mahlum



EXECUTIVE SUMMARY ::

LONG-RANGE HOUSING PLAN WASHINGTON STATE UNIVERSITY PULLMAN, WASHINGTON

9 SEPTEMBER 2010

TABLE OF CONTENTS

Facility Assessment

1 PROCESS Visioning

Programmatic Assessment Northside District Campus Analysis North Apartments

District Analysis South Apartments

2 VISION

Southside District

Hillside District

3 IMPLEMENTATION

Long-Range Plan Implementation

Phase One Implementation

PARTICIPANTS

WASHINGTON STATE UNIVERSITY

Steering Committee

Cynthia Arbour, Campus Planner CPD Keith Bloom, Director of Construction, CPD

Terry Boston, Senior Executive Director of Administrative Services

Rick Burnham, Facility Quality Assurance Officer, Facilities Operations

Selena Castro, Program Director, Office of Educational Development

Dyonne Davidson, Project Manager, CPD

Ernie Day, Director of Housing Maintenance

Kari Fass, Assistant Director of Residence Life

Eleanor Finger, Director of Residence Life

Ed Hamada, Associate Director of Residence Life

Craig Howard, Director of Administrative Services, Information Systems

Barry Johnson, Assistant Vice President for Business and Finance

Theresa Jordan, History and General Education Instructor

Michele Nowell-Smith, Director of Administrative Services, Financial Services Susan Poch, Associate Vice President, Educational Development

Bobbie Ryder, Senior Campus Planner CPD Gerald Schlatter, AUA/AIA, University Architect, Associate Vice President

Bob Tattershall, Director of Housing

Dr. Michael J. Tate, Vice President for Student Affairs, Equity and Diversity

Michael Weitz, Assistant Director of Marketing & Promotions, Administrative Services

Listening Tour Participants

"Listening tours" were conducted with various groups to gain a better understanding of the diverse perspectives and residential experiences on campus.

- :: Facilities and Maintenance
- :: Grounds Shop and Parking & Transportation Services
- :: Historic Preservation Committee
- :: Housing and Residence Life Staff and Students
- :: Residence Hall Association and Students
- :: North and South Apartment Family Residents and Single Student Residents
- :: Public Relations

PLANNING TEAM

Mahlum

Diane Shiner AIA LEED AP, Partner-in-Charge Anne Schopf FAIA, Design Partner Kurt Haapala AIA LEED AP, Project Manager LeRoy Landers AIA, Project Architect Gregg Stewart AIA LEED AP, Assessment Team Alyssa Leeviraphan LEED AP, Assessment Team

Consultants

Robert Sabbatini AICP FASLA, Urban Planner Doug Macy FASLA, Walker Macy, Landscape Colleen Wolfe, Walker Macy, Landscape Jim Coughlin, Coughlin Porter Lundeen, Structural Engineer

Ron Pace, Taylor Engineering, Inc., Civil Brad Wilson, PAE Consulting Engineers, Inc., Mechanical/Plumbing Engineer

Steve Turina, PAE Consulting Engineers, Inc., Electrical Engineer

Roger Roen, Roen Associates, Cost Estimating

Michael Oliphant, Anderson Strickler, LLC, Educational Real Estate Services



The primary goal of the long-range housing plan is to support the overall mission of Washington State University.

Campus housing contributes significantly to our students' connection with the larger WSU community and to their collegiate experience as a whole. The condition of facilities, availability of desirable amenities and breadth of housing options are all vital to successful recruitment and retention of WSU students to campus residential living.

The following document summarizes a financially viable long-range plan to improve campus residence halls and apartments. The intention of the proposed renovations and new construction projects is to provide high quality, attractive housing options to our students, thereby encouraging their participation in the campus community and enhancing their experience at WSU.

VISIONING

The vision and goal setting process began with a brainstorming session to establish opportunities, facts, and needs for the Washington State University (WSU) Long-Range Housing Plan. During this session, representatives from WSU identified and prioritized project goals in the areas of housing, urban planning, and sustainability.

In conjunction with this effort, Anderson Strickler, LLC conducted a survey to gather information regarding student demographics, current housing status, and preferences for unit type and associated rental rates. This survey had a total of 2,935 responses.

The market study revealed that current expectations are that a freshman year spent living on campus in a traditional residence hall will be followed by living in an apartment in following years. The top three reasons for this belief are: more privacy, more independence, and lower cost.

The most attractive residence hall unit amenities include more private bathrooms, access to kitchens, high-speed wireless internet, and individual temperature control. The most attractive apartment amenities include laundry, parking, and adequate/safe pedestrian walkways.

Analysis of the survey responses indicated the potential for additional incremental demand from students who now live off campus for new or different housing, had it been available for Fall 2009. Eleven percent of all off-campus respondents indicated they would definitely have lived on campus and 40% indicated they might have lived there.

OPPORTUNITIES

- :: Look at the University's entire housing system in a holistic way
- :: Facilitate connections across campus
- Provide a diversity of products and leverage particular housing products to the greatest extent possible
- :: Be strategic about retention, including increasing amenities to retain students
- :: Maintain market share (3,200 freshmen)
- :: Recognize that dining is the anchor of each district

HOUSING GOALS

- :: Maintain affordability
- :: Provide flexible common space
- :: Work toward floor communities of 25 students
- :: Provide a large gathering space for the entire building community

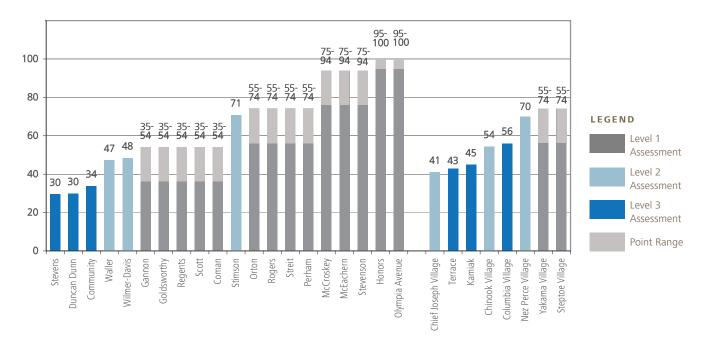
- :: Connect buildings in a cognitive way
- :: Increase amenity and privacy options at the traditional housing complexes
- :: Leverage proximity to the core campus
- :: Recognize the importance of the legacy and attraction of the Hill Halls

URBAN PLANNING GOALS

- :: Create usable and community-centered outdoor space
- :: Create connections between loosely grouped buildings
- :: Create building communities of approximately 150 200 residents
- Recognize that restoration of historic buildings is important to maintain the core campus character
- :: Provide a comfortable walking experience with materials, lighting, and vegetation

SUSTAINABILITY GOALS

- :: Complete a life-cycle cost analysis and understand the Total Cost of Ownership (TCO)
- :: Provide individual controls that work for both heating and cooling
- :: Provide a back-up boiler for geothermal
- :: Use real-time measurements for comparison
- :: Use natural ventilation and operable windows



FACILITY ASSESSMENT

Existing residence halls and apartment complexes were assessed to determine building condition. Assessment of each building occurred at one of three different levels, as determined by WSU.

ASSESSMENT LEVELS

- :: Level One consisted of a brief architectural walk-through.
- :: Level Two consisted of a full architectural assessment.
- :: Level Three consisted of a full architectural assessment with additional structural, seismic, mechanical, and electrical assessment.

DETAILED ASSESSMENT

Buildings assessed in detail (Levels Two and Three) were evaluated in five key areas:

- :: Primary structure, including foundation, column/exterior wall, floor and roof systems
- :: Secondary structure, including ceiling systems, interior walls and partitions and window and door systems
- :: Service systems, including cooling, ventilation, heating, plumbing, and electrical
- :: Safety standards
- :: Building accessibility (ADA)

BUILDING RATING

Buildings were given a weighted numeric score for each key assessment area. These scores were totalled to determine the building's overall assessment rating. Building ratings range from 0 to 100 points and fall into the following categories:

- :: 95-100 points: Satisfactory to excellent condition
- :: 75-94 points: Remodeling D (minor modernization of less than 25% of building replacement cost)
- :: 55-74 points: Remodeling C (modernization of 25% to 50% of building replacement cost)
- :: 35-54 points: Remodeling B (major modernization of 50% to 75% of building replacement cost)
- :: 0-34 points: Remodeling A or Replacement (full modernization/candidate for replacement with 75% to over 100% of building replacement cost)

The condition of buildings receiving a Level One evaluation has been expressed as a numeric range, as no detailed information was gathered for building systems.

SUMMARY OF FINDINGS

The 20 residence halls and nine apartment complexes vary dramatically in condition, primarily due to a broad range in age. The chart above illustrates assessment levels and building ratings for each residential facility. Three residence hall facilities are candidates for either replacement or full modernization: Community, Duncan Dunn, and Stevens Halls. Other facilities that are candidates for a similar level of intervention include: Waller, Wilmer-Davis, Gannon, and Goldsworthy.

Honors and McCroskey halls received modernization in 2001. Stephenson was refurbished in 2008-2009 and McEachern in 2009. Olympia Avenue was constucted in 2009 and refurbishment was completed at Scott, Coman, and the Regents complex in 2010.

The apartment complexes of Kamiak, Terrace and Chief Joseph all are candidates for either replacement or major modernization.

Kruegel and McAllister halls, and Valley Crest apartments were not assessed as Kruegel-McAllister is currently not part of the existing housing inventory and Valley Crest was not considered to be part of the future housing inventory.



BUILDING TEST FIT: WILMER-DAVIS HALL

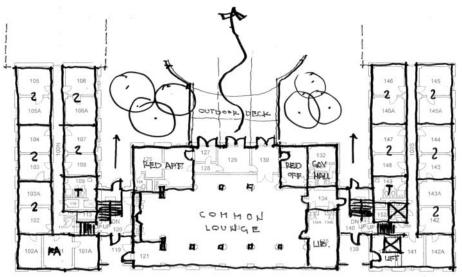
PROGRAMMATIC ASSESSMENT

Any residence hall that has not been refurbished or modernized in the last decade was evaluated for its ability to accommodate programmatic modifications. In order to determine this type of programmatic flexibility, plan tests were developed to determine each building's appropriate density, as well as its ability to incorporate desired amenities and common areas.

In conjunction with the findings from the student survey, added amenities were considered when evaluating each building plan test, including:

- :: Common lounges and recreation rooms
- :: Active and quiet lounges on every floor, including community kitchens and laundry rooms with a 1:12 ratio
- :: Student, building, and bike storage

A diverse set of options for unit types was also taken into account, including single and double occupancy rooms with a higher bed to bath ratio, as well as options for suite style and private bathrooms. More amenities and greater options for privacy are intended to attract and retain students, including upper division students currently opting to live off campus.



BUILDING TEST FIT: WALLER HALL

CAMPUS ANALYSIS

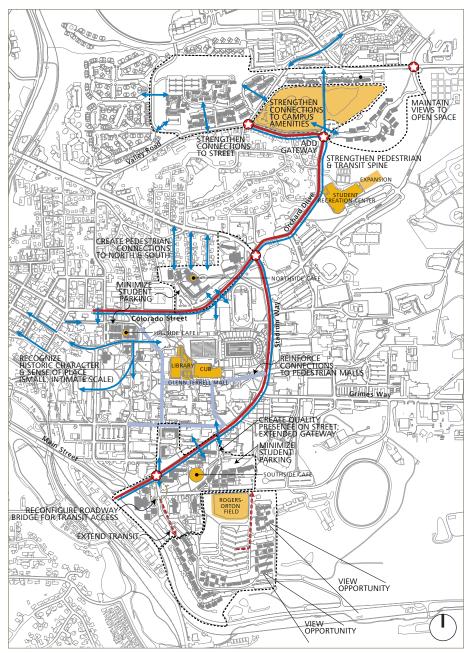
The analysis of existing conditions included both a review of the existing Washington State University Campus Master Plan and a focused evaluation of housing districts and apartment complexes within the overall campus context. This evaluation resulted in the following planning considerations and recognition of significant campus patterns.

PLANNING CONSIDERATIONS

- :: Reinforce campus gateways
- :: Strengthen connections to the street
- :: Balance appropriate residential parking against green space
- :: Recognize the natural flow of students and consider pedestrians first
- :: Learn from the development patterns of the historic residential buildings
- :: Use open space to foster community
- :: Take advantage of near and distant views
- :: Create a common focus ("heart") for each residential area

CAMPUS PATTERNS

- :: Topography (the Palouse)
- :: Orthogonal street grid
- :: Building orientation and presence on the street
- :: South-facing courtyards
- :: Ground-level connections, bridges and stairways



WSU CAMPUS: PLANNING CONSIDERATIONS

LEGEND





LEGEND

Pedestrian circulation

Pedestrian bridge

Service access

Priority focus area

Programmed outdoor area

Informal landscape

View opportunities

Campus gateway

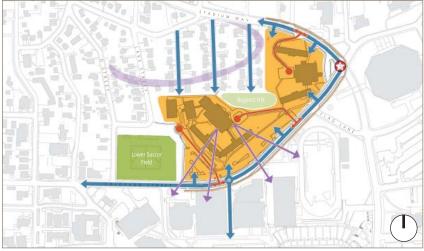
DISTRICT ANALYSIS

A detailed analysis of each housing district was conducted in order to identify localized planning issues and opportunities. Specific considerations include pedestrian and vehicular circulation, service, future development areas, and outdoor space.

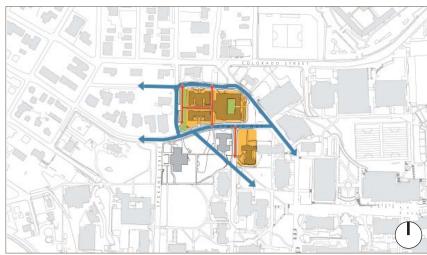
Northside District: A clear campus connection is lost by locating the existing Regents buildings behind a large parking lot. Students flow through the lot on their daily trek from Regents to the academic and athletic core of campus. Re-planning this district should work to resolve this relationship in a manner that benefits student life and the campus as a whole.

Hillside District: In terms of "collegial" image, building scale, and proximity to shared campus functions, the Hillside District is one of the most successful residential areas on campus. As such, planning considerations for this district call for a "light touch."

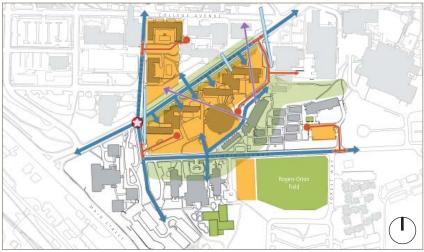
Southside District: As a "gateway" district, key development areas adjacent to the intersection of Stadium Way and Nevada Street should be used to activate and serve as a social focal point for this district.



NORTHSIDE DISTRICT: PLANNING CONSIDERATIONS



HILLSIDE DISTRICT: PLANNING CONSIDERATIONS



SOUTHSIDE DISTRICT: PLANNING CONSIDERATIONS



FUTURE WALLER MODERNIZATION AND ADDITION

SOUTHSIDE DISTRICT

The Southside District serves as a primary campus gateway and houses between 2,899 and 3,397 beds, depending on Rogers and Orton occupancy as singles or doubles.

The combination of historic, brick-clad buildings and modern concrete-formed buildings provides a range of residential offerings; from the visually imposing Rogers-Orton residence halls to the single-story, intimately-scaled McEachern units west of the newly-constructed Olympia Avenue.

Tree-lined Stadium Way, its pedestrian bridges, and the open outdoor space south of Waller Hall serve as iconic images for Washington State University's Pullman campus.

This 35-acre district is located south of the campus academic core. College Avenue frames the district's northern edge and both Stadium Way and Olympia Avenue accommodate significant vehicular traffic through the district. The newly constructed Olympia Avenue residence hall sits high along the southeast edge of the district, adjacent to the South Apartment complexes. The district is served by the recently modernized Southside Cafe.

LONG-RANGE VISION

The overall vision for the Southside District is driven by four fundamental desires:

- :: Recognize the role of this district as a primary gateway to campus. All buildings, infrastructure, and outdoor open space should contribute not only to the improved quality of residental life, but also to the image of the campus as a whole. First impressions matter.
- :: Benefit from the central and desirable campus location, particularly associated with those areas around Waller, Kruegel, McAllister, Gannon, and Goldsworthy, by increasing the density of those areas without negatively impacting existing residence halls.
- :: Recognize the emblematic importance and contribution of Waller and Stimson to WSU campus life by honoring the historic character of the existing buildings through modernization rather than replacement.
- :: Replace and/or modernize other aging residence halls with new, more diverse offerings designed to attract and retain both undergraduate and graduate students.

PROPOSED PROJECTS

The proposed projects consist of four construction campaigns.

The first campaign calls for the modernization of Waller Hall and the addition of a new residence hall to the east of Waller, both with an occupancy target date of Fall 2013 and total estimated project budget of \$32.6 million. Projected capacity for this modernization and new construction is approximately 290-305 beds.

The second campaign addresses the modernization of Gannon and Goldsworthy with a new connector. This project, scheduled for occupancy in Fall 2020, has a target capacity of 306 beds and a total estimated project budget of \$42.1 million.

The third campaign replaces Kruegel and McAllister halls with the first phase of a two phase project. This new residence hall, budgeted at \$22.1 million, has a target capacity of 160 beds and is scheduled for a 2022 occupancy. A subsequent phase may incorporate a new dining facility near the intersection of Nevada and Stadium Way.

The final campaign in the proposed plan involves the refurbishment of Stimson Hall. Budgeted at \$11.1 million, this project has a target completion of Fall 2026. No change in Stimson's capacity is planned.

New construction Renovation/modernization Refurbishment Existing campus buildings

Existing non-campus buildings

LEGEND



PROPOSED AND RECENTLY COMPLETED PROJECTS (2008-2027)



SOUTHSIDE DISTRICT: LONG-RANGE VISION





FUTURE DUNCAN DUNN & COMMUNITY MODERNIZATION AND ADDITION

HILLSIDE DISTRICT

The Hillside District contains six residential halls: Duncan Dunn, Community, Wilmer-Davis, Stevens, Honors, and McCroskey. Centrally located at the northern terminus of Library Road and extending south past Campus Street, this district houses approximately 682 beds, including Duncan Dunn which is currently unoccupied. Referred to as the "Hill Halls," this housing district is emblematic of WSU and its campus residential life.

The district's historic buildings, including some of the earliest built on campus, sit on the hillside in an orthogonal pattern. The residence halls all have direct relationships to bounding streets and have a strong sense of orientation and entry. Little parking is provided, with approximately 22 spaces located in a small lot directly west of Duncan Dunn and Community halls. Despite this lack of parking and the dilapidated nature of the residence halls (Honors Hall and McCroskey Hall are the exception, being modernized in 2001), this district remains a popular choice due to its historic character and proximity to the core of the campus.

Food service for the Hillside District is provided by the recently modernized Hillside Cafe located in Wilmer-Davis.

LONG-RANGE VISION

The overall vision for the Hillside District is driven by two fundamental desires:

- :: Benefit from the central and desirable Hill Hall location by maintaining an appropriate and financially viable balance between residence hall density and improved community amenities.
- :: Recognize the emblematic importance and contribution of the Hill Halls to WSU campus life by honoring the historic character of the existing buildings through modernization rather than replacement.

With specific regard to financial viability, an analysis of probable construction cost suggests that budget allocations, as represented by a target cost per bed, would result in new construction of lesser quality than restoration of existing structures.

PROPOSED PROJECTS

The proposed projects consist of three construction campaigns.

The first campaign calls for the modernization and addition to Duncan Dunn and Community halls with an occupancy target date of Fall 2012 and total estimated project budget of \$21.6 million.

Conceptually, the existing service yard for Duncan Dunn and Community will be replaced by three new connector elements. These connectors will contain additional units, as well as incorporate new common spaces shared between Duncan Dunn and Community. Capacity will increase to approximately 250 beds to help accommodate the high demand for housing in the Hillside District. The existing parking lot to the west of these halls may be reduced to provide a pedestrian oriented "green".

The second campaign addresses the modernization of Wilmer-Davis Hall. This project, scheduled for occupancy in Fall 2017, has a target capacity of 216 beds and a total estimated project budget of \$21.7 million.

The third campaign modernizes Stevens Hall for a Fall 2023 occupancy. This modernization will provide approximately 74 beds and have an estimated project cost of \$12.6 million.

LEGEND

New construction

Renovation/modernization

Refurbishment

Existing campus buildings

Existing non-campus buildings



HILLSIDE DISTRICT: PROPOSED AND RECENTLY COMPLETED PROJECTS (2001-2027)



HILLSIDE DISTRICT: LONG-RANGE VISION

mahlum



FUTURE REGENTS HILL ADDITION

NORTHSIDE DISTRICT

The Northside District houses approximately 1,270 beds in three residential complexes: Scott-Coman, Regents (Barnard and McGregor halls), and Streit-Perham.

Administrative offices for Housing Services are located in the former dining hall situated between the Streit-Perham towers. Food service for the Northside District is currently provided by the recently modernized Northside Cafe in Stearns Hall. Service access to this area is provided via Colorado Street and westward through Regents Hill.

With its northern corner located at the intersection of Stadium Way and Colorado Street, the majority of the district fronts Colorado Street down to the lower soccer field. The district houses a large number of athletes, as it is close to numerous athletic facilities.

Topographic elevation change exceeds 60 feet from the top of Regents Hill as the district slopes to the west and south. The large residential halls contrast with the smaller scale private residential area to the north.

A significant amount of parking is located in the Northside District, with approximately 284 spaces located adjacent to the Regents complex.

LONG-RANGE VISION

The overall vision for the Northside District is driven by five fundamental desires:

- :: Benefit from the desirable campus location by increasing density of the district without negatively impacting existing residence halls in the short-term.
- :: Replace and/or modernize aging residence halls with new, more diverse offerings designed to attract and retain both undergraduate and graduate students.
- :: Transform select outdoor areas currently designated as parking into pedestrian-friendly open spaces that improve safety, enrich residence life, and enhance the campus community at large.
- :: Construct new buildings close to Colorado Street, in order to provide a better connection to the street and to the rest of the campus.
- :: Reduce the size of buildings to better fit with the adjacent private residential neighborhood.

PROPOSED PROJECTS

The proposed projects consist of two construction campaigns.

The first campaign in this district calls for the addition of a new residence hall located to the southeast of the Regents complex. Reduction of surface parking provides an opportunity for residential community open space. This project, scheduled for completion Fall 2024 has a target budget of \$29.4 million. Projected capacity for this new residence hall is approximately 200 beds.

The second campaign involves the replacement of Streit and Perham Halls. This new "gateway" building could take many shapes. The site is located at a major intersection with access restrictions and topographic challenges. This project, scheduled for occupancy in Fall 2027, has a target capacity of 400 beds and a total estimated project budget of \$67.5 million.

Contingent upon demand, the Streit-Perham replacement project may provide an opportunity for a new on-campus student housing option. This offering, apartment style units close to the campus core, could provide a more independent living experience for upper-level undergraduates and graduates, while remaining close to campus amenities and activities.

LEGEND

New construction

Renovation/modernization

Refurbishment

Existing campus buildings

Existing non-campus buildings



PROPOSED AND RECENTLY COMPLETED PROJECTS (2008-2027)



NORTHSIDE DISTRICT:

LONG-RANGE VISION





NORTH APARTMENTS:
PROPOSED AND RECENTLY COMPLETED PROJECTS (2008 - 2027)

NORTH APARTMENTS

The North Apartments, with a total capacity of approximately 1,053 beds, are located along the northwest edge of campus.

Five distinct residential apartment complexes comprise the North Apartment area: Steptoe Village, Terrace Apartments, Kamiak Apartments, Chief Joseph Village, and Nez Perce Village.

A residential neighborhood, comprised primarily of individual homes, is situated immediately to the south of this area. These homes, and the hill they reside on, establish a strong separation between the North Apartments and the WSU campus core; creating more than a 10-minute pedestrian walk to many academic areas.

Privatized apartment development to the north caters primarily to students and university staff. The southeast boundary of the North Apartments borders the Student Recreation Center and its outdoor areas.

The elevation changes are dramatic, descending 80 feet from Steptoe to NE Valley Road and Kamiak. Similar topography exists between low-lying Chief Joseph and the higher perimeter edges of Nez Perce.

LONG-RANGE VISION

The North Apartments are wood-framed structures constructed between the late 1950's and 1970's.

As indicated on the facility assessment chart, a number of the apartment complexes, including Kamiak, Terrace, and Chief Joseph are in physical conditions that clearly warrant consideration for full modernization or replacement.

A series of planning scenarios were studied for each of the replacement candidates. Preliminary cost estimates were developed for preferred configurations and backchecked against similar cost benchmarks.

The proposed approach for the North Apartments involves replacing Kamiak and Terrace apartments with one-, two-, and three-bedroom single student apartment (SSA) units. It will also include a series of strategic modernization projects at Chief Joseph and Nez Perce villages, as well as the addition of a community center at Steptoe Village.

PROPOSED PROJECTS

Chief Joseph Village

- :: Deconstruct building "D" and begin reconstruction in Fall 2010
- :: Reopen building "D" in Fall 2011
- :: Refurbish apartment exterior during the summer months 2011-2012
- :: Refurbish apartment interior during the summer months 2015-2018

Nez Perce Village

:: Refurbish apartments during the summer months 2011-2014

Steptoe Village

- :: Finish construction of new community center in Fall 2013
- :: Refurbish apartments during the summer months 2026-2027

Kamiak and Terrace Apartments

- :: Demolish 50 units at Kamiak and start construction of 80 new 1-3 bedroom SSA units in Summer 2018
- Demolish 50 Kamiak and 51 Terrace apartments and start construction of 58 new 1-3 bedroom SSA units in Summer 2019
- :: Open 213 new 1-3 bedroom SSA units in Fall 2019 Fall 2021

LEGEND New construction Renovation/modernization Refurbishment Existing campus buildings

Existing non-campus buildings



PROPOSED AND RECENTLY COMPLETED PROJECTS (2008 - 2027)

SOUTH APARTMENTS

Three residential areas comprise the South Apartments: Columbia Village, Chinook Village (Upper and Lower), and Yakama Village. These complexes have a total capacity of 718 beds and border the southern edge of the Southside District. The topography descends north to south over 140 feet.

Each of the residential complexes has a modest area that houses laundry rooms and mailboxes. Chinook Village is the only complex with a community center. Most of the apartment complexes lack shared open space. Each residential village is self-contained, offering little to promote interaction with their neighboring villages.

A large central parking area is used by the general campus population and is operated by the university's Department of Parking and Transportation. Due to its low density, the area is not served by the campus shuttle system.

Overall, access to the South Apartments lacks clarity. As with the North Apartments, the South Apartments development patterns are suburban and do little to distinguish themselves as belonging to the WSU campus.

LONG-RANGE VISION

The South Apartments are wood-framed structures constructed between the 1970's and mid 1990's.

As indicated on the facility assessment chart, several of the apartment complexes, including Chinook Village and Columbia Village, are in physical conditions that suggest significant modernization should be planned for in the upcoming years.

Initially, a series of planning alternatives were considered for the South Apartments. These scenarios were co-linked, and somewhat dependent, on the outcome of parallel studies for the North Apartments.

Budget limitations have precluded the possibility for new units or full replacement units in the South Apartments. However, the long-range approach for the South Apartments will incorporate a new community center at Columbia Village, as well as a series of strategic modernization projects at each facility, with the potential of creating shared outdoor community areas.

PROPOSED PROJECTS

Columbia Village

- :: Deconstruct buildings "J" and "H" in Summer 2014 to make way for new community center
- :: Finish new community center in Fall 2015
- :: Refurbish apartments in Summer 2024

Chinook Village

- :: Refurbish Lower Chinook Village apartments during the summer months 2019-2020
- :: Refurbish Upper Chinook Village apartments during the summer months 2021-2023



LONG-RANGE PLAN IMPLEMENTATION

PROPOSED HOUSING PLAN PROJECTS

The chart below summarizes the proposed plan for residence halls and apartments, as provided by WSU.

The chart tracks proposed projects and the estimated costs associated with the replacement, modernization, and addition of student residence halls and apartments through 2027.

The capacity analysis of the housing system accounts for flexibility to adjust for either an increase in enrollment or an increase in retention. Either case would potentially accelerate the timing of the proposed projects to meet additional demand.

ASSUMPTIONS

- :: Housing rates increase 5% in FY2012-2013 and 4% thereafter
 - Duncan Dunn and Community at the Olympia Avenue rate
 - Renovated buildings go to the Honors and McCroskey rate
 - New construction at the Olympia Avenue rate
- :: Dining rate increases 3%
- :: Apartment rates increase 3%, plus 15% for renovations (Chief Joseph 7.5% at exterior refurbishment and 7.5% at interior refurbishment)
 - Chief Joseph refurbishment at \$54,000 per unit exterior and \$47,000 per unit interior

- Apartments continue to fund \$0.2 million per year for refurbishments or community development throughout the plan
- \$200 per square foot project cost for Kamiak and Terrace Apartments
- :: Administration fee 8% on total revenues
- :: Bond interest 4.50% FY2011 and 5.5% from FY2013
- :: Apartment bonds 25 years 5.15%
- :: Construction inflation 3%
- :: Freshmen enrollment target of 3,200
- :: Debt service ratio of 1.8 university criteria and positive cash balances each year
- :: Kruegel-McAllister deconstructed prior to construction of new facility
- :: Goods and services rate increases 3%

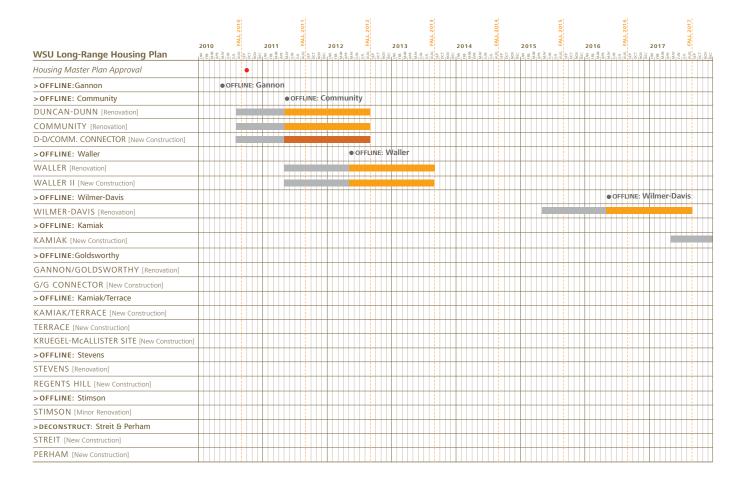
COMPLETION	LOCATION	COST \$M	PROPOSED PROJECT	
Fall 2008	Stephenson South	1.3	Refurbishment (COMPLETED)	
Fall 2008	Stephenson East	1.4	Refurbishment (COMPLETED)	
Fall 2009	Stephenson North	1.6	Refurbishment (COMPLETED)	
Fall 2009	McEachern	2.7	Refurbishment (COMPLETED)	
Fall 2009	Olympia Avenue	26.0	New construction of 230 beds (COMPLETED)	
Fall 2009	Duncan Dunn		Take offline (COMPLETED)	
May 2010	Gannon		Take offline for Hotel (COMPLETED)	
Fall 2010	Regents	3.0	Refurbishment (estimated cost) (CIP)	
Fall 2010	Scott-Coman	2.0	Refurbishment (estimated cost) (CIP)	
Fall 2010	Chief Joseph		Deconstruct Building "D" and reconstruct for Fall 2011 (insurance covers this)	
May 2011	Community		Take Community offline. Start to renovate DD/Community and construct connectors	
Summer 2011	Chief Joseph	2.2	Exterior refurbishment 40 apartments	
Summer 2011	Nez Perce	0.2	Continue refurbishment 22 apartments	
Fall 2011	Chief Joseph		Building "D" reopens	
Summer 2012	Chief Joseph	2.8	Exterior refurbishment 50 apartments	
Summer 2012	Nez Perce	0.2	Continue refurbishment 22 apartments	
May 2012	Waller		Take Waller offine for renovation	
Fall 2012	DD and Community	21.6	Reopen renovated DD/Community and new connector	
Summer 2013	Nez Perce	0.2	Continue refurbishment 23 apartments	
Fall 2013	Steptoe	0.5	Finish construction of new community center	
Fall 2013	Waller	32.6	Open 160 new and 145 renovated beds	
Summer 2014	Columbia	0.1	Deconstruct J-H buildings (8 apartments) to make way for community center	
Summer 2014	Nez Perce	0.2	Finish refurbishment 23 apartments	
Summer 2015	Chief Joesph	1.2	Start interior refurbishment 22 apartments	
Fall 2015	Columbia	0.5	Finish Columbia community center	
May 2016	Wilmer-Davis		Take offline for renovation	
Summer 2016	Chief Joesph	1.2	Interior refurbishment 22 apartments	
Summer 2017	Chief Joesph	1.3	Interior refurbishment 23 apartments	

COMPLETION	LOCATION	COST \$M	PROPOSED PROJECT	
Fall 2017	Wilmer-Davis	21.7	Reopen 216 renovated beds	
Summer 2018	Kamiak		Demolish 50 units and start construction of 80 new 1-3 bedroom SSA units	
Summer 2018	Chief Joseph	1.3	Finish interior refurbishment 23 apartments	
May 2019	Goldsworthy		Take offline for renovation of Gannon and Goldsworthy	
Summer 2019	Kamiak andTerrace		Demolish 50 Kamiak and 51 Terrace units and start construction of 58 new 1-3 bedroom SSA units	
Summer 2019	Lower Chinook	0.4	Start refurbishment 29 apartments	
Fall 2019	Kamiak	18.4	Open 80 new 1-3 bedroom SSA apartments	
Summer 2020	Lower Chinook	0.4	Continue refurbishment 29 apartments	
Summer 2020	Kamiak and Terrace		Start construction of 75 new 1-3 bedroom SSA units	
Fall 2020	Kamiak and Terrace	14.1	Open 58 new 1-3 bedroom SSA units	
Fall 2020	Gannon/Goldsworthy	42.1	Reopen 206 renovated beds	
Summer 2021	Upper Chinook	0.3	Continue refurbishment 22 apartments	
Fall 2021	Kamiak and Terrace	17.1	Open 75 new 1-3 bedroom SSA units	
May 2022	Stevens		Take offline for renovation	
Summer 2022	Upper Chinook	0.3	Continue refurbishment 22 apartments	
Fall 2022	Kruegel-McAllister	22.1	Finish construction of 160 beds	
Summer 2023	Upper Chinook	0.3	Finish refurbishment 22 apartments	
Fall 2023	Stevens	12.6	Renovation of 74 beds	
Summer 2024	Columbia	0.3	Start refurbishment 22 apartments	
Fall 2024	Regents	29.4	Finish construction of 200 beds	
May 2025	Stimson		Take offline for renovation	
Summer 2025	Columbia	0.3	Finish refurbishment 27 apartments	
Summer 2026	Steptoe	0.3	Start refurbishment 24 apartments	
Summer 2026	Streit-Perham		Deconstruct	
Fall 2026	Stimson	11.1	Minor renovations	
Summer 2027	Steptoe	0.3	Finish refurbishment 24 apartments	
Fall 2027	Streit-Perham	67.5	Finish construction of 400 beds	
	TOTAL	363.1	\$194.9M (BOND FINANCING) AND \$168.2M (CASH)	

PROPOSED HOUSING PLAN TIMELINE

The timeline below tracks proposed projects associated with the replacement, modernization/renovation, and addition of student residence halls through 2027. It also includes replacement of apartment complexes, but does not include strategic modernizations/renovations or refurbishments associated with the apartments.

Proposed projects are driven primarily by need to repair or replace existing conditions, rather than growth in enrollment, however flexibility has been accounted for with the ability to provide double occupancy in select residence halls.



LEGEND Design phase Construction phase: renovation/ modernization Construction phase: new construction 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 OFFLINE: Kamiak OFFLINE: Goldsworthy OFFLINE: Kamiak/Terrace OFFLINE: Stevens OFFLINE: Stimson OFFLINE: Streit & Perham



PHASE ONE IMPLEMENTATION

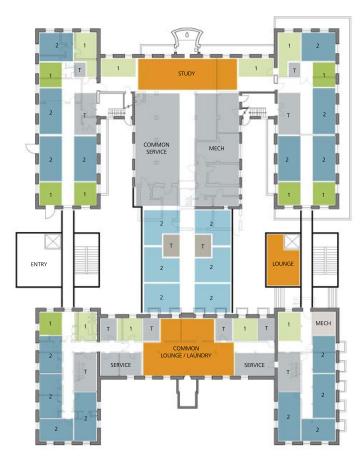
DUNCAN DUNN AND COMMUNITY

Duncan Dunn Hall and Community Hall are the first projects to be implemented in the Phase One proposed projects.

This modernization effort will include a central connector at the lowest level of the two buildings that will house additional resident rooms. Directly above these rooms, a roof terrace will connect the primary common spaces of each building. Lounges located on each floor will connect the wings of Community and Duncan Dunn, defining the newly landscaped courtyard and roof terrace. These connectors will incorporate vertical circulation, making the buildings fully accessible.

The extent of work will include full modernization of the exterior envelope, interiors, systems, and finishes. The new design will introduce lounge space, community kitchens, and laundry facilities on every floor. Upon completion, Community and Duncan Dunn will house approximately 250 beds in various room configurations (single and double occupancy rooms with options of private, shared or community bathroom facilities).

Single unit Single suite unit Double unit Double suite unit Common area Office Toilet / mechanical / service



DUNCAN DUNN & COMMUNITY: PRELIMINARY GROUND FLOOR TEST FIT



DUNCAN DUNN & COMMUNITY: PRELIMINARY FIRST FLOOR TEST FIT



DUNCAN DUNN & COMMUNITY: PREMINIARY SECOND & THIRD FLOOR TEST FIT



WALLER AND WALLER II

The modernization of Waller Hall, along with the addition of a new Waller II, are included in the Phase One proposed projects. The new Waller II residence hall will create a unified residential community, establishing a connection to the historic Waller Hall with the marriage of old and new.

The extent of work for Waller will include full modernization of the exterior envelope, interiors, systems, and finishes. The new design will introduce small study spaces, and modernize existing amenities while incorporating new student offerings.

The new building addition includes a full-height connector at both wings of Waller, with a "breezeway" connection at the first floor into an interior couryard. This connector will function both as vertical circulation, making the buildings fully accessible, as well as house active and quiet lounges on every floor. The new Waller II addition will respect the historic architecture of the existing Waller, while embodying the "high-tech" modern demands of students today.

Upon completion, Waller and Waller II will house approximately 290-305 beds in various room configurations to appeal to a broader and more diverse student population.

LEGEND

Single unit

Single suite unit

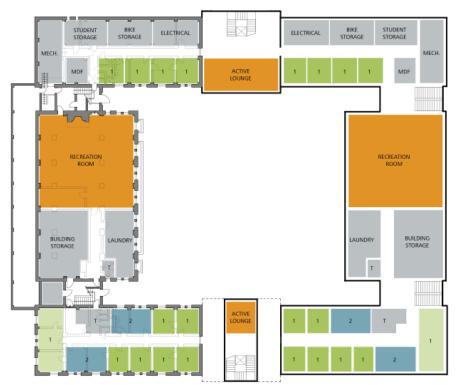
Double unit

Double suite unit

Common area

Office

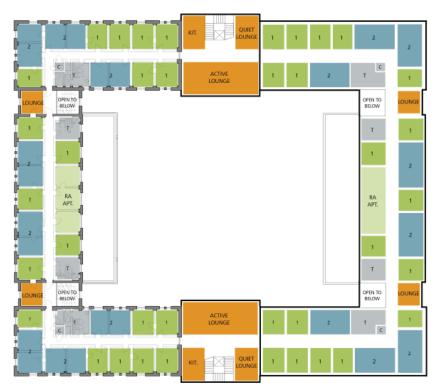
Toilet / mechanical / service



WALLER AND WALLER II:
PRELIMINARY GROUND FLOOR TEST FIT



WALLER AND WALLER II: PRELIMINARY FIRST FLOOR TEST FIT



WALLER AND WALLER II: PRELIMINARY SECOND, THIRD & FOURTH FLOOR TEST FIT