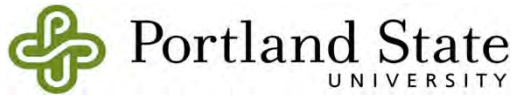
247,364 219,070 242,780 AS DRAWN SCHEMES			
Proposed ASF	A	B	Notes
1,190	1,060	2,040	
576			Includes SFC.
420			
67			
60			Include in Student Government space.
67			
3,180	3,100	4,130	
780			
360			150 student orgs, 101 RSO's, 35 active in 2011.
520			
208			
1,000			
156			
156			
8,716	8,465	10,550	
	5,000	6,790	Operated on a cooperative model for environmental sustainability, economic sustainability, and social sustainability.
1,000			Includes catering, and future expansion - food service consultant to verify.
600			Includes accountant office.
-			Locate outdoors near Café.
3,500			Locate in prominent area with easy access and visibility
168			Provide access from major circulation
210			
120			
	600	640	
300			Need easy access to exterior of building for set-up of outdoor events.
200			Includes work desks and repair tables.
48			Next to World Dance Office, other student organizations. Must be securable.



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		228,879 EXISTING	Gross Area New PROPOSED			
Space Number	Program Spaces	EXISTING	Qty	Net SF	Total Net SF	Efficiency Factor
3.7.3	Littman Gallery and White Gallery	2,887				
3.7.3.1	Work Area					
3.7.3.2	Gallery Coordinator		1	48	48	1.40
3.7.3.3	Graphic Designer		1	48	48	1.40
3.7.3.4	Facilities Coordinator		1	24	24	1.50
3.7.3.5	Curitorial Coordinator		2	48	96	1.40
3.7.3.6	Storage Vault		1	150	150	1.30
3.7.3.7	Display Gallery		1	1,500	1,500	1.00
3.7.3.8	Display Nooks		6	32	192	1.00
3.7.4	Fifth Avenue Cinema	-	1	120	120	1.40
3.7.4.1	Projection Room		1	150	150	1.40
3.7.4.2	Theater		-	3,000	-	1.00
3.8	Media and PUBS	4,342			5,386	
3.8.1	PSU TV					
	Work Suite	215	1	350	350	1.00
3.8.2	Vanguard	2,210				
	Reception		1	160	160	1.40
	Work Suite					
	Writers Pit		6	48	288	1.60
	Production Area		5	48	240	1.60
	Workstations		9	48	432	1.60
	Photo Editor		1	64	64	1.60
	Lounge / Meeting Area		1	240	240	1.40
	Copy and Work Area		1	120	120	1.40
3.8.3	KPSU	965				
	Studio		5	68	340	1.60
	Performance Studio		1	500	500	1.40
	Offices		3	120	360	1.40
	Storage		1	120	120	1.40

247,364 219,070 242,780 AS DRAWN SCHEMES			
Proposed ASF	A	B	Notes
	2,465	2,520	Locate close to student traffic in visible access.
67			
67			
36			
134			
195			Locate near main gallery
1,500			
192			Locate in prominent lounge / circulation areas.
168	400	600	Art house cinema, run 35mm and 16mm
210			Include all code mandated fire controls for 35mm film projection.
-			Combine with Multi-purpose Room use in Events and Conferences.
			Include marquis for advertisement.
7,875	8,080	6,380	<i>there are 9 groups which we need to collect their homework</i>
350			has editing, working space. It's all web based so no need for TV studio
224			
461			
384			
691			Editor-in-Chief, Chief Copy Editor, Associate news editor, news editor, arts and culture editor, sports editor, opinion editor, 2 copy editors
102			cabinet for photo equipment
336			
168			shared with other pubs
544			
700			doubles as conference and reception
504			music office, should be closed
168			cd storage



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		228,879 EXISTING	Gross Area New PROPOSED			
Space Number	Program Spaces	EXISTING	Qty	Net SF	Total Net SF	Efficiency Factor
3.8.4	The Rearguard	317				
	Reception / Lounge / Meeting Area		1	120	120	1.40
	Workstations		6	48	288	1.60
	Copy and Work Area		-	120	-	1.40
3.8.5	Graphic Design Center	161				
	Workstations		3	48	144	1.60
	Production Area		1	200	200	1.40
	Storage		1	120	120	1.40
3.8.6	Portland Spectator	197				
	Reception / Lounge / Meeting Area		1	120	120	1.40
	Workstations		6	48	288	1.60
	Copy and Work Area		-	120	-	1.40
3.8.7	Pathos Literary Magazine					
	Workstations		3	48	144	1.60
3.8.8	Portland Review	168				
	Workstations		3	48	144	1.60
3.8.9	Operations					
	Office	108	1	120	120	1.40
	Accounting Office		1	64	64	1.40
	Ad Advisor		1	120	120	1.40
	Advertising Suite		1	300	300	1.40
	5 add reps					
	ad manager					
	advertising designer					
GROUP 4	Diversity & Multicultural Student Services	8,253			8,588	
4.1	DMSS Administration Office	2,940			888	
4.1.1	Director Office		1	160	160	1.40
4.1.2	Assistant Director		1	120	120	1.40
4.1.3	Office Specialists		2	64	128	1.40
4.1.4	Reception		1	48	48	1.60
4.1.5	Waiting		4	20	80	1.40
4.1.6	Copy / Work		1	120	120	1.40
4.1.7						
4.1.8	SMSU Marketing		1	120	120	1.40
4.1.9	Graduate Assistant		1	64	64	1.40
4.1.10	Office Specialist		1	48	48	1.40

247,364 219,070 242,780 AS DRAWN SCHEMES			
Proposed ASF	A	B	Notes
168			
461			
-			shared with other pubs
230			
280			
168			
168			
461			
-			shared with other pubs
230			in Vanguard work suite
230			in Vanguard work suite
168			adjacency to all the publications
90			2 supply cabinets and 3 four-drawer filing cabinets
168			
420			advisor for all pubs, adjacent publications
10,719	10,300	10,167	
1,253	1,200	2,000	<i>Should be a 'community space' and not just a programming space.</i>
224			
168			
179			
77			
112			
168			
168			
90			
67			



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		228,879 EXISTING	Gross Area New PROPOSED			
Space Number	Program Spaces	EXISTING	Qty	Net SF	Total Net SF	Efficiency Factor
4.2	Cultural Houses	730			3,600	
4.2.1	House 1					
4.2.1.1	Academic Coordinator		1	120	120	1.30
4.2.1.2	Programming Coordinator		1	120	120	1.30
4.2.1.3	Graduate Assistant		1	48	48	1.40
4.2.1.4	Lounge		20	20	400	1.20
4.2.1.5	Study / Work Area		1	140	140	1.30
4.2.1.6	Computer		3	24	72	1.50
4.2.2	House 2					
4.2.2.1	Academic Coordinator		1	120	120	1.30
4.2.2.2	Programming Coordinator		1	120	120	1.30
4.2.2.3	Graduate Assistant		1	48	48	1.40
4.2.2.4	Lounge		20	20	400	1.20
4.2.2.5	Study / Work Area		1	140	140	1.30
4.2.2.6	Computer		3	24	72	1.50
4.2.3	House 3					
4.2.3.1	Academic Coordinator		1	120	120	1.30
4.2.3.2	Programming Coordinator		1	120	120	1.30
4.2.3.3	Graduate Assistant		1	48	48	1.40
4.2.3.4	Lounge		20	20	400	1.20
4.2.3.5	Study / Work Area		1	140	140	1.30
4.2.3.6	Computer		3	24	72	1.50
4.2.4	House 4 (Latino Student Union)	730				
4.2.4.1	Academic Coordinator		1	120	120	1.30
4.2.4.2	Programming Coordinator		1	120	120	1.30
4.2.4.3	Graduate Assistant		1	48	48	1.40
4.2.4.4	Lounge		20	20	400	1.20
4.2.4.5	Study / Work Area		1	140	140	1.30
4.2.4.6	Computer		3	24	72	1.50

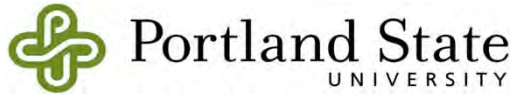
247,364 219,070 242,780 AS DRAWN SCHEMES			
Proposed ASF	A	B	Notes
4,597	4,400	3,467	<i>Provide 'Cultural house' for Lacasa Latina, Asian/Pacific Islander, Black African American, International Students</i>
			Asian American
156			
156			Will provide academic support.
67			
480			
182			Locate as "front porch" to cultural 'houses'
108			
			African American
156			
156			Will provide academic support.
67			
480			
182			Locate as "front porch" to cultural 'houses'
108			
			Open
156			
156			Will provide academic support.
67			
480			
182			Locate as "front porch" to cultural 'houses'
108			
156			
156			Will provide academic support.
67			
480			
182			Locate as "front porch" to cultural 'houses'
108			



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		228,879 EXISTING	Gross Area New PROPOSED			
Space Number	Program Spaces	EXISTING	Qty	Net SF	Total Net SF	Efficiency Factor
4.3	Town Square Shared Spaces	-			4,100	
4.3.1	Resource Center					
4.3.2	Multi-use Programming		200	11	2,200	1.00
4.3.3	Storage		1	300	300	1.40
4.3.4	Computer Stations		8	24	192	1.40
4.3.5	Kitchen		1	200	200	1.40
4.3.6	Conference Room		2	300	600	1.40
4.3.7	Reception Space		1	48	48	1.60
4.3.8	Copy / Work Room		1	120	120	1.40
4.3.9	Library		1	200	200	1.40
4.3.10	Display Area		6	40	240	1.40
4.4	Trio SSS	3,167			-	
4.3.1						
GROUP 5	Childcare and Student Parents Services	2,755			3,648	
5.1	Childrens Center	2,587			2,884	
5.1.1	Preschool classrooms		2	700	1,400	1.10
5.1.2	Toilet Room		2	40	80	1.40
5.1.3	Todler classrooms		2	40	80	1.10
5.1.4	Toilet Room		2	40	80	1.40
5.1.5	Student Toilet Room		2	40	80	1.40
5.1.6	Staff Toilet Room		1	40	40	1.40
5.1.7	Front Office					
5.1.8	Office Specialist		1	64	64	1.40
5.1.9	Director office		1	160	160	1.30
5.1.10	Multipurpose Meeting / Planning Room		1	300	300	1.00
5.1.11	Kitchen		1	200	200	1.00
5.1.12	Storage		1	120	120	1.40
5.1.13	Laundry Room		1	120	120	1.40
5.1.14	Playground		-	-	-	1.00
5.1.15	Reception / Drop-off		1	160	160	1.00

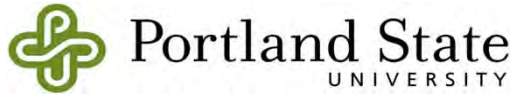
247,364 219,070 242,780 AS DRAWN SCHEMES			
Proposed ASF	A	B	Notes
4,870	4,700	4,700	Multicultural "town square"
2,200			Space used for lectures, lounge, meetings, study, etc.
420			
269			
280			
840			
77			
168			
280			
336			Locate throughout Smith Memorial Student Union
-			
4,339	5,360	6,410	
3,314	4,334	3,500	Current capacity is 32 kids/day. Need is 80 children.
1,540			26 children @ 35, include lockable storage cabinets
112			
88			12 children @ 35, include lockable storage cabinets
112			
112			
56			
90			
208			
300			
200			
168			
168			Washer / Dryer
-			Needs to be more accessible than current location. 15-20 kids per time @ 75sf/child.
160			Needs adjacent parking for drop-off and pick-up.



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		228,879 EXISTING	Gross Area New PROPOSED			
Space Number	Program Spaces	EXISTING	Qty	Net SF	Total Net SF	Efficiency Factor
5.2	Student Parent Services	167			764	
5.2.1	Coordinator Office		1	120	120	1.30
5.2.2	Office Specialist		1	120	120	1.30
5.2.3	Reception / Workstation		1	64	64	1.40
5.2.4	Lactation Room		1	100	100	1.40
5.2.5	<i>Toilet Room</i>		1	40	40	1.40
5.2.6	Parent / Child Workroom		1	200	200	1.30
5.2.7	Clothing Pantry		1	60	60	1.40
5.2.8	Food Pantry		1	60	60	1.40
5.2.9	Conference Room (shared)		-	250	-	1.40
GROUP 6	Lounge / Recreation / Study	18,534			26,170	
6.1	Games & Recreation	5,637			9,770	
6.1.1	6 bowling lanes		1	4500	4,500	1
6.1.2	Bowling mechanic area		1	400	400	1.4
6.1.3	Storage		1	200	200	1.4
6.1.4	Control counter and cashier		1	300	300	1.4
6.1.5	Video games		1	1400	1,400	1
6.1.6	Pool / Foosball		6	350	2,100	1.4
6.1.7	Table tennis		2	375	750	1.4
6.1.8	Storage		1	120	120	1.4
6.2	Computer / Study	-			2,000	
6.2.1	Computer Lab		50	40	2,000	1
6.3	Lounge	12,897			14,400	
6.3.1	Quiet Study		300	20	6,000	1
6.3.2	Active Social		300	20	6,000	1
6.3.3	Lounge Storage		1	1,200	1,200	1
6.3.4	Meditation Lounge		1	1,200	1,200	1

247,364 219,070 242,780 AS DRAWN SCHEMES			
Proposed ASF	A	B	Notes
1,026	1,026	2,910	Should be a 'community space' and not just a programming space.
156			
156			
90			
140			
56			Directly adjacent to Parent / Child Workroom and Lactation Room
260			Combination meeting room / lounge / work room. Work room adjacent to child play area with window between for supervision.
84			
84			
-			
27,718	26,175	28,280	
11,318	12,000	10,790	
4,500			
560			
280			
420			
1,400			
2,940			
1,050			
168			
2,000	1,900	1,800	
2,000	1,900	1,800	
14,400	12,275	15,690	
6,000	5,035	6,070	Does not include Prefunction Lounge and Computer Lab. Locate throughout building in various locations.
6,000	7,240	7,070	Locate throughout building in various locations.
1,200		1,970	10% of lounge area.
1,200		580	



Smith Memorial Student Union
2-Feb-12 Version 1.7

		228,879 EXISTING	Gross Area New PROPOSED			
Space Number	Program Spaces	EXISTING	Qty	Net SF	Total Net SF	Efficiency Factor
GROUP 7	SMSU Administration	250			1,944	
7.1	Information Desk	250			856	
7.1.1	Service desk		1	300	300	1.2
7.1.2	Storage		1	120	120	1.2
7.1.3	Office		1	120	120	1.2
7.1.4	Customer Service Computers		2	40	80	1.4
7.1.5	Brochure display area		1	24	24	1.4
7.1.6	Building Directory		1	12	12	1
7.1.7	Printing / Fed Ex Processing		1	60	60	1.4
7.1.8	Lost & Found Processing		1	40	40	1.4
7.1.9	Lost & Found Storage		1	100	100	1.4
7.2	SMSU Administration	-			532	
7.2.1	SMSU Director Office		1	160	160	1.4
7.2.2	SMSU Associate Director		1	120	120	1.4
7.2.3	Office Specialists		1	64	64	1.4
7.2.4	Storage		1	60	60	1.4
7.2.5	Reception		1	48	48	1.6
7.2.6	Waiting		4	20	80	1.6
7.2.7	Conference Room		1	160	160	1.4
7.2.8	Kitchenette		1	120	120	1.4
7.3	AUX Creative	-			556	
7.3.1	Office		1	120	120	1.4
7.3.2	Receptionsih		1	48	48	1.4
7.3.3	Kitchenette		0	160	0	1.4
7.3.4	Conference Room		0	160	0	1.4
7.3.5	Video Digital Production		1	160	160	1.4
7.3.6	Work Tables		2	64	128	1.4
7.3.7	Lounge		5	20	100	1.4

247,364 219,070 242,780 AS DRAWN SCHEMES			
Proposed ASF	AS DRAWN SCHEMES		Notes
	A	B	
2,634	2,600	3,170	
1,086	1,000	1,000	
360			
144			
144			
112			
34			
12			
84			
56			
140			
770	800	1,120	
224			
168			
90			
84			
77			
128			
224			
168			
778	800	1,050	
168			
67			
0			Shared with Smith Administration
0			Shared
224			
179			
140			



Smith Memorial Student Union
2-Feb-12 Version 1.7

		228,879 EXISTING	Gross Area New PROPOSED			
Space Number	Program Spaces	EXISTING	Qty	Net SF	Total Net SF	Efficiency Factor
GROUP 8	Office of Information Technology	6,815			6,822	
8.1	OIT User Support Services				3,470	
8.1.1	Help Desk					
8.1.2	Reception Bar		5	36	180	1.60
8.1.3	Open Office Suite		12	48	576	1.60
8.1.4	Call Center		4	48	192	1.00
8.1.5						
8.1.6	Repair Shop and Computer Deployment		1	1400	1,400	1.00
8.1.7	Secured Storage		1	600	600	1.00
8.1.8	Imaging		1	250	250	1.40
8.1.9						
8.1.10	Center for Online Learning					
8.1.11	Workstations		2	64	128	1.40
8.1.12						
8.1.13	Computer Programming Office		3	48	144	1.40
8.1.14	Conference Room		1	400	400	1.40
8.1.15						
8.1.16	Staff Break Room		1	200	200	1.40
8.2	OIT IDSC Lab				1,800	
8.2.1	Lab		50	24	1,200	1.60
8.2.2	Lab Manager Office		1	120	120	1.60
8.2.3	Small Meeting Room		1	120	120	1.60
8.2.4	Secured Storage		1	200	200	1.60
8.2.5	Workspace		1	160	160	1.60
8.3	OIT Classroom AV Services				1,552	
8.3.1	AV Services help desk		1	400	400	1.25
8.3.2	Office		3	120	360	1.60
8.3.3	Open Office Workstations		4	48	192	1.60
8.3.4	Equipment Storage		1	600	600	1.10
8.3.5						

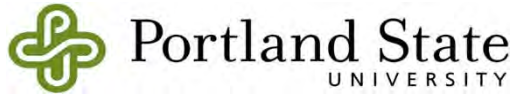
247,364 219,070 242,780 AS DRAWN SCHEMES			
Proposed ASF	A	B	Notes
9,056	-	10,030	
4,132		5,107	<i>somewhere central, ideally with library close to Parc Blocs</i>
288			walk-in IT support, student and faculty like genius bar
922			
192			acoustically separated
1,400			serves also as receiving
600			adjacent to repair shop, near dock
350			
			adjacent to IDSC (computer lab) trying to get them to move to library
179			
202			can be in Open Office Suite
560			
280			
2,880		2,880	<i>preferably located in library with center for online learning</i>
1,920			
192			
192			
320			near dock
256			plotters and layout space
2,043		2,043	
500			
576			
307			
660			consolidated from all campus, includes ladder storage



Smith Memorial Student Union
2-Feb-12 Version 1.7

		228,879 EXISTING	Gross Area New PROPOSED			
Space Number	Program Spaces	EXISTING	Qty	Net SF	Total Net SF	Efficiency Factor
GROUP 9	Student Affairs	3,063			3,148	
9.1	Disability Resource Center	1,798			2,156	
9.1.1	Reception / Receptionist		1	300	300	1.4
9.1.2	Director		1	140	140	1.40
9.1.3	Accomodations Coordinator		1	140	140	1.40
9.1.4	Caseworker (Intake)		1	120	120	1.40
9.1.5	Office Manager		1	120	120	1.40
9.1.6	Grad Student Office		2	120	240	1.40
9.1.7	Workstations		3	64	192	1.60
9.1.8	Assistive Technology Center					
9.1.9	Lab		1	400	400	1.40
9.1.10	Office		1	120	120	1.4
9.1.11	Workstation		1	64	64	1.60
9.1.12	Alternative Formatting Work Area		1	200	200	1.4
9.1.13	Work Copy		1	120	120	1.40
9.1.14						
9.1.15						
9.2	Student Affairs (Enrollment Management)	-			992	
9.2.1	Multi-use room		1	800	800	1.60
9.2.2	Open Office Workstations		4	48	192	1.60
9.3	Learning Center (Peer Tutoring)	-			-	
9.3.1	Learning Center		0	0	0	1.00
9.4	Academic Advising	1,265			-	
9.4.1	Academic Advising	1,265	0	0	0	1.25

247,364 219,070 242,780 AS DRAWN SCHEMES			
Proposed ASF	A	B	Notes
4,657	3,000	4,795	
3,070	1,400	2,065	<i>accessibility is a concern</i>
420			
196			
196			
168			
168			
336			
307			
560			
168			
102			
280			
168			
1,587	1,600	2,730	<i>preferably located in library with center for online learning</i>
1,280			
307			
-			<i>moving to Library</i>
0			
-			<i>moving to Career Center</i>
0			



Smith Memorial Student Union
2-Feb-12 Version 1.7

		228,879 EXISTING	Gross Area New PROPOSED			
Space Number	Program Spaces	EXISTING	Qty	Net SF	Total Net SF	Efficiency Factor
GROUP 10	Building Support	-			6,050	
10.1	Back of House Areas	-			6,050	
10.1.1	General Storage		1	2000	2,000	1
10.1.2	Receiving room		1	800	800	1.1
10.1.3	Custodial Closet		5	60	300	1.4
10.1.4	Supply storage		1	800	800	1.2
10.1.5	Equipment storage		1	600	600	1.2
10.1.6	Paint Shop		1	500	500	1.2
10.1.7	Maintenance storage		1	300	300	1.1
10.1.8	Maintenance shop		1	400	400	1.2
10.1.9	Custodial Break Room		1	350	350	1.2
10.1.10	Loading Dock		1			
10.1.11	Semi-height		3			
10.1.12	Van-height		1			
10.1.13	Recycling dumpster		2			
10.1.14	Compactor		1			
10.1.15	Recycling bins		2			
10.1.16	Grease barrels		2			
10.1.17	Can wash room		1	150	150	1.4
GROUP 11	Programs to be Relocated	11,610			-	
11.1	Relocated Programs	11,610			-	
11.1.1	Box Office	250				
11.1.2	AAUP	351				
11.1.3	Library East	7,783				
11.1.4	FADM	195				
11.1.5	Ronald E. McNair Scholars Program	378				
11.1.6	University Advancement	74				
11.1.7	Ombuds Office	91				
11.1.8	PDI	83				
11.1.9	Office of Institutional Research and Planning	2,257				
11.1.10	CDR	148				
11.1.11						
	Total Net Square Feet	123,569			154,614	
	Sub Total Assignable Square Feet	123,569				
	Undefined Program Elements					0%
	Total Assignable Square Feet	123,569				

247,364 219,070 242,780 AS DRAWN SCHEMES			
Proposed ASF			Notes
	A	B	
6,810	6,550	4,810	
6,810	6,550	4,810	
2,000			
880			
420			
960			
720			
600			
330			
480			
420			
210			
-			
-			
174,200	161,790	185,622	
-	-	-	
174,200	161,790	185,622	



Smith Memorial Student Union
2-Feb-12 Version 1.7

		228,879 EXISTING	Gross Area New PROPOSED			
Space Number	Program Spaces	EXISTING	Qty	Net SF	Total Net SF	Efficiency Factor
	Non-Assignable Areas (Projected)	105,310				
	Circulation Systems (Typ. 24% of ASF)		24.0%			
	Vestibules					
	Corridors					
	Stairways					
	Restrooms (Typ. 5% of ASF)		5.0%			
	Housekeeping					
	Mechanical Systems (7% of ASF)		7.0%			
	Chiller					
	Boiler					
	AHU Rooms					
	Pump Room					
	Cooling Tower					
	Electrical Systems (Typ. 3% of ASF)		3.0%			
	Telecommunications Rooms					
	Electrical Equipment Room					
	Other non Assignable Rooms					
	Exterior Walls (Typ. 3% of ASF)		3.0%			
	Total Gross Square Feet	228,879				
	Program Efficiency	54%				

247,364 219,070 242,780 AS DRAWN SCHEMES			
Proposed ASF	A	B	Notes
73,164	57,280	57,158	
41,808			
8,710			
12,194			
5,226			
5,226			
247,364	219,070	242,780	
63%			



Food Service Narrative

Analysis

The existing SMSU has food service in several locations. Starting at the lower level and moving up through the building, there is a main kitchen at the basement level, there is a concession stand supporting the bowling alley, there is a student run deli called Food for Thought, there is a food court on the main level near the building entrances that has several venues, there is a convenience store adjacent to the food court and there are support pantries for the conference rooms and ballrooms on the upper levels of the union. The venues are run by a combination of the current contract operator ARAMARK, students and the university.

All of the venues are in need of rethinking and refreshing as some are outdated. The existing kitchen is not large enough to support both the needs in the union as well as outside catering. The potential catering business has been limited due to the kitchen having limitations on what it can handle volume wise. The concession stand needs more capability to handle the volume of parties that have been booked. Like the kitchen, there could be more business if the concession stand had more space and more capability. Food for Thought has needs for a larger kitchen space to handle both the customer load and catering needs. The food court needs to change several of the venues to bring more up to date and “local” concepts to the students.

In summary, the food service program and venues for the new union need careful thought put into them to achieve a facility that will stand the test of time as well as being flexible enough to change with future trends.

Recommendations

To achieve the goals of a successful food service operation the following food service venues will be required in the new union:

1. Kitchen with full catering capabilities
2. Food Court(Servery) with flexible venues and an adjacent dining space
3. Retail venues along the ground or street level of the building
4. “Pub” restaurant for after hours use (with its own entry)
5. Warming kitchens and pantries to support the conference- and ballrooms
6. Student run venue similar to or the same as Food for Thought
7. Convenience Store
8. Concession Stand at the bowling center

Main Kitchen

The new main kitchen should be located adjacent to both a loading dock and a dedicated elevator to service venues in the Union. The elevator gives it flexibility to be located at any level of the building as long as it is close to the loading dock and trash areas. The kitchen will need large dry and cold storage areas to handle all of the products needed for the venues in the building, large events in the ballrooms and catering throughout campus. The core part of the kitchen will be the cooking and prep areas. Both areas should be designed with the ability to change equipment as trends change. There should be a large catering prep area with capabilities of putting together and storing catered meals that will be shipped within and outside of the building. The catering area should also be capable of staging meals going to the ballroom for larger events. Last, there will need to be a warewashing area that can handle the wares coming from the kitchen as well as coming from other parts of the building.

Food Court (Servery)

The new food court will need venues that can be changed as trends change with minimal renovation. The venues could be a combination of standard concepts offered by the food service operator, mainstream “chain” concepts and local vendors from the Portland area. The types of venues in the food court could be: Grill, Local/Organic/Vegan/Sustainable, Grab & Go (Fresh made daily products), Soup & Salad, Asian Cuisine, Beverages and Pizza to start with. Cooking capabilities should be provided at two of three of the venues and there should be enough flexibility to be able to change the equipment as trends change. The food court will have a distinct entrance and customers will exit through an area containing cash registers to allow food to be selected from multiple venues as desired. The food court will empty into a large dining room that should be capable of seating 700 people and have a variety of different types of seating creating seating “neighborhoods”.

Retail Venues

PSU is attempting to bring more retail opportunities into their newer buildings. For the Union, having some ground or street level venues along the exterior of the building could help achieve this goal. The retail venues would most likely be a coffee concept such as Starbucks or Stumptown and possibly a local Portland restaurant that gives local appeal and is popular with the demographic at the University. The retail venues could have service windows at the exterior of the building and could also be open after normal operating hours for other food service venues at the Union.

“Pub” Restaurant

Several years ago, there was a restaurant in the union that was more of an after hours venue. As part of the new union, this concept will be resurrected and become a small lounge that could serve beer, a limited food menu and have entertainment. The space could have a neighborhood Pub feel and should seat around 100 people. Food for this venue will be mainly produced in the main kitchen and reheated or finished in the kitchen supporting it.

Warming Kitchens

The ballrooms and conference rooms at the upper levels of the Union will need space to stage food for catered events and banquets. For the ballroom, which can seat 1,000 people for a large event, a space will be needed to stage refrigerated and heated food, to either plate or place in chafing dishes, to provide beverage service such as water and coffee and to pre-scrub wares that will have to be washed in the main kitchen. This space will need to have adjacency to the elevator from the main kitchen and be connected to a corridor that runs along the edges of the conference rooms and ballroom for easy access and service.

Student Run Venue (Food for Thought)

The university wants to maintain a student run venue similar to or the same as Food for Thought to give students an opportunity to learn about operation of a business and to generate revenue as well. In addition, the students want to operate a facility that offers as much organic, sustainable product as possible. As Food for Thought has gained popularity for the students, it will be essential to provide a kitchen space that allows for some cooking, ample space to cater and more storage than what is in the current space. The dining space needs to seat 150-200 people and could maintain the eclectic feel that the existing facility has as well as encouraging a very communal environment.

Convenience Store

The convenience store will remain similar to its current configuration. It will offer the same mix of beverages, snacks and other convenience products and should be located on the main level of the Union.

Concession Stand

The bowling center has begun to build a strong outside business of groups coming into the Union for small gatherings and parties. To support this better, the concession stand needs more capability than the current one. It will need some limited cooking capability as well as more storage and work space to be able to support parties and be able to offer more product variety.

4.4 Scheme A - Renovation





Perspective from Park blocks

Scheme A: Renovation Narrative

The existing Smith Memorial Student Union building presents a number of significant challenges to meet the needs of the student population and the Universities' need to support the academic mission and student life on its campus. However in evaluating the existing building we recognize the need to consider the optimum that might be possible working with the existing building retained on what has been clearly identified as the most valued site on the Portland State University campus for the student Union location. We have identified a design approach to address the most significant problems and developed a conceptual proposal to optimize the functionality of the existing building to meet functional adjacency needs but with a clear understanding that while a transformational opportunity exists, the sum total of all requirements identified in the programing exercise would remain underprovided for in a renovated Smith Memorial Building.

To renovate and transform the existing building, the highest priority will be to resolve the discontinuity of the Northeast corner of the building, currently the Library Services N.E. This corner of the building which comprises approximately 25-30% of the existing footprint of all floors above the 1st floor, the floor levels are offset and connected to the main part of the floors through a maze of ramps, stairs, and inefficiently dedicated elevators to this small portion of the current building. The disconnect in grade from the floor levels of the rest of the building creates many of the fundamental problems with accessibility, clear way finding, and lack of natural daylight reaching the interior of the building.

To solve this fundamental structural problem, the majority of the structure along Broadway up to the north entrance on Montgomery and the south entrance on Harris should be demolished and rebuilt. The resulting opportunity of this strategy would be the position and location of the new Ballroom; the largest sized new element identified by the programming exercise would ideally be located, as a massing volume running parallel to Broadway. (The concept would then be to rebuild the entire Broadway side of the Smith Memorial Building creating a new relationship to the urban street, a larger scale visible entrance and overall new identity for the Student Union 2020. This will much more strongly relate to and identify with the urban character of Broadway and the city while creating a strong identity of the Student Union 2020 as the heart of the Portland State University campus.

The urban character of Broadway will animate the Student Union 2020 building and reciprocally, the building and its transparency at street level, with an enlarged main entrance volume and significant opportunities for campus related retail outlets, will transform the entire Broadway elevation into the 'Student Union 2020 front door'.

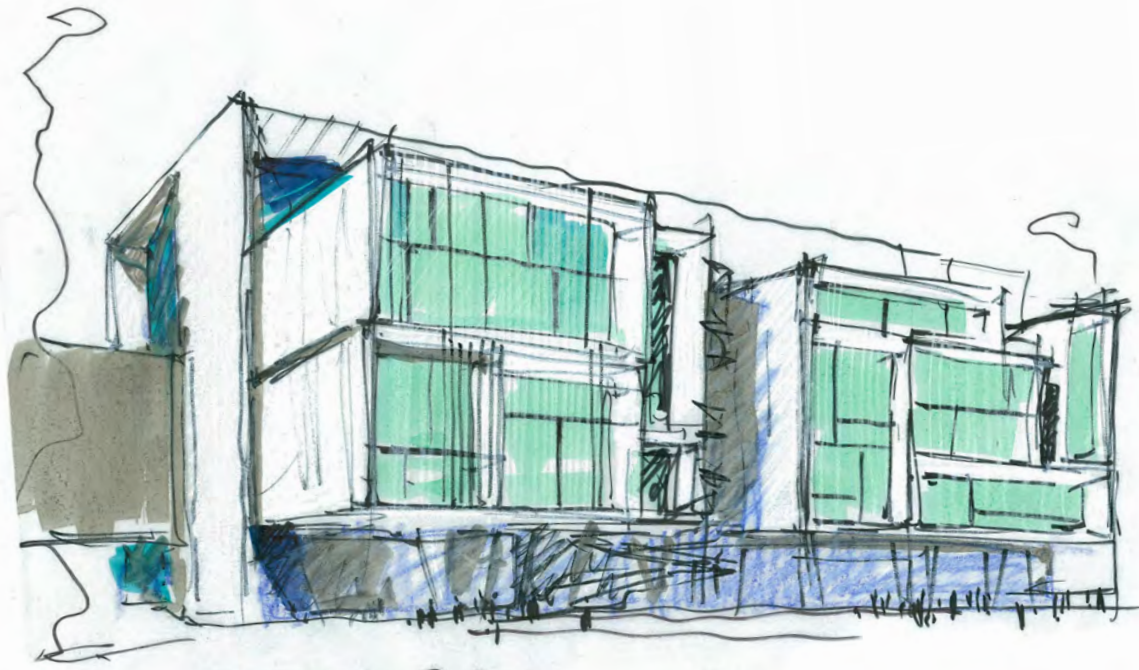
With a rebuilding approach to the east side of Smith Memorial Building, the orientation facing the Park Blocks to the west embodies the challenge to create a better relationship to the green campus parkway environment that is the unique asset to the Smith Memorial Buildings current location. While the existing structure of the current building could be retained on the west side of the building, the floor to floor heights are also lower than would be desired for their use and restrict daylight reaching the depth of the building. In this concept to renovate and transform the functionality of the existing building, the external façade on the West, North, and South elevations would be replaced and updated creating a new image and identity for the Student Union 2020 project consistent with a new Urban frontage of Broadway but related to the urban green nature of the Park Blocks, a shared public green space between the City and the University.

To establish continuity with the University character brick combined with optimal use of transparent glazing will be used to maximize the transparency and visibility of the student life the building supports. Student activities, lounges and dining spaces will be made as open and visible as possible from the Park Block side.

Daylighting solutions will address another of the important fundamental problems with the existing building; a lack of natural daylight to interior spaces and disconnection from the outside environment with the absence of direct views and lines of sight to the outside. Increasing natural daylighting will be addressed externally with increased use of full height floor to floor glazing, and internally, creating views from inside to outside from student lounges, study spaces, and the programming of student services to have a more direct relationship and orientation to the Park Blocks.

With expanded student lounge and study spaces throughout the internal plan, openings between floors will increase connections between these spaces while substantial skylights in the roof will allow penetration of sunlight vertically into the center of the building, also assisting to alleviate the restricted floor to ceiling height of each level.

Providing better daylight and cutting new open, vertical connections between



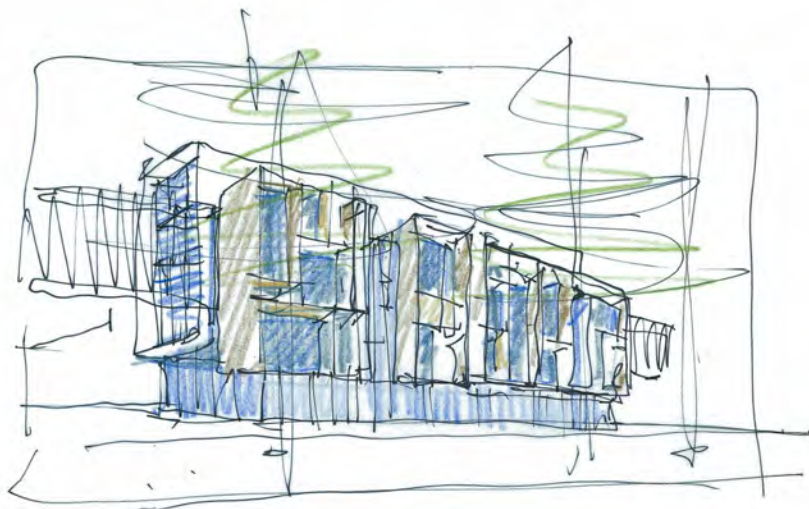
Palisades Suite

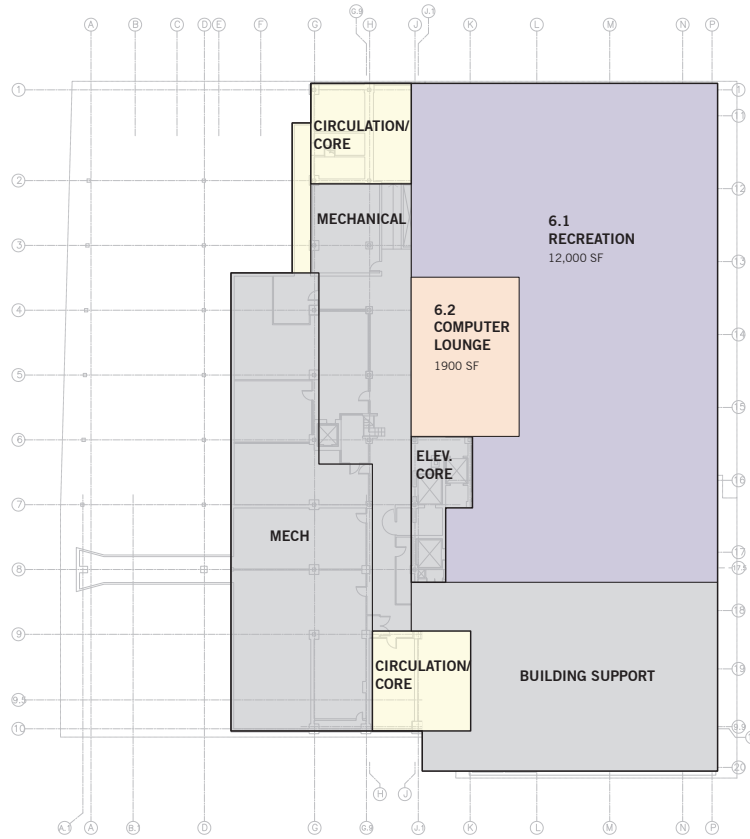
floors will also create access to the roof for students and staff as a usable green space adjacent to program spaces. These new outdoor areas can accommodate for spill out from the ballroom use as well as student and faculty offices on the 4th floor. They will offer new useable outdoor space overlooking the Park Blocks green environment.

Vertical connections bringing daylight to the lower basement levels will further connect and bring together a sense of the energy, visibility of student life within the building. The expanded dining and food service will benefit from the increased open transparency of the West façade, visibly opening them up and animating the green campus parkway along the Park Blocks.

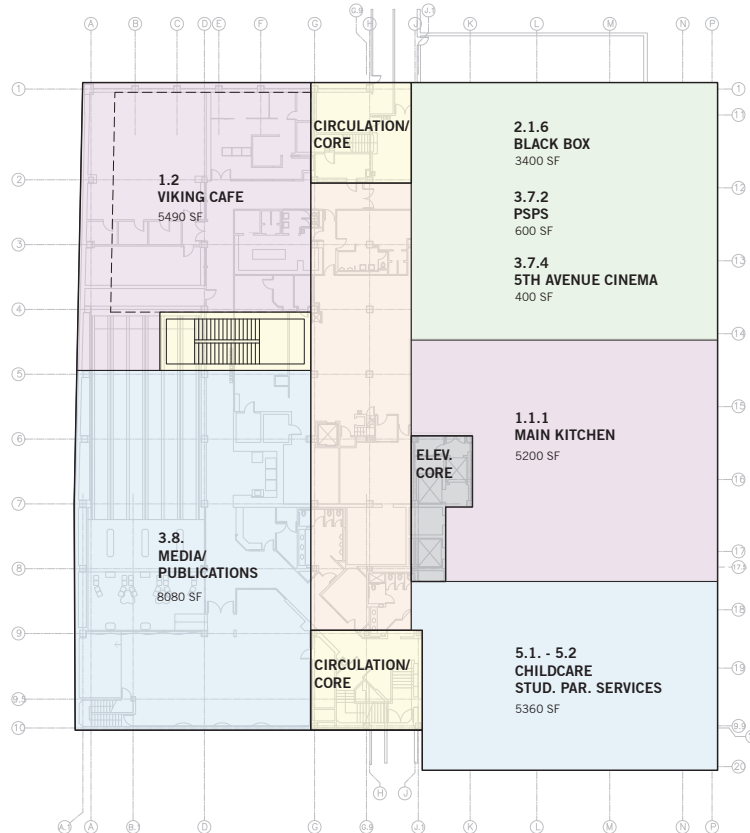
An asset to the current building and the site in general are the upper level walkways which provide important connection of the Smith Memorial Building to Cramer Hall to the north, and to the south Neuberger Hall classroom buildings. The bridges on the current third floor will still offer safe crossing to the east across the traffic on Broadway. This important feature would be retained in the re-plan and programming approach to renovate the existing building.

Covered elsewhere but mentioned here as an integral part of a renovation strategy, the sustainability of the approach would offer fundamental opportunities to underpin the design with the re-use of a substantial portion of the existing structure as a resource and build on that approach with strategies that incorporate living nature within the building, green energy sources, water systems and appropriate selection of local and regional materials.

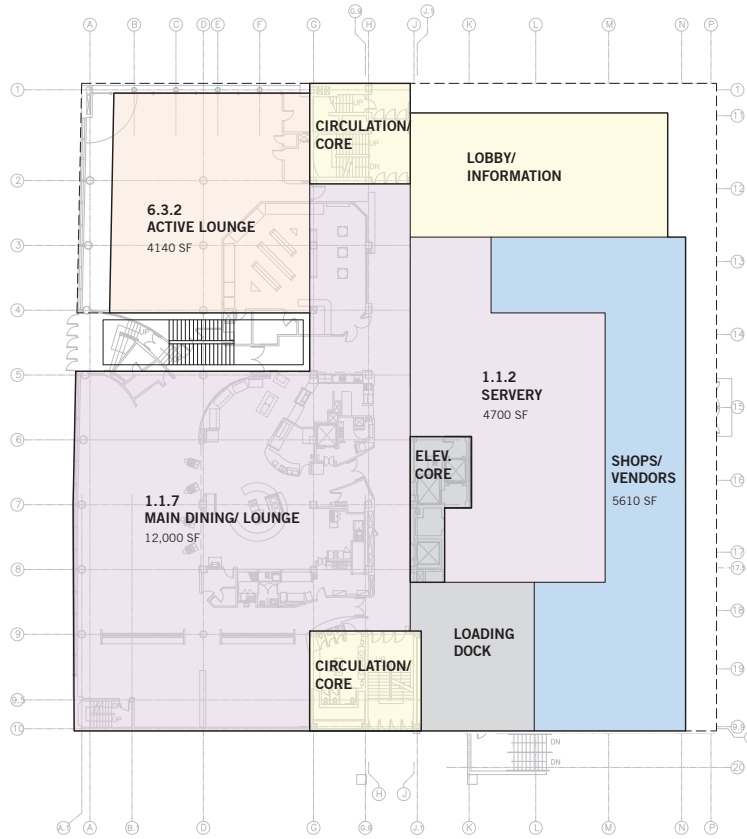




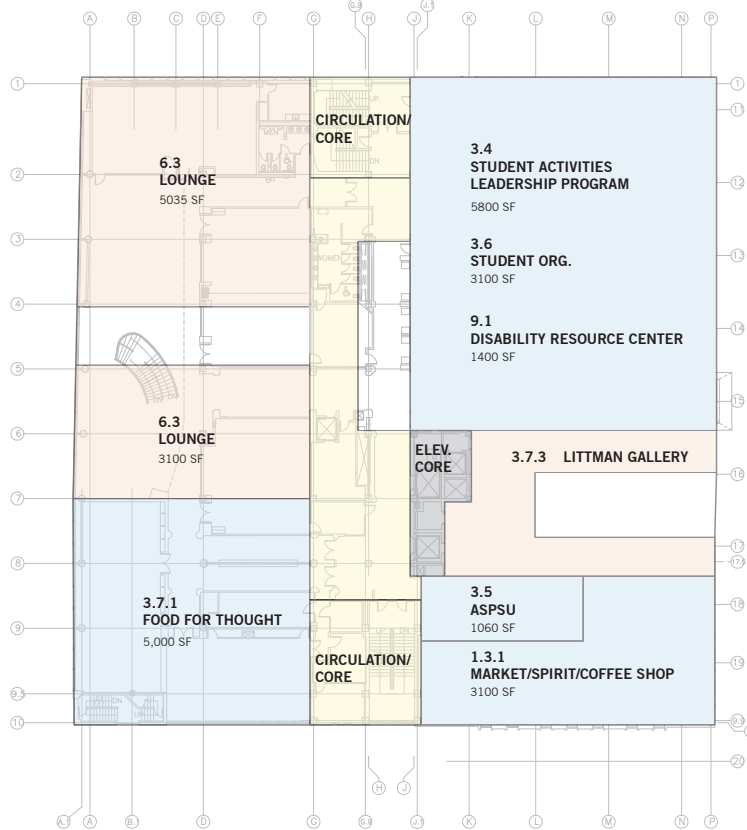
ALTERNATIVE 'A' SUB BASEMENT LEVEL | 29,960 TOTAL SF



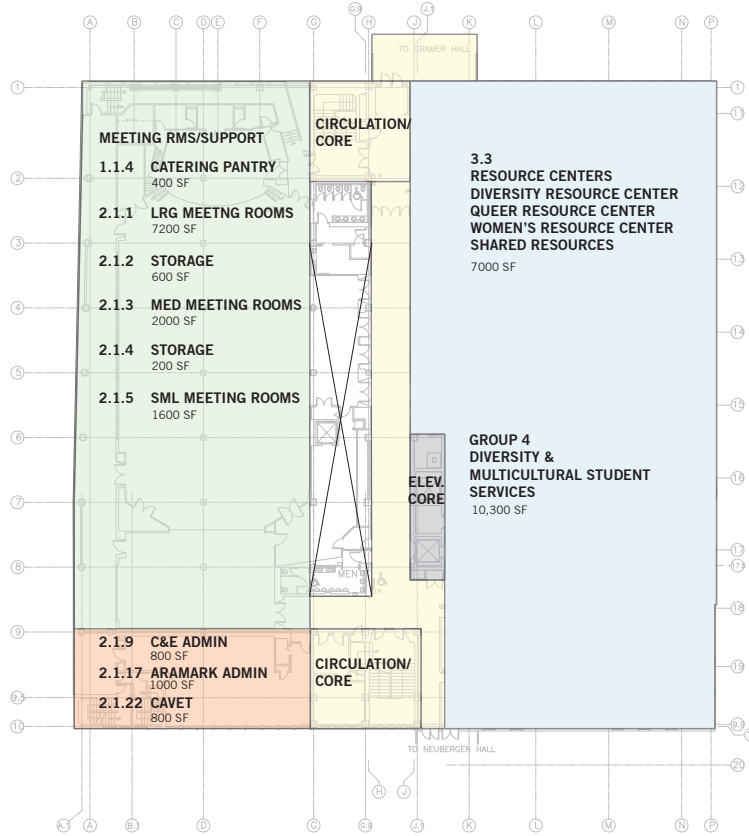
ALTERNATIVE 'A' BASEMENT LEVEL | 40,620 TOTAL SF



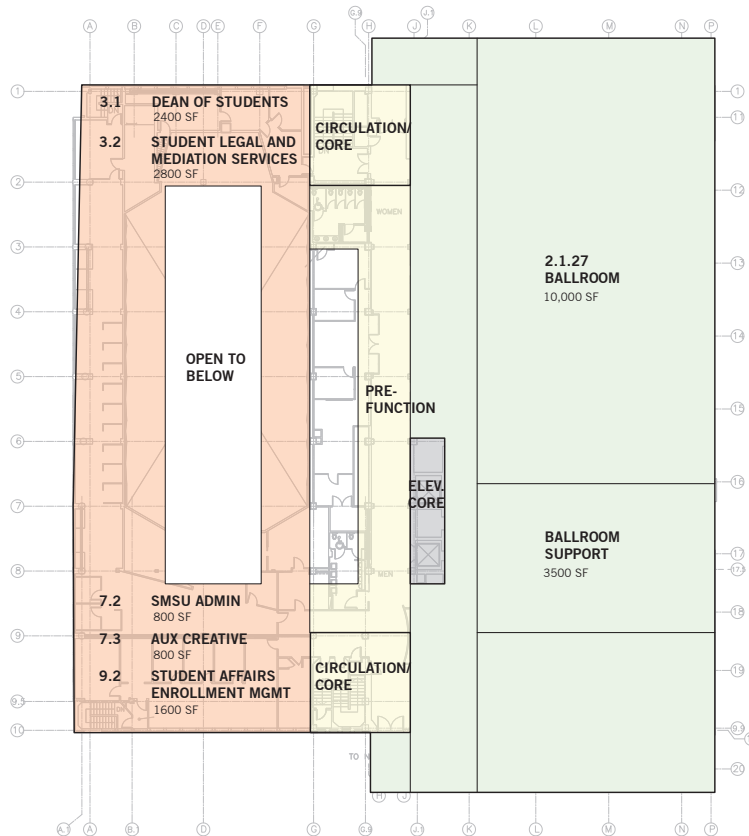
ALTERNATIVE 'A' LEVEL 1 | 35,680 TOTAL SF



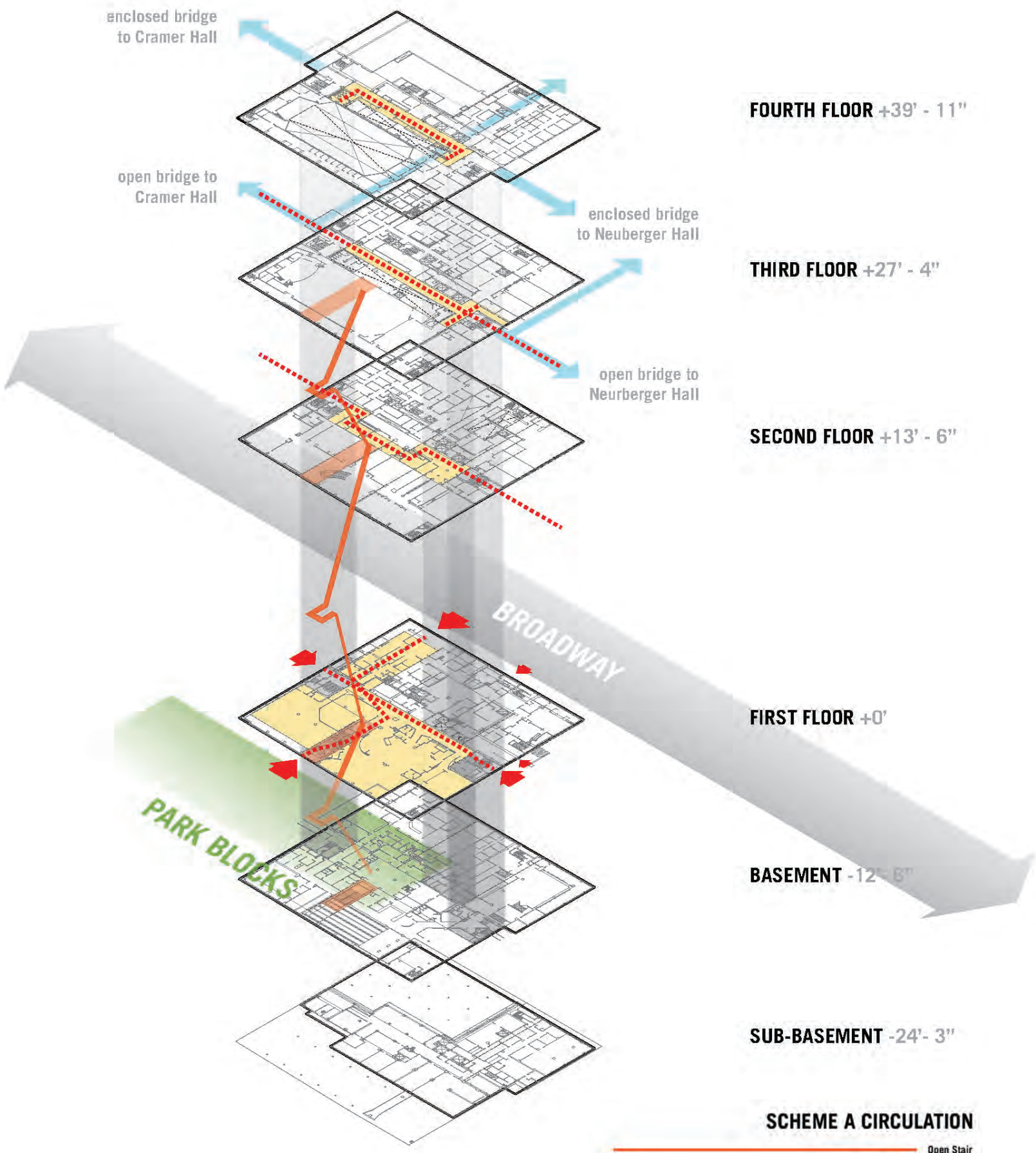
ALTERNATIVE 'A' LEVEL 2 | 36,210 TOTAL SF



ALTERNATIVE 'A' LEVEL 3 | 39,000 TOTAL SF



ALTERNATIVE 'A' LEVEL 4 | 37,600 TOTAL SF



FOURTH FLOOR +39' - 11"

THIRD FLOOR +27' - 4"

SECOND FLOOR +13' - 6"

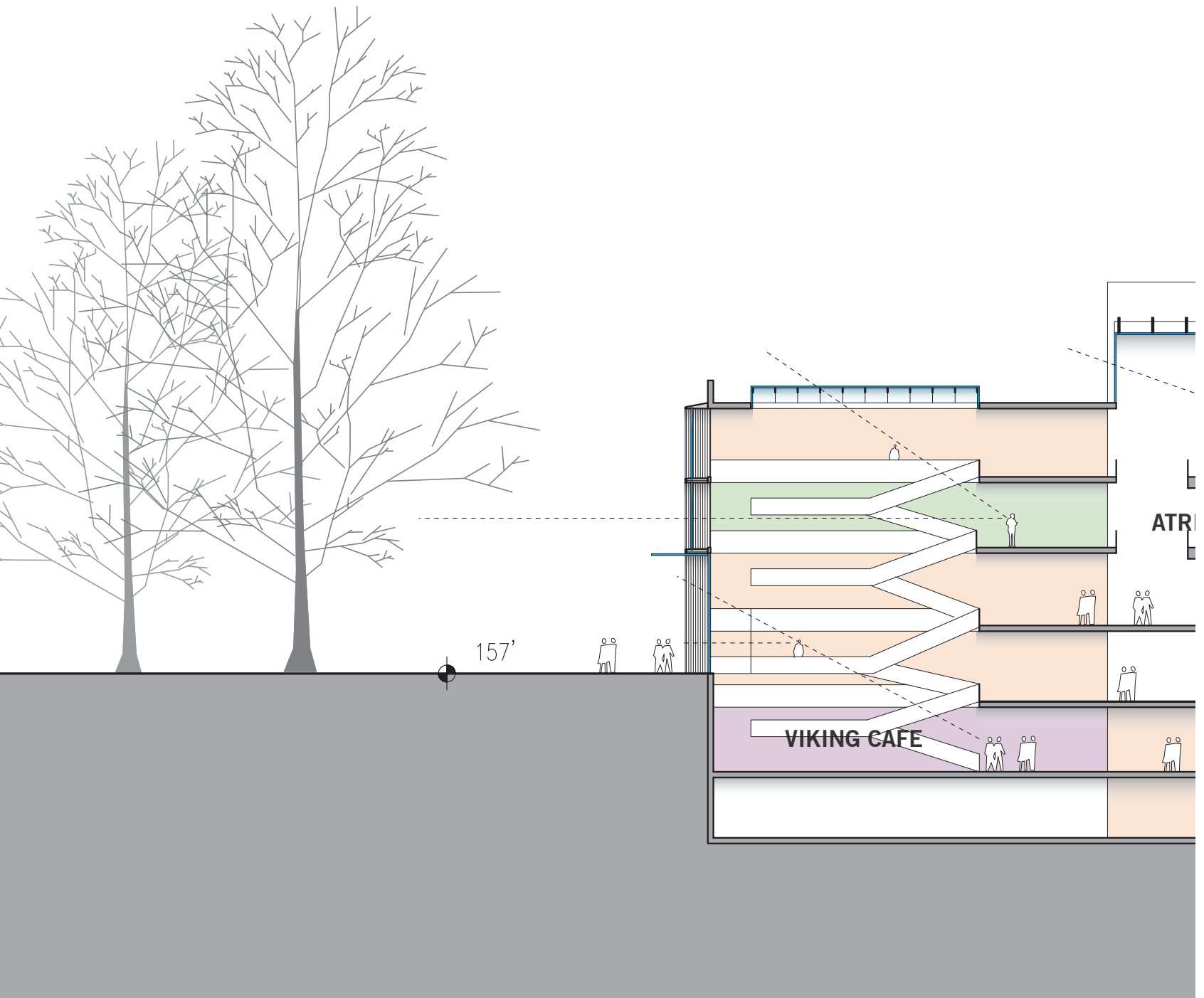
FIRST FLOOR +0'

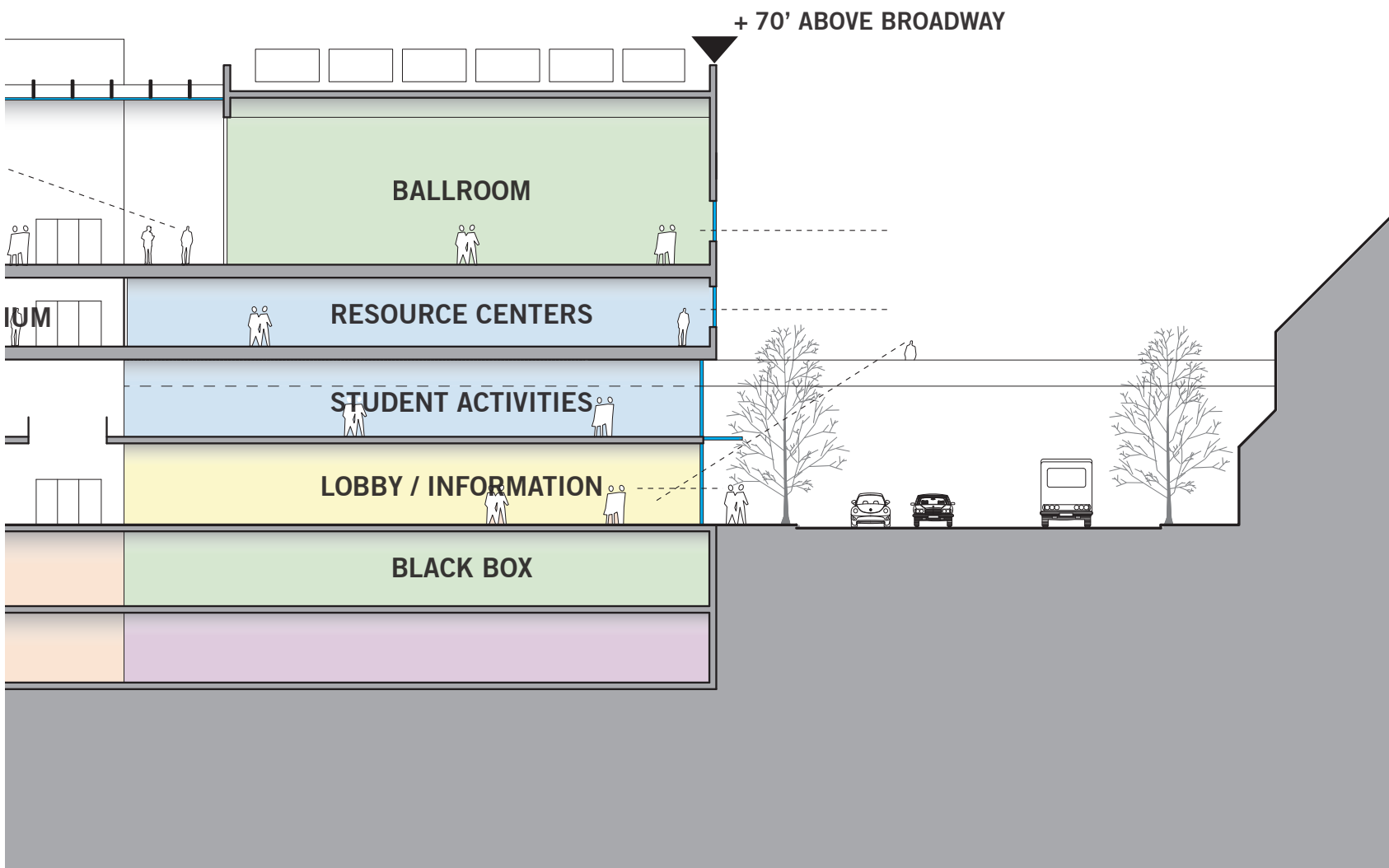
BASEMENT -12' - 6"

SUB-BASEMENT -24' - 3"

SCHEME A CIRCULATION

-  Open Stair
-  Primary Horizontal Circulation
-  Circulation Zones
-  Bridges
-  Stair / Escalator Cores
-  Entries





Scheme A Building Section





Scheme A Perspective Broadway





Scheme A Perspective Lounge

4.5 Scheme B - New Building

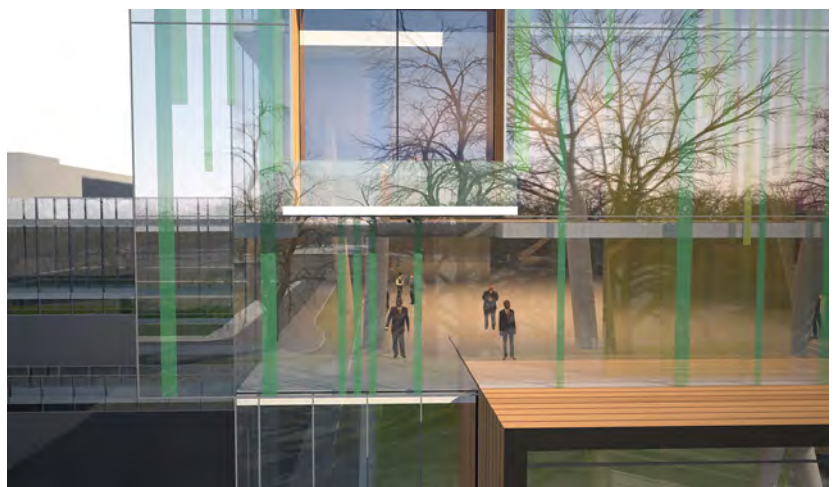




Perspective from Park blocks



View into Atrium from Park blocks



Facade transparency

Scheme B: New Building Narrative

The Scheme B concept proposal is following a programmatic understanding of the appropriate set of student and university services reached by the design team and the SMSU leadership. These elements are to be located in a building right sized to best support the academic mission of PSU and the Union building and meet the needs of the student body, who are the primary users for which the Student Union seeks to serve.

As stated previously the current SMSU site has been clearly identified as the most valued and appropriate location on the PSU campus for the Student Union, resulting in two approaches on the same site.

Underlying the concept of a new build approach are many of the same objectives that must be achieved on the site and in both options. However, free from the constraints of using the existing structure, the new building concept achieves the most important objective which is to provide the right size, quantity and location of student services and programs, and fundamentally captures a bold vision of the Student Union as the heart of a vibrant urban university campus.

Addressing the orientation of the building to the east on Broadway and its future development, the program and functional adjacency of new ballroom and meeting rooms are combined as a unified volume creating a bold urban landmark for PSU and a dynamic and exciting image for the New Student Union at the urban center of the PSU campus context.

The new building proposal establishes a new scale for the structure along Broadway. With this approach the building mass establishes a presence and identity along Broadway and responds in height and scale to the presence of the concrete walkways which span across Broadway. The transparency of the street frontage with campus related retail spaces, activating the street, will merge with the new entrance space on the corner of Broadway and Montgomery in a transparent multi story space visible from all directions of approach by pedestrians. The new entrance will be a dynamic, active student centered lounge providing a portal of entry to the PSU student life experience.

The main entry space will welcome users to the building and set the tone for a clear path for accessibility of all of the student services and activities of the Student Union building. From this multi-story space with openings to lower levels below a visual connection to the park blocks is made as space flows through the

building to the atrium stair, forming a dramatic connection to the Park Blocks and a vertical connection to all floor levels above in a light filled atrium. A sky lit roof carries sunlight deep into the center of the building creating a daylight and unifying central space. This lighting condition opens the opportunity to introduce internal green landscaping features to more program spaces.

Active and dedicated quiet study spaces will create a supportive student centered infrastructure of spaces throughout the building, interconnected by vertical and horizontal circulation. Daylight and movement animate the interior environment with direct lines of sight from multiple floors to outside views, enhancing and reinforcing the sense of place and student community life. The walkways connecting Cramer and Neuberger Halls, bridging through the atria and entry space act as a busy internal street, activating the horizontal circulation north to south and interconnecting the vertical circulation. With clear way finding large numbers of students and users will easily be able to move through the building accessing student services and the Ballroom and meeting room suites. Accommodating a mix of large numbers of students and independent users within the building the north/ south 'internal streets' will become lively social interaction spaces at the heart of the building.

On the west side, the new building concept has an open and transparent elevation that infuses the building with daylight engaging it with the Park Blocks urban park character identified as the most valued of qualities for the siting of the SMSU at present and for its future. The Park Blocks side steps down in height and volume from the Broadway side but retains its civic scale. Capturing the sense of student life that surrounds the building, extending to the campus parkway and surrounding streets (SW Montgomery and Harrison), the 1st floor on the west side of the building is fully occupied with student dining and active lounge space, visible through extensive transparent glazing. Minimal grade change at floor level enables the flow of the interior to the exterior, with exterior and interior spaces creating a continuous pedestrian environment and a sense of place for student and faculty life, that is defined by the green urban landscape of the Park Blocks environment.

Student centered programing, its lounges, social and study spaces connected on all levels by the open atrium stair animating the building with movement, are organized along the Park Block west elevation. The programing and location of student spaces within the building is directed towards views, daylight and direct connection to the urban green landscape defining for the PSU Student Union its sense of place. The vibrancy of student life is revealed in a layered facade of



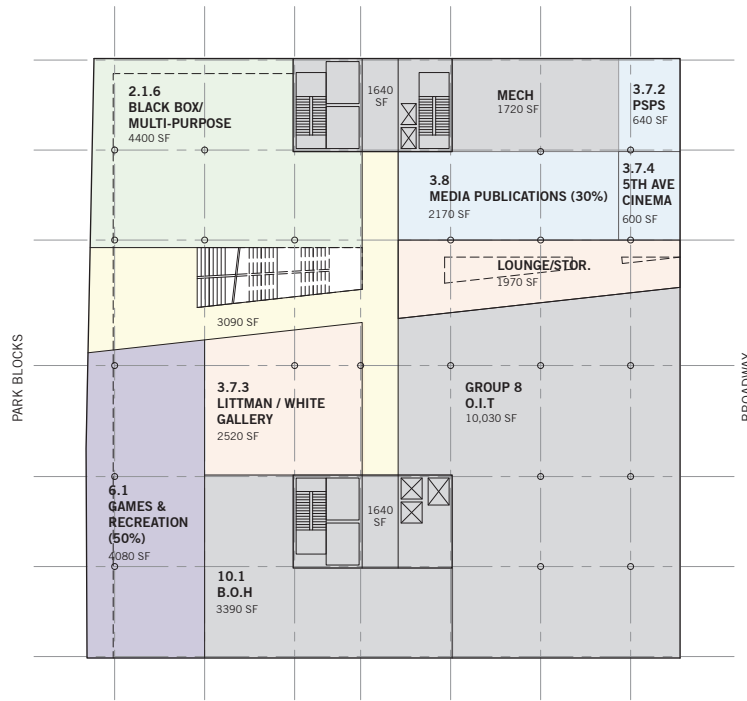
VIEW INTO LOBBY FROM LEVEL 2



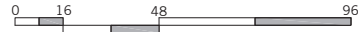
VIEW INTO ATRIUM FROM RAMP

openness and transparency displaying the life inside and extending it to the outside. Articulated in glass, brick, and wood, the facade frames an 'urban scaled window' to the PSU student life and community.

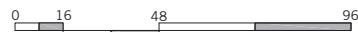
The Student Union site has strong and important connections north and south across SW Montgomery and Harrison which underline its strategic location at the center of the PSU campus. Direct covered connections to Neuberger and Cramer halls create an integral core of the PSU campus. Montgomery and Harrison form vital pedestrian links east and west to the greater campus, both at street and upper levels to the east and west. To the north and south the building is connected to the greater campus and student community with a pedestrian flow that will be enhanced by the open and transparent qualities of the new student Union building. A strong connection to Montgomery as a Green Street will be reinforced by green wall landscaping on the buildings vertical elevation and the inclusion of internal green landscape within the main entrance from Montgomery and Broadway. From Harrison to the south, the pedestrian environment and access will be greatly improved by relocating the loading and service bays below street level, enabling the uninterrupted flow of pedestrian movement along the building. The new loading dock can be configured to serve Neuberger Hall and the Union simultaneously.

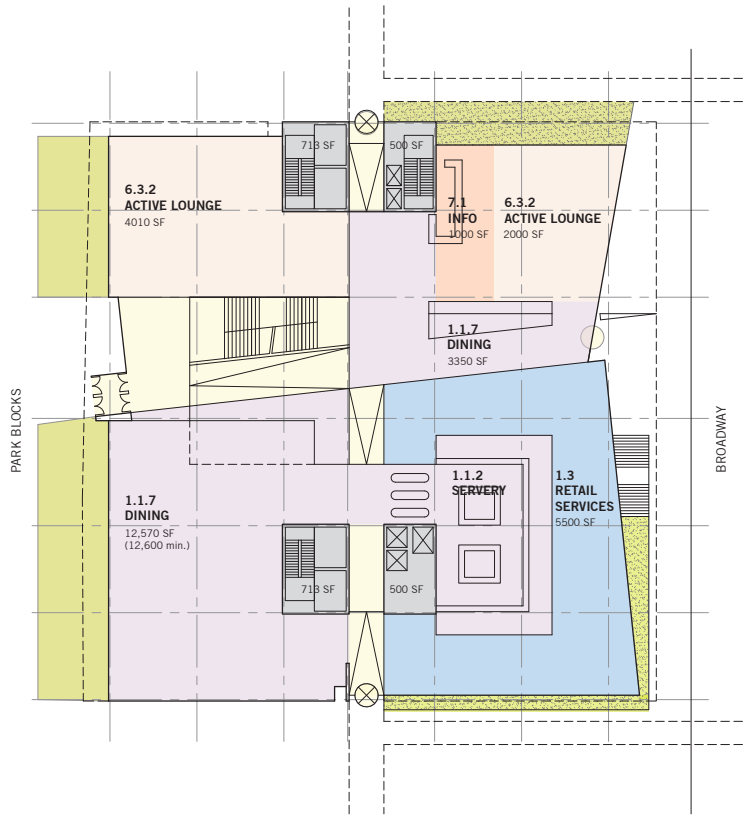


ALTERNATIVE 'B' SUB BASEMENT | 39,375 TOTAL SF

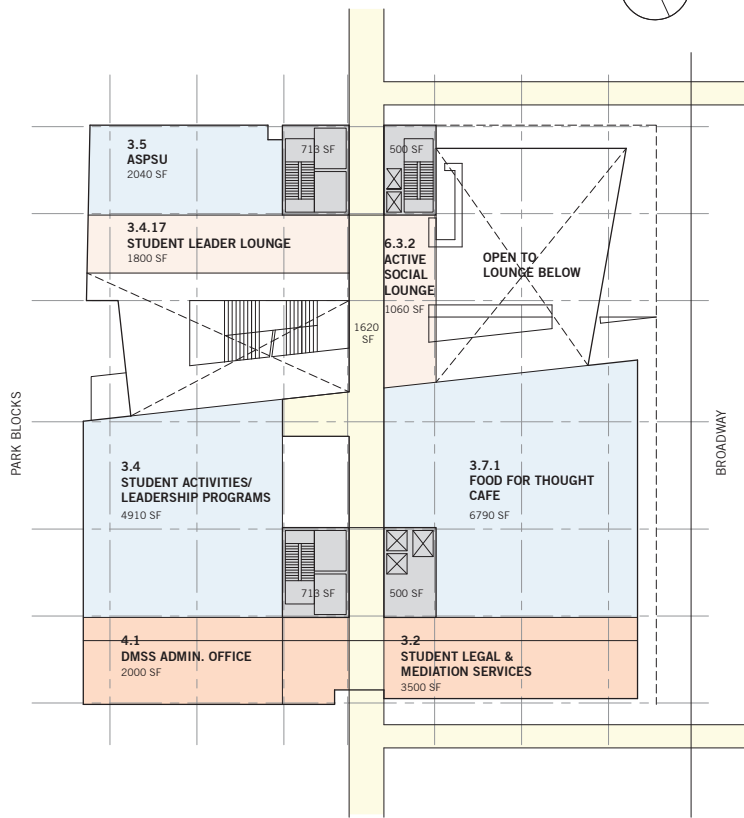
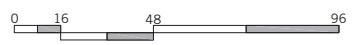


ALTERNATIVE 'B' BASEMENT | 38,336 TOTAL SF

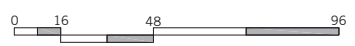


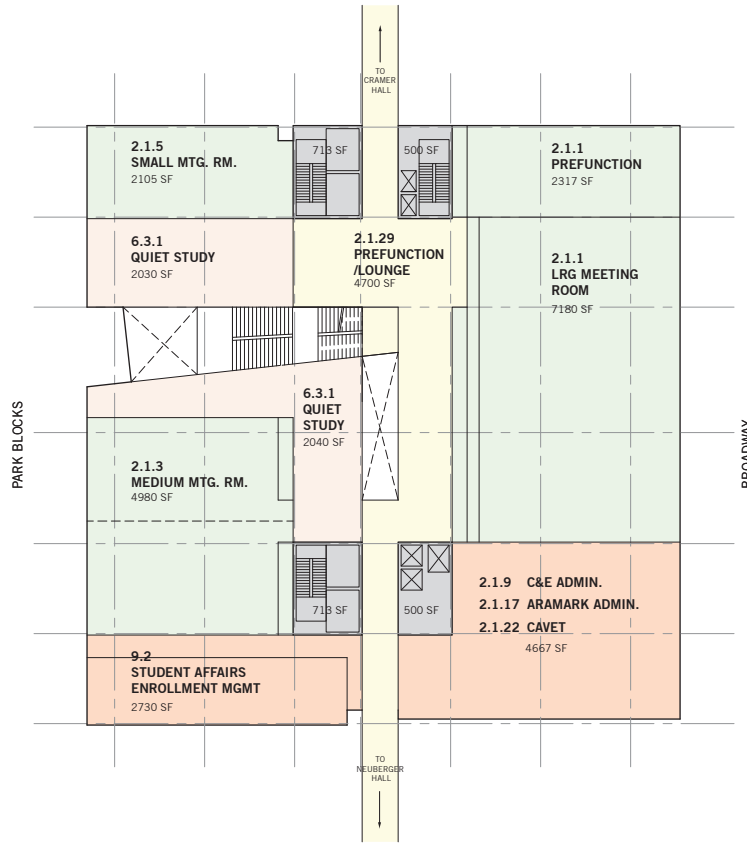


ALTERNATIVE 'B' LEVEL 1 | 30,684 TOTAL SF

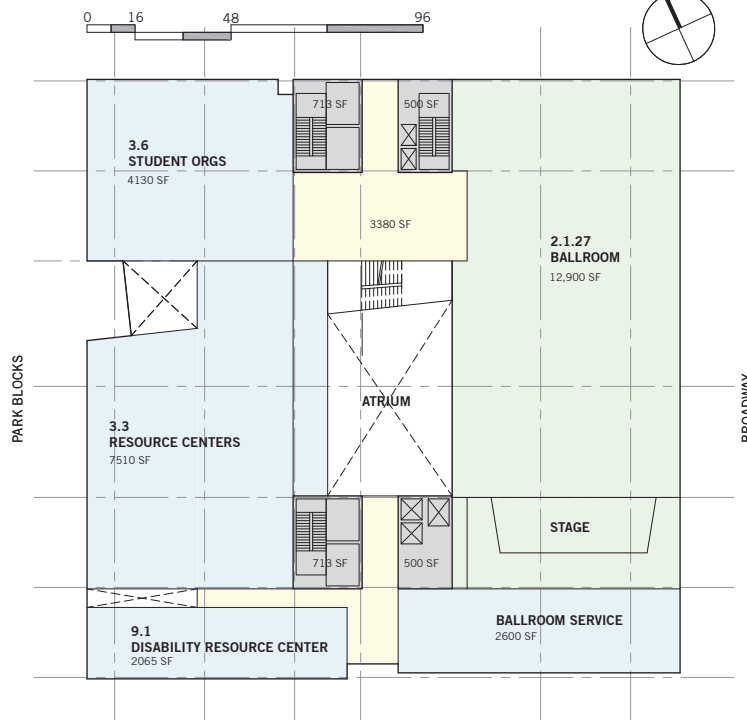


ALTERNATIVE 'B' LEVEL 2 | 27,690 TOTAL SF

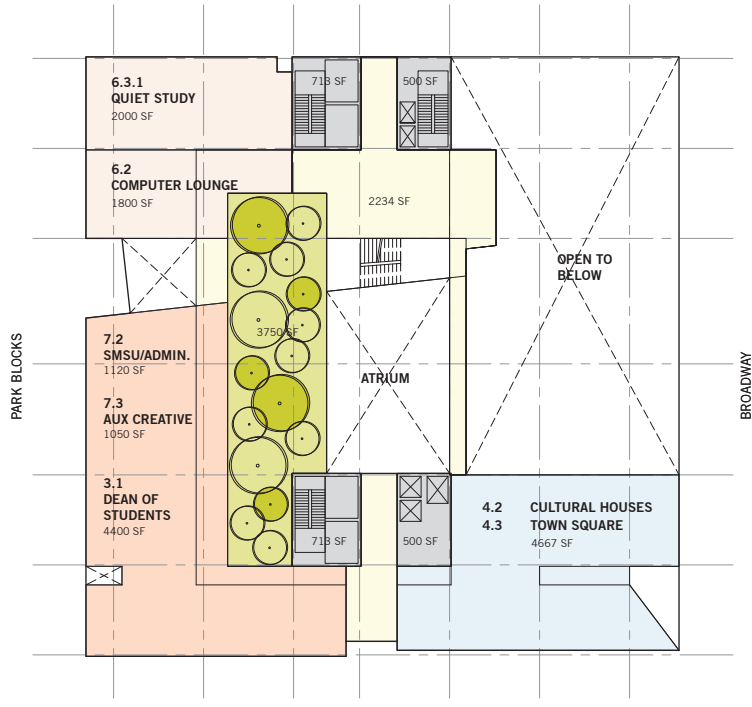




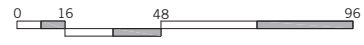
ALTERNATIVE 'B' LEVEL 3 | 36,635 TOTAL SF



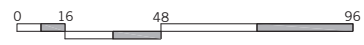
ALTERNATIVE 'B' LEVEL 4 | 25,690 TOTAL SF



ALTERNATIVE 'B' LEVEL 5 | 25,600 TOTAL SF



ALTERNATIVE 'B' LEVEL 6 | 24,180 TOTAL SF



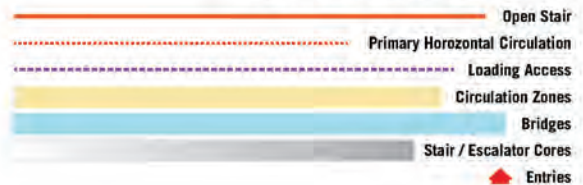


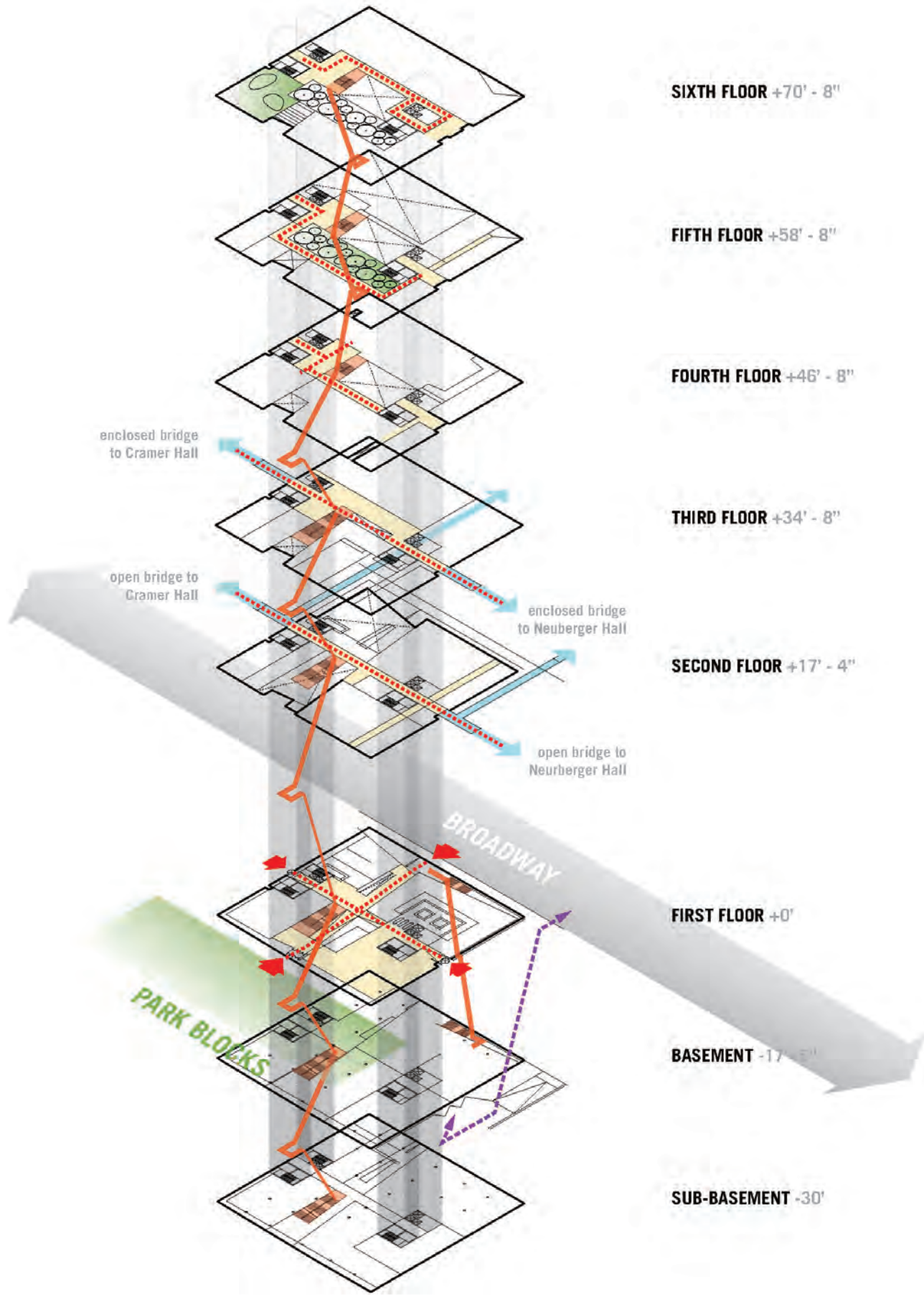
VIEW OF PARKBLOCKS FROM ATRIUM

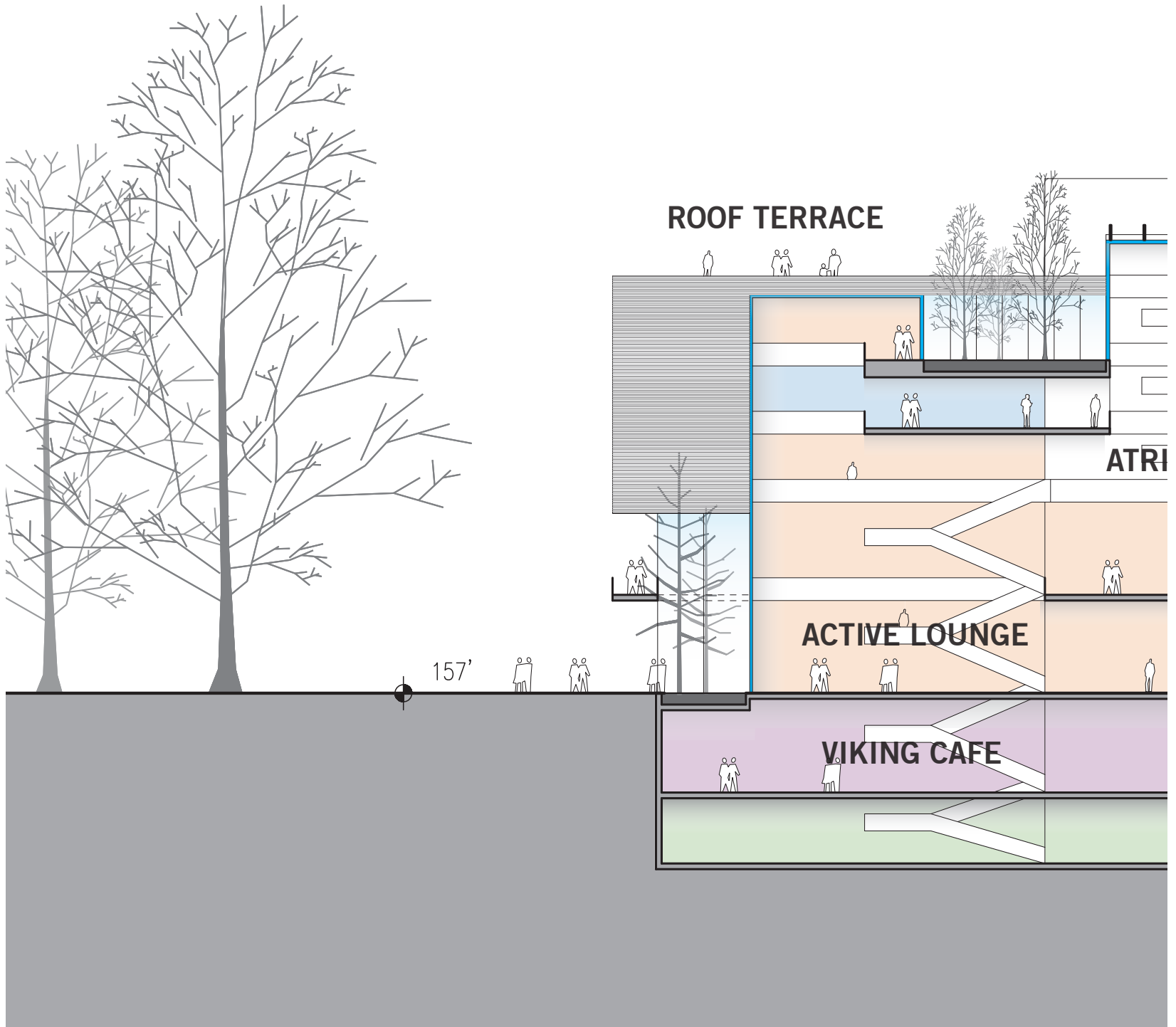


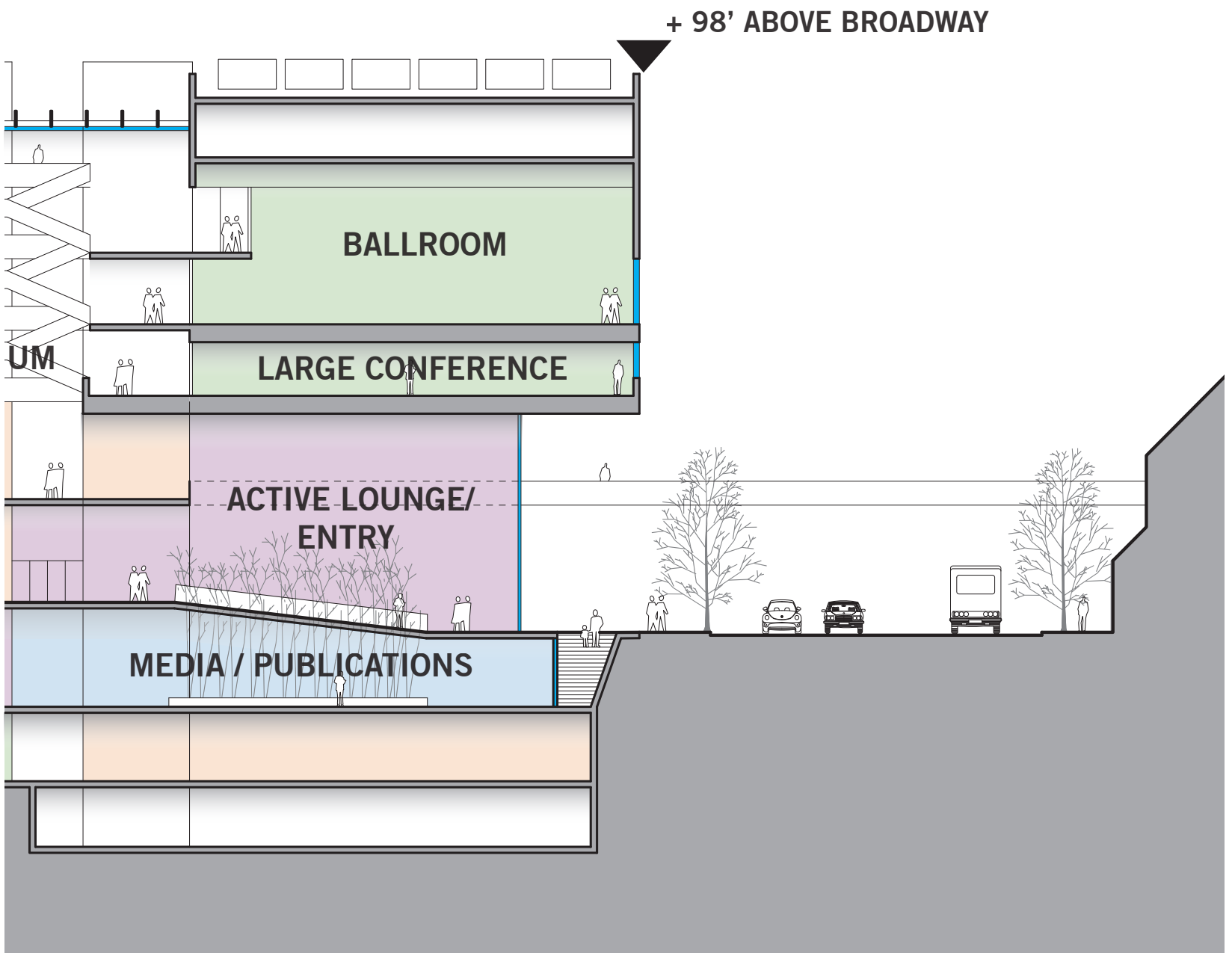
STAIR IN ATRIUM

SCHEME B CIRCULATION









Scheme B Building Section East /West





Scheme B Perspective Broadway





Scheme B Lobby Perspective





5.0 Cost & Schedule

- 5.1 Project Cost Comparison Scheme A/B
- 5.2 Project Schedule

CONCEPTUAL COST REPORT - UPDATE

for

**PSU Smith Student Union
Portland, Oregon**

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March 12, 2012

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Alternate "B" Component Summary	11

BASIS OF COST REPORT - UPDATE

<u>Cost Report - Update Prepared From</u>	Dated	Received
Drawings issued for Alternates A and B		
Concept drawings and program SF	01/06/12	02/03/12
Discussions with the Project Architect		

Conditions of Construction

The pricing is based on the following

 Historical cost data for related program work with other student union buildings

 Portland specific construction cost information

 A start date of June 2016

 A typical construction schedule of 24 months

 The general contract will be competitively bid with qualified general and main subcontractors

 The contractor will be required to pay prevailing wages

 The general contractor will have full access to the site during normal business hours

Typical Soft Cost Elements

Items below are typical for most projects. A 35% Soft cost allowance is in line with projects of similar function.

 Land Costs
 Environmental Consulting
 Permits and Fees
 Architects
 SubConsultants
 Geotechnical Engineering
 Inspections
 Traffic Studies
 Pre-construction Services
 Legal
 Utility Use during construction
 Insurances
 Moving Costs
 Financing Costs
 ALTA Survey
 FF&E
 Project Contingency 10%
 Commissioning

INCLUSIONS

The project consists of two alternate cost perspectives for a student union building in Portland, Oregon. The conceptual costs include demolition, work within a zero lot line zone and cost for program and option nuances.

Alternate A: The cost perspective acknowledges a traditional design and construction methodology using many existing structural elements. Construction costs equal the program cost per square foot.

Alternate B: The cost perspective acknowledges the enhancements to the structure and exterior cladding system beyond the program cost per square foot.

EXCLUSIONS

- Owner supplied and installed furniture, fixtures and equipment
- Loose furniture and equipment except as specifically identified
- Security equipment and devices
- Audio visual equipment
- Hazardous material handling, disposal and abatement
- Compression of schedule, premium or shift work, and restrictions on the contractor's working hours
- Testing and inspection fees
- Architectural, design and construction management fees
- Scope change and post contract contingencies
- Assessments, taxes, finance, legal and development charges
- Environmental impact mitigation
- Builder's risk, project wrap-up and other owner provided insurance program

OVERALL SUMMARY

	Gross Floor Area	\$ / SF	\$x1,000
<u>Alternate "A" Construction Costs</u>	219,070 SF	307.26	67,312
<u>*Soft Costs</u>	35%		23,559
TOTAL Project Cost -Alternate A			<u>90,872</u>
<u>Alternate "B" Construction Costs</u>	251,705 SF	342.52	86,215
<u>*Soft Costs</u>	35%		30,175
TOTAL Project Cost -Alternate B			<u>116,390</u>

<p>Alternate A</p> <ul style="list-style-type: none"> ■ Shell (1-5) ■ Interiors (6-7) ■ Equipment & Vertical Transportation (8-9) ■ Mechanical & Electrical (10-13) 	<p>Alternate B</p> <ul style="list-style-type: none"> ■ Shell (1-5) ■ Interiors (6-7) ■ Equipment & Vertical Transportation (8-9) ■ Mechanical & Electrical (10-13)
--	--

** Soft Costs were determined using a standard metric. Typical Soft Cost elements are listed on Basis of Cost Report section of this report*

Please refer to the Inclusions and Exclusions sections of this report

ALTERNATE "A" AREAS & CONTROL QUANTITIES

Areas	SF	SF	SF
Enclosed Areas Alternate "A"			
Subbasement	20,450		
Basement	28,530		
1st floor	31,110		
2nd floor	28,300		
3rd floor	28,800		
4th Floor	24,600		
Circulation/SVS	57,280		
 SUBTOTAL, Enclosed Area	<hr/>	219,070	
 Covered area			
 SUBTOTAL, Covered Area @ ½ Value	<hr/>		
 TOTAL GROSS FLOOR AREA		<hr/>	219,070

ALTERNATE "A" COMPONENT SUMMARY

Gross Area: 219,070 SF

		\$/SF	\$x1,000
1. Foundations		7.60	1,665
2. Vertical Structure		9.90	2,169
3. Floor & Roof Structures		7.86	1,722
4. Exterior Cladding		32.12	7,037
5. Roofing, Waterproofing & Skylights		8.62	1,888
<i>Shell (1-5)</i>		66.10	14,481
6. Interior Partitions, Doors & Glazing		16.10	3,527
7. Floor, Wall & Ceiling Finishes		21.01	4,603
<i>Interiors (6-7)</i>		37.11	8,130
8. Function Equipment & Specialties		11.38	2,493
9. Stairs & Vertical Transportation		9.30	2,037
<i>Equipment & Vertical Transportation (8-9)</i>		20.68	4,530
10 Plumbing Systems		14.48	3,172
11 Heating, Ventilating & Air Conditioning		37.11	8,130
12 Electric Lighting, Power & Communications		29.90	6,550
13 Fire Protection Systems		3.60	789
<i>Mechanical & Electrical (10-13)</i>		85.09	18,641
Total Building Construction (1-13)		208.98	45,781
14 Site Preparation & Demolition		11.21	2,456
15 Site Paving, Structures & Landscaping		6.77	1,483
16 Utilities on Site		1.69	370
Total Site Construction (14-16)		19.67	4,309
TOTAL BUILDING & SITE (1-16)		228.65	50,090
General Conditions	9.00%	20.58	4,508
Contractors Fee/Bonds	3.75%	9.34	2,047
PLANNED CONSTRUCTION COST		March 2012	258.57
Contingency for Development of Design	12.00%	31.03	6,797
Escalation to Midpoint (June 2017)	6.10%	17.67	3,870
RECOMMENDED BUDGET		June 2016	307.26
			67,312

PSU Smith Student Union
 Alternate "A"
 Portland, Oregon

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Alternate A

ASF Aggregate

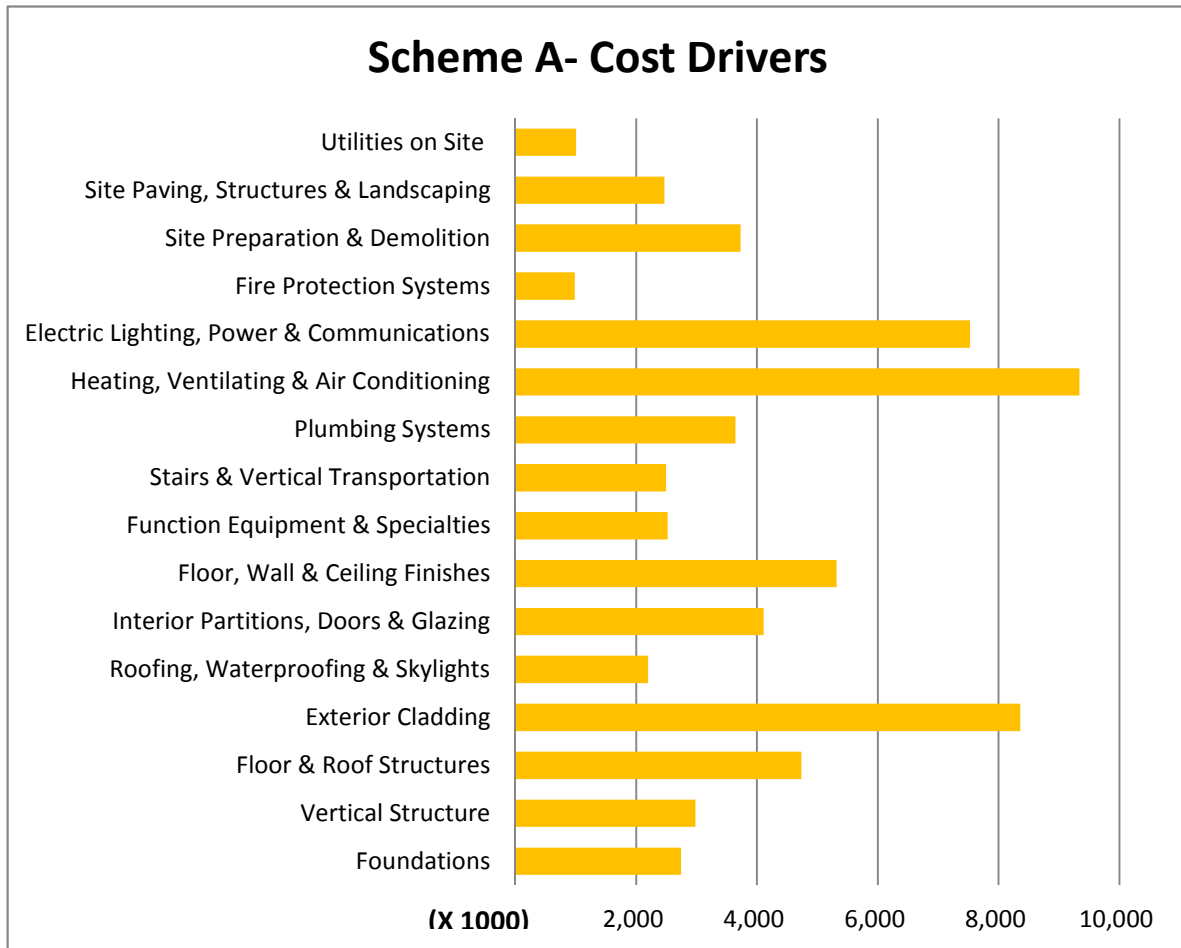
PROGRAM SPACE

Subbasement		20,450		3,626,000
	Building support	6,550	160	1,048,000
	Computer lab	1,900	220	418,000
	Recreation	12,000	180	2,160,000
Basement		28,530		10,720,800
	Main kitchen	5,200	700	3,640,000
	Viking Café	5,490	400	2,196,000
	Black box/Multipurpose	3,000	500	1,500,000
	Storage	400	180	72,000
	PSPS	600	260	156,000
	5th avenue Cinema	400	500	200,000
	Media/Publications	8,080	220	1,777,600
	Childcare	4,334	220	953,480
	Student/Parent Services	1,026	220	225,720
1st Floor		31,110		11,148,000
	Town Square	4,700	200	940,000
	Main dining room	12,000	480	5,760,000
	Lobby/Information	1,000	450	450,000
	Retail	8,710	200	1,742,000
	Servery	4,700	480	2,256,000
2nd Floor		28,300		5,909,300
	Lounge	12,275	200	2,455,000
	Cultural houses	4,400	200	880,000
	Food for Thought	5,000	240	1,200,000
	Littman Gallery	2,465	220	542,300
	ASPSU	1,060	200	212,000
	Student Org	3,100	200	620,000
3rd Floor		28,800		8,888,000
	Catering Pantry	400	500	200,000
	Large meeting rooms	7,200	480	3,456,000
	Storage	600	180	108,000
	Medium meeting rooms	2,000	480	960,000
	Storage	200	180	36,000
	Small Meeting rooms	1,600	480	768,000
	C&E Admin	800	200	160,000
	Aramark Admin	1,000	200	200,000
	Cavet	800	200	160,000
	Disability Support	1,400	200	280,000

PSU Smith Student Union
 Alternate "A"
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	Student activities	5,800	200	1,160,000
	Resources Centers	7,000	200	1,400,000
4th Floor		24,600		10,552,000
	Dean of Students	2,400	520	1,248,000
	Student Legal Services	2,800	400	1,120,000
	Student affairs	1,600	230	368,000
	SMSU Admin	800	220	176,000
	DMSS Admin	1,200	220	264,000
	Aux Creative	800	220	176,000
	Ballroom	10,000	480	4,800,000
	Ballroom support	3,500	480	1,680,000
	Prefunction/lounge	1,500	480	720,000
		161,790		50,844,100
	TOTAL PROGRAM SQUARE FOOT	161,790		
	Circulation and Svs	57,280		
	TOTAL SF	219,070		
	Circulation and Svs add:	12,601,600		
	PROGRAM PROJECT COST	50,844,100		
	TOTAL Construction COST	63,442,700		
	Escalation	3,870,000		
		67,312,700		
	Based on SF	\$	307.26	



Cost Drivers

Overall the project carries several cost drivers to note. First, as with most structures, cost drivers include exterior cladding and mechanical systems which is consistent with this structure. Additionally, the project location carries a cost factor which effects general access. Excavation and disposal, demolition and debris removal and materials delivery effect cost over that of an open and accessible project site.

Areas to watch

Demolition will be more time consuming since it will be selectively demolished. During a selective demolition process, unforeseen issues are more prevalent than with a complete demolition.

The Park Blocks have trees that may adversely effect the construction effort either by height, area or root systems.

Construction access and planning will need early focused efforts to manage costs.

ALTERNATE "B" AREAS & CONTROL QUANTITIES

Areas	SF	SF	SF
Enclosed Areas Alternate "B"			
Subbasement	39,375		
Basement	38,336		
1st Floor	30,684		
2nd Floor	27,690		
3rd Floor	36,635		
4th Floor	29,205		
5th Floor	25,600		
6th Floor	24,180		
 SUBTOTAL, Enclosed Area	<hr/>	251,705	
 Covered area			
 SUBTOTAL, Covered Area @ ½ Value		<hr/>	
 TOTAL GROSS FLOOR AREA		<hr/>	251,705

ALTERNATE "B" COMPONENT SUMMARY

		Gross Area: 251,705 SF	
		\$/SF	\$x1,000
1.	Foundations	10.90	2,744
2.	Vertical Structure	11.84	2,980
3.	Floor & Roof Structures	18.80	4,732
4.	Exterior Cladding	33.20	8,357
5.	Roofing, Waterproofing & Skylights	8.73	2,197
Shell (1-5)		83.47	21,010
6.	Interior Partitions, Doors & Glazing	16.33	4,110
7.	Floor, Wall & Ceiling Finishes	21.12	5,316
Interiors (6-7)		37.45	9,426
8.	Function Equipment & Specialties	10.02	2,522
9.	Stairs & Vertical Transportation	9.90	2,492
Equipment & Vertical Transportation (8-9)		19.92	5,014
10.	Plumbing Systems	14.48	3,645
11.	Heating, Ventilating & Air Conditioning	37.11	9,341
12.	Electric Lighting, Power & Communications	29.90	7,526
13.	Fire Protection Systems	3.90	982
Mechanical & Electrical (10-13)		85.39	21,493
Total Building Construction (1-13)		226.23	56,943
14.	Site Preparation & Demolition	14.81	3,728
15.	Site Paving, Structures & Landscaping	9.80	2,467
16.	Utilities on Site	4.00	1,007
Total Site Construction (14-16)		28.61	7,201
TOTAL BUILDING & SITE (1-16)		254.84	64,145
	General Conditions	10.00%	25.48
	Contractors Fee/Bonds	3.75%	10.51
PLANNED CONSTRUCTION COST		March 2012	290.84
	Contingency for Development of Design	11.00%	31.99
	Escalation to Midpoint (June 2017)	6.10%	19.69
RECOMMENDED BUDGET		June 2016	342.52
			86,215

PSU Smith Student Union
 Alternate "B"
 Portland, Oregon

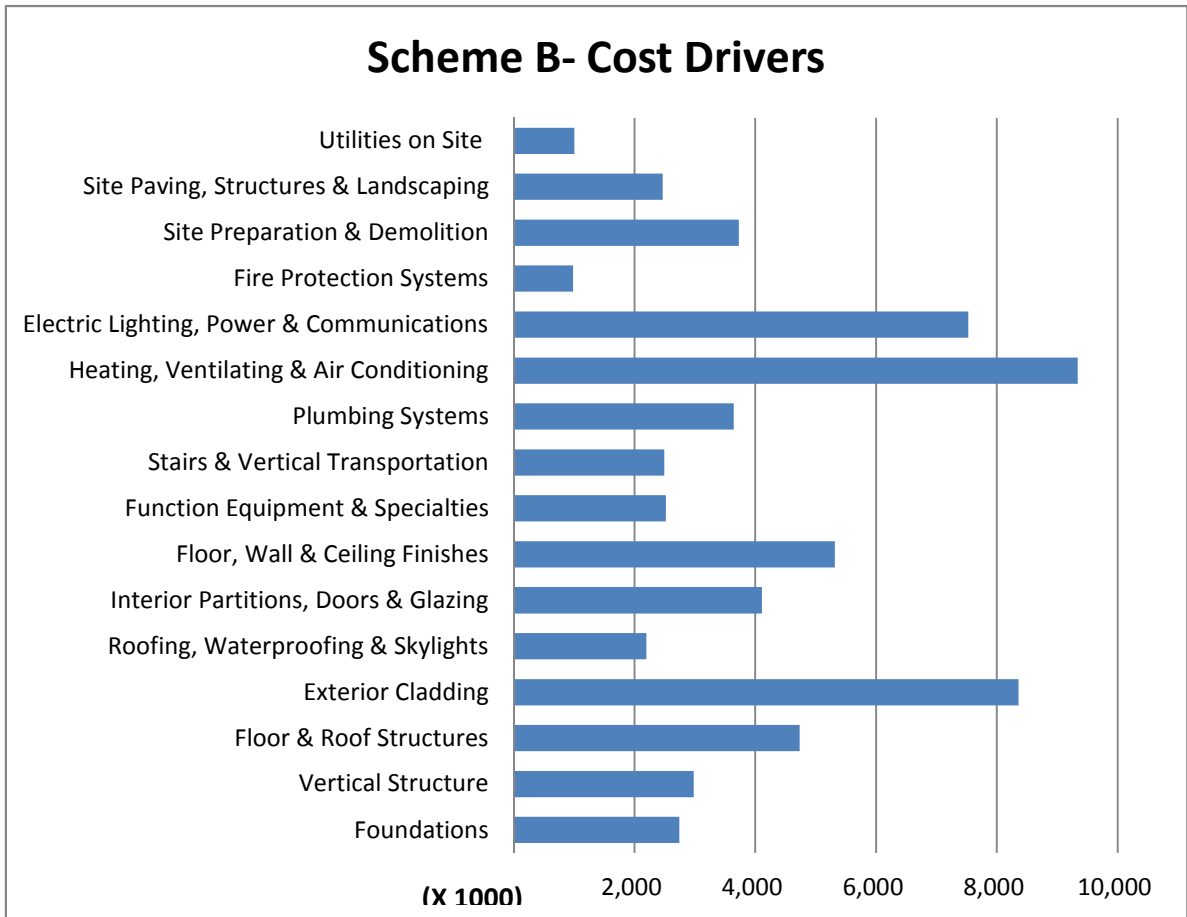
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Alternate B	ASF	Aggregate	
PROGRAM SPACE		(39,375)	
Subbasement	39,375		10,697,350
Black box/Auditorium	4,400	500	2,200,000
5th Ave Cinema	600	500	300,000
BOH	3,390	200	678,000
Littman Gallery	2,520	280	705,600
Office of IT	10,030	250	2,507,500
Lounge Storage	1,970	200	394,000
30% Media/Publications	2,170	250	542,500
Mechanical	1,720	250	430,000
PSPS	640	250	160,000
Circulation	7,855	250	1,963,750
50% Recreation	4,080	200	816,000
Basement	38,336		11,230,500
Viking Café	4,870	400	1,948,000
50% Recreation	6,710	200	1,342,000
Mechanical	2,500	250	625,000
30% Media/Publications	4,210	250	1,052,500
Student / Parent Serv	2,910	250	727,500
Main kitchen	2,650	700	1,855,000
Childcare	3,500	300	1,050,000
Circulation	9,536	250	2,384,000
BOH/Loading	1,450	170	246,500
1st Floor	30,684		9,746,300
Active Lounge 1	4,010	230	922,300
Active Lounge 2	2,000	230	460,000
Lobby/Information	1,000	500	500,000
Dining room & servery	12,570	400	5,028,000
Add Dining	3,350	350	1,172,500
Circulation	2,254	250	563,500
Retail- Grey space	5,500	200	1,100,000
2nd Floor	27,690		8,709,100
Food for Thought	6,790	260	1,765,400
ASPSU	2,040	280	571,200
DMSS Admin	2,000	260	520,000
Student Leader Lounge	1,800	400	720,000
Student Act/Leadership	4,910	400	1,964,000
Student Legal Services	3,500	400	1,400,000
Circulation	5,590	250	1,397,500
Active/social lounge	1,060	350	371,000
3rd Floor	36,635		14,687,260
Pre-function Lounge	4,700	500	2,350,000
Medium meeting rooms	4,980	500	2,490,000

PSU Smith Student Union
 Alternate "B"
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	Small Meeting rooms	2,105	500	1,052,500
	Quiet Study 1	2,040	260	530,400
	Quiet Study 2	2,030	260	527,800
	Student Affairs	2,730	260	709,800
	Pre-function	2,317	500	1,158,500
	Large meeting rooms	7,180	500	3,590,000
	C&E Admin	1,555	280	435,400
	Aramark Admin	1,556	280	435,680
	Cavet	1,556	280	435,680
	Circulation	3,886	250	971,500
4th Floor		29,205		13,137,400
	Ballroom service	2,600	600	1,560,000
	Ballroom	12,900	600	7,740,000
	Student Org	4,130	280	1,156,400
	Disability Resource Ctr	2,065	280	578,200
	Resources Centers	7,510	280	2,102,800
5th Floor		25,600		7,688,710
	Quiet Study	2,000	250	500,000
	Computer Lounge	1,800	250	450,000
	Cultural Houses/TS	4,667	280	1,306,760
	Aux Creative	1,050	250	262,500
	SMSU Admin	1,120	260	291,200
	Dean of Students	4,400	500	2,200,000
	Roof Garden	3,750	260	975,000
	Circulation/Open	6,813	250	1,703,250
6th Floor		24,180		5,322,520
	Cultural houses	3,500	280	980,000
	Meditation/Prayer Rm	580	280	162,400
	Roof Garden	6,782	260	1,763,320
	Roof Terrace	3,810	260	990,600
	Mechanical	9,508	150	1,426,200
PROGRAM		251,705	323	81,219,140
	TOTAL PROGRAM SQUARE FOOT	251,705		
	Circulation and Svs	Included		
	TOTAL SF	251,705		
	Circulation and Svs add:	Included		
	PROGRAM PROJECT COST	81,219,140		
	TOTAL Construction COST	81,219,140		
	Escalation	4,957,000		
		86,215,140		
	Based on SF	\$	342.52	



Cost Drivers

As mentioned with Scheme A, the project location carries a cost factor which effects general access. Excavation and disposal, demolition and debris removal and materials delivery effect cost over that of an open and accessible project site.

Areas to watch

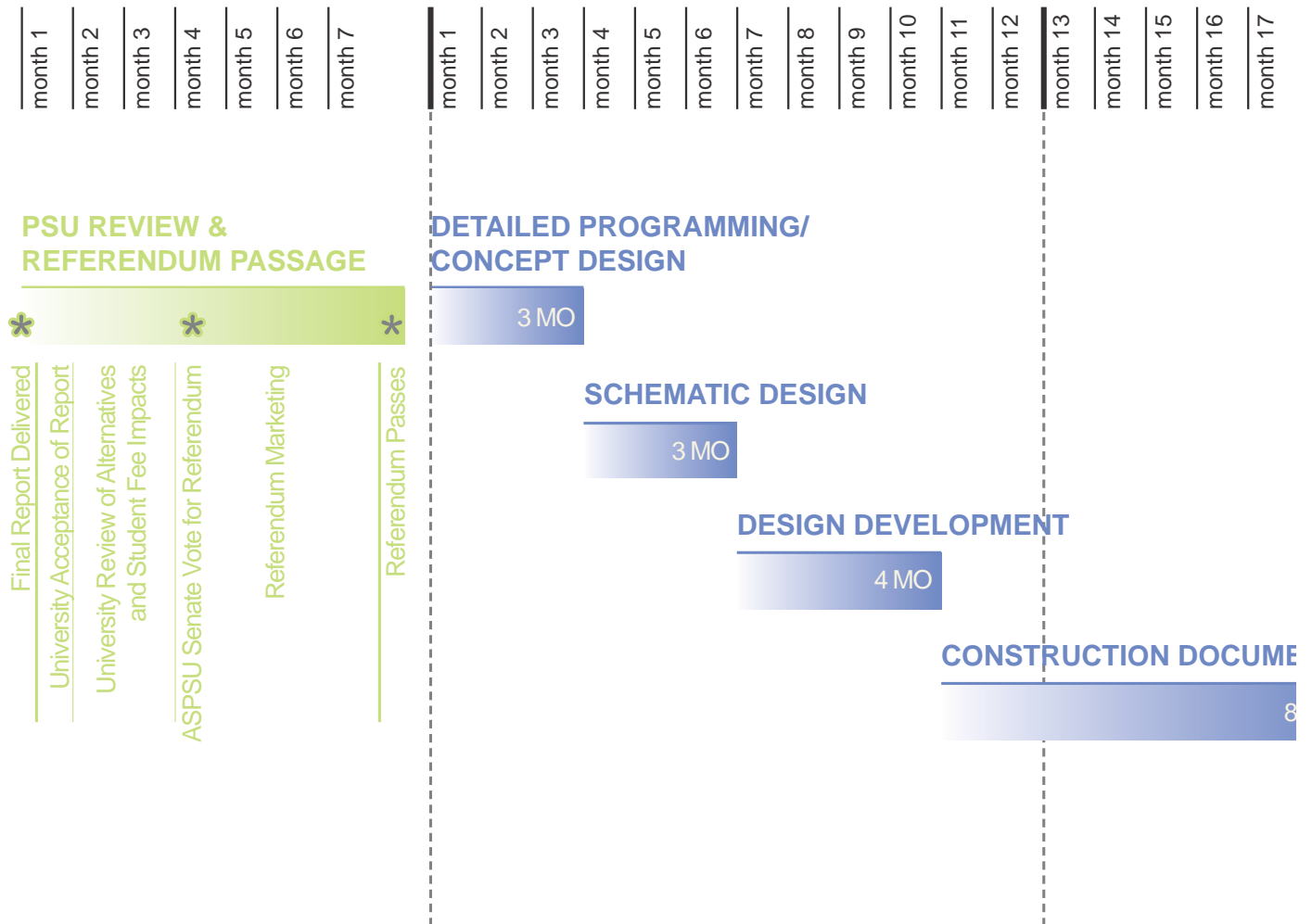
The site will likely require shoring for foundations and basement retaining walls. Means and methods should be thoroughly evaluated.

The Park Blocks have trees that may adversely effect the construction effort either by height, area or root systems.

Construction access and planning will need early focused efforts to manage costs.

5.2 Project Schedule

The schedule below has been developed by comparing the duration of planning and construction phases of projects similar in size and complexity. The schedule for a project like the PSU student Union is depending on various factors, which are sometimes unforeseeable. It should be seen as a guideline and can be adjusted to some degree. The timeline shown here represents an approach to the realization of the project which is desirable and most economical from a design/documentation and construction management perspective.



- month 18
- month 19
- month 20
- month 21
- month 22
- month 23
- month 24
- month 25
- month 26
- month 27
- month 28
- month 29
- month 30
- month 31
- month 32
- month 33
- month 34
- month 35
- month 36
- month 37
- month 38
- month 39
- month 40
- month 41
- month 42

EVENTS

MO

CONSTRUCTION

20 - 24 MO



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