### Pacific Lutheran University Major Institution Master Plan

Updated February 2015 and per 2018 Minor Amendment to PUDI-IO

### Pacific Lutheran University

Major Institution Master Plan

Updated February 2015 and per 2018 Minor Amendment to PUDI-IO

#### Introduction

Campus Map	10
Campus Context & Background	11
Existing Conditions	12
Plan Purpose & Contents	14
Process	15

#### Mission, Goals & Objectives

PLU Mission, Goals & Objectives19
PLU Master Plan Goals & Objectives19

#### Master Plan Concept

Master Plan Concept	25
Long Range Plan & Rationale	26
Campus Uses	28

#### **Development Program**

Introduction	31
Planned Development	31
Planned Projects: Interior Spaces	32
Potential Projects: Exterior Spaces	33
Long Term Development Sites	34
Planned Projects and Long-Term	
Development Sites	35
Existing Infrastructure and Future	
Development	36
Recycling	48

#### Acknowledgments.....vi Development Standards

Zoning5	1
Development (setbacks,height limits etc.)53	3
Fire Protection	4
Landscape & Open Space56	6
Campus Edge6	1
Support of Existing Habitat62	2
Screening64	4
Vehicular, Circulation, Parking & Wayfinding 64	4
Pedestrian Circulation68	8
Pedestrian Safety Improvements72	2
Potential Street Vacations and Pedestrian	
Improvements73	3
124th Street South Improvements75	5
Campus Entry Improvements79	9

### Transportation Management Plan

Traffic, Parking & Transportation	
Management	83
Traffic & Parking Associated with Future	
Development Plans	96
Roadway Network Changes	99
New Athletic Facilities 1	02
Transportation Management Plan 1	06

#### **Community Benefits**

Community Benefits of this Plan 115
Student Enrollment 116
Campus Employment & Payroll 117
Campus & Neighborhood Security 118
Infrastructure Improvements118
Taxes
Environmental Excellence120
Public Events 121
Facilities Available to the Community
Public Services122
Community Development 123
Conclusions 123

Regulatory

**Content Required** by MIMP code

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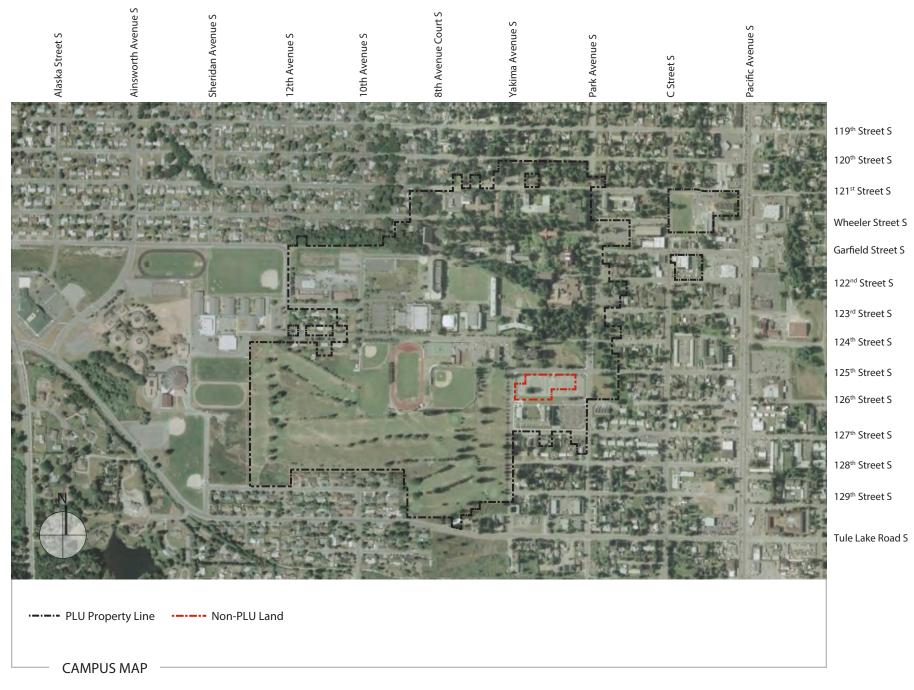
PLU MASTER PLAN STEERIN COMMITTE 2004-preser

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### Introduction



#### CAMPUS CONTEXT / BACKGROUND

PLU was founded in 1890 by Lutherans in the Puget Sound area with strong ties to their Scandinavian heritage. The founders envisioned and established an educational institution (and then the university) to further their mission of serving church and community. The campus is located in suburban Parkland in Pierce County, Washington. PLU's 156-acre campus is just south of the Tacoma city limits, 40 miles south of Seattle, and 20 miles north of Olympia. Mount Rainier and the Washington coast are within two hours of the campus.

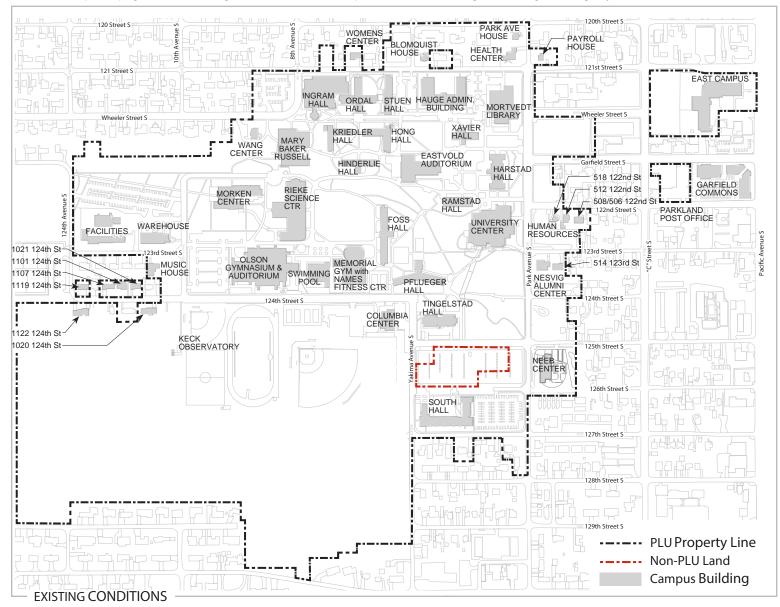
Today, PLU has an enrollment of about 3,500 students. As a member of the New American Colleges and Universities, PLU is committed to the integration of liberal arts studies and professional preparation programs. PLU has four professional schools including a School of Arts and Communication, School of Business, School of Education and Kinesiology, and School of Nursing, as well as three academic divisions in the College of Arts & Sciences - Humanities, Natural Sciences, and Social Sciences. PLU also offers graduate programs in Business Administration, Creative Writing, Education, Nursing, and Marriage and Family Therapy.

PLU remains closely affiliated with the Evangelical Lutheran Church in America and is dedicated to educating its students for lives of thoughtful inquiry, service, leadership and care for other people, for their communities, and for the earth.





Source: http://www.plu.edu/~archives/timeline/1920-1924.html



The next couple of pages show existing conditions of the campus with a table listing all existing buildings by size.

#### Large (51,000 sf - 100,000 sf)

Building	Age/Acquisition	Square Footage
Anderson University Center	1970	87,800
Harstad Hall	1894	72,200
Hauge Administration Building	1960	62,200
Morken Center	2006	53,000
Mortvedt Library	1966	91,400
Olson Auditorium	1969	96,500
Rieke Science Center	1985	89,000
South Hall	2000	100,000
Tingelstad Hall	1967	93,900

Subtotal 746,000

#### Mid-Sized (11,000 sf - 50,000 sf)

Building	Age/Acquisition	Square Footage
Columbia Center	1962	17,300
East Campus	1930	46,800
Phillips Center (previously Eastvold H	lall) 1952	37,900
Foss Hall	1965	39,700
Hinderlie Hall	1955	34,000
Hong Hall	1955	29,600
Ingram Hall	1956	33,100
Kreidler Hall	1957	30,600
Mary Baker Russell	1993, 1995	45,000
Memorial Gym/Names Fitness Ctr	1947/1984	40,900
Neeb Center	2007	17,300
Ordal Hall	1967	40,300
Pflueger Hall	1962	40,600
Ramstad Hall	reno 1986	34,900
Stuen Hall	1966	31,300
Swimming Pool	1965	12,500
Xavier Hall	reno 2001	20,300
	Subto	tal 560,100

#### Small ( <10,000 sf)

Building	Age/Acquisition	Square Footage
Blomquist House	1982	2,600
Facilities Management	1982	9,600
Gonyea House *	1971	3,800
Health Center	1948	3,800
Human Resources	1948	1,100
Keck Observatory	1995	1,000
Payroll House	1991	1,500
Music Practice House	1993	1,200
Nesvig Alumni House	1955	3,400
Park Avenue House	1971	3,100
Wang Center	1986	2,300
Warehouse/Printing	1982	9,500
Women's Center	1979	1,000
Houses (12), general rental	varies	24,000
		Subtatal 67.000

Subtotal 67,900

The total square footage for all buildings on campus is 1,350,000 sf. In addition to the buildings listed above, PLU leases space for some administrative functions and owns some small houses that are rented out to residential tenants.

#### Notes

• Garfield Commons is owned by Garfield Commons LLC, of which PLU is a member.

• The Parkland Post Office is owned by PLU, but houses no university function.

\* The residence of the President of PLU is not within the campus map. The address is 13611 Spanaway Loop Road South, Tacoma, WA 98444.



#### **PLAN PURPOSE & CONTENTS**

This Major Institution Master Plan (MIMP) is prepared pursuant to the requirements of the newly adopted ordinance for Title 18A, Chapter 18A.75.08.0 Planned Unit Development in the zoning section of the Pierce County Development Regulations. This ordinance establishes requirements for PLU to complete a County-adopted MIMP. The MIMP modifies the permitted uses and development standards of the underlying zones and allows PLU to plan and design improvements in an integrated manner under one plan. This will streamline the permit process for PLU while mitigating impacts that development might have on the adjacent community. The growth proposed in the MIMP's Long Term Development Plan is necessary to accommodate the projected growth of the University, address existing building condition and functional issues and allow enough flexibility to adapt to the changing programmatic needs of the University. PLU's mission, goals and core values are fully supported with this long range conceptual plan which describes policies for land use, open space, density, primary circulation systems and linkages with the surrounding community. The plan also incorporates and supplements PLU's 2010 Long Range Plan and the Campus Framework Plan adopted by the Board of Regents in 1997.

Four major components of the plan are included as required by the ordinance. The first component, Development Program, describes physical development for which the University has definite plans to construct and potential physical development for which the University's plans are less definite. The second component, Development Standards, identifies the applicable regulations for the physical development of University uses within the Major Institution Overlay (MIO) District, superseding the development standards of the underlying zone. The third component, Transportation Management Program, identifies the traffic and parking systems within the institutional boundaries, a description of PLU's impact on traffic and parking in the surrounding area, and specific programs to reduce traffic impacts and encourage the use of single-occupant vehicle alternatives. The fourth component, Community Benefits, describes public benefits of the University.

#### PROCESS

The master plan was developed through a highly interactive and collaborative process that involved the University community and was coordinated with previous master planning and other projects currently underway. The consultant team worked closely with the Master Plan Steering Committee (MPSC) throughout the process. MPSC members represented each of the major constituencies on campus. The committee worked together to draft the goals of the master plan, inform and comment on the assessment of existing conditions and needs, establish project priorities, and provide feedback on design alternatives. This committee will continue to exist as needed and will be reappointed periodically. Constituents living in the neighboring community also provided input and helped shape the plan through public meetings. As part of this plan, PLU appointed an ongoing Community Advisory Committee with 8-10 members. The university will hold semi-annual meetings open to the public, where issues regarding campus development will be described and input solicited.



Master Plan Steering Committee meeting, June 2005

# Mission, Goals & Objectives

William.



### Mission, Goals & Objectives

#### PLU MISSION, GOALS & OBJECTIVES

The mission statement for the University emphasizes four important goals for student development: thoughtful inquiry, service, leadership, and care of individuals, community and the earth. This mission is achieved by fusing academic and professional education with cocurricular learning at PLU including residential life, recreation, cultural activities and worship.

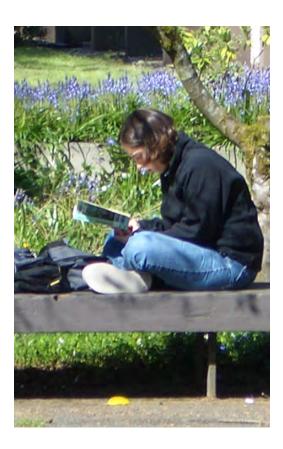
#### PLU MASTER PLAN GOALS & OBJECTIVES

The goals of the master plan are founded on PLU's mission and represent ideals to strive for in the preservation, enhancement and improved development of the physical campus. They provide the foundation and help direct the structure of the near-term and long-term master plan. Like the activities taking place at PLU, the campus setting (buildings, pathways and open spaces) reinforces the mission by fostering growth of the individual, strengthening connections to place and community, and supporting stewardship of the surrounding world. It should be noted that the following goals and objectives are meant to be guiding, not regulating.



University Mission: "PLU seeks to educate students for lives of thoughtfulinquiry,service, leadership, and care - for other people, for their communities and for the earth."







#### Foster Intellectual Growth

The campus master plan will foster intellectual growth by challenging students, faculty and staff to strive for excellence and by supporting academic and co-curricular learning.

#### Objectives:

- Develop an environment of creative interaction that is learner-centered
- Create a setting that is accessible and inclusive
- Support the curriculum and reinforce the link between teacher and student
- Provide flexibility for incorporating technological advancements and knowledge sharing
- Provide recreational and co-curricular facilities throughout campus

#### Promote Creativity and Expression

The campus master plan will provide opportunities for individual leadership, creative self-expression, innovation, research and hands-on experience in an environment that is flexible and able to adapt to future needs.

#### **Objectives:**

- Incorporate indoor and outdoor spaces for creative self-expression

   audio, visual and kinesthetic
- Support student-centered committees, organizations and groups and provide options and variety in places to meet
- Enhance opportunities for studentfaculty research and artistry
- Promote undergraduate research through appropriate allocation of space

#### 🖉 Strengthen Community

#### Facilitate a Sense of Belonging

The campus master plan will develop the life of the mind by strengthening the student, faculty and staff's connection to the campus community. The plan will provide opportunities for different but shared experiences, relationships and activities. It will strengthen the individual's connection to the neighboring community and the world community by supporting lives of service, research and teaching.

#### Objectives:

- Strengthen interaction among faculty, staff and students
- Develop a university setting that inspires a life of service, leadership and care
- Create more usable gathering spaces indoor and outdoor
- Improve physical and visual connections between upper and lower campus

#### Connect to Place

The campus master plan will enhance and reinforce the connection of students, faculty, staff and alumni to the campus, the local commercial community of Garfield Street, the Parkland Neighborhood, Pierce County, the State of Washington and the Pacific Northwest region.

#### **Objectives:**

- Create a welcoming front door for visitors and improve campus edges
- Protect and enhance the unique architectural and natural qualities of campus
- Reinforce the qualities associated with the Pacific Northwest in the architecture and landscape of the campus
- Create a sense of permanence in new buildings
- Connect the campus with the neighborhood to serve as a community asset and express PLU as a collaborator with its neighbors







ourage Stewardship

#### Promote Healthy Living

The campus master plan will promote healthy living by providing a safe campus environment, encouraging a balance in the 'live, learn and play' structure of University life, providing choices in transportation and parking, and by supporting sustainable practices.

#### Objectives:

- Create a setting that is safe and provides a feeling of security
- Reduce the impact of vehicles (i.e. traffic and parking on and around the campus) and improve pedestrian connections
- Create an environment that supports alternative modes of transportation
- Reinforce the interconnection among residential life, academic learning, cultural activities, and recreation
- Provide housing opportunities for all types of residents
- Improve wellness, recreation and athletics activities and facilities
- Support sustainable practices with innovative materials and technology

#### Ensure Preservation of History

The campus master plan will ensure that the University's Lutheran heritage, its history, traditions, culture and identity are preserved and enhanced for future generations including the built environment, natural environment, and the structure of open space.

#### **Objectives:**

- Preserve and enhance places of historic and traditional significance to ensure shared experience from one generation to the next
- Strengthen and celebrate the University's Lutheran heritage
- Develop the campus as a model of and learning laboratory for sustainability
- Ensure the protection and stewardship of the characteristic mature tree canopy
- Minimize the University's impact on the natural world while balancing the needs of students, faculty and staff
- Provide educational opportunities in future development of campus landscape and buildings

#### **Encourage Efficiency**

The campus master plan will encourage efficiency in departmental and administrative functions and in the operations and maintenance of building systems, infrastructure and grounds.

#### **Objectives:**

- Provide for campus information in strategic locations for visitors and the campus community
- Group departments by academic and administrative function
- Provide adequate workspace
- Address parking needs
- Build, renovate, reuse and reassign campus buildings to utilize them efficiently, effectively and economically
- Identify, prioritize and address the most pressing needs first
- Maximize operational and maintenance efficiencies
- Establish a dynamic framework for future needs and decision-making
- Continue to increase handicapped accessibility throughout campus

## Master Plan Concept

## Master Plan Concept

#### MASTER PLAN CONCEPT

The master plan concept responds to an analysis of the existing conditions and future needs of the campus and is derived from the PLU culture and mission and the master plan goals and objectives. The 1997 Framework Plan was a helpful springboard. That plan sought to improve internal and external campus connections and preserve the historic elements of campus that express the University's Lutheran heritage.

The updated Campus Master Plan strengthens the same connections while conserving and enhancing areas of campus that are highly valued and improving areas that are weaker by comparison. In addition, improvements to interaction, and thus a sense of community, are proposed by increasing pedestrian linkages, improving existing facilities, siting potential new development where appropriate, and identifying landscape improvements.

A central element of the plan is preserving the character of the upper campus while bringing the quality of lower campus to a similar level by increasing the tree canopy, improving pedestrian linkages, refurbishing the UC Pond and replacing, renovating and/or expanding athletic and recreation facilities in a way that will increase this area's sense of place.

Campus connections between the upper and lower campus and future athletic fields are also strengthened in the plan. Campus edge improvements include a new main entrance, improved pedestrian access to Garfield Street and around the entire campus, pedestrian safety strategies on 121st, Park and 124th Streets, and landscape improvements along the bordering streets. Specific development projects are also identified, including suggested renovation or replacement of buildings to meet programmatic needs and/or preserve the existing building stock.

Each recommendation was identified and further developed within the context of an analysis of projected space needs and functional relationships, an assessment of existing buildings and infrastructure, and an evaluation of the structure and quality of existing circulation, open space, campus edges and connections to adjacent communities. As needs change and funding becomes available, this plan provides a framework and structure for future development while conserving the best qualities of the existing campus. Given the realities of funding and a projected moderate near-term growth rate for the college, the long-term plan may not be completed for many years.



#### LONG RANGE PLAN & RATIONALE

The following graphic illustrates PLU's long range plan. Existing buildings are in dark gray, red and light blue and accommodate PLU's current total enrollment of 3,500. Current dated facilities include Athletics, Recreation and Physical Education space, library, academic and residential space, and buildings requiring major systems upgrades or replacement such as Ingram Hall. Inadequacies related to the University Center were addressed with its renovation, completed in 2007, and in the Phillips Center (Eastvold Auditorium) in 2013.

In the long term, the planned projects (discussed more in the Development Program), potential demolition or replacement of existing buildings, potential future development sites and site improvements will accommodate the University's future needs.

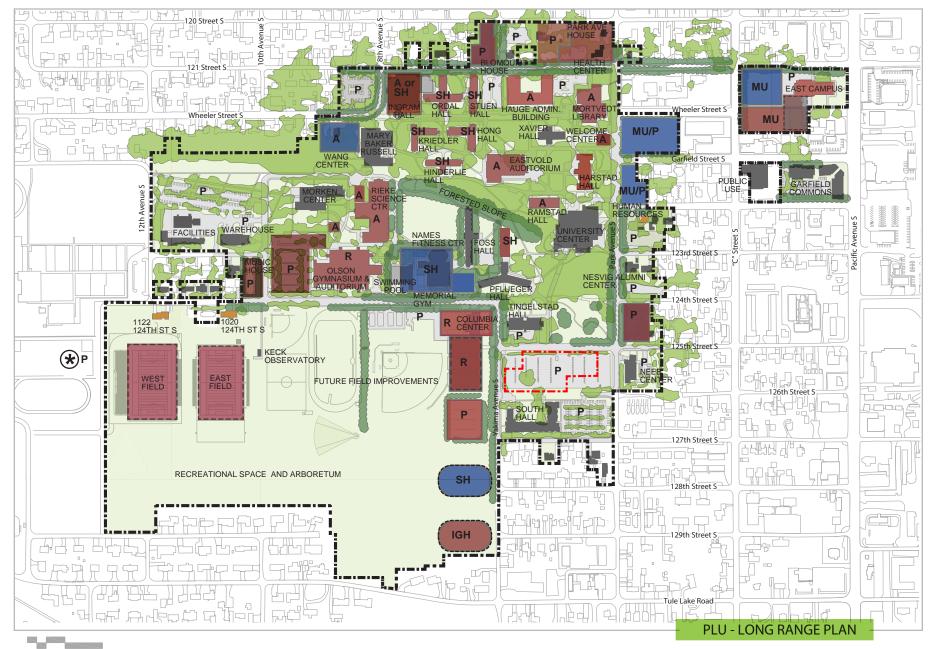
While undergraduate enrollment at PLU is expected to remain constant, a small increase in graduate enrollment is projected. The University's enrollment has varied in recent years between 3,500 to 4,000. On-campus enrollment was 3,461 in 2013 and is not projected to exceed 4,000 over the next 10 years. Any additional increase in graduate student enrollment is not expected to affect overall academic space needs since a large percentage of graduate courses are offered in the evenings and on weekends. In addition, learning opportunities including "low residency" online (where students spend three weeks on-campus in the summer and the remainder of the year remotely with mentors and through internet) are steadily increasing. In terms of housing, new beds will increase the proportion of students living on campus and/ or meet the need for non-traditional student housing. Future projects will focus primarily on major renovation or replacement of existing buildings. A second focus will be replacement or additional student housing.

The campus boundary was amended in 2005. Since then various properties adjoining campus have been purchased. The administration considers them part of the strategic footprint of the campus and intends to submit the updated boundary to be applied to the Comprehensive Plan to adjust the MIO boundary.

The potential future development sites, in total, represent more potential development than the university likely will need. However, identifying the sites provides a range of flexibility for locating potential academic, athletics/recreation, student housing, parking, mixed-use or even senior housing developments as needs arise and funding becomes available.

Displaced parking will be replaced with each project until parking demand is reduced.

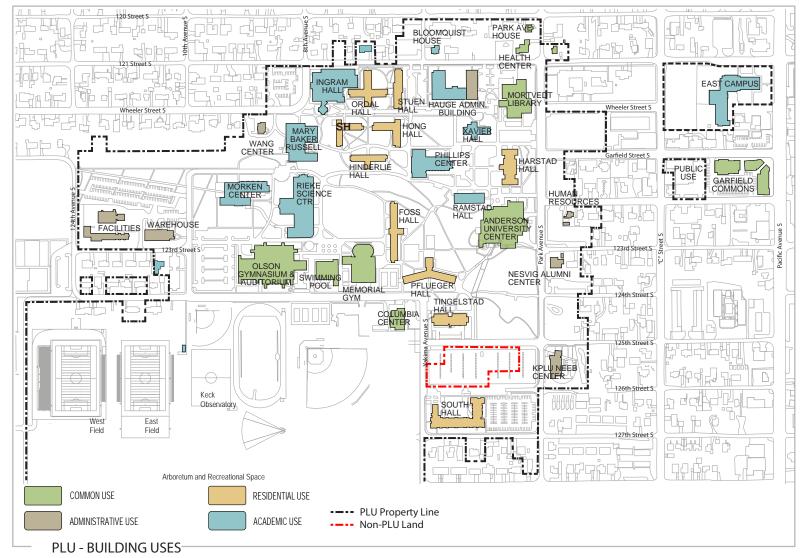






#### **CAMPUS USES**

Uses on campus range from academic, administrative to common use and residential. The unique mix of non-residential buildings interwoven with residence halls contributes to the strength of the live-learn environment at PLU and provides opportunities for students to choose distinctive living arrangements that suit their personalities. This intermixing of residence halls will be maintained as the campus develops.





### **Development Program**



### **Development Program**

#### INTRODUCTION

This chapter describes planned and and long term development projects for the campus as well as infrastructure improvements to accommodate growth and reduce energy, water and carbon impacts. This plan defines planned physical development as development which the Major Institution has definite plans to construct. Long term development sites are less definite and provide a vision for the future.

#### PLANNED DEVELOPMENT

#### **Property Ownership**

Most property contained within the Pacific Lutheran University Major Institution Overlay (MIO) District is owned by Pacific Lutheran University. One small parcel on 125th Street South is leased from an individual. Garfield Station, to be completed in 2014, is owned by Garfield North LLC, of which PLU is a member. Garfield Commons is owned by Garfield Commons LLC, of which PLU is a member.

#### **Development Density**

The maximum campus development density standard is expressed by Floor Area Ratio (FAR), a function of total development square footage divided by the MIO area not including streets and non-university owned property within the MIO. The existing FAR is 0.20. The future FAR is the total building square footage (1,873,400 sf) divided by the total PLU owned areas within the MIO area (155.5 acres or 6,773,539 square feet) and will not exceed 0.50 FAR.

#### **Planned Demolition**

The following buildings are planned for demolition in the next five years:

- Human Resources
- House located at 1122 124th Street South
- House located at 1020 124th Street South
- East Campus South Wing (demolished Fall 2013)

In the future, buildings in addition to those identified above may be demolished, depending on whether buildings are renovated or demolished and rebuilt. At present, it is expected that the total area to be demolished will not exceed 20,000 sf.

#### Planned and Potential Development

The following table illustrates Planned Projects and Long Term Development Sites. Generally, planned projects are those that are expected to occur within zero to twenty years. All of these timeframes are variable depending on funding. The developable area in the Planned Projects category is 493,400 gsf of interior space including Eastvold Restoration Ph II, Olson Auditorium, a fitness and sports center, Phase I, a new residence hall with approximately 200 beds, the Health Center, a greenhouse, Rieke Science Center, Residence hall renovations, a Campus Welcome Center, the Hauge renovation and new addition, the fitness and sports center, Phase II, an academic building and athletic facilities. A portion of the golf course could be redeveloped into intergenerational housing. The total exterior space ranges from 563,000 - 737,000 sf including two all-weather fields and athletic fields improvements, the Main Campus Entrance as well as parking projects and saftey or security improvements.

#### DEVELOPMENT PLANS

PLANNED Projects*	New Square Footage	Renovation	Primary Use Modified
Interior Spaces			
101 Phillips Center, previously Eastvold Hall Restoration, Phase I (complete 2011	1) -3,000	yes	yes
102 Phillips Center, previously Eastvold Hall Restoration, Phase II (complete 201	3) -3,000	yes	no
103 Garfield Station new construction	50,000	potential?	yes
104 Rieke Science Center Renovation and addition	13,000	yes	no
105 Olson Auditorium	18,000 (addition)	yes	no
106 Fitness and Sports Center, Phase I	51,000	no	na nc
107 Residence hall or student apartments, 200 beds	90,000	no	na nc
108 Health Center	10,000	no	na nc
109 Rieke Greenhouse (geothermal)	2,400	no	na nc
110 Residence Hall renovations	0	yes	no
111 Mortvedt Library / Ramstad renovations	0	yes	no
112 Instructional improvements in classrooms and laboratories	0	yes	no
113 Technology infrastructure improvements and renovation of various classrooms and laboratories will take place each year. As funding allows, renovation of various buildings will continue.	0	yes	no
114 Campus Welcome Center	8,000	no	na nc
115 Intergenerational Housing **	100,000	no	na nc
116 Swimming Pool	0	yes	no
117 Harstad as 'Old Main': I	0	yes	yes
118 Hauge renovation and new addition	7,000 (addition)	yes	yes
119 Ingram major renovation or replacement (Residence Hall or Academic)	30,000	possibly	no
120 Fitness and Sports Center, Phase II (on site of current Columbia Center)	70,000	no	na nc
121 Athletic field bleachers (approximately 4,500 seats) and football locker roor	n 10,000	no	no
122 East Campus Renovation	0	yes	no
123 Academic Facility (on Wang Center site)	30,000	no	na nc
Subtotal New Square Footage Interior Spaces	493,400		

PLAN	INED Projects*	New Square Footage	Renovation	Primary Use Modified
Exter	ior Spaces			
201	Two all-weather athletic fields (football, soccer, lacrosse, track, ultimate frisbee, intramurals, physical education, and restroom facilities) (completed 2012)	200,000 (100,000 per field)	no	na
202	Athletic field improvements to existing fields used for baseball, softball and soccer	0	yes	no
203	Main campus entrance at Park Avenue	0 (no new bldg footprint: landscaping, pedestrian and vehicle circulation improvements only.	no	na
204	Health Center parking	58,000	no	no
205	Fitness Sports Center parking	45,000	no	yes
206	Music House parking	25,000	yes	no
207	West of Athletic Fields parking	TBD	no	yes
208	Olson LID parking improvements	85,000	yes	no
209	Parking (on site north of the Neeb Center)	126,000 - 180,000	no	yes
210	Parking Lot west of Yakima and 121st	24,000 - 144,000	no	no
211	Safety / security improvements	0	no	no
	Sidewalk replacement			
	Street and campus lighting			
	Crosswalks / Safety islands			
Subto	otal New Square Footage Exterior Spaces	563,000 - 737,000		

#### TOTAL maximum new square footage

1,042,400 - 1,216,400

Notes

\* All timeframes are variable depending on funding and need.

\*\* PLU is collaborating with Ecumen, a Minnesota non-profit with expertise in senior housing, on an intergenerational housing development located on the southeast corner of campus. It would provide housing for seniors (congregate living, assisted living and memory care), as well as educational and co-curricular activities for PLU students.

na nc = not applicable, new construction

For further information on recommended vehicular circulation, please refer to p.66 and 75-78.

For further information on recommended pedestrian circulation, please refer to p.70 and 72.

#### LONG-TERM DEVELOPMENT SITES

As mentioned in the previous chapter, a number of planned building sites have been identified. While the needs analysis does not indicate a significant amount of growth for PLU, there may be a need for additional housing or the replacement of existing beds or other university space. The development sites, in total, represent significantly more potential development than the university likely will need. Identifying the sites provides a range of flexibility as specific needs arise and funding becomes available.

Potential sites in the campus core are limited to the location of existing buildings that may be replaced such as Ingram Hall, Memorial Gym, or the Swimming Pool. The Wang Center site could be developed more intensely if Wang Center functions are relocated. Each of these sites would serve well for academic uses or student housing.

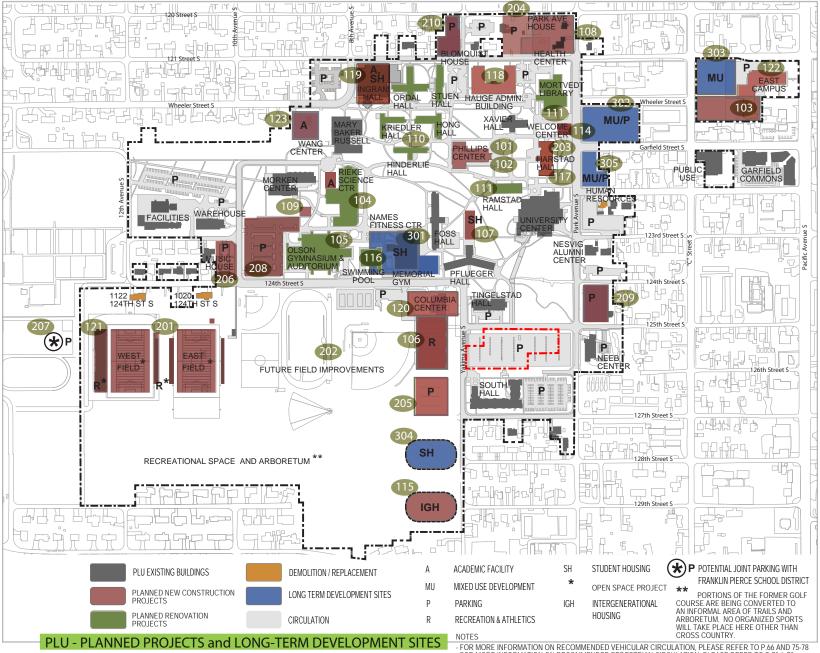
Potential sites at the edge of campus include the field just west of East Campus, a portion of the Library parking lot on Park Avenue and the site just north of the Neeb Center. These would all work well for student housing. These two sites north of Garfield Street also may serve as mixed use with retail and housing. In addition, intergenerational housing may be appropriate adjacent to East Campus with its close proximity to campus and community resources nearby. An alternative site for parking is along Yakima Avenue, just south of the proposed Sports and Recreation Center. Two sites north of 121st Street South could be possible locations for new buildings.

The Columbia Center site is identified as a good site for a new fitness and aquatic facility due to its proximity to the playing fields and residence halls on lower campus. With the expansion of athletics/recreation facilities, creating additional opportunities for parking on lower campus is highly desired. Potential locations for expanded parking are also identified at the campus perimeter.

LONG TERM DEVELOPMENT SITES *	Maximum Envelope estimated **	Renovation
301 Student Housing	70,000 - 280,000	no
(on site of current swimming pool and Memorial Gym)		
302 Mixed Use Development / parking (on Mortvedt parking lot)	108,000 - 150,000	no
303 East Campus Mixed Use	43,000 - 172,000	no
304 Student Housing	158,000 - 230,000	no
305 Mixed Use Development / parking	50,000 - 80,000	no
TOTAL new square footage	429,000 - 912,000	

\* All of these timeframes are variable depending on funding.

\*\* Based on building footprint assumptions and will vary by need.



FOR MORE INFORMATION ON RECOMMENDED PEDESTRIAN CIRCULATION, PLEASE REFER TO P.70 & 72

#### EXISTING INFRASTRUCTURE AND FUTURE DEVELOPMENT

#### Sewer

Pierce County Public Works provides a sewer main from the southeast corner of campus to the west side of campus, roughly following the historic path of Clover Creek. PLU connects the campus sewer system consisting of individual building side sewers and sewer mains to the public sewer system within the campus. The capacity of the sewer mains should be adequate for any new development.

#### **Dry Utilities**

PLU has a network of underground utilities across campus. This includes phone, data and electrical power. In an initiative to expand the existing underground utilities, the University completed construction of a fiber-optic duct bank that extends from the east side of the upper campus to the west side of the lower campus. Branches extend south to the Neeb Center.

Natural gas service is provided by Puget Sound Energy. The University is served through four-inch main lines in the south, west and east portions of campus, and there are 12 meter locations for gas service. One location serves five heavy-use buildings (Rieke, Olson, Eastvold, Memorial Gym and the University Center). Future development may require relocating portions of the gas main.

Electrical service to campus is provided by Parkland Light and Water.

#### Existing Stormwater Infiltration, Treatment and Conveyance

All stormwater is treated / infiltrated into the ground within the boundaries of the PLU campus. Stormwater runoff from the campus primarily travels directly into the ground or into dry wells. Recent developments such as Morken Center and Wheeler Parking Lot have centralized infiltration systems, and South Hall and the new Neeb Center site pipe runoff to an infiltration pond at the southeast corner of campus where two biofiltration swales provide water quality treatment and sediment removal. There are few stormwater conveyance mains on campus and conveyance is localized for each development.

#### Proposed Stormwater Infiltration, Treatment, and Conveyance

Stormwater throughout campus and within public rights-of-way adjacent to or through the campus should be addressed in a consistent manner with Low-Impact Design (LID) techniques and Puget Sound Guidelines such as regional infiltration systems, porous pavement, rain gardens, and rainwater harvesting.

New development in the upper campus will utilize infiltration systems or be channeled through a stormwater conveyance system to the lower campus. Stormwater runoff quality treatment is required for all new developments with pollution generating surfaces, such as parking lots. This will be most relevant along the perimeter of the campus where developments are subject to vehicular access. In addition, public rights-of-way are of interest to the university, because of their impacts on drainage within the basin. Over the long term, the university will look for ways to partner with Pierce County on improvements that will reduce stormwater impacts associated with the rights of way. Of particular interest to the University are 121st Street, 124th and 125th Streets between Park Avenue South and Yakima Avenue South.

#### **Campus Infiltration Pond**

The existing storm infiltration pond has a large remaining capacity and will be used until full capacity is reached. Conceptually, a regional infiltration pond serving approximately 16.5 acres may be used to accept stormwater from the buildings located just above the hillside and many of the lower campus buildings (Olson, Foss Hall, Tingelstad Hall, Pflueger Hall).

#### Proposed Campus Conveyance System

The Clover Creek drainage path could be restored to provide stormwater conveyance to the existing or a new regional infiltration pond.

# Proposed Water Quality System

Rain gardens may be used on campus to provide water quality, stormwater infiltration, and landscaping. These facilities consist of shallow vegetated areas with a specific soil composition designed to treat stormwater. Stormwater runoff from parking areas will enter the rain garden from the surface and percolate through the soil media. Stormwater can then infiltrate to the ground. These systems may be ideal for parking lots where the runoff is dispersed across the width of the parking area. Rain gardens are aesthetically pleasing and can also be incorporated into the landscaping.

## Other Low Impact Designs

Porous paving will help reduce stormwater runoff and recharge ground water by allowing rainwater to infiltrate through the paving section to the ground, rather than run off site. Porous paving systems include concrete, asphalt, and pavers.

## Public Rights-of-Way

Historically Pierce County has allowed only catch basins and conveyance pipes within the public roadways. PLU would like to work with the County to adopt a plan that allows public roads to use LID strategies. The following diagrams illustrate a range of strategies that could be used in the rights-of-way.

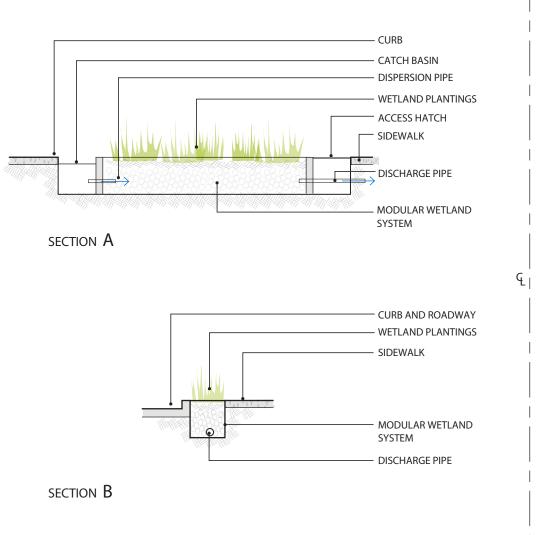
Site Improvement Examples, see siteplan for Olson Auditorium on the next page

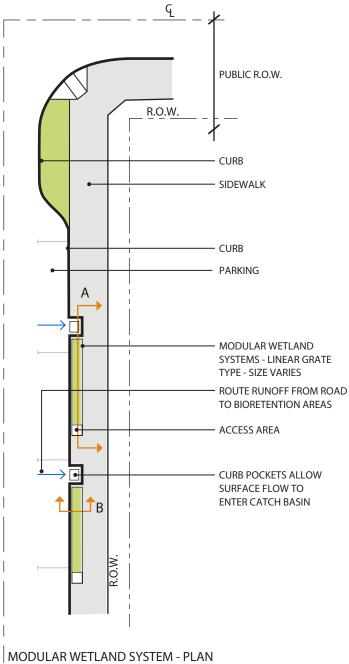
1- Expanded parking lot providing 224 stalls (7 of which are ADA and 24 are compact), and rain gardens to mitigate and treat stormwater runoff

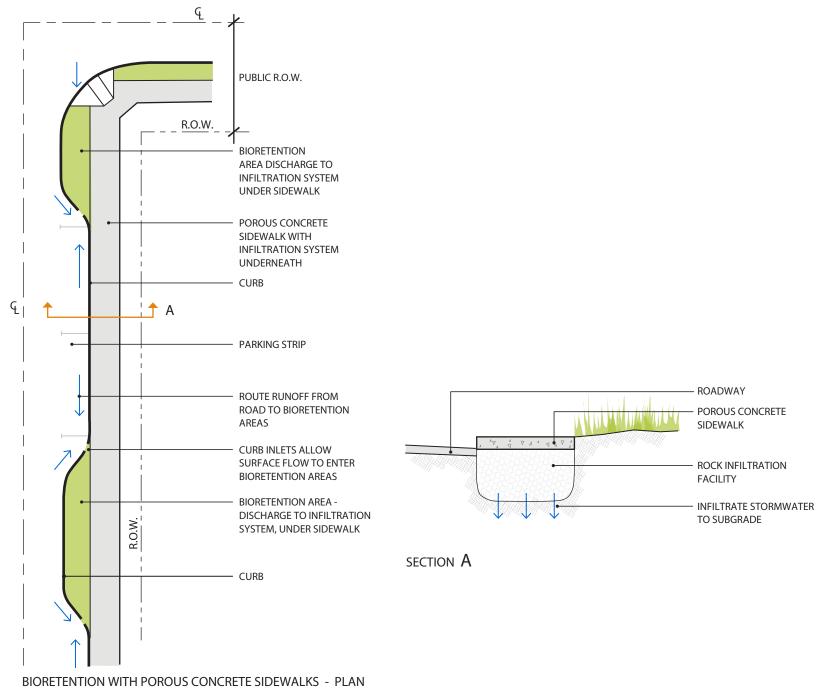
2- Cistern tanks provided under the parking lot to capture roof rainwater to use for landscape irrigation as well as graywater use for fixture use (i.e. flushing).

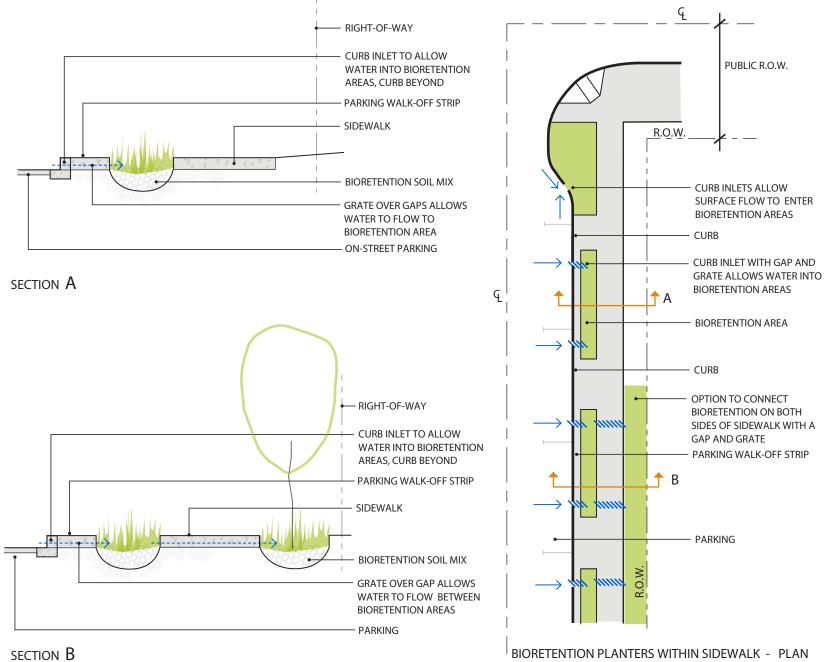
3- Redefined hardscape to provide a clearer procession to the main entrance for pedestrians coming from both the parking lot as well as upper campus. This improved hardscape also includes a better grand stair, ADA ramp, and podium for a campus monument sign.

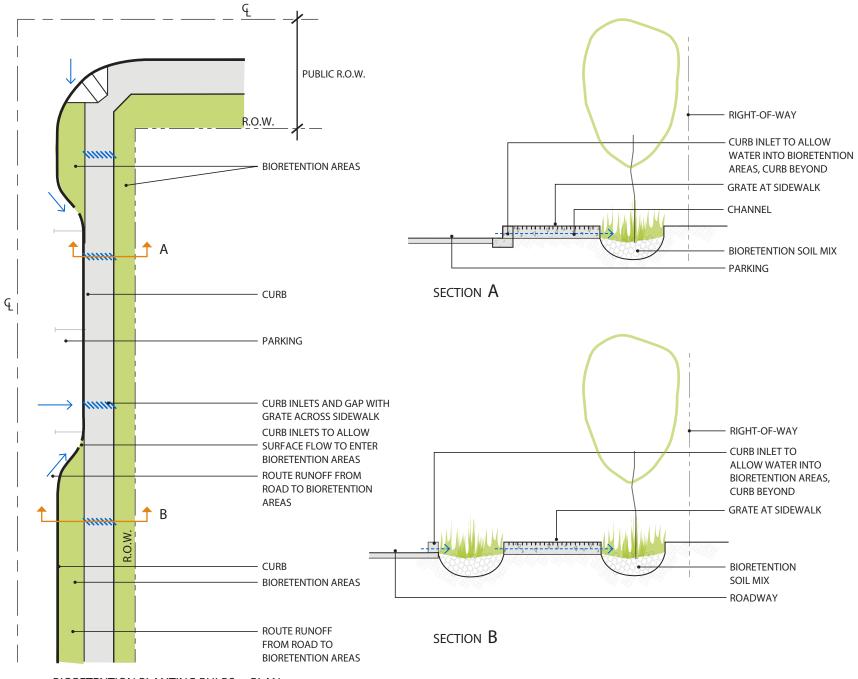












BIORETENTION PLANTING BULBS - PLAN

# LONG RANGE PLAN & INFRASTRUCTURE IMPROVEMENTS

Campus-wide Sustainable Strategies

This section outlines long range improvements to infrastructure related to issues such as energy, water and recycling. They are guidelines for the University and not regulatory.

# Campus-wide Energy Use

As shown in the diagram on page 45, the total average annual amount of electricity imported to campus is approximately 16.2 million kwh per year with an annual cost of about \$785,400 (based on 2009/10 data). This translates to approximately 3,761 kwh and \$185 per person. Energy sources of the Bonneville Power Administration are also shown. A very small amount of the electricity is combustion-generated. Natural gas is the primary fuel for heating, at a 2009/10 cost of approximately \$648,490 .

Of particular concern is the amount of carbon dioxide produced by PLU, as this is the major contributor to greenhouse gases. A number of open questions related to carbon output still need to be answered on a campuswide level. For example, the use of fossil fuels for transportation to and from campus and air travel, as well as the amount of carbon sequestered by trees and the off-site generation of electricity all contribute to PLU's 'carbon footprint'. Answering these, and other energy conservation questions could be the focus of student research and help give PLU the complete picture as well as a bench mark for establishing future strategies. The first priority is

energy conservation. Second is the use of non-carbon based renewable energy sources. At present, PLU purchases green tags for about 45% of all electricity used on campus. This will increase in future years. The final strategy is carbon offset opportunities where PLU purchases certificates toward carbon reduction projects. Since 2007/08, electricity use was reduced by 7% and gas use declined by 10.7%.

## **Recommendations for Energy Reduction Strategies:**

## General MEP Recommendations:

- \*1. Expand the use of natural ventilation/ passive cooling in place of air conditioning when possible
- \*2. Utilization of ground source energy is recommended when possible given its 30-40% increase in efficiency overtraditional air-cooled systems and the amount of land PLU can dedicate to making it work. Foss Field has the capacity to provide ground source energy to all of lower campus
- \*3. Provide temperature control for occupants in each individual office

## Energy reduction strategies for electrical systems: 5-year considerations:

- \*4. Continue to upgrade light fixtures with energy efficient lamps and motion sensors
- \*5. Install variable speed drives for fan loads, which can be programmed when to run resulting in an energy and cost savings

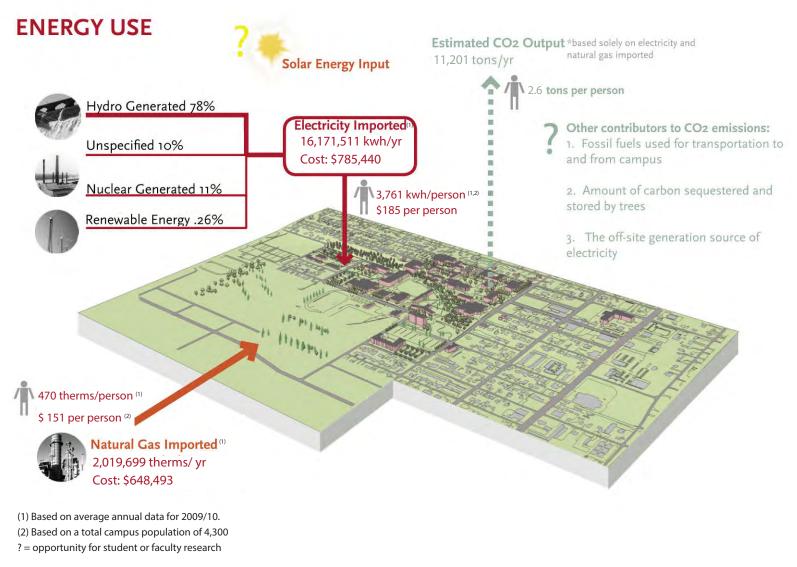
## Energy reduction strategies for electrical systems: long-term considerations:

- \*6. Install a fiber tie to manage the power requirements to each building
- \*7. Plan every 5 years to evaluate each building for energy efficiency and functionality

# Energy Use Goals

The University has made a commitment to specific energy use goals. Overall energy consumption should be reduced by 20% over the next 5 years. The campus plans to become carbon neutral by 2020 and as a long-term goal, the University will consider potential options for generating energy on campus such as solar or wind power.

\* Sustainability-focused recommendation



Electricity: shows a 7% reduction since 2007/08 Natural Gas: shows a 10.7% reduction since 2007/08

# Campus-wide Water Use

The cycle and flow of water in a given environment are very complex. Water arrives naturally through precipitation and local surface runoff and leaves a site through infiltration, vegetation, streams, soil, evaporation and transpiration.

Existing water service is provided by Parkland Light and Water, and the water mains on campus consist of four-, six- and eight-inch main lines. The four-inch water lines are inadequate for any proposed development and will require replacement with at least a six-inch main. Any new or relocated water mains will require a 15-foot maintenance easement centered on the main line. There is no central water meter for the campus, so each building is metered separately. Irrigation services are also provided throughout the campus with separate irrigation meters. New domestic and irrigation meters will likely be required for all new campus development. Fire service for new developments will require back-flow prevention devices, post indicator valves and fire department connections. The water pressure is low in some areas of campus (specifically around Eastvold Hall); booster pumps may be required for fire protection.

Current water use on a campus-wide level at PLU is shown in the following diagram. The average amount of water brought to campus through precipitation is 171.6 million gallons per year. Because the soils are so porous, the campus experiences no stormwater run-off (aside from that lost to evaporation and transpiration) and all other rainwater is recharged into the groundwater on PLU property. Approximately 49.6 million gallons of water per year is piped to campus as potable water. This translates to approximately 11,600 gallons per person. The amount of waste water leaving the site is approximately 27.3 million gallons per year, which is approximately 55% of the potable water brought to campus. Since fiscal year 2008 to present water savings have amounted to approximately 1,410 CCF or 10,550 gallons.

A number of questions for water use still need to be answered on a campus-wide level. For example, an accurate estimate of the building system/occupant consumption, the amount of water used for irrigation, as well as an accurate breakdown of water use by residence halls and other campus buildings would be helpful for establishing benchmarks. Answering these, and other water use questions could be the focus of student research to help the university establish future goals and strategies.

## Water Use Goals

The University has made a commitment to specific water use goals. Overall water consumption should be reduced by 25% over the next 5 years.

## Recommendations for Reduced Water Use

#### **Operational Strategies**

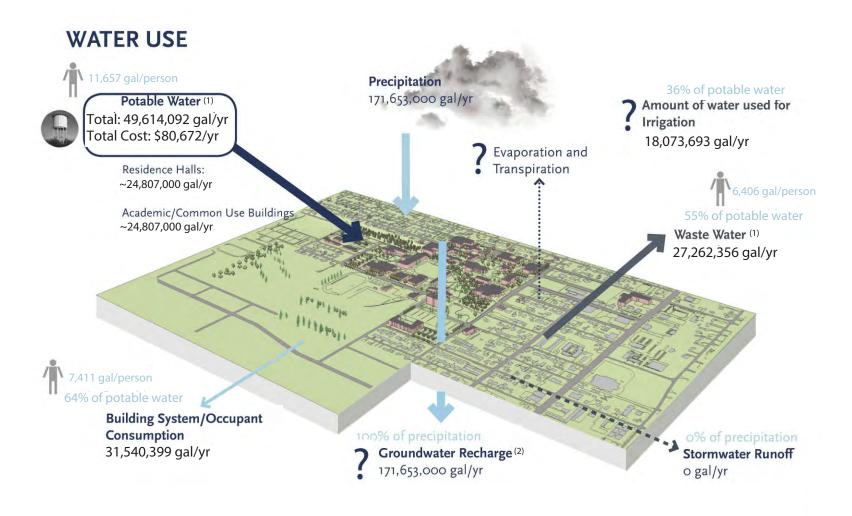
- \*1. Install automatic controller for irrigation system linked to moisture sensors.
- \*2. Change overall water use behavior to conserve water.

#### Ultra-High Efficiency Systems

- \*1. Install low flow fixtures (shower 2 gpm, faucet 1 gpm)
- \*2. Use native vegetation to reduce irrigation needs

#### **Reclaim Water**

- \*1. Water collection, treatment and reuse of stormwater
- \*2. Reclaim greywater and reuse for irrigation
- \* Sustainability-focused recommendation



(1) Based on average annual data for 2009/10.

(2) Figures for groundwater recharge do not account for water loss through evapotranspiration.

? = opportunity for student or faculty research

## **Recycling Goals**

The University has made a commitment to increase overall campus recycling rate to 80% by 2011.

# RECYCLING

PLU's recycling program is very comprehensive. One of PLU's main goals is to keep as much out of the landfills as possible. In the fiscal year of 2009, PLU recycled 564 tons of material, at a 69% rate of recycling. This includes cardboard, mixed paper, plastics, glass, aluminum and tin cans, scrap metal, wood, grass clippings and other materials that do not have assigned weights such as Tyvek envelopes, batteries, cell phones, light tubes, ink and laser cartridges. PLU also recycles electronics. All food waste and pizza boxes are recycled through composting. The surPLUs store sells, reuses on campus, or donates usable items to charitable organizations. These items include desks, chairs, clothing, office supplies etc.

PLU recently received two awards for its recycling program from the Washington State Recycling Association for Higher Institutions, one in 2005 and again 2007. The most recent one was awarded for the "can the can" program, which involves academic offices trading in a large trash can for a small trash can. Each office is then responsible for emptying the can in a central location. This effort reduces labor, plastic liners and encourages recycling.

# **Development Standards**

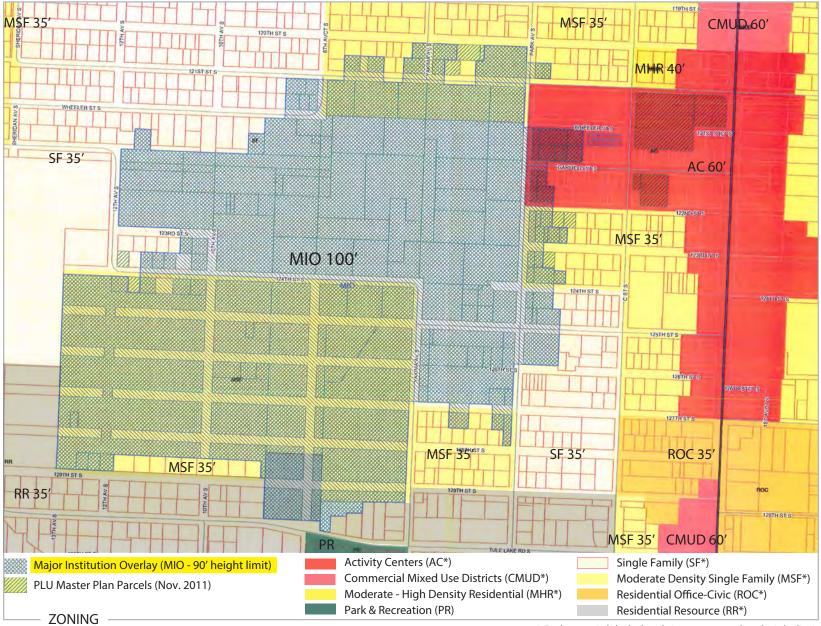
# **Development Standards**

Development standards have been included in the master plan as the applicable regulations for physical development within the PLU Major Institution Overlay (MIO) District. These development standards supersede the corresponding development standards of the underlying zones. Specific standards for development as well as standards and recommendations for landscape, open space and circulation are included.

# ZONING

The existing MIO District boundaries and underlying zoning are shown on the zoning plan. The area included within the entire MIO is about 6,800,000 square feet (156 acres). This number may include some rights-of-way. The underlying zones for this area are Activity Centers (AC) in the North-East of campus, Moderate Density Single-Family (MSF) at the North and again at the center to the South edge, Single-Family (SF) at the center and some Residential Resource (RR) at the South and South-West. The areas surrounding the campus generally correspond with the same zones.





Zoning - PLU MIMP Planned Unit Development (PUD) - Pierce County Map # 693865 / 693866

\* Each zone is labeled with its corresponding height limit

#### DEVELOPMENT

#### **Structure Setbacks**

The underlying zones have the following setback requirements:

Front Yard	Within MIO	Activity Centers (AC)	Moderate Density (MSF) Single Family	Single Family(SF)	Residential Resource (RR)
Park Avenue South - West side	30′	n/a	20′ (2)	20′ (2)	20′ (2)
Park Avenue South - East side	0′ (1)	25′ (3)	20′ (2)	20' (2)	20′ (2)
Garfield Street	0' (1)(3)	25′ (3)	n/a	20' (2)	n/a
Other Streets Surrounding Campus	25′	25′ (3)	20′ (2)	20' (2)	20′ (2)
Side Street Setbacks on non-Major Arterials	15′	15' (3)	15'	15′	15'

(1) A zero-lot-line setback is preferable but existing street infrastructure will have to be taken into account.

(2) The minimum setback may be reduced to 15' provided the garage is set back an additional 5' from the front of the structure. The setback is 25' when a major arterial or a highway.

(3) When a proposed multiple-level multi-family development is across a residential street or collector arterial adjacent to MSF, SF or RR, a setback equal to the height of the multifamily structure shall be required but in no case be less than 35'.

Interior-Side Yards/Rear Yards	Interior/Side	Rear
Within the MIO/AC	0′ (1)	0′ (1)
Within the MIO/Other Zones	15′ (2)	15′ (2)
MSF	5′ (2)	10′ (2)
SF	8′ (2)	10′ (2)
RR	30′ (2)	30′ (2)

(1) When a proposed multiple-level multi-family development abuts property classified as MSF, SF or RR, a setback equal to the heights of the multi-family structure shall be required but in nocase be less than 35'.

(2) A 8' wide L2 landscape buffer is also required when abutting single-family and two-family uses.

#### **Height Limits**

Following are proposed and underlying zones height restrictions:

Front Yard	Within MIO	Activity Centers (AC)	Moderate Density (MSF) Single Family	Single Family(SF)	Residential Resource (RR)
Max. Height	100′	60′	35′	35′	35′

The Master Plan approved the height limit in the MIO area is 100'. The tallest building on campus, Tinglestad, is 98'.

Exceptions are: (a) pitched roofs for the housing may exceed the 100' height limit by up to 10', provided the slope of the roof is 6:12 or less; and (b) the following rooftop features may exceed the 100' height limit by up to 15', provided that the total of rooftop features does not exceed 50% of the roof area: stair and elevator penthouses, mechanical equipment, and communication equipment including minor communication utilities. Exterior lighting at the athletic fields would not exceed 120'.

#### Lot Coverage

Lot coverage for above grade structures shall not exceed 30 percent, calculated on the basis of all parcels owned by PLU, approximately 155.79 acres (6,786,231 SF). Current lot coverage is around 11.4 %. The underlying zones have density limits but no specific lot coverage limits. Typical medium density residential zones however have lot coverage limits between 35-50%. The master plan recommends a maximum modest growth resulting in a very small increase in lot coverage to about 14%. In the long term, the lot coverage should not exceed 20%.

# **FIRE PROTECTION**

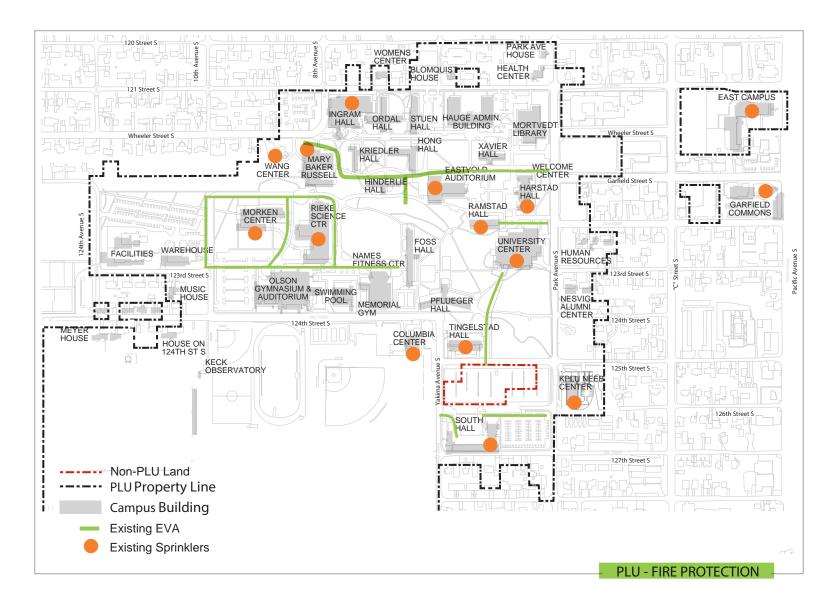
The University has routine inspections by the Fire Protection Bureau. The University regularly consults with Central Pierce Fire and Rescue to meet their needs for Fire Safety.

Emergency Vehicle Access (EVA)

The following graphic illustrates PLU's Emergency Vehicle Access (EVA) routes. All new construction proposed in this plan has direct street access.

Campus Sprinkler System

The following graphic illustrates PLU's campus buildings with existing fire sprinkler systems. As other buildings are renovated, upgrades will include sprinkler and fire alarm systems. New construction will meet the code existing at the time of permit application.



## LANDSCAPE & OPEN SPACE

Both structured and unstructured open spaces exist on campus and include everything that is not a building, road or parking, including pervious and impervious surfaces within the campus boundaries. The structure of the open space is first defined by the faces of buildings and further enhanced by mass plantings of vegetation, creating a series of "outdoor rooms" that are characterized by the textures of materials, filtration of light and permeability of access and use.

The forested slope running through the center of campus is a significant landform in the Parkland community and subdivides the campus into upper and lower sub-campuses. Historically, academic and residential buildings were located on the upper campus, forming quad-like open spaces interspersed with forest-like plantings of evergreen and deciduous trees. Athletic fields and facilities were located on the lower campus and have subsequently been surrounded by additional residence halls and academic buildings. The original grouping of the athletic fields resulted in the lower campus being expansive and open, devoid of mature trees, in sharp contrast to the upper campus.



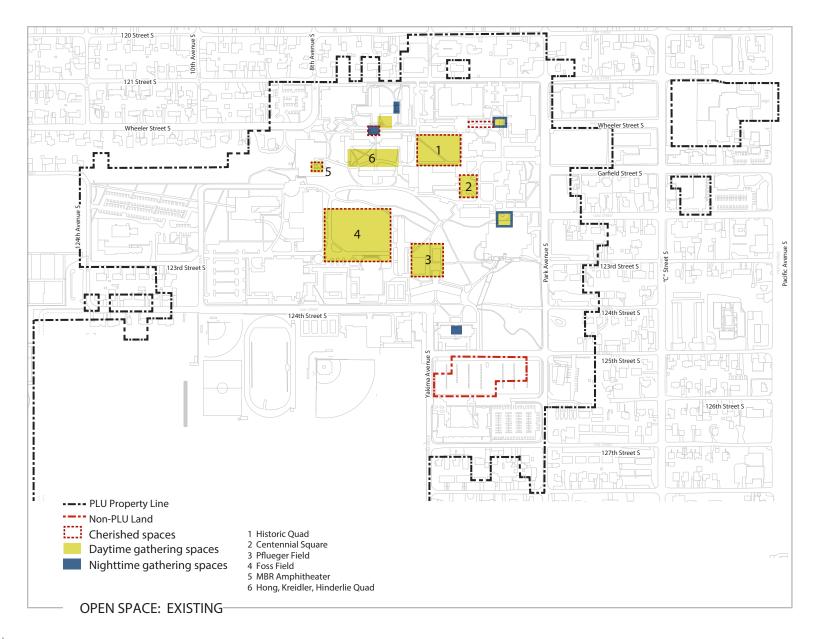


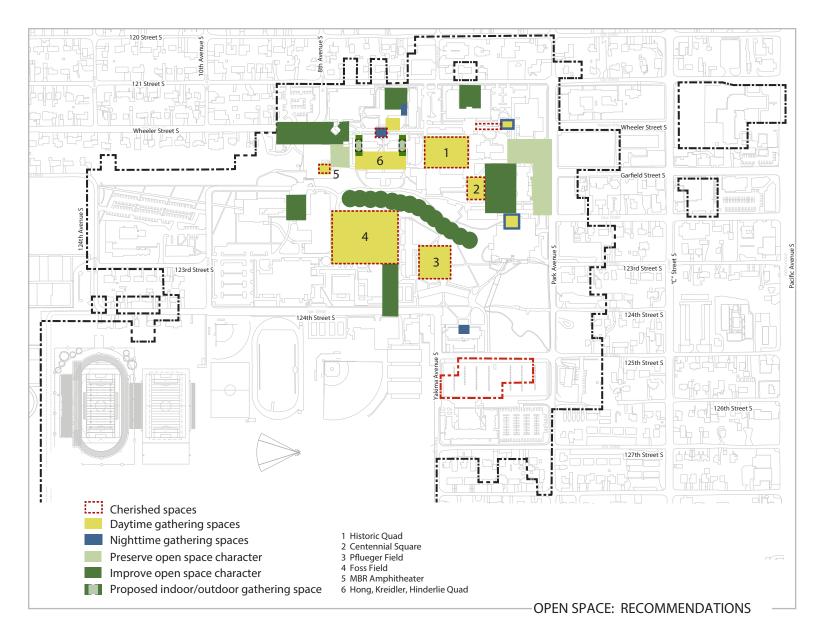
The way in which the buildings frame or enclose open spaces has changed over time on both the upper and lower portions of campus. The original heart of campus is centered around Harstad, Eastvold and Xavier Halls and is characterized by intimately scaled open spaces enclosed by brick buildings and a mature tree canopy. The nature of these open spaces, contributes to the unique character of PLU and generates shared experiences that are passed from one generation of students to the next. Some of the most cherished spaces on campus include Centennial Square, Foss & Pflueger Fields, the Mary Baker Russell amphitheater and the Ordal patio (see map on next page).

The character and use of outdoor gathering areas is dependent on the season, weather, time of day and adjacency and availability of access to indoor gathering areas. The abandoned outdoor patios adjacent to many of the residence hall lounges are an example of spaces whose use has changed based on the removal of immediate access from the lounge area, lack of adequate seating and limited lighting. Instead, opportunities for daytime and nighttime use could be created at the entrances to residence halls, where group gatherings can spill out from overcrowded lobby spaces into well-designed, safe outdoor gathering areas. Shelter from inclement weather, comfortable seating, attractive plantings and adequate lighting will enhance these spaces and make them more attractive for students to use for socializing, studying, and just passing time.



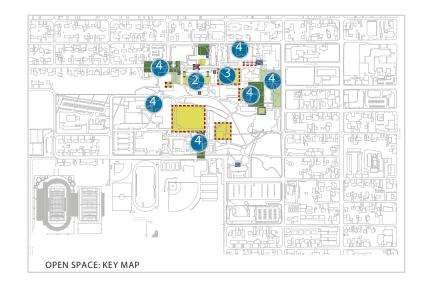






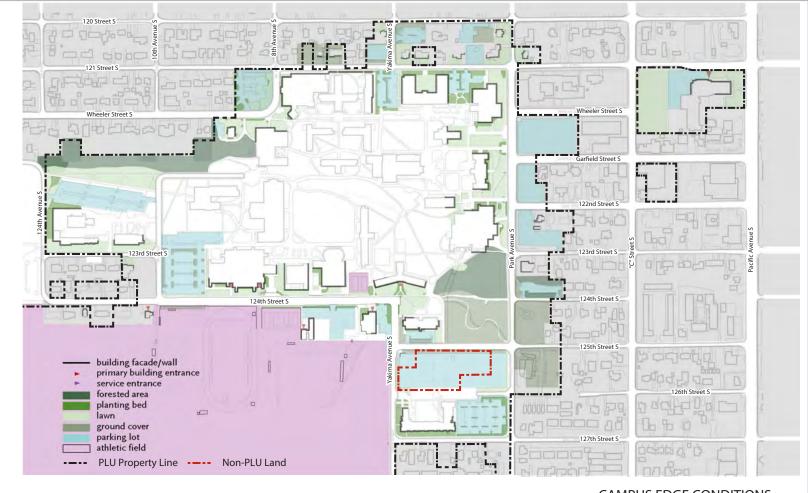
**Recommendations for Open Space:** 

- 1. Improve the network of outdoor spaces so that there are gathering spaces throughout campus that have a diversity of scales and spatial form, and allow for complementary learning and living activities.
- 2. Remove outdoor patios that are closed off from the residence hall lounges and replace them with gathering spaces at the entrances of the residence halls. Relate these spaces to the building lobbies so that activities are allowed to spill from inside to outside. Use comfortable seating, shelter from inclement weather, attractive plantings and adequate lighting to define these spaces.
- 3. Preserve the elegant character of open lawns and large trees on the upper campus by developing a replanting policy and limiting the occurrence of small, high-maintenance planting beds.
- 4. Realize opportunities to improve the openspace character of some of the under-used spaces on campus. Use planting that complements the adjacent architecture and enhances the general campus character to define these spaces. Install seating that creates places where the campus community can congregate, especially related to the entrances of buildings and at the edges of large open spaces. Install lighting that makes the spaces feel safe at night.



# CAMPUS EDGE

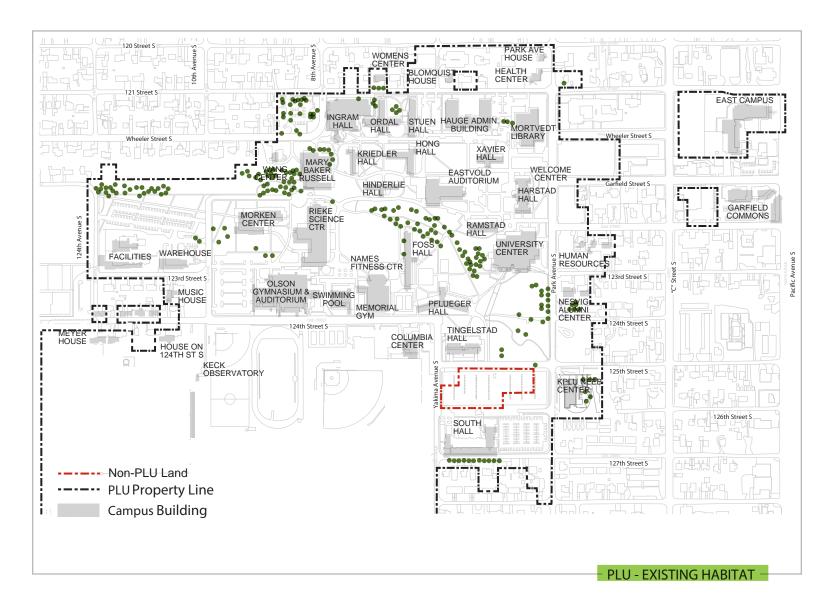
The cohesive nature of the built environment within the boundaries of 121st Street South to the north, Park Avenue South to the east, 8th and 12th Avenues South to the west and 124th and 127th Street South to the south define the edges of the University within the community. Each edge has a different character. At the north, 121st Street should be developed with curb improvements continuing to allow parallel street parking. Park Avenue should emphasize the main campus entry, including new sidewalks and curbs. Other campus edges should continue to be sensitive to neighboring residences while improving feelings of safety through installation of curbs and sidewalks and improving on-street parking.



- CAMPUS EDGE CONDITIONS

# SUPPORT OF EXISTING HABITAT

The following graphic illustrates approximate locations of the 213 existing oak trees on the PLU campus. The size of the trees varies between seedlings to 30+" diameter trees. The specific footprint of new buildings will be determined as projects move forward. PLU will seek to minimize removing existing oak trees for all future projects. When oak trees must be removed, they will be replaced at a ratio of 2:1. A formal tree survey will be completed with each project that impacts existing trees. Per Pierce County Code section 18J.15.030E.3., 30% of significant trees shall be retained within the boundaries of the MIO.



# SCREENING

Parking or any unsightly areas (such as loading docks) that are located adjacent to non-university owned property should be screened from view with plantings, fences, walls or other acceptable material per Pierce County Code Section 18J.15.040 (Landscape Level L2 for Detached Single Family and Attached Single Family/ Multi-Family Use Types).

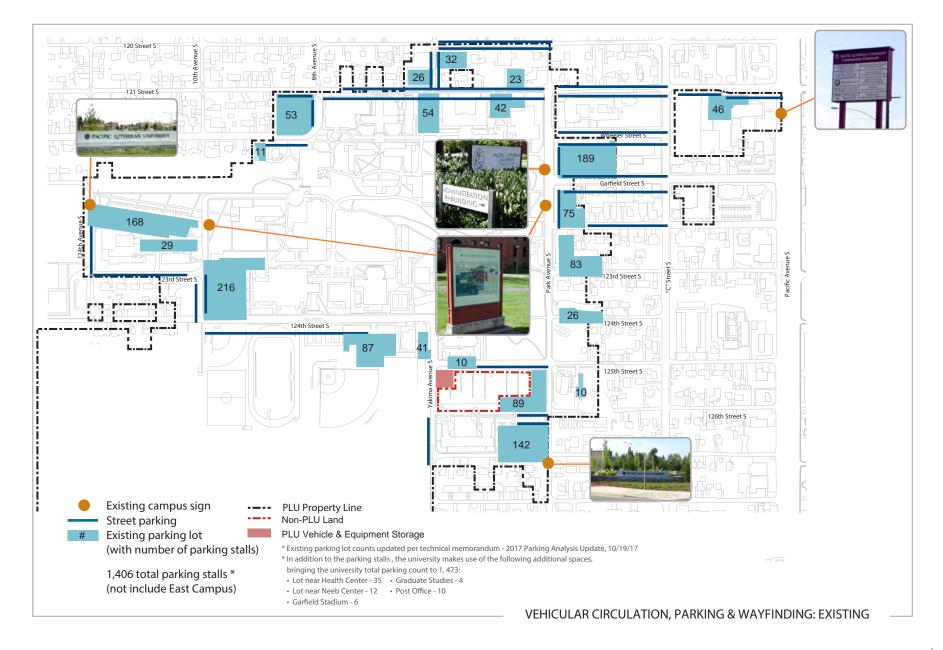
# **VEHICULAR CIRCULATION, PARKING & WAYFINDING**

Vehicular circulation consists of the collection of roadways, drives, service lanes and parking lots that are used by students, faculty, staff, visitors, and emergency and service vehicles to move throughout the campus. The primary routes to campus are from the surrounding County roads, with the majority of traffic approaching the University from Pacific Avenue South, down Garfield Street South to Park Avenue South, where they disperse into the perimeter parking lots.

The sequence of arrival to the University is announced by a mix of signage ranging in character from standard highway signs to commercial signs that do not express the character of the University. For first time visitors, the directional signage and wayfinding are unclear and do not present a welcoming front door.

Parking on campus is accessed from the perimeter roadways and is divided into 22 lots of varying sizes. The Transportation Management Plan section of this document describes parking in more detail.





HT H 120 Street S Ĩ 32 P 26 23 121 Street S e e and é anne e s 42 54 53 setting of Wheeler Street S PACIFIC 1UTHERAN UNIVERSITY d**i 1** 189 Garfield Street S 75 168 L. 29 83 123rd Street S Park 216 26 124th Street S 124th Street S 20 here and 10 125th Street S 10 89 126th Street S 142 127th Street S Existing campus sign Proposed campus sign Existing street parking New street parking ..... \* Existing parking lot counts updated per technical memorandum - 2017 Parking Analysis Update, Existing parking lot Natural drainage lot improvements 10/19/17 Planned replacement parking Lot improvements \* In addition to the parking stalls , the university makes use of the following additional spaces, (w/ number of parking stalls) bringing the university total parking count to 1, 473: \* Potential joint parking with · Lot near Health Center - 35 Franklin Pierce school district (200 Parking to replace some · Lot near Neeb Center - 12 spaces, if needed in the future) existing areas. Total numbers • Garfield Stadium - 6 Graduate Studies - 4 PLU Vehicle & Equipment Storage not to be less than 1,672.\* • Post Office - 10

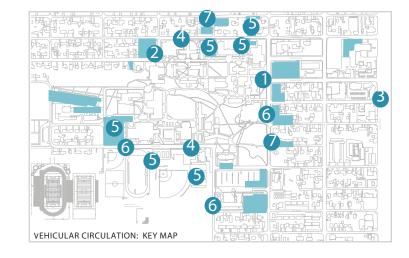
- Not included in TMP total

VEHICULAR CIRCULATION, PARKING & WAYFINDING: RECOMMENDATIONS

Recommendations for Vehicular Circulation and Wayfinding

- Define the campus entrance at Garfield Street S and Park Avenue S to welcome visitors and the campus community. Incorporate a monument sign similar to that found at the corner of Park Avenue S and 127th Street S, a visitor drop-off/pick-up zone, wayfinding signage, seating, pedestrian-scale lighting and landscaping that compliments the architecture of Harstad and preserve the large specimen trees.
- 2. Define the campus entrance at Wheeler and 8th Ave South as a gateway between the adjacent neighborhood and the University. Incorporate monumental signage, trafficcalming measures, pedestrian crosswalks, seating, pedestrian-scale lighting and landscaping in the gateway design.
- 3. Simplify existing campus signage on Pacific Avenue S by consolidating the small campus signscurrentlypartofthecommercial signage into one sign that is a style complementary to the signs at the other campus entrances, and creates a distinct identity for the campus.
- 4. Install traffic-calming measures on the streets that abut the campus to increase safety for pedestrians and define the edges of campus. Use strategies such as narrower traffic lanes, medians or roundabouts at corners where needed and neck-downs or speed tables at crosswalkstoslowtrafficspeeds and reinforce the primacy of pedestrians on campus.

- \*5. Add new parking lots as needed in recommended locations. Incorporate rain gardens and natural drainage strategies into the design of any new parking lots, or retrofit existing parking lots that have vegetated medians so that stormwater is filtered and groundwater is re-charged. Reconfigure existing medians by removing curbs and creatingswalestoallowthevegetatedmedian to function ecologically.
- 6. Designate new areas of parallel parking along 124th Street South and Park Avenue South. Include street edge improvements such as curbs and bump-outs at intersections, sidewalks and crosswalks.
- \*7. Increase the efficiency of parking in Nesvig Lot, Northwest Parking Lot and Yakima Street Parking Lot by paving and reconfiguring the parking layout to accommodate more spaces in each lot while incorporating natural drainage strategies.
- 8. Provide structural lawn to areas that need to support vehicular access during move-in/ move-out.



\* Sustainability-focused recommendation

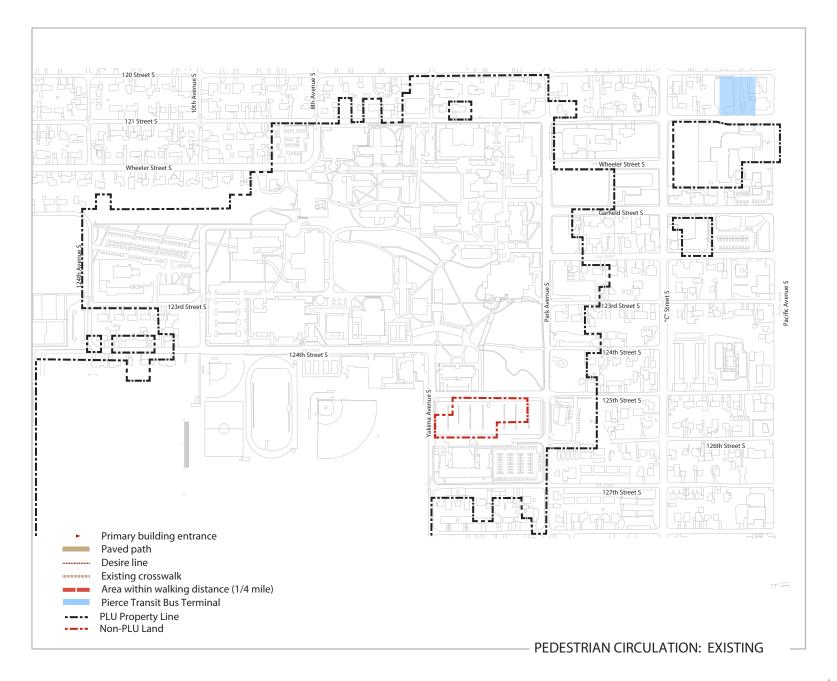


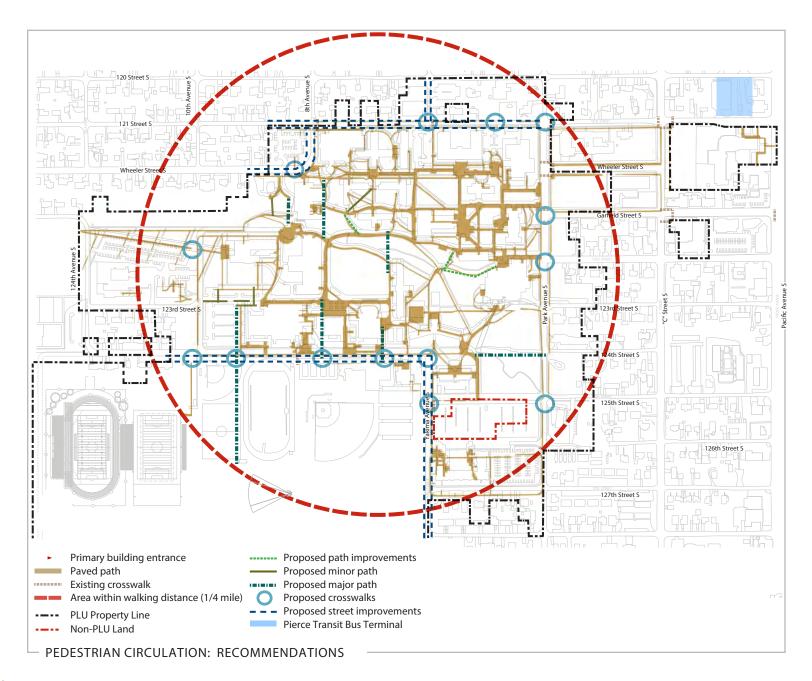
# PEDESTRIAN CIRCULATION

The core of the campus is primarily car-free, with the exception of the occasional shared use of walkways by service and emergency vehicles. The compact nature of the campus and limitation of cars within the campus core helps contribute to a quality pedestrian environment and a feeling of refuge once you enter the campus. The 40-plus foot hillside that runs east-west through the campus adds a unique quality to the campus landscape, but presents a physical barrier that provides limited access between the buildings located on the top of the hillside and those directly south at the lower elevation. At night this can feel unsafe. Another weakness in the pedestrian network is the lack of connections from the perimeter parking lots to the campus core, and across 124th Street South in the lower campus. Some of the crossings can be unsafe and the University is working hard to get the county to allow needed improvement within public rights-of-way.







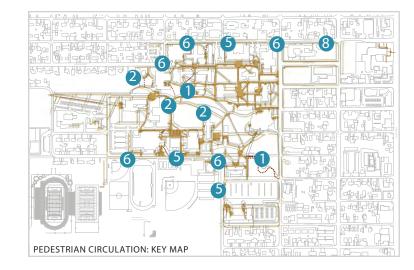


## RecommendationsforPedestrianCirculation

- 1. Install paved paths where existing desire lines through planted areas suggest direct path routes, for example between Kreidler and Hinderlie.
- 2. Improve north/south circulation routes through the forested hillside to better connect the north and south parts of the campus, including a possible addition of a pathway west of Mary Baker Russell Music Center.
- Consolidate and re-configure existing pedestrian paths to simplify circulation patterns and reduce excessive pavement. When possible use permeable paving or permeable concrete.
- Improve the condition of paved paths campus-wide to create pathways that are universallyaccessible with regards to slope, materials and site-furnishing placement.
- Install new curbs and sidewalks in areas where pedestrian circulation and on-street parking coincide (see diagram on opposite page). To promote sustainability, provide natural drainage and low impact development solutions where possible.

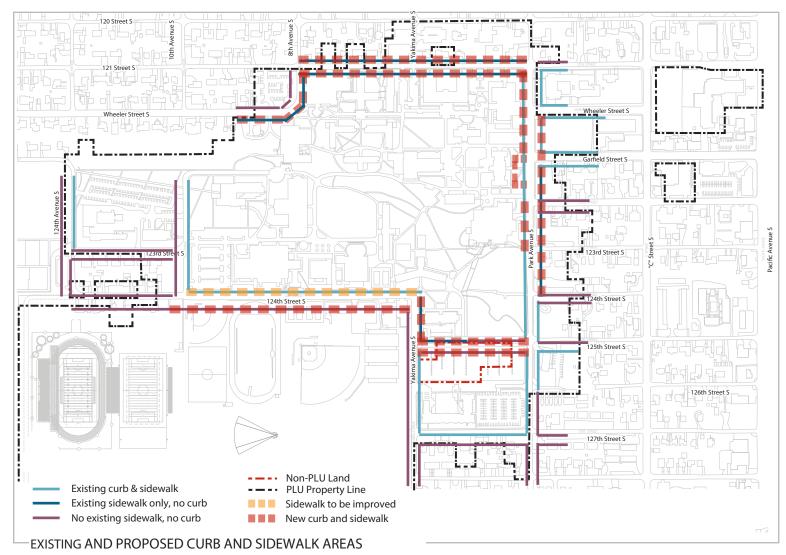
- 6. Provide crosswalks at intersections that surround campus, and at mid-blocks where it is necessary to strengthen pedestrian connections. Use distinctive paving materials, textures, and bump-outs and/or speedtablesatcrosswalkstoincreasesafety and awareness of pedestrians. Improve traffic signage around campus.
- 7. Screen mechanical equipment, trash collectionandserviceareasfrompedestrian walkways to provide a clear separation of use.

- 8. Improve sidewalks and lighting to mass transitcentertopromotealternativemodes of transportation to campus.
- 9. Work with Pierce Transit to provide additional bus service to the northwest and southwest sides of campus.



# PEDESTRIAN SAFETY IMPROVEMENTS

While the addition of crosswalks will greatly improve the safety of pedestrians, curb and sidewalk improvements are also needed. To promote sustainability, provide natural drainage and low impact development solutions where possible. Priority for pedestrian improvements are shown in the diagram. Any addition of curbs or sidewalks should <u>not</u> remove existing street parking.



# POTENTIAL STREET VACATIONS AND PEDESTRIAN IMPROVEMENTS

The diagram on the following page shows potential street vacations proposed in the plan. They include:

1- The curved street section at the northwest end of campus, where Wheeler Street S and 8th Avenue S come together. Potential vacations may include a turn-around at the end of Wheeler Street S and/or an additional street alignment at the west edge of the existing parking lot between Wheeler Street S and 121st Street S. This would remove traffic between the campus and parking as well as strengthen the existing campus entrance.

2 - A section of Yakima Avenue S between 120th Street S and 121st Street S at the north end of campus. This would eliminate traffic between two university-owned properties for increased pedestrian safety and/or development potential.

3 - A section of 124th Street S and Yakima Avenue S at the center of campus. This section of the street is located east of Olson and wraps down to 125th Street S. This is described in more detail along with a traffic analysis in the following section. (The other proposed vacations are conceptual and will require further traffic analysis to determine feasibility.)

Street vacations will be designed to support Emergency Vehicle Access (EVA) in applicable routes in coordination with Pierce County.



8th Ave. S / Wheeler Street S looking south

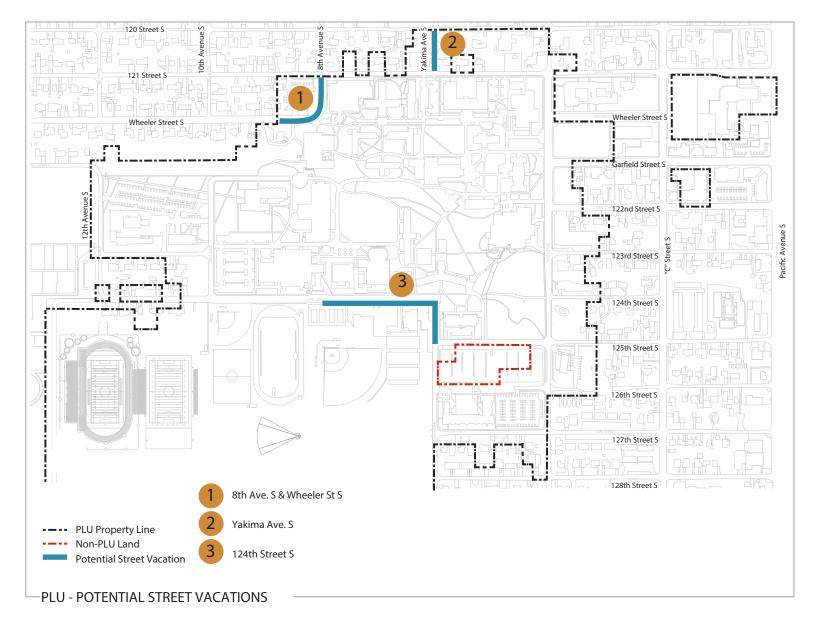


Yakima Ave. S between 120th & 121st Street S looking south



124th Street S looking east

## POTENTIAL STREET VACATIONS



## 124th STREET SOUTH IMPROVEMENTS

The goals of the 124th Street S. improvements are as follows:

- Create safer pedestrian crossings without losing parking spaces
- Reduce and slow traffic on 124th Street
- Provide sidewalks on both sides of 124th
- Improve visual appearance by reducing lane widths and increasing tree canopy
- Study open space opportunities linked to the development of the new Recreation Center and the possible location of a new residence hall

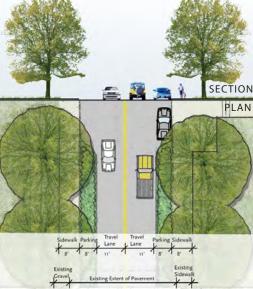
Public streets through and near campus must have safe and well-lighted walkways for pedestrians. These include Park Avenue, Garfield Wheeler Streets, 121st, 124th and 125th Streets, and all intersections. In addition to crossing at intersections, there are areas where mid-block crossings are common and need safety improvements.

The need for improved connections between the Physical Education, Recreation and Athletic buildings, the fields across 124th Street S., and the main campus is identified as a high priority. Currently, 124th Street S. is used as a vehicular short cut through campus, causing traffic that is not conducive to pedestrian safety. The paved surface measures 51 feet wide, with parking on the south side and a fire lane on the north side. This expansive width of pavement results in travel lanes that encourage high speeds and presents hazards to crossing pedestrians. The mature street trees that line both sides of the street in front of Olson visually narrow the street corridor and may help to reduce traffic speeds in this zone.





Current conditions on 124th.



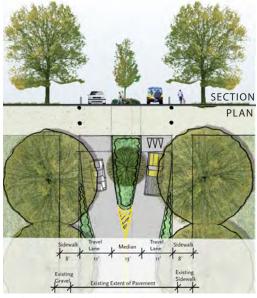
Typical proposed parallel parking configuration.

# DEVELOPMENT STANDARDS

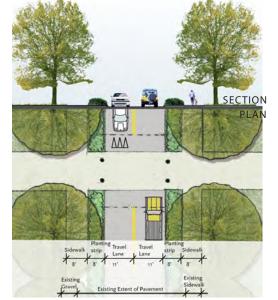
To help alleviate some of the issues of traffic volume and speeds and provide a safer pedestrian environment, a combination of traffic-calming measures can be incorporated into the redevelopment of 124th Street S. These may include continuing tree planting along the entire length of the street, narrowing travel lanes, providing parallel parking on both sides of the street, and providing curb bump-outs or medians combined with raised crosswalks at major pedestrian crossings.

Alternative studies illustrated here were developed that incorporate these traffic-calming measures, provide alternative routes around campus and take into consideration the potential future development of adjacent sites. Any changes to 124th Street S will require adequate access for emergency and school services. Connections between the athletic fields/facilities, residence halls and upper campus, as well as the development and character of related open spaces, should be considered in future changes to 124th Street S.

Traffic calming solutions will be designed to support EVA on applicable routes in coordination with Pierce County.



Median with raised crosswalk



Raised crosswalk with planting along edges.



The character of the street tree planting near Olson could be extended the entire length of the street.

124th Street Improvements Option A

The focus of this option is to reduce traffic volumes on 124th Street and redirect through-traffic around the outside of the athletic fields with a future extension of 12th Avenue on the west side of campus, between Garfield Street and Tule Lake Road. The plan proposes terminating 124th Street with a universally accessible drop-off/pick-up zone at the main entrance to Olson. The area created by the closure of 124th Street creates opportunities for new open spaces and a parking lot adjacent to future development.



124th Street Improvements Option B:

This option focuses on slowing traffic at the intersection of Yakima Avenue South and 124th Street. The plan proposes a traffic circle at this intersection, which would slow traffic speeds as drivers round the corner. Raised crosswalks and/or medians would further slow traffic at other pedestrian crossings. The plan includes bulb-outs and narrowing 124th Street South.



# CAMPUS ENTRY IMPROVEMENTS

The goal for PLU's new entrance is to provide a welcoming front door to the University, creating a pedestrian-friendly zone that includes well-lit plazas, seating niches, and walkways while accommodating emergency and service vehicles, and providing short-term parking for visitors. Features include: a monumental sign forming a gateway onto campus (consistent with the signs at Morken, 127th Street and Park Avenue); a new drop-off and pick-up area; special paving of pathways and plazas; renovation and enhancement of the existing landscape, and materials that preserve the historic character of Harstad Hall and Xavier Hall.

Two new driveways from Park Avenue will require coordination with Pierce County. Coordination will also integrate the Campus Entrance with Pierce County's planned improvements for the Garfield Street Activity Center, including safe pedestrian crossing zones and a narrower street section.

### Sustainable Approach

<u>Water</u>: Stormwater will be absorbed, cleansed and infiltrated in rain gardens where possible. Additional measures may be explored if excess runoff is anticipated. Pervious paving will be considered to help maximize infiltration. Drought-tolerant/native plants will minimize irrigation; where permanent irrigation is required, high efficiency systems will be specified.

<u>Soil:</u> Existing soil will be left in place and amended with non-toxic amendments. Excess existing topsoil will be stockpiled for use on future PLU projects.

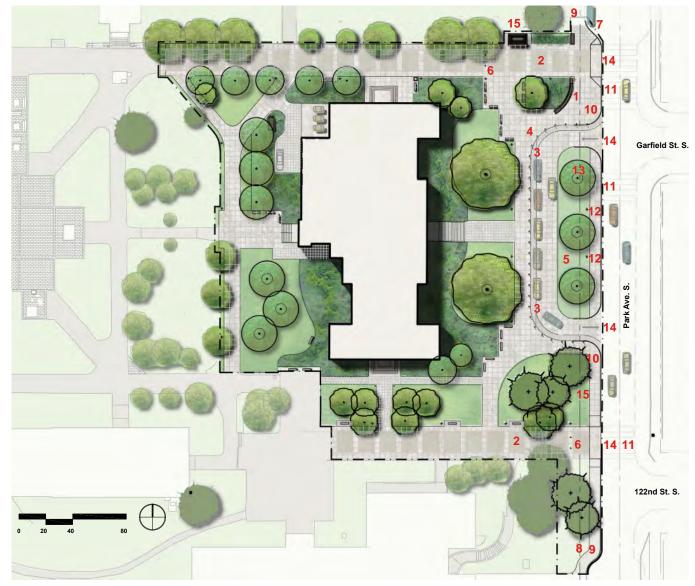
<u>Plants</u>: Drought-tolerant and native plants will conserve water and enhance habitat in the neighborhood. Existing plants to remain will be protected; plants to be removed will be assessed for salvage and reuse.

<u>Materials</u>: Options may include pervious concrete; permeable concrete pavers; recycled site elements; and materials that are locally-sourced, recycled, reused, highly durable and non-toxic.

<u>Maintenance</u>: All portions of the Campus Entrance project will be designed to minimize maintenance and maximize facilities resources. PLU facilities staff will be consulted in all phases of the project.

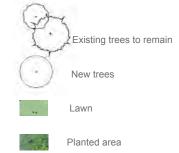


# CAMPUS ENTRY IMPROVEMENTS



## Legend

- 1. Monumental entry sign
- 2. Fire lane
- 3. Visitor short-term parking (2 lanes, one way)
- 4. Bollards (no curb)
- 5. Central raingarden with new trees
- 6. Removable bollards
- 7. Campus safety vehicle parking
- 8. Existing r.o.w. line
- 9. Existing public sidewalk and curb
- 10. Proposed public sidewalk
- 11. Enhanced pedestrian crossing (future)
- 12. Proposed pedestrian lights
- 13. New street trees
- 14. New curb cut
- 15. Existing trees







# **Transportation Management Plan**

# TRAFFIC, PARKING & TRANSPORTATION MANAGEMENT

The MIMP includes a number of campus development proposals that could have some affect to traffic and transportation on campus and within the surrounding community. The following sections describe analysis of existing conditions as well as the key proposals expected to affect traffic and parking. A detailed project level traffic analysis will be completed as part of the Ecumen Intergenerational Housing project on a separate track and timeline for permitting.

### Overview

PLU is located in unincorporated Pierce County in the Parkland community (south of Tacoma) and southeast of the Interstate-5/State Route-512 (I-5/SR-512) interchange. The campus is geographically divided by a valley that arcs through campus creating upper- and lower-campus areas. During the 2012-2013 academic year, enrollment at PLU averaged approximately 3,345 students (about 3,475 in October and 3,215 in March). The school employment during this period averaged about 915 employees (including about 430 full-time staff, 240 full-time faculty, and about 330 part-time employees—assuming 75% to account for part-time status). For the purposes of this analysis, total school population during the 2012-2013 academic year was estimated at approximately 4,260 (consisting of 3,345 students and 915 employees).

## Existing Parking Demand and Utilization

Heffron Transportation has examined parking utilization data for PLU to support its overall master plan. PLU performs surveys of parking on campus twice each year. As of fall 2012, there were a total of 1,656 on-campus parking spaces at PLU, compared to 1,662 counted in 2007 and presented in previous analyses of parking for the MIMP. The change in number of spaces is related to the addition of the small Neeb Center lot and minor changes in striping or configuration of some other lots including Columbia Center and the Tingelstad lots. In addition to campus parking lots, some students, faculty, and staff park along streets surrounding the campus. New on-street parking supply and demand data were also collected for this 2013 update. In October 2017, on-campus parking reduced to 1,473 spaces due to no longer leasing land for Tingelstad parking area.

# Methodology

Heffron Transportation compiled and evaluated parking demand counts performed for PLU



parking lots by PLU staff in March and October 2012. The demand surveys of the PLU lots were performed at 8:00 A.M., 11:00 A.M., and 2:00 P.M. during the weeks of March 12 and October 8, 2012. The data for Monday, Wednesday, and Thursday (typically busy class days) were compiled and averaged to represent typical average weekday conditions for on-campus parking. The counts included all types of users, including fleet vehicles, motorcycles, and vehicles with disabled placards.

New on-street parking supply and demand surveys were also performed for this updated review in February 2013. Since most streets within the study area do not have delineated striping to define the exact numbers of on-street parking spaces, the on-street supply was determined using measurements of available street edges (e.g. curb length or shoulder length) where parking occurs. The study area was separated into individual block faces. A block face consists of one side of a street between two cross streets. For example, the north side of Wheeler Street S between Park Avenue S and "C" Street S is one block face (identified as block face 'BD'). The study area and block faces are shown on Figure 1.

Each block face was measured and analyzed to determine the approximate number of available on-street parking spaces. First, common street features—such as driveways, mail boxes, fire hydrants, and special parking zones—were noted. Second, certain distances adjacent to the common street features were noted. No on-street parking capacity was assumed within 30 feet of a signalized or marked intersection, 20 feet of an uncontrolled intersection, 15 feet on either side of a fire hydrant, 10 feet on either side of a mail box, or five feet on either side of a driveway or alley. Finally, the remaining unobstructed lengths of roadway edge with adequate width for parking between street features were converted to legal on-street parking spaces using the values in Table 1.



Some of the block faces within the study area have signed parking restrictions. For example, the segments of 121st Street S from 10th Avenue S to 'C' Street S are restricted to two-hour parking from 7:00 A.M. to 7:00 P.M. There are also restrictions for loading zones and disabled parking permits. The parking supply survey determined that there is a total of 861 on-street parking spaces within the defined study area surrounding the PLU campus. Of those, 246 have some sort of restriction on use (such as time duration, loading, or disabled permit). A total of 607 spaces are unrestricted, which means that there are no limits related to the type of vehicle or time that a vehicle can park.

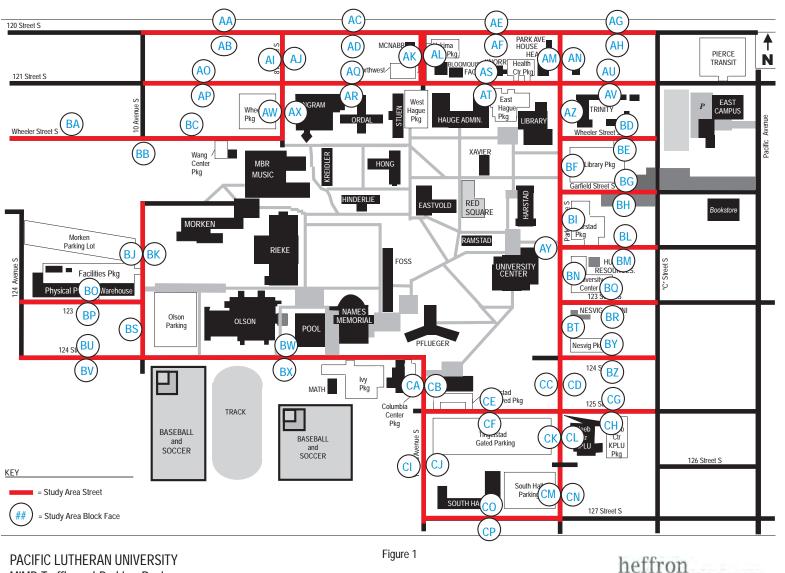
Unobstructed Distance	Number of Parking Spaces	Unobstructed Distance	Number of Parking Spaces	Unobstructed Distance	Number of Parking Spaces
0 – 15 feet	0	206 – 221 feet	11	412 – 433 feet	22
16 – 31 feet	1	222 – 243 feet	12	434 – 449 feet	23
32 – 53 feet	2	244 – 259 feet	13	450 – 471 feet	24
54 – 69 feet	3	260 – 281 feet	14	472 – 487 feet	25
70 – 91 feet	4	282 – 297 feet	15	488 – 509 feet	26
92 – 107 feet	5	298 – 319 feet	16	510 – 525 feet	27
108 – 129 feet	6	320 – 335 feet	17	526 – 547 feet	28
130 – 145 feet	7	336 – 357 feet	18	548 – 563 feet	29
146 – 167 feet	8	358 – 373 feet	19	564 – 585 feet	30
168 – 183 feet	9	374 – 395 feet	20	586 – 601 feet	31
184 – 205 feet	10	396 – 411 feet	21	602 – 623 feet	32

Table 1. Number of Legal On-Street Parking Spaces

Source: Conversion rates derived by Heffron Transportation from the City of Seattle's Client Assistance Memorandum #117.

Existing parking demand data were collected in February 2013 to document the use of onstreet parking capacity within the surrounding area. Demand counts were performed by PLU security staff at 10:00 A.M., 2:00 P.M., and 6:00 P.M. on three days. The counts were performed on two regular school days (Wednesday, February 20 and Monday, February 25, 2013), and on one holiday (Monday, February 18, 2013—Presidents' Day). The data for the two regular school days were averaged to reflect typical weekday conditions. The data from the holiday were used for





MIMP Traffic and Parking Review

On-Street Parking - Study Area & Block Faces

leiiron transportation, inc.

## Parking Demand and Analysis Results

The parking lot demand data collected in March and October 2012 were averaged. Total parking demand for each lot was then compared to the supply for those lots. Campus-wide, the peak parking utilization rate of 76% occurred at 11:00 A.M. The demand at 2:00 P.M. was almost as high, with an overall utilization rate of 74%. Table 2 presents the result of the parking lot counts and includes the average utilization of each lot as well as the total utilization for the campus.

For comparison, parking demand counts performed in 2007 as part of the prior work for the MIMP found on-campus parking was about 81% utilized mid-morning and 79% in the afternoon. The decrease in on-campus parking lot utilization rates is most likely related to the reduction in enrollment levels and the overall lower campus population.

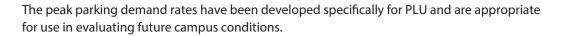
Figure 2 graphically depicts peak parking lot utilization during the peak time observed - 11:00 A.M. Color coding was used to more easily identify areas of high parking utilization versus areas with lower utilization rates. Table 3 shows the color coding used in the graphics.

Table 4 presents the result of the on-street parking counts and includes the average utilization of street segments as well as the total utilization for the entire study area. Overall, on-street parking utilization - 64% - was lower than on-campus parking lot utilization. A few streets had very high utilization rates - some over 100%. This can occur where cars park in areas that were not counted as legal supply (such as too close to mail boxes or driveways). This can also occur where cars park at 90-degree angles with vehicles overlapping both the public right-of-way and private property. The largest amount of on-street demand (126 vehicles at 2:00 P.M.) occurred along 121st Street S between 10th Avenue and C Street. Other streets, further from the perimeter of campus, exhibited lower parking utilization rates.

Figure 3 shows on-street parking demand for the mid-morning (10:00 A.M.) peak condition during the week of February 18, 2013. The color codes are the same as for the parking lots. Data for both sides of the street were collected; in some cases, one side of the street may have had higher parking utilization than the other.

The prior analysis for the MIMP included parking lot and on-street parking utilization data collected for the week of Spring Break, March 26th thru 29th, 2007. New on-street parking demand counts were also performed on the recent Presidents' Day Holiday (Monday, February 18, 2013). The prior Spring Break results and the recent Presidents' Day Holiday counts all showed lower overall parking utilization with similar demand levels. Figures 4 and 5 (attached) show parking utilization during Spring Break for campus lots and on-street parking, respectively. Some campus lots continued to have relatively high utilization during Spring Break. This was likely related to several factors: staff and faculty parking during Spring Break, students leaving their cars while on vacation, cars belonging to resident students who remained in the area, or on-campus events during the break week.

The parking lot and on-street parking utilization data were used to estimate a parking demand rate for PLU. Peak parking demand occurs in the mid-morning. The number of cars parked in the campus lots during the mid-morning peak were combined for a total demand of 1,266 cars. To this was added the net difference in on-street demand between a regular school week (555 cars at 10:00 A.M.) and the Presidents' Day demand (239 cars). Combined, total PLU-related parking demand was estimated at 1,582 vehicles. Using student enrollment (3,345 students) as the independent variable, this equates to peak parking demand rate of 0.47 vehicles per student. Using total school population (4,440 persons) as the independent variable, the peak parking demand rate is 0.37 vehicles per person. These rates are nearly identical to those determined using the 2007 data and are also similar to the parking demand rate (0.33 vehicles per school population) published in Parking Generation (Institute of Transportation Engineers, 4th Edition, 2008) for a suburban University/College (Land Use: 550). Since overall peak parking utilization for the campus lots is 76%, and considering that the nearby streets are able to absorb some campus parking demand with additional supply available, parking supply is not constraining parking demand at the campus.





Potential for additional traffic analysis will be triggered by the following:

- Enrollment increase beyond 20%
- Roadway network changes
- Implementation of the stadium

PLU will have the discretion to study on-site circulation and access if a particular project impacts more than just that building, such as moving the center of activity and therefore creating possible circulation and parking issues.



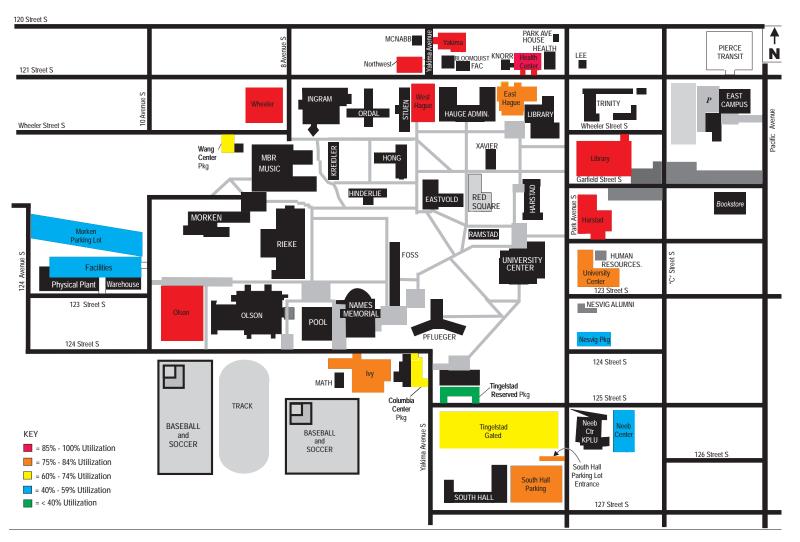


Figure 2 Average Parking Lot Utilization March & October 2012 - 11:00 A.M.

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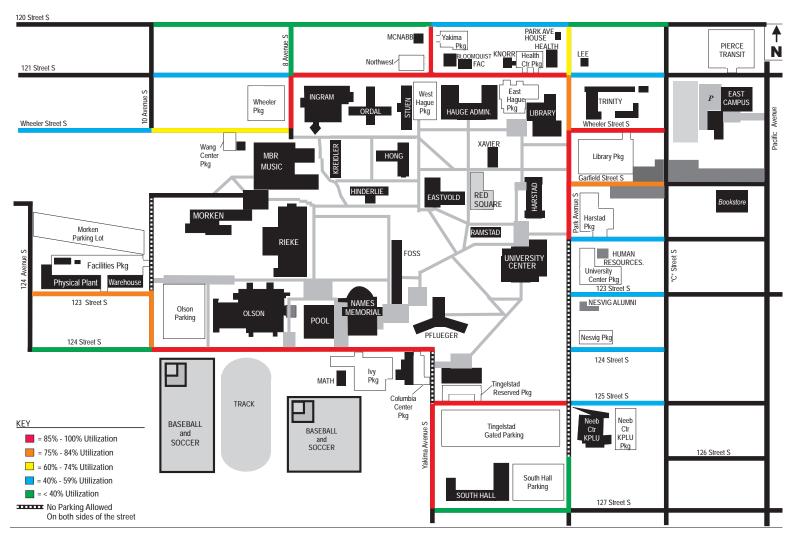


Figure 3 Average On-Street Parking Utilization February 2013 - 10:00 A.M.



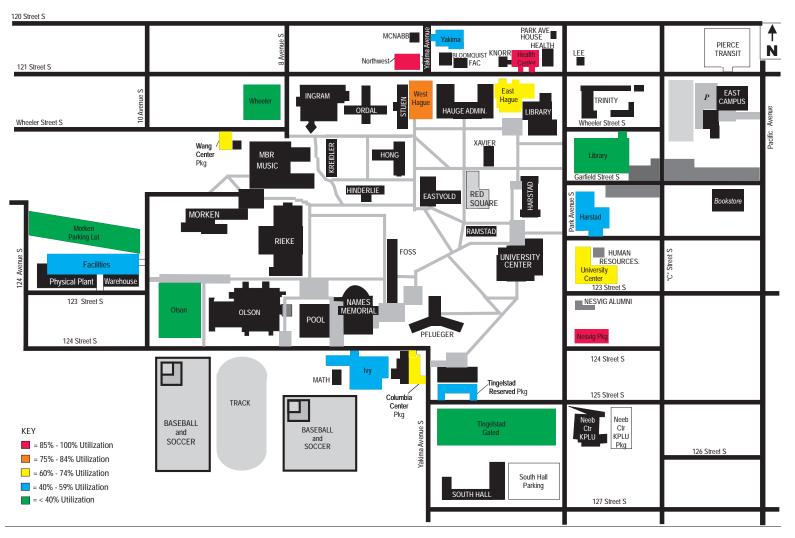


Figure 4 Average Parking Lot Utilization Spring Break 2007 - 10:00 A.M.

heffron transportation, inc.

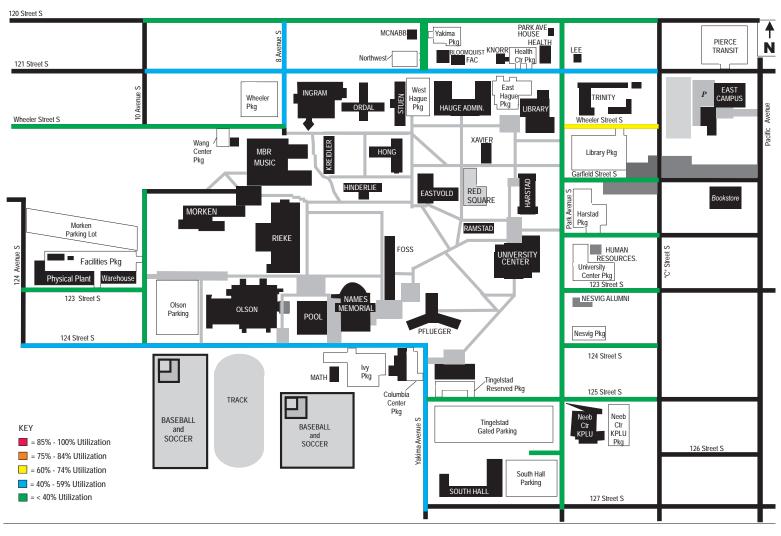


Figure 5 Average On-Street Parking Utilization Spring Break 2007 - 10:00 A.M.



Table 2. Pacific Lutheran University – Average School Day Parking Lot Utilization								
		Average Parking Lot Utilization March & October 2012						
	Supply	8:00 A.M.		11:00 а.м.		2:00 р.м.		
Parking Lot	Total Spaces	Spaces Used	Utilization	Spaces Used	Utilization	Spaces Used	Utilization	
Columbia Center	41	26	63%	28	68%	26	63%	
East Hauge	43	24	56%	33	77%	33	77%	
Facilities	30	12	39%	12	40%	14	47%	
Harstad	79	64	81%	72	91%	73	92%	
Health Center	24	22	90%	22	92%	21	88%	
lvy	90	68	76%	75	83%	67	74%	
Library	189	79	42%	169	89%	160	85%	
Morken	167	43	26%	68	41%	70	42%	
Neeb Center	10	4	40%	4	40%	5	50%	
Nesvig	26	7	26%	12	46%	15	58%	
Northwest	30	9	29%	29	97%	26	87%	
Olson	214	108	50%	184	86%	166	78%	
South Hall <sup>1</sup>	144	134	93%	134	93%	134	93%	
South Hall Entrance <sup>2</sup>	8	4	52%	6	75%	6	75%	
Tingelstad Gated	251	164	65%	170	68%	161	64%	
Tingelstad Reserved	13	3	24%	2	15%	3	23%	
University Center	82	49	59%	63	77%	64	78%	
Wang	11	3	23%	7	64%	8	73%	
West Hauge	54	34	63%	47	87%	48	89%	
Wheeler	53	28	52%	49	92%	50	94%	
Yakima	32	31	95%	31	97%	30	94%	
East Campus 3	65	35	54%	49	75%	49	75%	
Total	1,656	951	57%	1,266	76%	1,229	74%	

Source: Heffron Transportation, Inc., March 2013. Data reflect average demand based on surveys performed March 12, 14, & 15, 2012 and October 8, 10, & 11, 2012.

1. Demand in the South Hall Lot was not counted; spaces were assumed to be effectively full.

2. The South Hall Entrance area parking does not require the special decal, though it does require a school permit.

3. Demand in the East Campus Lot was not counted; demand was estimated.

Table 4. Pacific Lutheran University – School Day On-Street Parking Utilization								
		Average On-Street Parking Utilization February 2013						
	Supply	10:00 а.м.		2:00 p.m.		6:00 p.m. <sup>1</sup>		
On-Street Segment	Total Spaces	Spaces Used	Utilization	Spaces Used	Utilization	Spaces Used	Utilization	
120 <sup>th</sup> St S, 10 <sup>th</sup> to C St	148	46	31%	50	34%	36	24%	
121st St S, 10th to C St	164	124	76%	126	77%	91	55%	
Wheeler St S, 12th to 8th	70	36	51%	39	56%	27	39%	
Wheeler St S, Park to C St	48	42	88%	37	77%	32	67%	
Garfield St S, Park Ave to C St	50	36	72%	37	74%	30	60%	
122 <sup>nd</sup> St S, Park Ave to C St	22	10	45%	9	41%	2	9%	
123 <sup>rd</sup> St S, Park Ave to C St	34	19	56%	15	44%	16	47%	
123rd St S, 12th St to 10th St	29	22	76%	24	83%	5	17%	
124th St S, Park Ave to C St	40	21	53%	6	15%	7	18%	
124 <sup>th</sup> St S, 12 <sup>th</sup> to Yakima Ave S	86	42	49%	42	49%	37	43%	
125th St S, Yakima Ave S to C St	39	51	131%	41	105%	27	69%	
127th St S, Yakima Ave to Park Ave S	15	4	27%	0	0%	2	13%	
10th Ave , 124th St S to Dead End	18	15	83%	15	83%	4	22%	
8th Ave S, Wheeler S to 120th St S	8	7	88%	10	125%	5	63%	
Yakima Ave S, 121st to 120th St S	11	12	109%	11	100%	9	82%	
Yakima Ave S, 127th to 124th St S	44	43	98%	41	93%	40	91%	
Park Ave S, 127th to 120th St S	35	25	71%	20	57%	14	40%	
Total	861	555	64%	523	61%	384	45%	

Source: Heffron Transportation, Inc., March 2013, using supply counts prepared by Heffron Transportation and demand counts performed by PLU in February 2013.

## TRAFFIC & PARKING ASSOCIATED WITH FUTURE DEVELOPMENT PLANS

Traffic Volume and Historical Changes

New 72-hour traffic counts were commissioned by Heffron Transportation in February 2013 on two key roadways serving the PLU campus. These counts were examined to determine how traffic volumes may have changed over the past several years. The counts were performed February 19 to 21, 2013 on S 121st Street west of Park Avenue S and on Park Avenue S south of 121st Street S. The resulting average weekday volumes are shown in Figures 6 and 7. As shown, the volume on 121st Street S gradually increases throughout the day with its highest hourly volume of 220 vehicles occurring from 5:00 to 6:00 P.M. Smaller peaks occur at 1:00 P.M. (190 vehicles) and 3:00 P.M. (210 vehicles). The total daily volume on 121st Street S in February 2013 averaged about 2,500 vehicles (1,310 westbound, 1,190 eastbound). This volume is about 15% lower than the volume reported by Pierce County Public Works' Traffic Division from its 2009 counts and about 9% higher than the volume reported by Pierce County from counts in 2007.

The volume on Park Avenue S also gradually increases throughout the day with its highest hourly volume of about 400 vehicles occurring from 5:00 to 6:00 P.M. The total daily volume counted on Park Avenue S in February 2013 was about 3,820 vehicles (1,935 southbound, 1,835 northbound). This volume is about 13% lower than the volume reported by Pierce County Public Works' Traffic Division from its 2007 and 2009 counts. Overall, the recent counts demonstrate that traffic volumes on roadways surrounding the PLU campus have decreased over the past five years.



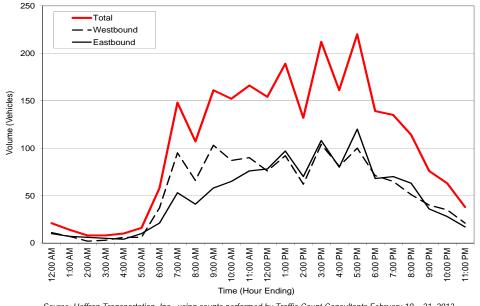


Figure 6. Average Weekday Hourly Traffic Volume on 121st Street S west of Park Avenue S

Source: Heffron Transportation, Inc., using counts performed by Traffic Count Consultants February 19 – 21, 2013.

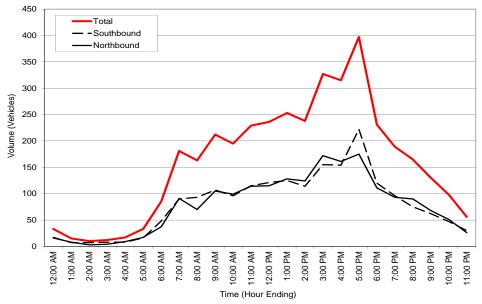


Figure 7. Average Weekday Hourly Traffic Volume on Park Avenue S south of 121st Street S

Source: Heffron Transportation, Inc., using counts performed by Traffic Count Consultants February 19 – 21, 2013.

Changes to Enrollment and Campus Buildings

As described previously, current enrollment at PLU averaged about 3,345 students during the 2012-2013 academic year. The long-range goals, that are the basis for the MIMP, expect oncampus enrollment to remain near 3,500 and to not exceed 4,000 over the next ten years. Based on these figures, the campus could experience an increase in student enrollment of about 655 students during the planning horizon for the MIMP. The new students could be graduate level students that would most likely attend classes on weekends and evenings and may not increase peak period traffic or peak parking demand during mid-morning time periods. In addition, nearly all of the planned campus development projects will focus on renovation and possible replacement of existing buildings or providing additional residential housing (student beds) that will increase the proportion of students living on campus. Other planned projects include Phase 1 of a new sports and fitness center, two new all-weather athletic fields with spectator seating for up to 4,000 people (evaluated later), and a new main campus entrance at Park Avenue S.

In terms of typical school-day traffic generation, only the expected increase in student enrollment would result in changes to traffic or parking demand. The potential increase in student enrollment is expected to be offset by a higher proportion of students living on campus (and lower proportion of students commuting to the campus). However, to estimate the potential traffic generation effects of the increase in enrollment, equations published in Trip Generation (Institute of Transportation Engineers, 9th Edition, 2012) for a University/College (Land Use 550) were applied. The added enrollment of 655 students could result in an additional 1,120 trips per day and 111 AM and PM peak hour trips. It should be noted that the ITE trip generation rates include all types of trips—those made by students as well as staff and visitors. Even with this potential increase in trips, traffic volumes on roadways surrounding the PLU campus would likely be less than those counted in 2009.

Parking demand could also increase with the additional enrollment. Based on the parking demand rates described above, the addition of 655 students could result in an increase in peak parking demand of about 310 vehicles. This increase in demand could be accommodated by the existing parking lots—there were 390 spaces available during the mid-morning peak. However; PLU plans some additional parking on campus as described below to help reduce its reliance on on-street parking.

While some new buildings on campus could displace existing on-campus parking, PLU plans to construct replacement parking at a rate of one space for every lost space. In addition, the future parking demand rate is expected to be reduced with the introduction of new parking management efforts, expanded transit options, and other Transportation Management Plan (TMP) elements described in the MIMP. The MIMP includes recommendations to add additional on-campus parking and to designate new areas of parallel on-street parking along certain roads within the campus (e.g., 124th Street S and Park Avenue S). The MIMP proposes several new campus parking lots including: a lot with about 200 spaces west of the athletic fields, a lot with about 128 spaces south of the proposed Rec Center, three new lots (with 10, 20, and 40 spaces) near the Health Center north of 121st Street, a lot with about 125 spaces on the east side of Park Avenue S between 124th and 125th Streets S (north of the Neeb Center), and a lot with about 37 spaces on the west side of 10th Avenue S. The plan also recommends improving the efficiency of some existing parking lots. Though the locations and number of spaces may vary slightly from these current estimates, in total the MIMP plans for a net increase of about 442 spaces in campus parking lots after accounting for reductions in other location. This would more than accommodate the potential increased demand associated with changes in enrollment.

# ROADWAY NETWORK CHANGES

The MIMP includes two options that would reconfigure the section of 124th Street S that extends from 12th Avenue S to Yakima Avenue S.

Option A would vacate the eastern portion of this public roadway segment and terminate the roadway at a new drop off loop in front of the Olson Auditorium. The section of 124th Street S east of Olson and west of Yakima Avenue would be closed to vehicular traffic and reconstructed as a pedestrian path. The short segment of Yakima Avenue between 124th Street and 125th Street would also be vacated with this option and would be replaced with a new parking lot to serve the planned Rec Center. As part of the roadway closure and vacation, PLU intends to work with the Franklin Pierce School District and Pierce County on a possible new north-south roadway connection between the 12th Avenue S/124th Street S intersection and Tule Lake Road S. Such a connection would provide a replacement route for the closed section of 124th Street S.

Option B would maintain 124th Street S as a roadway connection, but would reconstruct the roadway with traffic calming elements, new parallel on-street parking, curb bulbs, raised crosswalks and/or medians, and a traffic circle at its intersection with Yakima Avenue. This option would be intended to slow traffic along 124th Street S, improve the pedestrian environment, and organize and formalize the existing on-street parking that currently occurs.

To estimate the volume of traffic that could be affected by the options described above. Heffron Transportation commissioned a new 72-hour machine traffic count along 124th Street S. The count was performed from March 4 through March 6, 2013 and represents conditions with classes in session at PLU. A graphical plot of the hourly volumes is shown in Figure 8. Based on the count results, 124th Street carries an average of 2,665 vehicles per weekday (1,300 westbound, 1,365 eastbound)—25% lower than counts performed at the same location in May 2007 for prior MIMP analysis. As shown in the chart, there is still a distinct AM peak hour of about 300 vehicles from 7:00 to 8:00 A.M. Hourly volumes during the rest of the day are sharply lower than the AM peak (e.g., 235 at 1:00 P.M.; and 215 at 3:00 P.M., and 185 at 5:00 P.M.). Traffic associated with the PLU campus that uses 124th Street S would not be substantially affected by the proposed options to reconfigure 124th Street S. However, a portion of the traffic on 124th Street S is likely generated by Keithley Middle School to the west. When compared to counts performed while Franklin Pierce Schools were off for mid-winter break, an estimated 17.5% (466 trips per day) of the traffic using 124th Street S in this area is likely associated with Keithley Middle School, which begins classes at 8:00 A.M. The option that would terminate a segment of 124th Street S could result in this traffic being re-directed to other routes to access parking in the vicinity or Keithley Middle School. The suggested new north-south connection would provide a replacement route for traffic destined to and from Keithley Middle School.

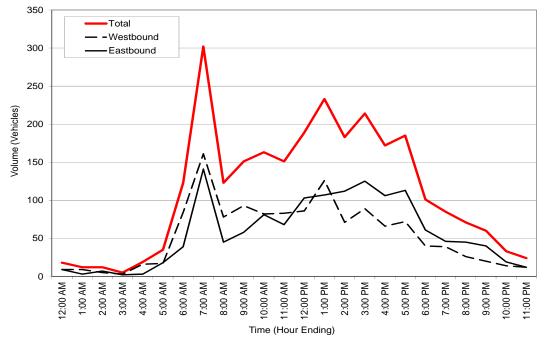


Figure 8. Average Weekday Hourly Traffic Volume on 124<sup>th</sup> Street S east of 10<sup>th</sup> Avenue S

Source: Heffron Transportation, Inc., using counts performed by Traffic Count Consultants March 4 through March 6, 2013.

# NEW ATHLETIC FACILITIES

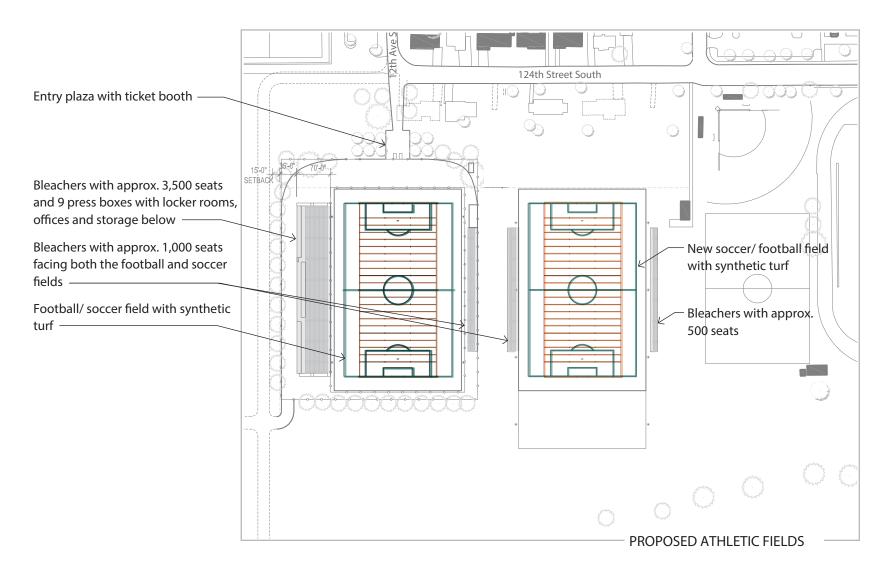
One of the planned development projects would include two all-weather athletic fields that would be available for football, soccer, lacrosse, track, ultimate 'Frisbee,' intramural sports, and physical education. The football-soccer-track facility would eventually include a set of spectator stands with capacity of about 4,000 people. Through a joint effort with the Franklin-Pierce School District, a new parking lot would also be constructed along the western side of the new football-soccer field. That parking lot is expected to provide about 200 spaces. In addition, PLU and the Franklin-Pierce School District would likely enter into a shared parking agreement whereby parking facilities at Washington High School, Keithley Middle School, and PLU could be shared interchangeably for events including PLU and Washington High School have more than 250 spaces that could be used for shared parking on Saturdays with PLU football games (Washington has 4 parking lots with a about 260 spaces; Keithley Middle School has 3 parking areas with a total of about 80 spaces).



The most substantial use of the new facilities would be for PLU's home football games (currently played about 10 miles away at Sparks Stadium). The home football games would generate new traffic and parking demand at the PLU campus. To estimate the potential traffic associated with these events, historical home football schedules and attendance records were reviewed. PLU provided attendance records for home games from 2002 through 2012.

There are between four and five home games played each year between early September and early to mid-November. Attendance for the 49 games that occurred during the review period averaged about 2,220 attendees. The 85th-percentile attendance for individual games was about 3,550 persons. PLU also provided the numbers of paid attendance for the seasons between 2003 and 2012. Since students with a current student identification card are free, the paid attendance for a game compared to those students that live on campus that could now walk to the games.

The attendance figures were compiled and analyzed to account for the potion of students that live off campus, the number that live on-campus and might walk to the games, and the number of paid attendees that would most likely drive and park at the games. It was estimated that for



an 85th-percentile attendance level of 3,550 attendees, about 2,300 would be non-students, and about 1,250 would be students (about one third of the student population). Further, it was assumed that all of the non-students and about 53% of the students would come to campus in vehicles and park. The average vehicle occupancy (AVO) rates for the football games were developed from Table XVII in Parking for Institutions and Special Events (ENO Foundation for Transportation, Inc., 1982). The published AVO rate for football games is 3.0 persons per vehicle. A lower AVO rate of 2.5 was assumed for students driving to the games (since they might be less likely to have extended families with them). Based on these assumptions, an 85th-percentile game would generate peak parking demand of 1,035 vehicles. These assumptions likely result in a conservatively high estimate of parking demand since about 2,850 students live either on campus (about 1,650) or very near campus (about 1,200) and the proportion of students walking to games may be much higher.

On-campus and on-street parking throughout campus would likely be used for high-attendance home football games. Based on the parking supply information presented previously, there is adequate parking supply to serve an event of this magnitude. Since school parking demand on Saturday afternoons is far below typical weekday and even weekday evening levels, the parking supply is expected to adequately serve the demand for the football games. As described above, PLU has also discussed options for shared parking with nearby Keithley Middle School and Washington High School, if additional parking is needed. PLU plans to monitor parking conditions during games and will explore other parking management measures, if necessary.

Traffic estimates for a game day were developed using the same assumptions described above. In addition, arrival and departure patterns were developed based on typical arrival and departure patterns for college football games. As shown in Table 5, the largest volume of traffic generated by the football stadium would occur just after the game is complete and the spectators leave the site. During the hour after an event, traffic volumes along 124th Street (adjacent to the proposed facility) would be somewhat congested. However, PLU home football games only happen four to five Saturdays each year and the attendance for all but about 15% of the games is expected to be lower than presented in this analysis. Due to the relative infrequency of the events and the fact that they would occur on Saturdays when background traffic volumes are lower, the stadium is not expected to result in significant adverse impacts.

				Hourly Trip Generation Estimate				
Arrival Time Prior to Start	Time	% Arrive	Assume Drop-off	In	Out	Total		
4 Hours	9:30 AM	15%	0.0%	155	0	155		
3 Hours	10:30 AM	20%	0.0%	205	0	205		
2 Hours	11:30 AM	30%	1.0%	345	35	380		
1 Hour	12:30 PM	20%	1.5%	260	55	315		
Game Start	1:30 PM	15%	2.5%	245	90	335		
Departure Time After Finish	Time	% Depart	Assume Pick-up	In	Out	Total		
Game Finish	4:30 PM	85%	4.0%	145	1,020	1,165		
1 Hour	5:30 PM	15%	1.0%	35	190	225		

# Table 5. Traffic Generation Estimate for 85<sup>th</sup> Percentile PLU Football Game

Source: Heffron Transportation, Inc., March 2012 based on attendance data provided by PLU for games from 2002 through 2012.

PLU will also make the athletic fields available for use by the Franklin Pierce School District. The field could be used as the home field for Washington High School for football games since it currently uses the field at Franklin Pierce High School as its home field. Traffic and parking demand associated with high school games is expected to be lower than for a PLU home game; these games would also happen relatively infrequently. Washington High School participates in the Nisqually 2A League and plays about seven games per year with three or four home games. The Franklin Pierce School District indicated that attendance at Washington High School home football games typically ranges from 1,000 to 1,500.

# CONCLUSIONS

With the extensive transportation management plan elements described above, the proposed MIMP features are not expected to result in adverse impacts to traffic operations or parking conditions at or around the PLU campus. Coordination with Pierce County and the Franklin Pierce School District would occur regarding possible changes to 124th Street S including traffic calming, closure/vacation, and a potential new north-south roadway connection between the 12th Avenue S/124th Street S intersection and Tule Lake Road S as a replacement route.

### TRANSPORTATION MANAGEMENT PLAN (TMP)

As part of the Major Institution Master Plan, PLU will expand its Transportation Management Plan (TMP). The TMP is expected to include the following elements.

Vehicle Registration and Parking Decals

All PLU students, faculty, and staff, must register their vehicles with the Campus Safety office within 48 hours of the vehicle being brought to campus. An appropriate decal is issued upon registration. The university notifies all members of the school population that parking space is at a premium on campus, and it is imperative that everyone parks in his/her assigned area(s). Parking tickets are issued to vehicles unregistered and found parked in reserved or unauthorized areas. Registration decals are valid from September 1 through August 31 of the following year. All parking lots are marked with signs that identify the lot and the authorized users. The cost of parking decals depends on the user group. Decals for faculty, administration, and other staff are free but are limited to one decal per employee. The annual costs for student decals range from \$30 for resident and commuter students, to \$175 for parking in the gated Tingelstad lot.

Parking Space Allocation

To make the most efficient use of on-campus parking, PLU has allocated parking spaces by user group in each of its lots. The allocation is based on historic parking utilization studies and on current or expected parking demand. In an effort to discourage freshmen from bringing vehicles to campus, student parking spaces are allocated based on priority. Freshman decals allow parking only in the Olson and Morken lots.

### **Carpool Parking Program**

PLU would continue its existing parking management programs. The existing program includes several measures to encourage alternative modes of travel to campus. PLU requires all members of the school population (students, faculty, and staff) to register vehicles that are brought to campus. For a fee, they are issued parking decals. Free preferential parking locations are available for registered employee and student carpools. PLU currently has about 25 designated carpool parking spaces. Carpool parking permits are renewed annually and spaces are enforced (with \$25 tickets for violations) by Campus Safety. PLU also provides a "Guaranteed Ride Home" for carpool members.



# Local On-Street Parking Strategies

PLU has been, and will continue working to reduce parking demand generated by the University. This includes active transportation and parking demand management measures that discourage students from bringing cars to campus when possible. PLU has also made campus improvements that have relocated major functions (and associated parking demand) closer to the off-street parking supply that was previously underutilized. PLU has actively worked with Pierce County and the community to manage on-street parking adjacent to the campus so that it is available for short-term visitors and local residents. PLU has also cooperated with Pierce County for a number of years to manage and enforce on-street parking along streets that surround the PLU campus. Effective parking management can only be achieved with a balance of incentives and disincentives and must include management measures for both off-street and on-street parking. PLU has limited authority and ability to manage and enforce measures related to the on-street parking supply beyond its roadway frontage and plans continual to additional coordination and assistance from Pierce County as the MIMP is implemented.

## **Campus Escort Service**

PLU provides a Campus Escort Service that is available to all members of the PLU community 24-hours per day. The escort service provides vehicle transportation on an on-call basis within the immediate vicinity of campus. The service extends from PLU's campus to 112th Street S on the north, Pacific Avenue on the east, Tule Lake Road on the south, and Spanaway Loop Road on the west. From October 2006 through May 2007, the Escort Service provided nearly 23,000 rides and averaged about 100 trips per weekday and about 90 trips per weekend day. In the year 2010-2011, the Escort Service provided approximately 26,000 rides.

## **University Vehicles**

Four 12-passenger vans are available from PLU for rental through Campus Safety. The vans are available at a rate of \$15 per day and \$.65 per mile. In addition, cargo vans are typically available from a local rental agency and have historically been reserved through Campus Safety. Other types of vehicles can also be rented, but only 12-passenger or smaller vans/vehicles are allowed for PLU related business/academics/activities. All drivers of PLU owned or rented vehicles must be certified through the driver certification program prior to driving. Vehicle reservations are made online in advance and are filled on a first-come, first-served basis.



# TRANSPORTATION MANAGEMENT PLAN

## Transit Pass Benefits and Car Sharing Services

PLU's Commute Trip Reduction program provides education in and support for alternative transportation methods for PLU students, faculty and staff, through a variety of policies, programs, and benefits. By making conscious efforts to use sustainable commuting practices, PLU commuters can model sustainability as well as work toward greater harmony with the environment.

Number of employee ORCA cards sold for FY2011 = 173 Avg number of student bus passes sold per month for FY2011 = 20

As of June 2010, all PLU with benefits employees are eligible for the ORCA pass for a small annual fee of \$28. The ORCA pass automatically tracks the value of different fares and transfers so riders don't have to carry cash or paper transfers. PLU also subsidizes any eligible commuter students' cost of a monthly transit pass. The subsidies may include bus, vanpool, ferry and/or rail transit, but only if the student does not drive to and park at PLU. Commuter students may receive the benefit from September through May. Students must live outside of a defined radius of campus and are required to demonstrate that she or he is reducing the number of vehicles traveling to and parking at PLU by providing their drivers' license and vehicle plate number on the application form.

Commuter students who participate in the transit benefit program may obtain a parking decal that can be used on days when they drive individually. To receive the benefit, recipients must certify they are not driving to PLU an average of more than two days per week. All transit benefit recipients also have a guaranteed ride home should they or a family member become ill or experience another emergency situation.

Two Zipcars are available for the campus community. The car sharing service is available at PLU to anyone age 18 or older and 21 or older at locations away from campus. Participants must subscribe to the Zipcar service. Zipcar has established partnerships with several universities including Johns Hopkins University, University of Maryland, University of Florida, University of Washington, UCLA, Georgia Tech, University of California – Berkeley, Portland State University, University of California – San Diego, and Emory University.

University Transportation Coordinator (UTC)

PLU is an active participant in the Pierce County Commute Trip Reduction program. All employees can already purchase an ORCA pass for \$28.96 per year. Commuting students are



eligible for ORCA pass subsidies. PLU has two ZIP cars available on campus. PLU already has a University Transportation Coordinator (UTC), a staff position responsible for managing and administering the various elements of the TMP. PLU provides Pierce County with the name, phone number, fax number, and email address of the UTC and update the information annually. PLU ensures that the UTC receives support and direction from University leadership and the training that enables the UTC to carry out these responsibilities effectively. PLU also already has established a Parking Committee that meets regularly to address the parking elements of the TMP elements. It evaluates demand, utilization rates, security, enforcement, and maintenance.

# Promotion and Information

In order to ensure that students and employees understand the TMP, the opportunities, and the benefits afforded them, PLU will produce a commuter information packet (CIP). This CIP would be in the form of brochure that contains complete information about transportation benefits, transportation options, transit programs and discounts, bicycling amenities, bus pass opportunities, and other elements of the TMP. PLU would distribute the CIP to students, faculty, and staff and would make copies of the CIP available in the Commuter Information Center. The CIP would be updated as needed and distributed annually to incoming students and all employees. The CIP would also be made available on PLU's website with web links to the applicable sites.

# Commuter Information Center (CIC)

PLU provides a commuter information center (CIC) at the concierge desk. It would display the name, telephone number and office location of the UTC. PLU would maintain the center with copies of the most recent CIP brochure, current transit schedules, and other TMP promotional information. Transportation options and resources are also described in detail on the university's website. PLU uses Rideshare software to connect carpoolers, vanpoolers or bike partners who share the same commute, schedule and work location.

## **Electric Vehicle Charging Stations**

PLU is coordinating the installation of 4 electric vehicle charging stations on campus. This is in line with the current focus on reducing its carbon foot print from gas vehicle travel. This will provide opportunity for PLU students, faculty, staff and the public to charge vehicles close to work, visiting, or intermediate travel in the area. PLUs proximity to major interstate highways affords the opportunity for travelers to use the stations on their travels around Washington.





#### Site Improvements

As part of the PLU Campus Master Plan, several site improvements are proposed that would encourage non-automobile travel to and from the PLU campus. The following lists the measures included:

1. Traffic calming measures to increase safety for pedestrians. These include: narrower travel lanes, roadway medians, roundabouts and/or traffic circles, speed humps or speed tables, pedestrian lighting, and curb bulbs (to narrow vehicular travel ways and shorten pedestrian crossing distances).

2. New pedestrian paths, marked and improved crosswalks, path improvements, and improved sidewalks and lighting along routes that serve transit.

3. New curbs, gutters, and sidewalks along streets that surround campus (e.g., 121st Street, Park Avenue, and 124th Street). These improvements would not remove existing on-street parking.

4. Options to reconfigure 124th Street that reduce traffic speeds and volume. These options are intended to enhance the pedestrian connections between athletic fields/facilities, residence halls, and upper campus.

5. PLU has recently added new buildings with Leadership in Energy and Environmental Design (LEED) certification. PLU includes provision of parking for bicycles at building entrances.

6. PLU has shower and locker facilities on campus associated with its athletics facilities.

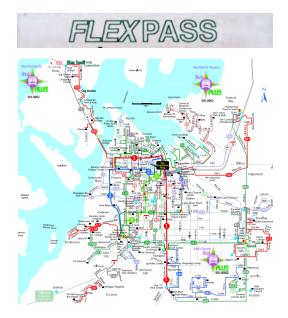
#### Parking Management Programs

PLU has established a parking management committee that oversees a variety of parking management measures on campus. The following describes the measures that are planned to continue.

#### **Potential Future Elements**

<u>Orca Card:</u> PLU currently provides Orca Cards to employees and to students who meet certain criteria and is considering options for all students. This potential benefit would substantially increase the transit options for the PLU population and would further reduce the need for students and employees to drive automobiles to the campus. Cost and implementation feasibility are currently being reviewed.

<u>Pierce Transit Bus Routes</u>: PLU will continue to work with Pierce Transit and Sound Transit to expand service to and from the campus including possible new or expanded routes to lower campus. Some routes may also be modified to serve areas that are not currently served.





#### **Annual Reporting**

In accordance with the Commute Trip Reduction (CTR) Law passed by the Washington State Legislature in 1991 and as an institution with 100 or more full-time employees who begin their work day between 6:00 A.M. and 9:00 A.M., PLU is obligated to provide a Commute Trip Reduction program. The law is intended to encourage commuters to use alternative modes such as carpool, transit, bicycling or teleworking instead of driving alone to work every day. PLU submits an Employer Annual Report & Program Description form.

#### Conclusions

With the extensive transportation management plan elements described above, the proposed MIMP features are not expected to result in adverse impacts to traffic operations or parking conditions at or around the PLU campus. Coordination with Pierce County and the Franklin Pierce School District would occur regarding possible changes to 124th Street S including traffic calming, closure/vacation, and a potential new north-south roadway connection between the 12th Avenue S/124th Street S intersection and Tule Lake Road S as a replacement route.

# **Community Benefits**

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**Community Benefits** 

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#### COMMUNITY BENEFITS OF THIS PLAN

Founded in 1890, the university has been located in Parkland, on the same geographic footprint for its entire history. PLU plans to remain in Parkland in perpetuity and recognizes the importance of sustaining a high quality campus environment and strong, positive presence in the neighborhood. Over the years, the campus has provided a sense of permanence, continuity and stability to the community. Over time, the institution has grown along with growth in population in the county and state. PLU provides direct benefits to the county and its residents as well as to the broader community. PLU intends to grow in a way that supports the Pierce County Growth Management Plan and the community plan for the Parkland-Spanaway area. The benefits of having PLU in Parkland and Pierce County will be outlined in this section of the Major Institutional Master Plan and potential future benefits will be described.

The primary purpose of PLU is to provide post-secondary education to students for lives of "thoughtful inquiry, service, leadership and care – for other people, for their communities and for the earth." In the process of educating students, the University is a major employer in Pierce County.

PLU also provides direct and indirect revenue through taxes and payments to a wide range of Pierce County businesses. In addition, PLU provides valuable community service through student internships and volunteer activities, pre-college programs and the Couples and Family Therapy Clinic. Campus facilities and activities are available to the community. The campus provides recreation and open space and a modest amount of wildlife habitat.

The total expenditures for the University for FY 2010 (June 1, 2009 - May 31, 2010) were \$96,999,802. It is difficult to estimate what portion was paid out within Pierce County, but the total is significant. Estimates for several areas of expenditures are included in the following narrative.



## STUDENT ENROLLMENT

PLU enrolls about 3,550 students on campus, with 3,300 undergraduates and 250 graduate students in a total of 44 majors with 20 degree programs. Undergraduates are a mix of students who start at PLU as freshmen and complete all four years at PLU, and transfer students, many of whom complete associate degrees at local community colleges then transfer to PLU to complete bachelor's degrees. Most of the graduate students are working adults who return to school to complete master's degrees. About 35% of all students are residents of Pierce County and many remain in the area after graduation. PLU has about 41,000 living alumni. Over 4,600 students have graduated from the PLU School of Education and Movement Studies program and 2,060 from the School of Nursing program, providing teachers and nurses to the area. A more complete description of academic programs is available on the PLU website at http://www.plu. edu/~regi/catalog/.

PLU's long range plan, PLU 2010, was completed in 2003 after a three year process. It projects an enrollment target of 3,600-3,700, in the range that PLU has maintained in recent years. PLU has a historical high of nearly 4,000 students, a number used by Pierce County for planning purposes. PLU 2020, a new long range plan is under development. It will be presented to the Board of Regents in january 2012 and may recommend further growth in enrollment, particularly in graduate programs. The current built environment can accommodate program growth beyond the master plan's target in PLU 2010 by more efficient use of space. PLU 2020, a new long range plan is wide delopment. It will be presented to the Board of Regents in January 2012.

Continuing Education Programs – In addition to degree programs, PLU provides continuing education programs, particularly in nursing, congregation relations and education. These programs are available to all members of the public who are qualified and pay any associated registration fees.

Pre-college programs – PLU is the sponsor of the Tacoma Pierce County Math Engineering and Science Achievement program (MESA) which provides academic assistance and support for elementary, middle and high school students who are underrepresented in science and engineering professions. MESA works with a number of school districts in Pierce County and makes campus facilities available to these students. On average, 760 students participate in the MESA program throughout the year.



PLU acts as a host for the College Bound program run by the Metropolitan Development Council for pre-college students in the Franklin Pierce and Bethel school districts. Every day, College Bound works with over 180 students in the surrounding community. 180 students are on campus during their summer program and on average about 10 students participate in activities on PLU's campus per week during the school year.

Both programs have offices at PLU and run after school, Saturday and summer programs on campus. Though PLU provides "free" space, both programs are dependent on external funding sources for some of their operating funds. If funding is available, each program will expand to meet the growing need for pre-college programs.

MESA is located in the Morken Center and College Bound is located in East Campus. The programs use space in Olson Auditorium, Rieke Science Center and several other buildings. Renovation of these buildings and construction of new athletic facilities will be beneficial to both programs. MESA has had offices on the PLU campus for over 20 years and College Bound for 15 years.

## CAMPUS EMPLOYMENT & PAYROLL

The university employs about 900 people, nearly all of whom have an excellent benefits package including medical, dental, tuition remission and retirement benefits. Most faculty members are recruited nationally, but many administrators and nearly all staff are recruited locally. During fiscal year (FY) 2010 the gross payroll was \$41.4 million, with over 70% of that paid to Pierce County residents.

The number of employees is directly tied to the student enrollment. Should PLU increase enrollment, the number of employees is also likely to increase. PLU routinely provides cost of living adjustments to salaries, so it is likely the total payroll will continue to increase even if the workforce remains constant.





# **CAMPUS & NEIGHBORHOOD SECURITY**

PLU contracts with Pierce County for the Director of Campus Safety as well as for enhanced patrols by County deputy sheriffs. PLU also has trained professionals in the Campus Safety office. The entire campus safety operation collaborates with the County as well as with Central Pierce Fire and Rescue. All of this provides enhanced security to the surrounding neighborhood.

PLU has a system of monitored security cameras located in campus parking lots and along adjacent roads. Continued improvement in the camera system and installation of additional sidewalks is a significant benefit to the surrounding community. PLU works with law enforcement to prevent and detect and prosecute people involved in criminal activity.

## INFRASTRUCTURE IMPROVEMENTS

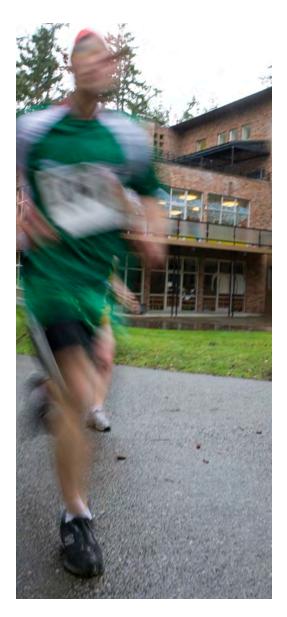
The area surrounding the PLU campus is suburban, with relatively few sidewalks and limited lighting. Much of the area is not particularly pedestrian friendly. As PLU continues to develop, a goal is to add sidewalks, lighting and other amenities that make the neighborhood more appealing to residents, workers, and visitors.

The area around the campus has no stormwater conveyance system, so all stormwater is managed locally. PLU has a regional stormwater facility, as well as three stormwater "rainstores" on campus. Local stormwater running off of public streets enters PLU treatment facilities at three locations:

- 12th Avenue between Garfield and 123rd
- Park Avenue between Garfield and 123rd
- Park Avenue and 125th Street

As parking lots are rebuilt, PLU plans to install rain gardens and other treatments to cleanse water before it infiltrates into the ground.

In several instances, PLU has taken responsibility for treating public street runoff as a necessary part of completing street and sidewalk improvements. In the future, PLU hopes to work with the county to develop a more comprehensive approach to stormwater management.



## TAXES

Though PLU is a tax exempt organization under Federal 501(c)3 standards, PLU pays a considerable amount in sales, property and payroll taxes. Property taxes are paid on vacant properties, houses rented to the general public and investment property. In 2010, PLU paid a total of \$101,485 in property taxes to Pierce County. Garfield Commons, owned through a LLC in which PLU is a partner, paid a total of \$16,480. PLU remitted \$533,363 in excise tax directly to the State of Washington and paid sales tax related to campus construction.

PLU will continue to pay tax on property owned by the University but not directly related to the educational mission of the campus. Future retail and non-student residential development has the potential to generate significant excise tax as well as property tax for the Pierce County.

#### KPLU

PLU holds the license for the public radio station KPLU. In addition to broadcasting at the frequency of 88.5 at 100,000 watts of power, KPLU also broadcasts through KVIX in Port Angeles and KPLI, in Olympia. KPLU is rebroadcast on seven translators throughout the Puget Sound region. KPLU also has a strong presence on the Internet, where it broadcasts both its regular onair program and a 24-hour jazz stream. KPLU is one of the most listened to NPR-affiliate radio stations in the country. Its broadcast signal reaches over 3 million people and stretches from Victoria, British Columbia, to Astoria, Oregon, and from the Washington coast to the Cascade Mountains.

KPLU's Internet webcast is heard world-wide. KPLU has the distinction of being in the top ten in terms of listenership of all jazz music streams in the world. On any given week, KPLU serves upwards of 500,000 listeners. KPLU recently moved into the new Martin J. Neeb Center, located at Park Avenue and 125th. In addition to this new construction, PLU added sidewalks and street lighting to a section of Park Avenue adjacent to the building. PLU also improved the abandoned creek bed of historic Clover Creek by adding native plants and trees rather than putting in a fence, an allowed alternative. This new building provides an anchor to the neighborhood and continues to improve the southeast corner of campus. In the future, PLU will continue to add sidewalks, crosswalks, and street lighting in the vicinity of the Neeb Center at the southeast entrance to campus, making the area more pedestrian-friendly.



#### ENVIRONMENTAL EXCELLENCE

The university has several goals for environmental sustainability for the campus, outlined earlier in this document. Recent building construction projects have been awarded LEED gold (Morken Center, Neeb Center) and LEED silver (University Center). LEED gold or platinum is expected for the renovation of Eastvold Hall. LEED standards are applied to smaller renovation projects, and have been utilized for renovation of Tingelstad and Hinderlie Halls. Water conservation is also a campus goal and renovations in Tingelstad, Hinderlie, Stuen, Ordal, Foss and Pflueger Residence Halls have all utilized low flow plumbing. Recent renovation of some locker rooms in Olson Auditorium also utilized low flow plumbing fixtures.

PLU has made a commitment to build all new buildings and complete major renovations to at least LEED silver standards and to apply for LEED certification. When a smaller project is carried out LEED standards will be applied. When Hong, Harstad and Kriedler Halls are renovated, they will also utilize low-flow plumbing. PLU is willing to provide assistance and expertise with respect to sustainable construction to others in Pierce County.



PLU also places a high priority on energy conservation. In addition to LEED standards, a number of energy retrofits have been completed. Additional energy conservation initiatives include use of green power, reduction in use of potable and irrigation water and an exemplary recycling program. The University plans to continue a program of energy retrofits, which may include geothermal and solar energy sources. PLU has established a community garden that provides fresh vegetables and fruit to community food banks.

## PUBLIC EVENTS

PLU holds a wide array of events that are open to the public, including concerts, plays, gallery showings, lectures, seminars, workshops, athletic events and festivals. Many of the events are free and some have nominal admission fees. Each year over 100 musical performances are scheduled on campus, including the very popular Jazz Under the Stars, hosted by KPLU.

Future campus improvements include the renovation of Eastvold Auditorium where the auditorium will be re-designed as a performance center for the spoken voice. It will be a home for the theater program as well as a venue for large lectures. The phased renovation of Olson Auditorium will allow it to continue to serve as the largest venue in south Pierce County for athletic competitions, science fairs, high school graduations, community fairs and other public events. The renovation will allow HVAC systems to be moved to the roof, providing newly claimed interior space for academic use and, eventually, the portico may be turned into interior space.

## FACILITIES AVAILABLE TO THE COMMUNITY

PLU space is available for rental through the Conferences and Events office. Dozens of conferences, camps, seminars, short courses, graduations, meetings and other events are held each year on the PLU campus. These are sponsored by groups with an educational mission and intent for the event. In addition, two spaces may be offered for free or reduced rates for selected community events. These are the community room at the Garfield Book Company and the public events room in the Morken Center.

Swimming Pool – The PLU swimming pool is located on PLU's lower campus with easy access for community members. The pool offers public swimming hours with times for family swim as well as adults only. During summer months the pool holds swimming lessons for all ages. The master plan projects the replacement of the pool within the next 10-20 years.

Informal Use of Campus – In addition to scheduled activities, the community uses the PLU campus for informal recreation. The campus is a beautiful setting for walks and jogging. The PLU track is used for exercise by many community members.







#### PUBLIC SERVICES

PLU provides direct, organized public service to the Pierce County community through student activities, internships and a clinic.

The Center for Public Service is an academic support office established by Pacific Lutheran University in 1993. The Center for Public Service focuses on advocacy and support for service and service-learning; development of strong community partnerships, and availability of resources and training. The Center directly administers three programs:

- Service-Learning
- Volunteer Center
- Community Work Study

On average 2,300 students volunteer during the school year through the programs offered by the Center for Public Service.

Academic Internships are professionally related work experiences grounded in academic application and learning objectives. They are designed to integrate classroom study with a planned work experience that links aca23mic study with career goals and interests. On average 280 students participate in internships during the school year. Internships:

- Assist students in finding appropriate employers and positions that will help meet their career goals.
- Assist employers in attracting qualified candidates for their positions.
- Sponsor employer campus visits for information sessions and interview schedules.
- Support faculty in monitoring the success of their students while on their Academic Internship and Co-op experiences and help address any problems that arise.

Couples and Family Therapy: offers affordable, high-quality care to individuals, couples, and families, using the latest advances in the field. The center is based on a family-focused model of therapy, which means that we encourage family members or significant others to come together in therapy in order to gather as much information as possible about the difficulties you are facing. All therapists have bachelor's degrees and are pursuing advanced training in Marriage and Family Therapy. The faculty of PLU's Marriage and Family Therapy Program supervises the therapists and will often observe or watch videotapes of sessions to make suggestions. All faculty are Washington State licensed MFT practitioners, with additional credentials as clinical supervisors.



## COMMUNITY DEVELOPMENT

Garfield Commons at the corner of Garfield Street and Pacific Avenue was completed during the summer of 2007. The Garfield Book Company at PLU is host to the new home of the University's textbooks as well as a great resource for the community. The Garfield Book Company at PLU has a variety of general book titles including academic and general interest titles. Also included in the great selection of books is a large selection of home schooling materials and a great children's book corner. The community can also find merchandise for the local school districts.

Garfield Commons is at full capacity and businesses are bringing in a variety of customers from the community and university. Businesses include Farrelli's Pizza, Uni Teriyaki, Forza Coffee, Pita Pit, Tight Cuts, Emerald City Smoothies, Jackson Hewitt Tax Service and Desert Sun.

# CONCLUSIONS

Continued development of the PLU campus will provide ongoing significant benefits to the surrounding community. To do so, campus upgrades to buildings and grounds need to take place. Academic and athletic facilities need upgrading. While first priority is to renovate buildings, some will need replacement. Sidewalks and parking lots will be improved. The University intends to remain involved in the community and to provide needed amenities to Parkland and Pierce County.





